ADOBE® ILLUSTRATOR® CC 2014

ADOBE ILLUSTRATOR CC 2014 SCRIPTING REFERENCE: VBSCRIPT

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Adobe Illustrator CC 2014 Scripting Reference: VBScript

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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 CC 2014 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 true, an action is still running.
ActiveDocument	Document	The active (frontmost) document in Illustrator.
Application	Application	Read-only. The Illustrator Application object.
BrowserAvailable	Boolean	Read-only. If true, 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).
PasteRememberLayers	Boolean	Read-only. If true, the paste operation maintains the layer structure.
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 Strings	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.

Property	Value type	What it is
ScriptingVersion	String	Read-only. The version of the Scripting plug-in.
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.
TracingPresetsList	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 true, 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
DeleteWorkspace (workspaceName as **String**)	Boolean	Deletes a workspace.
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 DoScript only if you intend to run your script from an application external to Illustrator, such as the Windows® Script Host. Calling DoScript 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 DocumentColorSpace 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.
ResetWorkspace ()	Boolean	Resets the current workspace.
SaveWorkspace (workspaceName as **String**)	Boolean	Saves a new workspace.
ShowPresets (fileSpec as **String**)	Nothing	Gets the presets from the file.
SwitchWorkspace (workspaceName as **String**)	Boolean	Switches to a workspace.
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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`ArtboardRect`	`Rect`	Size and position of the artboard.
`Name`	`String`	The unique identifying name of the artboard.
`Parent`	`Document`	Read-only. The name of the object that is this `Artboard` object's parent.
`RulerOrigin`	`Point`	Ruler origin of the artboard, relative to the left top corner of the artboard.
`RulerPAR`	`Double`	Pixel aspect ratio, used in ruler visualization if the units are pixels. Range: 0.1 to 10.0
`ShowCenter`	`Boolean`	Show center mark.
`ShowCrossHairs`	`Boolean`	Show cross hairs.
`ShowSafeAreas`	`Boolean`	Show title and action safe areas (for video).

Artboard methods

Method	Returns	What it does
`Delete` `()`	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 `Application` 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 **ArtboardRect**)	Artboard	Creates a new `Artboard` object.
GetActiveArtboardIndex ()	Long	Retrieves the index position of the active artboard in the document's list. Returns the 0-based index.
GetByName (artboardName as **String**)	Artboard	Retrieves an artboard object from the list by its unique identifying name.
Index (item as **DataSets**)	Long	Returns the index position of the object within the collection.
Insert (rect as **ArtboardRect**, index as **Long**)	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 `itemKey` (name or index).
Remove (index as **Long**)	Nothing	Deletes an artboard object. You cannot remove the last artboard in a document.
SetActiveArtboardIndex (index as **Long**)	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 `true`, center the artwork that is created on the artboard. Default is `true`.
GlobalScaleOption	AiAutoCADGlobalScaleOption	How to scale the drawing on import. Default is `1 ' aiFitArtboard`
GlobalScalePercent	Double	The value when `globalScaleOption` is `2 ' aiScaleByValue`, expressed as a percentage. Range: 0.0 to 100.0 Default is `100.0`
MergeLayers	Boolean	If `true`, the layers of the artwork are merged. Default: `false`
Parent	Document	Read-only. The document that contains this object.
ScaleLineweights	Boolean	If `true`, scales line weights by the same factor as the rest of the drawing. Default is `false`.
SelectedLayoutName	String	Name of the layout in the drawing to import.
Unit	AiAutoCADUnit	The unit to map to. Default is `3 ' aiMillimeters`.
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 `Application` object.
Name	`String`	The `Brush` name.
Parent	`Object`	Read-only. The container object.

Brush methods

Method	Returns	What it does
ApplyTo (artItem as **PageItem**)	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 `Application` 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 `itemKey` (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
AkiLeft	Double	The amount of inter-glyph space added to the left side of the glyph in Japanese text (in thousandths of an em).
AkiRight	Double	The amount of inter-glyph spacing added to the right side of the glyph in Japanese text (in thousandths of an em).
Alignment	AiStyleRunAlignmentType	The character alignment type.
AlternateGlyphs	AiAlternateGlyphsForm	Specifies which kind of alternate glyphs are used.
Application	Application	Read-only. The Illustrator `Application` object.
AutoLeading	Boolean	If `true`, automatic leading is used.
BaselineDirection	AiBaselineDirectionType	The Japanese text baseline direction.
BaselinePosition	AiFontBaselineOption	The baseline position of text.
BaselineShift	Double	The amount of shift (in points) of the text baseline.
Capitalization	AiFontCapsOption	Specifies whether the text is normal, all uppercase, all small caps, or a mix of small caps and lowercase.
ConnectionForms	Boolean	If `true`, OpenType® connection forms are used.
ContextualLigature	Boolean	If `true`, contextual ligatures are used.
DiscretionaryLigature	Boolean	If `true`, discretionary ligatures are used.
FigureStyle	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 true, OpenType fractions are used.
HorizontalScale	Double	The horizontal scaling factor (as a percentage).
Italics	Boolean	If true, 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 true, ligatures are used.
NoBreak	Boolean	If true, no break is allowed.
OpenTypePosition	AiFontOpenTypePositionOption	The OpenType baseline position.
Ordinals	Boolean	If true, OpenType ordinals are used.
Ornaments	Boolean	If true, OpenType ornaments are used.
OverprintFill	Boolean	If true, overprint the fill of the text.
OverprintStroke	Boolean	If true, overprinting of the stroke of the text is allowed.
Parent	Object	Read-only. The object's container.
ProportionalMetrics	Boolean	If true, proportional metrics in Japanese OpenType are used.
Rotation	Double	The character rotation angle.
Size	Double	The font size in points.
StrikeThrough	Boolean	If true, characters are struck-through by a line.
StrokeColor	Object	The color of the text stroke.
StrokeWeight	Double	Line width of stroke.
StylisticAlternates	Boolean	If true, OpenType stylistic alternates are used.
Swash	Boolean	If true, 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 true, 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 true, characters are underlined.
VerticalScale	Double	Character vertical scaling factor.
WariChuCharactersAfterBreak	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 true, 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
Application	Application	Read-only. Application that the collection belongs to.
Count	Long	Read-only. Number of elements in the collection.
Parent	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 itemKey (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 `Application` 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
Application	Application	Read-only. The Illustrator `Application` object.
ArtworkKnockout	AiKnockoutState	Is this object used to create a knockout? If so, what kind of knockout?
BlendingMode	AiBlendModes	The mode used when compositing an object.
ControlBounds	`Variant Array` of 4 `Double`s	Read-only. The bounds of the object including stroke width and controls.
Editable	`Boolean`	Read-only. If `true`, the object is editable.
GeometricBounds	`Variant Array` of 4 `Double`s	Read-only. The bounds of the object excluding stroke width.
Height	`Double`	The height of the object, excluding stroke width, calculated from the `GeometricBounds`.
Hidden	`Boolean`	If `true`, this object is hidden.
IsIsolated	`Boolean`	If `true`, 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 `true`, the 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	Document	Read-only. The document that contains this object.
PathItems	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 true, the object is selected.
Sliced	Boolean	If true, the CompoundPathItem is sliced. Default: false
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 VisibilityVariable 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 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.

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 `scaleX` is the horizontal scaling factor (as a percentage) and `scaleY` 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 `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 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 `deltaX` is the horizontal offset and `deltaY` is the vertical offset.
ZOrder (zOrderCmd as AiZOrderMethod)	Nothing	Arranges the compound path's position in the stacking order of the group or layer (`Parent`) 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 `Application` 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 `CompoundPathItem` object.
Index (item as **CompoundPathItem**)	Long	Returns the index position of the object within the collection.
Item (itemKey)	CompoundPathItem	Returns an object reference to the object identified by `itemKey` (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 CC 2014 Scripting Guide*.

For a sample script that uses a `DataSet` object, see DataSets.

DataSet properties

Property	Value type	What it is
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`Name`	`String`	The name of the `DataSet`.
`Parent`	`Document`	Read-only. The name of the object that is this `DataSet` object's parent.

DataSet methods

Method	Returns	What it does
`Delete` `()`	Nothing	Deletes the object.
`Display` `()`	Nothing	Displays the `DataSet`.
`Update` `()`	Nothing	Updates the `DataSet`.

DataSets

A collection of `DataSet` objects.

DataSets properties

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

DataSets methods

Method	Returns	What it does
`Add` `()`	`DataSet`	Creates a new `DataSet` object.
`Index` `(item as` **`DataSets`**`)`	`Long`	Returns the index position of the object within the collection.
`Item` `(itemKey)`	`DataSet`	Returns an object reference to the object identified by `itemKey` (name or index).
`RemoveAll` `()`	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
ActiveDataSet	DataSet	The active `DataSet` object in the document.
ActiveLayer	Layer	The active `Layer` in the document.
ActiveView	View	Read-only. The document's current `View`.
Application	Application	Read-only. The Illustrator `Application` object.
Artboards	Artboards	Read-only. All artboards in the document.
Brushes	Brushes	Read-only. The `Brushes` contained in the document.
CharacterStyles	CharacterStyles	Read-only. The list of character styles in this document.
CompoundPathItems	CompoundPathItems	Read-only. The `CompoundPathItems` contained in the document.
CropBox	`Variant Array` of 4 `Doubles`	The boundary of the document's cropping box for output. A document does not have a default `CropBox`. In order to read this property you have to set the `CropBox` first.
CropStyle	AiCropOptions	The style of the document's cropping box.
DataSets	DataSet	Read-only. A `DataSets` collection in the document.
DefaultFillColor	Color info	The `Color` to fill new paths if default filled is `true`.
DefaultFilled	`Boolean`	If `true`, a new path are filled.

Property	Value type	What it is
DefaultFillOverprint	Boolean	If true, 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 true.
DefaultStroked	Boolean	If true, 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 mitered, 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 true, 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 Gradients collection contained in the document.
GraphicStyles	GraphicStyles	Read-only. The GraphicStyles contained in the document.
GraphItems	GraphItems	Read-only. The GraphItems collection contained in the document.

Property	Value type	What it is
GroupItems	GroupItems	Read-only. The GroupItems collection contained in the document.
Height	Double	Read-only. The height of the document, calculated from the GeometricBounds.
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 PageItems (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 PathItems 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 PlacedItems contained in this document.
PluginItems	PluginItems	Read-only. The PluginItems contained in this document.
PrintTiles	Boolean	Read-only. If true, 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 true, 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 true, placed images are displayed in the document.
SplitLongPaths	Boolean	Read-only. If true, long paths are split when printing.
Spots	Spots	Read-only. The SpotColors contained in this document.
Stationery	Boolean	Read-only. If true, 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 true, full pages are tiled when printing this document.
UseDefaultScreen	Boolean	Read-only. If true, the printer's default screen is used when printing this document.
Variables	Variables	Read-only. The variables in this document.
VariablesLocked	Boolean	If true, the Variables in this document are locked.
Views	Views	Read-only. The views in this document.
VisibleBounds	Variant Array of 4 Doubles	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 GeometricBounds.
XMPString	String	The XMP metadata packet associated with this document.

Document methods

Method	Returns	What it does
Arrange ([layoutStyle as AiDocumentLayoutStyle])	Nothing	Arranges multiple documents in the given layout style.
Activate ()	Nothing	Brings the first window associated with the document to the front.
Close ([Saving as AiSaveOptions])	Nothing	Closes the document.
Capture (ImageFile as **File**, windowSize as **Point**)	Nothing	Captures the current document window to the target TIFF image file.
ConvertCoordinate (Coordinate as **Point**, 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.

Method	Returns	What it does
Cut ()	Nothing	Cuts the current selection in the document to the clipboard; the associated document must be the frontmost document.
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 ExportOptions*Format* 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 true 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 true 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.

Method	Returns	What it does
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.
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 `Variables` 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 `aiGridByRow`. 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.

Method	Returns	What it does
Save ()	Nothing	Saves the document in its current location.
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 `true` on success.
SelectPerspectivePreset (PresetPreset as **String**)	boolean	Selects a predefined preset to define grid for the current document. Returns `true` on success.
SetPerspectiveActivePlane (PerspectiveGridPlane as AiPerspectiveGridPlaneType)	boolean	Sets the active plane of the active perspective grid of the document. Returns `true` on success.
ShowPerspectiveGrid ()	boolean	Shows the current active grid for the document, or if no grid is active, shows the default grid. Returns `true` 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 `Application` 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]** [, showOptionsDialog as **Boolean**)	Document	Creates a document from the preset, replacing any provided setting values, 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 `itemKey` (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: AiGridByRow
ArtboardRowsOrCols	Long	The number of rows (for rows layout) or columns (for column layout) of artboards. Range: 1 to (NumArtboards - 1) 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 Application 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
Application	Application	Read-only. The Illustrator `Application` object.
ArtboardRange	`string`	If `SaveMultipleArtboards` is `true`, this is considered for multi-asset extraction, which specifies the artboard range. An empty string extracts all the artboards. Default: empty string
CMYKPostScript	`Boolean`	If `true`, CMYK PostScript® is used.
Compatibility	AiCompatibility	Illustrator version compatibility for the EPS file format. Default: `17 ' aiIllustrator17`
CompatibleGradientPrinting	`Boolean`	If `true`, a raster item of the gradient or gradient mesh are created so the object can be printed on PostScript level 2 printers. Default: `false`
EmbedAllFonts	`Boolean`	If `true`, fonts are included in the EPS file.
EmbedLinkedFiles	`Boolean`	If `true`, linked image files are included in the saved document.
FlattenOuput	AiOutputFlattening	How should transparency be flattened for file formats older than Illustrator 9 or greater.
IncludeDocumentThumbnails	`Boolean`	If `true`, the thumbnail image of the EPS artwork is included.
Overprint	AiPDFOverprint	The style of overprinting. Default: `1 ' aiPreservePDFOverprint`
PostScript	AiEPSPostScriptLevel Enum	Specifies the PostScript level to use when saving the file.
Preview	AiEPSPreview	Format for the EPS preview image.
SaveMultipleArtboards	`boolean`	If `true`, all artboards or range of artboards are saved. Default: `false`

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
`AlterPathsForAppearance`	`Boolean`	If `true`, paths are altered (if needed) to maintain appearance. Default: `false`
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`Colors`	`AiAutoCADColors`	The number of colors to export into the AutoCAD file.
`ConvertTextToOutlines`	`Boolean`	If `true`, text is converted to outlines. Default: `false`
`ExportFileFormat`	`AiAutoCADExportFileFormat`	The file format to which to export. Default: `1 'aiDWG`
`ExportOption`	`AiAutoCADExportOption`	Whether to preserve appearance or editability during export. Default: `1 ' aiMaximumEditability`
`ExportSelectedArtOnly`	`Boolean`	If `true`, only selected artwork is exported. Default: `false`
`RasterFormat`	`AiAutoCADRasterFormat`	The format in which to export raster art.
`ScaleLineweights`	`Boolean`	If `true`, line weights are scaled by the same scaling factor as the rest of the drawing. Default: `false`
`Unit`	`AiAutoCADUnit`	Measurement units from which to map.
`UnitScaleRatio`	`Double`	The ratio by which to scale output.
`Version`	`AiAutoCADCompatibility`	The release of AutoCAD to export to. Default: `5 'aiAutoCADRelease24`

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.

Allproperties are optional.

ExportOptionsFlash properties

Property	Value type	What it is
Application	Application	Read-only. The Illustrator `Application` object.
ArtboardRange	`string`	If `SaveMultipleArtboards` is `true`, this is considered for multi-asset extraction, which specifies the artboard range. An empty string extracts all the artboards. Default: empyt 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 `true`, kerning information is ignored in text objects. Default: `false`
ImageFormat	AiFlashImageFormat	How the image in the exported Flash file is compressed. Default: `1 ' aiLossless`
IncludeMetadata	Boolean	If `true`, includes minimal XMP metadata in the SWF file. Default: `false`
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 `true`, the Flash file are set to loop when run. Default: `false`
PlaybackAccess	AiFlashPlaybackSecurity	The access level for the exported SWF file. Default: `1 ' aiPlaybackLocal`
PreserveAppearance	Boolean	If `true`, preserve appearance. If `false`, preserve editability. Default: `false`
ReadOnly	Boolean	If `true`, the file is exported as read-only. Default: `false`
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 `true`, all artboards or range of artboards are saved. Default: `false`

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 `true`, the exported image is anti-aliased. Default: `true`
Application	Application	Read-only. The Illustrator `Application` object.
ArtBoardClipping	Boolean	If `true`, the exported image is clipped to the art board. Default: `false`
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: `&H4466736E ' aiDiffusion`
ColorReduction	AiColorReductionMethod	The method used to reduce the number of colors in the exported image. Default: `&H536C7476 ' aiSelective`
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 `true`, the exported image is interlaced. Default: `false`
Matte	Boolean	If `true`, the art board is matted with a color. Default: `true`
MatteColor	RGBColor	The color to use when matting the art board. Default: `white`
SaveAsHTML	Boolean	If `true`, the exported image is saved with an accompanying HTML file. Default: `false`
Transparency	Boolean	If `true`, the exported image uses transparency. Default: `true`

Property	Value type	What it is
VerticalScale	Double	The vertical scaling factor applied to the exported image, where 100.0 is 100%. Default: 100.0
WebSnap	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 `true`, the exported image is anti-aliased. Default: `true`
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`ArtBoardClipping`	`Boolean`	If `true`, the exported image is clipped to the art board. Default: `false`
`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 `true`, the art board is matted with a color. Default: `true`
`MatteColor`	`RGBColor`	The color to use when matting the art board. Default: `white`
`Optimization`	`Boolean`	If `true`, the exported image is optimized for web viewing. Default: `true`
`QualitySetting`	`Long`	The quality of the exported image. Range: 0 to 100. Default: `30`
`SaveAsHTML`	`Boolean`	If `true`, the exported image is saved with an accompanying HTML file. Default: `false`
`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 `true`, the exported image is anti-aliased. Default: `true`
Application	Application	Read-only. The Illustrator `Application` object.
ArtboardRange	string	If `SaveMultipleArtboards` is `true`, 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 `true`, text objects are exported as editable text layers. Default: `true`
EmbedICCProfile	Boolean	If `true`, an ICC profile are embedded in the exported file. Default: `false`
ImageColorSpace	AiImageColorSpace	The color space of the exported file. Default: `aiImageRGB ' 2`
MaximumEditability	Boolean	If `true`, preserve as much of the original document's structure as possible when exporting. Default: `true`
Resolution	Double	The resolution of the exported file in dots per inch. Range: 72 to 2400. Default: `150`
SaveMultipleArtboards	boolean	If `true`, all artboards or range of artboards are saved. Default: `false`
Warnings	Boolean	If `true`, a warning dialog are displayed because of conflicts in the export settings. Default: `true`
WriteLayers	Boolean	If `true`, the document layers are preserved in the exported file. Default: `true`

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 `true`, the exported image is anti-aliased. Default: `true`
Application	Application	Read-only. The Illustrator `Application` object.
ArtBoardClipping	Boolean	If `true`, the exported image is clipped to the art board. Default: `false`
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: `&H4466736E ' aiDiffusion`
ColorReduction	AiColorReductionMethod	The method used to reduce the number of colors in the exported image. Default: `&H536C7476 ' aiSelective`
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 `true`, the exported image are interlaced. Default: `false`
Matte	Boolean	If `true`, the art board is matted with a color. Default: `true`
MatteColor	RGBColor	The color to use when matting the art board. Default: `white`
SaveAsHTML	Boolean	If `true`, the exported image is saved with an accompanying HTML file. Default: `false`
Transparency	Boolean	If `true`, the exported image uses transparency. Default: `true`

Property	Value type	What it is
VerticalScale	Double	The vertical scaling factor applied to the exported image, where 100.0 is 100%. Default: 100.0
WebSnap	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 `true`, the exported image is anti-aliased. Default: `true`
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`ArtBoardClipping`	`Boolean`	If `true`, the exported image is clipped to the art board. Default: `false`
`HorizontalScale`	`Double`	The horizontal scaling factor applied to the exported image, where 100.0 is 100%. Default: `100.0`
`Matte`	`Boolean`	If `true`, the art board is matted with a color. Default: `true`
`MatteColor`	`RGBColor`	The color to use when matting the art board. Default: `white`
`SaveAsHTML`	`Boolean`	If `true`, the exported image is saved with an accompanying HTML file. Default: `false`
`Transparency`	`Boolean`	If `true`, the exported image uses transparency. Default: `true`
`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 `Application` object.
ArtboardRange	`String`	A range of artboards to save, if `SaveMultipleArtboards` is `true`. A comma-delimited list of artboard names., or the empty string to save all artboards. Default: empty string
Compressed	`Boolean`	If `true`, the exported file is compressed. Default: `false`
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 `true`, 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`

Property	Value type	What it is
IncludeFileInfo	Boolean	If true, the XMP (Extensible Metadata Platform) metadata are included in the output file. Default: false
IncludeUnusedStyles	Boolean	If true, save unused styles in the exported file. Default: false
IncludeVariablesAndDatasets	Boolean	If true, Variables and Datasets are included. Default: false
OptimizeForSVGViewer	Boolean	If true, the Adobe namespace is included. Default: false
PreserveEditability	Boolean	If true, preserve Illustrator editing capability when exporting the document. Default: false
SaveMultipleArtboards	boolean	If true, save the artboards specified by artboardRange in the exported file. Default: false
Slices	Boolean	If true, preserve slice data in exported document. Default: false
SVGAutoKerning	Boolean	If true, SVG automatic kerning is allowed in the file. Default: false
SVGTextOnPath	Boolean	If true, the SVG text-on-path construct is allowed in the file. Default: false

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 `true`, the exported image should be anti-aliased. Default: `true`
ArtboardRange	string	If `SaveMultipleArtboards` is `true`, 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: `aiImageRGB ' 2`
IZWCompression	boolean	If `true`, 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 `true`, all artboards or range of artboards are saved. Default: `false`

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 `true`, converts all text to outlines. Default: `false`
ImportSinglePage	`Boolean`	If `true`, imports only the page specified in the `PageToOpen` property. Default: `true`
PageToOpen	`Long`	The number of the page to import when opening a multipage document. Valid only when `ImportSinglePage` is `true`.
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 `SaveMultipleArtboards` is `true`, 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: `AiAutomaticallyConvertBlends`
DownsampleLinkedImages	`boolean`	If `true`, linked images are downsampled (at 72 dpi). Default: `false`
FiltersPolicy	AiFiltersPreservePolicy	The policy used by FXG to preserve filters. Default: `3'aiKeepFiltersEditable`
GradientsPolicy	AiGradientsPreservePolicy	The policy used by FXG to preserve gradients. Default: `4'aiAutomaticallyConvertGradients`
IncludeUnusedSymbols	`boolean`	If `true`, unused symbols are included. Default: `false`
PreserveEditingCapabilities	`boolean`	If `true`, the editing capabilities of FXG are preserved. Default: `true`
SaveMultipleArtboards	`boolean`	If `true`, all artboards or range of artboards are saved. Default: `false`
TextPolicy	AiTextPreservePolicy	The policy used by FXG to preserve text. Default: `4'aiAutomaticallyConvertText`
Version	AiFXGVersion	The version of the FXG file format to create. Default: `2'aiVersion2Pt0`

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 `Application` 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 `Application` 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 `Double`s	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
Application	Application	Read-only. The Illustrator `Application` object.
Count	Long	Read-only. The number of objects in the collection.
Parent	Document	Read-only. The parent document of this object.

Gradients methods

Method	Returns	What it does
Add ()	Gradient	Creates a new object
Index (item as Gradient)	Long	Returns the index position of the object within the collection.
Item (itemKey)	Gradient	Returns an object reference to the object identified by `itemKey` (name or index).
RemoveAll ()	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 `Application` object.
`Color`	`Color info`	The color linked to this gradient stop.
`Midpoint`	`Double`	The distance between two `GradientStops`, 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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`Count`	`Long`	Read-only. The number of objects in the collection.
`Parent`	`Document`	Read-only. The document that contains this object.

GradientStops methods

Method	Returns	What it does
`Add` `()`	`GradientStop`	Creates a new object
`Index` `(item as` **`GradientStop`**`)`	`Long`	Returns the index position of the object within the collection.
`Item` `(itemKey)`	`GradientStop`	Returns an object reference to the object identified by `itemKey` (name or index).
`RemoveAll` `()`	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 `Application` object.
Name	`String`	The `GraphicStyle` name.
Parent	Document	Read-only. The document that contains this object.

GraphicStyle methods

Method	Returns	What it does
ApplyTo (artItem as **PageItem**)	Nothing	Applies the `GraphicStyle` to a specific art item.
MergeTo (artItem as **PageItem**)	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 `Application` 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 **GraphicStyle**)	Long	Returns the index position of the object within the collection.
Item (itemKey)	GraphicStyle	Returns an object reference to the object identified by `itemKey` (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 Application object.
ArtworkKnockout	AiKnockoutState	Is this GraphItem 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 GraphItem. It is not necessary to set the type of the ContentVariable before binding. Illustrator automatically sets the type to AiGraph.
ControlBounds	Variant Array of 4 Doubles	Read-only. The bounds of the object including stroke width and controls.
Editable	Boolean	Read-only. If true, the GraphItem is editable.
GeometricBounds	Variant Array of 4 Doubles	Read-only. The bounds of the GraphItem excluding stroke width.
Height	Double	The height of the GraphItem, calculated on the GeometricBounds.
Hidden	Boolean	If true, this GraphItem is hidden.
IsIsolated	Boolean	If true, this GraphItem is isolated.
Layer	Layer	Read-only. The Layer to which this GraphItem belongs.
Left	Double	The position of the left side of the GraphItem (in points, measured from the left side of the page).
Locked	Boolean	If true, this GraphItem is locked.
Name	String	The name of this GraphItem.
Note	String	The note assigned to this GraphItem.
Opacity	Double	The opacity of the GraphItem. Range: 0.0 to 100.0
Parent	Layer or GroupItem	Read-only. The parent of this GraphItem.
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 GraphItem is selected.

Property	Value type	What it is
Sliced	Boolean	If true, this GraphItem is sliced. Default: false
Tags	Tags	Read-only. The collection of Tags contained in this GraphItem.
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 GraphItem.
VisibilityVariable	Variable	The visibility variable bound to this GraphItem. It is not necessary to set the type of the VisibilityVariable before binding. Illustrator automatically sets the type to AiVisibility.
VisibleBounds	Variant Array of 4 Doubles	Read-only. The visible bounds of the GraphItem including stroke width.
Width	Double	The width of the GraphItem, based on the GeometricBounds.
WrapInside	Boolean	If true, the text frame object is 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 GraphItem within the stacking order of the GroupItem or Layer (Parent) that contains the GraphItem.

GraphItem methods

Method	Returns	What it does
Copy ()	Nothing	Copies the GraphItem to the clipboard; the associated document must be the frontmost document.
Cut ()	Nothing	Cuts the GraphItem 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 `GraphItem` where `scaleX` is the horizontal scaling factor and `scaleY` 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 `GraphItem` relative to the current rotation; 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 `GraphItem` 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 `GraphItem` relative to the current position, where `deltaX` is the horizontal offset and `deltaY` is the vertical offset.
ZOrder (zOrderCmd as AiZOrderMethod)	Nothing	Arranges the `GraphItem`'s position in the stacking order of the group or layer (`Parent`) 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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`Count`	`Long`	Read-only. The number of objects in the collection.
`Parent`	`Document`	Read-only. The document that contains this object.

GraphItems methods

Method	Returns	What it does
`Index` (`item as` **`GraphItem`**)	`Long`	Returns the index position of the object within the collection.
`Item` (`itemKey`)	`GraphItem`	Returns an object reference to the object identified by `itemKey` (name or index).
`RemoveAll` ()	`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 `Application` 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 `true`, the `GroupItem` is clipped to the clipping mask.
CompoundPathItems	CompoundPathItems	Read-only. The `CompoundPathItems` contained in this `GroupItem`.
ControlBounds	`Variant Array` of 4 `Doubles`	Read-only. The bounds of the object including stroke width and controls.
Editable	Boolean	Read-only. If `true`, this `GroupItem` is editable.
GeometricBounds	`Variant Array` of 4 `Doubles`	Read-only. The bounds of the object excluding stroke width.
GraphItems	GraphItems	Read-only. The raster items contained in this `GroupItem`.
GroupItems	GroupItems	Read-only. The `GroupItems` contained in this `GroupItem`.
Height	Double	The height of the `GroupItem`, based on the `GeometricBounds`.
Hidden	Boolean	If `true`, this `GroupItem` is hidden.
IsIsolated	Boolean	If `true`, this object is isolated.
Layer	Layer	Read-only. The layer to which this `GroupItem` belongs.
Left	Double	The position of the left side of the `GroupItem` (in points, measured from the left side of the page).
LegacyTextItems	LegacyTextItems	Read-only. The legacy text items in the group.
Locked	Boolean	If `true`, this `GroupItem` is locked.

Property	Value type	What it is
MeshItems	MeshItems	Read-only. The MeshItems contained in this GroupItem.
Name	String	The name of this GroupItem.
NonNativeItems	NonNativeItems	Read-only. The non-native art items in this group.
Note	String	The note assigned to this GroupItem.
Opacity	Double	The opacity of the object. Range: 0.0 to 100.0
PageItems	PageItems	Read-only. The PageItems contained in this GroupItem.
Parent	Document	Read-only. The document that contains this GroupItem.
PathItems	PathItems	Read-only. The PathItems contained in this GroupItem.
PlacedItems	PlacedItems	Read-only. The PlacedItems contained in this GroupItem.
PluginItems	PluginItems	Read-only. The PluginItems contained in this GroupItem.
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.
RasterItems	RasterItems	Read-only. The RasterItems contained in this GroupItem.
Selected	Boolean	If true, this GroupItem is selected.
Sliced	Boolean	If true, this GroupItem is sliced. Default: false
SymbolItems	SymbolItems	Read-only. The SymbolItems contained in this GroupItem.
Tags	Tags	Read-only. The tags contained in this GroupItem.
TextFrames	TextFrames	Read-only. The TextFrame objects contained in this GroupItem.
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 GroupItem.
VisibilityVariable	Variable	The Variable bound to this GroupItem.
VisibleBounds	Variant Array of 4 Doubles	Read-only. The visible bounds of the GroupItem including stroke width.
Width	Double	The width of the GroupItem, based on the GeometricBounds.

Property	Value type	What it is
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 group item within the stacking order of the group or layer (Parent) that contains this group item.

GroupItem methods

Method	Returns	What it does
Copy ()	Nothing	Copies the GroupItem to the clipboard; the associated document must be the frontmost document.
Cut ()	Nothing	Cuts the GroupItem 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.
Paste ()	Nothing	Inserts the contents of the clipboard at the beginning of the GroupItem. You may only paste into a group that is contained in the active document.
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 scaleX is the horizontal scaling factor and scaleY 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
Application	Application	Read-only. The Illustrator `Application` object.
Count	Long	Read-only. The number of objects in the collection.
Parent	Document	Read-only. The document that contains this object.

GroupItems methods

Method	Returns	What it does
Add ()	GroupItem	Creates a new object.
CreateFromFile (imagefile as **String**)	GroupItem	Creates a `GroupItem` from a vector graphics file.
Index (item as **GroupItem**)	Long	Returns the index position of the object within the collection.
Item (itemkey)	GroupItem	Returns an object reference to the object identified by `itemkey` (name or index).
RemoveAll ()	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 `Application` object.
ArtboardRange	`string`	If `SaveMultipleArtboards` is `true` (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: `17 ' aiIllustrator17`
Compressed	`Boolean`	(Illustrator version 10 or later) If `true`, the saved file is compressed. Default: `true`
EmbedICCProfile	`Boolean`	If `true`, an ICC profile is embedded in the saved file.
EmbedLinkedFiles	`Boolean`	If `true`, linked image files are included in the saved document (only valid for `SaveOptions` 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 `true`, save as a PDF compatible file (version 10 or later). Default: `true`
SaveMultipleArtboards	`boolean`	If `true`, 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 true, the image result is anti-aliased. Default: false
Application	Application	Read-only. The Illustrator Application object.
Matte	Boolean	If true, the artboard is matted with a color. Default: false
MatteColor	RGBColor	The color to use for the artboard matte. Default: white
Resolution	Double	The resolution of the captured image file in points-per-inch (PPI), in the range 72.0 to 2400.0. Default: 150
Transparency	Boolean	If true, the image result is transparent. Default: false

Ink

Provides information about the ink name and related information.

Ink properties

Property	Value type	What it is
Application	Application	Read-only. The Illustrator Application 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 Application 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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`Characters`	`Characters`	Read-only. All of the characters in the text range.
`Lines`	`Lines`	Read-only. All the lines in this text range.
`Paragraphs`	`Paragraphs`	Read-only. All of the paragraphs in this 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.
`Words`	`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 Application 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 **TextRange**)	Long	Returns the index position of the object within the collection.
Item (itemKey)	InsertionPoint	Gets an element from the collection by itemKey (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 `Application` 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
Application	Application	Read-only. The Illustrator `Application` object.
ArtworkKnockout	AiKnockoutState	Is this `Layer` used to create a knockout, and if so, what kind.
BlendingMode	AiBlendModes	The mode used when compositing an object.
Color	RGBColor	The `Layer`'s selection mark color.
CompoundPathItems	CompoundPathItems	Read-only. The `CompoundPathItems` contained in this layer.
DimPlacedImages	Boolean	If `true`, placed images are rendered as dimmed in this layer.
GraphItems	GraphItems	Read-only. The `GraphItems` collection contained in this layer.
GroupItems	GroupItems	Read-only. The `GroupItems` contained in this layer.
HasSelectedArtwork	Boolean	If `true`, an object in this `Layer` has been selected; setting this property to `false` deselects all objects in the layer.
IsIsolated	Boolean	If `true`, this `Layer` is isolated.
Layers	Layers	Read-only. The `Layers` contained in this layer.
LegacyTextItems	LegacyTextItems	Read-only. The legacy text items contained in this layer.
Locked	Boolean	If `true`, this layer is editable.
MeshItems	MeshItems	Read-only. The `MeshItems` contained in this layer.
Name	String	The name of this layer.
NonNativeItems	NonNativeItems	The non-native art items in this layer.
Opacity	Double	The opacity of the layer. Range: 0.0 to 100.0
PageItems	PageItems	Read-only. The `PageItems` contained in this layer.

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

Layer methods

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. 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 Layer; if the associated document is the frontmost then all pasted objects remain selected after the paste.
ZOrder (zOrderCmd as AiZOrderMethod)	Nothing	Arranges the Layer's position in the stacking order of Layers 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 `Application` object.
Count	Long	Read-only. The number of objects in the collection.
Parent	Object	Read-only. The object that contains this `Layer` (can be another `Layer`).

Layers methods

Method	Returns	What it does
Add ()	Layer	Creates a new object.
Index (item as **Layer**)	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
```

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 `Application` 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 `Double`s	Read-only. The bounds of the object including stroke width and controls.
Converted	`Boolean`	Read-only. If `true`, the legacy text has been updated to a native text frame item.
Editable	`Boolean`	Read-only. If `true`, this item is editable.
GeometricBounds	`Variant Array` of 4 `Double`s	Read-only. The bounds of the object excluding stroke width.
Height	`Double`	The height of the `LegacyTextItem` excluding stroke width, based on the `GeometricBounds`.
Hidden	`Boolean`	If `true`, this object is hidden.
IsIsolated	`Boolean`	If `true`, this object is isolated.
Layer	Layer	Read-only. The layer to which this `LegacyTextItem` 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 `true`, this `LegacyTextItem` is locked.
Name	`String`	The name of this `LegacyTextItem`.
Note	`String`	The note assigned to this `LegacyTextItem`.
Opacity	`Double`	The opacity of the object. Range: 0.0 to 100.0
Parent	Object	Read-only. The object that contains this `LegacyTextItem`.
Position	`Variant Array` of 2 `Double`s	The position (in points) of the top left corner of the item in the format [x, y]. Does not include stroke weight.

Property	Value type	What it is
Selected	Boolean	If true, this object is selected.
Sliced	Boolean	If true, this LegacyTextItem is sliced.
Tags	Tags	Read-only. The tags contained in this LegacyTextItem.
Top	Double	The top position of this LegacyTextItem.
URL	String	The value of the Adobe URL tag assigned to this LegacyTextItem.
VisibilityVariable	Variable	The Variable bound to this LegacyTextItem.
VisibleBounds	Variant Array of 4 Doubles	Read-only. The visible bounds of the LegacyTextItem including stroke width.
Width	Double	The width of the LegacyTextItem excluding stroke width, 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.

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 **Object**], [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 `scaleX` is the horizontal scaling factor and `scaleY` 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 `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.

LegacyTextItems

A collection of `LegacyText` items.

LegacyTextItems properties

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

LegacyTextItems methods

Method	Returns	What it does
`ConvertToNative` `()`	`Boolean`	Creates text frames from all legacy text items; the original legacy text items are deleted. Returns `true` if successful.
`Index` `(itemPtr as` **`LegacyTextItem`**`)`	`Long`	Returns the index position of the object within the collection.
`Item` `(itemKey)`	`LegacyTextItem`	Returns an object reference to the object identified by `itemKey` (name or index).
`RemoveAll` `()`	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 `Application` 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` **`TextRange`**)	`Long`	Returns the index position of the object within the collection.
`Item` (`itemKey`)	`TextRange`	Returns an object reference to the object identified by `itemKey` (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
Application	Application	Read-only. The Illustrator `Application` object.
MValueA	Double	Matrix property `a`.
MValueB	Double	Matrix property `b`.
MValueC	Double	Matrix property `c`.
MValueD	Double	Matrix property `d`.
MValueTX	Double	Matrix property `tx`.
MValueTY	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 Application 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 true, this MeshItem is editable.
GeometricBounds	Variant Array of 4 Doubles	Read-only. The bounds of the object excluding stroke width.
Height	Double	The height of the MeshItem, based on the GeometricBounds.
Hidden	Boolean	If true, this MeshItem is hidden.
IsIsolated	Boolean	If true, this object is isolated.
Layer	Layer	Read-only. The Layer to which this MeshItem 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 true, this MeshItem is locked.
Name	String	The name of this MeshItem.
Note	String	The note assigned to this MeshItem.
Opacity	Double	The opacity of the object. Range 0.0 to 100.0
Parent	object	Read-only. The object that contains this MeshItem.
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 MeshItem is selected.
Sliced	Boolean	If true, this MeshItem is sliced.
Tags	Tags	Read-only. The tags contained in this MeshItem.
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 `scaleX` is the horizontal scaling factor and `scaleY` 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 `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.

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 `Application` 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 **MeshItem**)	Long	Returns the index position of the object within the collection.
Item (itemKey)	MeshItem	Returns an object reference to the object identified by `itemKey` (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
`Application`	Application	Read-only. The Illustrator `Application` 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 `Application` 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 `true`, 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 `GeometricBounds`.
Hidden	`Boolean`	If `true`, this object is hidden.
IsIsolated	`Boolean`	If `true`, 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 `true`, 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 `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).

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 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, 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.

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 scaleX is the horizontal scaling factor and scaleY 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.

NonNativeItems

A collection of non-native items.

NonNativeItems properties

Property	Value type	What it is
Application	Application	Read-only. The Illustrator Application 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 **GraphicStyle**)	Long	Returns the index position of the object within the collection.
Item (itemKey)	NonNativeItem	Returns an object reference to the object identified by itemKey (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 `Application` 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 `true`, preserves the spot colors in the gradient mesh objects for legacy documents (pre-Illustrator CS4). Default: `true`
UpdateLegacyText	Boolean	If `true`, updates all text objects for documents saved with legacy text by Illustrator versions previous to CS. Default: `false`

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

Property	Value type	What it is
Selected	Boolean	If true, this object is selected.
Sliced	Boolean	If true, 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 true, 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 true, 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**] [,transformFillGradents 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
Application	Application	Read-only. The Illustrator `Application` object.
Count	Long	Read-only. Number of elements in the collection.
Parent	Object	Read-only. The object's container.

PageItems methods

Method	Returns	What it does
Index (itemPtr as PageItem)	Long	Returns the index position of the object within the collection.
Item (itemKey)	Object	Returns an object reference to the object identified by `itemKey` (name or index).
RemoveAll ()	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
    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 Application 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 `Double`s	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
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 Application object.
AutoLeadingAmount	Double	Auto leading amount (as a percentage).
BunriKinshi	Boolean	If true, BunriKinshi is enabled.
BurasagariType	AiBurasagariTypeEnum	The Burasagari type, which specifies whether punctuation is allowed to fall outside of the paragraph bounding box (not available when Kinsoku Shori is set to None).
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 true, the Every-line Composer is enabled. If false, the Single-line Composer is enabled.
FirstLineIndent	Double	First line left indent (in points).
HyphenateCapitalizedWords	Boolean	If true, hyphenation is enabled for capitalized words.
Hyphenation	Boolean	If true, 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 `true`, 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 `TabStopInfo` 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 pararagraphs
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 `Application` 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 `itemKey` (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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`CharacterAttributes`	`CharacterAttributes`	Read-only. The character properties for the text range.
`Name`	`String`	The `ParagraphStyle`'s name.
`ParagraphAttributes`	`ParagraphAttributes`	Read-only. The paragraph properties for the text range.
`Parent`	`Object`	Read-only. The object's container.

ParagraphStyle methods

Method	Returns	What it does
`ApplyTo` `(textFrame as` **`TextFrame`** `[, clearingOverrides as` **`Boolean`**`])`	Nothing	Applies the paragraph style to the text object.
`Delete` `()`	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 pararagraphs
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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`Count`	`Long`	Read-only. Number of elements in the collection.
`Parent`	Object	Read-only. The object's container.

ParagraphStyles methods

Method	Returns	What it does
`Add` (`name as` **`String`**)	`ParagraphStyle`	Creates a new `ParagraphStyle` object.
`Index` (`itemPtr as` **`ParagraphStyle`**)	`Long`	Returns the index position of the object within the collection.
`Item` (`itemKey`)	`ParagraphStyle`	Returns an object reference to the object identified by `itemKey` (name or index).
`RemoveAll` ()	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 `Application` 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 `true`, this path is to be used as a clipping path
Closed	Boolean	If `true`, this path is closed
ControlBounds	`Variant Array` of 4 `Double`s	Read-only. The bounds of the object including stroke width and controls.
Editable	Boolean	Read-only. If `true`, this path item is editable.
Evenodd	Boolean	If `true`, the even-odd rule is used to determine insideness.
FillColor	Color info	The fill color of the path.
Filled	Boolean	If `true`, the path is filled.
FillOverprint	Boolean	If `true`, the art beneath a filled object are overprinted.
GeometricBounds	`Variant Array` of 4 `Double`s	Read-only. The bounds of the object excluding stroke width.
Guides	Boolean	If `true`, this path is a guide object.
Height	Double	The height of the path item, based on the `GeometricBounds`.
Hidden	Boolean	If `true`, this path item is hidden.
IsIsolated	Boolean	If `true`, this object is isolated.
Layer	Layer	Read-only. The `Layer` 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 true, 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 true, this path item is selected.
SelectedPathPoints	PathPoints	Read-only. All of the selected path points in the path.
Sliced	Boolean	If true, this path item is sliced.
StrokeCap	AiStrokeCap	The type of line capping.
StrokeColor	Color_info	The stroke color for the path.
Stroked	Boolean	If true, 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 mitered, 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 ofþthe 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 true, 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 Variable 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 GeometricBounds.
WrapInside	Boolean	If true, the text frame object is 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.

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 **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 `scaleX` is the horizontal scaling factor and `scaleY` 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 `Angle` 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 `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.

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
Application	Application	Read-only. The Illustrator `Application` object.
Count	Long	Read-only. Number of elements in the collection.
Parent	Object	Read-only. The object's container.

PathItems methods

Method	Returns	What it does
Add ()	PathItem	Creates a new `PathItem` object.
Ellipse ([top as **Double**] [, left as **Double**] [, width as **Double**] [, height as **Double**] [, reversed as **Boolean**] [, inscribed as **Boolean**])	PathItem	Creates a new `PathItem` 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`
Index (item as **PathItem**)	Long	Returns the index position of the object within the collection.
Item (itemKey)	PathItem	Returns an object reference to the object identified by `itemKey` (name or index).
Polygon ([centerX as **Double**] [, centerY as **Double**] [, radius as **Double**] [, sides as **Long**] [, reversed as **Boolean**])	PathItem	Creates a new `PathItem` in the shape of a polygon using the supplied parameters. Defaults: `CenterX`: `200` pt.; `CenterY`: `300` pt.; `Radius`: `50` pt.; `Sides`: `8`; `Reversed`: `false`
Rectangle ([top as **Double**] [, left as **Double**] [, width as **Double**] [, height as **Double**] [, reversed as **Boolean**])	PathItem	Creates a new `PathItem` in the shape of a rectangle using the supplied parameters.
RemoveAll ()	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 PathItem 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 PathItem 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, witdth = 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 Application 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 PathPoint object.
PointType	AiPointType	The type of path point, either a curve or a corner. Any point can 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)
   deltay = currentAnchorList(1) - nextAnchorList(1)
   length = Sqr(deltax ^ 2 + deltay ^ 2)

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

PathPoints

A collection of `PathPoint` objects in a path.

PathPoints properties

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

PathPoints methods

Method	Returns	What it does
`Add` `()`	`PathPoint`	Creates a new `PathPoint` object.
`Index` `(item as` **`PathPoint`**`)`	`Long`	Returns the index position of the object within the collection.
`Item` `(itemKey)`	`PathPoint`	Returns an object reference to the object identified by `itemKey` (name or index).
`RemoveAll` `()`	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 `Application` 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 `Application` 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 `true`, 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 `Double`s	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
`Application`	Application	Read-only. The Illustrator `Application` object.
`Count`	`Long`	Read-only. Number of elements in the collection.
`Parent`	Object	Read-only. The object's container.

Patterns methods

Method	Returns	What it does
`Add` `()`	Pattern	Creates a new `Pattern` object.
`Index` `(item as` **`Pattern`**`)`	`Long`	Returns the index position of the object within the collection.
`Item` `(itemKey)`	Pattern	Returns an object reference to the object identified by `itemKey` (name or index).
`RemoveAll` `()`	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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`PageToOpen`	`Long`	Specifies which page are used when opening a multipage document. Default: `1`
`Parent`	Object	Read-only. The object's container.
`PDFCropToBox`	`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 `true`, create PDF layers from top-level layers (Acrobat 6 only option). Default: `false`
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: `true`
BleedOffsetRect	Variant Array of 4 Doubles	The bleed offset rectangle.
ColorBars	Boolean	Optional. Draw color bars. Default: `false`
ColorCompression	AiCompressionQuality	Optional. Compression method for color bitmap images. Default: `1 ' aiNoCompression`
ColorConversionID	AiColorConversion	Optional. The PDF color conversion policy. Default: `0 ' aiColorConversionNone`
ColorDestinationID	AiColorDestination	Optional. The conversion target for color conversion. Default: `0 ' aiColorDestinationNone`
ColorDownsampling	Double	Optional. if zero, no downsampling, otherwise, the resolution to downsample color bitmap images to. Default: `150.0`
ColorDownsamplingImage-Threshold	Double	Optional. Downsample if the image's resolution is above this value. Default: `225.0`
ColorDownsamplingMethod	AiDownsampleMethod	Optional. Specifies how color bitmap images are resampled. Default: `0 ' aiNoDownsample`

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 `true`, line art and text are compressed. Default: `true`
DocumentPassword	String	Optional. A password string to open the document. Default: `no string`
EnableAccess	Boolean	Optional. If `true`, enable accessing 128-bit. Default: `true`
EnableCopy	Boolean	Optional. If `true`, enable copying of text 128-bit. Default: `true`
EnableCopyAccess	Boolean	Optional. If `true`, enable copying and accessing 40-bit. Default: `true`
EnablePlainText	Boolean	Optional. Enable plaintext metadata 128-bit; available only for Acrobat 6. Default: `false`
FlattenerOptions	PrintFlattenerOptions	Optional. The printing flattener options
FlattenerPreset	String	Optional. Transparency flattener style name. Default: `Custom`
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 `true`, generate thumbnails for the saved document. Default: `true`
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 `true`, preserve Illustrator editing capabilities when saving the document. Default: `true`
PrinterResolution	Double	Optional. Flattening printer resolution. Default: `800.0`
RegistrationMarks	Boolean	Optional. Draw registration marks. Default: `false`
RequireDocumentPassword	Boolean	Optional. If `true`, a password are required to open the document. Default: `false`
RequirePermissionPassword	Boolean	Optional. If `true`, a password are used to restrict editing security settings. Default: `false`
Trapped	Boolean	Optional. If `true`, manual trapping has been prepared for the document. Default: `false`
TrimMarks	Boolean	Optional. If `true`, draw trim marks. Default: `false`
TrimMarkWeight	AiPDFTrimMarkWeight	Optional. Trim mark weight. Default: `1 ' aiTrimMarkWeight0125`
ViewAfterSaving	Boolean	Optional. If `true`, view PDF after saving. Default: `false`

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 `Application` 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 `true`, preserve hidden layers when the document is converted. Default: `false`
PreserveImageMaps	`Boolean`	If `true`, the image maps are preserved when the document is converted. Default: `true`
PreserveLayers	`Boolean`	If `true`, layers are preserved when the document is converted. Default: `true`
PreserveSlices	`Boolean`	If `true`, slices are preserved when the document is converted. Default: `true`

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
Application	Application	Read-only. The Illustrator `Application` 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.
BoundingBox	`Variant Array` of 4 `Doubles`	Read-only. Dimensions of the object, regardless of transformations.
ContentVariable	`Variable`	The `Variable` bound to this object. It is not necessary to set the type of the `ContentVariable` before binding. Illustrator automatically sets the type to be the same as the object to which it is bound.
ControlBounds	`Variant Array` of 4 `Doubles`	Read-only. The bounds of the object, including stroke width and controls.
Editable	`Boolean`	Read-only. If `true`, this object is editable.
File	`String`	The file containing the placed object.
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 `GeometricBounds`.
Hidden	`Boolean`	If `true`, this object is hidden.
IsIsolated	`Boolean`	If `true`, 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 `true`, this object is locked
Matrix	`Matrix`	The transformation matrix applied to the object.
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

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 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, 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.

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 **Object**], [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 `scaleX` is the horizontal scaling factor and `scaleY` 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 `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.

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 `Application` 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 `PlacedItem` object. Use to place new art in a document. Use the file property of the resulting object to link the file containing the artwork. For information, see "PlacedItem" on page 160.
Index (item as **PlacedItem**)	Long	Returns the index position of the object within the collection.
Item (itemKey)	PlacedItem	Returns an object reference to the object identified by `itemKey` (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 `Application` 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 `Double`s	Read-only. The bounds of the object including stroke width and controls.
Editable	`Boolean`	Read-only. If `true`, this item is editable.
GeometricBound	`Variant Array` of 4 `Double`s	Read-only. The bounds of the object excluding stroke width.
Height	`Double`	The height of the item, based on `GeometricBounds`.
Hidden	`Boolean`	If `true`, this item is hidden.
IsIsolated	`Boolean`	If `true`, this object is isolated.
IsTracing	`Boolean`	Read-only. If `true`, this plug-in group represents a vector art item created by tracing a raster art item. The `tracing` 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 `true`, this item is locked
Name	`String`	The name of this item.
Note	`String`	The note assigned to this `PluginItem`.
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 `Double`s	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 item is selected.
Sliced	`Boolean`	If `true`, 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 (IsTracing is true), 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 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, 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.

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 `scaleX` is the horizontal scaling factor and `scaleY` 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 `Angle` 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 `PluginItem` object that references a `TracingObject` 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 `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.

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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`Count`	`Long`	Read-only. Number of elements in the collection.
`Parent`	`Layer` or `GroupItem`	Read-only. The object's container.

PluginItems methods

Method	Returns	What it does
`Index` (`item as` **`PluginItem`**)	`Long`	Returns the index position of the object within the collection.
`Item` (`itemKey`)	`PluginItem`	Returns an object reference to the object identified by `itemKey` (name or index).
`RemoveAll` ()	`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 `Application` 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.PPDFileList
    ' get data for each PPD
    sPPD = ppd.Name & vbCrLf
    sPPD = sPPD & vbTab & "PS Level "
    sPPD = sPPD & ppd.PPDInfo.LanguageLevel & vbCrLf
    sPPD = sPPD & vbTab & "Path: "
    sPPD = sPPD & ppd.PPDInfo.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 `Application` 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 **String**)	Boolean	Gets the boolean value of a given application preference.
GetIntegerPreference (key as **String**)	Integer	Gets the integer value of a given application preference.
GetRealPreference (key as **String**)	Double	Gets the real-number value of a given application preference.
GetStringPreference (key as **String**)	String	Gets the string value of a given application preference.
RemovePreference (key as **String**)	Nothing	Deletes a given application preference.
SetBooleanPreference (key as **String**, value as **Boolean**	Nothing	Sets the boolean value of a given application preference.
SetIntegerPreference (key as **String**, value as **Integer**)	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 `Application` object.
Emulsion	Boolean	If `true`, flip artwork will be flipped horizontally. Default: `false`
FitToPage	Boolean	Whether to proportionally scale the artwork to fit on media. Default: `false`
HorizontalScale	Double	The horizontal scaling factor expressed as a percentage (100 = 100%) Range: 1.0 to 10000.0. Default: `100.0`
Orientation	AiPrintOrientation	The artwork orientation. Default: `0 ' aiPortrait`
Position	AiPrintPosition	The artwork position on media. Default: `5 ' aiTranslateCenter`
Tiling	AiPrintTiling	The page tiling mode. Default: `0 ' aiTileSingleFullPage`
VerticalScale	Double	The vertical scaling factor expressed as a percentage (100 = 100%) Range: 1.0 to 10000.0. Default: `100.0`

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
Application	Application	Read-only. The Illustrator `Application` object.
Name	`String`	The printer name
PrinterInfo	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 Application object.
BinaryPrintingSupport	Boolean	If true, the printer supports binary printing.
ColorSupport	AiPrinterColorMode	The printer color capability.
CustomPaperSupport	Boolean	If true, the printer supports custom paper sizes.
CustomPaperTransverse-Support	Boolean	If true, the printer supports custom paper transverse.
DeviceResolution	Double	The printer default resolution.
InRIPSeparationSupport	Boolean	If true, 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	AiPrinterPostScript LevelEnum	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 `Application` object.
ClipComplexRegions	Boolean	If `true`, clip complex regions. Default: `false`
ConvertStrokesToOutlines	Boolean	If `true`, convert all strokes to outlines. Default: `false`
ConvertTextToOutlines	Boolean	If `true`, convert all text to outlines. Default: `false`
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: `1 ' aiPreservePDFOverprint`
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 documennt
'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 `Double`s	The bleed offset rectangle.
ColorBars	`Boolean`	If `true`, enable color bars printing. Default: `false`
MarksOffsetRect	`Variant Array` of 4 `Double`s	The page marks offset rectangle.
PageInfoMarks	`Boolean`	If `true`, enable page info marks printing. Default: `false`
PageMarksType	AiPageMarksStyle	The predefined page marks style name. Default: `1 ' aiPageMarksRoman`
RegistrationMarks	`Boolean`	If `true`, enable registration marks printing. Default: `false`
TrimMarks	`Boolean`	If `true`, enable trim marks printing. Default: `false`
TrimMarksWeight	`Double`	Stroke weight of trim marks. Minimum: 0.0 Default: `0.125`

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 `Application` 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 `true`, transverse the artwork (rotate 90 degrees) on the custom paper. Default: `false`
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 `true`, print in binary mode. Default: `false`
CompatibleShading	Boolean	If `true`, use PostScript level 1 compatible gradient and gradient mesh printing. Default: `false`
ForceContinuousTone	Boolean	If `true`, force continuous tone. Default: `false`
ImageCompression	AiPostScriptImageCompressionType	The image compression type. Default: `0 ' aiImageCompressionNone`
NegativePrinting	Boolean	If `true`, print in negative mode. Default: `false`
PostScriptLevel	AiPrinterPostScriptLevelEnum	The PostScript language level. Default: `2 ' aiLevel2`
ShadingResolution	Double	The shading resolution Range: 1.0 to 9600.0. Default: `300.0`

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

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 Application 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 true, the raster art is a colorized grayscale image.
ContentVariable	Variable	The Variable 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 true, this item is editable.
Embedded	Boolean	If true, 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 GeometricBounds.
Hidden	Boolean	If true, this item is hidden.
ImageColorSpace	AiImageColorSpace	Read-only. The color space of the Raster image.
IsIsolated	Boolean	If true, 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 true, 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 true, 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 true, this item is selected.
Sliced	Boolean	If true, 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 true, the raster art is transparent.
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.
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.

RasterItem methods

Method	Returns	What it does
Colorize (rasterColor as **object**)	Nothing	Colorizes the `RasterItem` 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 ([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 `scaleX` is the horizontal scaling factor and `scaleY` 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 `Angle` value is positive, clockwise if the value is negative.

Method	Returns	What it does
Trace ()	PluginItem	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. Creates and returns a `PluginItem` object that references a `TracingObject` 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.
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.

RasterItems

A collection of `RasterItem` objects.

RasterItems properties

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

RasterItems methods

Method	Returns	What it does
`Index` (`item as` **`RasterItem`**)	`Long`	Returns the index position of the object within the collection.
`Item` (`itemKey`)	`RasterItem`	Returns an object reference to the object identified by `itemKey` (name or index).
`RemoveAll` ()	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: `aiArtOptimized`
Application	Application	Read-only. The Illustrator `Application` object.
BackgroundBlack	Boolean	If `true`, the rasterization is done against a black background (instead of white). Default: `false`
ClippingMask	Boolean	If `true`, a clipping mask should be created for the image. Default: `false`
ColorModel	AiRasterizationColorModel	The color model for the rasterization. Default: `aiDefaultColorModel`
ConvertSpotColors	Boolean	If `true`, spot colors should be converted to process colors for the image. Default: `false`
ConvertTextToOutlines	Boolean	If `true`, all text is converted to outlines before rasterization. Default: `false`
IncludeLayers	Boolean	If `true`, the resulting image incorporates layer attributes (like opacity and blend mode). Default: `false`
Padding	Double	The amount of white space (in points) to be added around the object during rasterization. Default: .0
Resolution	Double	The rasterization resolution in dots per inch (dpi). Range: 72.0 to 2400.0. Default: 300.0
Transparency	Boolean	If `true`, the image should use transparency. Default: `false`

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 `Application` 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 Application 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 `Application` object.
DefaultScreen	Boolean	If `true`, 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 `Application` 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 `Application` object.
Spot	Spot	A reference to the `Spot` 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 `Application` 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 `Spot` object.
Index (item as **Spot**)	Spot	Returns the index position of the object within the collection.
Item (itemKey)	Spot	Returns an object reference to the object identified by `itemKey` (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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`Count`	`Long`	Read-only. Number of elements in the collection.
`Parent`	`Document`	Read-only. The object's document container.

Stories methods

Method	Returns	What it does
`Index` (item as **`Story`**)	`Long`	Returns the index position of the object within the collection.
`Item` (itemKey)	`Story`	Returns an object reference to the object identified by `itemKey` (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 Application 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
Application	Application	Read-only. The Illustrator `Application` object.
Count	Long	Read-only. Number of elements in the collection.
Parent	Document	Read-only. The object's document container.

Swatches methods

Method	Returns	What it does
Add ()	Swatch	Creates a new `Swatch` object.
GetSelected ()	List of Swatch	Gets selected swatches in the document.
Index (item as **Swatch**)	Long	Returns the index position of the object within the collection.
Item (itemKey)	Swatch	Returns an object reference to the object identified by `itemKey` (name or index).
RemoveAll ()	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 Application 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 `Application` 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 **SwatchGroup**)	Long	Returns the index position of the object within the collection.
Item (itemKey)	SwatchGroup	Returns an object reference to the object identified by `itemKey` (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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`Name`	`String`	The symbol's name.
`Parent`	`Document`	Read-only. The document that contains this symbol.

Symbol methods

Method	Returns	What it does
`Delete` `()`	Nothing	Deletes the object.
`Duplicate` `()`	Object	Creates a duplicate of the object.

SymbolItem

An art item made reuseable 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
Application	Application	Read-only. The Illustrator `Application` 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 `Double`s	Read-only. The bounds of the object including stroke width and controls.
Editable	`Boolean`	Read-only. If `true`, this item is editable.
GeometricBounds	`Variant Array` of 4 `Double`s	Read-only. The bounds of the object excluding stroke width.
Height	`Double`	The height of the item, based on `GeometricBounds`.
Hidden	`Boolean`	If `true`, this item is hidden.
IsIsolated	`Boolean`	If `true`, 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 `true`, this item is locked
Name	`String`	The name of this item.
Note	`String`	The note assigned to this item.
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 `Double`s	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 item is selected.
Sliced	`Boolean`	If `true`, this item is sliced.
Symbol	Symbol	The symbol object to which this item is linked. You can set this property to link it to a different symbol object.
Tags	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 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.
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.

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 **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.

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 `scaleX` is the horizontal scaling factor and `scaleY` 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 `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.

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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`Count`	`Long`	Read-only. Number of elements in the collection.
`Parent`	Object	Read-only. The object's container.

SymbolItems methods

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

Symbols

A collection of `symbol` objects in a document.

Symbols properties

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

Symbols methods

Method	Returns	What it does
Add (SourceArt as **Object**, [RegistrationPoint as AiSymbolRegistrationPoint])	Symbol	Creates a new `Symbol` object in the document based on the art item. The default registration point is `aiSymbolCenterPoint`.
Index (item as **Symbol**)	Long	Returns the index position of the object within the collection.
Item (itemKey)	Symbol	Returns an object reference to the object identified by `itemKey` (name or index).
RemoveAll ()	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 `Application` 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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`Count`	`Long`	Read-only. Number of elements in the collection.
`Parent`	Object	Read-only. The object's container.

Tags methods

Method	Returns	What it does
`Add` `()`	`Tag`	Creates a new `Tag` object.
`Index` `(item as` **`Tag`**`)`	`Long`	Returns the index position of the object within the collection.
`Item` `(itemKey)`	`Tag`	Returns an object reference to the object identified by `itemKey` (name or index).
`RemoveAll` `()`	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
Application	Application	Read-only. The Illustrator `Application` object.
Count	Long	Read-only. Number of elements in the collection.
Parent	Object	Read-only. The object's container.

TextFonts methods

Method	Returns	What it does
Index (item as **TextFont**)	Long	Returns the index position of the object within the collection.
Item (itemKey)	TextFont	Returns an object reference to the object identified by `itemKey` (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 Application 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 true, 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 true, 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 GeometricBounds.
Hidden	Boolean	If true, 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 true, 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 true, 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 true, 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 true, this item is selected.
Sliced	Boolean	If true, 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
ConvertAreaObjectToPointObject ()	TextFrame	Converts the area-type text frame to a point-type text frame.
ConvertPointObjectToAreaObject ()	TextFrame	Converts the point-type text frame to an area-type text frame.
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 scaleX is the horizontal scaling factor and scaleY 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 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.

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
Application	Application	Read-only. The Illustrator `Application` object.
Count	Long	Read-only. Number of elements in the collection.
Parent	Object	Read-only. The object's container.

TextFrames methods

Method	Returns	What it does
Add ()	TextFrame	Creates a new point `TextFrame` object.
AreaText (textPath as **PathItem** [, orientation as AiTextOrientation] [, baseFrame as **TextFrame**] [, postFix as **Boolean**]))	TextFrame	Creates a new area `TextFrame` object.
Index (item as **TextFrame**)	Long	Returns the index position of the object within the collection.
Item (itemKey)	TextFrame	Returns an object reference to the object identified by `itemKey` (name or index).
PathText (textPath as **PathItem** [, startTValue as **Double**] [, endTValue as **Double**] [, orientation as AiTextOrientation] [, baseFrame as **TextFrame**] [, postFix as **Boolean**])	TextFrame	Creates an on-path text frame item.
PointText (anchor as **Array of 2 Doubles** [, orientation as AiTextOrientation])	TextFrame	Creates a point text frame item.
RemoveAll ()	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 Application 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 true, this path are used as a clipping path.
Closed	Boolean	If true, this path is closed.
Editable	Boolean	Read-only. If true, this item is editable.
Evenodd	Boolean	If true, the even-odd rule are used to determine insideness.
FillColor	Color info	The fill color of the path.
Filled	Boolean	If true, the path be filled.
FillOverprint	Boolean	If true, the art beneath a filled object are overprinted.
Guides	Boolean	If true, 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 true, 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, [], 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 mitered, 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 ofþthe 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 true, 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 Application 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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`Count`	`Long`	Read-only. Number of elements in the collection.
`Parent`	`Document`	Read-only. The object's document container.

TextRanges methods

Method	Returns	What it does
`Index` (item as **`TextRange`**)	`Long`	Returns the index position of the object within the collection.
`Item` (itemKey)	`TextRange`	Returns an object reference to the object identified by `itemKey` (name or index).
`RemoveAll` ()	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
`AnchorCount`	`Long`	Read-only. The number of anchors in the tracing result.
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`AreaCount`	`Long`	Read-only. The number of areas in the tracing result.
`ImageResolution`	`Real`	Read-only. The resolution of the source image in pixels per inch.
`Parent`	Object	Read-only. The object's container.
`PathCount`	`Long`	Read-only. The number of paths in the tracing result.
`SourceArt`	`PlacedItem` or `RasterItem`	Read-only. The raster art used to create the associated vector-art plug-in group.
`TracingOptions`	`TracingOptions`	The options used to convert the raster artwork to vector art.
`UsedColorCount`	`Long`	Read-only. The number of colors used in the tracing result.

TracingObject methods

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

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 `Application` 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 `true`, trace with fills. At least one of `Fills` or `Strokes` must be `true`.
IgnoreWhite	Boolean	If `true`, ignores white fill color.
LivePaintOutput	boolean	If `true`, result is LivePaint art. If `false`, it is classic art. **NOTE:** A script should set this value only in preparation for a subsequent expand operation. Leaving a tracing on the artboard when this property is `true` can lead to unexpected application behavior.
MaxColors	Long	The maximum number of colors allowed for automatic palette generation. Used only if `TracingMode` is color or grayscale. Range: 2 to 256
MaxStrokeWeight	Double	The maximum stroke weight in points, when `Strokes` is `true`. 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 `Strokes` is `true`. Smaller features are omitted. Range: 0.0 to 200.0 Default: `20.0`
OutputToSwatches	Boolean	If `true`, named colors (swatches) are generated for each new color created by the tracing result. Used only if `TracingMode` is `0` (`aiTracingModeColor`) or `1` (`aiTracingModeGray`).
Palette	String	The name of a color palette to use for tracing. If the empty string, use the automatic palette. Used only if `TracingMode` is `0` (`aiTracingModeColor`) or `1` (`aiTracingModeGray`).
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 `true`, resample when tracing. (This setting is not captured in a preset file.) Always `true` 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 `true`, trace with strokes. At least one of `Fills` or `Strokes` must be `true`. Used only if `TracingMode` is `2 ' aiTracingModeBlackAndWhite`.
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 `TracingMode` is `2 ' aiTracingModeBlackAndWhite`. 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 `Application.TracingPresetsList` array.
`StoreToPreset` (`presetName as` **`String`**)	`Boolean`	Saves this set of options in the specified preset. Use a name found in the `Application.TracingPresetsList` array, or a new name to create a new preset. For an existing preset, overwrites an unlocked preset and returns `true`. Returns `false` 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 `Application` 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

v

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

Variables methods

Method	Returns	What it does
`Add` `()`	`Variable`	Creates a new `Variable` object.
`Index` `(item as` **`Variable`**`)`	`Long`	Returns the index position of the object within the collection.
`Item` `(itemKey)`	`Variable`	Returns an object reference to the object identified by `itemKey` (name or index).
`RemoveAll` `()`	`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 Application object.
Bounds	Variant Array of 4 Doubles	Read-only. The bounding rectangle of this View relative to the current document's bounds.
CenterPoint	Variant Array of 2 Doubles	The center point of this View 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	Double	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
`Application`	`Application`	Read-only. The Illustrator `Application` object.
`Count`	`Long`	Read-only. Number of elements in the collection.
`Parent`	`Document`	Read-only. The object's document container.

Views methods

Method	Returns	What it does
`Index` (`item as` **`View`**)	`Long`	Returns the index position of the object within the collection.
`Item` (`itemKey`)	`View`	Returns an object reference to the object identified by `itemKey` (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
Application	Application	Read-only. The Illustrator `Application` object.
Count	Long	Read-only. Number of elements in the collection.
Parent	Object	Read-only. The object's container.

Words methods

Method	Returns	What it does
Add (contents as **String** [, relativeObject as **TextFrame**] [, 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 **String**)	TextRange	Inserts text at the beginning of the range.
Index (itemPtr as **TextRange**)	Long	Returns the index position of the object within the collection.
Item (itemKey)	TextRange	Returns an object reference to the object identified by `itemKey` (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`	`aiDefaultForm = 0`
	`aiTraditional = 1`
	`aiExpert = 2`
	`aiJIS78Form = 3`
	`aiJIS83Form = 4`
	`aiHalfWidth = 5`
	`aiThirdWidth = 6`
	`aiQuarterWidth = 7`
	`aiFullWidth = 8`
	`aiProportionalWidth = 9`
	`aiJIS90Form = 10`
	`aiJIS04Form = 11`	

`AiAntiAliasingMethod`	`aiNoAntiAliasing = 0`
	`aiArtOptimized = 1`
	`aiTypeOptimized = 2`
		The type of antialiasing method used in the rasterization.
		▶ `NoAntiAliasing` — No antialiasing is allowed.
		▶ `ArtOptimized` — Optimize for the art object.
		▶ `TypeOptimized` — 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. aiOutput-ArtBounds = Output size is the size of the artwork. aiOutput-ArtboardBounds = Output size is the size of the artboard. aiOutputCrop-RectBounds = 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 aiAutoCADRelease21 = 4 aiAutoCADRelease24 = 5	
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	

Enumeration type	Values	What it means
AiBaselineDirectionType	aiStandardBaseline = 1 aiVerticalRotatedBaseline = 2 aiTateChuYokoBaseline = 3	
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 `ConvertSampleColor` method of the `Application` class.

Enumeration type	Values	What it means
AiColorDestination	aiColorDestinationNone = 0 aiColorDestinationDocCMYK = 1 aiColorDestinationWorkingCMYK = 2 aiColorDestinationWorkingRGB = 4 aiColorDestinationDocRGB = 3 aiColorDestinationProfile = 5	
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 aiIllustrator17 = 17	The version of the Illustrator file format to create when saving an EPS or Illustrator file.

Enumeration type	Values	What it means
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.
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.
AiDocumentLayoutStyle	aiCascade = 1 aiHorizontalTile = 2 aiVerticalTile = 3 aiFloatAll = 4 aiConsolidateAll = 5	The layout style for a document.

Enumeration type	Values	What it means
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	
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 aiBWTIFF = 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	

Enumeration type	Values	What it means
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	
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.

Enumeration type	Values	What it means
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	
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`.

Enumeration type	Values	What it means
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	
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.

Enumeration type	Values	What it means
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 `PageItem`.
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	
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	

Enumeration type	Values	What it means
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	
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	

Enumeration type	Values	What it means
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.
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.

Enumeration type	Values	What it means
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	
AiSVGCSSPropertyLocation	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.
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.

Enumeration type	Values	What it means
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	aiIBMPC = 0 aiMacintosh = 1	The byte order to use when exporting to TIFF.
AiTracingModeType	aiTracingModeBlackAndWhite = 2 aiTracingModeColor = 0 aiTracingModeGray = 1	
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	

Enumeration type	Values	What it means
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	
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.