

Marionette nodes - Vol. 1

1. 2D objects

1. **Arc :**
Creates an arc object, or a polyline object.
2. **GetRRDiam :**
Returns the horizontal and vertical diameters of the rounded corners of a rounded rectangle object.
3. **GetSeg :**
Returns the X-Y coordinates of the start point and/or end point of the referenced line, wall, or linear dimension object.
4. **MakePolygon :**
Creates a 2D Polygon using inSourceObject. Option to delete inSourceObject.
5. **MakePolyline :**
Creates a Polyline using inSourceObject. Option to delete inSourceObject.
6. **Oval :**
Creates an oval object using two points.
7. **Rect :**
Creates an rectangle object using two points.
8. **RRectangle :**
Creates a rounded rectangle object.
9. **RRectangleN :**
Creates a rounded rectangle object with the provided specifications.
10. **SetSeg :**
Sets the location of the start point and/or end point of the referenced line or wall object.
11. **SetRRDiam :**
Sets the diameters of a rounded rectangle.
12. **AddHole :**
AddHole uses a holeTemplate to create a hole inside objectToGetHole.
13. **SmoothPolygon2D :**
With Smoothing

2. Dimensions

1. **Linear Dimension :**
Creates a linear dimension with the provided specifications.
2. **Angular Dimension :**
Creates an angular dimension with the provided specifications.
3. **Circular Dimension :**
Creates a diameter or radial dimension with the provided specifications.
4. **AssociateLinearDimension :**
Associates a linear dimension with an object when the dimension's endpoints are coincident with objects in the drawing.
5. **CreateChainDimension :**
Creates and returns a single chain dimension object when the two dimensions or chains that are passed in meet the requirements for being in a single chain dimension object.
6. **DimArcText :**
Creates an angular dimension object from the last arc object that was drawn.
7. **DimText :**
Creates a linear dimension object from the last line object that was drawn.
8. **GetDimText :**
Returns the dimension value displayed with the referenced object.
9. **HasDim :**
Returns TRUE if a line or arc object has dimension text associated with it, otherwise it returns FALSE.
10. **SetDimNote :**
Sets note text (text under dimension line or dimension text) of the referenced dimension to the specified value.
11. **SetDimText :**
Sets the dimension text of the referenced dimension to the specified value.

3. Utility

1. **ColorIndexToRGB :**
Converts the VectorWorks palette colors from the colors' palette position index to its red, green, and blue component values.
2. **ColorIndexToRGBN :**
Converts the Vectorworks palette colors from the colors' palette position index to its red, green, and blue component values.
3. **CreateUUID :**
Creates a string representing universe unique identifier. The string is in the form: '{00000000-0000-0000-0000-000000000000}'.
4. **Date :**
Returns a formatted date and time string.
5. **GetActiveSerialNumber :**
Gets the currently active serial number.
6. **GetCurrentLocalization :**
Get the Vectorworks language in the ISO 639-3 draft standard Language ID and sublanguage is unused and will be the empty string reserved for future use for a regional dialect.
7. **GetCurrentMode :**
Returns the current application protection mode.
8. **GetMainDisplayBounds :**
Returns the bounds of the main display device (Macintosh Only).
9. **GetNetAdapterInfo :**
Return information about the network adapter (Macintosh Only).
10. **GetOSVersion :**
Returns the version of the current operating system.
11. **GetScreen :**
Returns the top-left and bottom-right corners of the display screen.
12. **GetTextWidthInPixels :**
Returns the length of a string in the current port based on the port's text settings.
13. **GetTickCount :**
Returns number of ticks (1/60th second) since system startup.
14. **GetVersion :**
Returns version information about the VectorWorks application.
15. **GetVersionEx :**
Returns version information about the VectorWorks application.
16. **GetWorkingPlane :**
Retrieves the location and orientation of the working plane.
17. **GetWorkingPlaneMat :**
Get the specified working plane matrix.
18. **GetWorkingPlaneN :**
Retrieves the location and orientation of the working plane.
19. **ImportImageFile :**
Import the specified image file as an Image object in Vectorworks.
20. **IsCoPlanar :**
Returns true if two planes are coplanar.
21. **IsPerpPlane :**
Returns true if two planes are perpendicular.
22. **Message :**
Displays a floating message palette onscreen.

23. **PlanarPtTo3DModelPt :**
Transform a 2D point on the specified plane into a 3D point.
24. **PlanarPtToScreenPlanePt :**
Projects a 2D point from the specified plane onto the screen plane.
25. **RGBToColorIndex :** Converts the VectorWorks palette colors from its' red, green, and blue component values to the colors' palette position index.
26. **RGBToColorIndexN :**
Converts the Vectorworks palette colors from its' red, green, and blue component values to the Vectorworks color index.
27. **ScreenPlanePtToPlanarPt :**
Projects a 2D point from the screen plane onto the specified plane.
28. **SetWorkingPlane :**
Sets the x, y, and z offset of the working plane as well as the x-, y-, and z-plane rotational values.
29. **SetWorkingPlaneN :**
Set the active working plane.
30. **ValidAngStr :**
Returns TRUE if the specified value can be converted into a numeric angle value. If TRUE, the value (in decimal degrees) of the string is returned.
31. **ValidNumStr :**
Returns TRUE if the specified string can be converted into a numeric value. If TRUE, the numeric value is returned.

4. Worksheets

1. **AddWSColumnOperator :**
Adds database column operator to specified column.
2. **AreWorksheetGridLinesVisible :**
Determines the status of the grid lines visibility for the specified worksheet.
3. **AutoFitWSRowHeights :**
Auto fit the height of rows to the content of the cells in the referenced worksheet.
4. **ClearWSCell :**
Clears content and resets attributes of a cell in the referenced worksheet.
5. **CreateWS :**
Creates a new worksheet in a VectorWorks document.
6. **CreateWSImage :**
Creates an in-document image of the specified worksheet.
7. **DeleteWSColumns :**
Deletes columns from the referenced worksheet.
8. **DeleteWSRows :**
Deletes rows from the referenced worksheet.
9. **EnableDrawingWorksheetPalette :**
Enables/disables drawing for the specified worksheet or all displayed worksheet palettes if worksheet is nil.
10. **GetTopVisibleWS :**
Returns a handle to topmost visible worksheet.
11. **GetWSAutoRecalcState :**
Gets the AutoRecalc state for the specified worksheet.
12. **GetWSCellAlignment :**
Returns the horizontal alignment setting of a cell in the referenced worksheet.
13. **GetWSCellBorder :**
Returns the cell border of a cell in the referenced worksheet.
14. **GetWSCellFill :**
Returns the fill style and color of a cell in the referenced worksheet.
15. **GetWSCellFormula :**
Returns the formula from a cell in the referenced worksheet.
16. **GetWSCellFormulaN :**
Returns the formula from a cell in the referenced worksheet.
17. **GetWSCellNumberFormat :**
Returns the numeric formatting of a cell in the referenced worksheet.
18. **GetWSCellString :**
Returns the displayed string value of a cell in the referenced worksheet.
19. **GetWSCellStringN :**
Returns the displayed string value of a cell in the referenced worksheet.
20. **GetWSCellTextAngle :**
Returns the text angle of a cell in the referenced worksheet.
21. **GetWSCellTextColor :**
Returns the text color of a cell in the referenced worksheet.
22. **GetWSCellTextFormat :**
Returns text format settings for a cell in the referenced worksheet.
23. **GetWSCellValue :**
Returns the displayed numeric value of a cell in the referenced worksheet.
24. **GetWSCellVertAlignment :**
Returns the vertical alignment setting of a cell in the referenced worksheet.

25. **GetWSCellWrapTextFlag :**
Returns the wrap text state of a cell in the referenced worksheet.
26. **GetWSColumnOperators :**
Returns the sort and summarize column operators for a database row in the referenced worksheet.
27. **GetWSColumnSortPrecedence :**
Gets database column sort precedence, if any.
28. **GetWSColumnSortType :**
Gets database column's sort type.
29. **GetWSColumnWidth :**
Returns the width of a column in the referenced worksheet.
30. **GetWSFromImage :**
Returns a handle to the worksheet being displayed by a worksheet image object.
31. **GetWSImage :**
Returns a handle to the on-drawing object (image) of the referenced worksheet.
32. **GetWSImgAngle :**
Gets the specified worksheet cell's image angle.
33. **GetWSImgMarginSize :**
Gets the worksheet cell's image margin size.
34. **GetWSImgRenderMode :**
Gets the specified worksheet cell's image render mode.
35. **GetWSImgScale :**
Gets the worksheet cell's image scale.
36. **GetWSImgSize :**
Gets the specified worksheet cell's image size.
37. **GetWSImgSizeType :**
Gets the worksheet cell's image size type.
38. **GetWSImgType :**
Gets the specified worksheet cell's image type.
39. **GetWSImgUseLayScale :**
Determines if the image size type is Layer Scale.
40. **GetWSImgUseObjectImg :**
Determines if cell uses object image.
41. **GetWSImgView :**
Gets the specified worksheet cell's image view.
42. **GetWSMergedCellRange :**
Gets the range of cells covered by the specified cell. Returns true if the specified cell is a merged cell.
43. **GetWSPlacement :**
Returns the on-screen location of the referenced worksheets' window.
44. **GetWSRowColumnCount :**
Returns the number of rows and columns in the referenced worksheet.
45. **GetWSRowHLockState :**
Returns the lock state of a row in the referenced worksheet.
46. **GetWSRowHeight :**
Returns the height of a row in the referenced worksheet.
47. **GetWSSelection :**
Returns the current selection range of the referenced worksheet. In addition to returning the selection range of a worksheet, GetWSSelection will also return the range of selected database subrows, where applicable.
48. **GetWSSubrowActualCellString :**
Returns the actual string in a database subrow cell.

49. **GetWSSubrowActualCellStringN :**
Returns the actual string in a database subrow cell.
50. **GetWSSubrowCellStrN :**
Returns the displayed string in a database subrow cell.
51. **GetWSSubrowCellString :**
Returns the displayed string in a database subrow cell.
52. **GetWSSubrowCellValue :**
Returns the displayed numeric value in a database subrow cell.
53. **GetWSSubrowCount :**
Returns a count of displayed subrows for a specified database row.
54. **GetWSSubrowHeight :**
Return the height of a database subrow in the referenced worksheet.
55. **HasWSColumnOperator :**
Determines if specified column operator is set in column.
56. **InsertWSColumns :**
Inserts columns into the referenced worksheet.
57. **InsertWSRows :**
Inserts rows into a referenced worksheet.
58. **IsValidWSCell :**
Returns if a specified cell is within the valid range of the referenced worksheet.
59. **IsValidWSRange :**
Returns whether the specified range is within the valid range of the referenced worksheet.
60. **IsValidWSSubrowCell :**
Returns whether a specified database subrow cell is in the valid range of displayed subrows.
61. **IsWSCellNumber :**
Determines if a cell in the referenced worksheet contains a numeric value.
62. **IsWSCellString :**
Determines if a cell in the referenced worksheet contains a string value.
63. **IsWSDatabaseRow :**
Returns whether a row in the referenced worksheet is a database row.
64. **IsWSImg :**
Determines if worksheet cell is set to display an image.
65. **IsWSSubrowCellNumber :**
Returns whether a specified database subrow cell is in the valid range of displayed subrows.
66. **IsWSSubrowCellString :**
Returns whether a specified database subrow cell contains a numeric value.
67. **IsWSVisible :**
Returns display status of referenced worksheet.
68. **MoveWSColumnOperator :**
Moves database column operator between columns.
69. **RecalculateWS :**
Recalculates all formulas for the referenced worksheet.
70. **RemoveAllWSColumnOperators :**
Removes all database column operators from specified database row.
71. **RemoveWSColumnOperator :**
Removes database column operator from specified column.
72. **SetTopVisibleWS :**
Brings the referenced worksheet to the front of any open worksheet windows.
73. **SetWSAutoRecalcState :**
Sets the AutoRecalc flag for the specified worksheet.
74. **SetWSCellAlignment :**
Sets the horizontal alignment of a cell in the referenced worksheet.

75. **SetWSCellBorders :**
Sets the borders of a cell in the referenced worksheet.
76. **SetWSCellBottomBorder :**
Sets a bottom border with the specified attributes in specified worksheet cells.
77. **SetWSCellFill :**
Sets the fill style and color of a cell in the referenced worksheet.
78. **SetWSCellFormula :**
Inserts a formula into a cell of the referenced worksheet.
79. **SetWSCellFormulaN :**
Inserts a formula into a cell of the referenced worksheet.
80. **SetWSCellInsideHorizBorder :**
Set inside horizontal borders with the specified attributes in specified worksheet cells.
81. **SetWSCellInsideVertBorder :**
Sets inside vertical borders with specified attributes in specified worksheet cells.
82. **SetWSCellLeftBorder :**
Sets a left border with the specified attributes in specified worksheet cells.
83. **SetWSCellNumberFormat :**
Sets the numeric formatting of a cell in the referenced worksheet.
84. **SetWSCellOutlineBorder :**
Outlines the specified worksheet cells with the specified border.
85. **SetWSCellRightBorder :**
Sets a right border with the specified attributes in specified worksheet cells.
86. **SetWSCellTextColor :**
Sets the text color of a cell in the referenced worksheet.
87. **SetWSCellTextFormat :**
Sets text format settings for a cell in the referenced worksheet.
88. **SetWSCellTopBorder :**
Sets a top border with the specified attributes in specified worksheet cells.
89. **SetWSCellVertAlignment :**
Sets the vertical alignment of cells in the referenced worksheet.
90. **SetWSCellWrapTextFlag :**
Sets the wrap text state of cells in the referenced worksheet.
91. **SetWSColumnOperators :**
Sets sort and summarize column operators for a database row in the referenced worksheet.
92. **SetWSColumnSortType :**
Sets database column sort type.
93. **SetWSColumnWidth :**
Sets the width of a column in the referenced worksheet.
94. **SetWSCurrentCell :**
Sets the active cell of the referenced worksheet.
95. **SetWSImgAngle :**
Sets specified image angle in specified worksheet cells.
96. **SetWSImgMarginSize :**
Sets specified image margin size in specified worksheet cells.
97. **SetWSImgRenderMode :**
Sets specified image render mode in specified worksheet cells.
98. **SetWSImgScale :**
Sets specified image render mode in specified worksheet cells.
99. **SetWSImgSize :**
Sets specified image size in specified worksheet cells.
100. **SetWSImgSizeType :**
Sets specified image size type in specified worksheet cells.

101. **SetWSImgType :**
Sets the worksheet cells' image type.
102. **SetWSImgUseLayScale :**
Sets the worksheet cells' image use layer scale state.
103. **SetWSImgUseObjectImg :**
Set state of worksheet cell's use object image.
104. **SetWSImgView :**
Sets specified image view in specified worksheet cells.
105. **SetWSPlacement :**
Sets the on-screen location and dimensions of the referenced worksheets' window.
106. **SetWSRowHeight :**
Sets the height of a row in the referenced worksheet.
107. **SetWSSelection :**
Sets the current selection range of the referenced worksheet.
108. **SetWSTextAngle :**
Sets the text angle of a cell the referenced worksheet.
109. **SetWorksheetGridLinesVisibility :**
Sets the visibility of the grid lines for the specified worksheet.
110. **ShowWS :**
Sets the display status of the referenced worksheet.
111. **WorksheetMergeCells :**
Merges the specified cells into a single cell.
112. **WorksheetSplitCells :**
Splits the specified cells back into individual cells.