A Guide to
Apple Events Scripting

QUARKXPRESS 2016

A Guide to Apple Events Scripting

Glossary

INTRODUCTION

This guide provides information about Apple® events scripting with QuarkXPress®. Apple event properties that are specific to East Asian features are identified as such.

ABOUT THIS GUIDE

This document is for people who are ready to create scripts that communicate with QuarkXPress. If you need assistance writing or debugging scripts, consult the documentation provided with your scripting application and the scripting forums on the online services. Quark also provides additional online scripting support (Forum: www.quark.com/service/forums/, and e-mail: scriptsupport@quark.com).

➡ To learn more about Apple events scripting, you may want to purchase a third-party book such as The *AppleScript Handbook, AppleScript for Dummies,* or *AppleScripting QuarkXPress.* Many other third-party books exist, some of which include scripting software. You can also visit www.apple.com to find electronic resources and URLs for Apple events scripting.

WHAT YOU NEED

To write scripts, you need the following:

- Mac OS® X or later.
- A scripting application such as AppleScript®.
- The documentation (included with your scripting application) that teaches you the scripting language. You should familiarize yourself with the scripting language before attempting to write scripts for QuarkXPress.
- A basic understanding of programming (including concepts such as loops, conditional processing, if-then-else constructs, and variables) gained through writing HyperTalk scripts or macros, or working in programming languages such as C, BASIC, Java™, or Pascal.

To run AppleScript scripts that communicate with QuarkXPress, you must have Script XTensions® software loaded. For information about this software, refer to *A Guide to QuarkXPress 2016.*

➡ Script XTensions software is not required to run scripts that communicate with versions of QuarkXPress prior to QuarkXPress 5.0.

A basic understanding of programming is optional. AppleScript is a relatively easy language to learn. You can begin by writing basic scripts, and add to them when your understanding of the language is more advanced.

WHAT THIS GUIDE PROVIDES

This guide provides background information on Apple events, an analysis of a sample script, and specific information about writing scripts for QuarkXPress. If you are unfamiliar with Apple events terminology, read the chapters sequentially and refer to the glossary as necessary.

SCRIPTING OVERVIEW

This section provides an overview of Apple events scripting with QuarkXPress. First, it introduces the concepts and terminology involved, including: the object model, objects, object hierarchy, object references, reference forms, insertion points in the hierarchy, events, suites, and the QuarkXPress object hierarchy. You should understand these concepts and terms before you attempt to write scripts for QuarkXPress.

The second part of this section provides information on optimizing the performance of scripts.

INTRODUCTION TO APPLE EVENTS

Apple events, a Mac OS feature, allows interapplication communication on a local system or across a network. Applications communicate through standard Apple events messages that give instructions, respond to instructions, and send or receive data. The terminology for Apple events messages is listed in the Apple Events Registry for each application, which is maintained by Apple.

SCRIPTS

Apple events can be generated by scripts, which are a series of statements sent to applications that tell them to do a series of tasks. The scripting language is provided by scripting software such as AppleScript. Scripts combine the scripting language syntax with the standard Apple events terminology defined in the Apple Events Registry.

SYSTEM-LEVEL SCRIPTING

Scripting software is developed specifically for script writing. It is more powerful than scripting systems built into applications because it allows you to use one scripting language to write scripts for any application that supports Apple events. You can even write scripts to link applications that are Apple events-aware.

➡ You can do everything from simple formatting tasks to complex database publishing with scripts. For example, you might have a script that alphabetizes paragraphs or formats texts. You can also write a script to merge addresses from a database into a QuarkXPress letter template. It's even possible to produce an entire catalog automatically by linking a QuarkXPress layout to a database of pictures and text.

THE OBJECT MODEL

The Apple events object model is a message protocol that allows Mac OS applications to communicate. Messages built according to the object model consist of events and objects, but can include data. Objects are distinct items in an application, such as a text box. Events are the actions that objects are capable of performing.

If you're familiar with QuarkXPress, you understand that an application is composed of objects. QuarkXPress layouts contain pages, pages contain text boxes, text boxes contain text, and text has various styles associated with it. Each object has specific capabilities. For example, a text box can be moved, resized, copied, and linked to other boxes. A text box has item specifications that can be changed (such as background color, number of columns, and text inset) and it can contain formatted text.

OBJECTS

An object is a distinct item (in an application) that can be manipulated by an Apple event. Objects are defined according to their class, properties, elements, and the events they can respond to. QuarkXPress users are familiar with objects such as layouts, pages, text boxes, picture boxes, and lines.

- *Object class:* Objects that share specific characteristics are categorized into object classes. For example, all layouts belong to the "layout" object class.
- *Properties:* Properties are the characteristics shared by objects in the same object class. For example, the object class for layout has properties such as file path, name, print setup, and version.
- *Elements:* Elements are the objects directly accessible from within another object. For example, a page is an element of a layout.
- *Events:* Events are the actions an object is capable of performing. Objects in the same object class respond to the same events. For example, the set event can be used to change the tool mode of all layouts.

➡ QuarkXPress uses the layout and project object classes; however, the document object class is included in the QuarkXPress dictionary for AppleScript, so scripts that refer to documents should still operate correctly.

OBJECT HIERARCHY

The Apple events object hierarchy is based on the simple concept of placing things inside other things. An application's object hierarchy usually consists of objects such as windows, layouts, boxes, and contents. A specific hierarchy in QuarkXPress might include a layout that contains a page. The page contains a text box and the text box contains a story. The story contains paragraphs, and the paragraphs contain lines. The lines contain words and the words contain characters. Characters are at the end of the hierarchy because they can't contain anything.

Objects that enclose other objects are referred to as containers. Objects that are enclosed by other objects are referred to as elements. For example, a layout is a container for a page; the page is an element of the layout.

OBJECT REFERENCES

An Apple events message must identify a specific object in an application to communicate. Objects are identified by a reference. For example, the message might reference the second text box on the first page. The reference first identifies the container (the page) enclosing the object (the text box) that you're specifying. It then uses a reference form to separate a specific object (the second text box) from all possible objects in the container.

REFERENCE FORMS

Objects in QuarkXPress can be referred to by six reference forms: index, ID, name, range, relative position, or test. See the "Apple Events Terminology" portion of the "Reference Materials" section of this document for an example of how to use each reference form.

- *Index:* used to identify an ordered element in a container with an integer number (for example, the first text box on a page).

Windows, text boxes, and picture boxes are numbered from front to back; layouts are numbered from left to right. The left-most layout or front window is always number [1]; the frontmost picture box or text box in the layout is always number [1]. (The frontmost picture box or text box may change as you manipulate and create other boxes.) Pages are numbered according to their absolute page numbers rather than section page numbers.

As you create and insert objects in the hierarchy, the index reference form for existing objects may change. For example, if you insert a text box before "text box 1," then "text box 1" becomes "text box 2."

- *ID:* used to identify objects that have unique IDs. A unique ID is good for the life of the layout.
- *Name:* used to identify objects that are named with a text string (for example, a layout named "Ad Layout" by a user).

- *Range:* used to identify a range of objects (for example, text boxes three through five).
- *Relative Position:* used to identify objects that are before or after other objects (for example, the text box before the last text box on the page).
- *Test:* used to identify objects that meet certain conditions, (for example, the first text box with a red background).

INSERTION POINTS IN THE HIERARCHY

An insertion point specifies where to place an object within the container hierarchy. For an example of how to use each insertion point, see the "Apple Events Terminology" portion of the "Reference Materials" section of this document.

- *Beginning:* Used to insert or create an object at the beginning of the specified container (for example, to create a text box at the beginning of page one).

- *Ending:* Used to insert or create an object at the end of the specified container (for example, to create a page at the end of a layout).

- *After:* Used to insert or create an object after a specified object (for example, to move the first page of a layout after the fourth page).

- *Before:* Used to insert or create an object before the specified object (for example, to move the last page of a layout before the first page).

- *Replace:* Used to replace the specified object with a new object (for example, to replace one text box with another text box).

EVENTS

Events are the actions that an object is capable of performing. In an English sentence, an event is comparable to a verb and an object is comparable to a noun. Events are used to tell objects what to do. QuarkXPress uses most of the standard events defined by Apple.

SUITES

Groups of events and objects that relate to a similar purpose are arranged in suites. The Required Suite, Standard Suite, and Miscellaneous Standards Suite include the events and objects that most Mac OS applications support. In addition, events and objects specific to QuarkXPress are defined in the Custom Bleeds Suite, the QuarkCMS Suite, the Layers Suite, the OPI Setup Record Suite, the QuarkXPress Suite, the QuarkXPress Ancillary Objects Suite, the Table Suite, the Text Suite, and the Word Filter Suite.

QuarkXPress supports the events and objects in the Required, Standard, Miscellaneous, and QuarkXPress Suites, as well as objects in the Custom Bleeds Suite, the CMS Suite, the Layers Suite, the OPI Setup Record Suite, the QuarkXPress Ancillary Objects Suite, the Table Suite, the Text Suite, and the Word Filter suite. An object can respond to events from a variety of suites, and events can apply to objects from a variety of suites. For example, objects in the QuarkXPress Suite are generally manipulated using events in the Standard Suite.

REQUIRED SUITE

- *Events:* All of the events in the Required Suite are handled by events in the Standard Suite.

- *Objects:* The Required Suite does not define any objects.

STANDARD SUITE

- *Events:* The Standard Suite events are common to most applications: duplicate, close, count, make, data size, delete, exists, get, move, open, print, save, set, and quit.

- *Objects:* The Standard Suite objects are common to most applications: application, document, file, insertion point, selection object, and window.

MISCELLANEOUS STANDARDS SUITE

- *Events:* The Miscellaneous Standards Suite events are related to the Clipboard and other menu-related functions: copy, cut, do script, paste, revert, show, and select.

- *Objects:* The only objects in the Miscellaneous Suite are those related to menus: menu and menu item.

CUSTOM BLEEDS SUITE

- *Events:* The Custom Bleeds Suite does not define any events.

- *Objects:* The custom bleeds setup object encapsulates custom bleeds settings.

➡ The events defined by the Custom Bleeds Suite is only available if Custom Bleeds XTensions software is running.

CMS SUITE

- *Events:* The CMS Suite does not define any events.

- *Objects:* The print setup record object encapsulates an output setup (for use in color management).

LAYERS SUITE

- *Events:* The Layers Suite includes the merge event, for merging layers.

- *Objects:* The layer object represents a layer. The Layers Suite also adds layer-related elements and properties to document, generic box, layout space, page, and table box objects.

OPI SETUP RECORDSUITE

- *Events:* The OPI Setup Record Suite does not define any events.

- *Objects:* The OPI setup object encapsulates OPI settings for print output. The OPI Setup Record Suite also adds the OPI swap object to the picture box object.

➡ The events defined by the OPI Setup Record Suite is only available if OPI XTensions software is running.

QUARKXPRESS SUITE

- *Events:* The QuarkXPress Suite includes two events: coerce and do updates.
- *Objects:* The QuarkXPress Suite objects are specific to the application: character spec, clipping path, color spec, color system, contour, default document, delimit item, delimit table, generic box, graphic box, group box, h and j spec, horizontal guide, image, line box, layout space, master layout space, page, picture box, project, runaround path, shape path, spread, style spec, text box, text style range, user box, vertex, vertical guide, and xtension.

QUARKXPRESS ANCILLARY OBJECTS

- *Events:* The QuarkXPress Ancillary Objects Suite does not include any events.
- *Objects:* The QuarkXPress Ancillary Objects Suite contains objects that are used for inheritance, returned as records, or data types: base class, box properties, blend record, character properties, containing box properties, fixed point, fixed rectangle, font record, frame record, justification record, non containing box properties, open type style record, paragraph properties, print setup record, rule record, tab record, text container properties, text path properties, text properties, and text and paragraph properties.

QUARKXPRESS TERMS AND OBJECTS

The "Definitions and Examples" section of this document provides definitions and sample syntax for each event that QuarkXPress supports. The AppleScript dictionary defines each event and object that QuarkXPress supports. The following objects in the hierarchy are not familiar QuarkXPress terms. Their properties are defined fully in the AppleScript dictionary.

- Color systems: the color models that QuarkXPress supports.
- Contour: a continuous path. Shape paths, clipping paths, and runaround paths are made up of contours. For instance, if you had a Bézier element in the shape of a bagel, you would have two contours: one contour for the outside shape and one contour for the inside shape.
- Default document: the object that contains all default layout settings including colors, style sheets, hyphenation and justification specifications (H&Js), layout settings specified in the **New Layout** dialog box, and all layout-related preferences.
- Delimit item: each character has an associated delimit item that QuarkXPress uses to determine whether a character should be part of a word.
- Delimit table: a container for 256 "delimit items."
- Generic box: any type of box on a page. Use generic box if you want to change the properties of a box in a specific location, regardless of what type of box it is.
- Group box: An item that consists of a group of boxes. A group box can be either a "true" group, for example, boxes that have been grouped, or it can be a selection of multiple boxes.

- Insertion point: The location where new text will be entered; identified by the text insertion point icon i.
- Master layout: A container for master pages. The master layout allows access to master pages and master page objects.
- Path: A path is a Bézier element, and can be either a shape path, clipping path, or a runaround path.
- Text style range: A range of text with a single set of styles specified. Use text style range for functions such as **Find/Change.**
- User box: A user box is a box that is created by an XTensions module to serve a specific purpose.
- Vertex: A vertex is a point on a Bézier line. A vertex is defined by its position, and can be modified by its anchor point or handles.

TABLE SUITE
- *Events:* The Table Suite does not define any events.
- *Objects:* Table column, generic cell, horizontal gridline, graphic cell, picture cell, table row, table box, text cell, and vertical gridline.

TEXT SUITE
- *Events:* The Text Suite does not define any events.
- *Objects:* The Text Suite objects are the text-related objects common to most applications: character, line, paragraph, story, text, text style info, and word.

WORD FILTER SUITE
- *Events:* The Word Filter Suite events are export and import.
- *Objects:* The Word Filter Suite does not define any objects.

➡ The events defined by the Word Filter Suite is only available if the MS-Word filter is running.

QUARKXPRESS OBJECT HIERARCHY
When you create a layout in QuarkXPress, you are working within the QuarkXPress object hierarchy. At the application level, you set default values and create layouts. At the layout level, you create pages, spreads, style sheets, colors, and hyphenation and justification specifications. You then add picture boxes and images, text boxes and text, and line boxes at the page level.

QUARKXPRESS SCRIPTING CONTAINMENT HIERARCHY
OBJECT LIMITATIONS
The Apple events implementation in QuarkXPress does not currently support the following:

- Long-document features: Books, libraries, lists, indexing, and section page numbers

- Text: Editing auxiliary dictionaries and hyphenation exceptions
- Pictures: Editing clipping paths
- Items: Merge/split functions, box creation default settings, and anchored boxes
- Color and printing: Multi-Ink colors, Hexachrome® colors, print styles, and the PPD Manager
- XTensions Manager and most QuarkXTensions® software distributed by Quark

➡ Apple events are supported by some third-party XTensions software, including XData and BeyondPress. Future versions of QuarkXPress may support the objects listed above. This document will be updated and distributed with new versions of QuarkXPress as necessary.

SCRIPT WRITING SYNTAX

To write a script, you need to learn the scripting language of the scripting application. Scripts combine events, objects, properties, and data in the order specified by the scripting language. AppleScript syntax is similar to the English language.

SAMPLE APPLESCRIPT SYNTAX

EVENT	PROPERTY	OBJECT	DATA
set	the color of	text box 1 to	"Red"
set	the runaround of	picture box 5 to	manual

SPACES

In AppleScript, you can use the names of all objects and properties as shown in the AppleScript dictionary. AppleScript is not case-sensitive.

QUOTATION MARKS

In AppleScript, you should enclose data in straight quotation marks and use typographer's quotation marks as foot and inch marks. For example, to specify six inches, use "6" rather than "6" or '6'. You can also use a back slash to precede a straight quotation mark when indicating feet or inches. For example, to specify six inches, you can use "6\"". The back slash can be used any time you want to tell AppleScript that the following character is not to be used as a control character.

OPTIMIZING THE PERFORMANCE OF SCRIPTS

These suggestions, and any techniques advocated by your scripting software, will help you write more efficient scripts.

PROCESS IN QUARKXPRESS
Allow QuarkXPress to do calculations using its own built-in functions, and minimize context switches between QuarkXPress and the scripting application. For example, to set the color of all generic boxes to red:

DO
```
set the color of every generic box to "Red"
```

DON'T
```
set numberOfBoxes to count of generic boxes

repeat with i from 1 to numberOfBoxes

 set color of generic box i to "Red"

end repeat
```

To change the color of all green generic boxes to red:

DO
```
set color of every generic box whose color equals "Green" to "Red"
```

DON'T
```
set numberOfBoxes to count of generic boxes

repeat with i from 1 to numberOfBoxes

 if name of color of generic box i equals "Green" then set color of
 generic box i to "Red"

end repeat
```

SPECIFY INITIAL PROPERTIES WHEN PERFORMING A MAKE EVENT
Use the `make` event to specify initial properties rather than using subsequent `set` events. You can also set multiple properties. In AppleScript, you specify the initial properties within the make statement.

DO
```
make picture box at beginning of last page with properties

{rotation:90,color:"Cyan",shade:80}
```

Set multiple properties:

DO
```
tell layout space 1 of project 1

 set properties of picture box 1 to
 {rotation:90,color:"Cyan",shade:80}

end tell
```

DON'T

```
tell page 1 of layout space 1 of project 1

 tell picture box 1

    set rotation to 90

    set color to "Cyan"

    set shade to 80

 end tell

end tell
```

COMPILE SCRIPTS

Using the do script event sends a compiled script directly to QuarkXPress where it is processed completely within the application before anything appears on-screen.

Add the following lines to AppleScript scripts to have them automatically compile and execute within QuarkXPress:

```
script theRealScript

  tell application "QuarkXPress"

    --the script goes here

  end tell

end script

tell application "QuarkXPress"

  do script {theRealScript}

end tell
```

SCRIPT WRITING SAMPLE

To illustrate how scripts interact with QuarkXPress objects, we have dissected a script that uses a representative sample of the objects that QuarkXPress supports. The breakdown discusses creating objects, specifying initial properties, and changing properties. In addition, the various aspects of the scripting environment, including suites, events, the object model, the object hierarchy, and object references, are discussed in the context of the objects in this script. You can apply similar syntactical constructs to other objects in other scripts.

The sample script, "Layout Construction," written in AppleScript, illustrates how Apple events control objects within QuarkXPress. The script sets guides, makes text and picture boxes, imports text and images, then specifies the properties of these objects and their elements to produce a final layout.

THE LAYOUT CONSTRUCTION SCRIPT

Before reading this section, run the "Layout Construction" AppleScript script to familiarize yourself with its actions. The script and the files it requires are in the "Apple Events Scripting" folder within the "Documents" folder inside the QuarkXPress application folder.

APPLESCRIPT SYNTAX: LAYOUT CONSTRUCTION SCRIPT

```
tell application "QuarkXPress"

  activate

  try

    set thepath to (choose folder with prompt "Choose Sample " &

      "Documents folder in Documents:Apple Events Scripting:")
      as text


    tell default document 1

      set oldHeight to page height

      set oldWidth to page width

      set oldAutoTextBox to automatic text box

      set oldGuidesShowing to guides showing

      set oldGruidesFront to guides in front

      set xDocMeasure to horizontal measure

      set yDocMeasure to vertical measure

      set page height to "30 cm"

      set page width to "34 cm"

      set automatic text box to false

      set guides showing to true

      set guides in front to true

      set horizontal measure to centimeters

      set vertical measure to centimeters

    end tell


    make new project at beginning
```

```
tell default document 1

  set page height to oldHeight

  set page width to oldWidth

  set automatic text box to oldAutoTextBox

  set guides showing to oldGuidesShowing

  set guides in front to oldGruidesFront

  set horizontal measure to xDocMeasure

  set vertical measure to yDocMeasure

end tell


tell layout space 1 of project 1

  set view scale to fit page in window

end tell


--CREATE GUIDES TO LAYOUT ELEMENTS ON THE PAGE

tell page 1 of layout space 1 of project 1

  make horizontal guide at beginning with properties
  {position: "3.875 cm"}

  make horizontal guide at end with properties
  {position: "8.447 cm"}

  make horizontal guide at beginning with properties
  {position: "27.152 cm"}

  make vertical guide at end with properties {position:"2 cm"}

  make vertical guide at end with properties
  {position:"4.962 cm"}

  make vertical guide at end with properties
  {position:"18.742 cm"}

  make vertical guide at end with properties {position:"32 cm"}

end tell


--CREATE FIRST TEXT BOX

tell page 1 of layout space 1 of project 1
```

```
   set HeadlineBox to make text box at beginning with properties
   {bounds:{"3.875 cm", "4.962 cm", "8 cm", "18.742 cm"}}

   tell text box 1

      set vertical justification to bottom justified

      set color to "none"

   end tell

end tell


tell story 1 of HeadlineBox

   set contents of it to "Biking Gear"

   set font to "Times"

   set size of word 1 to 30

   set style of word 1 to all caps

   set base shift of word 1 to 60

   set track of word 1 to 50

   set kern of last character of word 1 to -100

   set size of word 2 to 120

   set color of word 2 to "Blue"

   set style of word 2 to italic

   set kern of character 1 of word 2 to -5

   set kern of character 2 of word 2 to -5

end tell


--CREATE SECOND TEXT BOX

tell page 1 of layout space 1 of project 1

   set BodyCopyBox to make text box at end with properties
   {bounds:{"8.5 cm", "5 cm", "29.959 cm", "18.472 cm"}}

   tell BodyCopyBox

      try

         set story 1 to alias (thepath & "ASB Text")

      on error
```

```
            set story 1 to (choose file with prompt "Please select
            the file \"ASB Text.\"" of type {"TEXT"})
        end try
        set size of story 1 to 11
        set leading of every paragraph of story 1 to 43
        set justification of every paragraph of story 1 to full
        set font of story 1 to "Times"
    end tell
    tell paragraph 1 of story 1 of text box 2
        set drop cap characters to 1
        set drop cap lines to 3
        set color of character 1 of word 1 to "Blue"
    end tell
    tell last paragraph of story 1 of text box 2
        set color of character 1 of word 1 to "Blue"
        set size of character 1 of word 1 to 28
        set rule on of rule above to true
        set text length of rule above to false
        set width of rule above to 0.5
        set position of rule above to "1 cm"
        set color of rule above to "Cyan"
        set shade of rule above to 100
    end tell
end tell

--CREATE FIRST PICTURE BOX
tell page 1 of layout space 1 of project 1
  make picture box at beginning with properties
    {bounds:{"11.886 cm", "21.79 cm", "29.136 cm",
        "34.54 cm"}, color:"None"}
    tell picture box 1
```

```
      set rotation to -25

      try

         set image 1 to alias (thepath & "Shirts.TIFF")

      on error

         set image 1 to (choose file with prompt "Please select the
         file \"Shirts.TIFF.\"" of type {"TIFF"})

      end try

      tell image 1

         set scale to {"115", "115"}

      end tell

   end tell

end tell


--CREATE SECOND PICTURE BOX

tell page 1 of layout space 1 of project 1

  make picture box at beginning with properties {bounds:
  {"8.447 cm", "18.742 cm", "14.301 cm", "26.747 cm"},
  color:"None", runaround:none runaround}

  tell picture box 1

    try

       set image 1 to alias (thepath & "Helmet.TIFF")

    on error

       set image 1 to (choose file with prompt "Please select" &
            "the file \"Helmet.TIFF\"" of type {"TIFF"})

    end try

    tell image 1

       set scale to {"74", "74"}

       set offset to {"0.557 cm", "1.254 cm"}

    end tell

  end tell

end tell
```

```
--CREATE THIRD PICTURE BOX
tell page 1 of layout space 1 of project 1
  make picture box at end with properties {bounds:
    {"8.471 cm", "2 cm", "9.971 cm", "3.5 cm"}, color:"None"}
  tell picture box 3
    try
      set image 1 to alias (thepath & "Glove.TIFF")
    on error
      set image 1 to (choose file with prompt "Please select the
      file \"Glove.TIFF.\"" of type {"TIFF"})
    end try
    set bounds of image 1 to exact fit
  end tell
  duplicate picture box 3 to after picture box 3
  tell picture box 4
    set bounds to {"12.471 cm", "2 cm", "13.971 cm", "3.5 cm"}
  end tell
  duplicate picture box 4 to after picture box 4
  tell picture box 5
    set bounds to {"16.471 cm", "2 cm", "17.971 cm", "3.5 cm"}
  end tell
  duplicate picture box 5 to after picture box 5
  tell picture box 6
    set bounds to {"20.471 cm", "2 cm", "21.971 cm", "3.5 cm"}
  end tell
end tell


--CREATE LINES
tell page 1 of layout space 1 of project 1
  make line box at end with properties {left point:
  {"0 cm", "21.406 cm"}, right point:{"8 cm", "21.406 cm"}}
```

```
    tell line box 1

      set color to "Magenta"

      set width to 3

      set style to dotted

    end tell

    make line box at end

    tell line box 2

      set left point to {"8 cm", "2 cm"}

      set right point to {"8 cm", "32 cm"}

      set width to 0.5

    end tell

  end tell


  set guides showing of layout space 1 of project 1 to false

  try

    save project 1 in (thepath & "Constructed Layout.qxp")

  on error

    set filePath to (choose file name with prompt "Where would you
    like to save the file?" default name "Constructed Layout.qxp")
    as string

    save project 1 in filePath

  end try


  beep 2
 on error errmsg number errnum

  if errnum ≠ -128 then

    beep

    display dialog errmsg & " [" & errnum & "]" buttons {"OK"}
default button 1 with icon stop

  end if

  -- For compatibility with non-US English operating systems
```

```
        return

    end try

end tell
```

ABOUT THE SCRIPT BREAKDOWN

This section first discusses how to direct a script to QuarkXPress. The script is then divided into the steps a user would perform when constructing a layout. The steps include creating a new layout, creating a text box, importing text, formatting the text, and so on. The script syntax is then displayed in the Courier font. Following the syntax is a concept line that translates the scripting language into actions in QuarkXPress. The events, objects, and properties set in the script are then analyzed line by line. The script breakdown follows this format:

A STEP IN THE LAYOUT CONSTRUCTION PROCESS
`code`

CONCEPTS
The code above is described in terms of actions in QuarkXPress.

Each event, object, or property is discussed line by line.

BREAKDOWN OF THE LAYOUT CONSTRUCTION SCRIPT
LOCATE THE TERMINOLOGY FOR QUARKXPRESS OBJECTS AND EVENTS
`tell application "QuarkXPress"`

CONCEPTS
This statement specifies the location of QuarkXPress terminology.

- Use the `tell` statement to identify which object is being addressed. Using this statement is necessary because certain actions and properties only apply to specific objects.
- In the remainder of this section, the previous format will be used to reference the location of items in AppleScript. The following formats will be used to reference the location of items: `tell layout space 1 of project 1 of application "QuarkXPress"`.

DECLARE THE VARIABLES CONCEPTS
This statement declares local variables for the script.

Although it is not essential to declare local variables, it makes scripts much safer. Making variables local ensures that QuarkXPress table entries will not be altered inadvertently if they have the same name as a variable used in a script.

➡ Declaring local variables is not required in AppleScript.

ACTIVATE QUARKXPRESS
```
activate
```

CONCEPTS

This statement is similar to choosing **QuarkXPress** from the **QuarkXPress** menu.

`Activate` is a standard command used with AppleScript.

ESTABLISH THE PATH
```
set thepath to (Choose folder with prompt "Select the Sample
Documents folder inside the Apple Events Scripting folder of
your QuarkXPress folder:") as text
```

CONCEPTS

This statement establishes a path for sample text and image files that will be used later in the script.

• The AppleScript example uses the choose folder command, which displays an **Open** dialog box that you can use to specify the desired folder.

• This statement gives the variable thepath a string value that is the path to the location of the text and image files.

SAVE CURRENT LAYOUT'S DEFAULT SPECIFICATIONS
```
tell default document 1

  set oldHeight to page height

  set oldWidth to page width

  set oldAutoTextBox to automatic text box

  set oldGuidesShowing to guides showing

  set oldGuidePos to guides in front

  set xDocMeasure to horizontal measure

  set yDocMeasure to vertical measure
```

CONCEPTS

• The `tell` statement references the current default document by index [1]. (The default document is the object that contains all default layout settings including colors, style sheets, hyphenation and justification settings, layout settings specified in the **New Layout** dialog box, and all preferences.)

• AppleScript does not require that get be specified; get is assumed if it is not specified.

SET DEFAULT SPECIFICATIONS FOR A NEW LAYOUT

```
set page height to "30 cm"

set page width to "34 cm"

set automatic text box to false

set guides showing to true

set guides in front to true

set horizontal measure to centimeters

set vertical measure to centimeters

end tell
```

CONCEPTS

The first three set statements are similar to setting default specifications in the **New Layout** dialog box. The next set statement is similar to choosing **Show Guides** from the **View** menu. The last three statements are settings in the **General** pane of the **Preferences** dialog box.

- The first two `set` events specify the page height and page width properties.

- The third `set` event determines whether the layout will have an automatic text box, depending on the Boolean operator. If the Boolean operator is `false`, the layout will not have an automatic text box. If the Boolean operator is `true`, it will.

- The fourth `set` event determines whether the layout will display guides, depending on the Boolean operator. If the Boolean operator is `true`, all guides will display. If the Boolean operator is `false`, all guides will be hidden.

- The fifth `set` event determines whether the guides will display in front of the page elements. The `true` Boolean operator indicates that the guides will display in front.

- The last two `set` events specify the default horizontal and vertical measurement system as centimeters.

CREATE A NEW LAYOUT WITH DEFAULT SPECIFICATIONS

```
make new project at end
```

CONCEPTS

This `make` event is similar to clicking **OK** in the **New Layout** dialog box.

- The first parameter, layout, refers to the object that will be created.

- You can make an object at any insertion point: beginning, ending, after, before, or replace. However, layouts are always created at the end.

SET THE VIEW SCALE

```
tell layout space 1

  set view scale to fit page in window

end tell
```

CONCEPTS

The lines above are similar to choosing **Fit in Window** from the **View** menu for the active layout.

- The `tell` statement references the left-most layout space.

- The `set` event changes the view scale property to the data `fit page in window`. The view scale property can be a percentage or specific view. For example, to specify 100% view, use `100` for the second parameter. To specify thumbnails, use `thumbnails` for the second parameter.

CREATE GUIDES

```
tell page 1 of layout space 1 of project 1

 make horizontal guide at beginning with properties
 {position:"4.218 cm"}

 make horizontal guide at end with properties {position:"8.447 cm"}

 make horizontal guide at end with properties {position:"27.152 cm"}

 make vertical guide at end with properties {position:"2 cm"}

 make vertical guide at end with properties {position:"4.962 cm"}

 make vertical guide at end with properties {position:"18.742 cm"}

 make vertical guide at end with properties {position:"32 cm"}

end tell
```

CONCEPTS

The `make` events above simulate clicking the horizontal and vertical rulers to create guides, and then dragging the guides into position.

- The `tell` statement references the layout by index [1]. The index value [1] refers to the left-most layout space.

- Each `make` event makes a horizontal guide or vertical guide. The guides are created with the properties specified in the properties record.

- The first guide is created at the beginning of page 1 in the object hierarchy according to the fourth parameter. Subsequent guides are created at the end of page 1.

CREATE THE FIRST TEXT BOX

```
tell page 1 of layout space 1

  make text box at beginning with properties
  {bounds:{"2 cm", "5 cm", "8 cm", "19 cm"}}
```

CONCEPTS

The lines above are similar to creating a text box with the rectangular **Text Box** tool, and then sizing and positioning it using the **Measurements** palette.

- The `tell` statement references the first `page` of the left-most `layout space`; both are referenced by index [1].

- If you want to see an object after it is created (and while the script is running), add the line `show` or `show(it)`. This places the current object in the upper-left corner of the layout window.

ENTER THE HEADLINE INTO A TEXT BOX

```
tell text box 1

  set vertical justification to bottom justified

      set color to "None"

    end tell

  tell story 1 of text box 1 of page 1 of layout space 1
     set contents of it to "Biking Gear"

  end tell
```

CONCEPTS

The statements above are similar to specifying a vertical alignment and background color in the **Text** tab of the **Modify** dialog box, and then entering "Biking Gear" in the text box.

- The `tell` statement references the first text box by index [1].

- The next two `set` events change the vertical justification to bottom and the background color to None.

- The `tell` statement references the story in the active text box; both are referenced by index [1]. (Only one story is possible per text box or chain of linked text boxes.)

- The `set` event specifies `it` (`it` refers to the story, the last object referenced in the `with` statement). The text "Biking Gear" is entered into the text box. It is then formatted with properties defined in the **Normal** style sheet for the default layout.

FORMAT THE HEADLINE

```
  set font to "Times"

  set size of word 1 to 30

  set style of word 1 to all caps

  set base shift of word 1 to 60

  set track of word 1 to 50

  set kern of last character of word 1 to -100

  set size of word 2 to 120

  set color of word 2 to "Blue"

  set style of word 2 to italic

  set kern of character 1 of word 2 to -5

  set kern of character 2 of word 2 to -5

end tell
```

CONCEPTS

The set statements above are comparable to the **Font, Size, Type Style, Color, Baseline Shift, Track,** and **Kern** commands in the **Style** menu.

- The first `set` event changes the font for the story to Times.
- The next four `set` events reference the first word by index [1]. The size, text style, baseline shift, and track properties of the word "Biking" are changed.
- The next `set` event references the last character of the first word; the character is referenced by relative position. The kern property is changed to –100. (To kern the space between two words, reference the last character of the first word.)
- The next three `set` events reference the second word by index [2]. The size, color, and type style properties of the word "Gear" are changed.
- The last two `set` events reference the first and second character of the second word; all are referenced by index. The kern property of each character is changed to –5. (To kern a pair of characters, you only need to reference the first character.)

CREATE THE SECOND TEXT BOX

```
tell page 1 of layout space 1

  make text box at end with properties
  {bounds:{"8.5 cm", "5 cm", "29.959 cm", "18.472 cm"}}

end tell
```

CONCEPTS

The lines above are similar to creating a text box with the rectangular **Text Box** tool, and then sizing and positioning it using the **Measurements palette**.

LOCATE AND IMPORT A TEXT FILE

```
tell text box 2

  try

    set story 1 to alias (thepath & "ASB Text")

  on error

    set story 1 to (choose file with prompt "Please select the file
    \"ASB Text\"" of type {"TEXT"})

  end try

end tell
```

CONCEPTS

The statements above are similar to locating and importing a text file in the **Get Text** dialog box.

- The `try` statement looks for the "ASB Text" file in the location previously defined by `thepath` (see the "Establish the path" portion near the beginning of the "Breakdown of the Layout Construction Script" section of this document). If the file exists in this location, the `set` event imports the "ASB Text" file, replacing the story in the text box.

- If "ASB Text" does not exist in the location defined by `thepath`, the script will continue with the `on error` statement. (The file will only be located by `thepath` if your hard drive and folders are named the same as those defined in `thepath`.)

- The first parameter is a message to the user shown at the bottom of the dialog box, "Open the file named 'ASB Text.'" The second parameter stores the path to the text file in an address — this path is used to import the text file. The third parameter is the signature for a text file (file type). Once the user locates the text file and clicks **OK**, the set event imports the text.

- If you want to open a QuarkXPress layout using the `getFileDialog` script, the signature would be "XDOC." This limits the displayed files to QuarkXPress layouts. This is an optional parameter.

FORMAT THE BODY COPY

```
  set size of story 1 to 11

  set leading of story 1 to 43

  set justification of story 1 to fully justified

  set font of story 1 to "Times"

end tell
```

CONCEPTS

The set statements above are comparable to choosing **Font, Size, Leading,** and **Alignment** from the **Style** menu.

The four set events reference the entire story by index [1]. The font, size, leading, and justification properties of the story are set.

CREATE A COLORED DROP CAP

```
tell paragraph 1 of story 1 of text box 2

  set drop cap characters to 1

  set drop cap lines to 3

  set color of character 1 of word 1 to "Blue"

end tell
```

CONCEPTS

The statements above are similar to checking **Drop Cap** in the **Formats** tab of the **Paragraph Attributes** dialog box. The color Blue is then applied to the drop cap character.

• The `tell` statement references the first paragraph of the story in the second text box; the objects are all referenced by index.

• The first `set` event specifies that the first character will be a drop cap. The second `set` event specifies that it will be a three-line drop cap.

• The third `set` event references the drop cap, which is the first character of the first word; both are referenced by index [1]. The color property is changed to Blue.

CREATE AN INITIAL CAP

```
tell last paragraph of story 1 of text box 2

  set color of character 1 of word 1 to "Blue"

  set size of character 1 of word 1 to 28
```

CONCEPTS

The lines above are similar to creating a decorative initial cap with local formatting.

• The `tell` statement references the last paragraph of story in the second text box. The story and text box are referenced by index; the paragraph is referenced by relative position.

• The two `set` statements reference the first character of the first word; they are referenced by index. The color property is changed to Blue and the size property is changed to 28.

SPECIFY A RULE ABOVE

```
    set rule on of rule above to true

    set text length of rule above to false

    set width of rule above to 0.5

    set position of rule above to "1 cm"

    set color of rule above to "Cyan"

    set shade of rule above to 100

  end tell

end tell
```

CONCEPTS

The set events above are comparable to settings in the expanded **Rules** tab of the **Paragraph Attributes** dialog box.

• The first `set` event uses a Boolean operator to determine if the paragraph's rule above will be turned on (rule on). The `true` Boolean operator indicates that the paragraph will have a rule above it.

• The second `set` event uses a Boolean operator to determine if the rule will match the text length. The `false` Boolean operator indicates that it will not match the length of the text. The rule will extend the width of the text box (minus any defined text inset).

• The last four `set` events specify the width, position, color, and shade properties of the rule.

CREATE THE FIRST PICTURE BOX

```
tell page 1 of layout space 1 of project 1

  make picture box at beginning with properties
  {bounds:{"10.386 cm", "20.758 cm", "27.636 cm","33.508 cm"},
  color:"None"}
```

CONCEPTS

The lines above are similar to creating a picture box, sizing and positioning it, and then specifying a background color as you would in the **Picture** tab of the **Modify** dialog box.

The `tell` statement references the first page of the left-most layout; both are referenced by index [1].

IMPORT THE FIRST PICTURE

```
tell picture box 1

  set rotation to -25

  try

    set image 1 to alias (thepath & "Shirts.TIFF")

  on error

    set image 1 to (choose file with prompt "Please select the file
    \'Shirts.TIFF\'." of type {"TIFF"})

  end try

  tell image 1

    set scale to {115, 115}

  end tell

end tell

end tell
```

CONCEPTS

The statements above are similar to locating and importing an image file in the **Get Picture** dialog box (**File** menu).

• The `with` statement references the first picture box by index [1].

• The first `set` event specifies the rotation property of the picture box.

• The `try` statement looks for the "Shirts.tiff" file in the location previously defined by `thepath`. If the file exists in this location, the `set` event specifies "Shirts.tiff" as the image in the picture box. (A picture box can only have one image.)

• If "Shirts.tiff" does not exist in the location defined by `thepath`, the script will continue with the `on error` statement. This statement handles error conditions by providing another set of instructions if an error occurs.

• The first string is a message to the user shown at the bottom of the dialog box, "Open the image named 'Shirts.tiff.'" Once the user locates the image file and clicks **OK,** the set event imports the image.

• The second `tell` statement references the image by index [1].

CREATE THE SECOND PICTURE BOX AND IMPORT A PICTURE

```
tell page 1 of layout space 1 of project 1

  make picture box at end with properties
  {bounds:{"8.471 cm", "2 cm", "9.971 cm", "3.5 cm"}, color:"None"}

  tell picture box 2

    try
```

```
    set image 1 to alias (thepath & "Glove.TIFF")

  on error

    set image 1 to (choose file with prompt "Please select the file
    \"Glove.TIFF\"." of type {"TIFF"})

  end try

  set bounds of image 1 to exact fit

end tell
```

CONCEPTS

The first seven lines above are similar to creating a picture box, sizing and positioning it, and then specifying a background color as you would in the **Picture** tab of the **Modify** dialog box. The last six statements are similar to locating and importing an image file in the **Get Picture** dialog box.

- The `tell` statement references the first page of the active layout; both are referenced by index [1].

- The `make` event makes a picture box using the specified properties.

- The `tell` statement references the second picture box by index [2].

- The `try` statement looks for the "Glove.tiff" file in the location previously defined by `thepath`. If the file exists in this location, the `set` event specifies "Glove.tiff" as the image in the second picture box.

- If "Glove.tiff" does not exist in the location defined by `thepath`, the script will continue with the `on error` statement. This statement handles error conditions by providing another set of instructions if an error occurs.

- The first string is a message to the user shown at the bottom of the dialog box, "Please select the file 'Glove.tiff.'" Once the user locates the image file and clicks **OK,** the `set` event imports the image.

- The last `set` event references the image by index [1]. The bounds property of the image is set to exact fit.

CREATE AND POSITION COPIES OF THE PICTURE BOX

```
duplicate picture box 2 to after picture box 2

tell picture box 3

  set bounds to {"12.471 cm", "2 cm", "13.971 cm", "3.5 cm"}

end tell

duplicate picture box 2 to after picture box 3

tell picture box 4

  set bounds to {"16.471 cm", "2 cm", "17.971 cm", "3.5 cm"}

end tell
```

```
  duplicate picture box 2 to after picture box 4

  tell picture box 5

    set bounds to {"20.471 cm", "2 cm", "21.971 cm", "3.5 cm"}

  end tell

end tell
```

CONCEPTS

The duplicate and set events above are similar to using **the Step and Repeat** feature.

• The first duplicate event references the second picture box by index [2]. A copy of the picture box is placed after the second picture box.

• The first set statement sets numerical values for the picture box boundaries. The four parameters indicate how far from the top-left corner of the layout page the top, left, bottom, and right sides of the box will be positioned.

• The following lines use the object hierarchy to duplicate picture box 2 after picture box 3, then after picture box 4. Each new picture box is referenced by index and positioned.

```
Create the third picture box and import a picture

tell page 1 of layout space 1 of project 1

    make picture box at end with properties
    {bounds:{"6.875 cm", "18.425 cm", "12.729 cm", "26.4 cm"},
    color:"None"}

  tell picture box 6

    try

      set image 1 to alias (thepath & "Helmet.TIFF")

    on error

      set image 1 to (choose file with prompt "Please select the file
      \'Helmet.TIFF\'." of type {"TIFF"})

    end try

    tell image 1

      set scale to {70, 70}

      set offset to {"0.557 cm", "1.254 cm"}

    end tell

  end tell

end tell
```

CONCEPTS

The statements above are similar to creating a picture box and importing a picture. The properties are then specified with `set` events.

- The `tell` statement references the first page of the left-most layout; both are referenced by index [1].
- The `make` event makes a picture box using the specified properties.
- The second `tell` statement references the third picture box by index [3].
- The four parameters indicate how far from the top-left corner of the layout page the top, left, bottom, and right sides of the box will be positioned.
- The background color property of the picture box is set to **None** in the `make` statement.
- The `try` statement looks for the "Helmet.tiff" file in the location previously defined by `thepath`. If the file exists in this location, the `set` event specifies "Helmet.tiff" as the image in the second picture box.
- If "Helmet.tiff" does not exist in the location defined by `thepath`, the script will continue with the `on error` statement. This statement handles error conditions by providing another set of instructions if an error occurs.
- The first string is a message to the user shown at the bottom of the dialog box, "Please select the file 'Helmet.tiff.'" Once the user locates the image file and clicks **OK**, the `set` event imports the image.
- The third `set` event sets the scale property of the image to 70%. The last `set` event sets the offset property of the image in centimeters.

CREATE A VERTICAL LINE

```
tell page 1 of layout space 1 of project 1

  make line box at end with properties
  (left point:{"0 cm", "21.406 cm"},
  right point:{"8 cm", "21.406 cm"}}

  tell line box 1

    set color to "Magenta"

    set width to 3

    set style to dotted

  end tell
```

CONCEPTS

The statements above are similar to creating and positioning a vertical line with the **Orthogonal Line** tool + and choosing **Color, Width,** and **Line Style** from the **Style** menu.

- The `"tell"` statement references the first page of the left-most layout; both are referenced by index [1].
- The `make` event makes a line box with the specified settings and in the specified location, and specifies the left point and right point of the line in centimeters.

CREATE A HORIZONTAL LINE

```
make line box at end

tell line box 2

    set left point to {"8 cm", "2 cm"}

    set right point to {"8 cm", "32 cm"}

    set width to 0.5

end tell

end tell
```

CONCEPTS

The statements above are similar to creating and positioning a horizontal line with the **Orthogonal Line** tool + and choosing a **Width** from the **Style** menu.

- The `make` event makes a line box with the specified settings and in the specified location.
- The next two `set` events specify the left point and right point of the line in centimeters.
- The last `set` event sets the line width property of the line box to "0.5." Line widths are set according to points, the default line measurement system in QuarkXPress.

HIDE GUIDES AND SAVE THE LAYOUT

```
set guides showing of layout space 1 to false

save project 1 in (thepath & "Constructed Layout")
```

CONCEPTS

The scripts above simulate choosing **Hide Guides** from the **View** menu and **Save As** from the **File** menu.

- The first `set` event hides the guides by setting `guides showing` to `false`.
- The `save` event saves the project in `thepath` with the name "Constructed Layout."

RESET DEFAULT SPECIFICATIONS FOR FUTURE LAYOUTS

```
tell default document 1

    set page height to oldHeight

    set page width to oldWidth

    set automatic text box to oldAutoTextBox

    set guides showing to oldGuidesShowing

    set guides in front to oldGuidePos

    set horizontal measure to xDocMeasure

    set vertical measure to yDocMeasure

  end tell

end tell
```

CONCEPTS

The `set` statements above replace the layout default specifications with your original specifications.

• The `tell` statement references the current default document by index [1].

• Each `set` statement specifies a property of the default document according to the local variable. For example, the page height property is specified as the variable `oldHeight`. The original page size, automatic text box setting, guide display, the guide locations, and the default measurement system are reset.

DEFINITIONS AND EXAMPLES — APPLE EVENTS TERMINOLOGY

This section provides AppleScript definitions and examples for object references, insertion points, and each event that QuarkXPress supports.

Once you are familiar with the scripting language's syntax, you should be able to write scripts for QuarkXPress by referring to the information in the AppleScript dictionary.

This section also includes definitions of object reference forms and insertion points, including descriptions of their usage and examples in AppleScript. The examples are taken from various scripts and are shown out of context.

FORMAT

Each event is listed with a description of its usage, a prototype in AppleScript, and any applicable possible values and results. The terms and events are shown in the following format:

TERM OR EVENT

Usage: description of when to use this term or event.

```
AppleScript prototype parameters in italics
```

Possible values: *variable* options

Result: result (for example, integer, text string, and so on)

OBJECT REFERENCE FORMS

To communicate, an Apple event message must reference a specific object in an application. The reference first identifies the container enclosing the object you're specifying. It then uses a reference form to separate a specific object from all possible objects in the container. The reference form can be defined by index, ID, name, range, relative position, or test.

INDEX

Usage: to identify ordered elements in a container with an integer number.

```
set the kern of character 1 of word 2 to -14
```

ID

Usage: to identify objects that have a unique ID.

```
set color of text box id 7 to "Red"
```

NAME

Usage: to identify named objects with a text string.

```
set runaround of picture box "Pear" to manual runaround
```

RANGE

Usage: to identify a range of objects.

```
set color of words 2 through 5 to "Cyan"
```

RELATIVE POSITION

Usage: to identify objects that are before or after other objects.

```
set the rotation of the picture box after picture box 2 to 45
```

TEST

Usage: to identify objects that meet certain conditions.

```
set the color of (every word whose color = "Red") to "Blue"
```

INSERTION POINTS IN THE HIERARCHY

An insertion point specifies where you want to place an object within the container hierarchy. As you create and insert objects in the hierarchy, the index reference form for existing objects may change.

AFTER

Usage: to insert or create an object after a specified object (the specified object will not be the container). For example, use `after` to move the first paragraph in a story so that it follows the seventh paragraph.

```
move paragraph 1 to after paragraph 7
```

BEFORE

Usage: to insert or create an object before the specified object (the specified object will not be the container). For example, use "before" to paste a copy of the fifth word before the first word in a sentence.

```
duplicate word 5 to before word 1
```

BEGINNING

Usage: to insert or create an object at the beginning of the specified container. For example, use "beginning" to insert a word as the first word of a paragraph.

```
move word 1 to beginning of paragraph 1
```

ENDING

Usage: to insert or create an object at the end of the specified container. For example, use "ending" to create a text box that is the last text box on the layout page.

```
make text box at end
```

DEFINITIONS AND EXAMPLES — EVENTS SUPPORTED BY QUARKXPRESS

This section provides definitions and examples for object references, insertion points, and each event that QuarkXPress supports.

This section also covers the important events in the Suites supported by QuarkXPress: the Required, Standard, Miscellaneous, CMS, Custom Bleeds, Layers, OPI Setup Record, Text, Table, QuarkXPress, and Word Filter Suites.

STANDARD SUITE

The Standard Suite consists of basic events most applications use to communicate.

CLOSE

Usage: to close a specified object and determine whether to save it. `Close` is usually used for a window or layout.

```
close reference saving save options saving in alias
```

Possible values: *saving*: yes, no, ask
                         saving in: alias

DUPLICATE

Usage: to copy the data and properties of a specified object and create a new object with the same data and properties. You can specify an insertion point for the new object. (If you don't specify a new insertion point, the new object is placed in the same container as the initial object, at the end of the container's elements.) `Duplicate` is similar to `make`.

```
duplicate reference to insertion location
```

Possible values: *to*: location reference (See the "Apple Events Terminology" section of this layout for insertion point information.)

Result: reference (to the duplicated object)

COUNT

Usage: to determine how many elements of a particular class are contained in a specified object.

```
Count of object class in reference
```

Possible values: *each*: type class (any object class)

Result: integer

MAKE

Usage: to make a new element of an object. You can specify the type of object you want to make, set properties in the new object, and specify an insertion point.

```
make new object type at insertion location with data with
properties {properties}
```

Possible values: *new*: type class (any object class)
                         at: location reference (See the "Apple Events Terminology" section of this layout for insertion point information.)

                         with data: anything (the initial data for the element)

                         with properties: record

Results: Reference (to the new object)

DATA SIZE

Usage: to obtain an object's size in bytes.

`data size` *reference* `as type`

Possible values: *as*: type class

Result: integer

DELETE

Usage: to remove a specified element from an object or application.

`delete` *reference*

EXISTS

Usage: to check for the existence of a specified object.

`exists` *reference*

Result: Boolean

GET

Usage: to determine the data structure for an object. `get` and `set` are usually used to read and write an object's internal data and properties, rather than the whole object.

`Get` *reference*

Result: the properties of the object you reference

GET AS

Usage: to determine the data structure for an object in a specific data type.

`Get` *property of reference* `as` *type*

Possible values: *as*: data type (See the "Data Coercion Chart.")

Result: the properties of the object you reference in the data type you specify

MOVE

Usage: to change an object's position in an application's container hierarchy. The specified object is moved from its current location to a specified insertion point. "Move" is not used to change the physical location of an object. To change the physical location, you would use `set` to change its properties.

`Move` *reference* `to` *insertion location*

Possible values: *to*: location reference (See the "Apple Events Terminology" section of this layout for insertion point information.)

Result: reference (to the object in its new location)

OPEN
Usage: to open a specified object or file.

Open *reference* use doc prefs remap fonts do auto picture import
with *reflow*

Possible values: *use doc prefs*: yes, no, ask

                    remap fonts: no, ask

                    do auto picture import: yes, no, ask

                    reflow: with reflow, without reflow

PRINT
Usage: to print a specified object.

print *reference* copies *copies* OPI *OPI* cover page *cover page* paper
source *paper source* to *alias* plates *list of plates print dialog*

Possible values: *copies*: integer

                    cover page: no, first page, last page

                    OPI: omit TIFF, omit TIFF and EPS, include images

                    paper source: paper cassette, manual feed

                    plates: a list of strings (names of process/spot color specs)

                    PostScript file: alias (a file path)

                    print dialog: no, yes

QUIT
Usage: to quit QuarkXPress and close all open layout spaces.

quit reference saving

Possible values: *saving*: yes, no, ask

SAVE
Usage: to save a specified object to a specified file on disk.

save *reference* in *alias as file type* EPS format *EPS format* EPS data
EPS data OPI *OPI* bleed *bleed*

Possible values: *in*: alias

                    as: type class

                    template: Boolean

                    include preview: Boolean

                    EPS Format: Standard EPS, Multiple File DCS, Single File DCS

                    Output Setup: string

EPS data: ASCII EPS, binary EPS, clean EPS

transparent page: Boolean

OPI: omit TIFF, omit TIFF and EPS, include images

bleed: vertical measurement

scale: percent

version: vers 70, vers 80, vers current
vers 60 JAPANESE (East Asian only)
vers 60 KOREAN (East Asian only)

SET/GET
Usage: to change an object's data structure. `set` and `get` are usually used to write and read an object's internal data and properties, rather than the whole object.

`Set` *data* `of` *reference* `to` *replace* `with`

Possible values: *data*: object specific data

replacing*: `ask/ignore/replace/rename`

*Replacing is used for importing text with style sheets in any text file format supported by QuarkXPress.

➡ The `set` and `get` events are not explicitly specified in the QuarkXPress dictionary with these parameters. Therefore, the basic `set` event of AppleScript is used to set the properties of objects.

WORD FILTER SUITE
The Word filter Suite contains functions related to Microsoft® Word documents.

EXPORT
Usage: to export selected text

`export reference as filter type in alias`

Possible values: *as*: string

in: alias

IMPORT
Usage: to import selected Microsoft Word document

`import reference from alias as filter type`

Possible values: *from*: alias

as: string

stylesheets: Boolean

convert quotes: Boolean

MISCELLANEOUS SUITE

The Miscellaneous Suite consists of functions related to the clipboard and other menu-driven functions.

COPY

Usage: to place a copy of the selected object on the clipboard.

```
copy
```

CUT

Usage: to place the selected object on the Clipboard.

```
cut
```

DO SCRIPT

Usage: to execute a script entirely before showing the results.

```
do script data script type type
```

Possible values: *script type*: type class

Result: anything (result of the script execution)

PASTE

Usage: to place the data on the Clipboard into a designated/selected container.

```
paste
```

REVERT

Usage: to restore an object to its last saved state.

```
revert reference
```

SHOW

Usage: to bring an object into view; also changes the object's index reference form.

```
show reference
```

QUARKXPRESS SUITE

The QuarkXPress Suite consists of two events: coerce and do updates.

COERCE

Usage: To change data from one type to another type.

```
coerce property of reference to type
```

Possible values: *to*: type class (see the "Data Coercion Chart" later in this section)

Result: anything (result of script execution)

DO UPDATES

Usage: To redraw the screen after the execution of a script.

```
do updates
```

DATA COERCION CHART

The following table lists the possible data structure you can request with a get as event. The € indicates that both data types can be coerced into each other. The left-facing arrow ⇐ indicates that the data types on the right can be coerced into the data types on the left.

text	€	alias
integer	€	Boolean text
color spec	⇐	string integer list RGB Color
style spec	⇐	string integer
h and j spec	⇐	string integer

Color Models
CMYK color
HSB color
list
RGB color

Numbers
agate units
angle measurement
centimeter units
cicero units
fixed
font units
horizontal measurement
grid increment units
inch units
inset units
integer
leading units
millimeter units
percent
pica units
point units
real
text
thick units
trap units
vertical measurement

Rectangle Units
centimeters rectangle
ciceros rectangle
fixed rectangle
inches rectangle
list
measurements rectangle
millimeters rectangle
picas rectangle
points rectangle

Points Units
centimeters point
ciceros point
fixed point
inches point
list
measurements point
millimeters point
picas point
points point

Items can be represented as or coerced to any of the other items that are in the same section in the chart above. For example, if the horizontal measure is set to inches, you can coerce the returned value to points by using `get page width as point units`.

DATA COERCION USING THE APPLESCRIPT DICTIONARY

Every scriptable file has an internal dictionary that defines the Apple events it can respond to, as well as the acceptable options or required parameters for those commands. These dictionaries can be accessed by any script-editing application, including Apple's Script Editor. Using Script Editor, choose **Open Dictionary** from the **File** menu and navigate to the intended application. If an application displays in the **Open Dictionary** dialog box, it has a scripting dictionary, and can be considered scriptable. When you open the dictionary, a two-part window displays:
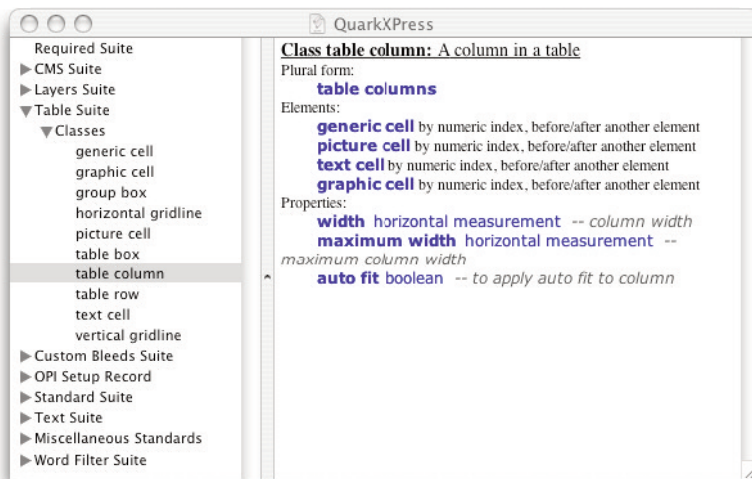
The AppleScript dictionary window

➡ Although Apple events definitions are built into an application itself, the dictionary interface is provided by the specific script-editing application. Third-party script editors may have capabilities beyond those of Apple's Script Editor program.

EVENTS, OBJECTS, AND PARAMETERS

The left column of the dictionary displays a list of events and the objects on which those events can operate. Events display in Roman typeface, while objects appear in italics. (Bold typeface indicates words or phrases that have special meaning to the application.)

When one or more items are selected in the left column, their definitions display in the right column. In the window shown above, the open event in the Standard Suite is selected. The right column displays the parts of the event as well as the types of information the event expects. An appropriate open event might be:

```
Open alias("Hard Drive:Desktop Folder: my Layout") use doc prefs
yes remap fonts no
```

In this case, the script uses the parameters `use doc prefs` and `remap fonts,` but does not use `do auto picture import`. The square brackets ([ ]) in the dictionary indicate that the `do auto picture import` parameter is optional.

ELEMENTS AND PROPERTIES

When viewing an entry for objects, additional subheadings may display in the column called "Elements and Properties."

In simple terms, elements can be thought of as objects that "belong" to the selected object in the hierarchy. For example, a page can hold generic, text, picture, and line boxes, as well as images, and horizontal and vertical guides, so you will see these listed as elements of the page. Properties, on the other hand, are characteristics of the object itself. Using page as an example, you will find properties such as page number, column count, and gutter width. These are not objects themselves, but do describe how a page appears and behaves.

INHERITED PROPERTIES

You may notice an <inheritance> entry under properties. This indicates which other objects contribute to the appearance and behavior of the selected object. For example, select "text box" in your QuarkXPress dictionary. Under **Properties,** these entries display:

```
<inheritance> generic box —- All properties and elements of the
given class are inherited by this class.
```

```
<inheritance> text path properties —- All properties and elements
of the given class are inherited by this class.
```

```
<inheritance> text container properties —- All properties and
elements of the given class are inherited by this class.
```

This means that a text box, while having certain specific properties of its own, also has all the properties shown in the dictionary entries for generic box, text path properties, text container properties, and for box properties and containing box properties that are inherited by generic box. In other words, all boxes have a certain set of common properties that define how they behave as boxes. Of those, some boxes have additional properties that enable them to contain other information; in turn, some of these boxes are even more specialized, holding only text and therefore have properties appropriate to perform that function.

In practice, this means that if you want to change the color of a text box, you would write:

```
set color of text box 1 to "green"
```

Color is not a property of the text box class, but we can use it as such, because it has been inherited from box properties, which is inherited by generic box. Likewise, if you want to change the shape to rounded corner, you can write:

```
set corner radius of text box 1 to 20
```

Once again, skew is not defined in the text box entry, but is picked up through inheritance from containing box properties. Consequently, when using an Apple events dictionary, you may want to think of <inheritance> as a scripting equivalent of "see also" in an ordinary dictionary.

REFERENCE MATERIAL FOR QUARKXPRESS OBJECTS

APPLICATION EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every layout space of project 1 of application "QuarkXPress"
data size	data size of name of application "QuarkXPress" as integer
get	get auto save of application "QuarkXPress"
get as	get name of application "QuarkXPress" as string
set	set doc layout showing of application "QuarkXPress" to true

APPLICATION ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
color system	•		•			
default document	•					
delimit table	•					
document	•		•		•	
file			•			
menu	•	•	•		•	•
project	•		•		•	•
window	•		•		•	•
xtension	•	•	•		•	•

APPLICATION PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	`auto backup`	Boolean	If true, auto backup is on
	`auto lib save`	Boolean	If true, save changes to a library automatically whenever an entry is added
	`auto save`	Boolean	If true, auto save is on
	`auto save interval`	fixed	Amount of time (in minutes) between each auto save
	`backup destination`	alias	Destination folder for backup files
•	`best type`	type class	Best descriptor type
•	`class`	type class	Class descriptor type
	`color TIFF resolution`	use 8 bit/ use 32 bit	Resolution at which to display color TIFF images
	`colors showing`	Boolean	If true, the **Colors** palette is showing
	`convert quotes`	Boolean	If true, convert standard quotation marks to typographer's quotation marks when importing text
	`current box`	reference	Selected box
•	`default type`	type class	Default descriptor type
	`doc layout showing`	Boolean	If true, the **Layout** palette is displayed
	`drag and drop text`	Boolean	If true, drag and drop editing is allowed
•	`font list`	a list of font record	List of fonts available to application
•	`frontmost`	Boolean	Is this the frontmost application?
	`gray TIFF resolution`	use 16 levels/ use 256 levels	Resolution at which to display grayscale TIFF images
	`grid guide color`	RGB color	Color of grid guides
	`import styles`	Boolean	If true, import style tags when importing text

R/O	PROPERTY NAME	TYPE	DESCRIPTION
●	language	Simplified Chinese/ Traditional Chinese/Danish/ Dutch/ International English/ US English/ French/German/ Reformed German/ Swiss German/ Italian/ Japanese/Korean/ Norwegian/Polish/ Russian/Spanish/ Swedish/	Program language
	live scroll	Boolean	If true, perform live scrolling
	margin guide color	RGB color	Color of margin guides
	maximize document bounds	Boolean	If true, maximize layout boundary when zooming or tiling
	measurements showing	Boolean	If true, the **Measurements** palette is displayed
●	name	String	Name of this application
●	object reference	reference	Object reference for this object
	offscreen draw	Boolean	If true, off-screen drawing is on
	opaque text box editing	Boolean	If true, text boxes display opaque when clicked for editing
	open document preference	keep document settings/use application preferences/ ask user	Settings to use when opening a layout
	pasteboard width	percent	Width of the pasteboard (in percent)
●	picture import filters	list	A list of the installed picture import filters

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	properties	record	Property that allows getting a list of all properties
	quote types	small integer	Type of quotation marks to use for Smart Quotes. 1=""; 2=""; 3=„"; 4=«»; 5=»«
	ruler guide color	RGB color	Color of ruler guides
	save document position	Boolean	If true, layout size is remembered the next time the layout is opened
	speed scroll	Boolean	If true, speed scroll is on
	selection	selection object	Selection visible to the user
	show tool tips	Boolean	If true, tool names display when the mouse pointer is over a tool
	smart quotes	Boolean	If true, convert standard quotation marks to typographer's quotation marks
	style sheets showing	Boolean	If true, the **Style Sheets** palette is displayed
•	text export filters	list (string)	Displays a list of installed text export filters
•	text import filters	list (string)	Displays a list of installed text import filters
	tile to multiple monitors	Boolean	If true, tiles layouts to multiple monitors
	tools showing	Boolean	If true, the **Tools** palette is displayed
	total backups	small integer	Total number of backups to keep
	trap information showing	Boolean	If true, the **Trap Information** palette is displayed

R/O	PROPERTY NAME	TYPE	DESCRIPTION
●	version	version (integer)	Version of the application
	show xt manager	never/always/ on folder change/if error/ if error or change	Indicates when to show the XTensions Manager

PROJECT EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
close	close project "Newsletter"
count	count of every project of application "QuarkXPress"
data size	data size of name of project 1 as integer
get	get name of project 1
get as	get file path of project 2 as string
make	make new project at beginning
open	open project "AnnualReport" use prefs yes remap fonts ask do auto picture import ask
print	print
save	save project 1 in "Hard Drive: Desktop Folder: Projects"

PROJECT ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
layout space	●		●		●	
character spec	●	●	●		●	●
color spec	●	●	●		●	●
h and j spec	●	●	●		●	●
style spec	●	●	●		●	●

PROJECT PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	active layout space	layout space	Active layout space for this project
•	best type	type class	Best descriptor type
	character spec class lock	Boolean	If true, all character specs in this project are locked
•	class	type class	Class descriptor type
	color spec class lock	Boolean	If true, all colors in this project are locked
•	default type	type class	Default descriptor type
•	doc format	string	Format of this project
•	file path	alias	File specification of the project
	h and j spec class lock	Boolean	If true, all H&Js in the project are locked
	lock	Boolean	If true, this project is locked
•	modified	Boolean	If true, this project has been modified since the last save operation
	name	string	Name of this project
•	object reference	reference	Object reference for this object
	properties	record	Property that allows getting/setting of a list of properties
	style spec class lock	Boolean	If true, all paragraph style sheets in this project are locked
•	version	small integer	Version of this project

➡ QuarkXPress uses the layout space and project object classes; however, the document object class is included in the QuarkXPress dictionary for AppleScript, so scripts that refer to documents should still operate correctly.

LAYOUT SPACE EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every story of layout space 1
data size	data size of name of layout space 1 as integer
get	get name of layout space 1
get as	get file path of layout space 2 as string
make	make layout space at beginning
open	open file "Hard Drive:Test" use doc prefs yes remap fonts ask do auto picture import ask
print	print
set	set keep master page items of layout space 1 of project 1 to true
show	show first layout space

LAYOUT SPACE ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
fontset spec (East Asian only)	•		•	•	•	•
generic box	•	•	•		•	•
graphic box	•	•	•	•	•	•
image	•		•		•	•
layer	•	•		•		
line box	•	•	•	•	•	•
page	•		•		•	•
picture box	•	•	•	•	•	•
spread	•		•		•	•
story	•		•	•	•	•
table box	•	•	•	•	•	•
text box	•	•	•	•	•	•

LAYOUT SPACE PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	active layer	reference	Active layer of this layout space
	auto constrain	Boolean	If true, automatically constrain limits of items within boxes
	auto kern	Boolean	If true, apply auto kerning
	auto leading	percent	Value to use for auto leading
	auto page insertion location	no auto page insertion/ end of story/ end of section/ end of document	Specifies where new pages are inserted
	auto picture import	auto import off/auto import on/ auto import verify	Specifies whether to automatically update pictures that have been modified since the layout was last opened
	automatic text box	Boolean	If true, create an automatic text box for each new page
	automatic trap amount	trap units/ overprint	Auto trap amount
	auxiliary dictionary path	alias	Path of the auxiliary dictionary file for this document
	baseline grid increment	grid increment units	Baseline grid interval
	baseline grid showing	Boolean	If true, baseline grid is showing
	baseline grid start	vertical measurement	Baseline grid start
•	best type	type class	Best descriptor type
	bottom margin	vertical measurement	Height of the bottom margin of a page in this layout
	ciceros per centimeter	fixed	Number of ciceros per centimeter
•	class	type class	Class descriptor type

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	column count	integer	Number of columns in this layout space
	current box	reference	Selected box
	current page	page	Page displayed to user
	current spread	spread	Spread displayed to user
•	default spread count	small integer	Default spread count
•	default type	type class	Default descriptor type
	facing pages	Boolean	If true, creates facing pages
•	file path	alias	File path of this layout
	flex space width	percent	Value for custom width space
•	flow version	fixed	Layout flow version
•	font list	list (font record)	List of fonts used in this layout
	fractional character widths	Boolean	If true, print characters using fractional widths (default); if false, print characters using integral widths
	frame inside	Boolean	If true, place frames inside text or picture boxes
	greek below	font units	Text size below which to display text as gray lines
	greek pictures	Boolean	If true, display pictures as gray boxes
	guides in front	Boolean	If true, place guides in front of all boxes
	guides showing	Boolean	If true, guides are showing
	gutter width	horizontal measurement	Width of default text box's gutter in this layout space
	horizontal measure	inches/inches decimal picas/points/ millimeters/ centimeters/ ciceros/agates/Qs (East Asian only)	Horizontal measurement units

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	hyphenation method	standard hyphenation/ enhanced hyphenation/ expanded hyphenation	Method to use for hyphenation
	ignore white	Boolean	If true, specifies that an object color in front of multiple backgrounds that include white will not take white into account when trapping
	indeterminate trap amount	trap units/ overprint	Value for trapping to indeterminate background color
●	index	integer	Index of object
	inside margin	horizontal measurement	Location of inside margin of a page in this layout (with facing pages true)
	invisibles showing	Boolean	If true, display invisible characters
	item spread coords	Boolean	If true, display items in spread coordinates
	keep master page items	Boolean	If true, keep modified page items when they are modified on the master page
	kern above	font units	Size of text above which auto kerning should apply
	knockout limit	percent	Point at which an object color knocks out of the background color
	left margin	horizontal measurement	Location of the left margin of a page in this layout space
	ligatures on	no ligatures/ standard ligatures/ extra ligatures	Standard specifies ligatures; no ligatures specifies that the layout does not use ligatures; extra ligatures turns ligatures on and checks Standard Em Space in the **Preferences** dialog box

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	lock	Boolean	If true, lock layout space
	lock guides	Boolean	If true, lock guides
	low quality blends	Boolean	If true, display banded blends (faster)
	maintain leading	Boolean	If true, the baseline of a line that falls immediately below an obstruction is placed according to its applied leading value
	maximum ligature track	fixed	Maximum amount that ligatures can be tracked or kerned apart before they break into separate characters
	maximum view scale	percent	Largest layout view using the Zoom tool
	minimum view scale	percent	Smallest layout view using the Zoom tool
•	modified	Boolean	If true, this layout has been modified since the last save
	name	string	Name of this layout
•	object reference	reference	Object reference for this object
	outside margin	horizontal measurement	Location of the outside margin of a page in this layout (with facing pages true)
	overprint limit	percent	Shade of color below which objects will not overprint
	page height	vertical measurement	Height of a page in this layout space
	page rule origin	measurements point	Location of the page's ruler origin point
	page width	horizontal measurement	Width of a page in this layout space
	points per inch	fixed	Number of points per inch
	print setup	print setup record	Settings used when printing this layout

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	process trap	Boolean	If true, process trapping is on
	properties	record	Property that allows getting/setting of a list of properties
	Q measurement	Boolean	If true, use Q for measurements (East Asian only)
	right margin	horizontal measurement	Location of the right margin of a page in this layout
	Roman Extra	percent	Percentage of space between Roman and Japanese characters (East Asian only)
	rulers showing	Boolean	If true, show rulers
	small caps horizontal scale	percent	Horizontal scale for small cap characters
	small caps vertical scale	percent	Vertical scale for small cap characters
	snap distance	small integer	Distance within which items snap to guides
	spread height	vertical measurement	Height of a spread (including pasteboard) in this layout
	spread rule origin	measurements point	Location of the spread's ruler origin
	spread width	horizontal measurement	Width of a spread (including pasteboard) in this layout
	subscript horizontal scale	percent	Horizontal scale for subscript characters
	subscript offset	percent	Offset for subscript characters
	subscript vertical scale	percent	Vertical scale for subscript characters
	superscript horizontal scale	percent	Horizontal scale for superscript characters
	superscript offset	percent	Offset for superscript characters

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	superscript vertical scale	percent	Vertical scale for superscript characters
	superior horizontal scale	percent	Horizontal scale for superior characters
	superior vertical scale	percent	Vertical scale for superior characters
	tool mode	integer	Index of the tool mode
	tool mode	drag mode/ contents mode rect mode/ rotate mode/ view mode/ text mode/ rounded rect mode/ oval mode/ poly mode/ pic mode/ rounded rect pic mode/ oval pic mode/ poly pic mode/ orthogonal line mode/ line mode	Tool that is selected
	top margin	vertical measurement	Location of the top margin of a page in this layout
	trapping method	absolute trap/ proportional	Trapping method to be used trap/ knockout all
	typesetting leading mode	Boolean	If true, this layout space uses the value of leading upward from the baseline of one line of text to the baseline of the line above it; if false, this layout space uses Word Processing mode, which measures leading downward from the top of the ascent to the line below it
•	version	small integer	Version of this layout space

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	vertical measure	inches/inches decimal/picas/ points/ millimeters/ centimeters/ ciceros/agates/ Qs (East Asian only)	Vertical measurement units
	view scale	fit page in window/ fit spread in window/ thumbnails, or percentage	Current view scale of this layout
	view scale increment	percent	Percentage of change in view for each click using the Zoom tool

WINDOW EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
close	close window 1
data size	data size of name of window 1 as integer
exists	exists window 3
get	get name of window 1
get as	get bounds of window 1 as list
show	show window 2

WINDOW ELEMENTS AND REFERENCE FORMS
None

WINDOW PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	best type	type class	Best descriptor type
	bounds	rectangle	Boundary rectangle for this window
•	class	type class	The class descriptor type
•	closeable	Boolean	If true, this window has a close box
•	default type	type class	Default descriptor type
•	floating	Boolean	If true, this window floats

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	index	integer	Numbered order of this window
●	modal	Boolean	If true, this window is modal
●	name	plain text (string)	Window name (title)
●	object reference	reference	Object reference for this object
	properties	record	Property that allows getting/setting of a list of properties
●	resizable	Boolean	If true, this window is resizable
●	titled	Boolean	If true, this window has a title bar
	visible	Boolean	If true, this window is visible
●	zoomable	Boolean	If true, this window has a zoom box
	zoomed	Boolean	If true, this window is zoomed

SELECTION OBJECT PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
●	contents	type class	The contents of the selection

CHARACTER EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every character of word 1
data size	data size of style of character 1
delete	delete character 1
duplicate	duplicate character 1 to after character 2
exists	exists (character 1)
get	get base shift of character 4
get as	get name of color of character 4 as string
make	make character at end of word 1 with properties {contents:"s"}
move	move character 1 to after character 3
set	set language of character 1 to 2
select	select character 1
show	show last character

CHARACTER PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	ascent	font units	Maximum ascent of any character in this text
	base shift	base units	Baseline shift of the first character of this text
•	baseline	vertical measurement	Vertical offset (from the top of the containing text box) of the baseline of the first character of this text
•	best type	type class	Best descriptor type
	character style	character spec	Character spec applied to this text
•	character type	no type/ one byte/ two byte/ many types	Type of the character (East Asian only)
•	class	type class	Class descriptor type
	color	color spec	Color of the first character of this text
	contents	unicode text (string)	Contents of this text
•	default type	type class	Default descriptor type
•	descent	font units	Maximum descent of any character in this text
	font	plain text (string)	Name of the font of the first character in this text
	grouped character	Boolean	If true, this text is grouped (East Asian only)
•	height	font units	Height of this text
•	horizontal offset	horizontal measurement	Horizontal offset (from the left side of the containing text box) of the first character of this text
	horizontal scale	percent	Horizontal scale of the first character of this text
	kern	fixed	Kerning of the first character of this text
	language	small integer	Language of the first character of this text

R/O	PROPERTY NAME	TYPE	DESCRIPTION
●	object reference	reference	Object reference for this object
●	offset	integer	Offset (character index) of the first character of this text object within the containing story
	opacity	percent	Opacity of the first character of this text
	open type style	open type style record	OpenType® style applied to the first character of this text
	properties	record	Property that allows getting a list of properties
	rubi	plain text (string)	Rubi for this text (East Asian only)
	sending	horizontal measurement	Sending of this text (East Asian only)
	shade	percent	Shade of the first character of this text
	size	fixed	Size of the first character of this text in points
	style	text style info	Text styles applied to this text
	track	fixed	Tracking of the first character of this text
	trap text	default/ overprint/ knockout/ spread auto amount/choke auto amount	Trapping specification for the first character of this text
	vertical scale	percent	Vertical scale of the first character of this text
●	width	horizontal measurement	Width of the first character of this text

LINE EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every character of line 2
data size	data size of track of line 1 as integer
delete	delete line 1
duplicate	duplicate line 1 to after line 3
get	get track of line 1
get as	get justification of line 1 as string
make	make line at beginning with properties {contents:"Headline"}
move	move line 1 to after line 3
save	save line 1 as "TEXT" in file "Hard Disk:TextFile"
select	select line 1

LINE ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
character	•		•		•	•
text	•				•	•
word	•			•	•	•

LINE PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	ascent	font units	Maximum ascent of any character in this text
	base shift	base units	Baseline shift of the first character in this text
•	baseline	vertical measurement	Vertical offset (from the top of the containing text box) of the baseline of the first character of this text
•	best type	type class	Best descriptor type
	character style	character spec	Character spec applied to this text
•	character type	no type/ one byte/ two byte/ many types	Type of character (East Asian only)

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	class	type class	Class descriptor type
	color	color spec	Color of the first character of this text
	contents	unicode text (string)	Contents of this text
•	default type	type class	Default descriptor type
•	descent	font units	Maximum descent of any character in this text
	font	plain text (string)	Name of the font of the first character in this text
	grouped character	Boolean	If true, this text is grouped (East Asian only)
•	height	font units	Height of this text
•	horizontal offset	horizontal measurement	Horizontal offset (from the left side of the containing text box) of the first character of this text
	horizontal scale	percent	Horizontal scale of the first character of this text
•	justification	left justified/ right justified/ centered/ fully justified/force	Justification of this text
	kern	fixed	Kerning of the first character of this text
	language	small integer	Language of the first character of this text
•	length	integer	Number of characters in this text object
•	object reference	reference	Object reference for this text object
•	offset	integer	Index of the first character of this text object within the containing story
	opacity	percent	Opacity of the first character of this text
	open type style	open type style record	OpenType styles applied to this text

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	PinYin	plain text (string)	PinYin for this text (Simplified Chinese only)
	properties	record	Property that allows getting a list of properties
	rubi	plain text (string)	Rubi for this text (Japanese and Korean only)
	sending	horizontal measurement	Sending for this text (East Asian only)
	shade	percent	Shade of the first character of this text
	size	fixed	Size of the first character of this text in points
	style	text style info	Text styles applied to this text
	track	fixed	Tracking of the first character of this text
	trap text	default/ overprint/ knockout/ spread auto amount/choke auto amount	Trapping specification for the first character of this text
•	uniform styles	text style info	Text styles that are uniformly applied to this text
	vertical scale	percent	Vertical scale of the first character of this text
•	width	horizontal measurement	Width of the first character of this text
	ZhuYin	plain text (string)	ZhuYin for this text (Traditional Chinese only)

PARAGRAPH EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every word of paragraph 1
data size	data size of leading of paragraph 3 as integer
delete	delete paragraph 1
duplicate	duplicate paragraph 4 to before paragraph 1
get	get height of paragraph 4

VERB	APPLESCRIPT EXAMPLE
get as	get font of paragraph 1 as string
make	make paragraph at end
move	move paragraph 1 to after paragraph 3
save	save paragraph 3 as "TEXT" in "Hard Drive: Test.txt"
select	select paragraph 1
set	set justification of paragraph 1 to center
show	show paragraph 1

PARAGRAPH ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
character	•			•	•	•
line	•			•	•	•
text	•				•	•
word	•			•	•	•

PARAGRAPH PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	ascent	font units	Maximum ascent of any character in this text
•	baseline	vertical measurement	Vertical offset (from the top of the containing text box) of the baseline of the first character of this text
	base shift	base units	Baseline shift of the first character of this text
•	best type	type class	Best descriptor type
	character alignment	top align/ center align/ baseline align/ bottom align	Alignment for characters (East Asian only)
	character style	character spec	Character spec applied to this text
•	character type	no type/ one byte/ two byte/ many types	Type of this character (East Asian only)

R/O	PROPERTY NAME	TYPE	DESCRIPTION
●	class	type class	The class
	color	color spec	Color of the first character of this text
	contents	unicode text (string)	Contents of this text
●	default type	type class	Default descriptor type
●	descent	font units	Maximum descent of any character in this text
	drop cap characters	small integer	Number of drop characters
	drop cap lines	small integer	Number of lines the enlarged character(s) drop
	first indent	horizontal measurement	First line indentation value
	font	plain text (string)	Name of the font of the first character in this text
	grid lock	Boolean	If true, lock paragraph to baseline grid
	grouped character	Boolean	If true, this text is grouped (East Asian only)
	h and j set	h and j spec	H&J specification applied to this paragraph
●	height	font units	Height of this text
●	horizontal offset	horizontal measurement	Horizontal offset (from the left side of the containing text box) of the first character of this text
	horizontal scale	percent	Horizontal scale of the first character of this text
	justification	left justified/ right justified/ centered/fully justified/force	Justification of this text
	keep all	Boolean	If true, and keep together is on, keep all lines together
	keep together	Boolean	If true, keep together is on
	keep together end	small integer	Number of lines to keep together at end of this paragraph

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	keep together start	small integer	Number of lines to keep together at the beginning of this paragraph
	keep with next	Boolean	If true, will not separate this paragraph from next paragraph
	kern	fixed	Kerning of the first character of this text
•	language	small integer	Language of the first character of this text
	leading	leading units	Vertical spacing between lines of text in this paragraph
	left indent	horizontal measurement	**Left Indent** value
•	length	integer	Number of characters in this text object
•	object reference	reference	Object reference for this object
•	offset	integer	Offset (character index) of the first character of this text within the containing story
	opacity	percent	Opacity of the first character of this text
	open type style	open type style record	OpenType styles applied to this text
	PinYin	plain text (string)	PinYin for this text (Simplified Chinese only)
	properties	record	Property that allows setting of a list of properties
	punct indent	horizontal measurement	Ten Maru gutter for this paragraph (East Asian only)
	relative leading	Boolean	If true, leading is relative to largest font on each line
	right indent	horizontal measurement	**Right Indent** value

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	rubi	plain text (string)	Rubi for this text (Japanese and Korean only)
	rule above	rule record	Rule above properties
	rule below	rule record	Rule below properties
	sending	horizontal measurement	Sending of this text (East Asian only)
	shade	percent	Shade of the first character of this text
	size	fixed	Size of the first character of this text in points
	space after	vertical measurement	Space below the last line of this paragraph
	space before	vertical measurement	Space above this paragraph
	style	text style info	Text styles applied to this text
	style sheet	style spec	Name or reference of the style spec applied to this paragraph
	tab list	list of tab record	A list of the tabs in the paragraph
	track	fixed	Tracking of the first character of this text
	trap text	default/ overprint/ knockout/ spread auto amount/choke auto amount	Trapping specification for the first character of this text
•	uniform styles	text style info	Text styles that are uniformly applied to this text
	vertical scale	percent	Vertical scale of the first character of this text
•	width	horizontal measurement	Width of the first character of this text
	ZhuYin	plain text (string)	ZhuYin for this text (Traditional Chinese only)

STORY EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every paragraph of story 1
data size	data size of name of story 4 as integer
deletet	delete story 10
get	get contents of story1
get as	get color of story 1 as string
save	save story 1 as "TEXT" in "Hard Drive: Test.txt"
select	select story 1
set	set font of story 1 to "Times"
show	show story 1

STORY ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
character	•			•	•	•
line	•			•	•	•
paragraph	•			•	•	•
text	•				•	•
text style range	•			•	•	•
word	•			•	•	•

STORY PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	ascent	font units	Maximum ascent of any character in this text
	base shift	base units	Baseline shift of the first character of this text
•	baseline	vertical measurement	Vertical offset (from the top of the containing text box) of the baseline of the first character of this text
•	best type	type class	Best descriptor type
	character style	character spec	Character spec applied to this text

R/O	PROPERTY NAME	TYPE	DESCRIPTION
●	character type	no type/ one byte/ two byte/ many types	Type of the character (East Asian only)
●	class	type class	Class descriptor type
	color	color spec	Color of the first character of this text
	contents	unicode text (string)	Contents of this text
	content lock	Boolean	If true, the content of this story is locked
●	default type	type class	Default descriptor type
●	descent	font units	Maximum descent of any character in this text
	font	plain text (string)	Name of the font of the first character in this text
	format lock	Boolean	If true, the format of the story is locked
	grouped character	Boolean	If true, this text is grouped (East Asian only)
●	height	font units	Height of this text
●	horizontal offset	horizontal measurement	Horizontal offset (from the left side of the containing text box) of the first character of this text
	horizontal scale	percent	Horizontal scale of the first character of this text
	kern	fixed	Kerning of the first character of this text
●	language	small integer	Language of the first character of this text
●	length	integer	Number of characters in this text
	name	plain text (string)	Name of this story

R/O	PROPERTY NAME	TYPE	DESCRIPTION
●	object reference	reference	Object reference for this object
●	offset	integer	Index of the first character of this text object within the containing story
	opacity	percent	Opacity of the first character of this text
	open type style	open type style record	OpenType styles applied to this text
	PinYin	plain text (string)	PinYin for this text (Simplified Chinese only)
	properties	record	Property that allows setting of a list of properties
	rubi	plain text (string)	Rubi for this text (Japanese and Korean only)
	sending	horizontal measurement	Sending of this text (East Asian only)
	shade	percent	Shade of the first character of this text
	size	fixed	Size of the first character of this text in points
	style	text style info	Text styles applied to this text
	track	fixed	Tracking of the first character of this text
	trap text	default/ overprint/ knockout/ spread/ auto amount/ choke auto amount	Trapping specification for the first character of this text
●	uniform styles	text style info	Text styles that are uniformly applied to this text
	vertical scale	percent	Vertical scale of the first character of this text
●	vertical story direction	Boolean	If true, this story is vertically oriented (East Asian only)

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	width	horizontal	Width of the first character of this text
	ZhuYin	plain text (string)	ZhuYin for this text (Traditional Chinese only)

TEXT EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every word of text 1
data size	data size of height of text of story 1 as integer
delete	delete text of paragraph 1
duplicate	duplicate text 1 where it is "Body Copy" to after paragraph 1
get	get leading of text of story 1
get as	get height of text 1 as integer
make	make text at end with properties {contents: "Page 1"}
save	save text 1 as "TEXT" in "Hard Drive: Test.txt"
select	select text 1
set	set justification of text 1 to centered
show	show text where it is "Sidebar"

TEXT ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
character	•			•	•	•
line	•			•	•	•
paragraph	•			•	•	•
text	•				•	•
text flow	•				•	•
text style range	•			•	•	•
word	•			•	•	•

TEXT PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	ascent	font units	Maximum ascent of any character in this text
	base shift	base units	Baseline shift of the first character of this text
•	best type	type class	Best descriptor type
	character style	character spec	Character spec applied to this text
•	character type	no type/ one byte/ two byte/ many types	Type of the character (East Asian only)
•	class	type class	The class
	color	color spec	Color of the first character of this text
	content	unicode text (string)	Contents of this text
•	default type	type class	Default descriptor type
•	descent	font units	Maximum descent of any character in this text
	font	plain text (string)	Name of the font of the first character in this text
	grouped character	Boolean	If true, this text is grouped (East Asian only)
•	height	font units	Height of this text
•	horizontal offset	horizontal	Horizontal offset (from the left side of the containing text box) of the first character of this text
	horizontal scale	percent	Horizontal scale of the first character of this text
	kern	fixed	Kerning of the first character of this text
•	language	small integer	Language of the first character of this text

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	length	integer	Number of characters in this text
•	object reference	reference	Object reference for this object
•	offset	integer	Offset (character index) of the first character of this text within the containing story
	opacity	percent	Opacity of the first character of this text
	open type style	open type style record	OpenType styles applied to this text
	PinYin	plain text (string)	PinYin for this text (Simplified Chinese only)
	properties	record	Property that allows setting of a list of properties
	rubi	plain text (string)	Rubi for this text (Japanese and Korean only)
	sending	horizontal measurement	Sending of this text (East Asian only)
	shade	percent	Shade of the first character of this text
	size	fixed	Size of the first character of this text in points
	style	text style info	Text styles applied to this text
	track	fixed	Tracking of the first character of this text
	trap text	default/ the overprint/ knockout/ spread auto amount/ choke auto amount	Trapping specification for first character of this text
•	uniform styles	text style info	Text styles that are uniformly applied to this text
	vertical scale	percent	Vertical scale of the first character of this text

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	width	horizontal measurement	Width of the first character of this text
	ZhuYin	plain text (string)	ZhuYin for this text (Traditional Chinese only)

WORD EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every character of word 1
duplicate	duplicate word 1 to after word 2
data size	data size of font of word 1 as integer
delete	delete character 1
get	get base shift of word 4
get as	get base shift of word "QuarkXPress" as integer
make	make word at beginning with data "Blue"
move	move word 1 to after word 3
save	save word 1 as "TEXT" in "Hard Drive:Color.txt"
select	select word 1
set	set horizontal scale of word 1 to 30
show	show word 5

WORD ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
character	•			•	•	•
line	•			•	•	•
paragraph	•			•	•	•
story	•		•	•	•	•
text	•				•	•
text style range	•			•	•	•
word	•			•	•	•

WORD PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	ascent	font units	Maximum ascent of any character in this text
	base shift	base units	Baseline shift of the first character of this text
•	baseline	vertical measurement	Vertical offset (from the top of the containing text box) of the baseline of the first character of this text
•	best type	type class	Best descriptor type
	character style	character spec	Character spec applied to this text
•	class	type class	Class descriptor type
	color	color spec	Color of the first character of this text
	contents	unicode text (string)	Contents of this text
•	default type	type class	Default descriptor type
•	descent	font units	Maximum descent of any character in this text
	font	plain text (string)	Name of the font of the first character in this text
	grouped character	Boolean	If true, this text is grouped (East Asian only)
•	height	font units	Height of this text
•	horizontal offset	horizontal	Horizontal offset (from the left measurement side of the containing text box) of the first character of this text
	horizontal scale	percent	Horizontal scale of the first character of this text
	kern	fixed	Kerning of the first character of this text
	language	small integer	Language of the first character of this text
•	length	integer	Number of characters in this text object
•	object reference	reference	Object reference for this object

R/O	PROPERTY NAME	TYPE	DESCRIPTION
●	offset	integer	Offset (character index) of the index of the first character of this text object within the containing story
	opacity	percent	Opacity of the first character of this text
	open type style	open type style record	OpenType styles applied to this text
	properties	record	Property that allows getting a list of properties
	rubi	plain text (string)	Rubi for this text
	sending	horizontal measurement	Sending of this text (East Asian only)
	shade	percent	Shade of the first character of this text
	size	fixed	Size of the first character of this text in points
	style	text style info	Text styles applied to this text
	track	fixed	Tracking of the first character of this text
	trap text	default/ overprint/ knockout/ spread auto amount/ choke auto amount	Trapping specification for for the first character of this text
●	uniform styles	text style info	Text styles that are uniformly applied to this text
	vertical scale	percent	Vertical scale of the first character of this text
●	width	horizontal measurement	Width of the first character of this text
	ZhuYin	plain text (string)	ZhuYin for this text (Traditional Chinese only)

OPEN TYPE STYLE RECORD PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	OT all small caps	Boolean	If true, all characters are in small caps
	OT contextual alternates	Boolean	If true, the contextual alternates feature is turned on
	OT discretionary ligatures	Boolean	If true, the optional/discretionary ligatures feature is turned on
	OT figure	tabular lining/proportional old style/proportional lining/tabular old style	Specifies the type of figure used to display numerals
	OT fractions	Boolean	If true, real fractions are substituted for fraction sequences
	OT ordinals	Boolean	If true, superscripted or subscripted forms are substituted for ordinal sequences
	OT position	none/superscript/subscript/numerator/denominator	Position of ordinal and fraction sequences
	OT small caps	Boolean	If true, all characters are replaced by small caps characters
	OT standard ligatures	Boolean	If true, standard ligatures are applied
	OT swashes	Boolean	If true, swashes are applied
	OT titling alternates	Boolean	If true, titling alternates are applied

MENU EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
select	select menu item "Append" of menu "File"
get	get name of menu 1

MENU ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
menu item	•		•			

MENU PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	ID	small integer	ID of this menu
•	index	integer	Index of this menu
•	name	international text	Name of this menu

CHARACTER SPEC EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count every character spec
data size	data size of name of character spec "Enhanced" as integer
delete	delete character spec "BodyCopy"
duplicate	duplicate character spec "Enhanced" to after character spec 3
get	get name of color of character spec 1
get as	get key character of character spec "Enhanced" as string
make	make character spec at beginning
move	move character spec "Enhanced" to before character spec 1
set	set name of character spec 1 to "Header"

CHARACTER SPEC ELEMENTS AND REFERENCE FORMS
None

CHARACTER SPEC PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	base shift	base units	Baseline shift of this character spec
	base style	character spec	Character spec (reference) that this character spec is based on
•	best type	type class	Best descriptor type
•	class	type class	Class descriptor type
	color	color spec	Text color of this character spec

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	default type	type class	Default descriptor type
	font	plain text (string)	Name of the font of this character spec
	horizontal scale	percent	Hhorizontal scale of this character spec
•	index	integer	Index of this object
	key character	plain text (string)	Keyboard command used to invoke this character spec
	key modifier	a list of command/ shift/option/ control	Modifier keys, to use in conjunction with the key character control (may use more than one)
•	language	small integer	Language of this character spec
	lock	Boolean	If true, the character spec is locked
	name	plain text (string)	Name of this character spec
•	object reference	reference	Object reference for this object
	opacity	percent	Opacity of this character spec
	open type style	open type style record	OpenType styles applied to this character spec
	properties	record	Property that allows getting a list of properties
	shade	percent	Shade of this character spec in points
	size	fixed	Text size for this character spec
	style	text style info	Text styles for this character spec
	track	fixed	Track amount for this character spec
•	uniqueID	small integer	A unique ID good for the life of this character spec
	vertical scale	percent	Vertical scale of this character spec

COLOR SPEC EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
data size	data size of color spec "Mountain Purple" as integer
delete	delete color spec "New Color"
duplicate	duplicate color spec "Red" to after color spec "Blue"
get	get separation of color spec "NewCMYK"
get as	get name of color spec 2 as string
make	make color spec at beginning
move	move color spec "Red" to after color spec "Blue"
set	set name of color spec "Elizabeth" to"Mountain Purple"

COLOR SPEC ELEMENTS AND REFERENCE FORMS
None

COLOR SPEC PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	CMYK color value	CMYK color	Representation of color in CMYK space
	HSB color value	HSB color	Representation of color in HSB space
	RGB color value	RGB color	Representation of color in RGB space
	angle	fixed	Screen angle
•	best type	type class	Best descriptor type
•	class	type class	Class descriptor type
	color type	plain text (string)	Name of the color system associated with this color
•	default type	type class	Default descriptor type
•	index	integer	Index of the object
	lock	Boolean	If true, this color is locked
•	locked	Boolean	If true, this color cannot be modified
•	long name	plain text (string)	Long-form name, if applicable
	name	plain text (string)	Name of the color
•	object reference	reference	Object reference for this object

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	properties	record	Property that allows setting of a list of properties
•	registration color	Boolean	If true, this color is the registration color
	separation	Boolean	If true, separate into process color components
•	short name	plain text (string)	Short-form name, if applicable
•	UniqueID	small integer	A unique ID good for the life of the color

COLOR SYSTEM EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
data size	data size of color system "Pantone Coated" as integer
get	get name of color spec 1 of color system 1
get as	get name of color system 3 as string

COLOR SYSTEM ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
color spec	•	•	•	•	•	•

COLOR SYSTEM PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	best type	type class	Best descriptor type
•	class	type class	Class descriptor type
•	copyright	plain text (string)	Copyright notice, if any
•	default type	type class	Default descriptor type
•	name	plain text (string)	Name of this color system
•	object reference	reference	Object reference for this color system
	properties	record	Property that allows getting a list of properties

TABLE COLUMN EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count every generic cell of table column 1
delete	delete table column 1
make	make new table column at beginning

TABLE COLUMN ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
generic cell	•			•		•
graphic cell	•			•		•
picture cell	•			•		•
text cell	•			•		•

TABLE COLUMN PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	width	horizontal measurement	Column width
	maximum width	horizontal measurement	Maximum width of the column
	auto fit	Boolean	If true, the auto fit property is applied to this column

TABLE ROW EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count every table row of table box 1

TABLE ROW ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
generic cell	•			•		•
graphic cell	•			•		•
picture cell	•			•		•
text cell	•			•		•

TABLE ROW PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	auto fit	Boolean	If true, the auto fit property is applied to this row
	footer	Boolean	If true, this is a footer row
	header	Boolean	If true, this is a header row
	height	vertical measurement	Row height
	maximum height	vertical measurement	Maximum height of the row

HORIZONTAL GRIDLINE EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count every horizontal gridline of table box 1

HORIZONTAL GRIDLINE PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	color	color spec	Color of this horizontal gridline
	gap color	color spec	Gap color of this horizontal gridline
	gap opacity	perccent	Gap opacity of this horizontal gridline
	gap shade	perccent	Gap shade of this horizonta gridline
	opacity	percent	Opacity of this horizontal gridline
	shade	percent	Shade of this horizontal gridline
	style	solid line/ sparsely dashed line/densely dashed line/ dashed line/ dotted line/ double line/ thin thick line/ thick thin line/ thin thick thin line/thick thin thick line/thin thin thin line	Style of this horizontal gridline
	width	thick units	Width of this horizontal gridline

VERTICAL GRIDLINE EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count every vertical gridline of table box 1

VERTICAL GRIDLINE PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	color	color spec	Color of this horizontal gridline
	gap color	color spec	Gap color of this horizontal gridline
	gap opacity	perccent	Gap opacity of this horizontal gridline
	gap shade	perccent	Gap shade of this horizontal gridline
	opacity	percent	Opacity of this horizontal gridline
	shade	percent	Shade of this horizontal gridline
	style	solid line/ sparsely dashed line/ densely dashed line/ dashed line/ dotted line/ double line/ thin thick line/ thick thin line/ thin thick thin line/thick thin thick line/ thin thin thin line	Style of this horizontal gridline
	width	thick units	Width of this horizontal gridline

CONTOUR EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count every contour of shape path 1
data size	data size of bounds of contour as integer
get	get inverted of contour 1

CONTOUR ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
vertex	•					•

CONTOUR PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	bounds	measurements rectangle	Bounds of this contour
•	inverted	Boolean	If true, the contour moves counter clockwise, usually indicating a hole in a shape

SHAPE PATH EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
get	get bounds of shape path 1

SHAPE PATH ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
contour	•					•

SHAPE PATH PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	bounds	measurements rectangle	Bounds of this shape path

DEFAULT DOCUMENT EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every color spec of default document 1
data size	data size of view scale of default document 1 as integer
get	get page width of default document 1
get as	get lock guides of default document 1 as string
set	set auto constrain of default document 1 to true

DEFAULT DOCUMENT ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
character spec	•	•	•		•	•
color spec	•	•	•		•	•
fontset spec (East Asian only)	•	•	•		•	•
h and j spec	•	•	•		•	•
style spec	•	•	•		•	•

DEFAULT DOCUMENT PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	auto constrain	Boolean	If true, automatically constrain limits of items within boxes
	auto kern	Boolean	If true, use auto kerning
	auto leading	percent	Value for auto leading
	auto page insertion location	no auto page insertion/ end of story/ end of section/ end of document	Automatic page insertion location
	auto picture import	auto import off/auto import on/ auto import verify	Automatically updates pictures since last auto import, depending on the selection
	automatic text box	Boolean	If true, an automatic text box is created for each new page
	automatic trap amount	trap units/ overprint	Auto trap amount
	auxiliary dictionary path	alias	Path of auxiliary dictionary file for this layout
	baseline grid increment	grid increments unit	Baseline grid interval
	baseline grid showing	Boolean	If true, baseline grid is showing

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	baseline grid start	vertical measurement	Baseline grid start
•	best type	type class	Best descriptor type
	bottom margin	vertical measurement	Height of the bottom margin of a page in this layout
	ciceros per centimeter	fixed	Number of ciceros per centimeter
•	class	type class	The class descriptor type
	column count	integer	Number of columns in this layout
•	default spread count	small integer	Default spread count
•	default type	type class	Default descriptor type
	facing pages	Boolean	If true, create facing pages
	flex space width	percent	Custom width space
	fractional character widths	Boolean	If true, print characters using fractional widths (default); if false, print character widths using integral widths
	frame inside	Boolean	If true, place frames inside text or picture boxes
	greek below	font units	Text size below which to display text as gray lines
	greek pictures	Boolean	If true, display pictures as gray boxes
	guides in front	Boolean	If true, place guides in front of all boxes
	guides showing	Boolean	If true, guides are showing
	gutter width	horizontal measurement	Width of default text box's gutter in this layout
	horizontal measure	inches/inches decimal/picas/ points/ millimeters/ centimeters/ ciceros/agates/Qs (East Asian only)	Horizontal measurement units

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	hyphenation method	standard hyphenation/ enhanced hyphenation/ expanded hyphenation	Method of hyphenation
	ignore white	Boolean	If true, specifies that an object color in front of multiple backgrounds that include white will not take white into account when trapping
	indeterminate trap amount	trap units/ overprint	Value for trapping to indeterminate background color
●	index	integer	Index of object
	inside margin	horizontal measurement	Location of the inside margin of a page in this layout (with facing pages true)
	invisibles showing	Boolean	If true, invisible characters are showing
	item spread coords	Boolean	If true, display items in spread coordinates
	keep master page items	Boolean	If true, modified master items are kept or removed when they are modified on the master page
	kern above	font units	Size of text above which auto kerning should apply
	knockout limit	percent	Point at which an object color knocks out of a background color
	left margin	horizontal measurement	Width of the left margin of a page in this layout
	ligatures on	standard/ no ligatures/ extra ligatures	Standard specifies ligatures; no ligatures specifies that the document does not use ligatures; extra ligatures turns ligatures on and checks Standard Em Space in the Preferences dialog box

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	lock guides	Boolean	If true, lock guides
	low quality blends	Boolean	If true, display banded blends (faster)
	maintain leading	Boolean	If true, the baseline of a line that falls immediately below an obstruction is placed according to its applied leading value
	maximum ligature track	fixed	Maximum amount that that ligatures can be tracked or kerned apart before they break into separate characters
	maximum view scale	percent	Largest layout view using the Zoom tool
	minimum view scale	percent	Smallest layout view using the Zoom tool
●	object reference	reference	Object reference for this object
	outside margin	horizontal measurement	Location of the outside margin of a page in this layout (with facing pages true)
	overprint limit	percent	Shade of color below which overprinting will not occur
	page height	vertical measurement	Height of a page in this layout
	page width	horizontal measurement	Width of a page in this layout
	points per inch	fixed	Number of points per inch
	process trap	Boolean	If true, process trapping is on
	properties	record	Property that allows getting a list of properties
	Q measurement	Boolean	If true, use Q for measurements (East Asian only)
	right margin	horizontal measurement	Width of the right margin of a page in this layout

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	Roman Extra	percent	Percent of the space between Roman and Japanese characters (East Asian only)
	rulers showing	Boolean	If true, rulers are showing
	small caps horizontal scale	percent	Horizontal scale value for small cap characters
	small caps vertical scale	percent	Vertical scale value for small cap characters
	snap distance	small integer	Distance within which items snap to guides
	spread height	vertical measurement	Height of a spread (including pasteboard) in this layout
	spread width	horizontal measurement	Width of a spread (including pasteboard) in this layout
	subscript horizontal scale	percent	Horizontal scale for subscript characters
	subscript offset	percent	Offset for subscript characters
	subscript vertical scale	percent	Vertical scale for subscript characters
	superscript horizontal scale	percent	Horizontal scale for superscript characters
	superscript offset	percent	Offset for superscript characters
	superscript vertical scale	percent	Vertical scale for superscript characters
	superior horizontal scale	percent	Horizontal scale for superior characters
	superior vertical scale	percent	Vertical scale for superior characters
	top margin	vertical measurement	Height of top margin of a page in this layout
	trapping method	absolute trap/ proportional trap/ knockout all	Default trapping method

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	typesetting leading mode	Boolean	If true, leading is calculated upward from the baseline of one line of text to the baseline of the line above it; if false, specifies Word Processing mode, which measures leading downward from the top of the ascent to the line below it
	vertical measure	inches/ inches decimal/ picas/points/ millimeters/ centimeters/ ciceros/agates/Qs (East Asian only)	Vertical measurement units
	view scale	fit page in window/ fit spread in window/ thumbnails, or percentage	Current view scale of this layout
	view scale increment	percent	Percent of change in view for each mouse click using the **Zoom** tool
	story direction	Boolean	If true, the default story direction is vertical (East Asian only)

DELIMIT ITEM EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
set	set delimit item ":" of delimit table 1 to can start or end word
get	get delimit item ":" of delimit table 1

DELIMIT ITEM ELEMENTS AND REFERENCE FORMS
None

DELIMIT ITEM PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	index	integer	Index of the object
	delimit	not word member/ can start or end word/can be contained in word/ can start or end or be contained in word	Delimit type for this character

DELIMIT TABLE EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
set	set delimit item ":" of delimit table 1 to can start or end word
get	get delimit item ":" of delimit table 1

DELIMIT TABLE ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
delimit item	•					

DELIMIT TABLE PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	best type	type class	Best descriptor type
•	class	type class	Class descriptor type
•	default type	type class	Default descriptor type
•	object reference	reference	Object reference for this object
	properties	record	Property that allows getting/ setting of a list of properties

FONTSET SPEC EVENTS AND EXAMPLES (EAST ASIAN ONLY)

VERB	FRONTIER EXAMPLE	APPLESCRIPT EXAMPLE
count	count every fontset spec	
data size	data size of alphabet of spec 1 as string	
get	get pictogram of fontset spec 2	
get as	get phoneme of every fontset spec as string	
set	set name of fontset spec 2 to "Head"	

FONTSET SPEC ELEMENTS AND REFERENCE FORMS (EAST ASIAN ONLY)

None

FONTSET SPEC PROPERTIES, DATA TYPES, AND DESCRIPTIONS (EAST ASIAN ONLY)

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	alphabet	plain text (string)	Name of the font for the alphabetic text
•	best type	type class	Best descriptor type
•	class	type class	Class descriptor type
•	default type	type class	Default descriptor type.
•	index	integer	Index of this fontset spec
	name	plain text (string)	Name of the fontset spec
	numerical	plain text (string)	Name of the font for the numerical text
•	object reference	reference	Object reference for this fontset spec
	phoneme	plain text (string)	Name of the font for the phoneme text
	pictogram	plain text (string)	Name of the font for the pictogram text
	properties	record	Property that allows setting of a list of properties
	symbol	plain text (string)	Name of the font for the symbolic text

GENERIC BOX EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every word of generic box 1
data size	data size of rotation of generic box 1 as integer
delete	delete generic box 2
duplicate	duplicate generic box 10 to before generic box 1
get	get bounds of generic box 2
get as	get color of frame of every generic box as string
move	move generic box "Linda" to after last generic box
set	set color of generic box "Sid" to "Blue"
show	show generic box "Kelly"

GENERIC BOX ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
runaround path	•					
shape path	•					

GENERIC BOX PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	anchored	Boolean	If true, this box is anchored in text
	background trap	default/ overprint/ knockout/spread auto amount/ choke auto amount	Amount to trap
•	best type	type class	Best descriptor type
	blend	blend record	Blend properties of this box
	bounds	measurements rectangle	Bounds of this rectangle box

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	box shape	rectangular/ rounded corner/bevel corner/concave corner/ovular/ polygonal/ line shape/ orthogonal line/ spline line	Shape of this box
	box type	picture box type/text box type/graphic box type/line box type/xtension box type/group box type	Type of this box
•	class	type class	The class
	color	color spec	Color of this box
	content	picture content/text content/none content	Content type of this box
	corner radius	horizontal measurement	Radius of the corners of this box
•	default type	type class	Default descriptor type
	end caps	plain line/ left arrow/ right arrow/left feathered arrow/ right feathered arrow/ double arrow	Arrowheads and tail feathers for the line
	flipped horizontal	Boolean	If true, contents are flipped left to right
	flipped vertical	Boolean	If true, contents are flipped top to bottom
	frame	frame record	Frame properties of this box
	gap color	color spec	Color of line gaps

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	gap shade	percent	Shade of line gaps
	gap opacity	percent	Opacity of line gaps
•	index	integer	Index of this box on its containing spread
•	layername	plain text	Name of the layer containing this generic box
	locked	Boolean	If true, this box can be moved or resized
	name	plain text (string)	Name of this box
•	object reference	reference	Object reference for this object
	opacity	percent	Opacity of this box
	polygon points	polygon points list	A list of the vertices for the shape path of this box
	properties	record	Property that allows setting of a list of properties
	rotation	angle measurement	Rotation of this box
	runaround	none runaround/ item runaround/ auto runaround/ manual runaround/ embedded runaround/ alpha runaround/ non white runaround/ clipping runaround/pic bounds runaround/ custom runaround	Specifies control of the way text flows with respect to this box
	selected	Boolean	If true, this box is selected
	shade	percent	Shade of this box
	skew	angle measurement	Angle at which this box is skewed

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	style	solid line/ sparsely dashed line/densely dashed line/ dashed line/ dotted line/ double line/thin thick line/thick thin line/thin thick thin line/ thick thin thick line/thin thin thin line	Style of the line
	suppress	Boolean	If true, this box is suppressed at print
	suppress printing	Boolean	If true, this box is suppressed at print
	text outset	points rectangle	Space between text and the outer edges of this box
	width	thick units	Line thickness
•	uniqueID	integer	A unique ID that is good for the life of this layout

GENERIC CELL EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
data size	data size of content of generic cell 1 as integer
get	get name of generic cell 1
get as	get name of generic cell 1 as string

GENERIC CELL PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	bounds	measurements rectangle	Bounds of this cell
	cell type	picture cell type/text cell type/graphic cell type/mixed cell type	Type of this cell
	color	color spec	Color of this cell

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	content	picture content/text content/ none content	Content type of this cell
●	index	integer	Index of this cell in its containing table
●	locked	Boolean	If true, this cell cannot be moved or resized
●	modify lock	Boolean	If true, the parameters of this cell cannot be modified
	name	plain text	Name of this cell
	opacity	percent	Opacity of this cell
	selected	Boolean	If true, this cell is selected
	shade	percent	Shade of this cell
	suppress printing	Boolean	If true, suppress the output of the picture (if any) in this cell
●	uniqueID	integer	A unique ID good for the life of this layout

GRAPHIC BOX EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count every graphic box of layout space 1
data size	data size of rotation of graphic box 1 as integer
delete	delete graphic box 2
duplicate	duplicate graphic box 10 to before graphic box 1
get	get bounds of graphic box 2
get as	get color of frame of every graphic box as string
move	move graphic box "Linda" to after last graphic box
set	set color of graphic box "Sid"to "Blue"
show	show graphic box "Kelly"

GRAPHIC BOX ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
runaround path	•					
shape path	•					

GRAPHIC BOX PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	anchored	Boolean	If true, this box is anchored in text
	background trap	default/ overprint/ knockout/spread auto amount/ choke auto amount	Amount to trap background
•	best type	type class	Best descriptor type
	blend	blend record	Blend properties of this box
	bounds	measurements rectangle	Bounds of this box
	box shape	rectangular/ rounded corner/ bevel corner/ concave corner/ ovular/polygonal/ line shape/ orthogonal line/ spline line	Shape of this box
	box type	picture box type/text box type/graphic box type/line box type/ xtension box type/ group box type	Type of this box
•	class	type class	Class descriptor type

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	color	color spec	Color of this box
	content	picture content/ text content/ none content	Content type of this box
	corner radius	horizontal measurement	Radius of the corners of this box
●	default type	type class	Default descriptor type
	end caps	plain line/ left arrow/ right arrow/ left feathered arrow/right feathered arrow/ double arrow	Arrowheads and tail feathers for the line
	flipped horizontal	Boolean	If true, contents are flipped left to right
	flipped vertical	Boolean	If true, contents are flipped top to bottom
	frame	frame record	Frame properties of this box
	gap color	color spec	Color of line gaps
	gap shade	percent	Shade of line gaps
	gap opacity	percent	Opacity of line gaps
●	index	integer	Index of this box on its containing spread
	locked	Boolean	If true, this box can be moved or resized
	name	plain text (string)	Name of this box
●	object reference	reference	Object reference for this object
	opacity	percent	Opacity of this box
	polygon points	polygon points list	A list of the vertices for the shape path of this box
	properties	record	Property that allows setting of a list of properties
	rotation	angle measurement	Rotation of this box

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	runaround	none runaround/ item runaround/ auto runaround/ manual runaround/ embedded runaround/ alpha runaround/ non white runaround/ clipping runaround/pic bounds runaround/ custom runaround	Specifies control of the way text flows with respect to this box
	selected	Boolean	If true, this box is selected
	shade	percent	Shade of this box
	skew	angle measurement	Angle at which this box is skewed
	style	solid line/ sparsely dashed line/densely dashed line/ dashed line/ dotted line/ double line/thin thick line/thick thin line/thin thick thin line/ thick thin thick line/thin thin thin line	Style of the line
	suppress printing	Boolean	If true, this box is suppressed at print
	width	thick units	Line thickness
•	uniqueID	integer	A unique ID that is good for the life of this layout

GRAPHIC CELL EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
data size	data size of content of graphic cell 1 as integer

GRAPHIC CELL PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	bounds	measurement rectangle	Bounds of this cell
	cell type	picture cell type/text cell type/graphic cell type	Type of this cell
	color	color spec	Color of this cell
	content	picture content/ text content/ graphic content	Content type of this cell
•	index	integer	Index of this cell in its containing table
•	locked	Boolean	If true, this cell cannot be moved or resized
	modify lock	Boolean	If true, this cell's parameters cannot be modified
	name	plain text (string)	Name of this cell
	opacity	percent	Opacity of this cell
•	rotation	angle measurement	Rotation angle of this cell
	selected	Boolean	If true, this cell is selected
	shade	percent	Shade of this cell
•	uniqueID	integer	A unique ID good for the life of this layout

GROUP BOX EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
delete	delete group box 2
duplicate	duplicate group box 6 to before group box 4
get	get name of group box 2
get as	get name of group box 2 as string
move	move group box 2 to after last group box
set	set color of group box 2 to "Blue"
show	show group box 4

GROUP BOX ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
generic box	•					

GROUP BOX PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	bounds	measurements rectangle	Bounds of this group box
	constrained	Boolean	If true, this group box is constrained by one of its boxes
	delete lock	Boolean	If true, this group box cannot be deleted
	grouped	Boolean	If true, the selection is a group box
	location lock	Boolean	If true, this group box cannot be moved
	lock	Boolean	If true, the items in this group box cannot be ungrouped
	modify lock	Boolean	If true, the properties of this group box cannot be modified (does not include location and size)
	size lock	Boolean	If true, the size of this group box cannot be changed

H AND J SPEC EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count every h and j spec of layout space 1
data size	data size of name of h and j spec "Standard" as integer
delete	delete h and j spec 1
duplicate	duplicate h and j spec 1 to after h and j spec 2
make	make h and j spec at beginning
get	get break capitalized words of h and j spec "Standard"
get as	get flush zone of h and j spec "Standard" as integer
set	set minimum after of h and j spec "Standard" to 3

H AND J SPEC ELEMENTS AND REFERENCE FORMS
None

H AND J SPEC PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	auto hyphenation	Boolean	If true, auto hyphenation is active
•	best type	type class	Best descriptor type
	break capitalized words	Boolean	If true, proper nouns and the first words of sentences are broken
	character justification	justification record	Justification settings for non-space characters
•	class	type class	The class
•	default type	type class	Default descriptor type
	flush zone	horizontal measurement	Controls whether the last line of text in a justified paragraph will automatically extend to the right indent
	hyphenation zone	horizontal measurement	Area within which hyphenation can occur (automatic or manual)
	hyphens in a row	small integer	Maximum number of consecutive lines that can end in manually or automatically hyphenated words
•	index	integer	Index of the object
	Japanese punctuation characters	justification record	Justification settings for Japanese punctuation (East Asian only)
•	kinsokushori	plain text (string)	Kinsoku shori setting of H&J (East Asian only)
	lock	Boolean	If true, this H&J cannot be changed
	minimum after	small integer	Minimum number of characters that must follow an automatic hyphen
	minimum before	small integer	Minimum number of characters that must precede an automatic hyphen

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	name	plain text	Name of this h and j specification
●	object reference	reference	Object reference for this object
	phonetic justification	justification record	Justification settings for phonetic characters (East Asian only)
	pictogram justification	justification record	Justification settings for pictogram characters (East Asian only)
	properties	record	Property that allows setting of a list of properties
	single word justify	Boolean	If true, words alone on a line are justified
	smallest word	small integer	Minimum number of characters a word must contain to be hyphenated
	space justification	justification record	Justification settings for space characters
●	uniqueID	small integer	A unique ID good for the life of this H and J

IMAGE EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
data size	data size of scale of image "Bag.Tiff" as integer
delete	delete image 1
get	get skew of image 2
get as	get name of image "Bag.Tiff" as string
set	set suppress printing of image 1 to true
show	show image "Bag.Tiff"

IMAGE ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
clipping path	●					

IMAGE PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	angle	angle measurement	Value for rotating a picture around its center
●	best type	type class	Best descriptor type
	bounds	box fit/ centered/ exact fit/ proportional fit	Bounds of this picture, in relation to the bounds of the picture box
	actual bounds	fixed rectangle	Bounds of this picture
●	class	type class	The class descriptor type
	color	color spec	Color of this picture
	contents	picture	PICT representation of this this picture
	content lock	Boolean	If true, this picture is locked
●	default type	type class	Default descriptor type
●	file path	alias	File path to the disk image for this picture (if any)
	format lock	Boolean	If true, this picture's format is locked
●	file type	type class	Type of the file from which this picture was loaded (if any)
	greek pictures	Boolean	If true, display this picture as a gray box when inactive
	image trap	default/ overprint/ knockout/spread auto amount/ choke auto amount	Trap override that is applied to this picture
●	image type	unknown image/ line art image/ grayscale image/ color image image/ color 16 bit image/color 32 bit image	Bit depth this picture was saved at

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	invert runaround	Boolean	If true, flow text within the runaround
•	missing	Boolean	If true, this picture is missing from the saved location
•	modified	Boolean	If true, this picture has been modified since it was last imported
•	modification date	date	Modification date of the file when it was last imported
	name	plain text (string)	Name of this picture
•	object reference	reference	Object reference for this object
	offset	measurements point	Specifies the distance point between the origin of the picture box and the upper left corner of this picture
	opacity	percent	Opacity of this picture
	properties	record	Property that allows getting/setting of a list of properties
	scale	percent point	Scale of this image
	screen	small integer	Indicates which screen components (function, angle, frequency) are custom
	screen angle	angle measurement	Halftone screen angle of this picture
	screen frequency	fixed	Halftone screen frequency of this picture
	screen function	dot spot/line spot/ellipse spot/square spot/ordered dither/tri dot spot	Halftone screen function applied to this picture
	shade	percent	Shade of this picture
	show halftone	Boolean	If true, show halftones on-screen

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	skew	angle measurement	Value to slant this picture
	suppress printing	Boolean	If true, this picture is suppressed at print

LAYER EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
copy	copy text box 1 to beginning of layer 2
delete	delete layer 3
duplicate	duplicate picture box 1 of layer 3
make	make new layer at beginning
merge	merge layer 1 to layer 2
move	move layer 1 to after layer 2

LAYER ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
LAYER OBJECT						
generic box	•					
graphic box	•					
line box	•					
picture box	•					
table box	•					
text box	•					
user box	•					
DOCUMENT OBJECT						
layer	•		•			

LAYER PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
LAYER OBJECT			
	color	RGB color	Color associated with the visual indicators for this layer
	keep runaround	Boolean	If true, items on this layer retain their runaround settings when the layer is hidden
	locked	Boolean	If true, this layer is locked
	name	string	Name of this layer
	suppress print	Boolean	If true, the layer will not be printed
	visible	Boolean	If true, this layer is visible
DOCUMENT OBJECT			
•	active layer	reference	Active layer of this document

LINE BOX EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
data size	data size of width of line box 1 as integer
delete	delete line box 1
duplicate	duplicate line box 2 to before line box 1
get	get color of line box 4
get as	get end caps of line box 1 as integer
make	make line box at beginning
move	move line box "Bold" to before line box "Light"
set	set width of line box 1 to "6 pt"
show	show line box "Medium"

LINE BOX ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
runaround path	•					
shape path	•					

LINE BOX PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	anchored	Boolean	If true, this line box is anchored in text
	background trap	default/ overprint/ knockout/spread auto amount/ choke auto amount	Specifies amount to trap background
•	best type	type class	Best descriptor type
	box shape	rectangular/ rounded corner/ bevel corner/ concave corner/ ovular/polygonal/ line shape/ orthogonal line/ spline line	Shape of this line box
	box type	picture box type/text box type/graphic box type/line box type/ xtension box type/ group box type	Type of this line box
•	class	type class	The class
	color	color spec	Color of this line box
	content	picture content/text content/none content	Content type of this box
	corner radius	horizontal measurement	Radius of the corners of this line box
•	default type	type class	Default descriptor type
	delete lock	Boolean	If true, this line box cannot be deleted

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	end caps	plain line/ left arrow/ right arrow/left feathered arrow/ right feathered arrow/double arrow	Arrowheads and tail feathers for this line box
	end point	measurements point	End point of this line box
	flipped horizontal	Boolean	If true, this line box is flipped left to right
	flipped vertical	Boolean	If true, this line box is flipped top to bottom
	gap color	color spec	Color of line gaps
	gap shade	percent	Shade of line gaps
	gap opacity	percent	Opacity of line gaps
•	index	integer	Index of this line box on its containing spread
	left point	measurements point	Specifies the left end-point of this line box
	location lock	Boolean	If true, the location of this line box is locked
	locked	Boolean	If true, this line box cannot be moved or resized
	modify lock	Boolean	If true, properties of this line box can't be modified
	name	plain text (string)	Name of this line box
•	object reference	reference	Object reference for this object
	opacity	percent	Opacity of this line box
	polygon points	polygon points list	A list of the vertices of the shape path
	properties	record	Property that allows setting of a list of properties
	right point	measurements point	Specifies the right end-point of this line box

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	rotation	angle measurement	Rotation of this line box
	runaround	none runaround/ item runaround/ auto runaround/ manual runaround/ embedded runaround/ alpha runaround/ non white runaround/ clipping runaround/pic bounds runaround/ custom runaround	Specifies control of the way text flows with respect to this line box
	selected	Boolean	If true, this line box is selected
	shade	percent	Shade of this line box
	size lock	Boolean	If true, the size of this line box is locked
	storage	string	Storage place for miscellaneous data about this line box; stores up to 32 Kilobytes
	style	solid line/ sparsely dashed line/densely dashed line/ dashed line/ dotted line/ double line/thin thick line/thick thin line/thin thick thin line/ thick thin thick line/thin thin thin line	Style of this line box

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	suppress printing	Boolean	If true, this line box is suppressed at print
	text outset	points rectangle	Space between text and the outer edges of this line box
	width	thick units	Thickness of this line box
•	uniqueID	integer	A unique ID that is good for the life of this layout

MASTER LAYOUT SPACE EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every story of master layout space 1
data size	data size of name of master layout space 1 as integer
get	get name of master layout space 1
get as	get file path of master layout space 2 as string
print	print every master layout space
set	set keep master page items of master layout space 1 to true
show	show middle master layout space

MASTER LAYOUT SPACE ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
generic box	•	•	•		•	•
graphic box	•	•	•	•	•	•
image	•	•	•		•	•
line box	•	•	•	•	•	•
page	•		•		•	•
picture box	•	•	•	•	•	•
spread	•		•		•	•
story	•		•	•	•	•
table box	•	•	•	•	•	•
text box	•	•	•	•	•	•

MASTER LAYOUT SPACE PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	active layer	reference	Active layer of this layout space
	auto constrain	Boolean	If true, automatically constrain limits of items within boxes
	auto kern	Boolean	If true, apply auto kerning
	auto leading	percent	Auto leading value
	auto page insertion location	no auto page insertion/end of story/end of section/end of document	Automatic page insertion location
	auto picture import	auto import off/auto import on/ auto import verify	Automatically updates was last opened
	automatic text box	Boolean	If true, create an automatic text box for each new page
	automatic trap amount	trap units/ overprint	Auto trap amount
	auxiliary dictionary path	alias	Path of the auxiliary dictionary file for this layout
	baseline grid increment	grid increment units	Baseline grid interval
	baseline grid showing	Boolean	If true, baseline grid is showing
	baseline grid start	vertical measurement	Baseline grid start
•	best type	type class	Best descriptor type
	bottom margin	vertical measurement	Location of the bottom margin of a page in this layout
	ciceros per centimeter	fixed	Number of ciceros per centimeter
•	class	type class	Class descriptor type
	column count	integer	Number of columns in this layout

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	current box	reference	Selected box
	current page	page	Page displayed to user
	current spread	spread	Spread displayed to user
●	default spread count	integer	Default spread count
●	default type	type class	Default descriptor type
●	doc format	plain text (string)	Format of this layout space
	facing pages	Boolean	If true, creates facing pages
●	file path	alias	File path of this layout space's project
	flex space width	percent	Custom width space
	hyphenation method	standard hyphenation/ enhanced hyphenation/ expanded hyphenation	Method to use for hyphenation
	indeterminate trap amount	trap units/ overprint	Value for trapping to indeterminate background color
	active layer	reference	Active layer of this layout space
●	flow version	fixed	Layout flow version
●	font list	a list of font record	List of fonts used in this layout
	fractional character widths	Boolean	If true, print characters using fractional widths (default); if false, print characters using integral widths
	frame inside	Boolean	If true, place frames inside text or picture boxes
	greek below	font units	Text size below which to display text as gray lines
	greek pictures	Boolean	If true, display pictures as gray boxes

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	guides in front	Boolean	If true, place guides in front of all boxes
	guides showing	Boolean	If true, guides are showing
	gutter width	horizontal measurement	Width of default text box's gutter in this layout
	horizontal measure	inches/ inches decimal/picas/ points/ millimeters/ centimeters/ ciceros/agates/Qs (East Asian only)	Horizontal measurement units
	ignore white	Boolean	If true, an object color in front of multiple back-grounds that include white will not take white into account when trapping
•	index	integer	Index of object
	inside margin	horizontal measurement	Location of the inside margin of a page in this layout (with facing pages true)
	invisibles showing	Boolean	If true, invisible characters are showing
	item spread coords	Boolean	If true, display items in spread coordinates
	keep master page items	Boolean	If true, master items are kept when they are modified on the master page
	kern above	font units	Size of text above which auto kerning should apply
	knockout limit	percent	Point at which an object color knocks out a background color
	left margin	horizontal measurement	Location of the left margin of a page in this layout

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	ligatures on	Boolean	If true, combine certain characters into a single character (ligature)
	lock guides	Boolean	If true, lock guides
	low quality blends	Boolean	If true display banded blends (faster)
	maintain leading	Boolean	If true, the baseline of a line that falls immediately below an obstruction is placed according to its applied leading value
	maximum ligature track	fixed	Maximum amount that ligatures can be tracked or kerned apart before they break into separate characters
	maximum view scale	percent	Largest layout view using the **Zoom** tool
	minimum view scale	percent	Smallest layout view using the **Zoom** tool
•	modified	Boolean	If true, this layout has been modified since the last save
•	name	plain text (string)	Name of this layout
•	object reference	reference	Object reference for this object
	outside margin	horizontal measurement	Location of the outside margin of a page in this layout (with facing pages true)
	overprint limit	percentage	Shade of color below which overprinting will not occur
	page height	vertical measurement	Height of a page in this layout
	page rule origin point	measurements	Location of the page's ruler origin
	page width	horizontal measurement	Width of a page in this layout
	points per inch	fixed	Number of points per inch

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	print setup	print setup record	Settings used when printing this layout
	process trap	Boolean	If true, process trapping is on
	properties	record	Property that allows setting of a list of properties
	Q measurement	Boolean	If true, use Q for measurements (East Asian only)
	right margin	horizontal measurement	Location of the right margin of a page in this layout
	Roman Extra	percent	Percent of space between Roman and Japanese characters (East Asian only)
	rulers showing	Boolean	If true, rulers are showing
	small caps horizontal scale	percent	Horizontal scale for small cap characters
	small caps vertical scale	percent	Vertical scale for small cap characters
	snap distance	integer	Distance within which items snap to guides
	spread height	vertical measurement	Height of a spread (including pasteboard) in this layout
	spread rule origin point	measurements	Location of the spread's ruler origin
	spread width	horizontal measurement	Width of a spread (including pasteboard) in this layout
	subscript horizontal scale	percent	Horizontal scale for subscript characters
	subscript offset	percent	Offset for subscript characters

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	subscript vertical scale	percent	Vertical scale for subscript characters
	superscript horizontal scale	percent	Horizontal scale for superscript characters
	superscript offset	percent	Offset for superscript characters
	superscript vertical scale	percent	Vertical scale for superscript characters
	superior horizontal scale	percent	Horizontal scale for superior characters
	superior vertical scale	percent	Vertical scale for superior characters
	tool mode	integer	Index of the tool mode
	top margin	vertical measurement	Location of the top margin of a page in this layout
	trapping method	absolute trap/ proportional trap/ knockout all	Trapping method to be used
	typesetting leading mode	Boolean	If true, leading is calculated from the baseline of one line of text to the baseline of the line above it; if false, specifies Word Processing mode, which measures leading downward from the top of the ascent on the line below it
•	version	small integer	Version of this layout
	vertical measure	inches/ inches decimal/picas/ points/ millimeters/ centimeters/ ciceros/agates/Qs (East Asian only)	Vertical measurement units

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	view scale	fit page in window/ fit spread in window/ thumbnails, or percentage	Current view scale of this layout
	view scale increment	percent	Percent of change in view for each click using the Zoom tool
	vStory direction	Boolean	If true, the story is vertical (East Asian only)

PAGE EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every picture box of page 1
data size	data size of top margin of page 2 as integer
delete	delete page 2
duplicate	duplicate page 3 to after page 5
get	get gutter width of page 5
get as	get page number of page 4 as string
make	make page at beginning
move	move page 3 to before page 1
save	save page 1 in "Hard Drive: Test.eps" eps format standard EPS output setup "Composite CMYK" eps data ASCII EPS
set	set column count of page 3 to 3
show	show page 3

PAGE ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
generic box	•	•	•	•	•	•
graphic box	•	•	•	•	•	•
horizontal guide	•			•	•	•
image	•		•	•	•	•

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
layer	•	•		•	•	
line box	•	•	•	•	•	•
picture box	•	•	•	•	•	•
text box	•	•	•	•	•	•
vertical guide	•			•	•	•

PAGE PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	`best type`	type class	Best descriptor type
	`bottom margin`	vertical measurement	Location of the bottom margin of this page
•	`bounds`	measurements rectangle	Boundary rectangle of this page
•	`class`	type class	The class descriptor type
	`column count`	small integer	Number of columns in this page
•	`default type`	type class	Default descriptor type
	`gutter width`	horizontal measurement	Width of the gutter in this page
	`active layer`	reference	Active layer of this page
	`left margin`	horizontal measurement	Location of the left margin of this page
	`master spread`	single sided blank master/ double sided blank master, or spread	Master spread applied to this page
•	`name`	plain text (string)	Name of the page number (Name/number section when using section starts)
•	`object reference`	reference	Object reference for this object
•	`page number`	small integer	Page number of this page
	`properties`	record	Property that allows getting/ setting of a list of properties

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	quantity	small integer	Quantity of pages; used when creating pages
	right margin	horizontal measurement	Location of the right margin of this page
	top margin	vertical measurement	Location of the top margin of this page

CLIPPING PATH EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of contours of shape path 1
delete	delete clipping path 1
get	get bounds of runaround path 1
get as	get bounds of shape path 1 as list

CLIPPING PATH ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
contours	•					

CLIPPING PATH PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	bounds	measurements rectangle	Bounds of this path
•	class	type class	The class
•	object reference	reference	Object reference for the object
	properties	property record	Property that allows setting a list of properties

PICTURE BOX EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every image of picture box 1
data size	data size of corner radius of picture box 1 as integer
delete	delete picture box "Dog"
duplicate	duplicate picture box 4 to before picture box 2
get	get box type of picture box 1

VERB	APPLESCRIPT EXAMPLE
get as	get runaround of picture box 1 as string
make	make picture box at end
move	move picture box 1 to after picture box "Cat"
set	set locked of first picture box to true
show	show last picture box

PICTURE BOX ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
image	•		•		•	
runaround path	•					
shape path	•					

PICTURE BOX PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	anchored	Boolean	If true, this box is anchored in text
	background trap	default/ overprint/ knockout/spread auto amount/ choke auto amount	Amount to trap background
•	best type	type class	Best descriptor type
	blend	blend record	Blend properties of this box
	bounds	measurements rectangle	Bounds of this box
	box shape	rectangular/ rounded corner/ bevel corner/ concave corner/ ovular/polygonal/ line shape/ orthogonal line/ spline line	Shape of this box

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	box type	picture box type/text box type/graphic box type/line box type/xtension box type/group box type	Type of this box
•	class	type class	The class
	color	color spec	Color of this box
	content	picture content/text content/none content	Content type of this box
	corner radius	horizontal measurement	Radius of the corners of this box
•	default type	type class	Default descriptor type
	delete lock	Boolean	If true, this box cannot be deleted
	flipped horizontal	Boolean	If true, contents are flipped left to right
	flipped vertical	Boolean	If true, contents are flipped top to bottom
	frame	frame record	Frame properties of this box
	gap color	color spec	Color of the gap
	gap shade	percent	Shade of the gap
	gap opacity	percent	Opacity of the gap
•	index	integer	Index of object
	locked	Boolean	If true, this box cannot be moved or resized
	location lock	Boolean	If true, the location of the box is locked
	modify lock	Boolean	If true, the properties of the box can't be modified
	name	plain text (string)	Name of this box
•	object reference	reference	Object reference for this object

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	opacity	percent	Opacity of this box
	OPI swap*	Boolean	If true, the picture in this box will be omitted from the PostScript stream
	polygon points	polygon points list	A list of the vertices of the polygon if picture box type is a polygon
	properties	record	Property that allows setting of a list of properties
	rotation	angle measurement	Rotation of this box
	runaround	none runaround/ item runaround auto runaround/ manual runaround/ embedded runaround/ alpha runaround/ non white runaround/ clipping runaround/pic bounds runaround/ custom runaround	Specifies control of the way text flows with respect to this box
	selected	Boolean	If true, this box is selected
	shade	percent	Shade of this box
	size lock	Boolean	If true, the size of this box is locked
	skew	angle measurement	Specifies angle that box is skewed
	storage	plain text (string)	Storage place for miscellaneous data about this box; stores up to 32 Kilobytes
	suppress printing	Boolean	If true, this box is suppressed at print

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	text outset	points rectangle	Space between text and the outer edges of a picture box
•	uniqueID	integer	A unique ID that is good for the life of this project

* This property is present only when OPI XTensions software is running.

PICTURE CELL EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count every image of picture cell 1
data size	data size of content of picture cell 1

PICTURE CELL ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
image	•					•

PICTURE CELL PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	bounds	measurement	Bounds of this cell rectangle
	cell type	picture cell type/ text cell type/graphic cell type	Type of this cell
	color	color spec	Color of this cell
	content	picture content/ graphic content/ text content/	Content type of this cell
•	index	integer	Index of this cell in its containing table
•	locked	Boolean	If true, this cell cannot be moved or resized
	modify lock	Boolean	If true, the properties of the cell cannot be modified
	name	plain text	Name of this cell

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	opacity	percent	Opacity of this cell
	selected	Boolean	Whether this cell is selected
	shade	percent	Shade of this cell
•	skew	angle measurement	Angle that this picture cell is skewed.
	suppress printing	Boolean	If true, this cell is suppressed at print
•	uniqueID	integer	A unique ID good for the life of this layout

SPREAD EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every text box of spread 1
data size	data size of pages of spread 1 as integer
delete	delete last spread
duplicate	duplicate spread 1 to after spread 6
get	get pages of spread 1
get as	get pages of spread 1 as integer
make	make spread at end
move	move spread 1 to after spread 2
set	set name of spread 1 to "Cover"
show	show middle spread

SPREAD ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
generic box	•	•	•	•	•	•
graphic box	•	•	•	•	•	•
horizontal guide	•			•	•	•
image	•		•	•	•	
line box	•	•	•	•	•	•
page	•		•	•	•	•

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
picture box	•	•	•	•	•	•
text box	•	•	•	•	•	•
vertical guide	•		•	•	•	•

SPREAD PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	best type	type class	Best descriptor type
•	class	type class	The class descriptor type
•	default text box	Boolean	Used only when creating master spreads
•	default type	type class	Default descriptor type
•	double sided	Boolean	Used only when creating master spreads
	name	plain text (string)	Name of the spread (if a master spread)
•	number of pages	small integer	Number of pages
•	object reference	reference	Object reference for this object
	properties	record	Property that allows getting/ setting of a list of properties

STYLE SPEC EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count every style spec
data size	data size of name of style spec "Enhanced" as integer
delete	delete style spec "BodyCopy"
duplicate	duplicate style spec "Enhanced"to after style spec 3
get	get next style of style spec "Normal"
get as	get key character of style spec "Enhanced" as string
make	make style spec at beginning
move	move style spec "Enhanced" to before style spec 1
set	set name of style spec 1 to "Header"

STYLE SPEC ELEMENTS AND REFERENCE FORMS
None

STYLE SPEC PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	base style	style spec	Style spec that this style spec is based on
•	best type	type class	Best descriptor type
	character style	character spec	Character spec for this style spec
•	class	type class	The class
•	default type	type class	Default descriptor type
•	index	integer	Index of the object
	key character	plain text (character)	Key to invoke style spec
	key modifiers	list of command/ shift/option/ control	Modifier keys, to use in conjunction with the key character (may use more than one)
	lock	Boolean	If true, this style spec is locked
	name	plain text (string)	Name of this style spec
	next style	style spec (string)	Style spec that will be applied to the next created paragraph
•	object reference	reference	Object reference for this object
	paragraph attributes	paragraph properties	Paragraph properties for this style spec
	properties	record	Property that allows setting of a list of properties
	text and paragraph attributes	text and paragraph properties	Specifies the text and paragraph attributes for this style spec (for compatibility)
•	uniqueID	small integer	A unique ID good for the life of this style spec

TABLE BOX EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count every table row of table box 1
data size	data size of bounds of table box 2 as list
delete	delete table box 2
get	get name of table box 1
get as	get count of rows of table box 1 as string
set	set name of table box 1 to "Page1Table"
show	show table box "Page1Table"

TABLE BOX ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
generic cell	•			•		•
graphic cell	•			•		•
horizontal gridline	•			•		•
picture cell	•			•		•
table row	•			•		•
table column	•			•		•
text cell	•			•		•
vertical gridline	•			•		•

TABLE BOX PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	anchored	Boolean	If true, this table box is anchored
•	best type	type class	Best descriptor type
	bounds	measurements rectangle	Bounds of this table box
•	box type	picture box type/text box type/graphic box type/line box type/xtension box type/group box type/table box type	Type of this box

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	box shape	rectangular/ rounded corner/ bevel corner/ concave corner/ ovular/polygonal/ line shape/ orthogonal line/ spline line	Shape of this table box
•	cell type	mixed cell type/none cell type/text cell type	Cell type of this table box
•	class type	class	Class descriptor type
•	color	color spec	Color of this table box
	column fit	Boolean	If true, auto fit for columns can be set only during table creation
	content	picture content/ text content/ none content/ table content	Content type of this table box
•	corner radius	horizontal measurement	Radius of the corners of this table box
•	default type	type class	Default descriptor type
	delete lock	Boolean	If true, this table box cannot be deleted
•	flipped horizontal	Boolean	If true, contents of this table box are flipped left to right
	height break	Boolean	If true, a height restriction is applied to this table box
	height break	vertical measurement	Height restriction applied to this table box
•	index	integer	Index of this table box
•	layername	plain text	Name of the layer containing this table box

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	location lock	Boolean	If true, the location of this table box is locked
	modify lock	Boolean	If true, the properties of this table box cannot be modified
	name	plain text	Name of this table box
●	object reference	reference	Object reference for this object
	opacity	percent	Opacity of this table box
	properties	record	A property that allows getting a list of all properties
●	rotation	angle measurement	Rotation angle of this table box
	row fit	Boolean	If true, auto fit for rows can be set only during table creation
	runaround	none runaround/ item runaround/ auto runaround/ manual runaround/ embedded runaround/ alpha runaround/ non white runaround/ clipping runaround/pic bounds runaround/ custom runaround	Specifies control of the way text flows with respect to this table box
	selected	Boolean	If true, this table box is selected
	shade	percent	Shade of this table box
	size lock	Boolean	If true, the size of this table is locked
●	skew	angle measurement	Angle that this table box is skewed.

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	suppress printing	Boolean	If true, this table box is suppressed at print
•	unique ID	integer	A unique ID good for the life of this layout
	width break	Boolean	If true, a width restriction is applied to this table box
	width break	horizontal measurement	Width restriction applied to this table box

TEXT BOX EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every word of text box "HeadlineStory"
data size	data size of text inset of text box "HeadlineStory" as integer
delete	delete text box "Sidebar"
duplicate	duplicate text box 10 to before text box 1
get	get first baseline offset of first text box
get as	get name of text box 1 as string
make	make text box at beginning of spread 2
move	move last text box to before first text box
set	set skew of text box 1 to 25
show	show text box "Sidebar"

TEXT BOX ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
character	•			•	•	•
line	•			•	•	•
paragraph	•			•	•	•
runaround path	•					
shape path	•					
story	•		•	•	•	•

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
text	•				•	•
text style range	•		•		•	•
word	•		•	•		•

TEXT BOX PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	`align text`	ascent align/ centered align/ baseline align/ descent align	Text alignment on this text path
	`align with line`	top align/ center align/ bottom align	Alignment of the text with relation to the width of this text path
•	`anchored`	Boolean	If `true`, this box is anchored in text
	`background trap`	default/ overprint/ knockout/spread auto amount/ choke auto amount, or fixed	Amount to trap background
•	`best type`	type class	Best descriptor type
	`blend`	blend record	Blend properties of this box
	`bounds`	measurements rectangle	Bounds of this box
•	`box overflows`	Boolean	If `true`, the box overflow symbol is present in this box
	`box shape`	rectangular/ rounded corner/ bevel corner/ concave corner/ ovular/polygonal/ line shape/ orthogonal line/ spline line	Shape of this box

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	box type	picture box type/text box type/graphic box type/line box type/xtension box type/group box type	Type of this box
•	box wraps	Boolean	If true, text in this box wraps to the next box
•	class	type class	The class
	color	color spec	Color of this box
	columns	small integer	Number of columns in this text box
	content	picture content/text content/none content	Content type of this box
	corner radius	horizontal measurement	Radius of the corners of this box
•	default type	type class	Default descriptor type
	end caps	plain line/ left arrow/ right arrow/ left feathered arrow/right feathered arrow/ double arrow	Arrowheads and tail feathers for the line
	first baseline	cap height/ minimum cap plus accent/ascent baseline	Method for placing the first baseline of text
	first baseline offset	vertical measurement	Distance between the first baseline and the top of a text box
	flip	Boolean	If true, the text is flipped to the other side of the path
	flipped horizontal	Boolean	If true, contents of this box are flipped left to right

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	flipped vertical	Boolean	If true, contents of this box are flipped top to bottom
	frame	frame record	Frame properties of this box
	gap color	color spec	Color of line gaps
	gap shade	percent	Shade of line gaps
	gutter	horizontal measurement	Space between columns
•	index	integer	Index of this box on its containing spread
	inter para max	fixed	Maximum amount of space between paragraphs when vertical justification is selected
	left point	measurements point	Start point of the line (only applicable to text paths that are not spline lines)
	delete lock	Boolean	If true, this text box cannot be deleted
	location lock	Boolean	If true, the location of this text box is locked
	locked	Boolean	If true, this box cannot be moved or resized
	modify lock	Boolean	If true, this text box's parameters cannot be modified
	name	plain text (string)	Name of this box
	next text box	text box (reference)	Specifies next text box in text box chain
•	object reference	reference	Object reference for this object
	opacity	percent	Opacity of this text box
	orientation	normal/ skewed/stair step/ribbon	Orientation of the text on the path

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	polygon points	polygon points list	A list of the vertices for Shape path of this box
	previous text box	text box (reference)	Specifies previous text box in text box chain
	properties	record	Property that allows getting a list of properties
	right point	measurements point	End-point of the line (only applicable with text paths that are not spline lines)
	rotation	angle measurement	Rotation angle of this box
	runaround	none runaround/ item runaround/ auto runaround/ manual runaround/ embedded runaround/ alpha runaround/ non white runaround/ clipping runaround/pic bounds runaround/ custom runaround	Specifies control of the way text flows with respect to this box
	runaround all sides	Boolean	If true, text will be flowed around all sides of obstructions
	selected	Boolean	If true, this box is selected
	shade	percent	Shade of this box
	size lock	Boolean	If true, the size of this text box is locked
	skew	angle measurement	Angle at which this box is skewed

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	style	solid line/ sparsely dashed line/densely dashed line/ dashed line/ dotted line/ double line/thin thick line/thick thin line/thin thick thin line/ thick thin thick line/thin thin thin line	Style of this box's frame
	suppress printing	Boolean	If true, this box is suppressed at print
	text angle	angle measurement	Angle of the text in this box
	text inset	inset units (single inset)	Space between text and the inner edges of a text box
	text skew	angle measurement	Skew of the text in this box
•	unique ID	integer	A unique ID that is good for the life of the document
	vertical justification	top justified/ centered/ bottom justified/ full (vertical alignment)	Method for placing the first baseline of text in this box
	width	thick units	The line or frame thickness

TEXT CELL EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count every word of story 2 of text cell "Head1"
data size	data size of content of text cell "Head1" as integer
get	get name of text cell 1
get as	get name of text cell 1 as string
set	set name of text cell 1 to "LastName"

TEXT CELL ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
character	•			•	•	•
fixed rectangle	•					•
fixed point	•					•
line	•			•	•	•
paragraph	•			•	•	•
story	•		•	•	•	•
text	•				•	•
text style range	•			•	•	•
word	•			•	•	•

TEXT CELL PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	cell type	picture cell type/text cell type/graphic cell type/mixed cell type	Type of this cell
	columns	small integer	Number of columns in this table
	content	picture content/ text content/ graphic content	Content type of this cell
	first baseline minimum	cap height/ cap plus accent/ ascent baseline	First baseline minimum for this cell
	first baseline offset	vertical measurement	Offset from the top of this text cell
	gutter	horizontal measurement	Space between columns for this table
•	index	integer	Index of this cell in its containing table
	name	plain text	Name of this cell

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	next text box	text box (reference)	Next text box in this text box chain
	next text cell	text cell (reference)	Next text cell in this text box chain
	Previous text box	text box (reference)	Previous text box in this text box chain
	Previous text cell	text cell (reference)	Previous text cell in this text box chain
•	rows	small integer	Number of rows in this table
	selected	Boolean	If true, this cell is selected
•	unique ID	integer	A unique ID good for the life of this layout

TEXT STYLE RANGE EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count of every paragraph of text style range 1
data size	data size of font of text style range 1 as integer
delete	delete text style range 1
duplicate	duplicate text style range 1 to after text style range 2
get	get color of every text style range
get as	get descent of text style range 1 as integer
move	move text style range 1 to after text style range 3
save	save text style range 1 as "TEXT" in "Hard Drive: TextStyle.txt"
select	select text style range 1
set	set color of text style range 1 to "Red"
show	show text style range 1

TEXT STYLE RANGE ELEMENTS AND REFERENCE FORMS

ELEMENT CLASS	BY NUMERIC INDEX	BY ID	BY NAME	BY RANGE	SATISFYING A TEST	BEFORE/ AFTER ANOTHER ELEMENT
character	•			•	•	•
line	•			•	•	•
paragraph	•			•	•	•
story	•		•	•	•	•
text	•				•	•
text style range	•			•	•	•
word	•			•	•	•

TEXT STYLE RANGE PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	ascent	font units	Maximum ascent of any character in this text
	base shift	base units	Baseline shift of the first character of this text
•	baseline	vertical measurement	Vertical offset from the top of the containing text box to the baseline of the first character of this text
•	best type	type class	Best descriptor type
	character style	character spec	Character spec applied to this text
•	class	type class	The class
	color	color spec	Color of the first character of this text
	contents	plain text (string)	Contents of this text
•	default type	type class	Default descriptor type
•	descent	font units	Maximum descent of any character in this text
	font	plain text (string)	Name of the font (string) of the first character in this text

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	height	font units	Height of this text
•	horizontal offset	horizontal measurement	Horizontal offset (from the left side of the containing text box) of the first character of this text
	horizontal scale	percent	Horizontal scale of the first character of this text
	kern	fixed	Kerning of the first character of this text
•	length	integer	Number of characters in this text
•	object reference	reference	Object reference for this object
•	offset	integer	Offset (character index) of the first character of this text within the containing story
	off styles	plain/bold/ italic/ underline/ outline/ shadow/ superscript/ subscript/ superior/ strikethrough/ all caps/small caps/ word underline/ comma emphasis (East Asian only)/ dot emphasis	Styles that are not used for this text

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	on styles	plain/bold/ italic/ underline/ outline/ shadow/ superscript/ subscript/ superior/ strikethrough/ all caps/small caps/ word underline/ comma emphasis (East Asian only)/ dot emphasis	Styles that are used for this text
	opacity	percent	Opacity of the first character of this text
	open type style	open type style record	OpenType styles applied to this text
	properties	record	Property that allows getting a list of properties
	shade	percent	Shade of the first character of this text
	size	fixed	Size of the first character of this text in points
	style	text style info	Text styles applied to this text
	track	fixed	Tracking of the first character of this text
	trap text	default/ overprint/ text knockout/ spread auto amount/ choke auto amount	Trapping specification for the first character of this

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	uniform styles	text style info	Text styles that are uniformly applied to this text
	vertical scale	percent	Vertical scale of the first character of this text
•	width	horizontal measurement	Width of the first character of this text

VERTEX EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
data size	data size of left handle of vertex 1 as integer
delete	delete vertex 1
get	get symmetry of vertex 4
get as	get right handle of vertex 3 as list
make	make vertex at beginning
move	move vertex 1 to after vertex 3
set	set anchor of vertex 1 to {"6 cm", "10 cm"}

VERTEX ELEMENTS AND REFERENCE FORMS
None

VERTEX PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	anchor	measurements point	Anchor point of the vertex
	left handle	measurements point	Position of the left control handle of the vertex
	right handle	measurements point	Position of the right control handle of the vertex
	symmetry	corner/smooth/ symmetrical	Linking method for control handles

VERTICAL GUIDE EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
data size	data size of scale of vertical guide 1 as integer
delete	delete vertical guide 1
get	get undeletable of vertical guide 4
get as	get position of vertical guide 3 as integer
make	make vertical guide at beginning with properties {position:"36 pt"}
move	move vertical guide 1 to after vertical guide 3
set	set position of vertical guide 1 to "6 cm"

VERTICAL GUIDE ELEMENTS AND REFERENCE FORMS
None

VERTICAL GUIDE PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	best type	type class	Best descriptor type
•	class	type class	Class descriptor type
•	default type	type class	Default descriptor type
•	from master	Boolean	If true, this guide is from the master page
•	index	integer	Index of the object
•	object reference	reference	Object reference for this object
	position	vertical measurement	Position of the guide
	properties	record	Property that allows getting a list of properties
	scale	percent	View scale at which this guide will display
	undeletable	Boolean	If true, this guide can't be deleted
	unmoveable	Boolean	If true, this guide can't be moved

XTENSION EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
get	get name of xtension 1

XTENSION ELEMENTS AND REFERENCE FORMS
None

XTENSION PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	name	plain text	Name of this XTensions module
•	index	integer	Index of this XTensions module
	<inheritance>	base class	See this class for additional properties
•	uniqueID	plain text	ID of this XTensions module
•	version	version	Version of this XTensions module

CUSTOM BLEEDS SETUP PROPERTIES, DATA TYPES, AND DESCRIPTIONS (REQUIRES CUSTOM BLEEDS QUARKXTENSIONS SOFTWARE)

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	bleed	vertical measurement	Consistent bleed amount for the page
	bleed	measurements rectangle	Bleed amounts for each side of the page
	bleed clipping	Boolean	If true, clip items to bleed limits
	bleed type	asymmetric/ symmetric/ page items	Bleed style for the page
	EPS bleed	vertical measurement	Consistent bleed amount for the EPS
	EPS bleed	measurements rectangle	Bleed amounts for each side of the EPS
	EPS bleed type	asymmetric/ symmetric/	Bleed style of the EPS

BLEND RECORD EVENTS AND EXAMPLES

VERB	APPLESCRIPT EXAMPLE
count	count every blend record of layout space 1 of project 1

BLEND RECORD ELEMENTS AND REFERENCE FORMS
None

BLEND RECORD PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
●	angle	small integer	Angle of blend; default is zero degrees
●	color	color spec	Color spec of this blend record
	opacity	percent	Opacity of this blend record
●	shade	percent	Shade of this blend record
●	style	solid blend/ linear blend/ mid-linear blend/ rectangular blend/ diamond blend/ circular blend/ full circular blend	Style of this blend record

FIXED POINT PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	horizontal	fixed	Horizontal component of point
	left	fixed	Horizontal component of point
	top	fixed	Vertical component of point
	vertical	fixed	Vertical component of point

FIXED RECTANGLE PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	bottom	fixed	Bottom side of fixed rectangle
	bottom right	fixed point	Bottom right point of this fixed rectangle
	height	fixed	Height of this fixed rectangle

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	left	fixed	Left side of this fixed rectangle
	origin	fixed point	Origin of this fixed rectangle (changing offsets entire rectangle)
	right	fixed	Right side of this fixed rectangle
	top	fixed	Top side of this fixed rectangle
	top left	fixed point	Top-left point of this fixed rectangle
	width	fixed	Width of this fixed rectangle

FONT RECORD PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
•	ID	small integer	Font ID
•	name	plain text (string)	Font name

FRAME RECORD PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	color	color spec	Frame color
	gap color	color spec	Color of the gap
	gap shade	percent	Shade of the gap
	gap opacity	percent	Opacity of the gap
	inside trap	default/ overprint/ knockout/ spread auto amount/ choke auto amount	Trap specification for inside of this frame

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	outside trap	default/ overprint/ knockout/ spread auto amount/ choke auto amount, or fixed	Trap specification for outside of this frame
	opacity	percent	Frame opacity
	shade	percent	Frame shade
	style	solid line/ sparsely dashed line/densely dashed line/ dashed line/ dotted line/ double line/thin thick line/thick thin line/thin thick thin line/ thick thin thick line/thin thin thin line	Style of this frame
	width	thick units	Frame thickness

JUSTIFICATION RECORD PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	maximum	percent	Maximum spacing expansion (as a percentage of width)
	minimum	percent	Minimum spacing expansion (as a percentage of width)
	optimum	percent	Optimum spacing expansion (as a percentage of width)

OPI SETUP RECORD PROPERTIES, DATA TYPES, AND DESCRIPTIONS (REQUIRES OPI QUARKXTENSIONS SOFTWARE)

R/O	PROPERTY NAME	TYPE	DESCRIPTION
OPI SETUP OBJECT			
	include TIFF	Boolean	If true, include TIFF images in the PostScript stream
	include EPS	Boolean	If true, include EPS images in the PostScript stream
	lowres TIFF	Boolean	If true, send TIFF images as low resolution
	OPI active	Boolean	If true, OPI QuarkXTensions software is active
PICTURE BOX OBJECT			
	OPI swap	Boolean	If true, the specified image will be omitted from the PostScript stream

PRINT SETUP RECORD PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	absolute overlap	Boolean	If true, the document will not be centered in the finished output
	auto tile overlap	horizontal measurement	Amount by which to overlap tiles when auto tiling is on
	back to front	Boolean	If true, print pages in reverse order
	bleed	vertical measurement	Bleed value
	collate	Boolean	If true, collate output
	data format	ASCII data/ binary data/ clean data	Format for sending image data to PostScript printers
	fit in area	Boolean	If true, the printed output will be sized to fit on the paper (printable area)

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	flip horizontal	Boolean	If true, flip output horizontally
	flip vertical	Boolean	If true, flip output vertically
	full res rotated objects	Boolean	If true, rotated objects will rendered in high resolution
	halftone screen	fixed	Number of lines per inch at which to halftone pictures
	include blank pages	Boolean	If true, include blank pages in printed output
	invert image	Boolean	If true, invert printed image
	orientation	portrait/ landscape	Paper orientation
	output setup	plain text	Output setup to use for printing colors
	page gap	vertical measurement	Vertical gap between printed pages
	page position	left position/ center position/ center horizontal/ center vertical	Position of the page on the media
	page sequence	all pages/ odd pages/ even pages	Output page sequence
	paper offset	vertical measurement	Offset (from left edge of paper) at which to begin printing
	paper size	plain text (string)	Selected paper size
•	paper size list	a list of plain text (strings)	List of available paper sizes
	paper height	vertical measurement	Height of paper in the printer
	paper width	horizontal measurement	Width of paper in the printer
	print quality	normal/low resolution/ rough	Print quality
	print spreads	Boolean	If true, print spreads

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	print thumbnails	Boolean	If true, print thumbnails
	printer type	plain text (string)	Selected printer type
•	printer type list	a list of plain text (strings)	List of available printer types
	reduce or enlarge	percent	Scale at which to print
	registration marks	off/centered/ off center	Registration marks setting
	registration marks offset	fixed	Registration marks offset
	resolution	small integer	Number of dots per inch at which to print this layout
	separation	Boolean	If true, separation is on
	tiling	off/manual/ automatic	If true, tiling is on

RULE RECORD PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	color	color spec	Color of the rule
	left indent	horizontal measurement	Distance between the left end of a rule and the left indentation or the left end of a line of text above or below the paragraph
	position	vertical measurement	Offset of the rule from the paragraph
	right indent	horizontal measurement	Distance between the right end of a rule and the right indentation or the right end of a line of text above or below the paragraph
	rule on	Boolean	If true, paragraph rule is on
	shade	percent	Shade of the rule
	opacity	percent	Opacity of the rule

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	style	solid line/ sparsely dashed line/ densely dashed line/dashed line/ dotted line/ double line/thin thick line/thick thin line/thin thick thin line/ thick thin thick line/thin thin thin line	Style of the rule
	text length	Boolean	If true, indents rule by the width of the first/last line of the paragraph
	width	thick units	Width of the rule

TAB RECORD PROPERTIES, DATA TYPES, AND DESCRIPTIONS

R/O	PROPERTY NAME	TYPE	DESCRIPTION
	align character	plain text (string)	Character to align on
	fill character	plain text (string)	Characters to fill tab area with
	justification	left justified/ right justified/ centered/ align on	Tab justification
	position	horizontal measurement	Horizontal offset of tab from left side of container

Glossary

APPLE EVENTS

Messages sent from one Mac OS application or process to another that give instructions, respond to instructions, and send or receive data. Apple events are defined by Apple Inc. or other application developers and must conform to the Apple Event Interprocess Messaging Protocol.

APPLE EVENT REGISTRY: STANDARD SUITES

A compilation of standard Apple events defined by Apple Inc. or other application developers including: Apple events, object classes, primitive object classes, descriptor types, key forms, and constants. The Apple Event Registry: Standard Suites is maintained by the Apple Event Developers' Association.

APPLE EVENT INTERPROCESS MESSAGING PROTOCOL

The protocol for interapplication communication defined by Apple Inc. Interapplication messages must conform to this protocol to qualify as Apple events.

APPLESCRIPT

A system-wide scripting language developed by Apple Inc. AppleScript scripts can control the Mac OS operating system and applications that support Apple events.

ATTRIBUTE

The component of an Apple event that identifies it and the tasks it can perform on the data specified in the parameters. Attributes consist of an event class and event ID.

CONTAINER

The object that contains the element specified by an Apple event.

ELEMENT

An object contained by another Apple events object. The element classes in the Apple Event Registry: Standard Suites define the types of objects each Apple events object can contain.

EVENT CLASS

The attribute of an Apple event that identifies which suite (group of related Apple events) it belongs to such as the Required Suite, Standard Suite, and so on.

EVENT ID

The attribute of an Apple event that uniquely identifies it within its event class and defines the tasks it can perform.

EVENTS

The part of an Apple events message that tells objects what to do (similar to a verb).

FUNCTIONAL-AREA SUITES

Groups of objects and events that relate to similar functional areas, including: the Text Suite, the Quick-Draw Graphics Suite, the Table Suite, and Miscellaneous Standards.

INSERTION POINTS

A reference with a parameter that defines where in the container hierarchy an object should be placed.

MISCELLANEOUS SUITE

Basic Apple events, related to the clipboard and other menu-driven functions, that most applications support. The events include: cut, copy, paste, undo, and so on.

OBJECT CLASS

A category for Apple event objects that share specific characteristics and capabilities.

OBJECT MODEL

The Apple events Object Model is a standard message structure that allows Mac OS applications to communicate. Messages built according to the Object Model consist of events, objects, and — potentially — data.

OBJECT

A distinct item in an application that can respond to an Apple event. Objects are usually items a user can identify and manipulate.

OBJECT HIERARCHY

The breakdown of an application into specific objects and object classes. To support the Standard and Functional-area Suites, an application must define an object hierarchy based on standard classifications in the Apple Event Registry: Standard Suites.

PARAMETER

A method for identifying the object an Apple event is sent to, the task it will perform, and the desired options for performing the task.

PROPERTY

Characteristics used to describe Apple events objects in the same object class.

QUARKXPRESS SUITE

The Suite that defines all the events and objects (and their properties) specific to QuarkXPress.

REFERENCE

The component of an Apple event that first identifies the container enclosing a specific object and then uses a reference form to separate a specific object from all possible objects in the container.

REFERENCE FORM

A parameter that identifies the specific object in a container to which the Apple event is sent. QuarkXPress objects can be referenced by index, name, relative position, or test.

REQUIRED SUITE

Four Apple events, sent from the Finder, that all scriptable applications support: open application, open documents, print documents, and quit application. In QuarkXPress, all the required items are handled by equivalent items in the Standard Suite.

SCRIPTS

A series of statements in a scripting language that send Apple events to applications asking them to perform a series of tasks. Scripts combine the scripting language syntax with the standard Apple events vocabulary defined in the object model.

STANDARD SUITE

The basic Apple events and objects that most applications use to communicate. The events include: get, set, create, duplicate, move, delete, count, close, save, print, open, data size, and exists. Objects include windows, documents, pages, and so on.

SUITE

A group of objects and events that relate to a common purpose.

TABLE SUITE

The Functional-area Suite that defines all objects (and their properties) related to working with tables in QuarkXPress.

TEXT SUITE

The Functional-area Suite that defines all objects (and their properties) related to working with text in any application.

USERTALK

A system-wide scripting language developed by UserLand Software, Inc. The application that is used to create Frontier scripts is UserLand Frontier. Frontier scripts can control the Mac OS operating system and applications that support Apple events.