

ADOBE® ILLUSTRATOR® CS6

**ADOBE ILLUSTRATOR CS6
SCRIPTING REFERENCE:
VBSCRIPT**



© 2012 Adobe Systems Incorporated. All rights reserved.

Adobe Illustrator CS6 Scripting Reference: VBScript

If this guide is distributed with software that includes an end user agreement, this guide, as well as the software described in it, is furnished under license and may be used or copied only in accordance with the terms of such license. Except as permitted by any such license, no part of this guide may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, recording, or otherwise, without the prior written permission of Adobe Systems Incorporated. Please note that the content in this guide is protected under copyright law even if it is not distributed with software that includes an end user license agreement.

The content of this guide is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by Adobe Systems Incorporated. Adobe Systems Incorporated assumes no responsibility or liability for any errors or inaccuracies that may appear in the informational content contained in this guide.

Please remember that existing artwork or images that you may want to include in your project may be protected under copyright law. The unauthorized incorporation of such material into your new work could be a violation of the rights of the copyright owner. Please be sure to obtain any permission required from the copyright owner.

Any references to company names in sample templates are for demonstration purposes only and are not intended to refer to any actual organization.

Adobe, the Adobe logo, Acrobat, Flash, Illustrator, Macromedia, and Photoshop are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Macintosh is a trademark of Apple Computer, Incorporated, registered in the United States and other countries. Windows is either a registered trademark or trademark of Microsoft Corporation in the United States and other countries.

JavaScript and all Java-related marks are trademarks or registered trademarks of Sun Microsystems, Incorporated in the United States and other countries.

All other trademarks are the property of their respective owners.

Adobe Systems Incorporated, 345 Park Avenue, San Jose, California 95110, USA. Notice to U.S. Government End Users. The Software and Documentation are "Commercial Items," as that term is defined at 48 C.F.R. §2.101, consisting of "Commercial Computer Software" and "Commercial Computer Software Documentation," as such terms are used in 48 C.F.R. §12.212 or 48 C.F.R. §227.7202, as applicable. Consistent with 48 C.F.R. §12.212 or 48 C.F.R. §§227.7202-1 through 227.7202-4, as applicable, the Commercial Computer Software and Commercial Computer Software Documentation are being licensed to U.S. Government end users (a) only as Commercial Items and (b) with only those rights as are granted to all other end users pursuant to the terms and conditions herein. Unpublished-rights reserved under the copyright laws of the United States. Adobe Systems Incorporated, 345 Park Avenue, San Jose, CA 95110-2704, USA. For U.S. Government End Users, Adobe agrees to comply with all applicable equal opportunity laws including, if appropriate, the provisions of Executive Order 11246, as amended, Section 402 of the Vietnam Era Veterans Readjustment Assistance Act of 1974 (38 USC 4212), and Section 503 of the Rehabilitation Act of 1973, as amended, and the regulations at 41 CFR Parts 60-1 through 60-60, 60-250, and 60-741. The affirmative action clause and regulations contained in the preceding sentence shall be incorporated by reference.

Contents

| | | |
|----------|--|----------|
| 1 | VBScript Object Reference | 7 |
| | Application | 8 |
| | Artboard | 15 |
| | Artboards | 16 |
| | AutoCADFileOptions | 17 |
| | Brush | 18 |
| | Brushes | 19 |
| | CharacterAttributes | 20 |
| | Characters | 24 |
| | CharacterStyle | 26 |
| | CharacterStyles | 27 |
| | CMYKColor | 29 |
| | Color info | 30 |
| | CompoundPathItem | 31 |
| | CompoundPathItems | 36 |
| | DataSet | 37 |
| | DataSets | 38 |
| | Document | 40 |
| | Documents | 49 |
| | DocumentPreset | 50 |
| | EPSSaveOptions | 51 |
| | ExportOptionsAutoCAD | 53 |
| | ExportOptionsFlash | 54 |
| | ExportOptionsGIF | 56 |
| | ExportOptionsJPEG | 58 |
| | ExportOptionsPhotoshop | 60 |
| | ExportOptionsPNG8 | 62 |
| | ExportOptionsPNG24 | 64 |
| | ExportOptionsSVG | 66 |
| | ExportOptionsTIFF | 68 |
| | FreeHandFileOptions | 69 |
| | FXGSaveOptions | 70 |
| | Gradient | 71 |
| | GradientColor | 73 |

Gradients 74

GradientStop 75

GradientStops 76

GraphicStyle 78

GraphicStyles 79

GraphItem 80

GraphItems 84

GrayColor 85

GroupItem 86

GroupItems 90

IllustratorSaveOptions 91

ImageCaptureOptions 93

Ink 94

InkInfo 95

InsertionPoint 97

InsertionPoints 98

LabColor 99

Layer 100

Layers 103

LegacyTextItem 104

LegacyTextItems 107

Lines 108

Matrix 109

MeshItem 110

MeshItems 113

NoColor 115

NonNativeItem 116

NonNativeItems 119

OpenOptions 120

PageItem 122

PageItems 125

Paper 127

PaperInfo 128

ParagraphAttributes 130

Paragraphs 134

ParagraphStyle 136

ParagraphStyles 138

PathItem 139

| | |
|-----------------------------------|-----|
| PathItems | 144 |
| PathPoint | 146 |
| PathPoints | 148 |
| Pattern | 149 |
| PatternColor | 150 |
| Patterns | 152 |
| PDFFileOptions | 153 |
| PDFSaveOptions | 154 |
| PhotoshopFileOptions | 159 |
| PlacedItem | 160 |
| PlacedItems | 164 |
| PluginItem | 165 |
| PluginItems | 169 |
| PPDFile | 170 |
| PPDFileInfo | 171 |
| Preferences | 172 |
| PrintColorManagementOptions | 174 |
| PrintColorSeparationOptions | 175 |
| PrintCoordinateOptions | 177 |
| Printer | 179 |
| PrinterInfo | 180 |
| PrintFlattenerOptions | 182 |
| PrintFontOptions | 184 |
| PrintJobOptions | 185 |
| PrintOptions | 187 |
| PrintPageMarksOptions | 189 |
| PrintPaperOptions | 190 |
| PrintPostScriptOptions | 191 |
| RasterEffectOptions | 193 |
| RasterItem | 194 |
| RasterItems | 198 |
| RasterizeOptions | 200 |
| RGBColor | 201 |
| Screen | 202 |
| ScreenInfo | 203 |
| ScreenSpotFunction | 204 |
| Spot | 205 |
| SpotColor | 207 |

| | |
|---------------------------------------|------------|
| Spots | 208 |
| Stories | 209 |
| Story | 210 |
| Swatch | 212 |
| Swatches | 213 |
| SwatchGroup | 214 |
| SwatchGroups | 215 |
| Symbol | 216 |
| SymbolItem | 217 |
| SymbolItems | 221 |
| Symbols | 222 |
| TabStopInfo | 224 |
| Tag | 225 |
| Tags | 226 |
| TextFont | 227 |
| TextFonts | 229 |
| TextFrame | 230 |
| TextFrames | 235 |
| TextPath | 237 |
| TextRange | 239 |
| TextRanges | 242 |
| TracingObject | 243 |
| TracingOptions | 245 |
| Variable | 248 |
| Variables | 249 |
| View | 250 |
| Views | 251 |
| Words | 252 |
| 2 Enumerations Reference | 254 |

1 VBScript Object Reference

This reference section describes the objects and methods in the Illustrator VBScript type library. All of the classes in the type library are presented alphabetically. The chapter concludes with an enumerations reference which lists all of the enumerations in the Illustrator type library.

Each class listing includes the following:

- ▶ **Properties of the class** — These include value type, read-only status, and an explanation.
- ▶ **Methods for the class** — Value types needed by the method are shown in bold face. Enumerated values are linked to the [Chapter 2, "Enumerations Reference."](#) Required terms are shown in plain face. All items surrounded by brackets ([]) are optional.
- ▶ **Script examples** — These example are intended to illustrate concepts, and do not necessarily represent the best or most efficient way to construct a VBScript script. They contain little error checking, and assume that the proper context exists for the scripts to execute in (for instance, that there is a document open or items selected).

Each script contains a single subroutine that can be pasted into any event in a VBScript form if you are using the VBScript development environment. A standard button click event is used for all examples. If you are using a built-in VBScript editor in a VBA application, you can paste the script into a macro routine. In either case, modify the `Sub` statement in the example to work with your situation.

For an overview of how the Illustrator object model is structured, see *Adobe Illustrator CS6 Scripting Guide*.

Application

The Adobe Illustrator application object, which contains all other Illustrator objects.

Application properties

| Property | Value type | What it is |
|-----------------------------|------------------------------------|--|
| ActionIsRunning | Boolean | Read-only. If <code>true</code> , an action is still running. |
| ActiveDocument | Document | The active (frontmost) document in Illustrator. |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| BrowserAvailable | Boolean | Read-only. If <code>true</code> , a Web browser is available. |
| BuildNumber | String | Read-only. The application's build number. |
| ColorSettingsList | Variant | Read-only. The list of color-settings files currently available for use. |
| CoordinateSystem | AiCoordinateSystem | The coordinate system currently in use, document or artboard. |
| DefaultColorSettings | String | Read-only. The default color-settings file for the current application locale. |
| Documents | Documents | Read-only. The documents in the application. |
| FlattenerPresetsList | Variant | Read-only. The list of flattener style names currently available for use. |
| FreeMemory | Long | Read-only. The amount of unused memory (in bytes) within the Illustrator partition. |
| Locale | String | Read-only. The application's locale. |
| Name | String | Read-only. The application's name (not related to the filename of the application file). |
| Path | String | Read-only. The file path to the application. |
| PDFPresetsList | Variant Array of String | Read-only. The list of preset PDF-options names available for use. |
| PPDFileList | Variant Array of String\$ | Read-only. The list of PPD files currently available for use. |
| Preferences | Preferences | Read-only. The application preferences. |
| PrinterList | Variant | Read-only. A list of available printers. |
| PrintPresetsList | Variant | Read-only. The list of preset printing-options names currently available for use. |
| ScriptingVersion | String | Read-only. The version of the Scripting plug-in. |

| Property | Value type | What it is |
|-----------------------------|--|---|
| Selection | Variant Array of objects | All currently selected objects in the active (frontmost) document. |
| StartupPresetsList | Variant | Read-only. The list of presets available for creating a new document. |
| TextFonts | TextFonts | Read-only. The installed fonts. |
| TracingPresetList | Variant Array of String | Read-only. The list of preset tracing-options names available for use. |
| UserInteractionLevel | AiUserInteractionLevel | The allowed level of interaction with users in the form of dialogs and message boxes. |
| Version | String | Read-only. The version of the Illustrator application. |
| Visible | Boolean | Read-only. If <code>true</code> , the application is visible. |

Application methods

| Method | Returns | What it does |
|--|--------------------------|--|
| ConcatenateMatrix (matrix as Matrix , secondMatrix as Matrix) | Matrix | Concatenates two matrices. |
| ConcatenateRotationMatrix (matrix as Matrix , angle as Double) | Matrix | Concatenates a rotation to a transformation matrix. |
| ConcatenateScaleMatrix (matrix as Matrix , [, scaleX as Double] [, scaleY as Double]) | Matrix | Concatenates a scale to a transformation matrix. |
| ConcatenateTranslationMatrix (matrix as Matrix , [, deltaX as Double] [, deltaY as Double]) | Matrix | Concatenates a translation to a transformation matrix. |
| ConvertSampleColor (SourceColorSpace as AiImageColorSpace , SourceColor as ColorComponents , DestColorSpace as AiImageColorSpace , ColorConvertPurpose as AiColorConvertPurpose [, SourceHasAlpha as Boolean] [, DestHasAlpha as Boolean]) | array of ColorComponents | Converts a sample-component color from one color space to another. |
| Copy () | Nothing | Copies the current selection to the clipboard. |
| Cut () | Nothing | Cuts the current selection to the clipboard. |

| Method | Returns | What it does |
|---|--------------------------------|---|
| DoJavaScript (JavaScriptCode as String , [, Arguments as Variant Array] [, ExecutionMode as AiJavaScriptExecutionMode]) | String | Executes the specified JavaScript® code. |
| DoJavaScriptFile (JavaScriptFile as File , [, Arguments as Variant Array] [, ExecutionMode as AiJavaScriptExecutionMode]) | String | Executes the specified JavaScript file. |
| DoScript (Action as String , From as String [, dialogs as Boolean]) | Nothing | Plays an action from the Actions palette. NOTE: Use <code>DoScript</code> only if you intend to run your script from an application external to Illustrator, such as the Windows® Script Host. Calling <code>DoScript</code> when running a script from Illustrator's File > Scripts menu may yield unexpected results. |
| GetIdentityMatrix () | Matrix | Returns an identity matrix. |
| GetPPDFileInfo (Name as String) | PPDFileInfo | Gets detailed file information for specified PPD file. |
| GetPresetFileOfType (PresetType as AiDocumentPresetType) | String | Returns the full path to the default document profile for the specified preset type. |
| GetPresetSettings (Preset as String) | DocumentPreset | Retrieves the tracing-option settings from the template with a given preset name. |
| GetRotationMatrix ([Angle as Double]) | Matrix | Returns a transformation matrix containing a single rotation. NOTE: Requires a value in degrees. For example, 30 rotates the object 30 degrees counterclockwise; -30 rotates the object 30 degrees clockwise. |

| Method | Returns | What it does |
|---|---------|--|
| GetScaleMatrix ([scaleX as Double] [, scaleY as Double]) | Matrix | Returns a transformation matrix containing a single scale. NOTE: Requires a value in percentage. For example, 60 scales the object to 60% of its original size; 200 doubles the object's bounds. |
| GetScriptableHelpGroup () | variant | Gets the scriptable help group object that represents the search widget in the app bar. |
| GetTranslationMatrix ([deltaX as Double] [, deltaY as Double]) | Matrix | Returns a transformation matrix containing a single translation. NOTE: Requires a value in points. For example, {100,200} moves the object 100 pt. to the right and 200 pt. up; a minus before each number moves the object left and down. |
| InvertMatrix (matrix as Matrix) | Matrix | Inverts a matrix. |
| IsEqualMatrix (matrix as Matrix , secondMatrix as Matrix) | Boolean | Checks whether two matrices are equal. |
| IsSingularMatrix (matrix as Matrix) | Boolean | Checks whether a matrix is singular and cannot be inverted. |
| LoadColorSettings (fileSpec as String) | Nothing | Loads color settings from specified file, or, if file is empty, turns color management off. |

| Method | Returns | What it does |
|---|--------------------------|--|
| Open (file as String , [documentColorSpace as AiDocumentColorSpace], [options as Object]) | Document | Opens the specified file document. If called to open a pre-Illustrator 9 document that contains both RGB and CMYK colors, supply <code>DocumentColorSpace</code> in order to convert all colors to the specified color space. If not supplied, Illustrator displays a dialog to the user. |
| Paste () | Nothing | Pastes the clipboard content into the current document. |
| Quit | Nothing | Quits Illustrator. |
| Redo () | Nothing | Redoes the most recently undone transaction. |
| Redraw () | Nothing | Forces Illustrator to redraw all its windows. |
| ShowPresets (fileSpec as String) | Nothing | Gets the presets from the file. |
| TranslatePlaceholderText (text as String) | Nothing | Translates the placeholder text to regular text; a way to enter unicode points in hex values. |
| Undo () | Nothing | Undoes the most recent transaction. |

Opening a document

```
' Open a document and get the reference to it
Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Open("C:\temp\aFile.ai")
```

Accessing the selection

In Illustrator, the application's `Selection` can be accessed as well as modified. The selection will contain `Empty` when there are no selected objects. To deselect all objects in the current document, set the selection to `Empty`, as the following example shows.

```
Set appRef = CreateObject("Illustrator.Application")
appRef.activeDocument.Selection = Empty
```

A reference to a text range is returned when there is an active insertion point in the contents of a `TextFrame`. Similarly, a reference to a range of text is returned when characters are selected in the contents of a `TextFrame`.

Executing an action

You can run an action from the Action Palette from a script by using the `DoScript` method. When you do this, the control returns to your script before the action has completed. Use the `ActionIsRunning` property to test for when the action has completed before executing any other VBScript methods (see the `Windows.DoAction` example). You can also use the `Sleep` method defined on the `WScript` object to insert a pause to test this property, as in the following example:

```
Set appRef = CreateObject("Illustrator.Application")
appRef.DoScript "Opacity 60 (selection)", "Default Actions"
WHILE(appRef.ActionIsRunning)
    WScript.sleep 1000
WEND
msgbox "Done"
```

Invoking JavaScript

`DoJavaScript` and `DoJavaScriptFile` can be used to invoke scripts written in JavaScript for Illustrator.

The first argument to `DoJavaScript` is a string that must evaluate to a valid JavaScript expression. For example, the following script displays an alert using the JavaScript `alert` method.

```
appRef.DoJavaScript "alert( 'Number of open documents: ' + _documents.length );"
```

This example returns the number of open documents.

```
Set myNumberOfDocuments = appRef.DoJavaScript("documents.length;")
MsgBox myNumberOfDocuments
```

Copy and paste between documents

This script uses the application property `ActiveDocument` to copy the current document's selection to the clipboard before pasting it into our new document. This script also demonstrates how to create a new document with a specific color space and dimensions.

```
'Duplicates the selected item in the current document to a new document

Set appRef = CreateObject("Illustrator.Application")

If appRef.Documents.Count > 0 Then
    If Not IsEmpty(appRef.ActiveDocument.selection) Then
        appRef.ActiveDocument.Copy
        Set newDocument = appRef.Documents.Add(aiDocumentCMYKColor, 250, 400)
        newDocument.Paste
    End If
End If
```

Artboard

An `Artboard` object represents a single artboard in a document. There can be between 1 to 100 artboards in one document.

Artboard properties

| Property | Value type | What it is |
|-----------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>ArtboardRect</code> | <code>Rect</code> | Size and position of the artboard. |
| <code>Name</code> | <code>String</code> | The unique identifying name of the artboard. |
| <code>Parent</code> | Document | Read-only. The name of the object that is this <code>Artboard</code> object's parent. |
| <code>RulerOrigin</code> | <code>Point</code> | Ruler origin of the artboard, relative to the left top corner of the artboard. |
| <code>RulerPAR</code> | <code>Double</code> | Pixel aspect ratio, used in ruler visualization if the units are pixels. Range: 0.1 to 10.0 |
| <code>ShowCenter</code> | <code>Boolean</code> | Show center mark. |
| <code>ShowCrossHairs</code> | <code>Boolean</code> | Show cross hairs. |
| <code>ShowSafeAreas</code> | <code>Boolean</code> | Show title and action safe areas (for video). |

Artboard methods

| Method | Returns | What it does |
|----------------------------|---------|--|
| <code>Delete</code> () | Nothing | Deletes this artboard object. You cannot remove the last artboard in a document. |

Artboards

A collection of artboards.

Artboards properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. The number of objects in the collection. |
| Parent | Document | Read-only. The document that contains this object. |

Artboards methods

| Method | Returns | What it does |
|---|--------------------------|--|
| Add (rect as <code>ArtboardRect</code>) | Artboard | Creates a new <code>Artboard</code> object. |
| GetActiveArtboardIndex () | Long | Retrieves the index position of the active artboard in the document's list. Returns the 0-based index. |
| GetByName (artboardName as <code>String</code>) | Artboard | Retrieves an artboard object from the list by its unique identifying name. |
| Index (item as <code>DataSets</code>) | Long | Returns the index position of the object within the collection. |
| Insert (rect as <code>ArtboardRect</code> , index as <code>Long</code>) | Nothing | Creates a new artboard object and inserts it at the given index in the list. |
| Item (itemKey) | Artboard | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| Remove (index as <code>Long</code>) | Nothing | Deletes an artboard object. You cannot remove the last artboard in a document. |
| SetActiveArtboardIndex (index as <code>Long</code>) | Nothing | Makes a specific artboard active and makes it current in the iteration order. |

AutoCADFileOptions

Options for opening an AutoCAD drawing, used with the [Open](#) method.

AutoCADFileOptions properties

| Property | Value type | What it is |
|---------------------------|--|--|
| Application | Application | Read-only. The Illustrator Application object. |
| CenterArtwork | Boolean | If <code>true</code> , center the artwork that is created on the artboard. Default is <code>true</code> . |
| GlobalScaleOption | AiAutoCADGlobalScaleOption | How to scale the drawing on import. Default is <code>1 ' aiFitArtboard</code> |
| GlobalScalePercent | Double | The value when <code>globalScaleOption</code> is <code>2 ' aiScaleByValue</code> , expressed as a percentage. Range: 0.0 to 100.0 Default is 100.0 |
| MergeLayers | Boolean | If <code>true</code> , the layers of the artwork are merged. Default: <code>false</code> |
| Parent | Document | Read-only. The document that contains this object. |
| ScaleLineweights | Boolean | If <code>true</code> , scales line weights by the same factor as the rest of the drawing. Default is <code>false</code> . |
| SelectedLayoutName | String | Name of the layout in the drawing to import. |
| Unit | AiAutoCADUnit | The unit to map to. Default is <code>3 ' aiMillimeters</code> . |
| UnitScaleRatio | Double | The ratio by which to scale while mapping units. Default is 1.0 |

Brush

A brush in an Illustrator document. Illustrator brushes can be accessed, but not created or deleted, from a script.

Brush properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Name | String | The Brush name. |
| Parent | Object | Read-only. The container object. |

Brush methods

| Method | Returns | What it does |
|---|---------|---|
| ApplyTo (artItem as <code>PageItem</code>) | Nothing | Applies the brush to a specific art item. |

Applying a Brush

```
'Creates a new group, adds a duplicate of each selected item to the group
'then applies a brush to each item in the group
```

```
Set appRef = CreateObject("Illustrator.Application")
```

```
If appRef.Documents.Count > 0 Then
  If Not IsEmpty(appRef.Selection) Then
    selectedItems = appRef.Selection
    startIndex = LBound(selectedItems)
    endIndex = UBound(selectedItems)

    Set newGroup = appRef.ActiveDocument.GroupItems.Add
    For i = startIndex To endIndex
      Set artItem = selectedItems(i)
      Set dupItem = artItem.Duplicate(newGroup, aiPlaceAtEnd)
      appRef.ActiveDocument.Brushes(2).ApplyTo artItem
    Next
  End If
End If
```

Brushes

A collection of brushes in a document.

Brushes properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. Long. The number of objects in the collection. |
| Parent | Object | Read-only. The document that contains this object. |

Brushes methods

| Method | Returns | What it does |
|---|-----------------------|---|
| Index (item as Brush) | Long | Returns the index position of the object within the collection. |
| Item (itemKey) | Brush | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |

Get all brushes in a document

```
'Counts the number of brushes in the current document
'and stores in numBrushes

Set appRef = CreateObject("Illustrator.Application")

If appRef.Documents.Count > 0 Then
    numBrushes = appRef.ActiveDocument.Brushes.Count
End If
```

CharacterAttributes

Specifies the properties of a character contained in a text frame. A `CharacterStyle` object associates attributes with a text range. See [“CharacterStyle” on page 26](#).

NOTE: Character attributes do not have default values and are undefined until explicitly set.

CharacterAttributes properties

| Property | Value Type | What it is |
|------------------------------------|---|--|
| <code>AkiLeft</code> | Double | The amount of inter-glyph space added to the left side of the glyph in Japanese text (in thousandths of an em). |
| <code>AkiRight</code> | Double | The amount of inter-glyph spacing added to the right side of the glyph in Japanese text (in thousandths of an em). |
| <code>Alignment</code> | AiStyleRunAlignmentType | The character alignment type. |
| <code>AlternateGlyphs</code> | AiAlternateGlyphsForm | Specifies which kind of alternate glyphs are used. |
| <code>Application</code> | Application | Read-only. The Illustrator Application object. |
| <code>AutoLeading</code> | Boolean | If <code>true</code> , automatic leading is used. |
| <code>BaselineDirection</code> | AiBaselineDirectionType | The Japanese text baseline direction. |
| <code>BaselinePosition</code> | AiFontBaselineOption | The baseline position of text. |
| <code>BaselineShift</code> | Double | The amount of shift (in points) of the text baseline. |
| <code>Capitalization</code> | AiFontCapsOption | Specifies whether the text is normal, all uppercase, all small caps, or a mix of small caps and lowercase. |
| <code>ConnectionForms</code> | Boolean | If <code>true</code> , OpenType® connection forms are used. |
| <code>ContextualLigature</code> | Boolean | If <code>true</code> , contextual ligatures are used. |
| <code>DiscretionaryLigature</code> | Boolean | If <code>true</code> , discretionary ligatures are used. |
| <code>FigureStyle</code> | AiFigureStyleType | The number style in an OpenType font. |

| Property | Value Type | What it is |
|----------------------------|--|--|
| FillColor | Object | The color of the text fill. |
| Fractions | Boolean | If <code>true</code> , OpenType fractions are used. |
| HorizontalScale | Double | The horizontal scaling factor (as a percentage). |
| Italics | Boolean | If <code>true</code> , the Japanese font supports italics. |
| KerningMethod | AiAutoKernType | The kerning method. |
| Language | AiLanguageType | The language of the text. |
| Leading | Double | The amount of space between two lines of text, in points. |
| Ligature | Boolean | If <code>true</code> , ligatures are used. |
| NoBreak | Boolean | If <code>true</code> , no break is allowed. |
| OpenTypePosition | AiFontOpenTypePositionOption | The OpenType baseline position. |
| Ordinals | Boolean | If <code>true</code> , OpenType ordinals are used. |
| Ornaments | Boolean | If <code>true</code> , OpenType ornaments are used. |
| OverprintFill | Boolean | If <code>true</code> , overprint the fill of the text. |
| OverprintStroke | Boolean | If <code>true</code> , overprinting of the stroke of the text is allowed. |
| Parent | Object | Read-only. The object's container. |
| ProportionalMetrics | Boolean | If <code>true</code> , proportional metrics in Japanese OpenType are used. |
| Rotation | Double | The character rotation angle. |
| Size | Double | The font size in points. |
| StrikeThrough | Boolean | If <code>true</code> , characters are struck-through by a line. |
| StrokeColor | Object | The color of the text stroke. |
| StrokeWeight | Double | Line width of stroke. |
| StylisticAlternates | Boolean | If <code>true</code> , OpenType stylistic alternates are used. |
| Swash | Boolean | If <code>true</code> , OpenType swash characters are used. |

| Property | Value Type | What it is |
|-------------------------------------|--|--|
| TateChuYokoHorizontal | Long | The Tate-Chu-Yoko horizontal adjustment in points. |
| TateChuYokoVertical | Long | The Tate-Chu-Yoko vertical adjustment in points. |
| TextFont | TextFont | The font used for the character. |
| Titling | Boolean | If <code>true</code> , OpenType titling alternates are used. |
| Tracking | Long | The tracking or range kerning amount in thousandths of an em. |
| Tsume | Double | The percentage of space reduction around a Japanese character. |
| Underline | Boolean | If <code>true</code> , characters are underlined. |
| VerticalScale | Double | Character vertical scaling factor. |
| WariChuCharactersAfter Break | Long | Specifies how the characters in Wari-Chu text (an inset note in Japanese text) are divided into two or more lines. |
| WariChuCharactersBeforeBreak | Long | Specifies how the characters in Wari-Chu text (an inset note in Japanese text) are divided into two or more lines. |
| WariChuEnabled | Boolean | If <code>true</code> , Wari-Chu is enabled. |
| WariChuJustification | AiWariChuJustificationType | The Wari-Chu justification. |
| WariChuLineGap | Long | The Wari-Chu line gap. |
| WariChuLines | Long | The number of Wari-Chu (multiple text lines fit into a space meant for one) lines. |
| WariChuScale | Double | The Wari-Chu scale. |

Setting character attributes

```
'Opens a document and adds a simple text frame, then
'uses the CharacterAttributes object to increment
'the horizontal and vertical scale of each character.

Set appRef = CreateObject("Illustrator.Application")

Set docRef = appRef.Documents.Add()
Set textRef = docRef.TextFrames.Add()
textRef.Contents = "I'd rather be scripting!"
textRef.Top = 500
textRef.Left = 40

dSize = 100
iCount = textRef.Characters.Count
i = 1
Dim charRef
Do While (i < (iCount + 1))
    dSize = dSize * 1.1
    textRef.TextRange.Characters(i).CharacterAttributes.HorizontalScale = dSize
    textRef.TextRange.Characters(i).CharacterAttributes.VerticalScale = dSize
    i = i + 1
Loop
```

Characters

A collection of `TextRange` objects in which each represents a single character.

Characters properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|--|
| <code>Application</code> | Application | Read-only. Application that the collection belongs to. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Object | Read-only. The object's container. |

Characters methods

| Method | Returns | What it does |
|--|---------------------------|---|
| Add (contents as String [, relativeObject as TextFrame [, insertionLocation as AiElementPlacement]) | TextRange | Adds a new character with specified text contents at the specified location in the current document. If location is not specified, adds the new character to the containing text frame after the current text selection or insertion point. |
| AddBefore (contents as String) | TextRange | Adds a character before the current text selection or insertion point. |
| Index (itemPtr as TextRange) | Long | Returns the index position of the object within the collection. |
| RemoveAll () | Nothing | Deletes every element in the collection. |

Counting characters

```
'Counts the number of characters in the current document
'and stores the result in numChars

Set appRef = CreateObject("Illustrator.Application")

If appRef.Documents.Count > 0 Then
    numChars = 0
    For Each textArt In appRef.ActiveDocument.TextFrames
        Set textArtRange = textArt.TextRange
        numChars = numChars + textArtRange.length
    Next
End If
```

CharacterStyle

A named style that specifies character attributes. For an example, see [CharacterStyles](#).

CharacterStyle properties

| Property | Value type | What it is |
|----------------------------|-------------------------------------|---|
| Application | Application | Read-only. Application to which the collection belongs. |
| CharacterAttributes | CharacterAttributes | Read-only. The character properties for the style. |
| Name | String | The character style's name. |
| Parent | Object | Read-only. The object's container. |

CharacterStyle methods

| Method | Returns | What it does |
|---|---------|--|
| ApplyTo (textItem as Object [, clearingOverrides as Boolean]) | Nothing | Applies the character style to the text object or objects. |
| Delete () | Nothing | Deletes the object. |

CharacterStyles

A collection of character styles.

CharacterStyles properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. Application to which the collection belongs. |
| Count | Long | Read-only. Number of elements in the collection. |
| Parent | Object | Read-only. The object's container. |

CharacterStyles methods

| Method | Returns | What it does |
|---|--------------------------------|---|
| Add (Name as String) | CharacterStyle | Creates a named character style. |
| Index (itemPtr as CharacterStyle) | Long | Returns the index position of the object within the collection. |
| Item (itemKey) | CharacterStyle | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| RemoveAll () | Nothing | Deletes all objects in this collection. |

Create and apply character styles

```
'Opens a document, adds 3 text frames,  
'creates a new character style and applies it to  
'each of the text frames  
  
Set appRef = CreateObject("Illustrator.Application")  
  
'Create a new document add a 3 simple text items  
Set docRef = appRef.Documents.Add()  
Set textRef1 = docRef.TextFrames.Add()  
textRef1.Contents = "Scripting is fun!"  
textRef1.Top = 700  
textRef1.Left = 50  
  
Set textRef2 = docRef.TextFrames.Add()  
textRef2.Contents = "Scripting is easy!"  
textRef2.Top = 625  
textRef2.Left = 100  
  
Set textRef3 = docRef.TextFrames.Add()  
textRef3.Contents = "Everyone should script!"  
textRef3.Top = 550  
textRef3.Left = 150  
appRef.Redraw  
  
'Create a new character style  
Set charStyle = docRef.CharacterStyles.Add("BigRed")  
  
'Create a red color  
Set colorRed = CreateObject("Illustrator.RGBColor")  
colorRed.Red = 255  
  
'Set character attributes of the new style  
With charStyle.CharacterAttributes  
    .Size = 40  
    .Tracking = -50  
    .Capitalization = 0 'aiNormalCaps  
    .FillColor = colorRed  
End With  
  
'Apply style to each textFrame in the document  
charStyle.ApplyTo textRef1.TextRange  
charStyle.ApplyTo textRef2.TextRange  
charStyle.ApplyTo textRef3.TextRange
```

CMYKColor

A CMYK color specification, used to apply a CMYK color to a layer or art item.

If the color space of a document is RGB and you specify the color value for a page item in that document using CMYK, Illustrator translates the CMYK color specification into an RGB color specification. The same thing happens if the document's color space is CMYK and you specify colors using RGB. Since this translation can lose information, you should specify colors using the class that matches the document's actual color space.

CMYKColor properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Black | Double | The black color value. Range: 0.0 to 100.0 |
| Cyan | Double | The cyan color value. Range: 0.0 to 100.0 |
| Magenta | Double | The magenta color value. Range: 0.0 to 100.0 |
| Yellow | Double | The yellow color value. Range: 0.0 to 100.0 |

Setting CMYK colors

```
'Creates a new CMYK color and applies it to the first path item

Set appRef = CreateObject("Illustrator.Application")
Set newCMYKColor = CreateObject("Illustrator.CMYKColor")

'Get a reference to the frontmost path in the document
Set frontPath = appRef.ActiveDocument.PathItems(1)

'Set color values for the CMYK objects

newCMYKColor.Black = 0
newCMYKColor.Cyan = 30.4
newCMYKColor.Magenta = 32
newCMYKColor.Yellow = 0

frontPath.Filled = True
frontPath.fillColor = newCMYKColor
```

Color info

An abstract parent class for all color classes used in Illustrator. Subclasses are:

[CMYKColor](#)
[GradientColor](#)
[GrayColor](#)
[LabColor](#)
[NoColor](#)
[PatternColor](#)
[RGBColor](#)
[SpotColor](#)

CompoundPathItem

Compound paths are objects composed of multiple intersecting paths, resulting in transparent interior spaces where the original paths overlapped. The `PathItems` property provides access to the paths that make up the compound path.

All paths in a compound path share property values. Therefore, if you set the value of a property of any one of the paths in the compound path, all other paths' matching property will be updated to the new value.

Paths contained within a compound path or group in a document are returned as individual paths when a script asks for the paths contained in the document. However, paths contained in a compound path or group are not returned when a script asks for the paths in a layer which contains the compound path or group.

CompoundPathItem properties

| Property | Value type | What it is |
|------------------------------|---------------------------------|--|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>ArtworkKnockout</code> | AiKnockoutState | Is this object used to create a knockout? If so, what kind of knockout? |
| <code>BlendingMode</code> | AiBlendModes | The mode used when compositing an object. |
| <code>ControlBounds</code> | Variant Array of 4 Doubles | Read-only. The bounds of the object including stroke width and controls. |
| <code>Editable</code> | Boolean | Read-only. If <code>true</code> , the object is editable. |
| <code>GeometricBounds</code> | Variant Array of 4 Doubles | Read-only. The bounds of the object excluding stroke width. |
| <code>Height</code> | Double | The height of the object, excluding stroke width, calculated from the <code>GeometricBounds</code> . |
| <code>Hidden</code> | Boolean | If <code>true</code> , this object is hidden. |
| <code>IsIsolated</code> | Boolean | If <code>true</code> , this object is isolated. |
| <code>Layer</code> | Layer | Read-only. The layer to which this object belongs. |
| <code>Left</code> | Double | The position of the left side of the item (in points, measured from the left side of the page). |
| <code>Locked</code> | Boolean | If <code>true</code> , the object is locked. |
| <code>Name</code> | String | The name of this object. |
| <code>Note</code> | String | The note assigned to this object. |
| <code>Opacity</code> | Double | The opacity of the object. Range: 0.0 to 100.0 |
| <code>Parent</code> | Document | Read-only. The document that contains this object. |
| <code>PathItems</code> | PathItems | Read-only. The path art items in this compound path. |

| Property | Value type | What it is |
|---------------------------|----------------------------|--|
| Position | Variant Array of 2 Doubles | The position (in points) of the top left corner of the item, in the format [x, y]. Does not include stroke weight. |
| Selected | Boolean | If <code>true</code> , the object is selected. |
| Sliced | Boolean | If <code>true</code> , the <code>CompoundPathItem</code> is sliced. Default: <code>false</code> |
| Tags | Tags | Read-only. The tags contained in this object. |
| Top | Double | The position of the top of the item (in points, measured from the bottom of the page). |
| URL | String | The value of the Adobe URL tag assigned to this object. |
| VisibilityVariable | Variable | The <code>VisibilityVariable</code> bound to this object. |
| VisibleBounds | Variant Array of 4 Doubles | Read-only. The visible bounds of the object including stroke width. |
| Width | Double | The width of the object, excluding stroke width, calculated from the <code>GeometricBounds</code> . |
| WrapInside | Boolean | If <code>true</code> , the text frame object are wrapped inside this object. |
| WrapOffset | Double | The offset to use when wrapping text around this object. |
| Wrapped | Boolean | If <code>true</code> , wrap text frame objects around this object (text frame must be above the object). |
| ZOrderPosition | Long | Read-only. The position of this art item within the stacking order of the group or layer (<code>Parent</code>) that contains the art item. |

CompoundPathItem methods

| Method | Returns | What it does |
|----------------------|---------|--|
| Copy () | Nothing | Copies the compound path to the clipboard. The associated document must be the frontmost document. |
| Cut () | Nothing | Cuts the compound path onto the clipboard. The associated document must be the frontmost document. |
| Delete () | Nothing | Deletes the object. |

| Method | Returns | What it does |
|---|---------|---|
| Duplicate ([relativeObject as Object], [insertionLocation as AiElementPlacement]) | Object | Duplicates the compound path, optionally specifying the location and position for the copy. |
| Move (relativeObject as Object , insertionLocation as AiElementPlacement) | Nothing | Moves the object, specifying the new location and position. |
| Resize (scaleX as Double , scaleY as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, scaleAbout as AiTransformation]) | Nothing | Scales the compound path where <code>scaleX</code> is the horizontal scaling factor (as a percentage) and <code>scaleY</code> is the vertical scaling factor; 100.0 = 100% |
| Rotate (angle as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, rotateAbout as AiTransformation]) | Nothing | Rotates the art item relative to the current rotation. The object is rotated counter-clockwise if the <code>Angle</code> value is positive, clockwise if the value is negative. |
| Transform (transformationMatrix as Matrix , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, transformAbout as AiTransformation]) | Nothing | Transforms the compound path by applying the specified transformation matrix. |
| Translate ([deltaX as Double] [, deltaY as Double] [, transformObjects as Boolean] [, transformFillPatterns as Boolean] [, transformFillGradients as Boolean] [, transformStrokePatterns as Boolean]) | Nothing | Repositions the compound path relative to the current position, where <code>deltaX</code> is the horizontal offset and <code>deltaY</code> is the vertical offset. |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the compound path's position in the stacking order of the group or layer (<code>Parent</code>) that contains the object. |

Selecting paths in a document

This example demonstrates how to select all of the paths in a document that are not part of a compound path or a group by testing the type of the `Parent` property with a `TypeName` function.

```
'Selects path items in the current document that are not
'compound paths

Set appRef = CreateObject("Illustrator.Application")
counter = 0
If appRef.Documents.Count > 0 Then
    If appRef.ActiveDocument.PathItems.Count > 0 Then
        For Each pathArt In appRef.ActiveDocument.PathItems
            If (Not TypeName(pathArt.Parent) = "CompoundPathItem") Then
                pathArt.Selected = True
                counter = counter + 1
            Else
                pathArt.Selected = False
            End If
        Next
    End If
End If
```

Creating a compound path

This example demonstrates how to create a new compound path containing three `PathItems`. The example then modifies the stroke of the paths in the compound path. Note that when you modify the properties of a `PathItem` inside a compound path you affect all paths contained in the compound path. The example also shows how to access swatches in a document by name.

```
'Creates a new compound path item, adds 3 new
'path items, then sets the stroke of the compound path

Set appRef = CreateObject("Illustrator.Application")

Set frontDocument = appRef.ActiveDocument
Set activeLayer = frontDocument.activeLayer
Set newCompoundPath = activeLayer.CompoundPathItems.Add

'Create the path items
Set newPath = newCompoundPath.PathItems.Add
newPath.SetEntirePath Array(Array(30, 50), Array(30, 100))

Set newPath = newCompoundPath.PathItems.Add
newPath.SetEntirePath Array(Array(40, 100), Array(100, 100))

Set newPath = newCompoundPath.PathItems.Add
newPath.SetEntirePath Array(Array(100, 110), Array(100, 300))

'Set the stroke of the compound path
newPath.Stroked = True
newPath.StrokeWidth = 3.5
newPath.StrokeColor = frontDocument.Swatches(8).Color
```

CompoundPathItems

A collection of compound paths.

CompoundPathItems properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. The number of objects in the collection. |
| Parent | Document | Read-only. The document that contains this object. |

CompoundPathItem methods

| Method | Returns | What it does |
|--|----------------------------------|---|
| Add () | CompoundPathItem | Creates a new <code>CompoundPathItem</code> object. |
| Index (item as <code>CompoundPathItem</code>) | Long | Returns the index position of the object within the collection. |
| Item (itemKey) | CompoundPathItem | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| RemoveAll () | Nothing | Deletes all objects in this collection. |

Counting compound paths

```
'Counts the compound path items in the current document and
'stores in numCPaths
```

```
Set appRef = CreateObject("Illustrator.Application")
```

```
If appRef.Documents.Count > 0 Then
    numCPaths = appRef.ActiveDocument.Layers(1).CompoundPathItems.Count
End If
```

DataSet

A set of data used for dynamic publishing. A dataset allows you to collect a number of variables and their dynamic data into one object. To create a `DataSet` object, you must have at least one variable bound to an art item.

For more information, see the [Variable](#) class and the section on “Dynamic Objects and Symbols” in *Adobe Illustrator CS6 Scripting Guide*.

For a sample script that uses a `DataSet` object, see [DataSets](#).

DataSet properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|--|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Name</code> | String | The name of the <code>DataSet</code> . |
| <code>Parent</code> | Document | Read-only. The name of the object that is this <code>DataSet</code> object’s parent. |

DataSet methods

| Method | Returns | What it does |
|-----------------------------|---------|-------------------------------------|
| <code>Delete</code> () | Nothing | Deletes the object. |
| <code>Display</code> () | Nothing | Displays the <code>DataSet</code> . |
| <code>Update</code> () | Nothing | Updates the <code>DataSet</code> . |

DataSets

A collection of `DataSet` objects.

DataSets properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|--|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. The number of datasets in the collection. |
| <code>Parent</code> | Document | Read-only. The name of the object that is this <code>DataSet</code> object's parent. |

DataSets methods

| Method | Returns | What it does |
|--|-------------------------|---|
| <code>Add</code> () | DataSet | Creates a new <code>DataSet</code> object. |
| <code>Index</code> (item as <code>DataSets</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | DataSet | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Creating datasets

```
'Creates two variables (visibility and text),
'creates two datasets using different variable
'values then displays each dataset

Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents.Add()

'Create a visibility variable
Set itemRef = docRef.PathItems.Rectangle(600, 200, 150, 150)
Set colorRef = CreateObject("Illustrator.RGBColor")
colorRef.Red = 255
itemRef.FillColor = colorRef
Set visibilityVar = docRef.Variables.Add()
visibilityVar.Kind = 2 'aiVisibility
itemRef.VisibilityVariable = visibilityVar

'Create a text variable
Set textRef = docRef.TextFrames.Add
textRef.Contents = "Text Variable, dataset 1"
textRef.Top = 400
textRef.Left = 200
Set textVar = docRef.Variables.Add
textVar.Kind = 3 'aiTextual
textRef.ContentVariable = textVar

'Create dataset 1
Set ds1 = docRef.DataSets.Add()

'Change data and create dataset 2
itemRef.Hidden = True
textRef.Contents = "Text Variable, dataset 2"
Set ds2 = docRef.DataSets.Add()

'Display datasets
ds1.Display
ds2.Display
```

Document

An Illustrator document. Documents are contained in the `Application` object.

The default document settings—those properties starting with the word “Default”—are global settings that affect the current document. Be sure to modify these default properties only when a document is open. Note that if you set default properties to desired values before creating new objects, you can streamline your scripts, eliminating the need to specify properties such as `FillColor` and `Stroked` that have analogous default properties.

A document’s `DocumentColorSpace`, `Height`, and `Width` can be set only when the document is created. Once a document is created, these properties cannot be changed.

The frontmost document can be referred to as either `AppRef.ActiveDocument` or `AppRef.Documents(1)`.

Document properties

| Property | Value type | What it is |
|--------------------------------|-----------------------------------|---|
| <code>ActiveDataSet</code> | DataSet | The active <code>DataSet</code> object in the document. |
| <code>ActiveLayer</code> | Layer | The active <code>Layer</code> in the document. |
| <code>ActiveView</code> | View | Read-only. The document’s current <code>View</code> . |
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Artboards</code> | Artboards | Read-only. All artboards in the document. |
| <code>Brushes</code> | Brushes | Read-only. The <code>Brushes</code> contained in the document. |
| <code>CharacterStyles</code> | CharacterStyles | Read-only. The list of character styles in this document. |
| <code>CompoundPathItems</code> | CompoundPathItems | Read-only. The <code>CompoundPathItems</code> contained in the document. |
| <code>CropBox</code> | Variant Array of 4 Doubles | The boundary of the document’s cropping box for output. A document does not have a default <code>CropBox</code> . In order to read this property you have to set the <code>CropBox</code> first. |
| <code>CropStyle</code> | AiCropOptions | The style of the document’s cropping box. |
| <code>DataSets</code> | DataSet | Read-only. A <code>DataSets</code> collection in the document. |
| <code>DefaultFillColor</code> | Color info | The <code>Color</code> to fill new paths if default filled is <code>true</code> . |
| <code>DefaultFilled</code> | Boolean | If <code>true</code> , a new path are filled. |

| Property | Value type | What it is |
|--------------------------------|--------------------------------------|--|
| DefaultFillOverprint | Boolean | If <code>true</code> , the art beneath a filled object are overprinted by default. |
| DefaultStrokeCap | AiStrokeCap | Default type of line capping for paths created. |
| DefaultStrokeColor | Color info | The stroke color for new paths if default stroked is <code>true</code> . |
| DefaultStroked | Boolean | If <code>true</code> , the new path are stroked. |
| DefaultStrokeDashes | Variant Array Of Doubles | The default lengths for dashes and gaps in dashed lines, starting with the first dash length, followed by the first gap length, and so on. |
| DefaultStrokeDashOffset | Double | The default distance into the dash pattern at which the pattern are started for new paths. |
| DefaultStrokeJoin | AiStrokeJoin | Default type of joints in new paths. |
| DefaultStrokeMiterLimit | Double | When a default stroke join is set to <code>mitered</code> , this property specifies when the join will be converted to beveled (squared-off) by default. The default miter limit of 4 means that when the length of the point reaches four times the stroke weight, the join switches from a miter join to a bevel join. Range: 1 to 500; a value of 1 specifies a bevel join. |
| DefaultStrokeOverprint | Boolean | If <code>true</code> , the art items beneath a stroked object are overprinted by default. |
| DefaultStrokeWidth | Double | The default width of stroke for new paths. |
| DocumentColorSpace | AiDocumentColorSpace | Read-only. The color specification system to use for this document's color space. |
| FullName | String | Read-only. The file associated with the document, which includes the complete path to the file. |
| GeometricBounds | Variant Array Of 4 Doubles | Read-only. The bounds of the illustration excluding the stroke width of any objects in the document. |
| Gradients | Gradients | Read-only. The <code>Gradients</code> collection contained in the document. |
| GraphicStyles | GraphicStyles | Read-only. The <code>GraphicStyles</code> contained in the document. |
| GraphItems | GraphItems | Read-only. The <code>GraphItems</code> collection contained in the document. |

| Property | Value type | What it is |
|-------------------------|---------------------------------|---|
| GroupItems | GroupItems | Read-only. The <code>GroupItems</code> collection contained in the document. |
| Height | Double | Read-only. The height of the document, calculated from the <code>GeometricBounds</code> . |
| InkList | Variant Array | Read-only. The list of inks in this document. |
| KinsokuSet | Object | Read-only. The Kinsoku set of characters that cannot begin or end a line of Japanese text. |
| Layers | Layers | Read-only. The layers contained in the document. |
| LegacyTextItems | LegacyTextItems | Read-only. The legacy text items in the document. |
| MeshItems | MeshItems | Read-only. The mesh art items contained in the document. |
| MojikumiSet | Object | Read-only. A list of predefined Mojikumi sets that specify the spacing for the layout and composition of Japanese text. |
| Name | String | Read-only. The document's name (not the complete file path to the document). |
| NonNativeItems | NonNativeItems | Read-only. The non-native art items in this document. |
| OutputResolution | Double | Read-only. The current output resolution for the document in dots per inch (dpi). |
| PageItems | PageItems | Read-only. The <code>PageItems</code> (contains all art item classes) contained in the document. |
| PageOrigin | Variant Array Of 2 Doubles | The zero-point of the page in the document without margins, relative to the overall height and width. |
| ParagraphStyles | ParagraphStyles | Read-only. The list of paragraph styles in this document. |
| Parent | Application | Read-only. The application that contains this document. |
| Path | String | Read-only. The file associated with the document, which includes the complete path to the file. |
| PathItems | PathItems | Read-only. The <code>PathItems</code> contained in this document. |
| Patterns | Patterns | Read-only. The patterns contained in this document. |

| Property | Value type | What it is |
|-----------------------------|-------------------------------------|--|
| PlacedItems | PlacedItems | Read-only. The <code>PlacedItems</code> contained in this document. |
| PluginItems | PluginItems | Read-only. The <code>PluginItems</code> contained in this document. |
| PrintTiles | Boolean | Read-only. If <code>true</code> , this document is tiled when printed. |
| RasterEffectSettings | RasterEffectOptions | The document's raster effect settings. |
| RasterItems | RasterItems | Read-only. The raster items contained in this document. |
| RulerOrigin | Variant Array of 2 Doubles | The zero-point of the rulers in the document relative to the bottom left corner. |
| RulerUnits | AiRulerUnits | Read-only. The default measurement units for the rulers in the document. |
| Saved | Boolean | If <code>true</code> , the document has not been changed since the last time it was saved. |
| Selection | Variant Array of objects | The array of references to the objects in this document's current selection. |
| ShowPlacedImages | Boolean | Read-only. If <code>true</code> , placed images are displayed in the document. |
| SplitLongPaths | Boolean | Read-only. If <code>true</code> , long paths are split when printing. |
| Spots | Spots | Read-only. The <code>SpotColors</code> contained in this document. |
| Stationery | Boolean | Read-only. If <code>true</code> , the file is a stationery file. |
| Stories | Stories | Read-only. The story items in this document. |
| Swatches | Swatches | Read-only. The swatches in this document. |
| SwatchGroups | SwatchGroups | Read-only. The swatch groups in this document. |
| SymbolItems | SymbolItems | Read-only. The symbol items in this document. |
| Symbols | Symbols | Read-only. The symbols in this document. |
| Tags | Tags | Read-only. The tags in this document. |
| TextFrames | TextFrames | Read-only. The text frames in this document. |

| Property | Value type | What it is |
|-------------------------|--|---|
| TileFullPages | Boolean | Read-only. If <code>true</code> , full pages are tiled when printing this document. |
| UseDefaultScreen | Boolean | Read-only. If <code>true</code> , the printer's default screen is used when printing this document. |
| Variables | Variables | Read-only. The variables in this document. |
| VariablesLocked | Boolean | If <code>true</code> , the <code>Variables</code> in this document are locked. |
| Views | Views | Read-only. The views in this document. |
| VisibleBounds | Variant Array of 4 <code>Double</code> s | Read-only. The visible bounds of the document, including stroke width of any objects in the illustration. |
| Width | Double | Read-only. The width of this document, calculated from the <code>GeometricBounds</code> . |
| XMPString | String | The XMP metadata packet associated with this document. |

Document methods

| Method | Returns | What it does |
|--|---------|--|
| Activate () | Nothing | Brings the first window associated with the document to the front. |
| Close ([Saving as AiSaveOptions]) | Nothing | Closes the document. |
| Capture (ImageFile as <code>File</code> , windowSize as <code>Point</code>) | Nothing | Captures the current document window to the target TIFF image file. |
| ConvertCoordinate (Coordinate as <code>Point</code> , Source as AiCoordinateSystem , Destination as AiCoordinateSystem) | Nothing | Converts the coordinate system used for a single point between artboard and document coordinate systems. |
| Copy () | Nothing | Copies the current selection in the document to the clipboard; the associated document must be the frontmost document. |
| Cut () | Nothing | Cuts the current selection in the document to the clipboard; the associated document must be the frontmost document. |

| Method | Returns | What it does |
|---|--|--|
| Export (ExportFile as String , ExportFormat as AiExportType , [Options as Object]) | Nothing | Exports the document to the specified file using one of the export file formats. Options for various formats are collected in <code>ExportOptionsFormat</code> objects. The appropriate file extension is automatically appended to the file name, except for Photoshop® documents. For these, you must include the file extension (.psd) in the file specification. |
| ExportPDFPreset (File as String) | Nothing | Exports the current PDF preset values to the file. |
| ExportPerspectiveGridPreset (File as String) | Nothing | Exports the current perspective grid preset values to the file. |
| ExportPrintPreset (File as String) | Nothing | Exports the current print preset values to the file. |
| ExportVariables (Filename as String) | Nothing | Exports the current variables from this document to the file. |
| FitArtboardToSelectedArt ([Index as Long]) | boolean | Resizes the artboard at the given index to fit currently selected art. Index default is 0. Returns <code>true</code> on success. |
| GetPerspectiveActivePlane () | AiPerspectiveGridPlaneType | Retrieves the active plane of the active perspective grid of the document. |
| HidePerspectiveGrid () | boolean | Hides the current active grid for the document. If no grid is visible, does nothing. Returns <code>true</code> if a grid is hidden. |
| ImageCapture (ImageFile as File , [ClipBounds as Rect], [Options as ImageCaptureOptions]) | Nothing | Captures the artwork content within the clipping boundaries in this document as a raster image, and writes the image data to a specified file. If the bounds parameter is omitted, captures the entire artwork. |
| ImportCharacterStyles (FileSpec as String) | Nothing | Loads the character styles from the Illustrator file. |
| ImportParagraphStyles (FileSpec as String) | Nothing | Loads the paragraph styles from the Illustrator file. |

| Method | Returns | What it does |
|---|--------------------------|---|
| ImportPDFPreset (FileSpec as String [, ReplacingPreset as Boolean]) | Nothing | Loads all PDF presets from a file. |
| ImportPerspectiveGridPreset (FileSpec as String [, PerspectivePreset as String]) | Nothing | Loads a named perspective-grid preset from a file, or, if no name is given, all presets in the file. |
| ImportPrintPreset (PrintPreset as String FileSpec as String) | Nothing | Loads the named print preset from the file. |
| ImportVariables (Filename as String) | Nothing | Imports <code>Variables</code> from the specified file into this document. |
| Paste () | Nothing | Pastes the contents of the clipboard into the current layer of the document; if the document is the frontmost then all pasted objects remain selected after the paste. |
| PrintOut (Options as PrintOptions) | Nothing | Prints the document. |
| Rasterize (SourceArt as Variant , [, ClipBounds as Rect ,] [,Options as RasterizeOptions]) | PageItem | Rasterizes the source art(s) within the specified clip bounds. The source art(s) is disposed of as a result of the rasterization. |
| RearrangeArtboards ([ArtboardLayout as AiDocumentArtboardLayout , ArtboardRowsOrCols as Long , ArtboardSpacing as Long , ArtboardMoveArtwork as Boolean]) | boolean | Rearranges artboards in the document. All arguments are optional. Default layout style is <code>aiGridByRow</code> . The second argument specifies the number of rows or columns, as appropriate for the chosen layout style, in the range [1..DocNumArtboards-1], or 1 (the default) for single row/column layouts. Spacing is a number of pixels, default 20. When last argument is true (the default), artwork is moved with the artboards. |
| Save () | Nothing | Saves the document in its current location. |

| Method | Returns | What it does |
|--|---------|--|
| SaveAs ([SaveIn as String] [, Options as: EPSSaveOptions / IllustratorSaveOptions / PDFSaveOptions]) | Nothing | Saves the document in the specified file as an Illustrator, EPS, or PDF file. |
| SelectObjectsOnActiveArtboard () | boolean | Selects the objects on the currently active artboard. Returns <code>true</code> on success. |
| SelectPerspectivePreset (PresetPreset as String) | boolean | Selects a predefined preset to define grid for the current document. Returns <code>true</code> on success. |
| SetPerspectiveActivePlane (PerspectiveGridPlane as AiPerspectiveGridPlaneType) | boolean | Sets the active plane of the active perspective grid of the document. Returns <code>true</code> on success. |
| ShowPerspectiveGrid () | boolean | Shows the current active grid for the document, or if no grid is active, shows the default grid. Returns <code>true</code> on success. |
| WindowCapture (ImageFile as String , WindowSize as Point) | Nothing | Captures the current document to the target TIFF image file. |

Closing documents

If you close the document, you should set your document reference to `Nothing` to prevent your script accidentally trying to access closed documents.

```
'Closes the frontmost document without saving

Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents(1)

docRef.Close 2' aiDoNotSaveChanges
Set docRef = Nothing
```

Creating a document with defaults

```
'Sets the default stroke and fill in the current document to false

Set appRef = CreateObject("Illustrator.Application")

If (appRef.Documents.Count = 0) Then
    Set frontDocument = appRef.Documents.Add
Else
    Set frontDocument = appRef.Documents(1)
End If
```

```
frontDocument.DefaultFilled = False  
frontDocument.DefaultStroked = False
```


Documents

A collection of documents.

Documents properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. The number of objects in the collection. |
| Parent | Object | Read-only. The parent of this object. |

Documents methods

| Method | Returns | What it does |
|---|--------------------------|---|
| Add ([documentColorSpace As AiDocumentColorSpace] [, width as Double] [, height as Double] [, numArtBoards as Long] [, artboardLayout as AiDocumentArtboardLayout] [, artboardSpacing as Double] [, artboardRowsOrCols as Long]) | Document | Creates a new document using optional parameters and returns a reference to the new document. |
| AddDocument (startupPreset as String , presetSettings as DocumentPreset) | Document | Creates a document from the preset, and returns a reference to the new document. |
| Index (item as Document) | Long | Returns the index position of the object within the collection. |
| Item (itemKey) | Document | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |

Creating a document with a color space

'Creates a new RGB document

```
Set appRef = CreateObject("Illustrator.Application")
appRef.Documents.Add 1 'aiDocumentRGBColor
```

DocumentPreset

A preset document template to use when creating a new document with [AddDocument](#).

DocumentPreset properties

| Property | Value type | What it is |
|---------------------------------|--|---|
| ArtboardLayout | AiDocumentArtboardLayout | The layout of artboards in the new document. Default: <code>AiGridByRow</code> |
| ArtboardRowsOrCols | Long | The number of rows (for rows layout) or columns (for column layout) of artboards. Range: 1 to <code>(NumArtboards - 1)</code> or 1 for single row or column layouts. Default: 1 |
| ArtboardSpacing | Double | The spacing between artboards in the new document. Default: 20.0 |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| DocumentColorSpace | AiDocumentColorSpace | The color space for the new document. |
| DocumentPreviewMode | AiDocumentPreviewMode | The preview mode for the new document. |
| DocumentRasterResolution | AiDocumentRasterResolution | The raster resolution for the new document. |
| DocumentTitle | String | The document title. |
| DocumentTransparencyGrid | AiDocumentTransparencyGrid | The transparency grid color for the new document. |
| DocumentUnits | AiRulerUnits | The ruler units for the new document. |
| Height | Double | The height in points. Default is 792.0 |
| NumArtboards | Long | The number of artboards for the new document. Range: 1 to 100. Default: 1 |
| Width | Double | The width in points. Default is 612.0 |

EPSSaveOptions

Options that may be supplied when saving a document as an Illustrator EPS file. `EPSSaveOptions` can be supplied only in conjunction with the `document.SaveAs` method. All properties are optional.

EPSSaveOptions properties

| Property | Value type | What it is |
|---|--|--|
| <code>Application</code> | Application | Read-only. The Illustrator Application object. |
| <code>ArtboardRange</code> | string | If <code>SaveMultipleArtboards</code> is <code>true</code> , this is considered for multi-asset extraction, which specifies the artboard range. An empty string extracts all the artboards. Default: empty string |
| <code>CMYKPostScript</code> | Boolean | If <code>true</code> , CMYK PostScript® is used. |
| <code>Compatibility</code> | AiCompatibility | Illustrator version compatibility for the EPS file format. Default: 15 ' aiIllustrator15 |
| <code>CompatibleGradientPrinting</code> | Boolean | If <code>true</code> , a raster item of the gradient or gradient mesh are created so the object can be printed on PostScript level 2 printers. Default: <code>false</code> |
| <code>EmbedAllFonts</code> | Boolean | If <code>true</code> , fonts are included in the EPS file. |
| <code>EmbedLinkedFiles</code> | Boolean | If <code>true</code> , linked image files are included in the saved document. |
| <code>FlattenOutput</code> | AiOutputFlattening | How should transparency be flattened for file formats older than Illustrator 9 or greater. |
| <code>IncludeDocumentThumbnails</code> | Boolean | If <code>true</code> , the thumbnail image of the EPS artwork is included. |
| <code>Overprint</code> | AiPDFOverprint | The style of overprinting. Default: 1 ' aiPreservePDFOverprint |
| <code>PostScript</code> | AiEPSPostScriptLevelEnum | Specifies the PostScript level to use when saving the file. |
| <code>Preview</code> | AiEPSPreview | Format for the EPS preview image. |
| <code>SaveMultipleArtboards</code> | boolean | If <code>true</code> , all artboards or range of artboards are saved. Default: <code>false</code> |

Saving to EPS

```
'Saves the current document to dest in EPS format
'dest contains the full path and file name to save to

Sub exportFileAsEPS (dest)
    Set appRef = CreateObject("Illustrator.Application")
    Set newSaveOptions = CreateObject("Illustrator.EPSSaveOptions")

    If appRef.Documents.Count > 0 Then
        newSaveOptions.CMYKPostScript = True
        newSaveOptions.EmbedAllFonts = True
        Set frontDocument = appRef.ActiveDocument
        frontDocument.SaveAs dest, newSaveOptions
    End If
End Sub
```

ExportOptionsAutoCAD

Options for exporting a document as an AutoCAD file, used with the `Document.Export` method. All properties are optional.

When you export a document, the default file extension (DWG) is appended automatically. You should not include a file extension in the file specification. To override the default AutoCAD export format, use the [ExportFileFormat](#) property.

ExportOptionsAutoCAD properties

| Property | Value type | What it is |
|--------------------------------------|---|---|
| <code>AlterPathsForAppearance</code> | Boolean | If <code>true</code> , paths are altered (if needed) to maintain appearance. Default: <code>false</code> |
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Colors</code> | AiAutoCADColors | The number of colors to export into the AutoCAD file. |
| <code>ConvertTextToOutlines</code> | Boolean | If <code>true</code> , text is converted to outlines. Default: <code>false</code> |
| <code>ExportFileFormat</code> | AiAutoCADExportFileFormat | The file format to which to export. Default: <code>1 'aiDWG</code> |
| <code>ExportOption</code> | AiAutoCADExportOption | Whether to preserve appearance or editability during export. Default: <code>1 ' aiMaximumEditability</code> |
| <code>ExportSelectedArtOnly</code> | Boolean | If <code>true</code> , only selected artwork is exported. Default: <code>false</code> |
| <code>RasterFormat</code> | AiAutoCADRasterFormat | The format in which to export raster art. |
| <code>ScaleLineweights</code> | Boolean | If <code>true</code> , line weights are scaled by the same scaling factor as the rest of the drawing. Default: <code>false</code> |
| <code>Unit</code> | AiAutoCADUnit | Measurement units from which to map. |
| <code>UnitScaleRatio</code> | Double | The ratio by which to scale output. |
| <code>Version</code> | AiAutoCADCompatibility | The release of AutoCAD to export to. |

ExportOptionsFlash

Specifies options that you can supply when exporting a document as Macromedia® Flash® (SWF) with the Document [Export](#) method.

When you export a document, the appropriate file extension is appended automatically. You should not include a file extension in the file specification.

All properties are optional.

ExportOptionsFlash properties

| Property | Value type | What it is |
|------------------------------|--|---|
| Application | Application | Read-only. The Illustrator Application object. |
| ArtboardRange | string | If <code>SaveMultipleArtboards</code> is true, this is considered for multi-asset extraction, which specifies the artboard range. An empty string extracts all the artboards. Default: empty string |
| ArtClipping | AiArtClippingOption | How the art is clipped during the output. Default: 1 ' aiOutputArtBounds |
| BackgroundColor | RGBColor | The background color of the exported Flash frames. |
| BackgroundLayers | Variant Array of Layer | A list of layers to be included as the static background of the exported Flash frames. |
| BlendAnimation | AiBlendAnimationType | How the blend art objects are animated when exported to Flash frames. Default: 0 ' aiNoBlendAnimation |
| Compressed | Boolean | If true, the exported file is compressed when exported. Default: false |
| ConvertTextToOutlines | Boolean | If true, all text is converted to outlines. Default: false |
| CurveQuality | Long | The amount of curve information that is preserved. Range: 0 to 10, Default: 7 |
| ExportAllSymbols | Boolean | If true, all symbols defined in the palette are exported. Default: false |
| ExportStyle | AiFlashExportStyle | The style in which the exported data are created in Flash. Default: 2 ' aiAsFlashFile |
| ExportVersion | AiFlashExportVersion | The version of the exported SWF file. Default: 9 ' aiFlashVersion9 |

| Property | Value type | What it is |
|------------------------------|---|---|
| FrameRate | Double | The display rate in frames per second. Range: 0.01 to 120.0; Default: 12.0 |
| IgnoreTextKerning | Boolean | If <code>true</code> , kerning information is ignored in text objects. Default: <code>false</code> |
| ImageFormat | AiFlashImageFormat | How the image in the exported Flash file is compressed. Default: 1 ' aiLossless |
| IncludeMetadata | Boolean | If <code>true</code> , includes minimal XMP metadata in the SWF file. Default: <code>false</code> |
| JPEGMethod | AiFlashJPEGMethod | The JPEG method to use. Default: 1 ' aiJPEGStandard |
| JPEGQuality | Long | Level of compression to use. Range: 0 to 10. Default: 3 |
| LayerOrder | AiLayerOrderType | The order in which layers are exported to Flash frames. Default: 1 ' aiBottomUp |
| Looping | Boolean | If <code>true</code> , the Flash file are set to loop when run. Default: <code>false</code> |
| PlaybackAccess | AiFlashPlaybackSecurity | The access level for the exported SWF file. Default: 1 ' aiPlaybackLocal |
| PreserveAppearance | Boolean | If <code>true</code> , preserve appearance. If <code>false</code> , preserve editability. Default: <code>false</code> |
| ReadOnly | Boolean | If <code>true</code> , the file is exported as read-only. Default: <code>false</code> |
| Replacing | AiSaveOptions | If a file with the same name already exists, should it be replaced. Default: 1 ' aiPromptToSaveChanges |
| Resolution | Double | The resolution in pixels per inch. Range: 72 to 2400. Default: 72 |
| SaveMultipleArtboards | boolean | If <code>true</code> , all artboards or range of artboards are saved. Default: <code>false</code> |

ExportOptionsGIF

Options that may be supplied when exporting a document as a GIF file. See the Document [Export](#) method for additional details.

When you export a document, the appropriate file extension is appended automatically. You should not include a file extension in the file specification.

ExportOptionsGIF properties

| Property | Value type | What it is |
|-------------------------|--|---|
| AntiAliasing | Boolean | If <code>true</code> , the exported image is anti-aliased. Default: <code>true</code> |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtBoardClipping | Boolean | If <code>true</code> , the exported image is clipped to the art board. Default: <code>false</code> |
| ColorCount | Long | The number of colors in the exported image's color table. Range: 2 to 256. Default: 128 |
| ColorDither | AiColorDitherMethod | The method used to dither colors in the exported image. Default: <code>&H4466736E ' aiDiffusion</code> |
| ColorReduction | AiColorReductionMethod | The method used to reduce the number of colors in the exported image. Default: <code>&H536C7476 ' aiSelective</code> |
| DitherPercent | Long | The amount that the colors of the exported image are dithered, where 100.0 is 100% |
| HorizontalScale | Double | The horizontal scaling factor applied to the exported image, where 100.0 is 100%. Default: 100.0 |
| InfoLossPercent | Long | The level of information loss allowed during compression, where 100.0 is 100%. Default: 0 |
| Interlaced | Boolean | If <code>true</code> , the exported image is interlaced. Default: <code>false</code> |
| Matte | Boolean | If <code>true</code> , the art board is matted with a color. Default: <code>true</code> |
| MatteColor | RGBColor | The color to use when matting the art board. Default: <code>white</code> |
| SaveAsHTML | Boolean | If <code>true</code> , the exported image is saved with an accompanying HTML file. Default: <code>false</code> |
| Transparency | Boolean | If <code>true</code> , the exported image uses transparency. Default: <code>true</code> |

| Property | Value type | What it is |
|----------------------------|------------|---|
| <code>VerticalScale</code> | Double | The vertical scaling factor applied to the exported image, where 100.0 is 100%. Default: 100.0 |
| <code>WebSnap</code> | Long | How much should the color table be changed to match the web palette, where 100 is maximum. Default: 0 |

Exporting as GIF

```
'Exports the current document as GIF to dest
'dest contains the full path and file name to save to

Sub exportFileAsGIF (dest)
    Set appRef = CreateObject("Illustrator.Application")
    Set gifExportOptions = CreateObject("Illustrator.ExportOptionsGIF")

    If appRef.Documents.Count > 0 Then
        gifExportOptions.AntiAliasing = False
        gifExportOptions.ColorCount = 64
        gifExportOptions.ColorDither = 1147564910'aiDiffusion
        Set docRef = appRef.ActiveDocument
        Call docRef.Export (dest, 6, gifEportOptions)' 6 = aiGIF
    End If
End Sub
```

ExportOptionsJPEG

Options that may be supplied when exporting a document as a JPEG file. See the Document [Export](#) method for additional details.

When you export a document, the appropriate file extension is appended automatically. You should not include a file extension in the file specification.

ExportOptionsJPEG

| Property | Value type | What it is |
|-------------------------|-----------------------------|--|
| AntiAliasing | Boolean | If <code>true</code> , the exported image is anti-aliased. Default: <code>true</code> |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtBoardClipping | Boolean | If <code>true</code> , the exported image is clipped to the art board. Default: <code>false</code> |
| BlurAmount | Double | The amount of blur to apply to the exported image. Range: 0.0 to 2.0. Default: 0.0 |
| HorizontalScale | Double | The horizontal scaling factor applied to the exported image, where 100.0 is 100%. Default: 100.0 |
| Matte | Boolean | If <code>true</code> , the art board is matted with a color. Default: <code>true</code> |
| MatteColor | RGBColor | The color to use when matting the art board. Default: <code>white</code> |
| Optimization | Boolean | If <code>true</code> , the exported image is optimized for web viewing. Default: <code>true</code> |
| QualitySetting | Long | The quality of the exported image. Range: 0 to 100. Default: 30 |
| SaveAsHTML | Boolean | If <code>true</code> , the exported image is saved with an accompanying HTML file. Default: <code>false</code> |
| VerticalScale | Double | The vertical scaling factor applied to the exported image, where 100.0 is 100%. Default: 100.0 |

Exporting to JPEG

```
'Exports the current document as JPEG to dest
'dest contains the full path and file name to save to

Sub exportFileAsJPEG (dest)
  Set appRef = CreateObject("Illustrator.Application")
  Set jpegExportOptions = CreateObject("Illustrator.ExportOptionsJPEG")

  If appRef.Documents.Count > 0 Then
    jpegExportOptions.AntiAliasing = False
    jpegExportOptions.QualitySetting = 70
    Set docRef = appRef.ActiveDocument
    Call docRef.Export (dest, 1, jpegExportOptions) ' 1 = aiJPEG
  End If
End Sub
```

ExportOptionsPhotoshop

Options that may be supplied when exporting a document as an Adobe Photoshop® file. See the Document [Export](#) method for additional details.

When you export a document, the appropriate file extension is appended automatically. You should not include a file extension in the file specification.

All properties are optional.

ExportOptionsPhotoshop properties

| Property | Value type | What it is |
|------------------------------|-----------------------------------|---|
| AntiAliasing | Boolean | If <code>true</code> , the exported image is anti-aliased. Default: <code>true</code> |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtboardRange | string | If <code>SaveMultipleArtboards</code> is <code>true</code> , this is considered for multi-asset extraction, which specifies the artboard range. An empty string extracts all the artboards. Default: empty string |
| EditableText | Boolean | If <code>true</code> , text objects are exported as editable text layers. Default: <code>true</code> |
| EmbedICCProfile | Boolean | If <code>true</code> , an ICC profile are embedded in the exported file. Default: <code>false</code> |
| ImageColorSpace | AiImageColorSpace | The color space of the exported file. Default: <code>aiImageRGB ' 2</code> |
| MaximumEditability | Boolean | If <code>true</code> , preserve as much of the original document's structure as possible when exporting. Default: <code>true</code> |
| Resolution | Double | The resolution of the exported file in dots per inch. Range: 72 to 2400. Default: 150 |
| SaveMultipleArtboards | boolean | If <code>true</code> , all artboards or range of artboards are saved. Default: <code>false</code> |
| Warnings | Boolean | If <code>true</code> , a warning dialog are displayed because of conflicts in the export settings. Default: <code>true</code> |
| WriteLayers | Boolean | If <code>true</code> , the document layers are preserved in the exported file. Default: <code>true</code> |

Exporting to Photoshop

This example exports the current document as a Photoshop 5 file with layers.

```
'Exports the current document as PSD (Photoshop) to dest
'dest contains the full path and file name to save to

Sub exportFileAsPSD (dest)
    Set appRef = CreateObject("Illustrator.Application")
    Set psdExportOptions = CreateObject("Illustrator.ExportOptionsPhotoshop")

    If appRef.Documents.Count > 0 Then
        psdExportOptions.Resolution = 150
        Set docRef = appRef.ActiveDocument
        Call docRef.Export (dest, 2, psdExportOptions) ' 2 = aiPhotoshop
    End If
End Sub
```

ExportOptionsPNG8

Options that may be supplied when exporting a document as an 8-bit PNG file. See the Document [Export](#) method for additional details.

When you export a document, the appropriate file extension is appended automatically. You should not include a file extension in the file specification.

ExportOptionsPNG8 properties

| Property | Value type | What it is |
|-------------------------|--|---|
| AntiAliasing | Boolean | If <code>true</code> , the exported image is anti-aliased. Default: <code>true</code> |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtBoardClipping | Boolean | If <code>true</code> , the exported image is clipped to the art board. Default: <code>false</code> |
| ColorCount | Long | The number of colors in the exported image's color table. Range: 2 to 256. Default: 128 |
| ColorDither | AiColorDitherMethod | The method used to dither colors in the exported image. Default: <code>&H4466736E ' aiDiffusion</code> |
| ColorReduction | AiColorReductionMethod | The method used to reduce the number of colors in the exported image. Default: <code>&H536C7476 ' aiSelective</code> |
| DitherPercent | Long | Specifies how much the colors of the exported image are dithered, where 100.0 is 100% |
| HorizontalScale | Double | The horizontal scaling factor applied to the exported image, where 100.0 is 100%. Default: 100.0 |
| Interlaced | Boolean | If <code>true</code> , the exported image are interlaced. Default: <code>false</code> |
| Matte | Boolean | If <code>true</code> , the art board is matted with a color. Default: <code>true</code> |
| MatteColor | RGBColor | The color to use when matting the art board. Default: <code>white</code> |
| SaveAsHTML | Boolean | If <code>true</code> , the exported image is saved with an accompanying HTML file. Default: <code>false</code> |
| Transparency | Boolean | If <code>true</code> , the exported image uses transparency. Default: <code>true</code> |

| Property | Value type | What it is |
|----------------------------|------------|---|
| <code>VerticalScale</code> | Double | The vertical scaling factor applied to the exported image, where 100.0 is 100%. Default: 100.0 |
| <code>WebSnap</code> | Long | Specifies how much the color table are changed to match the Web palette, where 100 is maximum. Default: 0 |

Exporting to PNG8

This example exports the current document as a PNG8 file.

```
'Exports the current document as PNG8 to dest
'dest contains the full path and file name to save to

Sub exportFileAsPNG (dest)
    Set appRef = CreateObject("Illustrator.Application")
    Set png8ExportOptions = CreateObject("Illustrator.ExportOptionsPNG8")

    If appRef.Documents.Count > 0 Then
        png8ExportOptions.AntiAliasing = False
        png8ExportOptions.Interlaced = True
        Set docRef = appRef.ActiveDocument
        Call docRef.Export (dest, 4, png8ExportOptions) ' 4 = aiPNG8
    End If
End Sub
```

ExportOptionsPNG24

Options that may be supplied when exporting a document as a 24-bit PNG file. See the Document [Export](#) method for additional details.

When you export a document, the appropriate file extension is appended automatically. You should not include a file extension in the file specification.

ExportOptionsPNG24 properties

| Property | Value type | What it is |
|-------------------------|-----------------------------|--|
| AntiAliasing | Boolean | If <code>true</code> , the exported image is anti-aliased. Default: <code>true</code> |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtBoardClipping | Boolean | If <code>true</code> , the exported image is clipped to the art board. Default: <code>false</code> |
| HorizontalScale | Double | The horizontal scaling factor applied to the exported image, where 100.0 is 100%. Default: 100.0 |
| Matte | Boolean | If <code>true</code> , the art board is matted with a color. Default: <code>true</code> |
| MatteColor | RGBColor | The color to use when matting the art board. Default: <code>white</code> |
| SaveAsHTML | Boolean | If <code>true</code> , the exported image is saved with an accompanying HTML file. Default: <code>false</code> |
| Transparency | Boolean | If <code>true</code> , the exported image uses transparency. Default: <code>true</code> |
| VerticalScale | Double | The vertical scaling factor applied to the exported image, where 100.0 is 100%. Default: 100.0 |

Exporting to PNG24

This example exports the current document as a PNG24 file with specific options.

```
'Exports current document as PNG24 to dest
'dest contains the full path and file name to save to

Sub exportFileAsPNG (dest)
    Set appRef = CreateObject("Illustrator.Application")
    Set png24ExportOptions = CreateObject("Illustrator.ExportOptionsPNG24")

    If appRef.Documents.Count > 0 Then
        png24ExportOptions.AntiAliasing = False
        png24ExportOptions.Transparency = False
        Set docRef = appRef.ActiveDocument
        Call docRef.Export (dest, 5, png24ExportOptions) ' 5 = aiPNG24
    End If
End Sub
```

ExportOptionsSVG

Options that may be supplied when exporting a document as a SVG file. See the Document [Export](#) method for additional details.

When you export a document, the appropriate file extension is appended automatically. You should not include a file extension in the file specification.

ExportOptionsSVG properties

| Property | Value type | What it is |
|------------------------------------|--|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Compressed | Boolean | If <code>true</code> , the exported file is compressed. Default: <code>false</code> |
| CoordinatePrecision | Long | The decimal precision for element coordinate values. Range: 1 to 7. Default: 3 |
| CSSProperties | AiSVGCSSPropertyLocation | Specifies how the CSS properties of the document are included in the exported file |
| DocumentEncoding | AiSVGDocumentEncoding | Specifies how the text in the document is encoded. Default: 1 ' aiASCII |
| DTD | AiSVGDTDVersion | The SVG version to which the file should conform. Default: 2 ' aiSVG1_1 |
| EmbedRasterImages | Boolean | If <code>true</code> , all raster images contained in the document are embedded in the saved file. |
| FontSubsetting | AiSVGFontSubsetting | The font glyphs included in the export file. |
| FontType | AiSVGFontType | The type of font included in the exported file. Default: 1 ' aiCEFFont |
| IncludeFileInfo | Boolean | If <code>true</code> , the XMP (Extensible Metadata Platform) metadata are included in the output file. Default: <code>false</code> |
| IncludeVariablesAndDatasets | Boolean | If <code>true</code> , Variables and Datasets are included. Default: <code>false</code> |

| Property | Value type | What it is |
|-----------------------------|------------|---|
| OptimizeForSVGViewer | Boolean | If <code>true</code> , the Adobe namespace is included. Default: <code>false</code> |
| PreserveEditability | Boolean | If <code>true</code> , preserve Illustrator editing capability when exporting the document. Default: <code>false</code> |
| Slices | Boolean | If <code>true</code> , preserve slice data in exported document. Default: <code>false</code> |
| SVGAutoKerning | Boolean | If <code>true</code> , SVG automatic kerning is allowed in the file. Default: <code>false</code> |
| SVGTextOnPath | Boolean | If <code>true</code> , the SVG text-on-path construct is allowed in the file. Default: <code>false</code> |

Exporting to SVG

```
'Exports the current document as SVG to dest
'dest contains the full path and file name to save to

Sub exportFileAsSVG (dest)
    Set appRef = CreateObject("Illustrator.Application")
    Set svgExportOptions = CreateObject("Illustrator.ExportOptionsSVG")

    If appRef.Documents.Count > 0 Then
        svgExportOptions.EmbedRasterImages = True
        svgExportOptions.FontSubsetting = 7 'aiAllGlyphs
        Set docRef = appRef.ActiveDocument
        Call docRef.Export (dest, 3, svgExportOptions) ' 3 = aiSVG
    End If
End Sub
```

ExportOptionsTIFF

Options that may be supplied when exporting a document as a TIFF file. See the Document [Export](#) method for additional details.

When you export a document, the appropriate file extension is appended automatically. You should not include a file extension in the file specification.

All properties are optional.

ExportOptionsTIFF properties

| Property | Value type | What it is |
|------------------------------|-----------------------------------|---|
| AntiAliasing | boolean | If <code>true</code> , the exported image should be anti-aliased. Default: <code>true</code> |
| ArtboardRange | string | If <code>SaveMultipleArtboards</code> is <code>true</code> , this is considered for multi-asset extraction, which specifies the artboard range. An empty string extracts all the artboards. Default: empty string |
| ByteOrder | AiTIFFByteOrder | The byte order to use in the new file. |
| ImageColorSpace | AiImageColorSpace | The color space of the exported file. Default: <code>aiImageRGB ' 2</code> |
| IZWCompression | boolean | If <code>true</code> , use IZW compression in the new file. |
| Resolution | number (double) | Resolution of the exported file in dots per inch (dpi). Range: 72.0 to 2400.0. Default: 150.0 |
| SaveMultipleArtboards | boolean | If <code>true</code> , all artboards or range of artboards are saved. Default: <code>false</code> |

Exporting to TIFF format

```
'Exports the current document as TIFF to dest
'dest contains the full path and file name to save to

Sub exportFileAsTIFF (dest)
  Set appRef = CreateObject("Illustrator.Application")
  Set tiffExportOptions = CreateObject("Illustrator.ExportOptionsTIFF")

  If appRef.Documents.Count > 0 Then
    tiffExportOptions.imageColorSpace = 2 'aiImageRGB
    tiffExportOptions.resolution = 150
    tiffExportOptions.lZWCompression = true

    Set docRef = appRef.ActiveDocument
    Call docRef.Export (dest, 9, tiffExportOptions) ' 9 = aiTIFF
  End If
End Sub
```

FreeHandFileOptions

Options for opening a FreeHand file.

FreeHandFileOptions properties

| Property | Value type | What it is |
|------------------------------|-----------------------------|--|
| Application | Application | Read-only. The Illustrator Application object. |
| ConvertTextToOutlines | Boolean | If <code>true</code> , converts all text to outlines. Default: <code>false</code> |
| ImportSinglePage | Boolean | If <code>true</code> , imports only the page specified in the <code>PageToOpen</code> property. Default: <code>true</code> |
| PageToOpen | Long | The number of the page to import when opening a multipage document. Valid only when <code>ImportSinglePage</code> is <code>true</code> . |
| Parent | Document | Read-only. The document that contains this object. |

FXGSaveOptions

Specifies options which may be supplied when saving a document as an FXG file. All properties are optional.

FXGSaveOptions properties

| Property | Value type | What it is |
|------------------------------------|---|---|
| Application | Application | Read-only. The Illustrator Application object. |
| ArtboardRange | string | If <code>SaveMultipleArtboards</code> is <code>true</code> , this is considered for multi-asset extraction, which specifies the artboard range. An empty string extracts all the artboards. Default: empty string |
| BlendsPolicy | AiBlendsExpandPolicy | The policy used by FXG to expand blends. Default: <code>AiAutomaticallyConvertBlends</code> |
| DownsampleLinkedImages | boolean | If <code>true</code> , linked images are downsampled (at 72 dpi). Default: <code>false</code> |
| FiltersPolicy | AiFiltersPreservePolicy | The policy used by FXG to preserve filters. Default: <code>3'aiKeepFiltersEditable</code> |
| GradientsPolicy | AiGradientsPreservePolicy | The policy used by FXG to preserve gradients. Default: <code>4'aiAutomaticallyConvertGradients</code> |
| IncludeUnusedSymbols | boolean | If <code>true</code> , unused symbols are included. Default: <code>false</code> |
| PreserveEditingCapabilities | boolean | If <code>true</code> , the editing capabilities of FXG are preserved. Default: <code>true</code> |
| SaveMultipleArtboards | boolean | If <code>true</code> , all artboards or range of artboards are saved. Default: <code>false</code> |
| TextPolicy | AiTextPreservePolicy | The policy used by FXG to preserve text. Default: <code>4'aiAutomaticallyConvertText</code> |
| Version | AiFXGVersion | The version of the FXG file format to create. Default: <code>2'aiVersion2Pt0</code> |

Gradient

A gradient definition contained in a document. A script can create new gradients.

Gradient properties

| Property | Value type | What it is |
|----------------------|--------------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| GradientStops | GradientStops | Read-only. The gradient stops contained in this gradient. |
| Name | String | The gradient's name. |
| Parent | Document | Read-only. The document that contains this gradient. |
| Type | AiGradientType | The kind of the gradient, either radial or linear. |

Gradient methods

| Method | Returns | What it does |
|----------------------|---------|---------------------|
| Delete () | Nothing | Deletes the object. |

Creating and applying a gradient

```
'Creates a new gradient in the current document with 2
'gradient stops, then applies the gradient to the front-
'most path item
```

```
Set appRef = CreateObject("Illustrator.Application")
Set frontDocument = appRef.ActiveDocument
```

```
'Create a color for both ends of the gradient
Set startColor = CreateObject("Illustrator.RGBColor")
Set endColor = CreateObject("Illustrator.RGBColor")
```

```
startColor.Red = 0
startColor.Green = 100
startColor.Blue = 255
endColor.Red = 220
endColor.Green = 0
endColor.Blue = 100
```

```
'Create a new gradient
'new gradients always have 2 stops
Set newGradient = frontDocument.Gradients.Add
newGradient.Name = "Gradient created from script"
newGradient.Type = 1 'aiLinearGradient
```

```
'Modify the first gradient stop.
Set locationSpecification = newGradient.GradientStops(1)
```

```
locationSpecification.RampPoint = 30
locationSpecification.MidPoint = 60
locationSpecification.Color = startColor

'Modify the last gradient stop.
'The MidPoint for the last gradient stop is ignored
Set locationSpecification = newGradient.GradientStops(2)
locationSpecification.RampPoint = 80
locationSpecification.Color = endColor

'construct an Illustrator.GradientColor object referring to the
'newly created gradient
Set ColorOfGradient = CreateObject("Illustrator.GradientColor")
ColorOfGradient.Gradient = newGradient

'now get the frontmost path item and
'apply the new gradient as its fill
Set topPath = frontDocument.PathItems(1)
topPath.Filled = True
topPath.fillColor = ColorOfGradient
```


GradientColor

A gradient color specification, used in conjunction with the `Gradient` property of the `Color` specification.

A script can create a `GradientColor` using a reference to an existing gradient in the application. If no existing gradient object is referenced, a default gradient is supplied. An origin is used to specify the center point of the gradient in this specific gradient color. Single values are used to specify the gradient vector angles and lengths. A matrix may be specified to further transform the gradient color.

GradientColor properties

| Property | Value type | What it is |
|---------------------|-------------------------------|--|
| Angle | Double | The gradient vector angle in degrees. |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Gradient | Gradient | Reference to the object defining the gradient. |
| HiliteAngle | Double | The gradient hilite vector angle in degrees. |
| HiliteLength | Double | The gradient hilite vector length. |
| Length | Double | The gradient vector length. |
| Matrix | Matrix | An additional transformation matrix to manipulate the gradient path. |
| Origin | Variant Array of 2 Doubles | The gradient vector origin. |

Changing a gradient color

```
'Creates a new RGB color then applies it as the color
'at the first gradient stop of the first gradient

Set appRef = CreateObject("Illustrator.Application")

Set frontDocument = appRef.Documents.Add(1) ' aiDocumentRGBColor

'Get a reference to the gradient that you want to change
Set firstGradient = frontDocument.Gradients(1)

'Create the new color
Set startColor = CreateObject("Illustrator.RGBColor")
startColor.Red = 0
startColor.Green = 255
startColor.Blue = 0

firstGradient.GradientStops(1).Color = startColor
```

Gradients

A collection of `Gradient` objects in a document.

Gradients properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. The number of objects in the collection. |
| <code>Parent</code> | Document | Read-only. The parent document of this object. |

Gradients methods

| Method | Returns | What it does |
|--|--------------------------|---|
| <code>Add</code> () | Gradient | Creates a new object |
| <code>Index</code> (item as Gradient) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | Gradient | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Removing a gradient

```
'Deletes the first gradient in the current document

Set appRef = CreateObject("Illustrator.Application")
Set frontDocument = appRef.ActiveDocument

'Get a reference to the gradient that you want to delete
Set gradientToDelete = frontDocument.Gradients(1)

'Now delete the gradient using the collection
frontDocument.Gradients.Remove gradientToDelete
```

GradientStop

A gradient stop definition contained in a specific gradient. Represents a point on a gradient that specifies a color change. For an example, see [GradientColor](#).

GradientStop properties

| Property | Value type | What it is |
|--------------------|-----------------------------|--|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Color | Color info | The color linked to this gradient stop. |
| Midpoint | Double | The distance between two <code>GradientStops</code> , in percentage. Range: 13.0 to 87.0 |
| Opacity | Double | The opacity value for the gradient stop. Range: 0.0 to 100.0 |
| Parent | Document | Read-only. The document that contains this gradient stop. |
| RampPoint | Double | The location of the color in the blend. Range: 0.0 to 100.0, where 100.0 is 100% |

GradientStop methods

| Method | Returns | What it does |
|----------------------|---------|---------------------|
| Delete () | Nothing | Deletes the object. |

GradientStops

A collection of `GradientStop` objects in a specific gradient.

GradientStops properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. The number of objects in the collection. |
| <code>Parent</code> | Document | Read-only. The document that contains this object. |

GradientStops methods

| Method | Returns | What it does |
|--|------------------------------|---|
| <code>Add</code> () | GradientStop | Creates a new object |
| <code>Index</code> (item as <code>GradientStop</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | GradientStop | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Adding a new gradient stop

```
'Adds a new gray gradient stop to an existing gradient

Set appRef = CreateObject("Illustrator.Application")
Set frontDocument = appRef.ActiveDocument

'Get a reference to the gradient that you want to change
Set changeGradient = frontDocument.Gradients(1)

'Get a reference to the gradient stop that is the last one
'before you add a new gradient stop
originalCount = changeGradient.GradientStops.Count
Set lastStop = changeGradient.GradientStops(originalCount)

'add the new gradient stop
Set newStop = changeGradient.GradientStops.Add

'Set the values of the new gradient stop. move the original
'last gradient stop a bit to the left, and
'insert the new gradient stop at the old gradient stop's position
newStop.RampPoint = lastStop.RampPoint
lastStop.RampPoint = lastStop.RampPoint - 10

'Create a new color to apply to the newly created gradient stop
'choose a Gray tint value of 70%
Set newStopColor = CreateObject("Illustrator.GrayColor")
newStopColor.Gray = 70
newStop.Color = newStopColor
```

GraphicStyle

Each graphic style defines a set of appearance attributes that you can apply to `PageItem` objects. Graphic styles are contained in documents. Scripts cannot create new graphic styles.

GraphicStyle properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Name | String | The <code>GraphicStyle</code> name. |
| Parent | Document | Read-only. The document that contains this object. |

GraphicStyle methods

| Method | Returns | What it does |
|---|---------|--|
| ApplyTo (artItem as <code>PageItem</code>) | Nothing | Applies the <code>GraphicStyle</code> to a specific art item. |
| MergeTo (artItem as <code>PageItem</code>) | Nothing | Merges this style into the current styles of a specified art item. |
| Delete () | Nothing | Deletes the object. |

Applying a graphic style

This example duplicates and groups the current selection, applying the second graphic style in the document to the items in the group.

```
'Creates a new group item, adds a duplicate of each
'selected item to the group then applies a graphic style
'to the group

Set appRef = CreateObject("Illustrator.Application")

If appRef.Documents.Count > 0 Then
    If Not IsEmpty(appRef.Selection) Then
        mySelection = appRef.Selection
        endIndex = UBound(mySelection)
        startIndex = LBound(mySelection)
        Set newGroup = appRef.ActiveDocument.GroupItems.Add
        For i = startIndex To endIndex
            Set artItem = mySelection(i)
            Set dupItem = artItem.Duplicate(newGroup, aiPlaceAtEnd)
            appRef.ActiveDocument.GraphicStyles(2).ApplyTo dupItem
        Next
    End If
End If
```

GraphicStyles

A collection of graphic styles in a document.

GraphicStyles properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. The number of objects in the collection. |
| Parent | Document | Read-only. The document that contains this object. |

GraphicStyles methods

| Method | Returns | What it does |
|--|------------------------------|---|
| Index (item as <code>GraphicStyle</code>) | Long | Returns the index position of the object within the collection. |
| Item (itemKey) | GraphicStyle | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| RemoveAll () | Nothing | Deletes all objects in this collection. |

Counting graphic styles

```
'Counts the number of graphic styles in the current document
'and stores in numStyles
```

```
Set appRef = CreateObject("Illustrator.Application")
```

```
If appRef.Documents.Count > 0 Then
    numStyles = appRef.ActiveDocument.GraphicStyles.Count
End If
```

GraphItem

A graph artwork item. Scripts cannot create new graph items.

GraphItem properties

| Property | Value type | What it is |
|------------------------|--|--|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtworkKnockout | AiKnockoutState | Is this <code>GraphItem</code> used to create a knockout, and if so, what kind. |
| BlendingMode | AiBlendModes | The mode used when compositing an object. |
| ContentVariable | Variable | The content variable bound to this <code>GraphItem</code> . It is not necessary to set the type of the <code>ContentVariable</code> before binding. Illustrator automatically sets the type to <code>AiGraph</code> . |
| ControlBounds | Variant Array Of 4 <code>Doubles</code> | Read-only. The bounds of the object including stroke width and controls. |
| Editable | Boolean | Read-only. If <code>true</code> , the <code>GraphItem</code> is editable. |
| GeometricBounds | Variant Array Of 4 <code>Doubles</code> | Read-only. The bounds of the <code>GraphItem</code> excluding stroke width. |
| Height | Double | The height of the <code>GraphItem</code> , calculated on the <code>GeometricBounds</code> . |
| Hidden | Boolean | If <code>true</code> , this <code>GraphItem</code> is hidden. |
| IsIsolated | Boolean | If <code>true</code> , this <code>GraphItem</code> is isolated. |
| Layer | Layer | Read-only. The <code>Layer</code> to which this <code>GraphItem</code> belongs. |
| Left | Double | The position of the left side of the <code>GraphItem</code> (in points, measured from the left side of the page). |
| Locked | Boolean | If <code>true</code> , this <code>GraphItem</code> is locked. |
| Name | String | The name of this <code>GraphItem</code> . |
| Note | String | The note assigned to this <code>GraphItem</code> . |
| Opacity | Double | The opacity of the <code>GraphItem</code> . Range: 0.0 to 100.0 |
| Parent | Layer or GroupItem | Read-only. The parent of this <code>GraphItem</code> . |
| Position | Variant Array Of 2 <code>Doubles</code> | The position (in points) of the top left corner of the item in the format <code>[x, y]</code> . Does not include stroke weight. |
| Selected | Boolean | If <code>true</code> , this <code>GraphItem</code> is selected. |

| Property | Value type | What it is |
|---------------------------|---|---|
| Sliced | Boolean | If <code>true</code> , this <code>GraphItem</code> is sliced. Default: <code>false</code> |
| Tags | Tags | Read-only. The collection of <code>Tags</code> contained in this <code>GraphItem</code> . |
| Top | Double | The position of the top of the item (in points, measured from the bottom of the page). |
| URL | String | The value of the Adobe URL tag assigned to this <code>GraphItem</code> . |
| VisibilityVariable | Variable | The visibility variable bound to this <code>GraphItem</code> . It is not necessary to set the type of the <code>VisibilityVariable</code> before binding. Illustrator automatically sets the type to <code>AiVisibility</code> . |
| VisibleBounds | Variant Array of 4 <code>Doubles</code> | Read-only. The visible bounds of the <code>GraphItem</code> including stroke width. |
| Width | Double | The width of the <code>GraphItem</code> , based on the <code>GeometricBounds</code> . |
| WrapInside | Boolean | If <code>true</code> , the text frame object is wrapped inside this object. |
| WrapOffset | Double | The offset to use when wrapping text around this object. |
| Wrapped | Boolean | If <code>true</code> , wrap text frame objects around this object (text frame must be above the object). |
| ZOrderPosition | Long | Read-only. The position of this <code>GraphItem</code> within the stacking order of the <code>GroupItem</code> or <code>Layer</code> (Parent) that contains the <code>GraphItem</code> . |

GraphItem methods

| Method | Returns | What it does |
|----------------------|---------|---|
| Copy () | Nothing | Copies the <code>GraphItem</code> to the clipboard; the associated document must be the frontmost document. |
| Cut () | Nothing | Cuts the <code>GraphItem</code> to the clipboard; the associated document must be the frontmost document. |
| Delete () | Nothing | Deletes the object. |

| Method | Returns | What it does |
|---|---------|---|
| Duplicate ([relativeObject as Object], [insertionLocation as AiElementPlacement]) | Object | Duplicates the art item, optionally specifying the location and position for the copy. |
| Move (relativeObject as Object , insertionLocation as AiElementPlacement) | Nothing | Moves the art item, specifying the new location and position. |
| Resize (scaleX as Double , scaleY as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, scaleAbout as AiTransformation]) | Nothing | Scales the <code>GraphItem</code> where <code>scaleX</code> is the horizontal scaling factor and <code>scaleY</code> is the vertical scaling factor. 100.0 = 100% |
| Rotate (angle as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, rotateAbout as AiTransformation]) | Nothing | Rotates the <code>GraphItem</code> relative to the current rotation; counter-clockwise if the <code>Angle</code> value is positive, clockwise if the value is negative. |
| Transform (transformationMatrix as Matrix , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, transformAbout as AiTransformation]) | Nothing | Transforms the <code>GraphItem</code> by applying a transformation matrix. |
| Translate ([deltaX as Double] [, deltaY as Double] [, transformObjects as Boolean] [, transformFillPatterns as Boolean] [, transformFillGradients as Boolean] [, transformStrokePatterns as Boolean]) | Nothing | Repositions the <code>GraphItem</code> relative to the current position, where <code>deltaX</code> is the horizontal offset and <code>deltaY</code> is the vertical offset. |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the <code>GraphItem</code> 's position in the stacking order of the group or layer (<code>Parent</code>) of this object. |

Rotating graph items

```
'Rotates each graph item in the current document 90 degrees.  
  
Set appRef = CreateObject("Illustrator.Application")  
  
'Rotate each graph item 90 degrees  
For Each graphRef In appRef.ActiveDocument.GraphItems  
    graphRef.Rotate 90  
Next  
appRef.Redraw
```

GraphItems

A collection of `GraphItem` objects.

GraphItems properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. The number of objects in the collection. |
| <code>Parent</code> | Document | Read-only. The document that contains this object. |

GraphItems methods

| Method | Returns | What it does |
|---|---------------------------|---|
| <code>Index</code> (<code>item</code> as <code>GraphItem</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (<code>itemKey</code>) | GraphItem | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

GrayColor

A grayscale color specification used to apply a gray color to a layer or art item.

GrayColor properties

| Property | Value type | What it is |
|-------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator Application object. |
| Gray | Double | The tint of the gray. Range: 0.0 to 100.0, where 0.0 is black and 100.0 is white. |

Changing word color to gray

```
'Sets the fill color of the first word in the document to gray
```

```
Set appRef = CreateObject("Illustrator.Application")  
Set textColor = CreateObject("Illustrator.GrayColor")
```

```
'Get a reference to the first word in the active document  
Set text = appRef.ActiveDocument.TextFrames(1).TextRange  
Set firstWord = text.Words(1)
```

```
'Create the new color  
textColor.Gray = 45
```

```
firstWord.CharacterAttributes.fillColor = textColor
```

GroupItem

A grouped set of art items. Group items can contain all of the same page items that a layer can contain, including other nested groups.

Paths contained within a group or compound path in a document are returned as individual paths when a script asks for the paths contained in the document. However, paths contained in a group or compound path are not returned when a script asks for the paths in a layer which contains the group or compound path.

GroupItem properties

| Property | Value type | What it is |
|--------------------------|--|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtworkKnockout | AiKnockoutState | Is this object used to create a knockout, and if so, what kind. |
| BlendingMode | AiBlendModes | The mode used when compositing an object. |
| Clipped | Boolean | If <code>true</code> , the <code>GroupItem</code> is clipped to the clipping mask. |
| CompoundPathItems | CompoundPathItems | Read-only. The <code>CompoundPathItems</code> contained in this <code>GroupItem</code> . |
| ControlBounds | Variant Array of 4 <code>Double</code> s | Read-only. The bounds of the object including stroke width and controls. |
| Editable | Boolean | Read-only. If <code>true</code> , this <code>GroupItem</code> is editable. |
| GeometricBounds | Variant Array of 4 <code>Double</code> s | Read-only. The bounds of the object excluding stroke width. |
| GraphItems | GraphItems | Read-only. The raster items contained in this <code>GroupItem</code> . |
| GroupItems | GroupItems | Read-only. The <code>GroupItems</code> contained in this <code>GroupItem</code> . |
| Height | Double | The height of the <code>GroupItem</code> , based on the <code>GeometricBounds</code> . |
| Hidden | Boolean | If <code>true</code> , this <code>GroupItem</code> is hidden. |
| IsIsolated | Boolean | If <code>true</code> , this object is isolated. |
| Layer | Layer | Read-only. The layer to which this <code>GroupItem</code> belongs. |
| Left | Double | The position of the left side of the <code>GroupItem</code> (in points, measured from the left side of the page). |
| LegacyTextItems | LegacyTextItems | Read-only. The legacy text items in the group. |
| Locked | Boolean | If <code>true</code> , this <code>GroupItem</code> is locked. |

| Property | Value type | What it is |
|---------------------------|---|---|
| MeshItems | MeshItems | Read-only. The <code>MeshItems</code> contained in this <code>GroupItem</code> . |
| Name | String | The name of this <code>GroupItem</code> . |
| NonNativeItems | NonNativeItems | Read-only. The non-native art items in this group. |
| Note | String | The note assigned to this <code>GroupItem</code> . |
| Opacity | Double | The opacity of the object. Range: 0.0 to 100.0 |
| PageItems | PageItems | Read-only. The <code>PageItems</code> contained in this <code>GroupItem</code> . |
| Parent | Document | Read-only. The document that contains this <code>GroupItem</code> . |
| PathItems | PathItems | Read-only. The <code>PathItems</code> contained in this <code>GroupItem</code> . |
| PlacedItems | PlacedItems | Read-only. The <code>PlacedItems</code> contained in this <code>GroupItem</code> . |
| PluginItems | PluginItems | Read-only. The <code>PluginItems</code> contained in this <code>GroupItem</code> . |
| Position | Variant Array of 2 <code>Doubles</code> | The position (in points) of the top left corner of the item in the format [x, y]. Does not include stroke weight. |
| RasterItems | RasterItems | Read-only. The <code>RasterItems</code> contained in this <code>GroupItem</code> . |
| Selected | Boolean | If <code>true</code> , this <code>GroupItem</code> is selected. |
| Sliced | Boolean | If <code>true</code> , this <code>GroupItem</code> is sliced. Default: <code>false</code> |
| SymbolItems | SymbolItems | Read-only. The <code>SymbolItems</code> contained in this <code>GroupItem</code> . |
| Tags | Tags | Read-only. The <code>tags</code> contained in this <code>GroupItem</code> . |
| TextFrames | TextFrames | Read-only. The <code>TextFrame</code> objects contained in this <code>GroupItem</code> . |
| Top | Double | The position of the top of the item (in points, measured from the bottom of the page). |
| URL | String | The value of the Adobe URL tag assigned to this <code>GroupItem</code> . |
| VisibilityVariable | Variable | The <code>Variable</code> bound to this <code>GroupItem</code> . |
| VisibleBounds | Variant Array of 4 <code>Doubles</code> | Read-only. The visible bounds of the <code>GroupItem</code> including stroke width. |
| Width | Double | The width of the <code>GroupItem</code> , based on the <code>GeometricBounds</code> . |

| Property | Value type | What it is |
|-----------------------|------------|---|
| WrapInside | Boolean | If <code>true</code> , the text frame object are wrapped inside this object. |
| WrapOffset | Double | The offset to use when wrapping text around this object. |
| Wrapped | Boolean | If <code>true</code> , wrap text frame objects around this object (text frame must be above the object). |
| ZOrderPosition | Long | Read-only. The position of this group item within the stacking order of the group or layer (<code>Parent</code>) that contains this group item. |

GroupItem methods

| Method | Returns | What it does |
|---|---------|--|
| Copy () | Nothing | Copies the <code>GroupItem</code> to the clipboard; the associated document must be the frontmost document. |
| Cut () | Nothing | Cuts the <code>GroupItem</code> to the clipboard; the associated document must be the frontmost document. |
| Delete () | Nothing | Deletes the object. |
| Duplicate ([relativeObject as <code>Object</code>], [insertionLocation as AiElementPlacement]) | Object | Duplicates the art item, optionally specifying the location and position for the copy. |
| Move (relativeObject as <code>Object</code> , insertionLocation as AiElementPlacement) | Nothing | Moves the art item, specifying the new location and position. |
| Paste () | Nothing | Inserts the contents of the clipboard at the beginning of the <code>GroupItem</code> . You may only paste into a group that is contained in the active document. |
| Resize (scaleX as <code>Double</code> , scaleY as <code>Double</code> , [, changePositions as <code>Boolean</code>] [, changeFillPatterns as <code>Boolean</code>] [, changeFillGradients as <code>Boolean</code>] [, changeStrokePattern as <code>Boolean</code>] [, changeLineWidths as <code>Double</code>] [, scaleAbout as AiTransformation]) | Nothing | Scales the art item where <code>scaleX</code> is the horizontal scaling factor and <code>scaleY</code> is the vertical scaling factor; 100.0 = 100% |

| Method | Returns | What it does |
|---|---------|--|
| Rotate (angle as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, rotateAbout as AiTransformation]) | Nothing | Rotates the art item relative to the current rotation. The object is rotated counter-clockwise if the Angle value is positive, clockwise if the value is negative. |
| Transform (transformationMatrix as Matrix [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, transformAbout as AiTransformation]) | Nothing | Transforms the art item by applying a transformation matrix. |
| Translate ([deltaX as Double] [, deltaY as Double] [, transformObjects as Boolean] [, transformFillPatterns as Boolean] [, transformFillGradients as Boolean] [, transformStrokePatterns as Boolean]) | Nothing | Repositions the art item relative to the current position, where deltaX is the horizontal offset and deltaY is the vertical offset. |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the art item's position in the stacking order of the group or layer (Parent) of this object. |

Creating a group

It is easy to modify all of the objects contained in a group. This example demonstrates how to simplify your operations on multiple objects by creating a group to contain them.

```
'Creates a new group in the current document, containing
'a path item, and a text item

Set appRef = CreateObject("Illustrator.Application")

'Create a new group in the active document.
'This will be the group that holds the new triangle art
Set triangleGroup = appRef.ActiveDocument.GroupItems.Add

'Create a triangle and add text inside the group
Set trianglePath = triangleGroup.PathItems.Add
trianglePath.SetEntirePath Array(Array(100, 100), Array(300, 100), Array(200,
Tan(1.0471975) * 100 + 100))

Set captionText = triangleGroup.TextFrames.Add
captionText.Position = Array(100, 100)
captionText.Contents = "A triangle"
```

GroupItems

A collection of `GroupItem` objects.

GroupItems properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. The number of objects in the collection. |
| <code>Parent</code> | Document | Read-only. The document that contains this object. |

GroupItems methods

| Method | Returns | What it does |
|--|---------------------------|---|
| <code>Add</code> () | GroupItem | Creates a new object. |
| <code>CreateFromFile</code> (imagefile as <code>String</code>) | GroupItem | Creates a <code>GroupItem</code> from a vector graphics file. |
| <code>Index</code> (item as <code>GroupItem</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemkey) | GroupItem | Returns an object reference to the object identified by <code>itemkey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Importing a file using GroupItems

The following script shows how you can import a JPEG document using the `CreateFromFile` function. Before running this script you have to create a one-page PDF file and put it in the location.

`C:\temp\AiExport.jpg`.

```
'Adds a new group item to the document from a file (dest)
'dest contains the full path and file name of the file

Sub embedPDF (dest)
    Set appRef = CreateObject("Illustrator.Application")
    Set importedGroup = appRef.ActiveDocument.GroupItems.CreateFromFile (dest)
End Sub
```

IllustratorSaveOptions

Options that can be supplied when saving a document as an Illustrator file with the `document.SaveAs` method.

IllustratorSaveOptions properties

| Property | Value type | What it is |
|------------------------------|------------------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtboardRange | string | If <code>SaveMultipleArtboards</code> is <code>true</code> (which is valid only for Illustrator 13 or earlier), the document is considered for multi-asset extraction, which specifies an artboard range. An empty string extracts all artboards. Default: empty string |
| Compatibility | AiCompatibility | Version of the Illustrator file format to create. Default: 15 ' aiIllustrator15 |
| Compressed | Boolean | (Illustrator version 10 or later) If <code>true</code> , the saved file is compressed. Default: <code>true</code> |
| EmbedICCProfile | Boolean | If <code>true</code> , an ICC profile is embedded in the saved file. |
| EmbedLinkedFiles | Boolean | If <code>true</code> , linked image files are included in the saved document (only valid for <code>SaveOptions</code> that specify an Illustrator compatibility of version 7 or later). |
| FlattenOutput | AiOutputFlattening | Specifies how transparency is flattened for file formats older than Illustrator 9. |
| FontSubsetThreshold | Double | Include a subset of fonts when less than this percentage of characters is used in the document (valid for Illustrator 9 or newer file format). |
| PDFCompatible | Boolean | If <code>true</code> , save as a PDF compatible file (version 10 or later). Default: <code>true</code> |
| SaveMultipleArtboards | boolean | If <code>true</code> , all artboards or range of the artboards are saved. Valid for Illustrator 13 or earlier. |

Saving to Illustrator 8 format

This example illustrates how to save the frontmost document as Illustrator 8 format. Because the document is saved as a version earlier than 9, the example specifies how to convert opacity by breaking paths up in to sub-paths to preserve the appearance of the illustration.

```
'Saves current document in Illustrator format to dest with certain options  
'specified in the script, dest contains the full path and file name to save to
```

```
Sub exportfileToAi (dest)  
    Set appRef = CreateObject("Illustrator.Application")  
    Set saveOptions = CreateObject("Illustrator.IllustratorSaveOptions")  
    saveOptions.Compatibility = 8'aiIllustrator8  
    saveOptions.FlattenOutput = 1'aiPreserveAppearance  
    appRef.Documents(1).SaveAs dest, saveOptions  
End Sub
```

ImageCaptureOptions

Options for image capture, used with the [ImageCapture](#) method. All properties are optional.

ImageCaptureOptions properties

| Property | Value type | What it is |
|---------------------|-----------------------------|--|
| AntiAliasing | Boolean | If <code>true</code> , the image result is anti-aliased. Default: <code>false</code> |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Matte | Boolean | If <code>true</code> , the artboard is matted with a color. Default: <code>false</code> |
| MatteColor | RGBColor | The color to use for the artboard matte. Default: <code>white</code> |
| Resolution | Double | The resolution of the captured image file in points-per-inch (PPI), in the range 72.0 to 2400.0. Default: <code>150</code> |
| Transparency | Boolean | If <code>true</code> , the image result is transparent. Default: <code>false</code> |

Ink

Provides information about the ink name and related information.

Ink properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| InkInfo | InkInfo | The ink information. |
| Name | String | The ink's name. |

InkInfo

Specifies ink properties.

InkInfo properties

| Property | Value type | What it is |
|-----------------------|----------------------------------|---|
| Angle | Double | The ink's screen angle in degrees. Range: -360 to 360 |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| CustomColor | Object | The color of the custom ink. |
| Density | Double | The neutral density. Minimum: 0.0 |
| DotShape | String | The dot shape name. |
| Frequency | Double | The ink's frequency. Range: 0.0 to 1000.0 |
| Kind | AiInkType | The ink type. |
| PrintingStatus | AiInkPrintStatus | The ink printing status. |
| Trapping | AiTrappingType | The trapping type. |
| TrappingOrder | Long | The order of trapping for the ink. Range: 1 to 4 for CMYK |

List inks in a document

```
'Gets the details of each ink in this document
'and displays them in a text frame

Set appRef = CreateObject("Illustrator.Application")

'create a new document and simple text frame
Set docRef = appRef.Documents.Add()
Set textRef = docRef.TextFrames.Add()
textRef.Top = docRef.Height - 100
textRef.Left = 100

'collect data from each Ink and InkInfo object
For Each inkRef In appRef.ActiveDocument.InkList
    sInks = sInks & inkRef.Name
    sInks = sInks & vbCrLf & vbTab
    sInks = sInks & "Frequency = " & inkRef.InkInfo.Frequency
    sInks = sInks & vbCrLf & vbTab
    sInks = sInks & "Density = " & inkRef.InkInfo.Density
    sInks = sInks & vbCrLf
Next
textRef.Contents = sInks
appRef.Redraw
```


InsertionPoint

A location between characters, used to insert new text objects. An insertion point is contained in an `InsertionPoints` collection.

InsertionPoint properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Characters</code> | Characters | Read-only. All of the characters in the text range. |
| <code>Lines</code> | Lines | Read-only. All the lines in this text range. |
| <code>Paragraphs</code> | Paragraphs | Read-only. All of the paragraphs in this text range. |
| <code>Parent</code> | Object | Read-only. The object's container. |
| <code>Story</code> | Story | Read-only. The story of the text range. |
| <code>TextRanges</code> | TextRanges | Read-only. All of the text in this text range. |
| <code>Words</code> | Words | Read-only. All of the words in this text range. |

InsertionPoints

A collection of [InsertionPoint](#) objects.

InsertionPoints properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. Number of elements in the collection. |
| Parent | TextFrame | Read-only. The object's container. |

InsertionPoints methods

| Method | Returns | What it does |
|--|--------------------------------|--|
| Index (itemPtr as <code>TextRange</code>) | Long | Returns the index position of the object within the collection. |
| Item (itemKey) | InsertionPoint | Gets an element from the collection by <code>itemKey</code> (name or index). |

Using insertion point to add spaces

```
'Creates a new document, adds a text frame then
'uses insertion points to add a space between all characters
```

```
Set appRef = CreateObject("Illustrator.Application")

'create a new document and text frame
Set docRef = appRef.Documents.Add()
Set textRef = docRef.TextFrames.Add()
textRef.Contents = "Wouldn't you rather be scripting?"
textRef.Top = 400
textRef.Left = 100
textRef.TextRange.CharacterAttributes.Size = 20
appRef.Redraw

i = 2
Do While (i < textRef.InsertionPoints.Count)
    textRef.InsertionPoints(i).Characters.Add (" ")
    i = i + 2
Loop
```

LabColor

A color specification in the CIE Lab color space, used where a `color info` object is required.

LabColor properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| A | Double | The a (red-green) color value. Range -128.0–128.0. Default: 0.0 |
| B | Double | The b (yellow-blue) color value. Range -128.0–128.0. Default: 0.0 |
| L | Double | The l (lightness) color value. Range -128.0–128.0. Default: 0.0 |

Layer

A layer in an Illustrator document. Layers may contain nested layers, which are called sublayers in the user interface.

`Layer` object contains all of the page items in the layer as elements. Your script can access `PageItems` as elements of either the `Layer` object or as elements of the `Document` object. Only those page items in that layer can be accessed through the `Layer` object. To see page items in different layers, access them through the document.

Layer properties

| Property | Value type | What it is |
|---------------------------------|-----------------------------------|--|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>ArtworkKnockout</code> | AiKnockoutState | Is this <code>Layer</code> used to create a knockout, and if so, what kind. |
| <code>BlendingMode</code> | AiBlendModes | The mode used when compositing an object. |
| <code>Color</code> | RGBColor | The <code>Layer</code> 's selection mark color. |
| <code>CompoundPathItems</code> | CompoundPathItems | Read-only. The <code>CompoundPathItems</code> contained in this layer. |
| <code>DimPlacedImages</code> | Boolean | If <code>true</code> , placed images are rendered as dimmed in this layer. |
| <code>GraphItems</code> | GraphItems | Read-only. The <code>GraphItems</code> collection contained in this layer. |
| <code>GroupItems</code> | GroupItems | Read-only. The <code>GroupItems</code> contained in this layer. |
| <code>HasSelectedArtwork</code> | Boolean | If <code>true</code> , an object in this <code>Layer</code> has been selected; setting this property to <code>false</code> deselects all objects in the layer. |
| <code>IsIsolated</code> | Boolean | If <code>true</code> , this <code>Layer</code> is isolated. |
| <code>Layers</code> | Layers | Read-only. The <code>Layers</code> contained in this layer. |
| <code>LegacyTextItems</code> | LegacyTextItems | Read-only. The legacy text items contained in this layer. |
| <code>Locked</code> | Boolean | If <code>true</code> , this layer is editable. |
| <code>MeshItems</code> | MeshItems | Read-only. The <code>MeshItems</code> contained in this layer. |
| <code>Name</code> | String | The name of this layer. |
| <code>NonNativeItems</code> | NonNativeItems | The non-native art items in this layer. |
| <code>Opacity</code> | Double | The opacity of the layer. Range: 0.0 to 100.0 |
| <code>PageItems</code> | PageItems | Read-only. The <code>PageItems</code> contained in this layer. |

| Property | Value type | What it is |
|-----------------------|---|--|
| Parent | Document or Layer | Read-only. The <code>document</code> or <code>Layer</code> that contains this layer. |
| PathItems | PathItems | Read-only. The <code>PathItems</code> contained in this layer. |
| PlacedItems | PlacedItems | Read-only. The <code>PlacedItems</code> contained in this layer. |
| PluginItems | PluginItems | Read-only. The <code>PluginItems</code> contained in this layer. |
| Preview | Boolean | If <code>true</code> , this layer is displayed using preview mode. |
| Printable | Boolean | If <code>true</code> , this layer is printed when printing the document. |
| RasterItems | RasterItems | Read-only. The <code>RasterItems</code> contained in this layer. |
| Sliced | Boolean | If <code>true</code> , this layer is sliced. |
| SymbolItems | SymbolItems | Read-only. The <code>SymbolItems</code> contained in this layer. |
| TextFrames | TextFrames | Read-only. The <code>TextFrames</code> contained in this layer. |
| Visible | Boolean | If <code>true</code> , this layer is visible. |
| ZOrderPosition | Long | Read-only. The position of this layer within the stacking order of <code>Layers</code> in the document |

Layer methods

| Method | Returns | What it does |
|--|---------|---|
| Delete () | Nothing | Deletes the object. |
| Move (relativeObject as <code>Object</code> , insertionLocation as AiElementPlacement) | Nothing | Moves the art item, specifying the new location and position. Does not change the position of the object on the art board, but changes the order in which Illustrator draws the objects, and the containment hierarchy. Places the object in the specified container, behind all other such objects. |
| Paste () | Nothing | Pastes the contents of the clipboard into the <code>Layer</code> ; if the associated document is the frontmost then all pasted objects remain selected after the paste. |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the <code>Layer</code> 's position in the stacking order of <code>Layers</code> in this document |

Count layers in a document

```
'Counts the number of layers in the current document
'and stores in countOfLayers

Set appRef = CreateObject("Illustrator.Application")

'Get a reference to the layers, and obtain the total number
Set frontDocument = appRef.ActiveDocument
countOfLayers = frontDocument.Layers.Count
```

Layers

A collection of `Layer` objects.

Layers properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. The number of objects in the collection. |
| Parent | Object | Read-only. The object that contains this <code>Layer</code> (can be another <code>Layer</code>). |

Layers methods

| Method | Returns | What it does |
|---|-----------------------|---|
| Add () | Layer | Creates a new object. |
| Index (item as <code>Layer</code>) | Long | Returns the index position of the object within the collection. |
| RemoveAll () | Nothing | Deletes all objects in this collection. |

Deleting layers

'Deletes all layers containing a specified string in their name

```
Set appRef = CreateObject("Illustrator.Application")
searchString = "Temp"

'Loop through all open documents
layersDeleted = 0
For Each targetDocument In appRef.Documents
    countOfLayers = targetDocument.Layers.Count
'Go through layers from the back to avoid changing the
'index of unvisited layers when we remove a layer
    For layerIndex = countOfLayers To 1 Step -1
        Set targetLayer = targetDocument.Layers(layerIndex)
        layerName = targetLayer.Name
        If (InStr(layerName, searchString) = 1) Then
            targetDocument.Layers.Remove targetLayer
            layersDeleted = layersDeleted + 1
        End If
    Next
Next
Next
```

LegacyTextItem

A text object created in Illustrator CS (version 10) or earlier, which is uneditable until converted. To convert legacy text, see [ConvertToNative](#).

You can view, move, and print legacy text, but you cannot edit it. Legacy text has an “x” through its bounding box when selected.

LegacyTextItem properties

| Property | Value type | What it is |
|------------------------|---------------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtworkKnockout | AiKnockoutState | Is this object used to create a knockout, and if so, what kind. |
| BlendingMode | AiBlendModes | The mode used when compositing an object. |
| ControlBound | Variant Array of 4 Doubles | Read-only. The bounds of the object including stroke width and controls. |
| Converted | Boolean | Read-only. If <code>true</code> , the legacy text has been updated to a native text frame item. |
| Editable | Boolean | Read-only. If <code>true</code> , this item is editable. |
| GeometricBounds | Variant Array of 4 Doubles | Read-only. The bounds of the object excluding stroke width. |
| Height | Double | The height of the <code>LegacyTextItem</code> excluding stroke width, based on the <code>GeometricBounds</code> . |
| Hidden | Boolean | If <code>true</code> , this object is hidden. |
| IsIsolated | Boolean | If <code>true</code> , this object is isolated. |
| Layer | Layer | Read-only. The layer to which this <code>LegacyTextItem</code> belongs. |
| Left | Double | The position of the left side of the item (in points, measured from the left side of the page). |
| Locked | Boolean | If <code>true</code> , this <code>LegacyTextItem</code> is locked. |
| Name | String | The name of this <code>LegacyTextItem</code> . |
| Note | String | The note assigned to this <code>LegacyTextItem</code> . |
| Opacity | Double | The opacity of the object. Range: 0.0 to 100.0 |
| Parent | Object | Read-only. The object that contains this <code>LegacyTextItem</code> . |
| Position | Variant Array of 2 Doubles | The position (in points) of the top left corner of the item in the format <code>[x, y]</code> . Does not include stroke weight. |

| Property | Value type | What it is |
|---------------------------|----------------------------|--|
| Selected | Boolean | If <code>true</code> , this object is selected. |
| Sliced | Boolean | If <code>true</code> , this <code>LegacyTextItem</code> is sliced. |
| Tags | Tags | Read-only. The tags contained in this <code>LegacyTextItem</code> . |
| Top | Double | The top position of this <code>LegacyTextItem</code> . |
| URL | String | The value of the Adobe URL tag assigned to this <code>LegacyTextItem</code> . |
| VisibilityVariable | Variable | The <code>Variable</code> bound to this <code>LegacyTextItem</code> . |
| VisibleBounds | Variant Array of 4 Doubles | Read-only. The visible bounds of the <code>LegacyTextItem</code> including stroke width. |
| Width | Double | The width of the <code>LegacyTextItem</code> excluding stroke width, based on the <code>GeometricBounds</code> . |
| WrapInside | Boolean | If <code>true</code> , the text frame object are wrapped inside this object. |
| WrapOffset | Double | The offset to use when wrapping text around this object. |
| Wrapped | Boolean | If <code>true</code> , wrap text frame objects around this object (text frame must be above the object). |
| ZOrderPosition | Long | Read-only. The position of this art item within the stacking order of the group or layer (<code>Parent</code>) that contains the art item. |

LegacyTextItem methods

| Method | Returns | What it does |
|---|---------------------------|---|
| ConvertToNative () | GroupItem | Converts the legacy text item to a text frame and deletes the original legacy text. |
| Copy () | Nothing | Copies the legacy text item to the clipboard; the associated document must be the frontmost document. |
| Cut () | Nothing | Cuts the legacy text item to the clipboard; the associated document must be the frontmost document. |
| Duplicate ([relativeObject as <code>Object</code>], [insertionLocation as AiElementPlacement]) | Object | Duplicates the art item, optionally specifying the location and position for the copy. |

| Method | Returns | What it does |
|---|---------|---|
| Delete () | Nothing | Deletes the object. |
| Move (relativeObject as Object , insertionLocation as AiElementPlacement) | Nothing | Moves the art item, specifying the new location and position. |
| Resize (scaleX as Double , scaleY as Double [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, scaleAbout as AiTransformation]) | Nothing | Scales the art item where <code>scaleX</code> is the horizontal scaling factor and <code>scaleY</code> is the vertical scaling factor; 100.0 = 100% |
| Rotate (angle as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, rotateAbout as AiTransformation]) | Nothing | Rotates the art item relative to the current rotation. The object is rotated counter-clockwise if the <code>Angle</code> value is positive, clockwise if the value is negative. |
| Transform (transformationMatrix as Matrix , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, transformAbout as AiTransformation]) | Nothing | Transforms the art item by applying a transformation matrix. |
| Translate ([deltaX as Double] [, deltaY as Double] [, transformObjects as Boolean] [, transformFillPatterns as Boolean] [, transformFillGradients as Boolean] [, transformStrokePatterns as Boolean]) | Nothing | Repositions the art item relative to the current position, where <code>deltaX</code> is the horizontal offset and <code>deltaY</code> is the vertical offset. |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the art item's position in the stacking order of the group or layer (<code>Parent</code>) of this object. |

LegacyTextItems

A collection of `LegacyText` items.

LegacyTextItems properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Object | Read-only. The object's container. |

LegacyTextItems methods

| Method | Returns | What it does |
|---|--------------------------------|--|
| <code>ConvertToNative</code> () | Boolean | Creates text frames from all legacy text items; the original legacy text items are deleted. Returns <code>true</code> if successful. |
| <code>Index</code> (itemPtr as <code>LegacyTextItem</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | LegacyTextItem | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Lines

A collection of `TextRange` objects corresponding to a line of text.

Lines properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. Number of elements in the collection. |
| Parent | Object | Read-only. The object's container. |

Lines methods

| Method | Returns | What it does |
|--|---------------------------|---|
| Index (itemPtr as <code>TextRange</code>) | Long | Returns the index position of the object within the collection. |
| Item (itemKey) | TextRange | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| RemoveAll () | Nothing | Deletes all objects in this collection. |

Counting lines

```
'Creates an area text item, adds some text, resizes
'the width of the path item containing the text item
'then counts the number of lines and stores in lineCount

'Create area text
textToPlace = "Scripting with Illustrator is fun and easy."
Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents.Add()
Set itemRef = docRef.PathItems.Rectangle(500, 200, 50, 300)
Set textRef = docRef.TextFrames.AreaText(itemRef)
textRef.Contents = textToPlace
appRef.Redraw
'Change the path's width and display line count
itemRef.Width = 300
lineCount = textRef.Lines.Count
appRef.Redraw
```

Matrix

A transformation matrix specification, used to transform the geometry of objects.

Matrices are used in conjunction with the `Transform` method and as a property of a number of objects. You can generate an original matrix using the `Application` methods `getIdentityMatrix`, `getTranslationMatrix`, `getScaleMatrix`, or `getRotationMatrix`. If you need to apply multiple transformations to objects, it is more efficient to use the matrix suite than to apply the transformations one at a time.

A `Matrix` is a record containing the matrix values, not a reference to a matrix object. The matrix commands listed above operate on the values of a matrix record. If a command modifies a matrix, a modified matrix record is returned as the result of the command. The original matrix record passed to the command is not modified.

Matrix properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>MValueA</code> | Double | Matrix property a. |
| <code>MValueB</code> | Double | Matrix property b. |
| <code>MValueC</code> | Double | Matrix property c. |
| <code>MValueD</code> | Double | Matrix property d. |
| <code>MValueTX</code> | Double | Matrix property tx. |
| <code>MValueTY</code> | Double | Matrix property ty. |

Applying transformations with a matrix

```
'Creates a new translation and rotation matrix then
'applies it to all items in the current document

Set appRef = CreateObject("Illustrator.Application")

'Move art half an inch to the right and 1.5 inch up on the page
Set moveMatrix = appRef.GetTranslationMatrix(72 * 0.5, 72 * 1.5)
'Add a rotation to the translation -- 10 degrees counterclockwise
Set totalMatrix = appRef.ConcatenateRotationMatrix(moveMatrix, 10)

'Apply the transformation to all art in the document
For Each artItem In appRef.ActiveDocument.PageItems
    artItem.Transform totalMatrix
Next
```

MeshItem

A gradient mesh art item. Mesh items cannot be created from a script, but can be copied and pasted.

MeshItem properties

| Property | Value type | What it is |
|------------------------|---------------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtworkKnockout | AiKnockoutState | Is this object used to create a knockout, and if so, what kind. |
| BlendingMode | AiBlendModes | The mode used when compositing an object. |
| ControlBounds | Variant Array of 4 Doubles | Read-only. The bounds of the object including stroke width and controls. |
| Editable | Boolean | Read-only. If <code>true</code> , this <code>MeshItem</code> is editable. |
| GeometricBounds | Variant Array of 4 Doubles | Read-only. The bounds of the object excluding stroke width. |
| Height | Double | The height of the <code>MeshItem</code> , based on the <code>GeometricBounds</code> . |
| Hidden | Boolean | If <code>true</code> , this <code>MeshItem</code> is hidden. |
| IsIsolated | Boolean | If <code>true</code> , this object is isolated. |
| Layer | Layer | Read-only. The <code>Layer</code> to which this <code>MeshItem</code> belongs. |
| Left | Double | The position of the left side of the item (in points, measured from the left side of the page). |
| Locked | Boolean | If <code>true</code> , this <code>MeshItem</code> is locked. |
| Name | String | The name of this <code>MeshItem</code> . |
| Note | String | The note assigned to this <code>MeshItem</code> . |
| Opacity | Double | The opacity of the object. Range 0.0 to 100.0 |
| Parent | object | Read-only. The object that contains this <code>MeshItem</code> . |
| Position | Variant Array of 2 Doubles | The position (in points) of the top left corner of the item in the format <code>[x, y]</code> . Does not include stroke weight. |
| Selected | Boolean | If <code>true</code> , this <code>MeshItem</code> is selected. |
| Sliced | Boolean | If <code>true</code> , this <code>MeshItem</code> is sliced. |
| Tags | Tags | Read-only. The tags contained in this <code>MeshItem</code> . |
| Top | Double | The position of the top of the item (in points, measured from the bottom of the page). |

| Property | Value type | What it is |
|---------------------------|----------------------------|---|
| URL | String | The value of the Adobe URL tag assigned to this MeshItem. |
| VisibilityVariable | Variant | The Variable bound to this MeshItem. |
| VisibleBounds | Variant Array of 4 Doubles | Read-only. The visible bounds of the MeshItem including stroke width. |
| Width | Double | The width of the MeshItem, based on the GeometricBounds. |
| WrapInside | Boolean | If true, the text frame object are wrapped inside this object. |
| WrapOffset | Double | The offset to use when wrapping text around this object. |
| Wrapped | Boolean | If true, wrap text frame objects around this object (text frame must be above the object). |
| ZOrderPosition | Long | Read-only. The position of this art item within the stacking order of the group or layer (Parent) that contains the art item. |

MeshItem methods

| Method | Returns | What it does |
|--|---------|--|
| Copy () | Nothing | Copies the mesh item to the clipboard; the associated document must be the frontmost document. |
| Cut () | Nothing | Cuts the mesh item to the clipboard; the associated document must be the frontmost document. |
| Delete () | Nothing | Deletes the object. |
| Duplicate ([relativeObject as Object], [insertionLocation as AiElementPlacement]) | Object | Duplicates the art item, optionally specifying the location and position for the copy. |
| Move (relativeObject as Object, insertionLocation as AiElementPlacement) | Nothing | Moves the art item, specifying the new location and position. |

| Method | Returns | What it does |
|---|---------|---|
| Resize (scaleX as Double , scaleY as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, scaleAbout as AiTransformation]) | Nothing | Scales the art item where <code>scaleX</code> is the horizontal scaling factor and <code>scaleY</code> is the vertical scaling factor; 100.0 = 100% |
| Rotate (angle as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, rotateAbout as AiTransformation]) | Nothing | Rotates the art item relative to the current rotation. The object is rotated counter-clockwise if the <code>Angle</code> value is positive, clockwise if the value is negative. |
| Transform (transformationMatrix as Matrix , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, transformAbout as AiTransformation]) | Nothing | Transforms the art item by applying a transformation matrix. |
| Translate ([deltaX as Double] [, deltaY as Double] [, transformObjects as Boolean] [, transformFillPatterns as Boolean] [, transformFillGradients as Boolean] [, transformStrokePatterns as Boolean]) | Nothing | Repositions the art item relative to the current position, where <code>deltaX</code> is the horizontal offset and <code>deltaY</code> is the vertical offset. |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the art item's position in the stacking order of the group or layer (<code>Parent</code>) of this object. |

Locking mesh items

```
'Locks all mesh items in the current document

Set appRef = CreateObject("Illustrator.Application")

For Each meshItem In appRef.ActiveDocument.MeshItems
    meshItem.Locked = True
Next
```


MeshItems

A collection of gradient mesh art items.

MeshItems properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. Number of elements in the collection. |
| Parent | Object | Read-only. The object's container. |

MeshItems methods

| Method | Returns | What it does |
|---|--------------------------|---|
| Index (itemPtr as <code>MeshItem</code>) | Long | Returns the index position of the object within the collection. |
| Item (itemKey) | MeshItem | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| RemoveAll () | Nothing | Deletes all objects in this collection. |

Copying mesh items between documents

To run this script, have two open documents:

- ▶ One document should contain at least one `MeshItem`.
- ▶ The other document can be empty. Make the empty document the frontmost before running the script.

```
'Copies all mesh items from one document
'to another, with an offset position

Set appRef = CreateObject("Illustrator.Application")

Set sourceDocument = appRef.Documents(1)
Set targetDocument = appRef.Documents.Add
locationOffset = 0
For Each meshItem In sourceDocument.MeshItems
    sourceDocument.Activate
    meshItem.Copy
    targetDocument.Activate
    targetDocument.Paste

'Get a reference to the item that was just copied into the document
targetSelection = appRef.selection
If (IsEmpty(targetSelection)) Then
```

```
        Exit For
    End If
    Set newMeshItem = targetSelection(0)

    newMeshItem.Position = Array(100, 400 + locationOffset)
    locationOffset = locationOffset + 50
Next
```

NoColor

Represents the “none” color. Assignment of a reference to a `NoColor` object to the document’s default fill or stroke color, or those of an art item, is equivalent to setting their `Filled` or `Stroked` property to `False`.

NoColor properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |

Removing a fill color

```
'Creates 2 overlapping, filled path items, then
'sets the top item to "NoColor" to make the bottom item visible.
```

```
Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents.Add()
Set itemRef1 = docRef.PathItems.Rectangle(500, 200, 200, 100)
Set itemRef2 = docRef.PathItems.Rectangle(550, 150, 200, 200)
```

```
Set colorRef = CreateObject("Illustrator.RGBColor")
colorRef.Blue = 255
itemRef1.FillColor = colorRef
colorRef.Red = 255
colorRef.Blue = 0
itemRef2.FillColor = colorRef
appRef.Redraw
```

```
'Create a nocolor object and assign it to the top object
Set noColorRef = CreateObject("Illustrator.NoColor")
itemRef2.FillColor = noColorRef
appRef.Redraw
```

NonNativeItem

A non-native artwork item.

NonNativeItem properties

This class inherits all properties of the `page item` class.

| Property | Value type | What it is |
|------------------------|---------------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtworkKnockout | AiKnockoutState | Indicates whether this object is used to create a knockout, and if so, what kind. |
| BlendingMode | AiBlendModes | The mode used when compositing an object. |
| ControlBounds | Variant Array of 4 Doubles | Read-only. The bounds of the object, including stroke width and controls. |
| Editable | Boolean | Read-only. If <code>true</code> , this object is editable. |
| GeometricBounds | Variant Array of 4 Doubles | Read-only. The bounds of the object, excluding stroke width. |
| Height | Double | The height of the object, based on <code>GeometricBounds</code> . |
| Hidden | Boolean | If <code>true</code> , this object is hidden. |
| IsIsolated | Boolean | If <code>true</code> , this object is isolated. |
| Layer | Layer | Read-only. The layer to which this object belongs. |
| Left | Double | The position of the left side of the item (in points, measured from the left side of the page). |
| Locked | Boolean | If <code>true</code> , this object is locked |
| Name | String | The name of this object. |
| Note | String | The note assigned to this object. |
| Opacity | Double | The opacity of the object. Range: 0.0 to 100.0 |
| Parent | object | Read-only. The object that contains this object. |
| Position | Variant Array of 2 Doubles | The position (in points) of the top left corner of the item in the format [x, y]. Does not include stroke weight. |
| Selected | Boolean | If <code>true</code> , this object is selected. |
| Sliced | Boolean | If <code>true</code> , this object is sliced. |
| Tags | Tags | Read-only. The tags contained in this object. |
| Top | Double | The position of the top of the item (in points, measured from the bottom of the page). |

| Property | Value type | What it is |
|---------------------------|----------------------------|--|
| URL | String | The value of the Adobe URL tag assigned to this object. |
| VisibilityVariable | Variable | The Variable bound to this object. |
| VisibleBounds | Variant Array of 4 Doubles | Read-only. The visible bounds of the object including stroke width. |
| Width | Double | The width of the object, based on <code>GeometricBounds</code> . |
| WrapInside | Boolean | If <code>true</code> , the text frame object are wrapped inside this object. |
| WrapOffset | Double | The offset to use when wrapping text around this object. |
| Wrapped | Boolean | If <code>true</code> , the text frame objects are wrapped around this object (text frame must be above the object). |
| ZOrderPosition | Long | Read-only. The position of this art item within the stacking order of the group or layer (<code>Parent</code>) that contains the art item. |

NonNativeItem methods

| Method | Returns | What it does |
|---|---------|---|
| Copy () | Nothing | Copies the item to the clipboard; the associated document must be the frontmost document. |
| Cut () | Nothing | Cuts the item to the clipboard; the associated document must be the frontmost document. |
| Delete () | Nothing | Deletes the object. |
| Duplicate ([relativeObject as Object], [insertionLocation as AiElementPlacement]) | Object | Duplicates the art item, optionally with the location and position for the copy. |
| Move (relativeObject as Object , insertionLocation as AiElementPlacement) | Nothing | Moves the art item to a new location and position. |
| Resize (scaleX as Double , scaleY as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, scaleAbout as AiTransformation]) | Nothing | Scales the art item where <code>scaleX</code> is the horizontal scaling factor and <code>scaleY</code> is the vertical scaling factor; 100.0 = 100% |

| Method | Returns | What it does |
|---|---------|---|
| Rotate (angle as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, rotateAbout as AiTransformation]) | Nothing | Rotates the art item relative to the current rotation. The object is rotated counter-clockwise if the <code>Angle</code> value is positive, clockwise if the value is negative. |
| Transform (transformationMatrix as Matrix , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, transformAbout as AiTransformation]) | Nothing | Transforms the art item by applying a transformation matrix. |
| Translate ([deltaX as Double] [, deltaY as Double] [, transformObjects as Boolean] [, transformFillPatterns as Boolean] [, transformFillGradients as Boolean] [, transformStrokePatterns as Boolean]) | Nothing | Repositions the art item relative to the current position, where <code>deltaX</code> is the horizontal offset and <code>deltaY</code> is the vertical offset. |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the art item's position in the stacking order of the group or layer (<code>Parent</code>) of this object. |

NonNativeItems

A collection of non-native items.

NonNativeItems properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. The number of objects in the collection. |
| Parent | Document | Read-only. The document that contains this object. |

NonNativeItems methods

| Method | Returns | What it does |
|--|-------------------------------|---|
| Index (item as <code>GraphicStyle</code>) | Long | Returns the index position of the object within the collection. |
| Item (itemKey) | NonNativeItem | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| RemoveAll () | Nothing | Deletes all objects in this collection. |

OpenOptions

Options to use when opening files in Illustrator.

OpenOptions properties

| Property | Value type | What it is |
|---|-------------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ConvertCropAreaToArboard | boolean | Optional. Convert crop areas to artboards when opening a legacy document in Illustrator CS4 or later. When false, crop areas are discarded. Default: true. |
| ConvertTilesToArboard | boolean | Optional. Convert print tiles to artboards when opening a legacy document in Illustrator CS4 or later. Default: false. |
| CreateArtboardWithArtworkBoundingBox | boolean | Optional. Create an artboard with the dimensions of the bounding box of the artwork when opening a legacy document in Illustrator CS4 or later. Default: false. |
| OpenAs | AiLibraryType | Opens the file as an Illustrator library. |
| Parent | Document | Read-only. The document that contains this object. |
| PreserveLegacyArtboard | boolean | Optional. Preserve legacy artboards when opening a legacy document in Illustrator CS4 or later. Default: true. |
| UpdateLegacyGradientMesh | Boolean | If <code>true</code> , preserves the spot colors in the gradient mesh objects for legacy documents (pre-Illustrator CS4). Default: <code>true</code> |
| UpdateLegacyText | Boolean | If <code>true</code> , updates all text objects for documents saved with legacy text by Illustrator versions previous to CS. Default: <code>false</code> |

Opening a file and updating legacy text

This script assumes the file `C:\temp\LegacyText.ai` exists.

```
'Opens a file containing legacy text and updates the text automatically
'filePath contains the full path and file name of the file
```

```
Sub openOptions(filePath)
    Set appRef = CreateObject("Illustrator.Application")

    'Open a file with legacy text
    Set optionsRef = CreateObject("Illustrator.OpenOptions")
    optionsRef.UpdateLegacyText = True
```



```
    Set docRef = appRef.Open(filePath, 1, optionsRef) ' 1 = aiDocumentRGBColor  
End Sub
```

PageItem

Any art item. Every art item and group in a document is a page item. You may refer to a page item as an element of a document, layer, or group item.

The `PageItem` class gives you complete access to every art item contained in an Illustrator document. The `PageItem` class is the superclass of all artwork objects in a document. The `CompoundPathItem`, `GroupItem`, `MeshItem`, `PathItem`, `PlacedItem`, `PluginItem`, `RasterItem`, and `TextFrame` classes each inherit a set of properties from the `PageItem` class.

You cannot create a `PageItem` directly, you must create one of the specific `PageItem` subclasses, such as `PathItem`.

PageItem properties

| Property | Value type | What it is |
|------------------------------|---------------------------------|---|
| <code>ArtworkKnockout</code> | AiKnockoutState | Indicates whether the artwork is used to create a knockout. |
| <code>BlendingMode</code> | AiBlendModes | The mode to use when compositing this object. An object is considered composited when its opacity is set to less than 100.0 (100%). |
| <code>ControlBounds</code> | <code>Rect</code> | Read-only. The bounds of the object including stroke width and controls. |
| <code>Editable</code> | <code>Boolean</code> | Read-only. If <code>true</code> , this page item is editable. |
| <code>GeometricBounds</code> | <code>Rect</code> | Read-only. The object's bounds excluding the stroke width. |
| <code>Height</code> | <code>Real</code> | The height of the page item, calculated from the geometric bounds. Range: 0.0 to 16348.0 |
| <code>Hidden</code> | <code>Boolean</code> | If <code>true</code> , this page item is hidden. |
| <code>IsIsolated</code> | <code>Boolean</code> | If <code>true</code> , this object is isolated. |
| <code>Layer</code> | Layer | Read-only. The layer to which this page item belongs. |
| <code>Left</code> | <code>Double</code> | The left position of the art item. |
| <code>Locked</code> | <code>Boolean</code> | If <code>true</code> , this page item is locked. |
| <code>Name</code> | <code>String</code> | The name of this page item. |
| <code>Note</code> | <code>String</code> | The note assigned to this item. |
| <code>Opacity</code> | <code>Real</code> | The opacity of this object, where 100.0 is completely opaque and 0.0 is completely transparent. |
| <code>Position</code> | <code>Point</code> | The position (in points) of the top left corner of the item in the format {x, y}. Does not include stroke weight. |
| <code>PixelAligned</code> | <code>Boolean</code> | True if this item is aligned to the pixel grid. |

| Property | Value type | What it is |
|---------------------------|----------------------|--|
| Selected | Boolean | If <code>true</code> , this object is selected. |
| Sliced | Boolean | If <code>true</code> , preserve slices. |
| Tags | Tags | The collection of tags associated with this page item. |
| Top | Double | The top position of the art item. |
| URL | String | The value of the Adobe URL tag assigned to this page item. |
| VisibilityVariable | Anything | The visibility variable to which this page item path is bound. |
| VisibleBounds | Rect | Read-only. The object's visible bounds, including stroke width of any objects in the illustration. |
| Width | Real | The width of the page item, calculated from the geometric bounds. Range: 0.0 to 16348.0 |
| WrapInside | Boolean | If <code>true</code> , the text frame object should be wrapped inside this object. |
| WrapOffset | Double | The offset to use when wrapping text around this object. |
| Wrapped | Boolean | If <code>true</code> , wrap text frame objects around this object (text frame must be above the object). |
| ZOrderPosition | Long | Read-only. The drawing order of the art within its group or layer. |

PageItem methods

| Method | Returns | What it does |
|---|---------|--|
| BringInPerspective (PositionX as Double , PositionY as Double , gridPlane as AiPerspectiveGridPlaneType) | Nothing | Places art object(s) in a perspective grid at a specified position and grid plane. |
| Copy () | Nothing | Copies the selection to the clipboard. |
| Cut () | Nothing | Cuts the selection to the clipboard. |
| Resize (scaleX as Double , scaleY as Double [,changePositions as Boolean] [,changeFillPatterns as Boolean] [,changeFillGradients as Boolean] [,changeStrokePattern as Boolean] [,changeLineWidths as Double] [,scaleAbout as AiTransformation]) | Nothing | Scales art object(s). |

| Method | Returns | What it does |
|--|---------|---|
| Rotate (angle as Double [,changePositions as Boolean] [,changeFillPatterns as Boolean] [,changeFillGradients as Boolean] [,changeStrokePattern as Boolean] [,rotateAbout as AiTransformation]) | Nothing | Rotates art object(s). |
| Transform (transformationMatrix as Matrix [,changePositions as Boolean] [,changeFillPatterns as Boolean] [,changeFillGradients as Boolean] [,changeStrokePattern as Boolean] [,changeLineWidth as Double] [,transformAbout as AiTransformation]) | Nothing | Transforms art object(s) using a transformation matrix. |
| Translate ([deltaX as Double] [,deltaY as Double] [,transformObjects as Boolean] [,transformFillPatterns as Boolean] [,transformFillGradients as Boolean] [,transformStrokePattern as Boolean]) | Nothing | Repositions art object(s). |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the art relative to other art in the group or layer. |

PageItems

A collection of `PageItem` objects. Provides complete access to all the art items in an Illustrator document in the following classes:

```
CompoundPathItem
GraphItem
GroupItem
MeshItem
NonNativeItem
PathItem
PlacedItem
RasterItem
SymbolItem
TextFrame
```

You can reference page items through the `PageItems` property in a `Document`, `Layer`, or `Group`. When you access an individual item in one of these collections, the reference a page item of one of a particular type. For example, if you use `PageItems` to reference a graph item, the `typename` value of that object is `GraphItem`.

PageItems properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Object | Read-only. The object's container. |

PageItems methods

| Method | Returns | What it does |
|--|---------|---|
| <code>Index</code> (<code>itemPtr</code> as PageItem) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (<code>itemKey</code>) | Object | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Getting references to external files

Before running this script, open a document that contains one or more linked images.

```
'Gets the file references of all placed and raster items,
'then displays them in a new document

Set appRef = CreateObject("Illustrator.Application")
Dim fileReferences(9)
Set sourceDocument = appRef.ActiveDocument
index = 0
For Each artItem In sourceDocument.PageItems
  Select Case TypeName(artItem)
    Case "PlacedItem"
      fileReferences(index) = artItem.File
      index = index + 1
    Case "RasterItem"
      If (Not artItem.Embedded) Then
        fileReferences(index) = artItem.File
        index = index + 1
      End If
  End Select
End Select
If index = 10 Then
  Exit For
End If
Next

'Write the file references to a new document
Set reportDocument = appRef.Documents.Add

Set fileNameText = reportDocument.TextFrames.Add
fileNameText.Position = Array(50, 520)
fileNameText.Contents = "File references in " & _
  sourceDocument.Name & ":"
For counter = 0 To (index - 1)
  Set fileNameText = reportDocument.TextFrames.Add
  fileNameText.Position = Array(65, 500 - 20 * counter)
  fileNameText.Contents = fileReferences(counter)
Next
```

Getting page items of particular types

```
'Sets all placed or raster page items to hidden

Set appRef = CreateObject("Illustrator.Application")

For Each artItem In appRef.ActiveDocument.PageItems
  If (TypeName(artItem) = "PlacedItem" Or _
    TypeName(artItem) = "RasterItem") Then
    artItem.Hidden = True
  End If
Next
```

Paper

A container for information objects about the paper to be used for printing.

Paper properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Name | String | The paper name. |
| PaperInfo | PaperInfo | The paper information. |

PaperInfo

Contains information about the dimensions and imageable area of the paper to be used for printing.

PaperInfo properties

| Property | Value type | What it is |
|----------------------|-----------------------------|--|
| Application | Application | Read-only. The Illustrator Application object. |
| CustomPaper | Boolean | If true, a custom paper is being used. |
| Height | Double | The paper's height in points. |
| ImageableArea | Array of 4 Doubles | The imageable area. |
| Width | Double | The paper's width in points. |

Using Paper and PaperInfo objects

'Creates a new document then displays the paper list of the first printer in a text frame

```
Set appRef = CreateObject("Illustrator.Application")
```

```
'Add a new document with some simple artwork
'(Must be a printable artwork for use with Printer object.)
Set docRef = appRef.Documents.Add()
Set textRef = docRef.TextFrames.Add()
textRef.Top = 750
textRef.Left = 50
```

```
curPrinterList = appRef.PrinterList
```

```
If UBound(curPrinterList) < 1 Then
```

```
    'exit
    sText = "Empty PrinterList"
    paragraphCount = 1
```

```
Else
```

```
    'Get paper objects for first printer
    Set printerRef = curPrinterList(1)
    sText = printerRef.Name
    sText = sText & " paper list:" & vbCrLf
```

```
    'Display data about available paper types
    paragraphCount = 2
    paperSizeArray = printerRef.PrinterInfo.PaperSizes
    If IsEmpty (paperSizeArray) Then
        sText = sText & vbCrLf
        paragraphCount = paragraphCount + 1
```

```
    Else
```

```
        For i = 0 To UBound(paperSizeArray) - 1
            Set paperRef = paperSizeArray(i)
            sText = sText & paperRef.Name & vbCrLf
            sText = sText & vbTab & paperRef.PaperInfo.Width
            sText = sText & " x " & paperRef.PaperInfo.Height & vbCrLf
```



```
        paragraphCount = paragraphCount + 2
    Next
End If
textRef.Contents = sText
appRef.Redraw
}
```

ParagraphAttributes

Specifies the properties and attributes of a paragraph contained in a text frame.

NOTE: Paragraph attributes do not have default values, and are undefined until explicitly set.

ParagraphAttributes properties

| Property | Value type | What it is |
|----------------------------------|--------------------------------------|--|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| AutoLeadingAmount | Double | Auto leading amount (as a percentage). |
| BunriKinshi | Boolean | If <code>true</code> , <code>BunriKinshi</code> is enabled. |
| BurasagariType | AiBurasagariTypeEnum | The Burasagari type, which specifies whether punctuation is allowed to fall outside of the paragraph bounding box (not available when <code>Kinsoku Shori</code> is set to <code>None</code>). |
| DesiredGlyphScaling | Double | The desired glyph scaling, expressed as a percentage of the default character width. Range: 50.0 to 200.0; at 100.0, the width of characters is not changed. |
| DesiredLetterSpacing | Double | Desired letter, spacing expressed as a percentage of the default kerning or tracking. Range: -100.0 to 500.0; at 0, no space is added between letters; at 100.0, an entire space width is added between letters. |
| DesiredWordSpacing | Double | Desired word spacing, expressed as a percentage of the default space for the font. Range: 0.0 to 1000.0; at 100.00, no space is added between words. |
| EveryLineComposer | Boolean | If <code>true</code> , the Every-line Composer is enabled. If <code>false</code> , the Single-line Composer is enabled. |
| FirstLineIndent | Double | First line left indent (in points). |
| HyphenateCapitalizedWords | Boolean | If <code>true</code> , hyphenation is enabled for capitalized words. |
| Hyphenation | Boolean | If <code>true</code> , hyphenation is enabled for the paragraph. |

| Property | Value type | What it is |
|----------------------------------|------------------------------------|--|
| HyphenationPreference | Double | Hyphenation preference scale for better spacing (0) or fewer hyphens (1). Range: 0.0 to 1.0 |
| HyphenationZone | Double | The distance (in points) from the right edge of the paragraph that marks the part of the line where hyphenation is not allowed. Note: 0 allows all hyphenation. Valid only when EveryLineComposer is false. |
| Justification | AiJustification | Paragraph justification. |
| Kinsoku | String | The name of a Kinsoku Shori set (a set of characters which cannot be used to begin or end a line of Japanese text). |
| KinsokuOrder | AiKinsokuOrderEnum | The preferred Kinsoku order. |
| KurikaeshiMojiShori | Boolean | If true, Kurikaeshi Moji Shori is enabled (controls how repeated characters are handled in Japanese text). |
| LeadingType | AiAutoLeadingType | The type of auto leading. |
| LeftIndent | Double | The left indent (in points). |
| MaximumConsecutiveHyphens | Long | Maximum number of consecutive hyphenated lines. |
| MaximumGlyphScaling | Double | Maximum glyph scaling, expressed as a percentage of the default character width. Range: 50.0 to 200.0; at 100.0, the width of characters is not changed. Note: Valid only for justified paragraphs. |
| MaximumLetterSpacing | Double | Maximum letter spacing, expressed as a percentage of the default kerning or tracking Range: -100.0 to 500.0; at 0, no space is added between letters; at 100.0, an entire space width is added between letters. Note: Valid only for justified paragraphs. |
| MaximumWordSpacing | Double | Maximum word spacing, expressed as a percentage of the default space for the font. Range: 0.0 to 1000.0; at 100.00, no space is added between words. Note: Valid only for justified paragraphs. |
| MinimumAfterHyphen | Long | Minimum number of characters after a hyphen. |

| Property | Value type | What it is |
|----------------------------------|--------------------------------------|---|
| MinimumBeforeHyphen | Long | Minimum number of characters before a hyphen. |
| MinimumGlyphScaling | Double | Minimum glyph scaling, expressed as a percentage of the default character width. Range: 50.0 to 200.0; at 100.0, the width of characters is not changed. Note: Valid only for justified paragraphs. |
| MinimumHyphenatedWordSize | Long | Minimum number of characters for a word to be hyphenated. |
| MinimumLetterSpacing | Double | Minimum letter spacing, expressed as a percentage of the default kerning or tracking. Range: -100.0 to 500.0; at 0, no space is added between letters; at 100.0, an entire space width is added between letters. Note: Valid only for justified paragraphs. |
| MinimumWordSpacing | Double | Minimum word spacing, expressed as a percentage of the default space for the font. Range: 0.0 to 1000.0; at 100.00, no space is added between words. Note: Valid only for justified paragraphs. |
| Mojikumi | String | The name of a predefined Mojikumi set for Japanese text composition. |
| Parent | Object | Read-only. The object's container. |
| RightIndent | Double | Right indent of margin expressed in points. |
| RomanHanging | Boolean | If <code>true</code> , Roman hanging punctuation is enabled. |
| SingleWordJustification | AiJustification | Single word justification. |
| SpaceAfter | Double | Spacing after paragraph (in points). |
| SpaceBefore | Double | Spacing before paragraph (in points). |
| TabStops | Array of TabStopInfo | Tab stop settings, as <code>TabStopInfo</code> objects. |

Modifying paragraph attributes

```
'Creates a new document with an area text item
'containing 3 paragraphs then uses paragraph attributes
'to apply a different justification to each paragraph

Set appRef = CreateObject("Illustrator.Application")

'Create 3 new paragraphs
Set docRef = appRef.Documents.Add()
Set pathRef = docRef.PathItems.Rectangle(600, 200, 200, 400)
Set textRef = docRef.TextFrames.AreaText(pathRef)
textRef.Paragraphs.Add ("Left justified paragraph.")
textRef.Paragraphs.Add ("Center justified paragraph.")
textRef.Paragraphs.Add ("Right justified paragraph.")
textRef.TextRange.CharacterAttributes.Size = 28

'Change the justification of each paragraph
'using the paragraph attributes object
textRef.Paragraphs(1).ParagraphAttributes.Justification = 1 'aiRight
textRef.Paragraphs(2).ParagraphAttributes.Justification = 2 'aiCenter
textRef.Paragraphs(3).ParagraphAttributes.Justification = 0 'aiLeft
```

Paragraphs

A collection of Paragraph objects.

Paragraphs properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. Number of elements in the collection. |
| Parent | Object | Read-only. The object's container. |

Paragraphs methods

| Method | Returns | What it does |
|--|---------------------------|--|
| Add (contents as String [, relativeObject as TextFrame] [, insertionLocation as AiElementPlacement]) | TextRange | Adds a new paragraph with specified contents at the specified location in the document. If location is not specified, adds the paragraph to the containing text frame after the current text selection or insertion point. |
| AddBefore (contents as String) | TextRange | Adds a new paragraph with specified contents before the current selection or insertion point. |
| Index (itemPtr as PageItem) | Long | Returns the index position of the object within the collection. |
| Item (itemKey) | Object | Returns a reference to the object identified by <code>itemKey</code> (name or index). |
| RemoveAll () | Nothing | Deletes all objects in this collection. |

Counting paragraphs in a document

```
'Counts the number of paragraphs in the document and  
'stores in numParagraphs  
  
Set appRef = CreateObject("Illustrator.Application")  
  
If appRef.Documents.Count > 0 Then  
    numParagraphs = 0  
    For Each curTextArt In appRef.ActiveDocument.TextFrames  
        Set curTextRange = curTextArt.TextRange  
        numParagraphs = numParagraphs + curTextRange.Paragraphs.Count  
    Next  
End If
```

ParagraphStyle

Associates character and paragraph attributes with a style. The style object can be used to apply those attributes to the text in a `TextFrame` object.

ParagraphStyle properties

| Property | Value type | What it is |
|----------------------------------|-------------------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>CharacterAttributes</code> | CharacterAttributes | Read-only. The character properties for the text range. |
| <code>Name</code> | String | The <code>ParagraphStyle</code> 's name. |
| <code>ParagraphAttributes</code> | ParagraphAttributes | Read-only. The paragraph properties for the text range. |
| <code>Parent</code> | Object | Read-only. The object's container. |

ParagraphStyle methods

| Method | Returns | What it does |
|--|---------|---|
| <code>ApplyTo</code> (<code>textFrame</code> as <code>TextFrame</code> [, <code>clearingOverrides</code> as <code>Boolean</code>]) | Nothing | Applies the paragraph style to the text object. |
| <code>Delete</code> () | Nothing | Deletes the object. |

Creating and applying a paragraph style

```
'Creates 3 paragraphs with different attributes, creates
'a paragraph style and applies it to each paragraph

Set appRef = CreateObject("Illustrator.Application")

'Create 3 new paragraphs
Set docRef = appRef.Documents.Add()
Set pathRef = docRef.PathItems.Rectangle(600, 200, 200, 400)
Set textRef = docRef.TextFrames.AreaText(pathRef)
textRef.Paragraphs.Add ("Left justified paragraph.")
textRef.Paragraphs.Add ("Center justified paragraph.")
textRef.Paragraphs.Add ("Right justified paragraph.")
textRef.TextRange.CharacterAttributes.Size = 28

'Change the justification of each paragraph
'using the paragraph attributes object
textRef.Paragraphs(1).ParagraphAttributes.Justification = 1 'aiRight
textRef.Paragraphs(2).ParagraphAttributes.Justification = 2 'aiCenter
textRef.Paragraphs(3).ParagraphAttributes.Justification = 0 'aiLeft

'Create a new paragraph style
Set paraStyle = docRef.ParagraphStyles.Add("LeftIndent")

'Add some paragraph attributes
paraStyle.ParagraphAttributes.Justification = 0 'aiLeft
paraStyle.ParagraphAttributes.FirstLineIndent = 10

For Each pg In textRef.Paragraphs
    paraStyle.ApplyTo pg, True
Next
appRef.Redraw
```

ParagraphStyles

A collection of `ParagraphStyle` objects. See [ParagraphStyle](#) for an example.

ParagraphStyles properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Object | Read-only. The object's container. |

ParagraphStyles methods

| Method | Returns | What it does |
|---|--------------------------------|---|
| <code>Add</code> (name as <code>String</code>) | ParagraphStyle | Creates a new <code>ParagraphStyle</code> object. |
| <code>Index</code> (itemPtr as <code>ParagraphStyle</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | ParagraphStyle | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

PathItem

Art items such as those created using the Line, Rectangle, or Pen Tools. A path consists of path points that define its geometry. Path points are defined either as a `PathPoint` object or as an x-y page coordinate pair. The `PathItem` class gives you complete access to paths in Illustrator.

PathItem properties

| Property | Value type | What it is |
|------------------------|---------------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Area | Double | Read-only. The area of this path in square points. If the area is negative, the path is wound counterclockwise. Self-intersecting paths can contain sub-areas that cancel each other out, which makes this value zero even though the path has apparent area. |
| ArtworkKnockout | AiKnockoutState | Is this object used to create a knockout, and if so, what kind. |
| BlendingMode | AiBlendModes | The mode used when compositing an object. |
| Clipping | Boolean | If <code>true</code> , this path is to be used as a clipping path |
| Closed | Boolean | If <code>true</code> , this path is closed |
| ControlBounds | Variant Array of 4 Doubles | Read-only. The bounds of the object including stroke width and controls. |
| Editable | Boolean | Read-only. If <code>true</code> , this path item is editable. |
| Evenodd | Boolean | If <code>true</code> , the even-odd rule is used to determine insidiness. |
| FillColor | Color info | The fill color of the path. |
| Filled | Boolean | If <code>true</code> , the path is filled. |
| FillOverprint | Boolean | If <code>true</code> , the art beneath a filled object are overprinted. |
| GeometricBounds | Variant Array of 4 Doubles | Read-only. The bounds of the object excluding stroke width. |
| Guides | Boolean | If <code>true</code> , this path is a guide object. |
| Height | Double | The height of the path item, based on the <code>GeometricBounds</code> . |
| Hidden | Boolean | If <code>true</code> , this path item is hidden. |
| IsIsolated | Boolean | If <code>true</code> , this object is isolated. |
| Layer | Layer | Read-only. The <code>Layer</code> to which this path item belongs. |

| Property | Value type | What it is |
|---------------------------|----------------------------------|--|
| Left | Double | The position of the left side of the item (in points, measured from the left side of the page). |
| Length | Double | Read-only. The length of this path (in points). |
| Locked | Boolean | If <code>true</code> , this path item is locked. |
| Name | String | The name of this path item. |
| Note | String | The note text assigned to the path |
| Opacity | Double | The opacity of the object. Range 0.0 to 100.0 |
| Parent | object | Read-only. The object that contains this path item. |
| PathPoints | PathPoints | Read-only. The path points contained in this path item. |
| Polarity | AiPolarityValues | The polarity of the path. |
| Position | Variant Array of 2 Doubles | The position (in points) of the top left corner of the item in the format [x, y]. Does not include stroke weight. |
| Resolution | Double | The resolution of the path in dots per inch. |
| Selected | Boolean | If <code>true</code> , this path item is selected. |
| SelectedPathPoints | PathPoints | Read-only. All of the selected path points in the path. |
| Sliced | Boolean | If <code>true</code> , this path item is sliced. |
| StrokeCap | AiStrokeCap | The type of line capping. |
| StrokeColor | Color info | The stroke color for the path. |
| Stroked | Boolean | If <code>true</code> , the path is stroked. |
| StrokeDashes | Variant Array of Doubles | The lengths for dashes and gaps in dashed lines, starting with the first dash length, followed by the first gap length, and so on. Set to an empty list, [], for a solid line. |
| StrokeDashOffset | Double | The default distance into the dash pattern at which the pattern is started. |
| StrokeJoin | AiStrokeJoin | Type of joints for the path. |
| StrokeMiterLimit | Double | When a default stroke join is set to <code>mitered</code> , this property specifies when the join will be converted to beveled (squared-off) by default. The default miter limit of 4 means that when the length of the point reaches four times the stroke weight, the join switches from a miter join to a bevel join. A value of 1 specifies a bevel join. Range: 1 to 500 Default: 4 |
| StrokeOverprint | Boolean | If <code>true</code> , the art beneath a stroked object is overprinted. |

| Property | Value type | What it is |
|---------------------------|----------------------------|--|
| StrokeWidth | Double | The width of the stroke (in points). |
| Tags | Tags | Read-only. The tags contained in this path item. |
| Top | Double | The position of the top of the item (in points, measured from the bottom of the page). |
| URL | String | The value of the Adobe URL tag assigned to this path item. |
| VisibilityVariable | Variant | The <code>Variable</code> bound to this path item. |
| VisibleBounds | Variant Array of 4 Doubles | Read-only. The visible bounds of the path item including stroke width. |
| Width | Double | The width of the path item, based on the <code>GeometricBounds</code> . |
| WrapInside | Boolean | If <code>true</code> , the text frame object is wrapped inside this object. |
| WrapOffset | Double | The offset to use when wrapping text around this object. |
| Wrapped | Boolean | If <code>true</code> , wrap text frame objects around this object (text frame must be above the object). |
| ZOrderPosition | Long | Read-only. The position of this art item within the stacking order of the group or layer (<code>Parent</code>) that contains the art item. |

PathItem methods

| Method | Returns | What it does |
|---|---------|--|
| Copy () | Nothing | Copies the path item to the clipboard; the associated document must be the frontmost document. |
| Cut () | Nothing | Cuts the path item to the clipboard; the associated document must be the frontmost document. |
| Delete () | Nothing | Deletes the object. |
| Duplicate ([relativeObject as <code>Object</code>], [insertionLocation as AiElementPlacement]) | Object | Duplicates the art item, optionally with the location and position for the copy. |

| Method | Returns | What it does |
|---|---------|---|
| Move (relativeObject as Object , insertionLocation as AiElementPlacement) | Nothing | Moves the art item to a new location and position. |
| Resize (scaleX as Double , scaleY as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, scaleAbout as AiTransformation]) | Nothing | Scales the art item where <code>scaleX</code> is the horizontal scaling factor and <code>scaleY</code> is the vertical scaling factor; 100.0 = 100% |
| Rotate (angle as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, rotateAbout as AiTransformation]) | Nothing | Rotates the art item relative to the current rotation. The object is rotated counter-clockwise if the <code>Angle</code> value is positive, clockwise if the value is negative. |
| SetEntirePath (pathSpecification as Array of [x, y] coordinate pairs) | Nothing | Sets the path using the specified array of (x,y) coordinate pairs for path points. |
| Transform (transformationMatrix as Matrix , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, transformAbout as AiTransformation]) | Nothing | Transforms the art item by applying a transformation matrix. |
| Translate ([deltaX as Double] [, deltaY as Double] [, transformObjects as Boolean] [, transformFillPatterns as Boolean] [, transformFillGradients as Boolean] [, transformStrokePatterns as Boolean]) | Nothing | Repositions the art item relative to the current position, where <code>deltaX</code> is the horizontal offset and <code>deltaY</code> is the vertical offset. |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the art item's position in the stacking order of the group or layer (<code>Parent</code>) of this object. |

Setting attributes of a path

```
'Sets the fill color and stroke width of the first path item

Set appRef = CreateObject("Illustrator.Application")

Set frontDocument = appRef.ActiveDocument
Set firstPath = frontDocument.PathItems(1)
firstPath.Filled = True
firstPath.FillColor = frontDocument.Swatches(10).Color
firstPath.Stroked = True
firstPath.StrokeWidth = 5
```

Setting a path consisting of straight lines

The `SetEntirePath` method provides an extremely efficient way to create paths that consist of straight lines. This script illustrates the use of the method.

```
'Creates 10 lines in the document then adds them as a single path item.

Set appRef = CreateObject("Illustrator.Application")
Dim lineList(10)

For index = 0 To 10
    lineList(index) = Array(index * 10 + 50, (index - 5) ^ 2 * 5 + 50)
Next

Set frontDocument = appRef.ActiveDocument
Set newPath = frontDocument.PathItems.Add
newPath.SetEntirePath(lineList)
```

PathItems

A collection of `PathItem` objects. The methods `Ellipse`, `Polygon`, `Rectangle`, `RoundedRectangle`, and `Star` allow you to create complex `PathItems` using straightforward parameters. Note that `Rectangle`, `RoundedRectangle`, and `Ellipse` take the Y axis first (Top), then the X axis (Left). If you do not provide any parameters when calling these methods, default values are used.

PathItems properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Object | Read-only. The object's container. |

PathItems methods

| Method | Returns | What it does |
|---|--------------------------|--|
| <code>Add</code> (<code>)</code> | PathItem | Creates a new <code>PathItem</code> object. |
| <code>Ellipse</code> (<code>[top as Double]</code> <code>[, left as Double]</code> <code>[, width as Double]</code> <code>[, height as Double]</code> <code>[, reversed as Boolean]</code> <code>[, inscribed as Boolean]</code>) | PathItem | Creates a new <code>PathItem</code> in the shape of an ellipse using the supplied parameters. Defaults: Top: 100 pt.; Left: 100 pt.; Width: 50 pt.; Height: 100 pt.; Reversed: False |
| <code>Index</code> (<code>item as PathItem</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (<code>itemKey</code>) | PathItem | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>Polygon</code> (<code>[centerX as Double]</code> <code>[, centerY as Double]</code> <code>[, radius as Double]</code> <code>[, sides as Long]</code> <code>[, reversed as Boolean]</code>) | PathItem | Creates a new <code>PathItem</code> in the shape of a polygon using the supplied parameters. Defaults: CenterX: 200 pt.; CenterY: 300 pt.; Radius: 50 pt.; Sides: 8; Reversed: false |
| <code>Rectangle</code> (<code>[top as Double]</code> <code>[, left as Double]</code> <code>[, width as Double]</code> <code>[, height as Double]</code> <code>[, reversed as Boolean]</code>) | PathItem | Creates a new <code>PathItem</code> in the shape of a rectangle using the supplied parameters. |
| <code>RemoveAll</code> (<code>)</code> | Nothing | Deletes all objects in this collection. |

| Method | Returns | What it does |
|--|--------------------------|--|
| RoundedRectangle ([top as Double] [, left as Double] [, width as Double] [, height as Double] [, horizontalRadius as Double] [, verticalRadius as Double] [, reversed as Boolean]) | PathItem | Creates a new <code>PathItem</code> in the shape of a rectangle with rounded corners using the supplied parameters. Defaults: HorizontalRadius: 15 pt.; VerticalRadius: 20 pt.; Reversed: False |
| Star ([centerX as Double] [, centerY as Double] [, radius as Double] [, innerRadius as Double] [, points as Long] [, reversed as Boolean]) | PathItem | Creates a new <code>PathItem</code> in the shape of a star using the supplied parameters. Defaults: CenterX: 200 pt.; CenterY: 300 pt.; Radius: 50 pt.; InnerRadius: 20 pt.; Points: 5; Reversed: False |

Creating shapes

```
'Creates 5 new path items in the current document and
'applies a random graphic style to each item

Set appRef = CreateObject("Illustrator.Application")

Set frontDocument = appRef.Documents.Add()

'Create a new rectangle with
'top = 762.5, left side = 87.5, width = 425 and height = 75
Set newRectangle = frontDocument.PathItems.Rectangle(762.5,87.5,425.0,75.0)
'create new rounded rectangle
Set newRndRectangle =
frontDocument.PathItems.RoundedRectangle(637.5,87.5,425.0,75.0,20.0,10.0)
'create ellipse, 'reversed' is false, 'inscribed' is true
Set newEllipse = frontDocument.PathItems.Ellipse(512.5,87.5,425.0,75.0,false,true)
'create an 8 sided polygon
Set newOctagon = frontDocument.PathItems.Polygon(300.0,325.0,75.0,8)
'create a 4 pointed star
Set newStar = frontDocument.PathItems.Star(300.0,125.0,100.0,20.0,4)

For Each newItem in frontDocument.PathItems
  Randomize
  styleIndex = Int((frontDocument.GraphicStyles.Count) * Rnd + 1)
  frontDocument.GraphicStyles(styleIndex).ApplyTo(newItem)
Next
```

PathPoint

A point on a specific path. Each path point is made up of an anchor point and a pair of handles, or control points.

PathPoint properties

| Property | Value type | What it is |
|-----------------------|--------------------------------------|---|
| Anchor | Variant Array of 2 Doubles | The position of the anchor point. |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| LeftDirection | Variant Array of 2 Doubles | The position of this path point's inward control point. |
| Parent | Object | Read-only. The object that contains this <code>PathPoint</code> object. |
| PointType | AiPointType | The type of path point, either a curve or a corner. Any point can be considered a corner point. Setting the type to a corner forces the left and right direction points to be on a straight line when the user attempts to modify them in the user interface. |
| RightDirection | Variant Array of 2 Doubles | The position of this path point's outward control point. |
| Selected | AiPathPointSelection | Are points of this path point selected, and if so, which ones. |

PathPoint methods

| Method | Returns | What it does |
|----------------------|---------|---------------------|
| Delete () | Nothing | Deletes the object. |

Shaping a path item by modifying a path point

```
'Changes the left and right path point directions of
'all but the last path point of frontmost path item

Set appRef = CreateObject("Illustrator.Application")
Set firstPath = appRef.ActiveDocument.PathItems(1)
countOfPoints = firstPath.PathPoints.Count

'Go through all PathPoints except the last one and set the
'left/right direction according to where the next point is
For index = 1 To (countOfPoints - 1)
    Set currentPoint = firstPath.PathPoints(index)
    Set nextPoint = firstPath.PathPoints(index + 1)
    currentAnchorList = currentPoint.Anchor
    nextAnchorList = nextPoint.Anchor
    deltax = nextAnchorList(0) - currentAnchorList(0)
    deltax = currentAnchorList(1) - nextAnchorList(1)
    length = Sqr(deltax ^ 2 + deltax ^ 2)

    currentPoint.LeftDirection = Array(currentAnchorList(0) - (50 * deltax / length),
currentAnchorList(1) - (50 * deltax / length))
    currentPoint.RightDirection = Array(currentAnchorList(0) + (50 * deltax / length),
currentAnchorList(1) + (50 * deltax / length))
Next
```

PathPoints

A collection of `PathPoint` objects in a path.

PathPoints properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Object | Read-only. The object's container. |

PathPoints methods

| Method | Returns | What it does |
|---|---------------------------|---|
| <code>Add</code> () | PathPoint | Creates a new <code>PathPoint</code> object. |
| <code>Index</code> (item as <code>PathPoint</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | PathPoint | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Adding a new path point

```
'Creates a new path point in the first path item

Set appRef = CreateObject("Illustrator.Application")
Set firstPath = appRef.ActiveDocument.PathItems(1)
Set newPoint = firstPath.PathPoints.Add

newPoint.Anchor = Array(75, 300)
newPoint.LeftDirection = Array(10, 280)
newPoint.RightDirection = Array(165, 330)
newPoint.PointType = 2
```

Pattern

An Illustrator pattern definition contained in a document. Patterns are shown in the Swatches palette. Each pattern is referenced by a [PatternColor](#) object, which defines the pattern's appearance.

Pattern properties

| Property | Value type | What it is |
|-------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Name | String | The pattern name. |
| Parent | Document | Read-only. The document that contains this pattern. |

Pattern methods

| Method | Returns | What it does |
|---------------|---------|---------------------|
| Delete () | Nothing | Deletes the object. |

Setting a fill color to a pattern

```
'Sets the default fill to pattern 1

Set appRef = CreateObject("Illustrator.Application")
Set frontDocument = appRef.Documents(1)
Set patternColor = CreateObject("Illustrator.PatternColor")

For Each swatchRef In appRef.ActiveDocument.Swatches
  ' Get the color object of the swatch
  Set swatchColor = swatchRef.Color
  ' Only operate on patterns
  If (swatchColor.TypeName = "PatternColor") Then
    frontDocument.DefaultFilled = true
    frontDocument.DefaultFillColor = swatchColor
  End If
Next
```

PatternColor

A pattern color specification, used in conjunction with the `Pattern` property of the `Color` specification. Pattern colors are created using a reference to an existing pattern in the document. A matrix may be specified to further transform the pattern color.

`PatternColor` objects can be used in any property that takes a `color info` object, such as `fillColor` or `strokeColor`.

PatternColor properties

| Property | Value type | What it is |
|----------------------|-----------------------------|--|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Matrix | Matrix | An additional transformation matrix to manipulate the prototype pattern. |
| Pattern | Pattern | A reference to the pattern object to use in this color definition. |
| Reflect | Boolean | If <code>true</code> , the prototype is reflected before filling. |
| ReflectAngle | Double | The axis in degrees around which to reflect. |
| Rotation | Double | The angle in degrees to rotate the prototype pattern before filling. |
| ScaleFactor | Variant Array of 2 Doubles | The fraction to which to scale the prototype pattern before filling, represented as a point containing horizontal and vertical scaling percentages |
| ShearAngle | Double | The angle in degrees by which to slant the shear. |
| ShearAxis | Double | The axis in degrees to shear relative to. |
| ShiftAngle | Double | The angle in degrees to translate the unscaled prototype pattern before filling. |
| ShiftDistance | Double | The distance in points to which to translate the unscaled prototype pattern before filling. |

Modifying a pattern

```
'Rotates each pattern in the swatch list 10 degrees
'then applies it to the first path item.

Set appRef = CreateObject("Illustrator.Application")
Set colorOfPattern = CreateObject("Illustrator.PatternColor")
Set frontPath = appRef.ActiveDocument.PathItems(1)

For Each swatchRef In appRef.ActiveDocument.Swatches
  'Get the color object of the swatch
  Set swatchColor = swatchRef.Color
  'Only operate on patterns
  If (swatchColor.TypeName = "PatternColor") Then
    swatchColor.Rotation = 10
    frontPath.filled = true
    frontPath.fillColor = swatchColor
  End If
Next
```

Patterns

A collection of `Pattern` objects in a document.

Patterns properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Object | Read-only. The object's container. |

Patterns methods

| Method | Returns | What it does |
|---|-------------------------|---|
| <code>Add</code> () | Pattern | Creates a new <code>Pattern</code> object. |
| <code>Index</code> (item as <code>Pattern</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | Pattern | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Removing a pattern

```
'Deletes a pattern from the document

Set appRef = CreateObject("Illustrator.Application")

'Delete the pattern, then set the patternToRemove reference to
'nothing because it no longer references an existing Illustrator pattern
Set frontDocument = appRef.Documents(1)
Set patternToRemove = frontDocument.Patterns(1)
frontDocument.Patterns.Remove patternToRemove
```


PDFFileOptions

Options for opening Adobe PDF documents. This object is found in the `PDFFileOptions` property of the `Preferences` class.

PDFFileOptions properties

| Property | Value type | What it is |
|---------------------------|------------------------------|--|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>PageToOpen</code> | Long | Specifies which page are used when opening a multipage document. Default: 1 |
| <code>Parent</code> | Object | Read-only. The object's container. |
| <code>PDFCropToBox</code> | AiPDFBoxType | Specifies which box are used when placing a multipage document. Default: 4 ' AiPDFMediaBox |

Opening a PDF file

```
'Opens a multi-page PDF file to a specific
'page using the PDFFileOptions object
'filePath contains the full name and file path of the file to open
```

```
Sub pdfFileOptions(filePath)
    Set appRef = CreateObject("Illustrator.Application")

    With appRef.Preferences.PDFFileOptions
        .PageToOpen = 2
        .PDFCropToBox = 5 'aiPDFBoundingBox
    End With

    Set docRef = appRef.Open(filePath, 1)
End Sub
```

PDFSaveOptions

Options that can be supplied when saving a document as an Adobe PDF file with the `document.SaveAs` method.

PDFSaveOptions properties

| Property | Value type | What it is |
|---|--------------------------------------|--|
| AcrobatLayers | Boolean | Optional. If <code>true</code> , create PDF layers from top-level layers (Acrobat 6 only option). Default: <code>false</code> |
| Application | Application | Optional. Read-only. The Illustrator Application object. |
| ArtboardRange | string | Optional. This is considered for multi-asset extraction, which specifies the artboard range. An empty string extracts all the artboards. Default: empty string |
| BleedLink | Boolean | Optional. Link 4 bleed values. Default: <code>true</code> |
| BleedOffsetRect | Variant Array of 4 Doubles | The bleed offset rectangle. |
| ColorBars | Boolean | Optional. Draw color bars. Default: <code>false</code> |
| ColorCompression | AiCompressionQuality | Optional. Compression method for color bitmap images. Default: <code>1 ' aiNoCompression</code> |
| ColorConversionID | AiColorConversion | Optional. The PDF color conversion policy. Default: <code>0 ' aiColorConversionNone</code> |
| ColorDestinationID | AiColorDestination | Optional. The conversion target for color conversion. Default: <code>0 ' aiColorDestinationNone</code> |
| ColorDownsampling | Double | Optional. if zero, no downsampling, otherwise, the resolution to downsample color bitmap images to. Default: <code>150.0</code> |
| ColorDownsamplingImage-Threshold | Double | Optional. Downsample if the image's resolution is above this value. Default: <code>225.0</code> |
| ColorDownsamplingMethod | AiDownsampleMethod | Optional. Specifies how color bitmap images are resampled. Default: <code>0 ' aiNoDownsample</code> |

| Property | Value type | What it is |
|------------------------------|---------------------------------------|--|
| ColorProfileID | AiColorProfile | Optional. The color profile to include. Default: 0 ' aiColorProfileNone |
| ColorTileSize | Long | Optional. Tile size when compressing with JPEG2000. Default: 256 |
| Compatibility | AiPDFCompatibility | Optional. The version of the Acrobat® file format to create. Default: 5 ' Acrobat5 |
| CompressArt | Boolean | Optional. If <code>true</code> , line art and text are compressed. Default: <code>true</code> |
| DocumentPassword | String | Optional. A password string to open the document. Default: <code>no string</code> |
| EnableAccess | Boolean | Optional. If <code>true</code> , enable accessing 128-bit. Default: <code>true</code> |
| EnableCopy | Boolean | Optional. If <code>true</code> , enable copying of text 128-bit. Default: <code>true</code> |
| EnableCopyAccess | Boolean | Optional. If <code>true</code> , enable copying and accessing 40-bit. Default: <code>true</code> |
| EnablePlainText | Boolean | Optional. Enable plaintext metadata 128-bit; available only for Acrobat 6. Default: <code>false</code> |
| FlattenerOptions | PrintFlattenerOptions | Optional. The printing flattener options |
| FlattenerPreset | String | Optional. Transparency flattener style name. Default: <code>Custom</code> |
| FontSubsetThreshold | Double | Optional. Include a subset of fonts when less than this percentage of characters are used. Range: 0.0 to 100.0. Default: 100.0 |
| GenerateThumbnails | Boolean | Optional. If <code>true</code> , generate thumbnails for the saved document. Default: <code>true</code> |
| GrayscaleCompression | AiCompressionQuality | Optional. Specifies how grayscale bitmap images are compressed. Default: 1 ' aiNoCompression |
| GrayscaleDownsampling | Double | Optional. If zero, no downsampling, otherwise, the resolution to downsample grayscale images to. Default: 150.0 |

| Property | Value type | What it is |
|--|---|---|
| GrayscaleDownsampling-ImageThreshold | Double | Optional. Downsample if the image's resolution is above this value. Default: 225.0 |
| GrayscaleDownsampling-Method | AiDownsampleMethod | Optional. How should grayscale bitmap images be resampled. Default: 0 ' aiNoDownsample |
| GrayscaleTileSize | Long | Optional. Tile size when compressing with JPEG2000. Default: 256 |
| MonochromeCompression | AiMonochromeCompression | Optional. How should monochrome bitmap images be compressed. Default: 0 ' aiNoMonoCompression |
| MonochromeDownsampling | Double | Optional. The resolution to downsample images to. If 0, no downsampling. Default: 300.0 |
| MonochromeDownsampling-ImageThreshold | Double | Optional. Downsample if the image's resolution is above this value. Default: 450 |
| MonochromeDownsampling-Method | AiDownsampleMethod | Optional. How monochrome bitmap images are resampled. Default: aiNoDownsample |
| Offset | Double | Optional. Offset from artwork to draw printer marks. Default: 0 |
| Optimization | Boolean | Optional. If true, saved PDF are optimized for fast web viewing. Default: false |
| OutputCondition | String | Optional. An optional comment to add to the PDF file, describing the intended printing condition. Default: not included |
| OutputConditionID | String | Optional. The name of a registered printing condition. Default: not included |
| PageInformation | Boolean | Optional. If true, draw page information. Default: false |
| PageMarksType | AiPageMarksStyle | Optional. The page marks style. Default: aiPageMarksStandard |
| PDFAllowPrinting | AiPDFPrintAllowedEnum | Optional. PDF security printing permission. Default: 3 ' aiPrint128HighResolution |

| Property | Value type | What it is |
|----------------------------------|---|---|
| PDFChangesAllowed | AiPDFChangesAllowedEnum | Optional. PDF security changes allowed. Default: 5 ' Change128AnyChanges |
| PDFPreset | String | Optional. PDF preset name |
| PDFXStandard | AiPDFXStandard | Optional. The PDF standard with which this document complies. Default: 1 ' aiPDFXNone |
| PDFXStandardDescription | string | Optional. A description of the PDF standard from the selected preset. |
| PermissionPassword | String | Optional. A password string to restrict editing security settings. Default: no string |
| PreserveEditability | Boolean | Optional. If <code>true</code> , preserve Illustrator editing capabilities when saving the document. Default: <code>true</code> |
| PrinterResolution | Double | Optional. Flattening printer resolution. Default: 800.0 |
| RegistrationMarks | Boolean | Optional. Draw registration marks. Default: <code>false</code> |
| RequireDocumentPassword | Boolean | Optional. If <code>true</code> , a password are required to open the document. Default: <code>false</code> |
| RequirePermissionPassword | Boolean | Optional. If <code>true</code> , a password are used to restrict editing security settings. Default: <code>false</code> |
| Trapped | Boolean | Optional. If <code>true</code> , manual trapping has been prepared for the document. Default: <code>false</code> |
| TrimMarks | Boolean | Optional. If <code>true</code> , draw trim marks. Default: <code>false</code> |
| TrimMarkWeight | AiPDFTrimMarkWeight | Optional. Trim mark weight. Default: 1 ' aiTrimMarkWeight0125 |
| ViewAfterSaving | Boolean | Optional. If <code>true</code> , view PDF after saving. Default: <code>false</code> |

Saving to PDF

This script illustrates how to save the frontmost document as PDF.

```
'Saves current document as PDF to dest
'dest contains the full path and file name to save to

Sub exportFileAsPDF (dest)
    Set appRef = CreateObject("Illustrator.Application")
    Set saveOptions = CreateObject("Illustrator.PDFSaveOptions")
    saveOptions.ColorCompression = 6 'aiJPEGHigh
    saveOptions.Compatibility = 5 'aiAcrobat5
    Set frontDocument = appRef.ActiveDocument
    Call frontDocument.SaveAs (dest, saveOptions)
End Sub
```

PhotoshopFileOptions

Options applied when opening or placing an Adobe Photoshop file.

PhotoshopFileOptions properties

| Property | Value type | What it is |
|-----------------------------|-----------------------------|--|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| LayerComp | String | The name of the layer composition to use when the document is converted. |
| Parent | Object | Read only. This object's parent object. |
| PreserveHiddenLayers | Boolean | If <code>true</code> , preserve hidden layers when the document is converted. Default: <code>false</code> |
| PreserveImageMaps | Boolean | If <code>true</code> , the image maps are preserved when the document is converted. Default: <code>true</code> |
| PreserveLayers | Boolean | If <code>true</code> , layers are preserved when the document is converted. Default: <code>true</code> |
| PreserveSlices | Boolean | If <code>true</code> , slices are preserved when the document is converted. Default: <code>true</code> |

Opening a Photoshop document

```
'Opens a PSD file and retains its layers
'using the PhotoshopFileOptions object
'dest contains the full path and file name of the file to open
```

```
Sub photoShopFileOptions(dest)
    Set appRef = CreateObject("Illustrator.Application")

    With appRef.Preferences.PhotoshopFileOptions
        PreserveLayers = True
        PixelAspectRatioCorrection = False
    End With

    Set docRef = appRef.Open(dest, 1)
End Sub
```

PlacedItem

An artwork item placed in a document as a linked file. For example, an artwork item created using the File > Place command in Illustrator or by using the `Add` method of the `PlacedItems` collection object. For information, see [“PlacedItems” on page 164](#).

PlacedItem properties

| Property | Value type | What it is |
|------------------------------|---|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>ArtworkKnockout</code> | AiKnockoutState | Indicates whether this object is used to create a knockout, and if so, what kind. |
| <code>BlendingMode</code> | AiBlendModes | The mode used when compositing an object. |
| <code>BoundingBox</code> | Variant Array of 4 <code>Doubles</code> | Read-only. Dimensions of the object, regardless of transformations. |
| <code>ContentVariable</code> | Variable | The <code>Variable</code> bound to this object. It is not necessary to set the type of the <code>ContentVariable</code> before binding. Illustrator automatically sets the type to be the same as the object to which it is bound. |
| <code>ControlBounds</code> | Variant Array of 4 <code>Doubles</code> | Read-only. The bounds of the object, including stroke width and controls. |
| <code>Editable</code> | Boolean | Read-only. If <code>true</code> , this object is editable. |
| <code>File</code> | String | The file containing the placed object. |
| <code>GeometricBounds</code> | Variant Array of 4 <code>Doubles</code> | Read-only. The bounds of the object, excluding stroke width. |
| <code>Height</code> | Double | The height of the object, based on <code>GeometricBounds</code> . |
| <code>Hidden</code> | Boolean | If <code>true</code> , this object is hidden. |
| <code>IsIsolated</code> | Boolean | If <code>true</code> , this object is isolated. |
| <code>Layer</code> | Layer | Read-only. The layer to which this object belongs. |
| <code>Left</code> | Double | The position of the left side of the item (in points, measured from the left side of the page). |
| <code>Locked</code> | Boolean | If <code>true</code> , this object is locked |
| <code>Matrix</code> | Matrix | The transformation matrix applied to the object. |
| <code>Name</code> | String | The name of this object. |
| <code>Note</code> | String | The note assigned to this object. |
| <code>Opacity</code> | Double | The opacity of the object. Range: 0.0 to 100.0 |

| Property | Value type | What it is |
|---------------------------|----------------------------|--|
| Parent | object | Read-only. The object that contains this object. |
| Position | Variant Array of 2 Doubles | The position (in points) of the top left corner of the item in the format [x, y]. Does not include stroke weight. |
| Selected | Boolean | If true, this object is selected. |
| Sliced | Boolean | If true, this object is sliced. |
| Tags | Tags | Read-only. The tags contained in this object. |
| Top | Double | The position of the top of the item (in points, measured from the bottom of the page). |
| URL | String | The value of the Adobe URL tag assigned to this object. |
| VisibilityVariable | Variable | The Variable bound to this object. |
| VisibleBounds | Variant Array of 4 Doubles | Read-only. The visible bounds of the object, including stroke width. |
| Width | Double | The width of the object, based on <code>GeometricBounds</code> . |
| WrapInside | Boolean | If true, the text frame object are wrapped inside this object. |
| WrapOffset | Double | The offset to use when wrapping text around this object. |
| Wrapped | Boolean | If true, the text frame objects are wrapped around this object (text frame must be above the object). |
| ZOrderPosition | Long | Read-only. The position of this art item within the stacking order of the group or layer (<code>Parent</code>) that contains the art item. |

PlacedItem methods

| Method | Returns | What it does |
|---|---------|---|
| Copy () | Nothing | Copies the item to the clipboard; the associated document must be the frontmost document. |
| Cut () | Nothing | Cuts the item to the clipboard; the associated document must be the frontmost document. |
| Delete () | Nothing | Deletes the object. |
| Duplicate ([relativeObject as <code>Object</code>], [insertionLocation as AiElementPlacement]) | Object | Duplicates the art item, optionally with the location and position for the copy. |

| Method | Returns | What it does |
|---|---------|---|
| Embed () | Nothing | Embeds this art in the document. Converts the art to art item objects as needed and deletes this object. |
| Relink (linkFile as String) | Nothing | Relinks the art object with the file that defines its content. |
| Resize (scaleX as Double , scaleY as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, scaleAbout as AiTransformation]) | Nothing | Scales the art item where <code>scaleX</code> is the horizontal scaling factor and <code>scaleY</code> is the vertical scaling factor; 100.0 = 100% |
| Rotate (angle as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, rotateAbout as AiTransformation]) | Nothing | Rotates the art item relative to the current rotation. The object is rotated counter-clockwise if the <code>Angle</code> value is positive, clockwise if the value is negative. |
| Transform (transformationMatrix as Matrix , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, transformAbout as AiTransformation]) | Nothing | Transforms the art item by applying a transformation matrix. |
| Translate ([deltaX as Double] [, deltaY as Double] [, transformObjects as Boolean] [, transformFillPatterns as Boolean] [, transformFillGradients as Boolean] [, transformStrokePatterns as Boolean]) | Nothing | Repositions the art item relative to the current position, where <code>deltaX</code> is the horizontal offset and <code>deltaY</code> is the vertical offset. |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the art item's position in the stacking order of the group or layer (<code>Parent</code>) of this object. |

Changing the selection in placed items

This script illustrates how to change the selection of `PlacedItems`.

```
'Toggles selection of all placed items in the document  
Set appRef = CreateObject("Illustrator.Application")  
For Each placedArt In appRef.ActiveDocument.PlacedItems  
    placedArt.Selected = Not (placedArt.Selected)  
Next
```

PlacedItems

A collection of placed art items. See [“PlacedItem” on page 160](#) for an example of use.

PlacedItems properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. Number of elements in the collection. |
| Parent | Document | Read-only. The object’s document container. |

PlacedItems methods

| Method | Returns | What it does |
|--|----------------------------|---|
| Add () | PlacedItem | Creates a new <code>PlacedItem</code> object. Use to place new art in a document. Use the <code>file</code> property of the resulting object to link the file containing the artwork. For information, see “PlacedItem” on page 160 . |
| Index (item as <code>PlacedItem</code>) | Long | Returns the index position of the object within the collection. |
| Item (itemKey) | PlacedItem | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| RemoveAll () | Nothing | Deletes all objects in this collection. |

PluginItem

An art item created by an Illustrator plug-in such as the blend tool. Scripts can create a plug-in item using `PlacedItem.trace` or `RasterItem.trace`, and can copy existing plug-in items using the `duplicate` method, or copy and paste them, but cannot create `PluginItem` objects directly.

PluginItem properties

| Property | Value type | What it is |
|------------------------|---------------------------------|--|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtworkKnockout | AiKnockoutState | Is this object used to create a knockout, and if so, what kind. |
| BlendingMode | AiBlendModes | The mode used when compositing an object. |
| ControlBounds | Variant Array of 4 Doubles | Read-only. The bounds of the object including stroke width and controls. |
| Editable | Boolean | Read-only. If <code>true</code> , this item is editable. |
| GeometricBound | Variant Array of 4 Doubles | Read-only. The bounds of the object excluding stroke width. |
| Height | Double | The height of the item, based on <code>GeometricBounds</code> . |
| Hidden | Boolean | If <code>true</code> , this item is hidden. |
| IsIsolated | Boolean | If <code>true</code> , this object is isolated. |
| IsTracing | Boolean | Read-only. If <code>true</code> , this plug-in group represents a vector art item created by tracing a raster art item. The <code>tracing</code> property contains the tracing object associated with the options used to create it. |
| Layer | Layer | Read-only. The layer this item belongs to. |
| Left | Double | The position of the left side of the item (in points, measured from the left side of the page). |
| Locked | Boolean | If <code>true</code> , this item is locked |
| Name | String | The name of this item. |
| Note | String | The note assigned to this <code>PluginItem</code> . |
| Opacity | Double | The opacity of the object. Range: 0.0 to 100.0 |
| Parent | Object | Read-only. The object that contains this item. |
| Position | Variant Array of 2 Doubles | The position (in points) of the top left corner of the item in the format <code>[x, y]</code> . Does not include stroke weight. |
| Selected | Boolean | If <code>true</code> , this item is selected. |
| Sliced | Boolean | If <code>true</code> , this item is sliced. |

| Property | Value type | What it is |
|---------------------------|----------------------------|--|
| Tags | Tags | Read-only. The tags contained in this item. |
| Top | Double | The position of the top of the item (in points, measured from the bottom of the page). |
| Tracing | TracingObject | Read-only. When this plug-in group was created by tracing (<code>IsTracing</code> is <code>true</code>), the tracing object associated with the options used to create it. |
| URL | String | The value of the Adobe URL tag assigned to this item. |
| VisibilityVariable | Variable | The Variable bound to this item. |
| VisibleBounds | Variant Array of 4 Doubles | Read-only. The visible bounds of the item including stroke width. |
| Width | Double | The width of the item, based on <code>GeometricBounds</code> . |
| WrapInside | Boolean | If <code>true</code> , the text frame object are wrapped inside this object. |
| WrapOffset | Double | The offset to use when wrapping text around this object. |
| Wrapped | Boolean | If <code>true</code> , the text frame objects are wrapped around this object (text frame must be above the object). |
| ZOrderPosition | Long | Read-only. The position of this art item within the stacking order of the group or layer (<code>Parent</code>) that contains the art item. |

PluginItem methods

| Method | Returns | What it does |
|---|---------|---|
| Copy () | Nothing | Copies the item to the clipboard; the associated document must be the frontmost document. |
| Cut () | Nothing | Cuts the item to the clipboard; the associated document must be the frontmost document. |
| Delete () | Nothing | Deletes the object. |
| Duplicate ([relativeObject as Object], [insertionLocation as AiElementPlacement]) | Object | Duplicates the art item, optionally with the location and position for the copy. |

| Method | Returns | What it does |
|---|----------------------------|--|
| Move (relativeObject as Object , insertionLocation as AiElementPlacement) | Nothing | Moves the art item to a new location and position. |
| Resize (scaleX as Double , scaleY as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, scaleAbout as AiTransformation]) | Nothing | Scales the art item where <code>scaleX</code> is the horizontal scaling factor and <code>scaleY</code> is the vertical scaling factor; 100.0 = 100% |
| Rotate (angle as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, rotateAbout as AiTransformation]) | Nothing | Rotates the art item relative to the current rotation. The object is rotated counter-clockwise if the <code>Angle</code> value is positive, clockwise if the value is negative. |
| Trace () | PluginItem | Converts the raster art for this object to vector art, using default options. Reorders the placed art into the source art of a plug-in group, and converts it into a group of filled and/or stroked paths that resemble the original image. Creates and returns a <code>PluginItem</code> object that references a <code>TracingObject</code> object. |
| Transform (transformationMatrix as Matrix , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, transformAbout as AiTransformation]) | Nothing | Transforms the art item by applying a transformation matrix. |

| Method | Returns | What it does |
|--|---------|---|
| Translate ([deltaX as Double] [, deltaY as Double] [, transformObjects as Boolean] [, transformFillPatterns as Boolean] [, transformFillGradients as Boolean] [, transformStrokePatterns as Boolean]) | Nothing | Repositions the art item relative to the current position, where <code>deltaX</code> is the horizontal offset and <code>deltaY</code> is the vertical offset. |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the art item's position in the stacking order of the group or layer (<code>Parent</code>) of this object. |

Copying a plug-in item

This example demonstrates how to create a new `PluginItem` by copying an existing `PluginItem`.

```
'Copies and pastes the first plugin item in the current
'document

Set appRef = CreateObject("Illustrator.Application")

Set frontDocument = appRef.ActiveDocument
If (frontDocument.PluginItems.Count > 0) Then
    Set pluginArt = frontDocument.PluginItems(1)
    pluginArt.Copy
    frontDocument.Paste
Else
    MsgBox "There is no plug-in art in the front document"
End If
```


PluginItems

A collection of `PluginItem` objects in a document.

PluginItems properties

| Property | Value type | What it is |
|--------------------------|--|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Layer or GroupItem | Read-only. The object's container. |

PluginItems methods

| Method | Returns | What it does |
|--|----------------------------|---|
| <code>Index</code> (item as <code>PluginItem</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | PluginItem | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

PPDFile

Associates file information with a PostScript Printer Description (PPD) file.

PPDFile properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Name | String | The PPD model name. |
| PPDInfo | PPDFileInfo | The PPD file information. |

PPDFileInfo

Information about a PostScript Printer Description (PPD) file.

PPDFileInfo properties

| Property | Value type | What it is |
|-------------------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator Application object. |
| LanguageLevel | String | The PostScript language level. |
| File | File | Path specification for the PPD file. |
| ScreenList | Variant | List of color separation screens. |
| ScreenSpotFunctionList | Variant | List of color separation screen spot functions. |

Using a PPD file

'Displays the name, postscript level and path data contained in
'each PPD file in a text frame

```
Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents.Add()
x = 30
y = docRef.Height - 30
```

```
For Each ppd In appRef.PPDFileInfoList
  ' get data for each PPD
  sPPD = ppd.Name & vbCrLf
  sPPD = sPPD & vbTab & "PS Level "
  sPPD = sPPD & ppd.PPDFileInfo.LanguageLevel & vbCrLf
  sPPD = sPPD & vbTab & "Path: "
  sPPD = sPPD & ppd.PPDFileInfo.File & vbCrLf

  ' display data with a textFrame
  Set textRef = docRef.TextFrames.Add()
  textRef.TextRange.CharacterAttributes.Size = 8
  textRef.Contents = sPPD
  textRef.Top = y
  textRef.Left = x
  appRef.Redraw
  y = y - textRef.Height
Next
```

Preferences

Specifies the preferred options for AutoCAD, FreeHand, PDF, and Photoshop files.

Preferences properties

| Property | Value type | What it is |
|-----------------------------|--------------------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| AutoCADFileOptions | AutoCADFileOptions | Read-only. Options to use when opening or placing an AutoCAD file. |
| FreeHandFileOptions | FreeHandFileOptions | Read-only. Options to use when opening or placing a FreeHand file. |
| Parent | Object | Read-only. The object's container. |
| PDFFileOptions | PDFFileOptions | Read-only. Options to use when opening or placing a PDF file. |
| PhotoshopFileOptions | PhotoshopFileOptions | Read-only. Options to use when opening or placing a Photoshop file. |

Preferences methods

| Method | Returns | What it does |
|---|---------|---|
| GetBooleanPreference (key as <code>String</code>) | Boolean | Gets the boolean value of a given application preference. |
| GetIntegerPreference (key as <code>String</code>) | Integer | Gets the integer value of a given application preference. |
| GetRealPreference (key as <code>String</code>) | Double | Gets the real-number value of a given application preference. |
| GetStringPreference (key as <code>String</code>) | String | Gets the string value of a given application preference. |
| RemovePreference (key as <code>String</code>) | Nothing | Deletes a given application preference. |
| SetBooleanPreference (key as <code>String</code> , value as <code>Boolean</code>) | Nothing | Sets the boolean value of a given application preference. |
| SetIntegerPreference (key as <code>String</code> , value as <code>Integer</code>) | Nothing | Sets the integer value of a given application preference. |

| Method | Returns | What it does |
|---|----------------|---|
| SetRealPreference (key as String , value as Double) | Nothing | Sets the real-number value of a given application preference. |
| SetStringPreference (key as String , value as String) | Nothing | Sets the string value of a given application preference. |

PrintColorManagementOptions

Contains information used for color management of the document.

PrintColorManagementOptions properties

| Property | Value type | What it is |
|------------------|-------------------------------------|---|
| Application | Application | Read-only. The Illustrator Application object. |
| ColorProfileMode | AiPrintColorProfile | The color management profile mode. Default: 1 ' aiSourceProfile |
| Intent | AiPrintColorIntent | The color management intent type. Default: 2 ' aiRelativeColorimetric |
| Name | String | The color management profile name. |

Managing colors for printing

```
'Creates a new document with a path item,
'creates a PrintColorManagementOptions object and assigns it
'to a PrintOptions object, then prints with each color intent

'create a simple path item and apply a graphic style to it
Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents.Add
Set pathItem = docRef.PathItems.Rectangle(600, 200, 200, 200)
docRef.GraphicStyles(2).ApplyTo pathItem

Set colorOptions = CreateObject("Illustrator.PrintColorManagementOptions")
Set printOptionsRef = CreateObject("Illustrator.PrintOptions")
printOptionsRef.ColorManagementOptions = colorOptions
colorOptions.Name = "ColorMatch RGB"

'Print the current document once for each color intent.
colorOptions.Intent = 3 'aiAbsoluteColorimetric
docRef.print
colorOptions.Intent = 0 'aiPerceptualIntent
docRef.print
colorOptions.Intent = 2 'aiRelativeColorimetric
docRef.print
colorOptions.Intent = 1 'aiSaturationIntent
docRef.print
```

PrintColorSeparationOptions

Information about the color separations to be used in printing the document.

PrintColorSeparationOptions properties

| Property | Value type | What it is |
|----------------------------|--|--|
| Application | Application | Read-only. The Illustrator Application object. |
| ColorSeparationMode | AiPrintColorSeparationMode | The color separation type. Default: 0 ' aiComposite |
| ConvertSpotColors | Boolean | If true, spot colors are converted to process colors. Default: false |
| InkList | Variant Array of Ink | The list of inks for color separation. |
| OverPrintBlack | Boolean | If true, overprint in black. Default: false |

Managing print color separations

```
'Creates a new document, adds symbol items, create
'a PrintColorSeparationOptions object and
'print with various separation settings

'Create a new document and add some artwork
Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents.Add()
y = docRef.Height - 30
i = 1
Do While (i < 2)
    Set symbolRef = docRef.Symbols(i)
    Set itemRef = docRef.SymbolItems.Add(symbolRef)
    itemRef.Top = y
    itemRef.Left = 100
    y = (y - (itemRef.Height + 10))
    i = i + 1
Loop
appRef.Redraw

'Create a separations object and assign it a
'PrintOptions object
Set printOpts = CreateObject("Illustrator.printOptions")
Set separationOpts = CreateObject("Illustrator.PrintColorSeparationOptions")
printOpts.ColorSeparationOptions = separationOpts

'Print with various separation options
separationOpts.ConvertSpotColors = True
separationOpts.OverPrintBlack = True
separationOpts.ColorSeparationMode = 0 'aiComposite
docRef.PrintOut printOpts

separationOpts.ColorSeparationMode = 2 'aiInRIPSeparation
```

```
docRef.PrintOut printOpts

separationOpts.ConvertSpotColors = False
separationOpts.OverPrintBlack = False
separationOpts.ColorSeparationMode = 1 'aiHostBasedSeparation
docRef.PrintOut printOpts
```


PrintCoordinateOptions

Information about the media and associated printing parameters.

PrintCoordinateOptions properties

| Property | Value type | What it is |
|------------------------|------------------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Emulsion | Boolean | If <code>true</code> , flip artwork will be flipped horizontally. Default: <code>false</code> |
| FitToPage | Boolean | Whether to proportionally scale the artwork to fit on media. Default: <code>false</code> |
| HorizontalScale | Double | The horizontal scaling factor expressed as a percentage (100 = 100%) Range: 1.0 to 10000.0. Default: <code>100.0</code> |
| Orientation | AiPrintOrientation | The artwork orientation. Default: <code>0 ' aiPortrait</code> |
| Position | AiPrintPosition | The artwork position on media. Default: <code>5 ' aiTranslateCenter</code> |
| Tiling | AiPrintTiling | The page tiling mode. Default: <code>0 ' aiTileSingleFullPage</code> |
| VerticalScale | Double | The vertical scaling factor expressed as a percentage (100 = 100%) Range: 1.0 to 10000.0. Default: <code>100.0</code> |

Managing print coordinates

```
'Creates a new document with text extending off the page
'and print it with various Coordinate Options

'Create a TextFrame that extends off the page
Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents.Add()
Set textRef = docRef.TextFrames.Add()
textRef.Contents = "This should extend off the page"
textRef.Left = -50
textRef.Top = 600
textRef.Width = docRef.Width + 100
textRef.Height = 150
appRef.Redraw

'Print the item using various settings of the
'PrintCoordinateOptions object
Set coordinateOptions = CreateObject("Illustrator.PrintCoordinateOptions")
Set printOptions = CreateObject("Illustrator.printOptions")
printOptions.coordinateOptions = coordinateOptions

coordinateOptions.Emulsion = True ' reverse from right to left
coordinateOptions.FitToPage = True ' fit artwork to page size
coordinateOptions.Orientation = 1 'aiLandscape
docRef.PrintOut printOptions

coordinateOptions.Emulsion = False
coordinateOptions.Orientation = 0 'aiPortrait
coordinateOptions.HorizontalScale = 50
coordinateOptions.VerticalScale = 50
docRef.PrintOut printOptions
```

Printer

Associates an available printer with printer information. To request a list of printers, you must first have a document open or an error is returned.

Printer properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Name</code> | String | The printer name |
| <code>PrinterInfo</code> | PrinterInfo | The printer information |

PrinterInfo

Contains all configuration information about a printer.

PrinterInfo properties

| Property | Value type | What it is |
|--------------------------------------|--|--|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| BinaryPrintingSupport | Boolean | If <code>true</code> , the printer supports binary printing. |
| ColorSupport | AiPrinterColorMode | The printer color capability. |
| CustomPaperSupport | Boolean | If <code>true</code> , the printer supports custom paper sizes. |
| CustomPaperTransverse-Support | Boolean | If <code>true</code> , the printer supports custom paper transverse. |
| DeviceResolution | Double | The printer default resolution. |
| InRIPSeparationSupport | Boolean | If <code>true</code> , the printer supports InRIP color separation. |
| MaxDeviceResolution | Double | The printer maximum device resolution. |
| MaxPaperHeight | Double | Custom paper's maximum height. |
| MaxPaperHeightOffset | Double | Custom paper's maximum height offset. |
| MaxPaperWidth | Double | Custom paper's maximum width. |
| MaxPaperWidthOffset | Double | Custom paper's maximum width offset. |
| MinPaperHeight | Double | Custom paper's minimum height. |
| MinPaperHeightOffset | Double | Custom paper's minimum height offset. |
| MinPaperWidth | Double | Custom paper's minimum width. |
| MinPaperWidthOffset | Double | Custom paper's minimum width offset. |
| PaperSizes | Variant Array of Paper | The list of supported paper sizes. |
| PostScriptLevel | AiPrinterPostScriptLevelEnum | The PostScript language level. |
| PrinterType | AiPrinterTypeEnum | The printer type. |

Finding printers

```
'Uses the PrinterList to obtain the name
'of each printer and displays it in a text frame

noFailure = True
Set appRef = CreateObject("Illustrator.Application")

Set docRef = appRef.Documents.Add()
Set textRef = docRef.TextFrames.Add()
textRef.Top = docRef.Height - 50
textRef.Left = 50
sData = "Printers:"

For Each printerRef In appRef.PrinterList
    sData = sData & vbCrLf & printerRef.Name
Next

textRef.Contents = sData
appRef.Redraw
```

Finding printer information

```
'Creates a document with a text frame then
'loops through the printer list, showing info on
'each printer using the PrintInfo attribute

'create a new document
Set appRef = CreateObject("Illustrator.Application")

Set docRef = appRef.Documents.Add()

'add title text frame
Set textRef1 = docRef.TextFrames.Add()
textRef1.Contents = "Checking Printers..."
textRef1.Top = 600
textRef1.Left = 200
appRef.Redraw

'for each printer, list the PS support and InHostRip support
For Each printerRef In appRef.PrinterList
    sPrintInfo = sPrintInfo & printerRef.Name & vbCrLf
    sPrintInfo = sPrintInfo & vbTab & "PS Level = "
    sPrintInfo = sPrintInfo & CStr(printerRef.PrinterInfo.PostScriptLevel) & vbCrLf
    sPrintInfo = sPrintInfo & vbTab & "Device Resolution = "
    sPrintInfo = sPrintInfo & CStr(printerRef.PrinterInfo.DeviceResolution) & vbCrLf
    sPrintInfo = sPrintInfo & vbTab & "InRIPSeparation Support = "
    sPrintInfo = sPrintInfo & CStr(printerRef.PrinterInfo.InRIPSeparationSupport) & vbCrLf
Next

textRef1.Contents = sPrintInfo
appRef.Redraw
```

PrintFlattenerOptions

Contains flattening options for use when Illustrator outputs artwork that contains transparency into a non-native format.

PrintFlattenerOptions properties

| Property | Value type | What it is |
|---------------------------------|--------------------------------|--|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ClipComplexRegions | Boolean | If <code>true</code> , clip complex regions. Default: <code>false</code> |
| ConvertStrokesToOutlines | Boolean | If <code>true</code> , convert all strokes to outlines. Default: <code>false</code> |
| ConvertTextToOutlines | Boolean | If <code>true</code> , convert all text to outlines. Default: <code>false</code> |
| FlatteningBalance | Double | The flattening balance. Range: 0.0 to 100.0. Default: 100.0 |
| GradientResolution | Long | The gradient resolution in dots per inch (dpi). Range: 1.0 to 9600.0. Default: 300.0 |
| Overprint | AiPDFOverprint | Whether to preserve, discard, or simulate overprinting. Default: <code>1 ' aiPreservePDFOverprint</code> |
| RasterizationResolution | Double | The rasterization resolution in dots per inch (dpi). Range: 1.0 to 9600.0. Default: 300.0 |

Setting print flattening

```
'Creates a document, adds a rectangle
'with a graphic style applied, then
'prints the document with "low" and "high"
'flattener settings

Set appRef = CreateObject("Illustrator.Application")

Set docRef = appRef.Documents.Add()
Set itemRef = docRef.PathItems.Rectangle(600, 200, 200, 200)
docRef.GraphicStyles(2).ApplyTo itemRef

'Create a PrintFlattenerOptions object and
'assign it to a PrintOptions object.
Set flatOpts = CreateObject("Illustrator.PrintFlattenerOptions")
Set printOpts = CreateObject("Illustrator.printOptions")
printOpts.FlattenerOptions = flatOpts

'print faster with low resolution
flatOpts.ClipComplexRegions = True
flatOpts.GradientResolution = 30
flatOpts.RasterizationResolution = 30
docRef.PrintOut printOpts

'print slower with higher resolution
flatOpts.ClipComplexRegions = False
flatOpts.GradientResolution = 300
flatOpts.RasterizationResolution = 300
docRef.PrintOut printOpts
```

PrintFontOptions

Contains information about font downloading and substitution for the fonts used for printing a document.

PrintFontOptions properties

| Property | Value type | What it is |
|-------------------------|--|---|
| Application | Application | Read-only. The Illustrator Application object. |
| DownloadFonts | AiPrintFontDownloadMode | The font download mode. Default: 1 ' aiDownloadSubset |
| FontSubstitution | AiFontSubstitutionPolicy | The font substitution policy. Default: 1 ' aiSubstituteOblique |

Setting print font options

```
'Creates a new document with a text item,
'creates a new print font options object then
'prints with specified font options

Set appRef = CreateObject("Illustrator.Application")

Set docRef = appRef.Documents.Add()
Set textRef = docRef.TextFrames.Add()
textRef.Top = 600
textRef.Left = 50
textRef.Contents = "PrintFontOptions object"

'Create a PrintFontOptions object and
'assign it to a PrintOptions object.
Set fontOpts = CreateObject("Illustrator.PrintFontOptions")
Set printOpts = CreateObject("Illustrator.printOptions")
printOpts.FontOptions = fontOpts

fontOpts.DownloadFonts = 2 'aiDownloadComplete
fontOpts.FontSubstitution = 0 'aiSubstituteOblique

'print it
docRef.PrintOut printOpts
```


PrintJobOptions

Contains information about how a job is to be printed.

PrintJobOptions properties

| Property | Value type | What it is |
|--------------------------|---|---|
| Application | Application | Read-only. The Illustrator Application object. |
| ArtboardRange | String | The artboard range to be printed if PrintAllArtboards is false. Default: 1- |
| BitmapResolution | Double | The bitmap resolution. Minimum 0.0. Default: 0.0 |
| Collate | Boolean | If true, collate print pages. Default: false |
| Copies | Long | The number of copies to print. Minimum: 1. Default: 1 |
| Designation | AiPrintArtworkDesignation | The layers/objects to be printed. Default: 0 ' aiVisiblePrintableLayers |
| File | String | The file to which to print. |
| Name | String | The print job name. |
| PrintAllArtboards | Boolean | Indicates whether to print all artboards. Default: true |
| PrintArea | AiPrintingBounds | The printing bounds. Default: 0 ' aiArtboardBounds |
| PrintAsBitmap | Boolean | If true, print as bitmap. Default: false |
| ReversePages | Boolean | If true, print pages in reverse order. Default: false |

Printing with job options

```
'Creates a new document containing text in visible,
'printable, non-visible and non-printable layers then
'prints document with different designations to demonstrate
'how each designation affects which layers are printed

Set appRef = CreateObject("Illustrator.Application")

Set docRef = appRef.Documents.Add()

'create a visible, printable item
Set textRef_1 = docRef.Layers(1).TextFrames.Add()
textRef_1.Contents = "Visible and Printable"
textRef_1.Top = 600
textRef_1.Left = 200
```

```
'create a visible, non-printable item
Set layerRef_2 = docRef.Layers.Add()
Set textRef_2 = layerRef_2.TextFrames.Add()
textRef_2.Contents = "Visible and Non-Printable"
textRef_2.Top = 500
textRef_2.Left = 250
layerRef_2.Printable = False

' create a non-visible item
Set layerRef_3 = docRef.Layers.Add()
Set textRef_3 = layerRef_3.TextFrames.Add()
textRef_3.Contents = "Non-Visible"
textRef_3.Top = 400
textRef_3.Left = 300
layerRef_3.Visible = False
appRef.Redraw

' Print with various jobOptions
Set jobOptionsRef = CreateObject("Illustrator.PrintJobOptions")
Set printOpts = CreateObject("Illustrator.printOptions")
printOpts.JobOptions = jobOptionsRef

jobOptionsRef.Designation = 2 'aiAllLayers
jobOptionsRef.ReversePages = True
docRef.PrintOut printOpts

jobOptionsRef.Designation = 1 'aiVisibleLayers
jobOptionsRef.ReversePages = False
jobOptionsRef.PrintAsBitmap = True
docRef.PrintOut printOpts

jobOptionsRef.Designation = 0 'aiVisiblePrintableLayers
jobOptionsRef.File = "C:\temp\printJobTest1.ps"
docRef.PrintOut printOpts
```

PrintOptions

Collects all information about all printing options including flattening, color management, coordinates, fonts, and paper. Used as an argument to the [PrintOut](#) method.

PrintOptions properties

| Property | Value type | What it is |
|-------------------------------|---|--|
| Application | Application | Read-only. The Illustrator Application object. |
| ColorManagementOptions | PrintColorManagementOptions | The printing color management options. |
| ColorSeparationOptions | PrintColorSeparationOptions | The printing color separation options. |
| CoordinateOptions | PrintCoordinateOptions | The printing coordinate options. |
| FlattenerOptions | PrintFlattenerOptions | The printing flattener options. |
| FlattenerPreset | String | The transparency flattener preset name. |
| FontOptions | PrintFontOptions | The printing font options. |
| JobOptions | PrintJobOptions | The printing job options. |
| PageMarksOptions | PrintPageMarksOptions | The printing page marks options. |
| PaperOptions | PrintPaperOptions | The paper options. |
| PostScriptOptions | PrintPostScriptOptions | The PostScript options for printing. |
| PPDName | String | The PPD name. |
| PrinterName | String | The printer name. |
| PrintPreset | String | The print style. |

Setting print options

```
'Creates a new document and add some symbol items,
'creates a variety of print options and assign each
'to a PrintOptions object, then print the document
'with the combined PrintOptions object.

Set appRef = CreateObject("Illustrator.Application")

Set docRef = appRef.Documents.Add()

y = docRef.Height - 30
i = 1
Do While (i < 2)
    Set symbolRef = docRef.Symbols(i)
    Set itemRef = docRef.SymbolItems.Add(symbolRef)
    itemRef.Top = y
    itemRef.Left = 100
    y = (y - (itemRef.Height + 10))
    i = i + 1
Loop
appRef.Redraw

'create multiple options and assign to PrintOptions object
Set printOpts = CreateObject("Illustrator.printOptions")
Set colorOpts = CreateObject("Illustrator.PrintColorManagementOptions")
colorOpts.Name = "ColorMatch RGB"
colorOpts.Intent = 1 'aiSaturationIntent
printOpts.ColorManagementOptions = colorOpts

Set jobOpts = CreateObject("Illustrator.PrintJobOptions")
jobOpts.Designation = aiAllLayers
jobOpts.ReversePages = True
printOpts.JobOptions = jobOpts

Set coordinateOpts = CreateObject("Illustrator.PrintCoordinateOptions")
coordinateOpts.FitToPage = True
printOpts.coordinateOptions = coordinateOpts

Set flattenerOpts = CreateObject("Illustrator.PrintFlattenerOptions")
flattenerOpts.ClipComplexRegions = True
flattenerOpts.GradientResolution = 60
flattenerOpts.RasterizationResolution = 60
printOpts.FlattenerOptions = flattenerOpts

docRef.PrintOut printerOpts
```

PrintPageMarksOptions

The options for printing page marks.

PrintPageMarksOptions properties

| Property | Value type | What it is |
|--------------------------|----------------------------------|---|
| Application | Application | Read-only. The Illustrator Application object. |
| BleedOffsetRect | Variant Array of 4 Doubles | The bleed offset rectangle. |
| ColorBars | Boolean | If <code>true</code> , enable color bars printing. Default: <code>false</code> |
| MarksOffsetRect | Variant Array of 4 Doubles | The page marks offset rectangle. |
| PageInfoMarks | Boolean | If <code>true</code> , enable page info marks printing. Default: <code>false</code> |
| PageMarksType | AiPageMarksStyle | The predefined page marks style name. Default: <code>1 ' aiPageMarksRoman</code> |
| RegistrationMarks | Boolean | If <code>true</code> , enable registration marks printing. Default: <code>false</code> |
| TrimMarks | Boolean | If <code>true</code> , enable trim marks printing. Default: <code>false</code> |
| TrimMarksWeight | Double | Stroke weight of trim marks. Minimum: 0.0 Default: <code>0.125</code> |

Setting page mark options

```
'Creates a new document with a rectangle, creates a
'PrintPageMarksOptions object and assigns it
'to a PrintOptions object sets some attributes then prints

'create a simple path item for printing
Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents.Add
Set pathItem = docRef.PathItems.Rectangle(600, 200, 200, 200)
docRef.GraphicStyles(2).ApplyTo pathItem

'Create a PrintCoordinateOptions object and assign it
'to a PrintOptions object
Set pageMarksOpts = CreateObject("Illustrator.PrintPageMarksOptions")
pageMarksOpts.ColorBars = True
pageMarksOpts.PageInfoMarks = True
pageMarksOpts.RegistrationMarks = True
pageMarksOpts.TrimMarks = True

Set printerOpts = CreateObject("Illustrator.printOptions")
printerOpts.PageMarksOptions = pageMarksOpts

'print it
docRef.PrintOut printerOpts
```

PrintPaperOptions

Contains information about the paper to be used in a print job.

PrintPaperOptions properties

| Property | Value type | What it is |
|--------------------|-----------------------------|--|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Height | Double | The custom height (in points) for using the custom paper. Default: 0.0 |
| Name | String | The paper's name. |
| Offset | Double | Custom offset (in points) for using the custom paper. Default: 0.0 |
| Transverse | Boolean | If <code>true</code> , transverse the artwork (rotate 90 degrees) on the custom paper. Default: <code>false</code> |
| Width | Double | The custom width in points, for using the custom paper. Default: 0.0 |

PrintPostScriptOptions

Specifies the options to be used when printing to a PostScript printer.

PrintPostScriptOptions properties

| Property | Value type | What it is |
|----------------------------|--|---|
| Application | Application | Read-only. The Illustrator Application object. |
| BinaryPrinting | Boolean | If <code>true</code> , print in binary mode. Default: <code>false</code> |
| CompatibleShading | Boolean | If <code>true</code> , use PostScript level 1 compatible gradient and gradient mesh printing. Default: <code>false</code> |
| ForceContinuousTone | Boolean | If <code>true</code> , force continuous tone. Default: <code>false</code> |
| ImageCompression | AiPostScriptImageCompressionType | The image compression type. Default: <code>0 ' aiImageCompressionNone</code> |
| NegativePrinting | Boolean | If <code>true</code> , print in negative mode. Default: <code>false</code> |
| PostScriptLevel | AiPrinterPostScriptLevelEnum | The PostScript language level. Default: <code>2 ' aiLevel2</code> |
| ShadingResolution | Double | The shading resolution Range: 1.0 to 9600.0. Default: <code>300.0</code> |

Setting PostScript options

```
'Creates a new document, adds text, creates
'a new PrintPostScriptOptions object then
'prints with several postscript levels

'Create a new document and add a TextFrame
Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents.Add()
Set textRef = docRef.TextFrames.Add()
textRef.Top = 600
textRef.Left = 50
textRef.Contents = "PrintPostScriptOptions object"

'Create a PrintPostScriptOptions object and
'assign it to a PrintOptions object.
Set psOpts = CreateObject("Illustrator.PrintPostScriptOptions")
Set printOpts = CreateObject("Illustrator.printOptions")
printOpts.PostScriptOptions = psOpts

'print with different PS levels
psOpts.PostScriptLevel = 2 'aiPSLevel2
docRef.PrintOut printOpts

psOpts.PostScriptLevel = 3 'aiPSLevel3
docRef.PrintOut printOpts
```


RasterEffectOptions

Specifies raster effects settings for the document. All properties are optional.

RasterEffectOptions properties

| Property | Value type | What it is |
|--------------------------|---|--|
| AntiAliasing | Boolean | If <code>true</code> , the image is anti-aliased. Default: <code>false</code> |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ClippingMask | Boolean | If <code>true</code> , a clipping mask should be created for the image. Default: <code>false</code> |
| ColorModel | AiRasterizationColorModel | The color model for the rasterization. Default: <code>aiDefaultColorModel</code> |
| ConvertSpotColors | Boolean | If <code>true</code> , all spot colors are converted to process colors for the image. Default: <code>false</code> |
| Padding | Double | The amount of white space (in points) to be added around the object during rasterization. Default: <code>.0</code> |
| Resolution | Double | The rasterization resolution in dots per inch (dpi). Range: 72.0 to 2400.0. Default: 300.0 |
| Transparency | Boolean | If <code>true</code> , the image should use transparency. Default: <code>false</code> |

RasterItem

A bitmap art item in a document. A script can create raster items from an external file, and can create new raster items by copying and pasting or duplicating existing raster items.

RasterItem properties

| Property | Value type | What it is |
|---------------------------|-----------------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtworkKnockout | AiKnockoutState | Is this object used to create a knockout, and if so, what kind. |
| BitsPerChannel | Integer | Read-only. The number of bits per channel. |
| BlendingMode | AiBlendModes | The mode used when compositing an object. |
| BoundingBox | Variant Array of 4 Doubles | Dimensions of item regardless of transformations. |
| Channels | Integer | Read-only. The number of channels. |
| Colorants | Array of Strings | Read-only. The colorants used in the raster art. |
| ColorizedGrayscale | Boolean | Read-only. If <code>true</code> , the raster art is a colorized grayscale image. |
| ContentVariable | Variable | The <code>Variable</code> bound to this item. It is not necessary to set the type before binding. |
| ControlBounds | Variant Array of 4 Doubles | Read-only. The bounds of the object including stroke width and controls. |
| Editable | Boolean | Read-only. If <code>true</code> , this item is editable. |
| Embedded | Boolean | If <code>true</code> , the Raster art can be embedded within the illustration. |
| File | String | Read-only. The file containing the art. |
| GeometricBounds | Variant Array of 4 Doubles | Read-only. The bounds of the object excluding stroke width. |
| Height | Double | The height of the item, based on <code>GeometricBounds</code> . |
| Hidden | Boolean | If <code>true</code> , this item is hidden. |
| ImageColorSpace | AiImageColorSpace | Read-only. The color space of the Raster image. |
| IsIsolated | Boolean | If <code>true</code> , this object is isolated. |
| Layer | Layer | Read-only. The layer this item belongs to. |
| Left | Double | The position of the left side of the item (in points, measured from the left side of the page). |
| Locked | Boolean | If <code>true</code> , this item is locked |

| Property | Value type | What it is |
|---------------------------|-----------------------------------|--|
| Matrix | Matrix | The transformation matrix applied to the item. |
| Name | String | The name of this item. |
| Note | String | The note assigned to this object. |
| Opacity | Double | The opacity of the object. Range: 0.0 to 100.0 |
| Overprint | Boolean | If <code>true</code> , the raster art overprints. |
| Parent | Object | Read-only. The object that contains this item. |
| Position | Variant Array of 2 Doubles | The position (in points) of the top left corner of the item in the format [x, y]. Does not include stroke weight. |
| Selected | Boolean | If <code>true</code> , this item is selected. |
| Sliced | Boolean | If <code>true</code> , this item is sliced. |
| Status | AiRasterLinkState | Read-only. The status of the linked image, if the image is stored externally. |
| Tags | Tags object | Read-only. The tags contained in this item. |
| Top | Double | The position of the top of the item (in points, measured from the bottom of the page). |
| Transparent | Boolean | Read-only. If <code>true</code> , the raster art is transparent. |
| URL | String | The value of the Adobe URL tag assigned to this item. |
| VisibilityVariable | Variable | The <code>Variable</code> bound to this item. |
| VisibleBounds | Variant Array of 4 Doubles | Read-only. The visible bounds of the item including stroke width. |
| Width | Double | The width of the item, based on <code>GeometricBounds</code> . |
| WrapInside | Boolean | If <code>true</code> , the text frame object are wrapped inside this object. |
| WrapOffset | Double | The offset to use when wrapping text around this object. |
| Wrapped | Boolean | If <code>true</code> , the text frame objects are wrapped around this object (text frame must be above the object). |
| ZOrderPosition | Long | Read-only. The position of this art item within the stacking order of the group or layer (<code>Parent</code>) that contains the art item. |

RasterItem methods

| Method | Returns | What it does |
|---|---------|---|
| Colorize (<i>rasterColor</i> as object) | Nothing | Colorizes the <code>RasterItem</code> with a CMYK or RGB color. |
| Copy () | Nothing | Copies the item to the clipboard; the associated document must be the frontmost document. |
| Cut () | Nothing | Cuts the item to the clipboard; the associated document must be the frontmost document. |
| Delete () | Nothing | Deletes the object. |
| Duplicate ([<i>relativeObject</i> as Object], [<i>insertionLocation</i> as AiElementPlacement]) | Object | Duplicates the art item, optionally with the location and position for the copy. |
| Move (<i>relativeObject</i> as Object , <i>insertionLocation</i> as AiElementPlacement) | Nothing | Moves the art item to a new location and position. |
| Resize (<i>scaleX</i> as Double , <i>scaleY</i> as Double , [<i>changePositions</i> as Boolean] [<i>changeFillPatterns</i> as Boolean] [<i>changeFillGradients</i> as Boolean] [<i>changeStrokePattern</i> as Boolean] [<i>changeLineWidths</i> as Double] [<i>scaleAbout</i> as AiTransformation]) | Nothing | Scales the art item where <i>scaleX</i> is the horizontal scaling factor and <i>scaleY</i> is the vertical scaling factor; 100.0 = 100% |
| Rotate (<i>angle</i> as Double , [<i>changePositions</i> as Boolean] [<i>changeFillPatterns</i> as Boolean] [<i>changeFillGradients</i> as Boolean] [<i>changeStrokePattern</i> as Boolean] [<i>rotateAbout</i> as AiTransformation]) | Nothing | Rotates the art item relative to the current rotation. The object is rotated counter-clockwise if the <i>Angle</i> value is positive, clockwise if the value is negative. |

| Method | Returns | What it does |
|---|----------------------------|---|
| Trace () | PluginItem | <p>Converts the raster art for this object to vector art, using default options. Reorders the raster art into the source art of a plug-in group, and converts it into a group of filled and/or stroked paths that resemble the original image.</p> <p>Creates and returns a <code>PluginItem</code> object that references a <code>TracingObject</code> object.</p> |
| Transform (transformationMatrix as Matrix , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, transformAbout as AiTransformation]) | Nothing | Transforms the art item by applying a transformation matrix. |
| Translate ([deltaX as Double] [, deltaY as Double] [, transformObjects as Boolean] [, transformFillPatterns as Boolean] [, transformFillGradients as Boolean] [, transformStrokePatterns as Boolean]) | Nothing | Repositions the art item relative to the current position, where <code>deltaX</code> is the horizontal offset and <code>deltaY</code> is the vertical offset. |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the art item's position in the stacking order of the group or layer (<code>Parent</code>) of this object. |

RasterItems

A collection of `RasterItem` objects.

RasterItems properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. The number of elements in the collection. |
| <code>Parent</code> | Object | Read-only. The object's container. |

RasterItems methods

| Method | Returns | What it does |
|--|----------------------------|---|
| <code>Index</code> (item as <code>RasterItem</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | RasterItem | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Creating a raster item

'Creates a new raster item in a new document from a file
'jpgFilePath contains the full path and file name of the file

```
Sub rasterItemCreate(jpgFilePath)
    Set app = CreateObject("Illustrator.Application")
    Set myDoc = app.Documents.Add()
    Set myPlacedItem = myDoc.PlacedItems.Add()
    myPlacedItem.File = jpgFilePath
    myPlacedItem.Embed()
End Sub
```

Getting properties of raster items

```
'Extracts the color space type of the first raster item

Set appRef = CreateObject("Illustrator.Application")
Set rasterArt = appRef.ActiveDocument.RasterItems(1)
Select Case (rasterArt.ImageColorSpace)
  Case 3 'aiImageCMYK
    ' "The first raster item is a CMYK raster item"
  Case 2 'aiImageRGB
    ' "The first raster item is an RGB raster item"
  Case 1 'aiImageGrayScale
    ' "The first raster item is a Grayscale raster item"
End Select
```

RasterizeOptions

Specifies options that may be supplied when rasterizing artwork. All properties are optional.

RasterizeOptions properties

| Property | Value type | What it is |
|------------------------------|---|---|
| AntiAliasingMethod | AiAntiAliasingMethod | The type of anti-aliasing method. Default: <code>aiArtOptimized</code> |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| BackgroundBlack | Boolean | If <code>true</code> , the rasterization is done against a black background (instead of white). Default: <code>false</code> |
| ClippingMask | Boolean | If <code>true</code> , a clipping mask should be created for the image. Default: <code>false</code> |
| ColorModel | AiRasterizationColorModel | The color model for the rasterization. Default: <code>aiDefaultColorModel</code> |
| ConvertSpotColors | Boolean | If <code>true</code> , spot colors should be converted to process colors for the image. Default: <code>false</code> |
| ConvertTextToOutlines | Boolean | If <code>true</code> , all text is converted to outlines before rasterization. Default: <code>false</code> |
| IncludeLayers | Boolean | If <code>true</code> , the resulting image incorporates layer attributes (like opacity and blend mode). Default: <code>false</code> |
| Padding | Double | The amount of white space (in points) to be added around the object during rasterization. Default: <code>.0</code> |
| Resolution | Double | The rasterization resolution in dots per inch (dpi). Range: 72.0 to 2400.0. Default: <code>300.0</code> |
| Transparency | Boolean | If <code>true</code> , the image should use transparency. Default: <code>false</code> |

RGBColor

An RGB color specification, used to apply an RGB color to a layer or art item.

If the color space of a document is RGB and you specify the color value for a page item in that document using CMYK, Illustrator will translate the CMYK color specification into an RGB color specification. The same thing happens if the document's color space is CMYK and you specify colors using RGB. Since this translation can lose information, you should specify colors using the class that matches the document's actual color space.

RGBColor properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Blue | Double | The blue color value. Range: 0.0 to 255.0 |
| Green | Double | The green color value. Range: 0.0 to 255.0 |
| Red | Double | The red color value. Range: 0.0 to 255.0 |

Setting RGB colors

This script sets the default fill color of the frontmost document to yellow using an RGB object. If the color space of the frontmost document is CMYK, then Illustrator will regard the RGB fill color as a CMYK color although it is specified using RGB.

```
'Creates a new RGB color then applies the color to the first path item

Set appRef = CreateObject("Illustrator.Application")
Set newFillColor = CreateObject("Illustrator.RGBColor")
Set frontPath = appRef.ActiveDocument.PathItems(1)

'Define the new color
newFillColor.Red = 255
newFillColor.Green = 255
newFillColor.Blue = 0

frontPath.Filled = True
frontPath.fillColor = newFillColor
```

Screen

Associates a color separation screen with information to be used for printing.

Screen properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Name | String | The color separation screen. |
| ScreenInfo | ScreenInfo | The color separation screen information. |

ScreenInfo

Contains information about the angle and frequency of the screen to be used for printing.

ScreenInfo properties

| Property | Value type | What it is |
|----------------------|-----------------------------|---|
| Angle | Double | The screen's angle in degrees. |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| DefaultScreen | Boolean | If <code>true</code> , it is the default screen. |
| Frequency | Double | The screen's frequency. |

Getting screen information

```
'Creates a document and displays screen data available
'for first PPD file, in a text frame

'Create a new document and add a TextFrame
Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents.Add()
Set textRef = docRef.TextFrames.Add()
textRef.Top = 600
textRef.Left = 50
textRef.Contents = "Screen Objects for 1st PPD File: " & vbCrLf

'Get the first PPD
ppdFileList = appRef.PPDFileList
If IsEmpty(ppdFileList) Then
    sInfo = "Empty PPDFileList"
Else
    Set ppdFile = ppdFileList(0)

    sInfo = ppdFile.Name & vbCrLf
    If IsEmpty(screenList) Then
        sInfo = sInfo & "Empty ScreenList" & vbCrLf
    Else
        'Get info on the all screens from the 1st PPD
        For Each screenRef In ppdFile.PPDInfo.ScreenList
            sInfo = sInfo & screenRef.Name & vbCrLf
            sInfo = sInfo & vbTab & "Angle = "
            sInfo = sInfo & CStr(screenRef.ScreenInfo.Angle) & vbCrLf
            sInfo = sInfo & vbTab & "Frequency = "
            sInfo = sInfo & screenRef.ScreenInfo.Frequency & vbCrLf
        Next
    End If
End If
textRef.Contents = textRef.Contents & sInfo
appRef.Redraw
```

ScreenSpotFunction

Contains information about the screen spot function including its definition in PostScript language code.

ScreenSpotFunction properties

| Property | Value type | What it is |
|---------------------|-----------------------------|--|
| Application | Application | Read-only. The Illustrator Application object. |
| Name | String | The color separation screen spot function name. |
| SpotFunction | String | The spot function expressed in PostScript language commands. |

Getting screen spot information

```
'Creates a new document and displays ScreenSpot
'data available for first PPD file, in a text frame

'Create a new document and add a TextFrame
Set appRef = CreateObject("Illustrator.Application")

Set docRef = appRef.Documents.Add()
Set textRef = docRef.TextFrames.Add()
textRef.Top = 600
textRef.Left = 50
textRef.Contents = "ScreenSpotFunctions for 1st PPD:" & vbCrLf

'Get the first PPD
ppdFileList = appRef.PPDFileList
If IsEmpty(ppdFileList) Then
    sInfo = "Empty PPDFileList"
Else
    Set ppdRef = ppdFileList(0)

    sInfo = ppdRef.Name & vbCrLf
    If IsEmpty(screenSpotFunctionList) Then
        sInfo = sInfo & "Empty ScreenSpotFunctionList" & vbCrLf
    Else
        'Get data on the all ScreenSpots from the 1st PPD
        For Each screenSpot In ppdRef.PPDInfo.ScreenSpotFunctionList
            sInfo = sInfo + screenSpot.Name & ": "
            sInfo = sInfo + screenSpot.SpotFunction & vbCrLf
            sInfo = sInfo & vbCrLf
        Next
    End If
End If
textRef.Contents = textRef.Contents + sInfo
appRef.Redraw
```

Spot

A custom color definition contained in a `SpotColor` object.

If no properties are specified when creating a new spot, default values are provided. However, if specifying the color, you must use the same color space as the document, either CMYK or RGB. Otherwise, an error results. When created, the spot is added to the end of the swatches list in the Swatches palette.

Spot properties

| Property | Value type | What it is |
|--------------------|---------------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Color | Color info | The color information for this spot color. |
| ColorType | AiColorModel | The color model for this spot color. |
| Name | String | The spot color's name. |
| Parent | Document | Read-only. The document that contains this spot color. |
| SpotKind | AiSpotColorKind | Read-only. The kind of the spot color (RGB, CMYK, or LAB). This is the name of the color kind contained in the spot object. |

Spot methods

| Method | Returns | What it does |
|--------------------------------|------------------|------------------------------------|
| Delete () | Nothing | Deletes the object. |
| GetInternalColor () | Color components | Gets the internal color of a spot. |

Creating a new spot

```
'Creates and adds a new spot color to the current document

Set appRef = CreateObject("Illustrator.Application")

'Create the new spot
Set frontDocument = appRef.ActiveDocument
Set newSpot = frontDocument.Spots.Add
'Define the new color value
Set newColor = CreateObject("Illustrator.CMYKColor")
newColor.Cyan = 35
newColor.Magenta = 0
newColor.Yellow = 50
newColor.Black = 0
'Define a new SpotColor with an 80% tint
'of the new Spot's color. The spot color can then
'be applied to an art item like any other color.
newSpot.Name = "Pea-Green"
newSpot.ColorType = 2 'aiSpot
newSpot.Color = newColor
Set newSpotColor = CreateObject("Illustrator.SpotColor")
newSpotColor.Spot = newSpot
```

SpotColor

Color class used to apply the color value of a spot at a specified tint value.

SpotColor properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Spot | Spot | A reference to the <code>Spot</code> object that defines the color. |
| Tint | Double | The tint of the color. Range: 0.0 to 100.0 |

Applying a tint to a spot

Your frontmost document must already have a `PathItem` before you can run this script.

```
'Creates a new RGB color, creates a new spot color,
'sets the color of the spot to 80% of the new RGB color,
'then applies 50% of the spot color to the frontmost path item

Set appRef = CreateObject("Illustrator.Application")
Set newColor = CreateObject("Illustrator.RGBColor")

'Define the new color value
newColor.Red = 255
newColor.Green = 0
newColor.Blue = 0

'Create the new spot
Set frontDocument = appRef.ActiveDocument
Set newSpot = frontDocument.Spots.Add

'Define the new SpotColor as 80% of the specified RGB color
newSpot.Name = "Red spot color"
newSpot.Color = newColor

'Apply 50% of the spot color just created to the frontmost path item,
'by creating a SpotColor object, setting its properties,
'then applying that to a path item's fill color.
Set newSpotColor = CreateObject("Illustrator.SpotColor")
newSpotColor.Spot = newSpot
newSpotColor.Tint = 50

Set frontPath = frontDocument.PathItems(1)
frontPath.Filled = True
frontPath.FillColor = newSpotColor
```

Spots

A collection of spot colors in a document.

Spots properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. Number of elements in the collection. |
| Parent | Document | Read-only. The object's document container. |

Spots methods

| Method | Returns | What it does |
|--|----------------------|---|
| Add () | Spot | Creates a new <code>Spot</code> object. |
| Index (item as <code>Spot</code>) | Spot | Returns the index position of the object within the collection. |
| Item (itemKey) | Spot | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| RemoveAll () | Nothing | Deletes all objects in this collection. |

Removing spots from a document

This script illustrates how to remove all spots defined in the frontmost document.

```
'Deletes all spots from the current document

Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.ActiveDocument
spotCount = docRef.Spots.Count
If (spotCount > 0) Then
    docRef.Spots.RemoveAll
End If
```


Stories

A collection of `Story` objects. See [Story](#) for an example.

Stories properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Document | Read-only. The object's document container. |

Stories methods

| Method | Returns | What it does |
|---|-----------------------|---|
| <code>Index</code> (item as <code>Story</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | Story | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |

Story

A contiguous block of text as specified by a text range. A story can contain one or more text frames; if there is more than one, the multiple text frames are linked together to form a single story.

Story properties

| Property | Value Type | What it is |
|------------------------|--|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Characters | Characters | Read-only. All of the characters in the story. |
| InsertionPoints | InsertionPoint | Read-only. All of the insertion points in this story. |
| Length | Long | Read-only. The number of characters in the story. |
| Lines | Lines | Read-only. All of the lines in this story. |
| Paragraphs | Paragraphs | Read-only. All of the paragraphs in this story. |
| Parent | Object | Read-only. The object's container. |
| TextFrames | TextFrames | Read-only. The text frame items in this story. |
| TextRange | TextRange | Read-only. The text range of the story. |
| TextRanges | TextRanges | Read-only. All of the text ranges in the story. |
| TextSelection | Variant Array of TextRange | Read-only. The selected text ranges in the story. |
| Words | Words | Read-only. All of the words in the story. |

Linking text frames into a story

```
'Creates a new document with 3 text frames, creates a
'story flowing through the first 2 text frames then
'creates another story fully contained in the 3rd text frame

Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents.Add()

'Create the first text frame
Set itemRef1 = docRef.PathItems.Rectangle(600, 200, 50, 30)
Set textRef1 = docRef.TextFrames.AreaText(itemRef1)
textRef1.Selected = True

'create the 2nd text frame and
'link it to the first
Set itemRef2 = docRef.PathItems.Rectangle(550, 300, 50, 200)
Set textRef2 = docRef.TextFrames.AreaText(itemRef2, aiHorizontal, textRef1)
textRef1.Contents = "This is two text frames linked together as one story"
textRef2.Selected = True
appRef.Redraw

'Create a 3rd text frame and count the stories
Set textRef3 = docRef.TextFrames.Add
textRef3.Contents = "Each unlinked textFrame adds a story."
textRef3.Top = 650
textRef3.Left = 200
appRef.Redraw
```

Swatch

A color swatch definition contained in a document. The swatches correspond to the swatch palette in the Illustrator user interface. Additional swatches can be created either manually by a user or by a script. The swatch can hold all types of color data (that is, pattern, gradient, CMYK, RGB, gray, and spot).

Swatch properties

| Property | Value type | What it is |
|-------------|-----------------------------|--|
| Application | Application | Read-only. The Illustrator Application object. |
| Color | Color info | The color information for this swatch. |
| Name | String | The swatch's name. |
| Parent | Document | Read-only. The document that contains this swatch. |

Swatch methods

| Method | Returns | What it does |
|---------------|---------|---------------------|
| Delete () | Nothing | Deletes the object. |

Changing the name of a swatch

This script illustrates how to change the name of the fifth swatch.

```
'Changes the name of a swatch

Set appRef = CreateObject("Illustrator.Application")

Set swatch5 = appRef.ActiveDocument.Swatches(5)
swatch5.Name = "myColor"
```

Swatches

A collection of `swatch` objects in a document.

Swatches properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Document | Read-only. The object's document container. |

Swatches methods

| Method | Returns | What it does |
|---|--------------------------------|---|
| <code>Add</code> () | Swatch | Creates a new <code>Swatch</code> object. |
| <code>GetSelected</code> () | List of Swatch | Gets selected swatches in the document. |
| <code>Index</code> (item as Swatch) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | Swatch | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Deleting a swatch

This script illustrates how to first obtain a swatch by index and then how to delete that swatch.

```
'Deletes a swatch from the current document

Set appRef = CreateObject("Illustrator.Application")

Set documentSwatches = appRef.ActiveDocument.Swatches
Set swatchToDelete = documentSwatches(5)
swatchToDelete.delete
```

SwatchGroup

A group of swatches.

SwatchGroup properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Name | String | The name of the swatch group. |
| Parent | Document | Read-only. The document that contains this symbol. |

SwatchGroup methods

| Method | Returns | What it does |
|---|--------------------------------|--|
| AddSpot (spot as Spot) | Nothing | Adds a spot swatch to the swatch group. |
| AddSwatch (swatch as Swatch) | Nothing | Adds a swatch to the swatch group. |
| Delete () | Nothing | Deletes a swatch group. |
| GetAllSwatches () | List of Swatch | Gets a list of all swatches in the swatch group. |

SwatchGroups

A collection of swatch group objects.

SwatchGroups properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Count | Long | Read-only. The number of objects in the collection. |
| Parent | Document | Read-only. The document that contains this object. |

SwatchGroups methods

| Method | Returns | What it does |
|---|-----------------------------|---|
| Add () | SwatchGroup | Creates a new swatch group. |
| Index (item as <code>SwatchGroup</code>) | Long | Returns the index position of the object within the collection. |
| Item (itemKey) | SwatchGroup | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| RemoveAll () | Nothing | Deletes all objects in this collection. |

Symbol

An art item that is stored in the Symbols palette, and can be reused one or more times in the document without duplicating the art data. Symbols are contained in documents. Instances of `Symbol` in a document are associated with `SymbolItem` objects, which store the art object properties.

Symbol properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Name</code> | String | The symbol's name. |
| <code>Parent</code> | Document | Read-only. The document that contains this symbol. |

Symbol methods

| Method | Returns | What it does |
|-------------------------------|---------|------------------------------------|
| <code>Delete</code> () | Nothing | Deletes the object. |
| <code>Duplicate</code> () | Object | Creates a duplicate of the object. |

SymbolItem

An art item made reusable by adding it to the Symbols palette. A `SymbolItem` is linked to the `Symbol` from which it was created and changes if you modify the associated `Symbol` object.

SymbolItem properties

| Property | Value type | What it is |
|------------------------------|---|--|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>ArtworkKnockout</code> | AiKnockoutState | Is this object used to create a knockout, and if so, what kind. |
| <code>BlendingMode</code> | AiBlendModes | The mode used when compositing an object. |
| <code>ControlBounds</code> | Variant Array of 4 <code>Doubles</code> | Read-only. The bounds of the object including stroke width and controls. |
| <code>Editable</code> | Boolean | Read-only. If <code>true</code> , this item is editable. |
| <code>GeometricBounds</code> | Variant Array of 4 <code>Doubles</code> | Read-only. The bounds of the object excluding stroke width. |
| <code>Height</code> | Double | The height of the item, based on <code>GeometricBounds</code> . |
| <code>Hidden</code> | Boolean | If <code>true</code> , this item is hidden. |
| <code>IsIsolated</code> | Boolean | If <code>true</code> , this object is isolated. |
| <code>Layer</code> | Layer | Read-only. The layer this item belongs to. |
| <code>Left</code> | Double | The position of the left side of the item (in points, measured from the left side of the page). |
| <code>Locked</code> | Boolean | If <code>true</code> , this item is locked |
| <code>Name</code> | String | The name of this item. |
| <code>Note</code> | String | The note assigned to this item. |
| <code>Opacity</code> | Double | The opacity of the object. Range: 0.0 to 100.0 |
| <code>Parent</code> | Object | Read-only. The object that contains this item. |
| <code>Position</code> | Variant Array of 2 <code>Doubles</code> | The position (in points) of the top left corner of the item in the format [x, y]. Does not include stroke weight. |
| <code>Selected</code> | Boolean | If <code>true</code> , this item is selected. |
| <code>Sliced</code> | Boolean | If <code>true</code> , this item is sliced. |
| <code>Symbol</code> | Symbol | The symbol object to which this item is linked. You can set this property to link it to a different symbol object. |
| <code>Tags</code> | Tags | Read-only. The tags contained in this item. |

| Property | Value type | What it is |
|---------------------------|----------------------------|--|
| Top | Double | The position of the top of the item (in points, measured from the bottom of the page). |
| URL | String | The value of the Adobe URL tag assigned to this item. |
| VisibilityVariable | Variable | The <code>Variable</code> bound to this item. |
| VisibleBounds | Variant Array of 4 Doubles | Read-only. The visible bounds of the item including stroke width. |
| Width | Double | The width of the item, based on <code>GeometricBounds</code> . |
| WrapInside | Boolean | If <code>true</code> , the text frame object are wrapped inside this object. |
| WrapOffset | Double | The offset to use when wrapping text around this object. |
| Wrapped | Boolean | If <code>true</code> , the text frame objects are wrapped around this object (text frame must be above the object). |
| ZOrderPosition | Long | Read-only. The position of this art item within the stacking order of the group or layer (<code>Parent</code>) that contains the art item. |

SymbolItem methods

| Method | Returns | What it does |
|--|---------|---|
| Copy () | Nothing | Copies the item to the clipboard; the associated document must be the frontmost document. |
| Cut () | Nothing | Cuts the item to the clipboard; the associated document must be the frontmost document. |
| Delete () | Nothing | Deletes the object. |
| Duplicate ([relativeObject as <code>Object</code>], [insertionLocation as AiElementPlacement]) | Object | Duplicates the art item, optionally with the location and position for the copy. |
| Move (relativeObject as <code>Object</code> , insertionLocation as AiElementPlacement) | Nothing | Moves the art item to a new location and position. |

| Method | Returns | What it does |
|---|---------|---|
| Resize (scaleX as Double , scaleY as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, scaleAbout as AiTransformation]) | Nothing | Scales the art item where <code>scaleX</code> is the horizontal scaling factor and <code>scaleY</code> is the vertical scaling factor; 100.0 = 100% |
| Rotate (angle as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, rotateAbout as AiTransformation]) | Nothing | Rotates the art item relative to the current rotation. The object is rotated counter-clockwise if the <code>Angle</code> value is positive, clockwise if the value is negative. |
| Transform (transformationMatrix as Matrix , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, transformAbout as AiTransformation]) | Nothing | Transforms the art item by applying a transformation matrix. |
| Translate ([deltaX as Double] [, deltaY as Double] [, transformObjects as Boolean] [, transformFillPatterns as Boolean] [, transformFillGradients as Boolean] [, transformStrokePatterns as Boolean]) | Nothing | Repositions the art item relative to the current position, where <code>deltaX</code> is the horizontal offset and <code>deltaY</code> is the vertical offset. |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the art item's position in the stacking order of the group or layer (<code>Parent</code>) of this object. |

Getting symbol items for symbols

```
'Creates a document and adds every symbol item to it

Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents.Add()

y = docRef.Height - 30
x = 50
i = 1

Do While (i < (docRef.Symbols.Count + 1))
    Set symbolRef = docRef.Symbols(i)
    Set itemRef = docRef.SymbolItems.Add(symbolRef)
    itemRef.Top = y
    itemRef.Left = x
    y = y - (itemRef.Height + 20)
    If (y < 60) Then
        y = docRef.Height - 30
        x = x + 200
    End If
    i = i + 1
Loop
```

SymbolItems

A collection of `SymbolItem` objects in a document. See [SymbolItem](#) for example.

SymbolItems properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Object | Read-only. The object's container. |

SymbolItems methods

| Method | Returns | What it does |
|--|----------------------------|---|
| <code>Add</code> (symbol as <code>Symbol</code>) | SymbolItem | Creates a new <code>SymbolItem</code> object in the document linked to the given symbol. |
| <code>Index</code> (item as <code>SymbolItem</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | SymbolItem | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Symbols

A collection of `symbol` objects in a document.

Symbols properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Document | Read-only. The object's document container. |

Symbols methods

| Method | Returns | What it does |
|---|------------------------|---|
| <code>Add</code> (SourceArt as <code>Object</code> , [RegistrationPoint as AiSymbolRegistrationPoint]) | Symbol | Creates a new <code>Symbol</code> object in the document based on the art item. The default registration point is <code>aiSymbolCenterPoint</code> . |
| <code>Index</code> (item as <code>Symbol</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | Symbol | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Creating symbols

```
'Creates a path item to display each graphic style,  
'then adds each item as a new symbol  
  
Set appRef = CreateObject("Illustrator.Application")  
Set docRef = appRef.Documents.Add()  
y = docRef.Height - 30  
  
iCount = docRef.GraphicStyles.Count  
  
i = 1  
Do While (i < (iCount + 1))  
    'create a PathItem and apply the style to it  
    Set styleRef = docRef.GraphicStyles(i)  
    Set itemRef = docRef.PathItems.Rectangle(y, 100, 20, 20)  
    styleRef.ApplyTo itemRef  
  
    'create a new symbol from the graphic style  
    docRef.Symbols.Add itemRef  
  
    y = (y - (itemRef.Height + 40)) ' reduce y for next item  
    i = i + 1  
Loop  
  
appRef.Redraw
```

TabStopInfo

Information about the alignment, position, and other details for a tab stop in a ParagraphAttributes object.

TabStopInfo properties

| Property | Value type | What it is |
|------------------|------------------------------------|--|
| Alignment | AiTabStopAlignment | The alignment of the tab stop. Default: 0 ' aiLeftTab |
| Application | Application | Read-only. The Illustrator Application object. |
| DecimalCharacter | String | The character used for decimal tab stops. Default: . |
| Leader | String | The leader dot. |
| Position | Double | The position of the tab stop expressed in points. Default: 0.0 |

Getting tab stop information

```
'Iterates through each text frame and display
'data found about each tab stop, if any

'verify a document is open
Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.ActiveDocument
For Each textRef In docRef.TextFrames
  ' check each TextFrame for paragraphs
  For Each paraRef In textRef.Paragraphs
    ' check each paragraph for TabStops
    For Each tabRef In paraRef.ParagraphAttributes.TabStops
      sData = "TabStop Leader = " & tabRef.Leader & Chr(9)
      sData = sData & "TabStop Position = " & CStr(tabRef.Position) & Chr(10)
    Next
  Next
Next

Set newTF = docRef.TextFrames.Add
newTF.Contents = sData
newTF.Top = 400
newTF.Left = 100
```


Tag

A tag associated with a specific art item. Tags allow you to assign an unlimited number of key-value pairs to any item in a document.

Tag properties

| Property | Value type | What it is |
|--------------------|-----------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Name | String | The Tag's name. |
| Parent | Object | Read-only. The object that contains this Tag. |
| Value | String | The data stored in this Tag. |

Tag methods

| Method | Returns | What it does |
|----------------------|---------|---------------------|
| Delete () | Nothing | Deletes the object. |

Using tags

'Displays tag information of selected item in a text frame
'in a new document

```
Set appRef = CreateObject("Illustrator.Application")
newTagName = "OneWord"
selection = appRef.selection
If (Not IsEmpty(selection)) Then
    'Get the first selected item
    Set selectedArt = selection(0)
    Set tagList = selectedArt.Tags
    If tagList.Count = 0 Then
        Set tempTag = tagList.add
        tempTag.Name = newTagName
        tempTag.Value = "anything you want"
    End If

    'Create a document and add a line of text per tag
    Set reportDocument = appRef.Documents.Add
    top_offset = 400
    For Each tagItem In tagList
        Set tagText = reportDocument.TextFrames.Add
        tagText.Contents = "Tag " & Chr(13) & Chr(9) & tagItem.Name & Chr(13) & Chr(9) &
tagItem.Value & Chr(10)
        tagText.Position = Array(100, top_offset)
        top_offset = top_offset - 20
    Next
End If
```

Tags

A collection of `Tag` objects.

Tags properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Object | Read-only. The object's container. |

Tags methods

| Method | Returns | What it does |
|---|---------------------|---|
| <code>Add</code> () | Tag | Creates a new <code>Tag</code> object. |
| <code>Index</code> (item as <code>Tag</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | Tag | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Creating tags to mark images

This example illustrates how to mark all images in a document with a specific tag. If your script creates temporary `PageItems`, you can then later look at the `MyInfo` tag. If it exist for a particular `PageItem` and its value is `OriginalItem`, you know not to delete it.

```
'Creates name and value tags for each placed or raster
'item in the current document

Set appRef = CreateObject("Illustrator.Application")

Set frontDocument = appRef.ActiveDocument
For Each imageArt In frontDocument.PageItems
  If ((imageArt.PageItemType = 6) Or _
      (imageArt.PageItemType = 8)) Then

    'Create a new Tag with the name myInfo and the value originalItem
    Set tagRef = imageArt.Tags.Add
    tagRef.Name = "MyInfo"
    tagRef.Value = "OriginalItem"
  End If
Next
```

TextFont

Information about a font in the document, found in a [CharacterAttributes](#) object.

TextFont properties

| Property | Value type | What it is |
|--------------------|-----------------------------|--|
| Application | Application | Read-only. The Illustrator Application object. |
| Family | String | Read-only. The font's family name. |
| Name | String | Read-only. The font's full name. |
| Parent | Object | Read-only. The object's container. |
| Style | String | Read-only. The font's style name. |

Showing fonts in a document

```
'Creates a new A3 sized document and lists available
'fonts until the document is full.

Set appRef = CreateObject("Illustrator.Application")
myWidth = 1191.0
myHeight = 842.0
Set docRef = appRef.Documents.Add(, myWidth, myHeight)
edgeSpacing = 10
columnSpacing = 230

x = edgeSpacing
y = docRef.Height - edgeSpacing

iCounter = 0
For Each fontRef In appRef.TextFonts
    'create the text frame
    Set textRef = docRef.TextFrames.Add()
    textRef.TextRange.CharacterAttributes.Size = 10
    textRef.Contents = fontRef.Name + " " + fontRef.Style
    textRef.Top = y
    textRef.Left = x

    ' Check whether the new text frame has gone over the document bounds
    if((x + textRef.Width) > docRef.Width) Then
        ' delete the text frame
        textRef.Delete()
        Exit For
    Else
        ' keep the text frame
        appRef.Redraw
        textRef.TextRange.CharacterAttributes.TextFont =
appRef.TextFonts.Item(fontRef.Name)
        y = y - textRef.Height
        If (y < 20) Then
            ' reset y,x at bottom of page
            y = docRef.Height - edgeSpacing
```

```
        x = x + columnSpacing
    End If
End If
iCounter = iCounter + 1
Next
```

TextFonts

A collection of `TextFont` objects.

TextFonts properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Object | Read-only. The object's container. |

TextFonts methods

| Method | Returns | What it does |
|--|--------------------------|---|
| <code>Index</code> (item as <code>TextFont</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | TextFont | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |

Finding a font

```
'Searches through the list of available fonts for the "Symbol" font

Set appRef = CreateObject("Illustrator.Application")

fontName = "Symbol"
foundTextFace = False
For Each fontToTest In appRef.TextFonts
    If (fontToTest.Name = fontName) Then
        foundTextFace = True
    End If
Next

If (foundTextFace) Then
    'fontName & " is installed on this machine"
Else
    'fontName & " is not installed on this machine"
End If
```

TextFrame

The basic art item for displaying text. From the user interface, this is text created with the Text tool. There are three types of text art in Illustrator: point text, path text, and area text. The type is indicated by the text frame's [Kind](#) property.

When you create a text frame, you also create a [Story](#) object. However, threading text frames combines the frames into a single story object. To thread frames, use the [NextFrame](#) or [PreviousFrame](#) property.

TextFrame properties

| Property | Value type | What it is |
|------------------------------|---------------------------------|---|
| Anchor | Variant Array of 2 Doubles | The position of the anchor point along the path text. |
| Antialias | AiTextAntialias | The type of anti-aliasing to use in the text. |
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| ArtworkKnockout | AiKnockoutState | Is this object used to create a knockout, and if so, what kind. |
| BlendingMode | AiBlendModes | The mode used when compositing an object. |
| Characters | Characters | Read-only. All the characters in this text frame. |
| ColumnCount | Long | The column count in the text frame (area text only). |
| ColumnGutter | Double | The column gutter in the text frame (area text only). |
| Contents | String | The text contents of this text frame. |
| ContentVariable | Variable | The content variable bound to this text frame. |
| ControlBounds | Variant Array of 4 Doubles | Read-only. The bounds of the object including stroke width and controls. |
| Editable | Boolean | Read-only. If <code>true</code> , this item is editable. |
| EndTValue | Double | The end position of text along a path, as a value relative to the path's segments (path text only). |
| FlowsLinkHorizontally | Boolean | If <code>true</code> , text is first flowed horizontally between linked frames. |
| GeometricBounds | Variant Array of 4 Doubles | Read-only. The bounds of the object excluding stroke width. |
| Height | Double | The height of the item, based on <code>GeometricBounds</code> . |
| Hidden | Boolean | If <code>true</code> , this item is hidden. |

| Property | Value type | What it is |
|-------------------------|-----------------------------------|---|
| InsertionPoints | InsertionPoints | Read-only. All the insertion points in this text frame. |
| IsIsolated | Boolean | If <code>true</code> , this object is isolated. |
| Kind | AiTextType | Read-only. The type of text frame item. |
| Layer | Layer | Read-only. The layer this item belongs to. |
| Left | Double | The position of the left side of the item (in points, measured from the left side of the page). |
| Lines | Lines | Read-only. All the lines in this text frame. |
| Locked | Boolean | If <code>true</code> , this item is locked. |
| Matrix | Matrix | Read-only. The transformation matrix for this text frame. |
| Name | String | The name of this item. |
| Note | String | The note assigned to this item. |
| NextFrame | TextFrame | The linked frame following this one. |
| Opacity | Double | The opacity of the object. Range: 0.0 to 100.0 |
| OpticalAlignment | Boolean | If <code>true</code> , the optical alignment is active. |
| Orientation | AiTextOrientation | The orientation of the text in the frame. |
| Paragraphs | Paragraphs | Read-only. All the paragraphs in this text frame. |
| Parent | Object | Read-only. The object that contains this item. |
| Position | Variant Array of 2 Doubles | The position (in points) of the top left corner of the item in the format [x, y]. Does not include stroke weight. |
| PreviousFrame | TextFrame | The linked text frame preceding this one. |
| RowCount | Long | The row count in the text frame (area text only). |
| RowGutter | Double | The row gutter in the text frame (area text only). |
| Selected | Boolean | If <code>true</code> , this item is selected. |
| Sliced | Boolean | If <code>true</code> , this item is sliced. |
| Spacing | Double | The amount of spacing between characters that flow around a sharp curve or acute angle in the path. Note: Valid only when Kind is path. |
| StartTValue | Double | The start position of text along a path, as a value relative to the path's segments. Note: Valid only when Kind is path. |
| Story | Story | Read-only. The story to which the text frame belongs. |

| Property | Value type | What it is |
|---------------------------|--|---|
| Tags | Tags | Read-only. The tags contained in this item. |
| TextPath | TextPath | Read-only. The path item associated with the text frame. Note: Valid only when Kind is area or path. |
| TextRange | TextRange | Read-only. The text range of the text frame. |
| TextRanges | TextRanges | Read-only. All the text in this text frame. |
| TextSelection | Variant Array of TextRange | Read-only. The selected text (ranges) in the TextFrame. |
| Top | Double | The position of the top of the item (in points, measured from the bottom of the page). |
| URL | String | The value of the Adobe URL tag assigned to this item. |
| VisibilityVariable | Variable | The variable bound to this item. |
| VisibleBounds | Variant Array of 4 Doubles | Read-only. The visible bounds of the item including stroke width. |
| Width | Double | The width of the item, based on GeometricBounds. |
| Words | Words | Read-only. All the words in this text frame. |
| WrapInside | Boolean | If true, the text frame object are wrapped inside this object. |
| WrapOffset | Double | The offset to use when wrapping text around this object. |
| Wrapped | Boolean | If true, the text frame objects are wrapped around this object (text frame must be above the object). |
| ZOrderPosition | Long | Read-only. The position of this art item within the stacking order of the group or layer (Parent) that contains the art item. |

TextFrame methods

| Method | Returns | What it does |
|-----------------------------|---------------------------|--|
| Copy () | Nothing | Copies the current selection to the clipboard. |
| Cut () | Nothing | Cuts the current selection to the clipboard. |
| CreateOutline () | GroupItem | Converts the frame's text to outlines. |

| | | |
|---|---------|---|
| Delete () | Nothing | Deletes the object. |
| Duplicate ([relativeObject as Object] [, insertionLocation as AiElementPlacement]) | Object | Duplicates the art item, optionally specifying the location and position for the copy. |
| Move (relativeObject as Object , insertionLocation as AiElementPlacement) | Nothing | Moves the art item, specifying the new location and position. |
| Remove () | Nothing | Deletes this object. |
| Resize (scaleX as Double , scaleY as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, scaleAbout as AiTransformation]) | Nothing | Scales the art item where <code>scaleX</code> is the horizontal scaling factor and <code>scaleY</code> is the vertical scaling factor; 100.0 = 100% |
| Rotate (angle as Double , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, rotateAbout as AiTransformation]) | Nothing | Rotates the art item relative to the current rotation. The object is rotated counter-clockwise if the <code>Angle</code> value is positive, clockwise if the value is negative. |
| Transform (transformationMatrix as Matrix , [, changePositions as Boolean] [, changeFillPatterns as Boolean] [, changeFillGradients as Boolean] [, changeStrokePattern as Boolean] [, changeLineWidths as Double] [, transformAbout as AiTransformation]) | Nothing | Transforms the art item by applying a transformation matrix. |
| Translate ([deltaX as Double] [, deltaY as Double] [, transformObjects as Boolean] [, transformFillPatterns as Boolean] [, transformFillGradients as Boolean] [, transformStrokePatterns as Boolean]) | Nothing | Repositions the art item relative to the current position, where <code>deltaX</code> is the horizontal offset and <code>deltaY</code> is the vertical offset. |
| ZOrder (zOrderCmd as AiZOrderMethod) | Nothing | Arranges the art item's position in the stacking order of the group or layer (<code>Parent</code>) of this object. |

Using text frames

```
'Duplicates and rotates the selected text art item 5 times

Set appRef = CreateObject("Illustrator.Application")

'First check the selection of the application
'It has to be a text art item in order for this script to run
selection = appRef.selection
Set frontDocument = appRef.ActiveDocument
Set sourceTextArt = selection(0)

'Get the parent of the text art so new text art items can be inserted
'in the same group or layer as the selected text art is in
Set textArtGroup = sourceTextArt.Parent.TextFrames

'Create 5 new versions of the text art each rotated a bit
For i = 1 To 5
    Set newTextArt = textArtGroup.Add
    newTextArt.Position = sourceTextArt.Position
    newTextArt.Contents = sourceTextArt.Contents
    newTextArt.Rotate 180 * i / 6
Next
```

TextFrames

A collection of `TextFrame` objects.

TextFrames properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Object | Read-only. The object's container. |

TextFrames methods

| Method | Returns | What it does |
|---|---------------------------|---|
| <code>Add</code> () | TextFrame | Creates a new point <code>TextFrame</code> object. |
| <code>AreaText</code> (textPath as <code>PathItem</code> [, orientation as AiTextOrientation] [, baseFrame as <code>TextFrame</code>] [, postfix as <code>Boolean</code>])) | TextFrame | Creates a new area <code>TextFrame</code> object. |
| <code>Index</code> (item as <code>TextFrame</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | TextFrame | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>PathText</code> (textPath as <code>PathItem</code> [, startTValue as <code>Double</code>] [, endTValue as <code>Double</code>] [, orientation as AiTextOrientation] [, baseFrame as <code>TextFrame</code>] [, postfix as <code>Boolean</code>]) | TextFrame | Creates an on-path text frame item. |
| <code>PointText</code> (anchor as <code>Array of 2 Doubles</code> [, orientation as AiTextOrientation]) | TextFrame | Creates a point text frame item. |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

Adding three types of text frames

```
'Creates a document with 3 TextFrames (area, path, point),
'changes the contents of each TextFrame then deletes a text frame

Set appRef = CreateObject("Illustrator.Application")
Set docRef = appRef.Documents.Add()

'create 3 new textFrames (are, line, point)
'Area Text
Set rectRef = docRef.PathItems.Rectangle(700, 50, 100, 100)
Set areaTextRef = docRef.TextFrames.AreaText(rectRef)
areaTextRef.Contents = "TextFrame #1"
areaTextRef.Selected = True

'Line Text
Set lineRef = docRef.PathItems.Add()
lineRef.SetEntirePath (Array(Array(200, 700), Array(300, 550)))
Set pathTextRef = docRef.TextFrames.PathText(lineRef)
pathTextRef.Contents = "TextFrame #2"
pathTextRef.Selected = True

'Point Text
Set pointTextRef = docRef.TextFrames.Add()
pointTextRef.Contents = "TextFrame #3"
pointTextRef.Top = 700
pointTextRef.Left = 400
pointTextRef.Selected = True
appRef.Redraw

sText = "There are " & CStr(docRef.TextFrames.Count) & " TextFrames."
sText = sText & vbCrLf & "Changing contents of each TextFrame."

'change the content of each
areaTextRef.Contents = "Area TextFrame."
pathTextRef.Contents = "Path TextFrame."
pointTextRef.Contents = "Point TextFrame."
appRef.Redraw

docRef.TextFrames(2).Delete
appRef.Redraw
```

TextPath

A path or list of paths for area or path text. A path consists of path points that define its geometry.

TextPath properties

| Property | Value type | What it is |
|---------------------------|--|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Area | Double | Read-only. The area of this path in square points. If the area is negative, the path is wound counterclockwise. Self-intersecting paths can contain sub-areas that cancel each other out, which makes this value zero even though the path has apparent area. |
| BlendingMode | AiBlendModes | The blend mode used when compositing an object. |
| Clipping | Boolean | If <code>true</code> , this path are used as a clipping path. |
| Closed | Boolean | If <code>true</code> , this path is closed. |
| Editable | Boolean | Read-only. If <code>true</code> , this item is editable. |
| Evenodd | Boolean | If <code>true</code> , the even-odd rule are used to determine insiderness. |
| FillColor | Color info | The fill color of the path. |
| Filled | Boolean | If <code>true</code> , the path be filled. |
| FillOverprint | Boolean | If <code>true</code> , the art beneath a filled object are overprinted. |
| Guides | Boolean | If <code>true</code> , this path is a guide object. |
| Height | Double | The height of the group item. |
| Left | Double | The position of the left side of the item (in points, measured from the left side of the page). |
| Note | String | The note text assigned to the path. |
| Opacity | Double | The opacity of the object. Range: 0.0 to 100.0 |
| Parent | Layer or GroupItem | Read-only. The parent of this object. |
| PathPoints | PathPoints | Read-only. The path points contained in this path item. |
| Polarity | AiPolarityValues | The polarity of the path. |
| Position | Array of 2 Doubles | The position (in points) of the top left corner of the item in the format [x, y]. Does not include stroke weight. |
| Resolution | Double | The resolution of the path in dots per inch (dpi). |
| SelectedPathPoints | PathPoints | Read-only. All of the selected path points in the path. |

| Property | Value type | What it is |
|-------------------------|------------------------------|--|
| StrokeCap | AiStrokeCap | The type of line capping. |
| StrokeColor | Color info | The stroke color for the path. |
| Stroked | Boolean | If <code>true</code> , the path are stroked. |
| StrokeDashes | Object | The lengths for dashes and gaps in dashed lines, starting with the first dash length, followed by the first gap length, and so on. Set to an empty list, <code>[]</code> , for a solid line. |
| StrokeDashOffset | Double | The default distance into the dash pattern at which the pattern are started. |
| StrokeJoin | AiStrokeJoin | Type of joints for the path. |
| StrokeMiterLimit | Double | When a default stroke join is set to <code>mitered</code> , this property specifies when the join will be converted to beveled (squared-off) by default. The default miter limit of 4 means that when the length of the point reaches four times the stroke weight, the join switches from a miter join to a bevel join. A value of 1 specifies a bevel join. Range: 1 to 500 Default: 4 |
| StrokeOverprint | Boolean | If <code>true</code> , the art beneath a stroked object are overprinted. |
| StrokeWidth | Double | Width of the stroke. |
| Top | Double | The position of the top of the item (in points, measured from the bottom of the page). |
| Width | Double | The width of the item. |

TextPath methods

| Method | Returns | What it does |
|---|---------|---|
| SetEntirePath (pathPoints as Array of [x, y] coordinate pairs) | Nothing | Sets the path using the array of points specified as [x, y] coordinate pairs. |

TextRange

A range of characters from a text item (story, text frame, character, word, line, paragraph, or another text range).

TextRange properties

| Property | Value type | What it is |
|----------------------------|-------------------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| CharacterAttributes | CharacterAttributes | Read-only. The character properties for the text range. |
| CharacterOffset | Long | Offset of the first character. |
| Characters | Characters | Read-only. All of the characters in the text range. |
| CharacterStyles | CharacterStyles | Read-only. List of referenced character styles in the text range. |
| Contents | String | The text string. |
| InsertionPoints | InsertionPoint | Read-only. All of the insertion points in this text range. |
| Kerning | Long | The spacing between two characters, in thousandths of an em. |
| Length | Long | The length (in characters). Minimum: 0 |
| Lines | Lines | Read-only. All the lines in this text range. |
| ParagraphAttributes | ParagraphAttributes | Read-only. The paragraph properties. |
| Paragraphs | Paragraphs | Read-only. All of the paragraphs in this text range. |
| ParagraphStyles | ParagraphStyles | Read-only. A list of referenced paragraph styles in the text range. |
| Parent | Object | Read-only. The object's container. |
| Story | Story | Read-only. The story of the text range. |
| TextRanges | TextRanges | Read-only. All of the text in this text range. |
| TextSelection | Array of TextRange | Read-only. The selected text (ranges) in the text range. |
| Words | Words | Read-only. All of the words in this text range. |

TextRange methods

| Method | Returns | What it does |
|---|---------------------------|---|
| ChangeCaseTo (type as AiCaseChangeType) | Nothing | Changes the capitalization of text. |
| Delete () | Nothing | Deletes the object. |
| Deselect () | Nothing | Deselects the text range. |
| Duplicate ([relativeObject as Object], [insertionLocation as AiElementPlacement]) | TextRange | Duplicates the art item, optionally specifying the location and position for the copy. |
| Move (relativeObject as Object , insertionLocation as AiElementPlacement) | Nothing | Moves the art item to the new location and position. |
| Select ([addToDocument as Boolean]) | Nothing | Selects the text range. If addToDocument is true, adds this to the current selection; otherwise replaces the current selection. |

Using a text range

```
'Increases the font size of the first 2 characters of each
'word in the current document

Set appRef = CreateObject("Illustrator.Application")

For Each textArt In appRef.ActiveDocument.TextFrames
    Set textArtRange = textArt.TextRange

    For Each textWord In textArtRange.Words
        'If word is longer than 2 characters
        'resize just the first 2 characters
        'otherwise, resize the whole word
        wordLen = Len(textWord.Contents)
        If (wordLen < 2) Then
            charsToChange = wordLen
        Else
            charsToChange = 2
        End If
        'resize the word
        If (charsToChange > 0) Then
            'Omit 1st arg to go from the beginning to
            'character number charsToChange-1 (First character is index 0)
            Dim i
            For i = 1 To charsToChange
                Set firstChars = textWord.Characters(i)
                firstChars.CharacterAttributes.Size = _
                    firstChars.CharacterAttributes.Size * 1.5
            Next
        End If
    Next
Next
```

TextRanges

A collection of `TextRange` objects.

TextRanges properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Document | Read-only. The object's document container. |

TextRanges methods

| Method | Returns | What it does |
|---|---------------------------|---|
| <code>Index</code> (item as <code>TextRange</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | TextRange | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

TracingObject

A tracing object, which associates a source raster art item with a vector art plug-in group created by tracing. Scripts can initiate tracing using `PlacedItem.Trace` or `RasterItem.Trace`. The resulting `PluginItem` object represents the vector art group, and has this object in its `Tracing` property.

A script can force the tracing operation by calling the application's `Redraw` method. The operation is asynchronous, so a script should call `Redraw` after creating the tracing object, but before accessing its properties or expanding the tracing to convert it to an art item group.

The read-only properties that describe the tracing result have valid values only after the first tracing operation completes. A value of 0 indicates that the operation has not yet been completed.

TracingObject properties

| Property | Value type | What it is |
|------------------------------|--|---|
| <code>AnchorCount</code> | Long | Read-only. The number of anchors in the tracing result. |
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>AreaCount</code> | Long | Read-only. The number of areas in the tracing result. |
| <code>ImageResolution</code> | Real | Read-only. The resolution of the source image in pixels per inch. |
| <code>Parent</code> | Object | Read-only. The object's container. |
| <code>PathCount</code> | Long | Read-only. The number of paths in the tracing result. |
| <code>SourceArt</code> | PlacedItem or RasterItem | Read-only. The raster art used to create the associated vector-art plug-in group. |
| <code>TracingOptions</code> | TracingOptions | The options used to convert the raster artwork to vector art. |
| <code>UsedColorCount</code> | Long | Read-only. The number of colors used in the tracing result. |

TracingObject methods

| Method | Returns | What it does |
|---|---|--|
| ExpandTracing ([viewed As Boolean]) | GroupItem | <p>Converts the vector art into a new group item. The new <code>GroupItem</code> object replaces the <code>PluginItem</code> object in the document. By default, <code>viewed</code> is <code>false</code>, and the new group contains only the tracing result (the filled or stroked paths). If <code>viewed</code> is <code>true</code>, the new group retains additional information that was specified for the viewing mode, such as outlines and overlays.</p> <p>Deletes this object and its associated <code>PluginItem</code> object. Any group-level attributes that were applied to the plug-in item are applied to the top level of the new group item.</p> |
| ReleaseTracing () | PlacedItem Or RasterItem | <p>Reverts the artwork in the document to the original source raster art and removes the traced vector art. Returns the original object used to create the tracing, and deletes this object and its associated <code>PluginItem</code> object.</p> |

TracingOptions

A set of options used in converting raster art to vector art by tracing.

TracingOptions properties

| Property | Value type | What it is |
|-------------------------|-----------------------------|--|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| CornerAngle | Double | The sharpness, in degrees of a turn in the original image that is considered a corner in the tracing result path. Range: 0 to 180 |
| Fills | Boolean | If <code>true</code> , trace with fills. At least one of <code>Fills</code> or <code>Strokes</code> must be <code>true</code> . |
| IgnoreWhite | Boolean | If <code>true</code> , ignores white fill color. |
| LivePaintOutput | boolean | If <code>true</code> , result is LivePaint art. If <code>false</code> , it is classic art. NOTE: A script should set this value only in preparation for a subsequent <code>expand</code> operation. Leaving a tracing on the artboard when this property is <code>true</code> can lead to unexpected application behavior. |
| MaxColors | Long | The maximum number of colors allowed for automatic palette generation. Used only if <code>TracingMode</code> is <code>color</code> or <code>grayscale</code> . Range: 2 to 256 |
| MaxStrokeWeight | Double | The maximum stroke weight in points, when <code>Strokes</code> is <code>true</code> . Range: 0.01 to 100.0 |
| MinArea | Long | The smallest feature, in square pixels, that is traced. For example, if it is 4, a feature of 2 pixels wide by 2 pixels high is traced. |
| MinStrokeLength | Double | The minimum length in pixels of features in the original image that can be stroked, when <code>Strokes</code> is <code>true</code> . Smaller features are omitted. Range: 0.0 to 200.0 Default: 20.0 |
| OutputToSwatches | Boolean | If <code>true</code> , named colors (swatches) are generated for each new color created by the tracing result. Used only if <code>TracingMode</code> is 0 (<code>aiTracingModeColor</code>) or 1 (<code>aiTracingModeGray</code>). |
| Palette | String | The name of a color palette to use for tracing. If the empty string, use the automatic palette. Used only if <code>TracingMode</code> is 0 (<code>aiTracingModeColor</code>) or 1 (<code>aiTracingModeGray</code>). |
| Parent | Object | Read-only. The object's container. |

| Property | Value type | What it is |
|---------------------------|-----------------------------------|--|
| PathFitting | Double | The distance between the traced shape and the original pixel shape. Lower values create a tighter path fitting. Higher values create a looser path fitting. Range: 0.0 to 10.0 |
| PreprocessBlur | Double | The amount of blur used during preprocessing, in pixels. Blurring helps reduce small artifacts and smooth jagged edges in the tracing result. Range: 0.0 to 2.0 |
| Preset | String | Read-only. The name of a preset file containing these options. |
| Resample | Boolean | If <code>true</code> , resample when tracing. (This setting is not captured in a preset file.) Always <code>true</code> when the raster source art is placed or linked. |
| ResampleResolution | Double | The resolution to use when resampling in pixels per inch (ppi). Lower resolution increases the speed of the tracing operation. (This setting is not captured in a preset file.) |
| Strokes | Boolean | If <code>true</code> , trace with strokes. At least one of <code>Fills</code> or <code>Strokes</code> must be <code>true</code> . Used only if <code>TracingMode</code> is 2 ' <code>aiTracingModeBlackAndWhite</code> . |
| Threshold | Long | The threshold value of black-and-white tracing. All pixels with a grayscale value greater than this are converted to black. Used only if <code>TracingMode</code> is 2 ' <code>aiTracingModeBlackAndWhite</code> . Range: 0 to 255 |
| TracingMode | AiTracingModeType | The color mode for tracing. |
| ViewRaster | AiViewRasterType | The view for previews of the raster image. (This setting is not captured in a preset file.) |
| ViewVector | AiViewVectorType | The view for previews of the vector result. (This setting is not captured in a preset file.) |

TracingOptions methods

| Method | Returns | What it does |
|---|---------|--|
| LoadFromPreset (presetName as String) | Boolean | Loads a set of options from the specified preset, as found in the <code>Application.TracingPresetList</code> array. |
| StoreToPreset (presetName as String) | Boolean | Saves this set of options in the specified preset. Use a name found in the <code>Application.TracingPresetList</code> array, or a new name to create a new preset. For an existing preset, overwrites an unlocked preset and returns <code>true</code> . Returns <code>false</code> if the preset is locked. |

Variable

A dynamic object used to create data-driven graphics. For an example, see [DataSets](#). Variables are accessed in Illustrator through the Variables palette. A variable is document-level object that can be imported or exported.

Variable properties

| Property | Value type | What it is |
|--------------------|--------------------------------|---|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Kind | AiVariableKind | The variable's type. |
| Name | String | The name of the variable. |
| PageItems | PageItems | Read-only. The artwork contained in the variable. |
| Parent | Document | Read-only. The document that contains this object. |

Variable methods

| Method | Returns | What it does |
|----------------------|---------|---------------------|
| Delete () | Nothing | Deletes the object. |

Variables

A collection of `Variable` objects in a document.

Variables properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Document | Read-only. The object's document container. |

Variables methods

| Method | Returns | What it does |
|--|----------|---|
| <code>Add</code> () | Variable | Creates a new <code>Variable</code> object. |
| <code>Index</code> (item as <code>Variable</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (itemKey) | Variable | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| <code>RemoveAll</code> () | Nothing | Deletes all objects in this collection. |

View

A document view in an Illustrator document, which represents a window view onto a document. Scripts cannot create new views, but can modify some properties of existing views, including the center point, screen mode, and zoom.

View properties

| Property | Value type | What it is |
|--------------------|---|--|
| Application | Application | Read-only. The Illustrator <code>Application</code> object. |
| Bounds | Variant Array of 4 <code>Doubles</code> | Read-only. The bounding rectangle of this <code>View</code> relative to the current document's bounds. |
| CenterPoint | Variant Array of 2 <code>Doubles</code> | The center point of this <code>View</code> relative to the current document's bounds. |
| Parent | Document | Read-only. The document that contains this object. |
| ScreenMode | AiScreenMode | The mode of display for this view. |
| Zoom | <code>Double</code> | The zoom factor of this view, where 100.0 is 100%. |

Setting a view

```
'Sets the view of the current document to full screen

Set appRef = CreateObject("Illustrator.Application")

Set frontDoc = appRef.activeDocument
Set viewsRef = frontDoc.Views
Set firstView = viewsRef(1)
firstView.ScreenMode = 3 'aiFullScreen
```

Views

A collection of `View` objects in a document.

Views properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Document | Read-only. The object's document container. |

Views methods

| Method | Returns | What it does |
|--|----------------------|---|
| <code>Index</code> (<code>item</code> as <code>View</code>) | Long | Returns the index position of the object within the collection. |
| <code>Item</code> (<code>itemKey</code>) | View | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |

Words

A collection of words in a text item, where each word is a `TextRange` object.

Words properties

| Property | Value type | What it is |
|--------------------------|-----------------------------|---|
| <code>Application</code> | Application | Read-only. The Illustrator <code>Application</code> object. |
| <code>Count</code> | Long | Read-only. Number of elements in the collection. |
| <code>Parent</code> | Object | Read-only. The object's container. |

Words methods

| Method | Returns | What it does |
|--|---------------------------|---|
| Add (contents as <code>String</code> [, relativeObject as <code>TextFrame</code>] [, insertionLocation as AiElementPlacement]) | TextRange | Adds a new word with the specified text contents at the specified location in the current document. If location is not specified, adds the new word to the containing text frame after the current text selection or insertion point. |
| AddBefore (contents as <code>String</code>) | TextRange | Inserts text at the beginning of the range. |
| Index (itemPtr as <code>TextRange</code>) | Long | Returns the index position of the object within the collection. |
| Item (itemKey) | TextRange | Returns an object reference to the object identified by <code>itemKey</code> (name or index). |
| RemoveAll () | Nothing | Deletes all objects in this collection. |

Counting words in a document

```
'Counts the number of words in the document and
'stores in numWords

Set appRef = CreateObject("Illustrator.Application")

If appRef.Documents.Count > 0 Then
    numWords = 0
    For Each textArt In appRef.ActiveDocument.TextFrames
        numWords = numWords + textArt.TextRange.Words.Count
    Next
End If
```

2 Enumerations Reference

These enumeration values are defined for object properties in the VBScript dictionary.

When defining an enumerated property's value, use the numeric, rather than the text value of the enumeration. For example, the following script statement, which uses the first enumeration in the following table, `AiAlternateGlyphsForm`, specifies `aiExpert` as the constant value:

```
myCharacterAttributes.AlternateGlyphs = 2
```

| Enumeration type | Values | What it means |
|------------------------------|---|--|
| AiAlternateGlyphsForm | <code>aiDefaultForm = 0</code> <code>aiTraditional = 1</code> <code>aiExpert = 2</code> <code>aiJIS78Form = 3</code> <code>aiJIS83Form = 4</code> <code>aiHalfWidth = 5</code> <code>aiThirdWidth = 6</code> <code>aiQuarterWidth = 7</code> <code>aiFullWidth = 8</code> <code>aiProportionalWidth = 9</code> <code>aiJIS90Form = 10</code> <code>aiJIS04Form = 11</code> | |
| AiAntiAliasingMethod | <code>aiNoAntiAliasing = 0</code> <code>aiArtOptimized = 1</code> <code>aiTypeOptimized = 2</code> | The type of antialiasing method used in the rasterization. <ul style="list-style-type: none">▶ <code>NoAntiAliasing</code> — No antialiasing is allowed.▶ <code>ArtOptimized</code> — Optimize for the art object.▶ <code>TypeOptimized</code> — Optimize for the type object. |

| Enumeration type | Values | What it means |
|-----------------------------------|---|---|
| AiArtClippingOption | aiOutputArtBounds = 1 aiOutputArtboardBounds = 2 aiOutputCropRectBounds = 3 | How the art are clipped during output. aiOutputArtBounds = Output size is the size of the artwork. aiOutputArtboardBounds = Output size is the size of the artboard. aiOutputCropRectBounds = Output size is the size of the drop area. |
| AiAutoCADColors | aiMax8Colors = 0 aiMax16Colors = 1 aiMax256Colors = 2 aiTrueColors = 3 | |
| AiAutoCADCompatibility | aiAutoCADRelease13 = 0 aiAutoCADRelease14 = 1 aiAutoCADRelease15 = 2 aiAutoCADRelease18 = 3 | |
| AiAutoCADExportFileFormat | aiDXF = 0 aiDWG = 1 | |
| AiAutoCADExportOption | aiPreserveAppearance = 0 aiMaximizeEditability = 1 | |
| AiAutoCADGlobalScaleOption | aiOriginalSize = 0 aiFitArtboard = 1 aiScaleByValue = 2 | |
| AiAutoCADRasterFormat | aiPNG = 0 aiJPEG = 1 | |
| AiAutoCADUnit | aiPoints = 0 aiPicas = 1 aiInches = 2 aiMillimeters = 3 aiCentimeters = 4 aiPixels = 5 | |
| AiAutoKernType | aiNoAutoKern = 0 aiAuto = 1 aiOptical = 2 aiMetricsRomanOnly = 3 | |
| AiAutoLeadingType | aiBottomToBottom = 0 aiTopToTop = 1 | |
| AiBaselineDirectionType | aiStandardBaseline = 1 aiVerticalRotatedBaseline = 2 aiTateChuYokoBaseline = 3 | |

| Enumeration type | Values | What it means |
|------------------------------|--|---|
| AiBlendAnimationType | aiNoBlendAnimation = 0 aiInSequence = 1 aiInBuild = 2 | |
| AiBlendModes | aiNormalBlend = 0 aiMultiply = 1 aiScreen = 2 aiOverlay = 3 aiSoftLight = 4 aiHardLight = 5 aiColorDodge = 6 aiColorBurn = 7 aiDarken = 8 aiLighten = 9 aiDifference = 10 aiExclusion = 11 aiHue = 12 aiSaturation = 13 aiColorBlend = 14 aiLuminosity = 15 | The blend mode used when compositing an object. |
| AiBlendsExpandPolicy | AiAutomaticallyConvertBlends = 1 AiRasterizeBlends = 2 | Used by FXG file format |
| AiBurasagariTypeEnum | aiBurasagariNone = 0 aiBurasagariStandard = 1 aiBurasagariForced = 2 | |
| AiCaseChangeType | aiUpperCase = 0 aiLowerCase = 1 aiTitleCase = 2 aiSentenceCase = 3 | |
| AiColor | aiColorNone = 0 aiColorCMYK = 1 aiColorGray = 2 aiColorRGB = 3 aiColorSpot = 4 aiColorPattern = 5 aiColorGradient = 6 | A color space. |
| AiColorConversion | aiColorConversionNone = 0 aiColorConversionToDest = 1 aiColorConversionRepurpose = 2 | |
| AiColorConvertPurpose | aiDefaultPurpose = 0 aiForPreviewPurpose = 1 aiForExportPurpose = 2 aiDummyPurpose = 4 | The purpose of color conversion using the <code>ConvertSampleColor</code> method of the <code>Application</code> class. |
| AiColorDestination | aiColorDestinationNone = 0 aiColorDestinationDocCMYK = 1 aiColorDestinationWorkingCMYK = 2 aiColorDestinationWorkingRGB = 4 aiColorDestinationDocRGB = 3 aiColorDestinationProfile = 5 | |

| Enumeration type | Values | What it means |
|-------------------------------|---|--|
| AiColorDitherMethod | aiDiffusion = &H4466736E aiNoise = &H424E6F69 aiNoReduction = &H4E6F6E65 aiPatternDither = &H5074726E | The method used to dither colors in exported GIF and PNG8 images. |
| AiColorModel | aiRegistration = 0 aiProcess = 1 aiSpot = 2 | |
| AiColorProfile | aiColorProfileNone = 0 aiIncludeAllProfile = 1 aiLeaveProfileUnchanged = 2 aiIncludeRGBProfile = 3 aiIncludeDestProfile = 4 | |
| AiColorReductionMethod | aiAdaptive = &H41647074 aiPerceptual = &H50726370 aiSelective = &H536C7476 aiWeb = &H57656220 | The method used to reduce the number of colors in exported GIF and PNG8 images. |
| AiCompatibility | aiJapaneseVersion3 = 3 aiIllustrator8 = 8 aiIllustrator9 = 9 aiIllustrator10 = 10 aiIllustrator11 = 11 aiIllustrator12 = 12 aiIllustrator13 = 13 aiIllustrator14 = 14 aiIllustrator15 = 15 aiIllustrator16 = 16 | The version of the Illustrator file format to create when saving an EPS or Illustrator file. |
| AiCompressionQuality | aiNoCompression = 1 aiJPEGMinimum = 3 aiJPEGLow = 4 aiJPEGMedium = 5 aiJPEGHigh = 6 aiJPEGMaximum = 7 aiZIP4Bit = 8 aiZIP8Bit = 9 aiAutomaticJPEGMinimum = 10 aiAutomaticJPEGLow = 11 aiAutomaticJPEGMedium = 12 aiAutomaticJPEGHigh = 13 aiAutomaticJPEGMaximum = 14 aiAutomaticJPEG2000Minimum = 15 aiAutomaticJPEG2000Low = 16 aiAutomaticJPEG2000Medium = 17 aiAutomaticJPEG2000High = 18 aiAutomaticJPEG2000Maximum = 19 aiAutomaticJPEG2000Lossless = 20 aiJPEG2000Minimum = 21 aiJPEG2000Low = 22 aiJPEG2000Medium = 23 aiJPEG2000High = 24 aiJPEG2000Maximum = 25 aiJPEG2000Lossless = 26 | The quality of bitmap compression used when saving a PDF file. |

| Enumeration type | Values | What it means |
|-----------------------------------|---|---|
| AiCoordinateSystem | aiDocumentCoordinateSystem = 1 aiArtboardCoordinateSystem = 2 | The coordinate system in use for Illustrator. |
| AiCropOptions | aiCropStandard = 1 aiCropJapanese = 2 | The style of a document's cropping box. |
| AiDocumentArtboardLayout | aiGridByRow = 1 aiGridByCol = 2 aiRow = 3 aiColumn = 4 aiRLGridByRow = 5 aiRLGridByCol = 6 aiRLRow = 7 | The layout of artboards in the new document. |
| AiDocumentColorSpace | aiDocumentRGBColor = 1 aiDocumentCMYKColor = 2 | The color space of a document. |
| AiDocumentPresetType | aiPrintPreset = 1 aiWebPreset = 2 aiMobilePreset = 3 aiVideoPreset = 4 aiBasicCMYKPreset = 5 aiBasicRGBPreset = 6 | The preset types available for new documents. |
| AiDocumentPreviewMode | aiDefaultPreview = 1 aiPixelPreview = 2 aiOverprintPreview = 3 | The document preview mode. |
| AiDocumentRasterResolution | aiScreenResolution = 1 aiMediumResolution = 2 aiHighResolution = 3 | The preset document raster resolution. |
| AiDocumentTransparencyGrid | aiTransparencyGridNone = 0 aiTransparencyGridLight = 1 aiTransparencyGridMedium = 2 aiTransparencyGridDark = 3 aiTransparencyGridRed = 4 aiTransparencyGridOrange = 5 aiTransparencyGridGreen = 6 aiTransparencyGridBlue = 7 aiTransparencyGridPurple = 8 | Document transparency grid colors. |
| AiDocumentType | aiIllustrator = 1 aiEPS = 2 aiPDF = 3 aiFXG = 4 | The file format used to save a file. |
| AiDownsampleMethod | aiNoDownsample = 0 aiAverageDownsample = 1 aiSubsample = 2 aiBicubicDownsample = 3 | |

| Enumeration type | Values | What it means |
|---------------------------------|---|--|
| AiElementPlacement | aiPlaceInside = 0 aiPlaceAtBeginning = 1 aiPlaceAtEnd = 2 aiPlaceBefore = 3 aiPlaceAfter = 4 | |
| AiEPSPostScriptLevelEnum | aiLevel2 = 2 aiLevel3 = 3 | Specifies the PostScript level to use when saving an EPS file. |
| AiEPSPreview | aiNoPreview = 1 aiBW TIFF = 2 aiTransparentColorTIFF = 3 aiColorTIFF = 4 | The preview image format used when saving an EPS file. |
| AiExportType | aiJPEG = 1 aiPhotoshop = 2 aiSVG = 3 aiPNG8 = 4 aiPNG24 = 5 aiGIF = 6 aiFlash = 7 aiAutoCAD = 8 aiTIFF = 9 | The file format used to export a file. |
| AiFigureStyleType | aiDefaultFigureStyle = 0 aiTabular = 1 aiProportionalOldStyle = 2 aiProportional = 3 aiTabularOldStyle = 4 | |
| AiFiltersPreservePolicy | aiExpandFilters = 1 aiRasterizeFilters = 2 aiKeepFiltersEditable = 3 | The filters preserve policy used by the FXG file format. |
| AiFlashExportStyle | aiAsFlashFile = 1 aiLayersAsFrames = 2 aiLayersAsFiles = 3 aiLayersAsSymbols = 4 aiArtboardsToFiles = 5 | |
| AiFlashExportVersion | aiFlashVersion1 = 1 aiFlashVersion2 = 2 aiFlashVersion3 = 3 aiFlashVersion4 = 4 aiFlashVersion5 = 5 aiFlashVersion6 = 6 aiFlashVersion7 = 7 aiFlashVersion8 = 8 aiFlashVersion9 = 9 | |
| AiFlashImageFormat | aiLossless = 1 aiLossy = 2 | |
| AiFlashJPEGMethod | aiJPEGStandard = 1 aiJPEGOptimized = 2 | |

| Enumeration type | Values | What it means |
|-------------------------------------|--|---|
| AiFlashPlaybackSecurity | aiPlaybackLocal = 1 aiPlaybackNetwork = 2 | |
| AiFontBaselineOption | aiNormalBaseline = 0 aiSuperScript = 1 aiSubScript = 2 | |
| AiFontCapsOption | aiNormalCaps = 0 aiSmallCaps = 1 aiAllCaps = 2 aiAllSmallCaps = 3 | |
| AiFontOpenTypePositionOption | aiOpenTypeDefault = 0 aiOpenTypeSuperScript = 1 aiOpenTypeSubScript = 2 aiNumerator = 3 aiDenominator = 4 | |
| AiFontSubstitutionPolicy | aiSubstituteOblique = 0 aiSubstituteTint = 1 aiSubstituteDevice = 2 | |
| AiFXGVersion | aiVersion1Pt0 = 1 aiVersion2Pt0 = 2 | The FXG file-format version. |
| AiGradientsPreservePolicy | aiKeepGradientsEditable = 3 aiAutomaticallyConvertGradients = 4 | The gradients preserve policy used by the FXG file format. |
| AiGradientType | aiLinearGradient = 1 aiRadialGradient = 2 | The type of the gradient, radial or linear. |
| AiImageColorSpace | aiImageGrayScale = 1 aiImageRGB = 2 aiImageCMYK = 3 aiImageLAB = 4 aiImageSeparation = 5 aiImageDeviceN = 6 aiImageIndexed = 7 | The color space of a raster item or an exported Photoshop file. |
| AiInkPrintStatus | aiDisableInk = 0 aiEnableInk = 1 aiConvertInk = 2 | |
| AiInkType | aiCyanInk = 0 aiMagentaInk = 1 aiYellowInk = 2 aiBlackInk = 3 aiCustomInk = 4 | |
| AiJavaScriptExecutionMode | aiNeverShowDebugger = 1 aiDebuggerOnError = 2 aiBeforeRunning = 3 | |

| Enumeration type | Values | What it means |
|---------------------------|---|---|
| AiJustification | aiLeft = 0 aiRight = 1 aiCenter = 2 aiFullJustifyLastLineLeft = 3 aiFullJustifyLastLineRight = 4 aiFullJustifyLastLineCenter = 5 aiFullJustify = 6 | The alignment or justification for a paragraph of text. |
| AiKinsokuOrderEnum | aiPushIn = 0 aiPushOutFirst = 1 aiPushOutOnly = 2 | |
| AiKnockoutState | aiDisabled = 0 aiEnabled = 1 aiInherited = 2 aiKnockoutUnknown = -1 | The type of knockout to use on a PageItem. |
| AiLanguageType | aiBokmalNorwegian = 8 aiBrazillianPortuguese = 11 aiBulgarian = 20 aiCanadianFrench = 3 aiCatalan = 17 aiChinese = 29 aiCzech = 22 aiDanish = 16 aiDutch = 15 aiDutch2005Reform = 43 aiEnglish = 0 aiFinnish = 1 aiGerman2006Reform = 42 aiGreek = 25 aiHungarian = 28 aiIcelandic = 27 aiItalian = 7 aiJapanese = 30 aiNynorskNorwegian = aiOldGerman = 5 aiPolish = 23 aiRomanian = 24 aiRussian = 18 aiSpanish = 12 aiSerbian = 21 aiStandardFrench = 2 aiStandardGerman = 4 aiStandardPortuguese = aiSwedish = 13 aiSwissGerman = 6 aiSwissGerman2006Reform = 44 aiTurkish = 26 aiUKEnglish = 14 aiUkranian = 19 | |
| AiLayerOrderType | aiTopDown = 2 aiBottomUp = 1 | |

| Enumeration type | Values | What it means |
|--------------------------------|---|--|
| AiLibraryType | aiIllustratorArtwork = 1 aiSwatches = 2 aiBrushes = 3 aiGraphicStyles = 4 aiSymbols = 5 | |
| AiMonochromeCompression | aiCCIT3 = 1 aiCCIT4 = 2 aiMonoZIP = 3 aiNoMonoCompression = 0 aiRunLength = 4 | The type of monochrome bitmap compression to use when saving a PDF. |
| AiOutputFlattening | aiPreserveAppearance = 1 aiPreservePaths = 0 | Specifies how transparency are flattened when saving EPS and Illustrator file formats with compatibility set to versions of Illustrator less than 9. |
| AiPageItemType | aiCompoundPathItem = 1 aiGraphItem = 2 aiGroupItem = 3 aiMeshItem = 4 aiPathItem = 5 aiPlacedItem = 6 aiPluginItem = 7 aiRasterItem = 8 aiSymbolItem = 9 aiTextFrame = 10 aiLegacyTextItem = 11 aiNonNativeItem = 12 | The type (class) of art item that is represented by a particular <code>PageItem</code> . |
| AiPageMarksStyle | aiPageMarksRoman = 0 aiPageMarksJapanese = 1 | |
| AiPathPointSelection | aiAnchorPoint = 2 aiLeftDirection = 3 aiLeftRightPoint = 5 aiNoSelection = 1 aiRightDirection = 4 | Specifies which points, if any, of a path point are selected. |
| AiPDFBoxType | aiPDFArtBox = 0 aiPDFCropBox = 1 aiPDFTrimBox = 2 aiPDFBleedBox = 3 aiPDFMediaBox = 4 aiPDFBoundingBox = 5 | |

| Enumeration type | Values | What it means |
|---|---|--|
| AiPDFChangesAllowedEnum | aiChange128None = 1 aiChange128EditPage = 2 aiChange128FillForm = 3 aiChange128Commenting = 4 aiChange128AnyChanges = 5 aiChange40None = 6 aiChange40PageLayout = 8 aiChange40Commenting = 7 aiChange40AnyChanges = 9 | |
| AiPDFCompatibility | aiAcrobat4 = 4 aiAcrobat5 = 5 aiAcrobat6 = 6 aiAcrobat7 = 7 aiAcrobat8 = 8 | The version of the Acrobat file format to create when saving a PDF file. |
| AiPDFOverprint | aiPreservePDFOverprint = 1 aiDiscardPDFOverprint = 2 | |
| AiPDFPrintAllowedEnum | aiPrint128None = 1 aiPrint128LowResolution = 2 aiPrint128HighResolution = 3 aiPrint40None = 4 aiPrint40HighResolution = 5 | |
| AiPDFTrimMarkWeight | aiTrimMarkWeight0125 = 1 aiTrimMarkWeight025 = 2 aiTrimMarkWeight05 = 3 | |
| AiPDFXStandard | aiPDFXNone = 1 aiPDFX1A2001 = 2 aiPDFX1A2003 = 3 aiPDFX32002 = 4 aiPDFX32003 = 5 aiPDFX42007 = 6 | |
| AiPerspectiveGridType | aiOnePointPerspectiveGridType = 1 aiTwoPointPerspectiveGridType = 2 aiThreePointPerspectiveGridType = 3 aiInvalidPerspectiveGridType = 0 | |
| AiPerspectiveGridPlaneType | aiLEFTPLANE = 1 aiRIGHTPLANE = 2 aiFLOORPLANE = 3 aiNOPLANE = 0 | |
| AiPhotoshopCompatibility | aiPhotoshop8 = 1 aiPhotoshop6 = 2 | |
| AiPointType | aiSmooth = 1 aiCorner = 2 | The type of path point, either a curve or a corner. |
| AiPolarityValues | aiPositive = 1 aiNegative = -1 | |
| AiPostScriptImageCompressionType | aiImageCompressionNone = 0 aiImageCompressionRLE = 1 aiImageCompressionJPEG = 2 | |

| Enumeration type | Values | What it means |
|-------------------------------------|---|--|
| AiPrintArtworkDesignation | aiVisiblePrintableLayers = 0 aiVisibleLayers = 1 aiAllLayers = 2 | |
| AiPrintColorIntent | aiPerceptualIntent = 0 aiSaturationIntent = 1 aiRelativeColorimetric = 2 aiAbsoluteColorimetric = 3 | |
| AiPrintColorProfile | aiOldstyleProfile = 0 aiSourceProfile = 1 aiPrinterProfile = 2 aiCustomProfile = 3 | |
| AiPrintColorSeparationMode | aiComposite = 0 aiOnHostSeparation = 1 aiInRIPSeparation = 2 | |
| AiPrinterColorMode | aiColorPrinter = 0 aiGrayscalePrinter = 1 aiBlackAndWhitePrinter = 2 | |
| AiPrinterPostScriptLevelEnum | aiPSLevel1 = 1 aiPSLevel2 = 2 aiPSLevel3 = 3 | |
| AiPrinterTypeEnum | aiUnknownPrinterType = 0 aiPostScriptPrinter = 1 aiNonPostScriptPrinter = 2 | |
| AiPrintFontDownloadMode | aiDownloadNone = 0 aiDownloadSubset = 1 aiDownloadComplete = 2 | |
| AiPrintingBounds | aiArtboardBounds = 0 aiArtworkBounds = 1 | |
| AiPrintOrientation | aiPortrait = 0 aiLandscape = 1 aiReversePortrait = 2 aiReverseLandscape = 3 aiAutoRotate = 4 | |
| AiPrintPosition | aiTranslateTopLeft = 1 aiTranslateTop = 2 aiTranslateTopRight = 3 aiTranslateLeft = 4 aiTranslateCenter = 5 aiTranslateRight = 6 aiTranslateBottomLeft = 7 aiTranslateBottom = 8 aiTranslateBottomRight = 9 | |
| AiPrintTiling | aiTileSingleFullPage = 0 aiTileFullPages = 1 aiTileImageableAreas = 2 | |
| AiRasterizationColorModel | aiDefaultColorModel = 1 aiGrayscale = 2 aiBitmap = 3 | The color model for the rasterization. |

| Enumeration type | Values | What it means |
|----------------------------------|---|--|
| AiRasterLinkState | aiDataFromFile = 2 aiDataModified = 3 aiNoData = 1 | The status of a raster item's linked image, if the image is stored externally. |
| AiRulerUnits | aiUnitsCM = 3 aiUnitsInches = 2 aiUnitsMM = 6 aiUnitsPicas = 5 aiUnitsPoints = 4 aiUnitsQ = 7 aiUnitsPixels = 8 aiUnitsUnknown = 1 | The default measurement units for the rulers in a document. |
| AiSaveOptions | aiDoNotSaveChanges = 2 aiPromptToSaveChanges = 3 aiSaveChanges = 1 | Save options provided when closing a document. |
| AiScreenMode | aiDesktop = 2 aiFullScreen = 3 aiMultiWindow = 1 | The mode of display for a view. |
| AiSpotColorKind | aiSpotCMYK = 0 aiSpotRGB = 1 aiSpotLAB = 2 | The custom color kind of the spot color. |
| AiStrokeCap | aiButtEndCap = 1 aiProjectingEndCap = 3 aiRoundEndCap = 2 | The type of line capping for a path stroke. |
| AiStrokeJoin | aiBevelEndJoin = 3 aiMiterEndJoin = 1 aiRoundEndJoin = 2 | The type of joints for a path stroke. |
| AiStyleRunAlignmentType | aiAlignBottom = 0 aiICFBottom = 1 aiRomanBaseline = 2 aiAlignCenter = 3 aiICFTop = 4 aiAlignTop = 5 | |
| AiSVGCSSTPropertyLocation | aiEntities = 2 aiStyleAttributes = 1 aiStyleElements = 3 aiPresentationAttributes = 4 | How should the CSS properties of the document be included in an exported SVG file? |
| AiSVGDocumentEncoding | aiASCII = 1 aiUTF16 = 3 aiUTF8 = 2 | How text is encoded when exporting an SVG file. |
| AiSVGDTDVersion | aiSVG1_0 = 1 aiSVG1_1 = 2 aiSVGBasic1_1 = 5 aiSVGTiny1_1 = 3 aiSVGTiny1_1Plus = 4 aiSVGTiny1_2 = 6 | SVG version compatibility for exported file. |

| Enumeration type | Values | What it means |
|----------------------------------|---|--|
| AiSVGFontSubsetting | aiAllGlyphs = 7 aiCommonEnglish = 3 aiCommonRoman = 5 aiGlyphsUsed = 2 aiGlyphsUsedPlusEnglish = 4 aiGlyphsUsedPlusRoman = 6 aiNoFonts = 1 | What font glyphs are included in an exported SVG file? |
| AiSVGFontType | aiCEFFont = 1 aiOutlineFont = 3 aiSVGFont = 2 | Types for fonts included in exported SVG files. |
| AiSymbolRegistrationPoint | aiSymbolTopLeftPoint = 1 aiSymbolTopMiddlePoint = 2 aiSymbolTopRightPoint = 3 aiSymbolMiddleLeftPoint = 4 aiSymbolCenterPoint = 5 aiSymbolMiddleRightPoint = 6 aiSymbolBottomLeftPoint = 7 aiSymbolBottomMiddlePoint = 8 aiSymbolBottomRightPoint = 9 | The symbol registration point. |
| AiTabStopAlignment | aiCenterTab = 1 aiDecimalTab = 3 aiLeftTab = 0 aiRightTab = 2 | The alignment of a tab stop. |
| AiTextAntialias | aiNone = 1 aiSharp = 2 aiCrisp = 3 aiStrong = 4 | The type of text anti-aliasing in a text art item. |
| AiTextOrientation | aiHorizontal = 0 aiVertical = 1 | The orientation of text in a text frame. |
| AiTextPreservePolicy | aiOutlineText = 1 aiRasterizeText = 2 aiKeepTextEditable = 3 aiAutomaticallyConvertText = 4 | The text preserve policy used by the FXG file format. |
| AiTextType | aiAreaText = 1 aiPathText = 2 aiPointText = 0 | The type of text art displayed by this object. |
| AiTIFFByteOrder | aiBMPC = 0 aiMacintosh = 1 | The byte order to use when exporting to TIFF. |
| AiTracingModeType | aiTracingModeBlackAndWhite = 2 aiTracingModeColor = 0 aiTracingModeGray = 1 | |

| Enumeration type | Values | What it means |
|-----------------------------------|---|--|
| AiTransformation | aiTransformBottom = 7 aiTransformBottomLeft = 4 aiTransformBottomRight = 10 aiTransformCenter = 6 aiTransformDocumentOrigin = 1 aiTransformLeft = 3 aiTransformRight = 9 aiTransformTop = 5 aiTransformTopLeft = 2 aiTransformTopRight = 8 | The point to use as the anchor point about which an object is rotated, resized or transformed. |
| AiTrappingType | aiNormalTrapping = 0 aiTransparent = 1 aiOpaque = 2 aiIgnoreOpaque = 3 | |
| AiUserInteractionLevel | aiDontDisplayAlerts = -1 aiDisplayAlerts = 2 | |
| AiVariableKind | aiGraph = 5 aiImage = 4 aiTextual = 3 aiUnknownKind = 1 aiVisibility = 2 | The enumerated type of the kind of variable. |
| AiViewRasterType | aiTracingViewRasterAdjusted- Image = 2 aiTracingViewRasterNoImage = 0 aiTracingViewRasterOriginal- Image = 1 aiTracingViewRasterTransparent- Image = 3 | The raster viewing mode for tracing. |
| AiViewVectorType | aiTracingViewVectorNoTracing- Result = 0 aiTracingViewVectorOutlines = 2 aiTracingViewVectorOutlines- WithTracing = 3 aiTracingViewVectorTracing- Result = 1 | The vector viewing mode for tracing. |
| AiWariChuJustificationType | aiWariChuLeft = 0 aiWariChuRight = 1 aiWariChuCenter = 2 aiWariChuFullJustifyLastLine- Left = 3 aiWariChuFullJustifyLastLine- Right = 4 aiWariChuFullJustifyLastLine- Center = 5 aiWariChuAutoJustify = 6 | |

| Enumeration type | Values | What it means |
|-----------------------|--|--|
| AiZOrderMethod | aiBringForward = 2 aiBringToFront = 1 aiSendBackward = 3 aiSendToBack = 4 | The method used to arrange an art item's position in the stacking order of its parent group or layer, as specified with the ZOrder method. |
