MapObjects® 2.1 object diagram

projection objects

GeoTrans-formation object (createable)
- GetParameter (parameterType as ParameterTypeConstants*) as Double
- SetParameter (parameterType as ParameterTypeConstants*, ParameterValue as Double)
- Direction as DirectionConstants
- FromGeoCoordSys as GeoCoordSys
- Method as MethodConstants*
- Name as String
- SecondDirection as DirectionConstants
- SecondName as String
- SecondType as GeographicTransformationConstants*
- ToGeoCoordSys as GeoCoordSys
- Type as GeographicTransformationConstants*

ZValueCalc Constants
0 — moMaxZValue
1 — moMinZValue
2 — moMeanZValue

ProjCoordSys object (createable)
- Export (outName as String)
- GetParameter (parameterType as ParameterTypeConstants*) as Double
- ReturnDescription as String
- SetParameter (parameterType as ParameterTypeConstants*, ParameterValue as Double)
- Transform (fromCoordSys as Object, FromShape as Object, [densificationTolerance as Double], [transformation as GeoTransformation]) as Object
- GeoCoordsys as GeoCoordsys
- IsProjected as Boolean
- Name as String
- Projection as Projection
- Type as ProjectedCoordSysConstants*
- Unit as Unit

Direction Constants
0 — moDirection_Reverse
1 — moDirection_Forward

Projection object (createable)
- Custom as Unknown
- IsCustom as Boolean
- Name as String
- Type as ProjectionConstants*

*Full details of the Constants below can be found in the online help.
- ConnectionErrorConstants
- Enhanced GeocodingErrorConstants
- DatumConstants
- GeographicCoordSysConstants
- GeographicTransformationConstants
- MethodConstants
- ParameterTypeConstants
- PrimeMeridianConstants
- ProjectionConstants
- ProjectedCoordSysConstants
- SpheroidConstants
- UnitConstants

Appearance Constants
0 — moFlat
1 — mo3D

Datum object (createable)
- Name as String
- Spheroid as Spheroid
- Type as DatumConstants*

GeoCoordSys object (createable)
- Export (outName as String)
- Transform (fromCoordSys as Object, FromShape as Object, [densificationTolerance as Double], [transformation as GeoTransformation]) as Object
- ReturnDescription as String
- Datum as Datum
- IsProjected as Boolean
- Name as String
- PrimeMeridian as PrimeMeridian
- Type as GeographicCoordSysConstants*
- Unit as Unit

Spheroid object (createable)
- Axis as Double
- Flattening as Double
- Name as String
- Type as SpheroidConstants*

Unit object (createable)
- Factor as Double
- Name as String
- Type as UnitConstants*

Prime-Meridian object (createable)
- Longitude as Double
- Name as String
- Type as PrimeMeridianConstants*

map display objects

Map control
- AfterLayerDraw (index as Integer, canceled as Boolean, hDC as stdole.OLEHandle)
- AfterTrackingLayerDraw (hDC as stdole.OLEHandle)
- BeforeLayerDraw (index as Integer, hDC as stdole.OLEHandle)
- BeforeTrackingLayerDraw (hDC as stdole.OLEHandle)
- Click
- DblClick
- DragDrop (source as Control, x as Single, y as Single)
- DragFiles (fileNames as Object, x as Single, y as Single, state as DragStateConstants, dropValid as Boolean)
- DragOver (source as Control, x as Single, y as Single, state as DragStateConstants)
- DrawError (index as Integer)
- DrawingCancelled
- DropFiles (fileNames as Object, x as Single, y as Single)
- GotFocus
- KeyDown (keyCode as Integer, Shift as Integer)
- KeyPress (keyAscii as Integer)
- LostFocus
- MouseDown (button as Integer, shift as Integer, x as Single, y as Single)
- MouseMove (button as Integer, shift as Integer, x as Single, y as Single)
- MouseUp (button as Integer, shift as Integer, x as Single, y as Single)
- CenterAt (x as Double, y as Double)
- CopyMap (scaleFactor as Double)
- DrawShape (shape as Object, symbol as Symbol)
- DrawText (text as String, shape as Object, symbol as TextSymbol)
- EnableGIF (licenseCode as String)
- EnableStreetMap (licenseCode as String)
- EnableTIFFLZW (licenseCode as String)
- ExportMap (exportType as ExportMapConstants, outputFile as String, scaleFactor as Double)
- ExportMap2 (exportType as ExportMapConstants, OutputFile as String, ScaleFactor as Double, [useSourceDepth as Boolean])
- ExportMap3 (formatType as ExportMapConstants, formatData as Variant, [scaleFactor as Double], [scaleSymbology as ExportSymbologyScaleConstants], [exportDepth as ExportDepthConstants], [palette as ExportPaletteConstants])
- ExportMapToJpeg (outputFile as String, [percentQuality as Long], [isProgressive as Boolean], [scaleFactor as Double], [scaleSymbology as ExportSymbologyScaleConstants])
- FlashShape (shape as Object, nTimes as Integer)
- FromMapDistance (distance as Double) as Single
- FromMapPoint (point as Point, x as Double, y as Double)
- OutputMap (hDC as Handle)
- OutputMap2 (hDC as OLE_HANDLE, x as Long, y as Long, width as Long, height as Long, [drawFlags as drawFlagsConstants])
- Pan
- PrintMap (docName as String, outputFile as String, landscapeOrientation as Boolean)
- Refresh
- RefreshLayer (index as Integer, [rect as Rectangle])
- RefreshRect (rect as Rectangle)
- ToMapDistance (distance as Single) as Double
- ToMapPoint (x as Single, y as Single) as Point
- TrackCircle as Ellipse
- TrackLine as Line
- TrackPolygon as Polygon
- TrackRectangle as Rectangle
- Appearance as Appearance Constant
- BackColor as OLE_COLOR
- BorderStyle as Integer
- CancelAction as CancelActionConstants
- CoordinateSystem as Variant
- DisplayUnit as DisplayUnitConstants
- Enabled as Boolean
- Extent as Rectangle
- FullExtent as Rectangle
- FullRedrawOnPan as Boolean
- GeometryEnvironment as GeometryEnvironmentConstants
- hWnd as Handle
- Layers as Layers
- MaxFileBuffer as Long
- MinWidth as Double
- MousePointer as MousePointerConstants
- Name as String
- RefreshCount as Long
- RotationAngle as Double
- ScrollBars as Boolean
- Tag as String
- TrackingLayer as TrackingLayer
- VisibleRegion as Object
- WindowMode as WindowModeConstant

DragState Constants
0 — moDragEnter
1 — moDragLeave
2 — moDragOver

CancelAction Constants
0 — moCancelNone
1 — moCancelMap
2 — moCancelLayer

ExportMap Constants
0 — moExportEMF
1 — moExportBMP
2 — moExportClipboardEMF
3 — moExportClipboardBMP

ExportPalette Constants
0 — moDefaultPalette
1 — moHalfTonePalette
2 — moWebSafePalette
3 — moGraysWithSystemColorsPalette

ExportDepth Constants
0 — moExport8BitDepth
1 — moExportSourceDepth
2 — moExport24BitDepth

ExportSymbologyScaled Constants
0 — moNoSymbologyScaled
1 — moLinedSymbolsNotScaled
2 — moAllSymbologyScaled

CodePage Constants
0 — moDefaultCodePage
1 — moOemCodePage
2 — moAnsiCodePage
3 — moIsoCodePage

DrawFlag Constants
1 — moNoBackground
2 — moClipToExtent

DisplayUnit Constants
0 — moUseContainer
1 — moUsePixels

GeometryEnvironment Constants
0 — moGeometryUseZForDistanceAndSearching
1 — moGeometryIgnoreZ

WindowMode Constants
0 — moWindowed
1 — moOpaque
2 — moTransparent

data access objects

Data-Connection object (createable)
- AddGeoDataset (name as String, shapeType as ShapeTypeConstants, TableDesc as TableDesc, [hasZ as Boolean], [hasMeasure as Boolean]) as GeoDataset
- ClearConnectError
- Connect as Boolean
- DeleteGeoDataset (name as String) as Boolean
- Disconnect
- FindArcInfoCoordinateSystem (name as String) as Object
- FindCoordinateSystem (name as String) as Object
- FindGeoDataset (name as String) as GeoDataset
- ReturnVersions as Strings
- Connected as Boolean
- ConnectError as ConnectionErrorConstants*
- Connection as Long
- Database as String
- ExtendedError as Long
- ExtendedErrorString as String
- GeoDatasets as GeoDatasets
- Password as String
- Server as String
- User as String
- Version as String

GeoDatasets collection
- Item (index as Variant) as GeoDataset
- Count as Integer

GeoDataset object
- AllowSharing as Boolean
- HasMeasure as Boolean
- HasZ as Boolean
- Name as String

Recordset object
- AddNew
- CalculateStatistics (fieldName as String) as Statistics
- CancelUpdate
- CommitTransaction
- Delete
- Edit
- Export (OutName as String, [outCoordSys as Object]) as GeoDataset
- MoveFirst
- MoveNext
- MovePrevious
- RollbackTransaction
- StartTransaction
- StopEditing
- Update
- AutoFlush as Boolean
- Count as Long
- EditMode as EditModeConstants
- EOF as Boolean
- Fields as Fields
- SupportsTransactions as Boolean
- TableDesc as TableDesc
- Updatable as Boolean

EditMode Constants
0 — moEditNone
1 — moEditInProgress
2 — moEditAdd

Fields collection
- Item (fieldName as Variant) as Field
- Count as Integer

Field object
- Name as String
- Type as FieldTypeConstants
- Value as Variant
- ValueAsString as String

FieldType Constants
0 — moNone
3 — moLong
5 — moDouble
7 — moDate
8 — moString
11 — moBoolean
21 — moPoint
22 — moLine
23 — moPolygon
24 — moPoints

TableDesc object (createable)
- CodePage as CodePageConstants
- FieldCount as Integer
- FieldLength (index as Integer) as Integer
- FieldName (index as Integer) as String
- FieldPrecision (index as Integer) as Integer
- FieldScale (index as Integer) as Integer
- FieldType (index as Integer) as FieldTypeConstants

Table object (createable)
- SearchExpression (expression as String) as Recordset
- Command As Object
- Database as String
- MaxCachedRelateRecords as Long
- Name as String
- Password as String
- Records as Recordset
- Server as String
- User as String
- Version as String

Statistics object
- Count as Long
- Max as Double
- Mean as Double
- Min as Double
- StdDev as Double
- Sum as Double

address matching objects

Strings collection (createable)
- Add (string as String) as Boolean
- Clear
- Find (string as String, [startPos as Long]) as Long
- Item (index as Variant) as String
- PopulateWithDatums
- PopulateWithGeographicCoordSys
- PopulateWithGeoTransformations
- PopulateWithMeridians
- PopulateWithParameters (projection as Integer)
- PopulateWithProjectedCoordSys
- PopulateWithProjections
- PopulateWithSpheroids
- PopulateWithUnits
- Sort ([StringsSortOrderConstant])
- Count as Integer
- PopulateUsingNewConstants as Boolean
- Unique as Boolean

StringsSortOrder Constants
moLexicalOrderAscending = 0
moLexicalOrderDescending = 1
moAsciiOrderAscending = 2
moAsciiOrderDescending = 3

Address-Location object
- Location as Point
- MatchScore as Integer
- StreetSide as StreetSideConstants

StreetSide Constants
0 — moLeftSide
1 — moRightSide

Standardizer object (createable)
- StandardizeAddress (address as String) as Boolean
- FieldCount as Integer
- FieldName (index as Integer) as String
- FieldValue (fieldName as String) as String
- IntersectionStandardizingRules as String
- LastError as EnhancedGeocodingErrorConstants*
- StandardizingRules as String
- Valid as Boolean

Geocoder object (createable)
- AddIndex (fieldName as String, secondaryFieldName as String, indexType as IndexTypeConstants) as Boolean
- BatchMatch (addressTable as Table, addressField as String, DataConnection as DataConnection, outputTableName as String, outputFields as Strings) as Long
- BuildIndices (force as Boolean) as Boolean
- EraseIndices as Boolean
- GenerateCandidates as GeocodeSuccessConstants
- IndexStatus as IndexStatusConstants
- ListIndices as Strings
- LocateCandidate (index as Integer) as AddressLocation
- BatchMatchVariableField (variable as String) as String
- Candidate (index as Integer) as String
- CandidateCount as Integer
- IntersectionMatchRules as String
- IntersectionMatchVariable (index as Integer) as String
- IntersectionMatchVariableCount as Integer
- LastError as EnhancedGeocodingErrorConstants*
- MatchRules as String
- MatchVariable (index as Integer) as String
- MatchVariableCount as Integer
- MatchVariableField (variable as String) as String
- MatchVariableIntersectionLink (variable as String, LinkGroup as LinkGroupConstants) as String
- MatchWhenAmbiguous as Boolean
- MinimumMatchScore as Integer
- Offset as Double
- SearchQueries as Strings
- SpellingSensitivity as Single
- SqueezeFactor as Double
- Standardizer as Standardizer
- StreetTable as GeoDataset
- Valid as Boolean

IndexTypeConstants
0 — mgIndexTypeSoundex
1 — mgIndexTypeNormal

IndexStatusConstants
0 — mgIndexNonexistent
1 — mgIndexInvalid
2 — mgIndexUnreadable
3 — mgIndexExists

GeocodeSuccessConstants
0 — mgGeocodeFailed
1 — mgGeocodeSuccessSingleBest
2 — mgGeocodeSuccessMultipleBest
3 — mgGeocodeSuccessPartial

LinkGroupConstants
0 — mgLinkPrimary
1 — mgLinkSecondary

PlaceLocator object (createable)
- BuildIndex (field as String, force as Boolean) as Boolean
- FindAllPlaceNames (prefix as String) as Strings
- FindApproximateMatches (placeName as String) as Strings
- Locate (placeName as String) as Points
- Indexed as Boolean
- PlaceNameTable as GeoDataset

ImageCatalog Constants
0 — moOpenImagesInDisplay
1 — moOpenAllImages
2 — moOpenOneImage

Layers collection
- Add (layer as Object) as Boolean
- Clear
- Item (index as Variant) as Object
- MoveTo (fromIndex as Integer, toIndex as Integer)
- MoveToBottom (index as Integer)
- MoveToTop (index as Integer)
- Remove (index as Integer)
- Count as Integer

LayerType Constants
0 — moMapLayer
1 — moImageLayer

MapLayer object (createable)
- AddRelate (toField as String, table as Table, fromField as String, [checkFields as Boolean]) as Boolean
- BuildIndex (force as Boolean) as Boolean
- RemoveRelates
- SearchByDistance (shape as Object, distance as Double, expression as String) as RecordSet
- SearchExpression (expression as String) as RecordSet
- SearchShape (shape as Object, searchMethod as SearchMethodConstants, expression as String) as Recordset
- AreaOfInterest as Rectangle
- CoordinateSystem as Variant
- DensificationTolerance as Double
- Extent as Rectangle
- FilterExpression as String
- FilterFields as Strings
- FilterOperator as SearchMethodConstants
- FilterOrder as FilterOrderConstants
- FilterShape as Variant
- FilterTables as String
- GeoDataset as GeoDataset
- GeographicTransformation as Variant
- Indexed as Boolean
- LayerType as LayerTypeConstants
- Name as String
- Records as Recordset
- Renderer as Object
- ShapeType as Integer
- Symbol as Symbol
- Tag as String
- Valid as Boolean
- Visible as Boolean

SearchMethod Constants
0 — moExtentOverlap
1 — moCommonPoint
2 — moLineCross
3 — moCommonLine
4 — moCommonPointOrLineCross
5 — moEdgeTouchOrAreaIntersect
6 — moAreaIntersect
7 — moAreaIntersectNoEdgeTouch
8 — moContainedBy
9 — moContaining
10 — moContainedByNoEdgeTouch
11 — moContainingNoEdgeTouch
12 — moPointInPolygon
13 — moCentroidInPolygon
14 — moIdentical

FilterOrder Constants
1 — moAttributeFirst
2 — moShapeFirst
3 — moOptimize

ImageLayer object (createable)
- OpenCatalog (Table as Table, [ImageDirPath as String], [OpenOptions as ImageCatalogConstants])
- ClipExtent as Rectangle
- Columns as Long
- Extent as Rectangle
- File as String
- Name as String
- Rows as Long
- Tag as String
- Transparent as Boolean
- TransparentColor as OLE_COLOR
- UpdateWhileDrawing as Boolean
- Valid as Boolean
- Visible as Boolean

TrackingLayer object
- AddEvent (shape as Object, SymbolIndex as Long) as GeoEvent
- ClearEvents
- FindEvent (tag as String) as GeoEvent
- Refresh (erase as Boolean, [rect as Rectangle])
- RemoveEvent (index as Long)
- Event (index as Long) as GeoEvent
- EventCount as Long
- Symbol (index as Long) as Symbol
- SymbolCount as Long
- Visible as Boolean

GeoEvent object
- Move (x as Double, y as Double)
- MoveTo (x as Double, y as Double)
- Index as Long
- Shape as Object
- SymbolIndex as Long
- Tag as String
- X as Double
- Y as Double

WebLink object
- BMP2GIF(filename as String, interleaved as Boolean) as Boolean
- BMP2JPEG(filename as String, [quality as Integer], [progressive as Boolean]) as Boolean
- EnableGIF(licenseCode as String)
- Start as Boolean
- Stop
- WriteFile(filename as String) as Boolean
- WriteResponseHeader(header as String) as Boolean
- WriteString(text as String) as Boolean
- Request(arguments as Object, values as Object)
- LocalIp as String
- MapPort as Long
- Tag as String

geometric objects

Group-Renderer object (createable)
- Add (Renderer as Object) as Integer
- Remove (index as Integer)
- Count as Integer
- DrawBackground as Boolean
- Renderer (index as Integer) as Object
- Tag as String

Event-Renderer object (createable)
- InvalidateIndex (key as String) as Boolean
- DefaultSymbol as Symbol
- DrawBackground as Boolean
- EndMeasureField as String
- EventRouteIDField as String
- EventTable as Table
- FeatureRouteIDField as String
- IndexEvents as Boolean
- IndexExtent as Rectangle
- StartMeasureField as String
- Symbol (index as Integer) as Symbol
- SymbolField as String
- SymbolType as SymbolTypeConstants
- Tag as String
- UseDefault as Boolean
- Value (index as Integer) as String
- ValueCount as Integer

ZRenderer object (createable)
- RampColors (startColor as OLE_COLOR, endColor as OLE_COLOR)
- Break (index as Integer) as Double
- BreakCount as Integer
- DrawBackground as Boolean
- Symbol (index as Integer) as Symbol
- SymbolType as SymbolTypeConstants
- Tag as String
- ValueCalculation as ZValueCalcConstants

Chart-Renderer object (createable)
- NoNullValue
- BarHeight as Integer
- BarWidth as Integer
- ChartType as ChartTypeConstants
- Color (index as Integer) as OLE_COLOR
- CustomChart as Unknown
- DrawBackground as Boolean
- Field (index as Integer) as String
- FieldCount as Integer
- MaxPieSize as Integer
- MinPieSize as Integer
- NormalizationField as String
- NullValue as Double
- ShowOutline as Boolean
- SizeField as String
- Tag as String

TextSymbol object (createable)
- Color as OLE_COLOR
- Fitted as Boolean
- Font as StdFont
- Height as Double
- HorizontalAlignment as AlignmentConstants
- Rotation as Double
- VerticalAlignment as AlignmentConstants

Symbol object (createable)
- CenterOnAscent as Boolean
- CharacterIndex as Integer
- Color as OLE_COLOR
- Custom as IDispatch Pointer
- Font as StdFont
- Outline as Boolean
- OutlineColor as OLE_COLOR
- Rotation as Double
- Size as Integer
- Style as StyleConstants
- SymbolType as SymbolTypeConstants

ClassBreaks-Renderer object (createable)
- RampColors (startColor as OLE_COLOR, endColor as OLE_COLOR)
- SizeSymbols (startSize as Integer, endSize as Integer)
- Break (index as Integer) as Double
- BreakCount as Integer
- DrawBackground as Boolean
- Field as String
- Symbol (index as Integer) as Symbol
- SymbolType as SymbolTypeConstants
- Tag as String

ValueMap-Renderer object (createable)
- DefaultSymbol as Symbol
- Field as String
- RotationField as String
- ScalingField as String
- Symbol (index as Integer) as Symbol
- SymbolType as SymbolTypeConstants
- Tag as String
- UseDefault as Boolean
- ValueCount as Integer
- Value (index as Integer) as String

DotDensity-Renderer object (createable)
- DotColor as OLE_COLOR
- DotSize as Integer
- DotValue as Double
- DrawBackground as Boolean
- Field as String
- Tag as String

Label-Renderer object (createable)
- AllowDuplicates as Boolean
- DrawBackground as Boolean
- Field as String
- FittedField as String
- Flip as Boolean
- HeightField as String
- LevelField as String
- MaxLevel as Integer
- MinLevel as Integer
- RotationField as String
- SplinedText as Boolean
- Symbol (index as Integer) as TextSymbol
- SymbolCount as Integer
- SymbolField as String
- Tag as String
- XOffsetField as String
- YOffsetField as String

LabelPlacer object (createable)
- AllowDuplicates as Boolean
- BackgroundRenderer as Object
- DefaultSymbol as TextSymbol
- DrawBackground as Boolean
- Field as String
- MaskColor as OLE_COLOR
- MaskLabels as Boolean
- PlaceAbove as Boolean
- PlaceBelow as Boolean
- PlaceOn as Boolean
- Symbol (index as Integer) as TextSymbol
- SymbolHeight as Integer
- SymbolWidth as Integer
- Tag as String
- UseDefault as Boolean
- Value (index as Integer) as String
- ValueCount as Integer
- ValueField as String

ChartType Constants
0 — moPie
1 — moBar
2 — moCustom

Alignment Constants
1 — moAlignTop
2 — moAlignBottom
3 — moAlignLeft
4 — moAlignRight
5 — moAlignCenter
6 — moAlignBaseline

SymbolType Constants
0 — moPointSymbol
1 — moLineSymbol
2 — moFillSymbol

MarkerStyle Constants
0 — moCircleMarker
1 — moSquareMarker
2 — moTriangleMarker
3 — moCrossMarker
4 — moTrueTypeMarker

LineStyle Constants
0 — moSolidLine
1 — moDashLine
2 — moDotLine
3 — moDashDotLine
4 — moDashDotDotLine

FillStyle Constants
0 — moSolidFill
1 — moTransparentFill
2 — moHorizontalFill
3 — moVerticalFill
4 — moUpwardDiagonalFill
5 — moDownwardDiagonalFill
6 — moCrossFill
7 — moDiagonalCrossFill
8 — moLightGrayFill
9 — moGrayFill
10 — moDarkGrayFill

Color Constants

0x0	moBlack
0xFF	moRed
0xFF00	moGreen
0xFF0000	moBlue
0xFF00FF	moMagenta
0xFFFF00	moCyan
0xFFFFFF	moWhite
12632256	moLightGray
4210752	moDarkGray
8421504	moGray
13697023	moPaleYellow
8454143	moLightYellow
65535	moYellow
12639424	moLimeGreen
8421440	moTeal
16384	moDarkGreen
128	moMaroon
8388736	moPurple
33023	moOrange
7051175	moKhaki
32896	moOlive
4210816	moBrown
8404992	moNavy

Point object (createable)
- Buffer (distance as Double, [extent as Rectangle]) as Object
- Difference (anotherShape as Object, [extent as Rectangle]) as Object
- DistanceTo (shape as Object) as Double
- DistanceToSegment (point1 as Point, point2 as Point) as Double
- GetCrossings (shape as Object) as Points
- Get (x as Double, y as Double, [z as Double], [measure as Double])
- Intersect (anotherShape as Object, [extent as Rectangle]) as Object
- Set (x as Double, y as Double, [z as Double], [measure as Double])
- Union (anotherShape as Object, [extent as Rectangle]) as Object
- Xor (anotherShape as Object, [extent as Rectangle]) as Object
- Measure as Double
- ShapeType as ShapeTypeConstant
- X as Double
- Y as Double
- Z as Double

MousePointer Constants
0 — moDefault
1 — moArrow
2 — moCross
3 — moIbeam
4 — moIconPointer
5 — moSizePointer
6 — moSizeNESW
7 — moSizeNS
8 — moSizeNWSE
9 — moSizeWE
10 — moUpArrow
11 — moHourglass
12 — moNoDrop
13 — moArrowHourglass
14 — moArrowQuestion
15 — moSizeAll
50 — moZoom
51 — moZoomIn
52 — moZoomOut
53 — moPan
54 — moPanning
55 — moIdentify
56 — moLabel
57 — moHotLink
58 — moPencil

Points object (createable)
- Add (point as Point)
- Buffer (distance as Double, [extent as Rectangle]) as Object
- Difference (anotherShape as Object, [extent as Rectangle]) as Object
- DistanceTo (shape as Object) as Double
- GetCrossings (shape as Object) as Points
- GetPoints (xArray() as Double, yArray() as Double, [zArray() as Double], [measureArray() as Double])
- Insert (index as Long, point as Point)
- Intersect (anotherShape as Object, [extent as Rectangle]) as Object
- Item (index as Variant) as Point
- Offset (deltaX as Double, deltaY as Double)
- Remove (index as Long)
- Reverse
- Set (index as Long, point as Point)
- SetPoints (xArray() as Double, yArray() as Double, [zArray() as Double], [measureArray() as Double])
- Union (anotherShape as Object, [extent as Rectangle]) as Object
- Xor (anotherShape as Object, [extent as Rectangle]) as Object
- Count as Long
- Extent as Rectangle
- ShapeType as ShapeTypeConstant

Line object (createable)
- Buffer (distance as Double, [extent as Rectangle]) as Object
- Difference (anotherShape as Object, [extent as Rectangle]) as Object
- DistanceTo (shape as Object) as Double
- GetCrossings (shape as Object) as Points
- Intersect (anotherShape as Object, [extent as Rectangle]) as Object
- MultiplyMeasures (factor as Double)
- Offset (deltaX as Double, deltaY as Double)
- OffsetMeasures (offset as Double)
- ReturnLineEvent (start as Double, end as Double) as Line
- ReturnMeasure (location as Point) as Double
- ReturnPointEvents (measure as Double) as Points
- SetMeasures (start as Double, end as Double)
- SetMeasuresAsLength
- Union (anotherLine as Object, [extent as Rectangle]) as Object
- UpdateMeasures
- Xor (anotherShape as Object, [extent as Rectangle]) as Object
- Extent as Rectangle
- IsFullyMeasured as Boolean
- Length as Double
- Parts as Parts
- ShapeType as ShapeTypeConstant

Parts collection
- Add (Points as Points)
- Insert (index as Integer, Points as Points)
- Item (Item as Integer) as Points
- Remove (index as Integer)
- Set (index as Integer, Points as Points)
- Count as Integer

Polygon object (createable)
- Buffer (distance as Double, [extent as Rectangle]) as Object
- Difference (anotherShape as Object, [extent as Rectangle]) as Object
- DistanceTo (shape as Object) as Double
- GetCrossings (shape as Object) as Points
- Intersect (anotherShape as Object, [extent as Rectangle]) as Object
- IsPointIn (point as Point) as Boolean
- Offset (deltaX as Double, deltaY as Double)
- Union (anotherShape as Object, [extent as Rectangle]) as Object
- Xor (anotherShape as Object, [extent as Rectangle]) as Object
- Area as Double
- Centroid as Point
- Extent as Rectangle
- Parts as Parts
- Perimeter as Double
- ShapeType as ShapeTypeConstant

Rectangle object (createable)
- Buffer (distance as Double, [extent as Rectangle]) as Polygon
- Difference (anotherShape as Object, [extent as Rectangle]) as Object
- DistanceTo (shape as Object) as Double
- GetCrossings (shape as Object) as Points
- Inset (deltaX as Double, deltaY as Double)
- Intersect (anotherShape as Object, [extent as Rectangle]) as Object
- Intersects (rect as Rectangle) as Boolean
- IsPointIn (point as Point) as Boolean
- Offset (deltaX as Double, deltaY as Double)
- ScaleRectangle (factor as Double)
- Union (anotherShape as Object, [extent as Rectangle]) as Object
- Xor (anotherShape as Object, [extent as Rectangle]) as Object
- Bottom as Double
- Ceiling as Double
- Center as Point
- Depth as Double
- Extent as Rectangle
- Floor as Double
- Height as Double
- Left as Double
- Right as Double
- ShapeType as ShapeTypeConstant
- Top as Double
- Width as Double

Ellipse object (createable)
- Buffer (distance as Double, [extent as Rectangle]) as Object
- Difference (anotherShape as Object, [extent as Rectangle]) as Object
- Inset (deltaX as Double, deltaY as Double)
- Intersect (anotherShape as Object, [extent as Rectangle]) as Object
- IsPointIn (point as Point) as Boolean
- Offset (deltaX as Double, deltaY as Double)
- Union (anotherShape as Object, [extent as Rectangle]) as Object
- Xor (anotherShape as Object, [extent as Rectangle]) as Object
- Bottom as Double
- Center as Point
- Extent as Rectangle
- Height as Double
- Left as Double
- Right as Double
- ShapeType as ShapeTypeConstant
- Top as Double
- Width as Double

ShapeType Constants
21 — moShapeTypePoint
22 — moShapeTypeLine
23 — moShapeTypePolygon
24 — moShapeTypeMultipoint
25 — moShapeTypeRectangle
26 — moShapeTypeEllipse

Object Diagram Key

Method that does return a value
Method that does not return a value
Sample object
Event
Read/Write property
Read only property
Write only property

Changes from MapObjects 2.0 are marked in bold font.

When an object is passed by reference in a method or as a property, the line symbol has hollow ends like this: ◁—▷ ○—○