



**ADOBE PHOTOSHOP CC**

**APPLESCRIPT SCRIPTING REFERENCE**



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Adobe® Photoshop® CC AppleScript Scripting Reference for Macintosh® .

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# 1

## Introduction

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This reference describes the objects and commands in the Adobe® Photoshop® CC AppleScript dictionary. A companion document, *Photoshop CC Scripting Guide*, describes basic scripting concepts and the Photoshop object model. This document provides reference details of the Photoshop object model, and additional information on AppleScript-specific features.

This book contains the following sections:

- This introduction, which describes scripting support in Adobe Photoshop CC, and lists changes to the AppleScript interface since the previous release.
- [AppleScript Objects](#), which provides a complete reference for all AppleScript Photoshop DOM objects.
- [AppleScript Commands](#), which provides a complete reference for all AppleScript Photoshop DOM commands.



# 2

## AppleScript Objects

The objects of the AppleScript dictionary for Adobe Photoshop CC are presented alphabetically and in tabular format in this chapter. Where appropriate, the object class has two tables:

- **Element** — Lists the classes that inherit from the current class, as well as the methods by which the classes can be referred.
- **Property** — The properties you can use with the object, as well as each property's value type, input status, and description.

The commands that can be used with an object are listed below the object's Properties table.

Sample code for several object classes is given to help illustrate the syntax as well as usage of the object class.

The following sample tables and command list illustrate the format for this chapter.

### Elements

Element	Refer to by
channel	name, numeric index, as a range of elements, before after another element, satisfying a test

### Properties

Property	Value Type	What it is
bits per channel	Valid values: eight one sixteen	The number of bits per channel.
component channels	list of channels	Read-only. A list of the component color channels.
current channels	list of channel	The selected channels.
current layer	layer	The selected layer.
info	<a href="#">info-object</a>	Read-only. The document metadata.

### Valid Commands

[change mode](#)  
[close](#)  
[convert](#)  
[count](#)

## add noise

Options that may be supplied when applying an Add Noise filter.

The `add noise` class supplies properties for the [filter options](#) class. The `add noise` class is used only to define a record whose properties specify options when applying an Add Noise filter. `add noise` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create an `add noise` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>amount</code>	real	(amount: 0.1% - 400%)
<code>distribution</code>	Valid values: Gaussian uniform	
<code>monochromatic</code>	boolean	

The following code sample demonstrates how to apply the add noise filter using the `filter` command of the `add noise` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
  filter current layer of the current document using add noise -
    with options {class:add noise, amount:2.5, distribution:uniform, -
      monochromatic:false}
end tell
```

## adjustment options

Options used with the `adjust` method. The following classes inherit properties from the `adjustment options` class: [automatic contrast](#), [automatic levels](#), [brightness and contrast](#), [color balance](#), [curves](#), [desaturate](#), [equalize](#), [inversion](#), [levels adjustment](#), [mix channels](#), [photo filter](#), [posterize](#), [selective color](#), [threshold adjustment](#).

### Valid Commands

[adjust](#)

# application

The Adobe Photoshop CC application object, which contains all other Adobe Photoshop CC objects.

## Elements

Elements	Refer to by
document	name, numeric index, as a range of elements, before/after another element, satisfying a test
font	name, numeric index, as a range of elements, before/after another element, satisfying a test
notifier	name, numeric index, as a range of elements, before/after another element, satisfying a test

## Properties

Property	Value type	What it is
<b>best type</b>	type class	Read-only. The best type for the object's value.
<b>class</b>	type class	Read-only. The object's class.
<b>default type</b>	type class	Read-only. The default type for the object's value.
<b>properties</b>	record	All of this object's properties returned in a single record.
<b>background color</b>	color value	The color for the document's background color.
<b>build</b>	string	Read-only. Information about the application build.
<b>color settings</b>	string or color object	The name of selected color setting's set.
<b>current document</b>	document	The frontmost document.
<b>current tool</b>	string	The name of the current tool selected.
<b>display dialogs</b>	Valid Values: always error dialogs never	Controls whether and dialogs are displayed while the script is running.
<b>foreground color</b>	color value	The default foreground color (used to fill and stroke selections).
<b>free memory</b>	real	Read-only. The amount of unused memory available to Adobe Adobe Photoshop CC.
<b>frontmost</b>	boolean	Read-only. Indicates whether Adobe Photoshop CC is the frontmost application.
<b>locale</b>	string	Read-only. The language location of the application.
<b>macintosh file types</b>	list of Unicode text	Read-only. A list of file image types Adobe Photoshop CC can open.

Property	Value type	What it is (Continued)
<b>measurement log</b>	measurement log	The log of measurements taken.
<b>name</b>	Unicode text	Read-only. The application's name.
<b>notifiers enabled</b>	boolean	Indicates whether all notifiers are enabled or disabled..
<b>preferences folder</b>	alias	Read-only. The full path to the Preferences folder.
<b>recent files</b>	list of file specification	Read-only. Files in the Recent Files list.
<b>scripting build date</b>	Unicode text	Read-only. The build date of the scripting interface .
<b>scripting version</b>	Unicode text	Read-only. The scripting interface version.
<b>settings</b>	settings-object	Read-only. The application preference settings (equivalent to selecting <b>Edit &gt; Preferences</b> in the Adobe Photoshop CC application in Windows® or Photoshop > Preferences in Mac OS®).
<b>system information</b>	string	Read-only. Runtime details of the application and system.
<b>windows file types</b>	list of Unicode text	Read-only. A list of file image types Adobe Photoshop CC can open.
<b>version</b>	Unicode text	Read-only. The Adobe Photoshop version.

The the first line of the following code sample directs Adobe Photoshop CC to carry out the script's commands. The second line uses the `activate` command to make Adobe Photoshop CC the frontmost application.

```
tell application "Adobe Photoshop CC"
  activate
  set fgColor to foreground color
  set bgColor to background color
  set foreground color to {class:RGB color, red:255, green:128, blue:128}
  set background color to {class:RGB color, red:0, green:50, blue:255}
  delay 1
  set foreground color to fgColor
  set background color to bgColor
  tell me to activate
  my dd("name:" & name)
  my dd("locale:" & locale)
  my dd("scripting version:" & scripting version)
  my dd("scripting build date:" & scripting build date)
  my dd("macintosh file types:" & macintosh file types)
  my dd("windows file types:" & windows file types)
end tell

on dd(msg)
  display dialog msg giving up after 1
end dd
```

### **Valid Commands**

[activate](#)

[purge](#)

[quit](#)

[refresh](#)

## art layer, art layers

Any layer that can contain data. The `art layer` class inherits properties from the [layer, layers](#) class.

### Properties

Property	Value Type	What it is
<code>best type</code>	type class	Read-only. (Inherited from the <code>layer</code> class) The best type for the object's value.
<code>class</code>	class	Read-only. (Inherited from the <code>layer</code> class) The object's class.
<code>default type</code>	type class	Read-only. (Inherited from the <code>layer</code> class) The default type for the object's value.
<code>index</code>	integer	Read-only. (Inherited from the <code>layer</code> class) The index of this instance of the object.
<code>properties</code>	record	(Inherited from the <code>layer</code> class) All of this object's properties returned in a single record.
<code>all locked</code>	boolean	(Inherited from the <code>layer</code> class) Indicates whether all of the layer's contents are locked or editable.
<code>blend mode</code>	Valid Values: <ul style="list-style-type: none"> <li>color blend</li> <li>color burn</li> <li>color dodge</li> <li>darken</li> <li>darker color</li> <li>difference</li> <li>dissolve</li> <li>divide</li> <li>exclusion</li> <li>hard light</li> <li>hard mix</li> <li>hue blend</li> <li>lighten</li> <li>lighter color</li> <li>linear burn</li> <li>linear dodge</li> <li>linear light</li> <li>luminosity</li> <li>multiply</li> <li>normal</li> <li>overlay</li> <li>pass through</li> <li>pin light</li> <li>saturation blend</li> <li>screen</li> <li>soft light</li> <li>subtract</li> <li>vivid light</li> </ul>	(Inherited from the <code>layer</code> class) The mode used when compositing an object.

Property	Value Type	What it is (Continued)
<b>bounds</b>	list of real	Read-only. (Inherited from the <code>layer</code> class) A list of coordinates that describes the bounding rectangle of the layer.
<b>bounds no effects</b>	list of real	Read-only. (Inherited from the <code>layer</code> class) A list of coordinates that describes the bounding rectangle of the layer not including effects.
<b>container</b>	reference	Read-only. (Inherited from the <code>layer</code> class) The object's container.
<b>linked layers</b>	list of layers	Read-only. (Inherited from the <code>layer</code> class) The layers linked to this layer.
<b>name</b>	Unicode text	(Inherited from the <code>layer</code> class) The layer's name.
<b>opacity</b>	real	(Inherited from the <code>layer</code> class) The layer's master opacity (0.0 - 100.0).
<b>visible</b>	boolean	(Inherited from the <code>layer</code> class) Indicates whether the layer is visible.
<b>background layer</b>	boolean	Indicates whether the layer is a background layer.
<b>fill opacity</b>	real	The layer's interior opacity (0.0 - 100.0).
<b>grouped</b>	boolean	Indicates whether the layer is grouped with the layer below.
<b>kind</b>	Valid Values:  blank and white layer brightness contrast layer channel mixer layer color balance layer curves layer exposure layer gradient fill layer gradient map layer hue saturation layer inversion layer levels layer normal pattern fill layer photo filter layer posterize layer smart object layer selective color layer solid fill layer text layer threeD layer threshold layer vibrance layer video layer	Sets the layer's kind (such as 'text layer').  <b>Note:</b> You can use the <code>kind</code> property to make a background layer a normal layer; however, to make a layer a background layer, you must use <a href="#">background layer</a> .  <b>Note:</b> Valid only when the layer is empty and when <code>background layer</code> is false. See <a href="#">background layer</a> .



Property	Value Type	What it is (Continued)
<code>pixels locked</code>	boolean	Indicates whether the pixels in the layer's image can be edited using the paintbrush tool.
<code>position locked</code>	boolean	Indicates whether the pixels in the layer's image can be moved within the layer.
<code>text object</code>	<a href="#">text-object</a>	Read-only. The text item that is associated with the art layer.  <b>Note:</b> Valid only when <code>kind: text layer</code> .
<code>transparent pixels locked</code>	boolean	Indicates whether editing is confined to the opaque portions of the layer.

### Valid Commands

[adjust](#)  
[apply layer style](#)  
[clear](#)  
[copy](#)  
[copy merged](#)  
[count](#)  
[cut](#)  
[delete](#)  
[duplicate](#)  
[exists](#)  
[filter](#)  
[index](#)  
[link](#)  
[make](#)  
[merge](#)  
[move](#)  
[rasterize](#)  
[rotate](#)  
[scale](#)  
[translate](#)  
[unlink](#)

The following code creates a text layer by creating an art layer and setting its `kind` property to `text layer`.

```

tell application "Adobe Photoshop CC"
  activate

  --create a variable named theDocRef
  --assign the current (active) document to it
  set theDocRef to the current document

  --create a variable for the text layer, create the layer as an art layer object
  --and use the kind property of the art layer object to make it a text layer
  set theTextLayer to make new art layer in theDocRef with properties -
    {kind:text layer}

end tell

```

## automatic contrast

The `automatic contrast` class supplies options properties for the [adjustment options](#) class to automatically adjust the overall contrast and mixture of colors in an RGB image.

The `automatic contrast` class, which is analogous to the Auto Contrast command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when using the `adjust` command to apply an Auto Contrast adjustment to an image. The `automatic contrast` class can be used only in conjunction with the `adjust` command. It is not possible to get or create an `automatic contrast` object.

See the [adjust](#) command for additional details.

The following code sample demonstrates how to apply an Automatic Contrast adjustment using the `adjust` command of the `automatic contrast` class (inherited from the `adjustment options` super class).

```
tell application "Adobe Photoshop CC"
    adjust current layer of the current document using automatic contrast
end tell
```

## automatic levels

The `automatic levels` class supplies options properties for the [adjustment options](#) class to automatically adjust the black point and white point in an image.

The `automatic levels` class, which is analogous to the Auto Levels command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when using the `adjust` command to apply an Auto Levels adjustment to an image. The `automatic levels` class can be used only in conjunction with the `adjust` command. It is not possible to get or create an `automatic levels` object.

See the [adjust](#) command for additional details.

The following code sample demonstrates how to apply an Automatic Levels adjustment using the `adjust` command of the `automatic levels` class (inherited from the `adjustment options` super class).

```
tell application "Adobe Photoshop CC"
    adjust current layer of the current document using automatic levels
end tell
```

## average

Options that may be supplied when applying an Average filter.

The `average` class supplies properties for the [filter options](#) class. The `average` class is used only to define a record when using the `filter` command to apply an Average filter. `average` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create an `average` object.

See the [filter](#) command for additional details.

The following code sample demonstrates how to apply the average filter using the `filter` command of the `average` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using average
end tell
```

## batch options

Options to specify when running a Batch command. See [batch](#).

### Properties

Property	Value type	What it is
<code>destination</code>	Valid values: folder no destination save and close	The type of destination for the processed files (default: no destination).
<code>destination folder</code>	alias	The folder location for the processed files.  <b>Note:</b> Valid only when <code>destination: folder</code> . See <a href="#">destination</a> .
<code>error file</code>	alias	The file in which to log errors encountered.  <b>Note:</b> To display errors on the screen (and stop batch processing when errors occur) leave blank.
<code>file naming</code>	Valid values: ddm ddmm document name lower document name mixed document name upper extension lower extension upper mmdd mmddyy serial letter lower serial letter upper serial number one serial number two serial number three serial number four yyddmm yymmdd yyyyymmdd	A list of file naming options (maximum: 6).  <b>Note:</b> Valid only when <code>destination: folder</code> . See <a href="#">destination</a> .
<code>macintosh compatible</code>	boolean	Indicates whether to make the final file nameS Macintosh compatible (default: true).  <b>Note:</b> Valid only when <code>destination: folder</code> . See <a href="#">destination</a> .
<code>override open</code>	boolean	Indicates whether to override action open commands (default: false).

Property	Value type	What it is (Continued)
<code>override save</code>	boolean	Indicates whether to override save as action steps with the specified destination (default: <code>false</code> ).  <b>Note:</b> Valid only when <code>destination:folder</code> or <code>destination:save</code> and <code>close</code> . See <a href="#">destination</a> .
<code>starting serial</code>	number (long)	The starting serial number to use in naming files (default: 1).  <b>Note:</b> Valid only when <code>destination:folder</code> . See <a href="#">destination</a> .
<code>suppress open</code>	boolean	Indicates whether to suppress the file open options dialogs (default: <code>false</code> ).
<code>suppress profile</code>	boolean	Indicates whether to suppress the color profile warnings (default: <code>false</code> ).
<code>unix compatible</code>	boolean	Indicates whether to make the final file name Unix compatible (default: <code>true</code> ).  <b>Note:</b> Valid only when <code>destination:folder</code> . See <a href="#">destination</a> .
<code>windows compatible</code>	boolean	Indicates whether to make the final file names Windows compatible (default: <code>true</code> ).  <b>Note:</b> Valid only when <code>destination:folder</code> . See <a href="#">destination</a> .

## Bitmap mode options

Options that can be specified when changing the document mode to Bitmap using the `change mode` command. The `bitmap mode` class inherits properties from the [change mode options](#) class.

This class is used to define a record containing properties that specify options when changing a document's mode. `Bitmap mode options` can only be supplied in conjunction with the `change mode` command. It is not possible to get or create a `Bitmap mode options` object. See the [change mode](#) command for more details.

### Properties

Properties	Value Type	What it is
<code>angle</code>	real	The angle (in degrees) at which to orient individual dots (-180 - 180). See <a href="#">screen shape</a> .  <b>Note:</b> Valid only when <code>conversion method: halftone screen</code> .
<code>conversion method</code>	Valid Values: custom pattern diffusion dither halftone screen conversion middle threshold pattern dither	The conversion method to use (default: diffusion dither).
<code>frequency</code>	real	The number of printer dots (per inch) to use (1.0 - 999.99).  <b>Note:</b> Valid only when <code>conversion method: halftone screen</code> .
<code>pattern name</code>	Unicode text	The name of the pattern to use.  <b>Note:</b> Valid only when <code>conversion method: custom pattern</code> .  For information about pre-installed valid patterns, see Adobe Photoshop CC Help on the bitmap conversion command, or view the options available in the Custom Color drop down box after choosing the bitmap conversion command.
<code>resolution</code>	real	The output resolution (in pixels per inch) (default: 72.0).
<code>screen shape</code>	Valid values: halftone cross halftone diamond halftone ellipse halftone line halftone round halftone square	The dot shape to use.  <b>Note:</b> Valid only when <code>conversion method: halftone screen</code> .

## blur

Options that may be supplied when applying a Blur filter.

The `blur` class supplies properties for the [filter options](#) class. The `blur` class is used only to define a record when using the `filter` command to apply a Blur filter. `blur` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `blur` object.

See the [filter](#) command for additional details.

The following code sample demonstrates how to apply the blur filter using the `filter` command of the `blur` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using blur
end tell
```



## blur more

The `blur more` class supplies properties for the [filter options](#) class when using the `filter` command to apply a Blur More filter. The `blur more` class is used only to define a record when using the `filter` command to apply a Blur More filter. The `blur more` option can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `blur more` object.

See the [filter](#) command for additional details.

The following code sample demonstrates how to apply the `blur more` filter using the `filter` command of the `blur more` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using blur more
end tell
```

## BMP save options

Options that can be specified when saving a document in BMP format. See the [save](#) command for additional details. The `BMP save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a BMP file. `BMP save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `BMP save options` object.

### Properties

Property	Value Type	What it is
<code>bits per sample</code>	Valid values: A1R5G5B5 A4R4G4B4 A8R8G8B8 eight four one R5G6B5 R8G8B8 sixteen thirty two twenty four X1R5G5B5 X4R4G4B4 X8R8G8B8	The number of bits per channel (default: <code>twenty four</code> ).
<code>flipped row order</code>	boolean	Indicates whether to write the image from top to bottom (default: <code>false</code> ).  <b>Note:</b> Available only when <code>target operating system: windows</code> . See <a href="#">target operating system</a> .
<code>RLE compression</code>	boolean	Indicates whether to use RLE compression.  <b>Note:</b> Available only when <code>target operating system: windows</code> . See <a href="#">target operating system</a> .
<code>save alpha channels</code>	boolean	Indicates whether to save the alpha channels.
<code>target operating system</code>	OS2 Windows	The target OS (default: <code>Windows</code> ).

The following code creates the `myOptions` variable to hold the BMP save options, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  make new document
  set myFile to "Data:docsamples:testfiles:BmpTest.bmp"
  set myOptions to {class:BMP save options, bits per sample:sixteen, ↵
    flipped row order:false, RLE compression:true, save alpha channels:true, ↵
    target operating system:Windows}
  save current document in file myFile as BMP with options ↵
    myOptions appending no extension without copying
end tell
```

## brightness and contrast

The `brightness and contrast` class supplies options properties for the [adjustment options](#) class to adjust the tonal range of an image.

The `brightness and contrast` class, which is analogous to the Brightness/Contrast command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when applying a Brightness/Contrast adjustment to an image. The `brightness and contrast` class can be used only in conjunction with the `adjust` command. It is not possible to get or create a `brightness and contrast` object.

See the [adjust](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>brightness level</code>	integer	(-100 - 100)
<code>contrast level</code>	integer	(-100 - 100)

The following code sample demonstrates how to apply a Brightness/Contrast adjustment using the `adjust` command of the `brightness and contrast` class (inherited from the `adjustment options` super class).

```
tell application "Adobe Photoshop CC"
    adjust current layer of the current document using brightness and contrast ~
        with options {class:brightness and contrast, brightness level:10, ~
            contrast level:10}
end tell
```

## Camera RAW open options

Options that can be specified when opening a document in Camera RAW format. The `Camera RAW open options` class inherits properties from the [open options](#) class.

This class is used to define a record containing properties that specify options when opening a document in raw format. `Camera RAW open options` can be supplied only in conjunction with the `open` command. It is not possible to get or create a `Camera RAW open options` object.

### Properties

Property	Value type	What it is
<code>bits per channel</code>	Valid values: eight one sixteen thirty two	The number of bits per channel.
<code>blue hue</code>	integer	The blue hue of the shot (-100 - 100).
<code>blue saturation</code>	integer	The blue saturation of the shot (-100 - 100).
<code>brightness</code>	integer	The brightness of the shot (0 - 150).
<code>chromatic aberration by</code>	integer	The chromatic aberration B/Y of the shot (-100 - 100).
<code>chromatic aberration rc</code>	integer	The chromatic aberration R/C of the shot (-100 - 100).
<code>color noise reduction</code>	integer	The color noise reduction of the shot (0 - 100).
<code>color space</code>	Valid values: Adobe RGB color match RGB ProPhoto Rgb sRGB	The colorspace for the image.
<code>contrast</code>	integer	The contrast of the shot (-50 - 100).
<code>exposure</code>	real	The exposure of the shot (4.0 - 4.0).
<code>green hue</code>	integer	The green hue of the shot (-100 - 100).
<code>green saturation</code>	integer	The green saturation of the shot (-100 - 100).
<code>luminance smoothing</code>	integer	The luminance smoothing of the shot (0 - 100).
<code>red hue</code>	integer	The red hue of the shot (-100 - 100).
<code>red saturation</code>	integer	The red saturation of the shot (-100 - 100).
<code>resolution</code>	real	The resolution of the document in pixels per inch (1 - 999).
<code>saturation</code>	integer	The saturation of the shot (-100 - 100).

Property	Value type	What it is (Continued)
<b>settings</b>	Valid values: camera default custom settings selected image	The global settings for all Camera RAW options. Default value: camera default.
<b>shadows</b>	integer	The shadows of the shot (0 - 100).
<b>shadow tint</b>	integer	The shadow tint of the shot (-100 - 100).
<b>sharpness</b>	integer	The sharpness of the shot (0 - 100).
<b>size</b>	Valid values: extra large large maximum medium minimum small	The size of the new document. extra large=5120 x 3413 large=4096 x 2731 maximum=6144 x 4096 medium=3072 x 2048 minimum=1536 x 1024 small=2048 x 1365
<b>temperature</b>	integer	The temperature of the shot (2000 - 50000).
<b>tint</b>	integer	The tint of the shot (-150 - 150).
<b>vignetting amount</b>	integer	The vignetting amount of the shot (-100 - 100).
<b>vignetting midpoint</b>	integer	The vignetting mid point of the shot (-100 - 100).
<b>white balance</b>	Valid values: as shot auto cloudy custom camera settings daylight flash fluorescent shade tungston	The white balance options for the image.

The following code opens a camera raw document.

```
tell application "Adobe Photoshop CC"
    set myFilePath to alias "Data:docsamples:testfiles:CanonG1.CRW"
    open myFilePath as Camera RAW with options ↵
        {class:Camera RAW open options, bits per channel:eight, ↵
        color noise reduction:20, temperature:4200, white balance:cloudy}
end tell
```

## change mode options

Options that can be supplied when changing a document's mode using the `change mode` command. See [change mode](#) for additional details.

The following classes inherit properties from the `change mode options` class: [Bitmap mode options](#), [indexed mode options](#).

### Valid Commands

[change mode](#)

## channel, channels

A channel in a document. A channel can be either a component channel representing a color of the document color model or an alpha channel. You can use alpha channels to store masked areas, selected areas or spot colors.

### Properties

Property	Value Type	What it is
<code>best type</code>	type class	Read-only. The best type for the object's value.
<code>class</code>	type class	Read-only. The object's class.
<code>default type</code>	type class	Read-only. The default type for the object's value.
<code>index</code>	integer	Read-only. The index of this instance of the object.
<code>properties</code>	record	All of this objects properties returned in a single record.
<code>channel color</code>	color value	The channel's color.  <b>Note:</b> Not valid when <code>kind: component channel</code> . See <a href="#">kind</a> .
<code>container</code>	reference	The object's container.
<code>histogram</code>	list of integers	Read-only. A histogram of color values for the channel.  <b>Note:</b> Not valid when <code>kind: component channel</code> . For component channel histogram values, use the <code>histogram</code> property of the document object instead. See <a href="#">histogram</a> on page 52.
<code>kind</code>	Valid values:  component channel masked area channel selected area channel spot color channel	The type of channel.
<code>name</code>	Unicode text	The channel's name.
<code>opacity</code>	real	The opacity (as percent) to use for alpha channels or the solidity to use for spot channels (0 - 100).  <b>Note:</b> Valid only when <code>kind: masked area</code> or <code>kind: selected area</code> .
<code>visible</code>	boolean	Indicates whether the channel is visible.

### Valid Commands

[count](#)  
[delete](#)  
[duplicate](#)



[exists](#)

[index](#)

[make](#)

[merge](#)

## clouds

Options that may be supplied when applying a Clouds filter.

The `clouds` class supplies properties for the [filter options](#) class. The `clouds` class is used only to define a record when using the `filter` command to apply a Clouds filter. `clouds` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `clouds` object.

See the [filter](#) command for additional details.

The following code sample demonstrates how to apply the clouds filter using the `filter` command of the `clouds` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using clouds
end tell
```

## CMYK color

Options that can be specified for a CMYK color: numeric values for the component colors. The `CMYK color` class inherits properties from the [color value](#) class.

This class a property of the [color value](#) object and is used to define a record that specifies options when creating a color value.

**Note:** If the `mode` of a document is RGB and you specify the color value for a stroke, foreground, or background color property using a `CMYK color` object, Adobe Photoshop CC translates the CMYK color specification into an RGB color specification. The same thing happens if the document's color mode is CMYK and you specify colors using a `RGB color` object. Since this translation can cause information loss you should specify colors using the color class that matches the document's color mode.

### Properties

Property	Value Type	What it is
<code>cyan</code>	real	The cyan color value (as percent) (0.0 - 100.0).
<code>magenta</code>	real	The magenta color value (as percent) (0.0 100.0).
<code>yellow</code>	real	The yellow color value (as percent) (0.0 - 100.0).
<code>black</code>	real	The black color value (as percent) (0.0 - 100.0).

For an example of how to create and use color values, see [color value](#) and [RGB color](#).

## color balance

The `color balance` class specifies options for the [adjustment options](#) class to change the overall mixture of colors in an image for generalized color correction.

The `color balance` class, which is analogous to the Color Balance command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when applying a Color Balance adjustment to an image. The `color balance` class can be used only in conjunction with the `adjust` command. It is not possible to get or create a `color balance` object.

See the [adjust](#) command for additional details.

### Properties

Property	Value Type	What it is
<b>shadows</b>	list of integers	The list of adjustments for shadows (three values (-100 - 100 required). The specified values indicate the color levels for component colors of the document mode, either RGB or CMYK. For CMYK mode, the values represent C, M, and Y.
<b>midtone</b> s	list of integers	The list of adjustments for midtones (three values (-100 - 100 required). The specified values indicate the color levels for component colors of the document mode, either RGB or CMYK. For CMYK mode, the values represent C, M, and Y.
<b>highlights</b>	list of integers	The list of adjustments for highlights (three values (-100 - 100 required). The specified values indicate the color levels for component colors of the document mode, either RGB or CMYK. For CMYK mode, the values represent C, M, and Y.
<b>preserve luminosity</b>	boolean	Indicates whether to preserve the image luminosity.

The following code sample demonstrates how to apply a color balance adjustment using the `adjust` command of the `color balance` class (inherited from the `adjustment options` super class). This code adjusts only the shadows in the image.

```
tell application "Adobe Photoshop CC"
  adjust current layer of the current document using color balance -
    with options {class:color balance, shadows:{45, 4, 5}, -
      preserve luminosity:false}
end tell
```

## color sampler, color samplers

A color sampler for the document.

**Note:** For additional information about color samplers, see Adobe Photoshop CC help on the Color SamplerTool.

### Properties

Property	Value type	What it is
<code>best type</code>	type class	Read-only. The best type for the object's value.
<code>class</code>	type class	Read-only. The object's class.
<code>default type</code>	type class	Read-only. The default type for the object's value.
<code>index</code>	integer	Read-only. The index of this instance of the object.
<code>properties</code>	record	All of this object's properties returned in a single record.
<code>position</code>	list of real	Read-only. The position of the color sampler in the document. This property can be set using the <a href="#">make</a> command.
<code>color sampler color</code>	<a href="#">color value</a>	Read-only. The color of the color sampler.

### Valid commands:

[count](#)  
[delete](#)  
[exists](#)  
[index](#)  
[make](#)  
[open](#)

## color value

A color value. The following classes inherit properties from the `color value` class: [CMYK color](#), [gray color](#), [HSB color](#), [Lab color](#), [no color](#), [RGB color](#), [RGB hex color](#).

The following script creates an RGB color value to use as the fill color for the selection.

```
tell application "Adobe Photoshop CC"
  make new art layer at beginning of current document with properties -
    {name:"MyBlendLayer", blend mode:normal}
  select all current document
  fill selection of current document with contents -
    {class:RGB color, red:255, green:0, blue:0}
end tell
```

### Valid Commands

[convert color](#)  
[equal colors](#)  
[web safe color](#)

## contact sheet options

Options that can be specified for a contact sheet. See [create contact sheet](#).

### Properties

Property	Value Type	What it is
<b>across first</b>	boolean	Indicates whether to place the images horizontally (left to right, then top to bottom) first (default: <code>true</code> ).
<b>auto spacing</b>	boolean	Indicates whether to auto space the images (default: <code>true</code> ).
<b>best fit</b>	boolean	Indicates whether to rotate images for the best fit (default: <code>false</code> ).
<b>caption</b>	boolean	Indicates whether to use the filename as a caption for the image (default: <code>true</code> ).
<b>column count</b>	integer	The number of columns to include (1 - 100; default: 5).
<b>flatten final</b>	boolean	Indicates whether to flatten all layers in the final document (default: <code>true</code> ).
<b>font</b>	Valid values: Arial Courier New Helvetica Times New Roman	The font used for the caption (default: <code>arial</code> ).
<b>font size</b>	integer	The font size to use for the caption (default: 12).
<b>height</b>	integer	The height (in pixels) of the resulting document (100 - 2900; default: 720).
<b>horizontal offset</b>	integer	The horizontal spacing (in pixels) between images (0 - 29000; default: 1).
<b>mode</b>	Valid values: bitmap CMYK grayscale Lab RGB	The document color mode (default: <code>RGB</code> ).
<b>resolution</b>	real	The resolution of the document in pixels per inch (35 - 1200; default: 72.0).
<b>row count</b>	integer	The number of rows to use (1 - 100; default: 6).

Property	Value Type	What it is (Continued)
<code>vertical offset</code>	integer	The vertical spacing (in pixels) between images (0 - 29000; default: 1). <b>Note:</b> Valid only when <code>use auto spacing: false</code> .
<code>width</code>	integer	The width (in pixels) of the resulting document (100 - 2900; default: 576).



## count item, count items

A counted item in the document. See [auto count](#).

**Note:** The count item feature is available in the Extended Version only.

For additional information about count items, see Adobe Photoshop CC help on the Count Tool.

### Properties

Property	Value type	What it is
<b>best type</b>	type class	Read-only. The best type for the object's value.
<b>class</b>	type class	Read-only. The object's class.
<b>default type</b>	type class	Read-only. The default type for the object's value.
<b>index</b>	integer	Read-only. The index of this instance of the object.
<b>properties</b>	record	All of this object's properties returned in a single record.
<b>position</b>	list of real	Read-only. The position of the count item in the document. This property can be set when using the <a href="#">make</a> command.

#### Valid commands:

[count](#)  
[delete](#)  
[exists](#)  
[index](#)  
[make](#)

## curves

The `curves` class supplies options for the [adjustment options](#) class to adjust the tonal range of an image. You can also use the curves object to make precise adjustments to individual color channels within an image.

The `curves` class, which is analogous to the Curves command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when applying a Curves adjustment to an image. The `curves` class can be used only in conjunction with the `adjust` command. It is not possible to get or create a `curves` object.

See the [adjust](#) command for additional details.

## Properties

Property	Value Type	What it is
<code>curve points</code>	list of lists	The list of lists of coordinates (x and y) that indicate the points that describe the curve. (You must include 2 - 14 points). <b>Tip:</b> For more information, please refer to Adobe Photoshop CC Help.

The following code sample demonstrates how to apply a Curves adjustment using the `adjust` command of the `curves` class (inherited from the `adjustment options` super class).

```
--curve points are in {input, output} pairs
--{0,0} & {255,255} are the initial points when you open curves dialog.
tell application "Adobe Photoshop CC"
    adjust current layer of the current document using curves -
        with options {class:curves, -
            curve points:{{0, 0}, {25, 10}, {96, 166}, {189, 179}, {255, 255}}}
end tell
```

## custom filter

Options that may be supplied when applying a Custom filter.

The `custom filter` class supplies properties for the `filter options` class. The `custom filter` class is used only to define a record whose properties specify options when applying a Custom filter. `custom filter options` can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `custom filter` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<b>characteristic</b>	list of integers	The filter characteristics (array of 25 values; corresponds to a left to right, top to bottom traversal of the array presented in the user interface).  <b>Note:</b> Required parameter values define the filter. Refer to Adobe Photoshop CC Help for specific instructions.
<b>scaling</b>	integer	
<b>offset</b>	integer	

The following code sample demonstrates how to apply a custom filter using the `filter` command of the `custom filter` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using custom filter with options
    {characteristics:{0, 0, 0, 0, 0, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 1, 1, 1, 1, 1, 0, 0, 0,
    0, 0}, scaling:2, offset:0}
end tell
```

## deinterlace

Options that may be supplied when applying a De-Interlace filter.

The `deinterlace` class supplies properties for the [filter options](#) class. The `deinterlace` class is used only to define a record whose properties specify options when applying a De-Interlace filter. `deinterlace` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `deinterlace` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>eliminate</code>	Valid values: even fields odd fields	The type of fields to eliminate.
<code>create new fields by</code>	Valid values: duplication interpolation	The method to use to create new fields.

The following code sample demonstrates how to apply the De-Interlace filter using the `filter` command of the `deinterlace` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
  filter current layer of the current document using deinterlace -
    with options {class:deinterlace, eliminate:odd fields, -
      create new fields by:duplication}
end tell
```

## desaturate

The `desaturate` class supplies options for the [adjustment options](#) class to convert a color image to a grayscale image in the current color mode by assigning equal values of each component color to each pixel.

The `desaturate` class, which is analogous to the Desaturate command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when using the `adjust` command to apply a desaturation adjustment to a selected layer. The `desaturate` class can be used only in conjunction with the `adjust` command. It is not possible to get or create a `desaturate` object.

See the [adjust](#) command for additional details.

The following code sample demonstrates how to apply a Desaturate adjustment using the `adjust` command of the `desaturate` class (inherited from the `adjustment options` super class).

```
tell application "Adobe Photoshop CC"
    adjust current layer of the current document using desaturate ~
        with options {class:desaturate}
end tell
```

## despeckle

Options that may be supplied when applying a Despeckle filter.

The `despeckle` class supplies properties for the [filter options](#) class. The `despeckle` class is used only to define a record whose properties specify options when using the `filter` command to apply a Despeckle filter. `despeckle` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `despeckle` object.

See the [filter](#) command for additional details.

The following code sample demonstrates how to apply the despeckle filter using the `filter` command of the `despeckle` filter class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using despeckle -
        with options {class:despeckle}
end tell
```

## DICOM open options

Settings related to opening a DICOM format document. The `DICOM open options` class inherits properties from the [open options](#) class.

This class is used to define a record containing properties that specify options when opening a document in raw format. `DICOM open options` can be supplied only in conjunction with the `open` command. It is not possible to get or create a `DICOM open options` object.

**Note:** `DICOM open options` is available in the Extended Version only.

### Properties

Property	Value Type	What it is
<code>anonymize</code>	boolean	Indicates whether to make the patient information anonymous.
<code>columns</code>	integer	Number of columns in n-up configuration.
<code>reverse</code>	boolean	Indicates whether to reverse (invert) the image.
<code>rows</code>	integer	Number of rows in n-up configuration.
<code>show_overlays</code>	boolean	Indicates whether to show overlays.
<code>windowlevel</code>	integer	The contrast of the image in Hounsfield units.
<code>windowwidth</code>	integer	The brightness of the image in Hounsfield units.

## difference clouds

Options that may be supplied when applying a Difference Clouds filter.

The `difference clouds` class supplies properties for the [filter options](#) class. The `difference clouds` class is used only to define a record whose properties specify options when using the `filter` command to apply a Difference Clouds filter. `difference clouds` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `difference clouds` object.

See the `filter` command for additional details.

The following code sample demonstrates how to apply the difference clouds filter using the `filter` command of the `difference clouds` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using difference clouds -
        with options {class:difference clouds}
end tell
```



## diffuse glow

Options that may be supplied when applying a Diffuse Glow filter.

The `diffuse glow` class supplies properties for the `filter options` class. The `diffuse glow` class is used only to define a record whose properties specify options when applying a Diffuse Glow filter. `diffuse glow` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `diffuse glow` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>graininess</code>	integer	(0 - 10)
<code>glow amount</code>	integer	(0 - 20)
<code>clear amount</code>	integer	(0 - 20)

The following code sample demonstrates how to apply the diffuse glow filter using the `filter` command of the `diffuse glow` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using diffuse glow -
        with options {class:diffuse glow, graininess:5, glow amount:10, -
            clear amount:10}
end tell
```

## displace filter

Options that may be supplied when applying a Displace filter.

The `displace filter` class supplies properties for the [filter options](#) class. The `displace filter` class is used only to define a record whose properties specify options when applying a Displace filter. `displace filter` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `displace filter` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>horizontal scale</code>	integer	(-999 - 999)
<code>vertical scale</code>	integer	(-999 - 999)
<code>kind</code>	Valid values: stretch to fit tile	The displacement map type.
<code>undefined areas</code>	Valid values: repeat edge pixels wrap around	The method to use to treat undistorted areas.
<code>displacement map definition</code>	alias	The location of the desired displacement map.

The following code sample demonstrates how to apply the Displace filter using the `filter` command of the `displace` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using displace filter ↵
    with options {class:displace filter, horizontal scale:250, ↵
        vertical scale:350, kind:tile, undefined areas:repeat edge pixels, ↵
        displacement map definition:"Data:docsamples:testfiles:displace.psd"}
end tell
```

## document, documents

The active containment object for layers and all other objects in the script; the basic canvas for the file.

**Note:** In Adobe Photoshop CC, a document can also be referred to as an image or a canvas.

### Elements

Element	Refer to by
art layer	name, numeric index, as a range of elements, before/after another element, satisfying a test
channel	name, numeric index, as a range of elements, before/after another element, satisfying a test
color sampler	name, numeric index, as a range of elements, before/after another element, satisfying a test
count item	name, numeric index, as a range of elements, before/after another element, satisfying a test
history state	name, numeric index, as a range of elements, before/after another element, satisfying a test
layer comp	name, numeric index, as a range of elements, before/after another element, satisfying a test
layer	name, numeric index, as a range of elements, before/after another element, satisfying a test
layer set	name, numeric index, as a range of elements, before/after another element, satisfying a test
path item	name, numeric index, as a range of elements, before/after another element, satisfying a test

### Properties

Property	Value Type	What it is
<b>best type</b>	type class	Read-only. The best type for the object's value.
<b>class</b>	type class	Read-only. The object's class.
<b>default type</b>	type class	Read-only. The default type for the object's value.
<b>index</b>	integer	Read-only. The index of this instance of the object.
<b>properties</b>	record	The object's properties returned in a single record.

Property	Value Type	What it is (Continued)
<code>background layer</code>	art layer	Read-only. The background layer for the document.  <b>Note:</b> Valid only for documents that have a background layer.
<code>bits per channel</code>	Valid values: eight one sixteen thirty two	The number of bits per channel.
<code>color profile kind</code>	Valid values: none working	The type of color profile management for the document.  <b>Note:</b> If you want to set a custom color profile, do not set a value for <code>color profile kind</code> , but set the appropriate <code>color profile name</code> .  <b>Caution:</b> Assigning <code>color profile kind</code> to <code>working</code> when the <code>color profile kind</code> is already set to <code>working</code> results in a Photoshop error.
<code>color profile name</code>	Unicode text	The name of color profile for the document.  <b>Note:</b> Valid no value is specified for <code>color profile kind</code> (to indicate a custom color profile).
<code>component channels</code>	list of channels	Read-only. A list of the component color channels.
<code>current channels</code>	list of channel	The selected channels.
<code>current history brush source</code>	history state	The current history state to use with the history brush.
<code>current history state</code>	history state	The selected history state.
<code>current layer</code>	layer	The selected layer.
<code>file path</code>	alias	Read-only. The full path name of the document.
<code>height</code>	real	Read-only. The document height (unit value).  <b>Note:</b> This property can be set when using the <a href="#">make</a> command for <code>document</code> .
<code>histogram</code>	list of 256 integers	Read-only. A histogram of values for the composite document.  <b>Note:</b> Valid only when <code>mode</code> : <code>RGB</code> ; <code>mode</code> : <code>CMYK</code> ; or <code>mode</code> : <code>indexed color</code> . See <a href="#">mode</a> .

Property	Value Type	What it is (Continued)
<code>info</code>	<a href="#">info-object</a>	Read-only. The document metadata.
<code>initial fill</code>	Valid values: transparent use background color white	Read-only. The initial fill. <b>Note:</b> Valid only when used as an option with the 'make new document' command. See <a href="#">make</a> .
<code>managed</code>	boolean	Read-only. Indicates whether the document is a workgroup document.
<code>measurement scale</code>	<a href="#">measurement scale</a>	Read-only. The measurement scale for the document.
<code>mode</code>	Valid values: bitmap CMYK duotone grayscale indexed color Lab multichannel RGB	Read-only. The color profile for the document. <b>Note:</b> This property can be set when using the <a href="#">make</a> command for document.
<code>modified</code>	boolean	Read-only. Indicates whether the document has been modified since the last save.
<code>name</code>	Unicode text	Read-only. The document's name. <b>Note:</b> This property can be set when using the <a href="#">make</a> command for document.
<code>pixel aspect ratio</code>	real	The (custom) pixel aspect ratio to use (0.100 - 10.000).
<code>quick mask mode</code>	boolean	Indicates whether the document is in the quick mask mode.
<code>resolution</code>	real	Read-only. The document's resolution (in pixels per inch). <b>Note:</b> This property can be set when using the <a href="#">make</a> command for document.
<code>selection</code>	selection-object	Read-only. The selected area of the document.
<code>width</code>	real	Read-only. The document width (unit value). <b>Note:</b> This property can be set when using the <a href="#">make</a> command for document.
<code>XMP metadata</code>	XMP metadata	Read-only. Camera raw settings for the image. <b>Note:</b> Valid only for documents opened in Camera Raw format.

**Valid Commands**

[auto count](#)  
[change mode](#)  
[close](#)  
[convert](#)  
[count](#)  
[crop](#)  
[deselect](#)  
[doc duplicate](#)  
[duplicate](#)  
[exists](#)  
[export](#)  
[flatten](#)  
[flip canvas](#)  
[import annotations](#)  
[index](#)  
[load](#)  
[make](#)  
[merge visible layers](#)  
[paste](#)  
[print](#)  
[resize canvas](#)  
[resize image](#)  
[reveal all](#)  
[rotate canvas](#)  
[save](#)  
[select](#)  
[select all](#)  
[split channels](#)  
[trap](#)  
[trim](#)

## dust and scratches

Options that may be supplied when applying a Dust & Scratches filter.

The `dust and scratches` class supplies properties for the [filter options](#) class. The `dust and scratches` class is used only to define a record whose properties specify options when applying a Dust & Scratches filter. `dust and scratches` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `dust and scratches` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>radius</code>	integer	(1 - 100) in pixels.
<code>threshold</code>	integer	(0 - 255)

The following code sample demonstrates how to apply the Dust & Scratches filter using the `filter` command of the `dust and scratches` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using dust and scratches ↵
        with options {class:dust and scratches, radius:15, threshold:212}
    end tell
```

## EPS open options

Settings related to opening a generic EPS document. The `EPS open options` class inherits properties from the [open options](#) class.

This class is used to define a record containing properties that specify options when opening a document in EPS format. `EPS open options` can be supplied only in conjunction with the `open` command. It is not possible to get or create a `EPS open options` object.

### Properties

Property	Value Type	What it is
<code>constrain proportions</code>	boolean	Indicates whether to constrain the image proportions.
<code>height</code>	real	The image height (unit value).
<code>mode</code>	Valid values: CMYK grayscale Lab RGB	The color profile to use as the document mode.
<code>resolution</code>	real	The resolution of the document (in pixels per inch).
<code>use antialias</code>	boolean	Indicates whether to use antialias.
<code>width</code>	real	The image width (unit value).

The following code opens an EPS document.

```
tell application "Adobe Photoshop CC"
  set myFilePath to alias "Data:docsamples:testfiles:AI11.eps"
  open myFilePath as EPS with options -
    {class:EPS open options, height:pixels 100, -
      width:pixels 200, mode:RGB, resolution:72, -
      use antialias:true, constrain proportions:true}
end tell
```



## EPS save options

Options that can be specified when saving a document in EPS format. See the [save](#) command for additional details. The `EPS save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as an EPS file. `EPS save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create an `EPS save options` object.

### Properties

Property	Value Type	What it is
<code>embed color profile</code>	boolean	Indicates whether to embed the color profile in the document.
<code>encoding</code>	Valid Values: ASCII binary high quality JPEG low quality JPEG maximum quality JPEG medium quality JPEG	The type of encoding to use (default: <code>binary</code> ).
<code>halftone screen</code>	boolean	Indicates whether to include the halftone screen (default: <code>false</code> ).
<code>image interpolation</code>	boolean	Indicates whether to use image interpolation (default: <code>false</code> ).
<code>PostScript color management</code>	boolean	Indicates whether to use Postscript color management (default: <code>false</code> ).
<code>preview type</code>	Valid Values: eight bit Mac OS eight bit TIFF JPEG Mac OS monochrome Mac OS monochrome TIFF none	The preview type (default: <code>monochrome TIFF</code> ).
<code>transfer function</code>	boolean	Indicates whether to include the Transfer functions to compensate for dot gain between the image and film (default: <code>false</code> ).
<code>transparent whites</code>	boolean	Indicates whether to display white areas as transparent.  <b>Note:</b> Valid only when <a href="#">mode</a> of document is <code>bitmap</code> .
<code>vector data</code>	boolean	Indicates whether to include vector data.  <b>Note:</b> Valid only if the document includes vector data (text).

The following code creates the `myOptions` variable to hold the `EPS save options`, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  make new document
  set myFile to "Data:docsamples:testfiles:EPSSave.eps"
  set myOptions to {class:EPS save options, embed color profile:true}
  save current document in file myFile as Photoshop EPS with options ↵
    myOptions appending no extension without copying
end tell
```

## equalize

The `equalize` class supplies options for the [adjustment options](#) class to convert a color image to redistribute the brightness values of the pixels in an image so that they more evenly represent the entire range of brightness levels.

The `equalize` class, which is analogous to the Equalize command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when using the `adjust` command to apply an Equalize adjustment to a selected area. The `equalize` class can be used only in conjunction with the `adjust` command. It is not possible to get or create an `equalize` object.

See the [adjust](#) command for additional details.

The following code sample demonstrates how to apply a Equalize adjustment using the `adjust` command of the `equalize` class (inherited from the `adjustment options` super class).

```
tell application "Adobe Photoshop CC"
    adjust current layer of the current document using equalize -
        with options {class:equalize, -
            curve points:{{45, 4}, {42, 9}, {40, 17}, {36, 22}}}
end tell
```

## export options

Options used with the `export` command. The following classes inherit properties from the `export options` class:

[Illustrator paths export options](#), [save for web export options](#)

### Valid Commands

[export](#)

## filter options

Options used with the `filter` command.

The following classes inherit properties from the `filter options` class: [add noise](#), [average](#), [blur](#), [blur more](#), [clouds](#), [custom filter](#), [deinterlace](#), [despeckle](#), [difference clouds](#), [diffuse glow](#), [displace filter](#), [dust and scratches](#), [gaussian blur](#), [glass filter](#), [high pass](#), [lens blur](#), [maximum filter](#), [median noise](#), [minimum filter](#), [motion blur](#), [NTSC colors](#), [ocean ripple](#), [offset filter](#), [pinch](#), [polar coordinates](#), [radial blur](#), [ripple](#), [sharpen](#), [sharpen edges](#), [sharpen more](#), [shear](#), [smart blur](#), [spherize](#), [texture fill](#), [twirl](#), [unsharp mask](#), [wave filter](#), [zigzag](#).

### Valid Commands

[filter](#)

## font, fonts

An installed font. The `font` object is an element of the `application` class. You use the `font` object to retrieve information about the fonts installed on your computer. See [application](#) on page 12 for more information.

### Properties

Property	Value Type	What it is
<code>best type</code>	type class	Read-only. The best type for the object's value.
<code>class</code>	type class	Read-only. The object's class.
<code>default type</code>	type class	Read-only. The default type for the object's value.
<code>index</code>	integer	Read-only. The index of this instance of the object.
<code>properties</code>	record	All of this object's properties returned in a single record.
<code>family</code>	Unicode text	Read-only. The font family.
<code>name</code>	Unicode text	Read-only. The text face name.
<code>PostScript name</code>	Unicode text	Read-only. The font's PostScript name.
<code>style</code>	Unicode text	Read-only. The font's style name.

The following code uses the standard AppleScript commands `get` and `prompt` to display a dialog that lists the fonts installed on the computer running the script.

```
tell application "Adobe Photoshop CC"
    set fontsInstalled to name of fonts
    log fontsInstalled
end tell
```

#### Valid commands:

[count](#)  
[exists](#)  
[index](#)

## gallery banner options

Options that can be specified for a Web photo gallery banner.

This class a property of the [gallery options](#) object and is used to define a record that specifies options when creating a Web photo gallery. Gallery banner options can only be supplied in conjunction with the `create photo gallery` command. It is not possible to get or create a Gallery banner options object.

See the [create photo gallery](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>contact info</code>	Unicode text	Web photo gallery contact info.
<code>date</code>	Unicode text	Web photo gallery date (default: current date).
<code>font</code>	Valid values: Arial Courier New Helvetica Times New Roman	The font setting for the banner text (default: <code>Arial</code> ).
<code>font size</code>	integer	The font size for the banner text (1 - 7; default: 3).
<code>photographer</code>	Unicode text	Web photo gallery photographer.
<code>site name</code>	Unicode text	Web photo gallery site name (default: <code>Adobe Web Photo Gallery</code> ).

## gallery color options

Color options that can be specified for a Web photo gallery.

This class is a property of the [gallery options](#) object and is used to define a record that specifies options when creating a Web photo gallery. Gallery color options can only be supplied in conjunction with the `create photo gallery` command. It is not possible to get or create a `Gallery color options` object.

See the [create photo gallery](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>active link color</code>	RGB color	The color used to indicate an active link.
<code>background color</code>	RGB color	The background color.
<code>banner color</code>	RGB color	The banner color.
<code>link color</code>	RGB color	The color used to indicate a link.
<code>text color</code>	RGB color	The text color.
<code>visited link color</code>	RGB color	The color used to indicate a visited link.



## gallery images options

Options for the larger images (not thumbnails) in a Web photo gallery.

This class a property of the [gallery options](#) object and is used to define a record that specifies options when creating a Web photo gallery. Gallery images options can only be supplied in conjunction with the `create photo gallery` command. It is not possible to get or create a Gallery images options object.

See the [create photo gallery](#) command for additional details.

**Note:** See [gallery thumbnail options](#) for information on specifying thumbnail image options.

### Properties

Property	Value Type	What it is
<code>border</code>	integer	The width (in pixels) of the border between images (0 - 99; default: 0).
<code>caption</code>	boolean	Indication of whether to generate image captions (default: <code>false</code> ).
<code>dimension</code>	integer	The dimensions (in pixels) of a resized image (default: 350).
<code>font</code>	Valid values: Arial Courier New Helvetica Times New Roman	The font to use for captions (default: <code>Arial</code> ).
<code>font size</code>	integer	The font size to use for captions (1 - 7; default: 3).
<code>image quality</code>	integer	The quality setting for JPEG images (0 - 12; default: 5).
<code>include copyright</code>	boolean	Indication of whether to include copyright information in captions (default: <code>false</code> ).
<code>include credits</code>	boolean	Indication of whether to include credits information in captions (default: <code>false</code> ).
<code>include file name</code>	boolean	Indication of whether to include the file name in captions (default: <code>false</code> ).
<code>include title</code>	boolean	Indication of whether to include the title in captions (default: <code>false</code> ).
<code>numeric links</code>	boolean	Indication of whether to add numeric links (default: <code>true</code> ).

<b>Property</b>	<b>Value Type</b>	<b>What it is (Continued)</b>
<code>resize constraint</code>	Valid values: <code>constrain both</code> <code>constrain height</code> <code>constrain width</code>	Indication of whether and how the image should be constrained (default: <code>constrain both</code> ).
<code>resize images</code>	<code>boolean</code>	Indication of whether to automatically resize images for placement on the gallery pages (default: <code>true</code> ).

## gallery options

Options for the `create photo gallery` command.

### Properties

Property	Value Type	What it is
<code>banner options</code>	<a href="#">gallery banner options</a>	Options related to banner settings.
<code>custom color options</code>	<a href="#">gallery color options</a>	Options related to custom color settings.
<code>email address</code>	Unicode text	The email address to show on the web page.
<code>images options</code>	<a href="#">gallery images options</a>	Options related to images settings.
<code>layout style</code>	Unicode text	The style to use for laying out the web page (default: <code>Centered Frame 1 - Basic</code> ).
<code>preserve all metadata</code>	boolean	Indication of whether to save the metadata in JPEG files (default: <code>false</code> ).
<code>security options</code>	<a href="#">gallery security options</a>	Options related to security settings.
<code>short extension</code>	boolean	Indication of whether to use the short (.htm), as opposed to the long (.html) web page file name extension (default: <code>true</code> ).
<code>size attributes</code>	boolean	Indication of whether to add width and height attributes for images (default: <code>true</code> ).
<code>sub folders</code>	boolean	Indication of whether to include files found in the in sub folders of the input folder (default: <code>true</code> ).
<code>thumbnail options</code>	<a href="#">gallery thumbnail options</a>	Options related to thumbnail settings.
<code>UTF8 encoding</code>	boolean	Indication of whether the web page should use UTF-8 encoding (default: <code>false</code> ).

### Valid Commands

[create photo gallery](#)

## gallery security options

Options for security text in a Web photo gallery.

This class a property of the [gallery options](#) object and is used to define a record that specifies options when creating a Web photo gallery. Gallery security options can only be supplied in conjunction with the `create photo gallery` command. It is not possible to get or create an `Gallery security options` object.

See the [create photo gallery](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>content</code>	Valid values: gallery caption gallery copyright gallery credit gallery custom text gallery filename gallery none gallery title	The content to use for Web photo gallery security text (default: <code>gallery none</code> ).
<code>custom text</code>	Unicode text	Custom text to use for Web photo gallery security text.  <b>Note:</b> Valid only when <code>content: custom text</code> . See <a href="#">content</a> .
<code>font</code>	Arial Courier New Helvetica Times New Roman	The font to use for Web photo gallery security text (default: <code>Arial</code> ).
<code>font size</code>	integer	The font size to use for Web photo gallery security text (minimum 1; default: 36).
<code>opacity</code>	integer	The opacity (as percent) to use for web page security text (default: 100).
<code>text color</code>	<a href="#">RGB color</a>	The web page security text color.
<code>text position</code>	Valid values: gallery centered gallery lower left gallery lower right gallery upper left gallery upper right	The position of web page security text (default: <code>gallery centered</code> ).
<code>text rotate</code>	Valid values: clock wise 45 clock wise 90 counter clock wise 45 counter clock wise 90 zero	The orientation to use for web page security text (default: <code>zero</code> ).

## gallery thumbnail options

Options for the thumbnail images in a Web photo gallery.

This class a property of the [gallery options](#) object and is used to define a record that specifies options when creating a Web photo gallery. `Gallery thumbnail options` can only be supplied in conjunction with the `create photo gallery` command. It is not possible to get or create an `Gallery thumbnail options` object.

See the [create photo gallery](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>border</code>	integer	The width (in pixels) of the border around thumbnail images (0 - 99; default: 0).
<code>caption</code>	boolean	Indication of whether to display captions (default: <code>false</code> ).
<code>column count</code>	integer	The number of columns on the page (default: 5).
<code>dimension</code>	integer	Thumbnail dimensions in pixels (default: 75).
<code>font</code>	Valid values:  Arial Courier New Helvetica Times New Roman	The font to use (default: <code>Arial</code> ).
<code>font size</code>	integer	The font size for thumbnail images text (1 - 7; default: 3).
<code>include copyright</code>	boolean	Indication of whether to include copyright information for thumbnails (default: <code>false</code> ).
<code>include credits</code>	boolean	Indication of whether to include credits for thumbnails (default: <code>false</code> ).
<code>include file name</code>	boolean	Indication of whether to include file names for thumbnails (default: <code>false</code> ).
<code>include title</code>	boolean	Indication of whether to include titles for thumbnails (default: <code>false</code> ).
<code>row count integer</code>	integer	The number of rows on the page (default: 3).
<code>size</code>	Valid values:  <code>gallery custom</code> <code>gallery large</code> <code>gallery medium</code> <code>gallery small</code>	The thumbnail image size (default: <code>gallery medium</code> ).

## gaussian blur

Options that may be supplied when applying a Gaussian Blur filter.

The `gaussian blur` class supplies properties for the [filter options](#) class. The `gaussian blur` class is used only to define a record whose properties specify options when applying a Gaussian Blur filter. `gaussian blur` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `gaussian blur` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>radius</code>	real	The radius in pixels in which to apply the filter.

The following code sample demonstrates how to apply the Gaussian Blur filter using the `filter` command of the `gaussian blur` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
  filter current layer of the current document using gaussian blur ~
    with options {class:gaussian blur, radius:200}
end tell
```

## GIF save options

Options that can be specified when saving a document in GIF format. See the [save](#) command for additional details. The `GIF save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a GIF file. `GIF save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `GIF save options` object.

### Properties

Property	Value Type	What it is
<code>colors in palette</code>	integer	The number of colors in the Color palette.  <b>Note:</b> Valid only when palette: local adaptive; palette: local perceptual; palette: local selective; palette: Mac OS system; palette: uniform; palette: web; OR palette: Windows system. See <a href="#">palette</a> .
<code>dither</code>	Valid values:  diffusion noise none pattern	The dither type to use.
<code>dither amount</code>	integer	The amount of dither to use (1 - 100). (default: 75)  <b>Note:</b> Valid only when <code>dither: diffusion</code> . See <a href="#">dither</a> .
<code>forced colors</code>	Valid values:  black and white none primaries web	Forces the inclusion of specified colors.
<code>interlaced</code>	boolean	Indicates whether to interlace rows (default: false).
<code>matte</code>	Valid values:  background color matte black matte foreground color matte Netscape gray none semi gray white matte	The color to use to fill antialiased edges adjacent to transparent areas of the image.  <b>Note:</b> When <code>transparency: false</code> , the matte color is applied to transparent areas. See <a href="#">transparency</a> .

Property	Value Type	What it is (Continued)
<b>palette</b>	Valid values: exact local adaptive local perceptual local selective Mac OS system master adaptive master perceptual master selective previous uniform web Windows system	The type of palette to use (default: local selective).
<b>preserve exact colors</b>	boolean	Indicates whether to protect colors in the image that contain entries in the color table from being dithered.  <b>Note:</b> Valid only when <code>dither: diffusion</code> . See <a href="#">dither</a> .
<b>transparency</b>	boolean	Indicates whether to preserve transparent areas of the image during conversion to GIF format.

The following code creates the `myOptions` variable to hold the GIF save options, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  make new document
  set myFile to "Data:docsamples:testfiles:GifTest.gif"
  set myOptions to ¬
    {class:GIF save options, dither:diffusion, dither amount:46, ¬
      preserve exact colors:true, matte:background color matte}
  save current document in file myFile as CompuServe GIF with options ¬
    myOptions appending no extension without copying
end tell
```



## glass filter

Options that may be supplied when applying a Glass filter.

The `glass filter` class supplies properties for the `filter options` class. The `glass filter` class is used only to define a record whose properties specify options when applying a Glass filter. `glass filter` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `glass filter` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>distortion</code>	integer	(0 - 20)
<code>smoothness</code>	integer	(1 - 15)
<code>scaling</code>	integer	(50 - 200) as percent.
<code>invert texture</code>	boolean	(default: <code>false</code> )
<code>texture kind</code>	Valid values: <ul style="list-style-type: none"> <li><code>blocks</code></li> <li><code>canvas</code></li> <li><code>frosted</code></li> <li><code>texture document</code></li> <li><code>tiny lens</code></li> </ul>	The type of texture to use.  <b>Note:</b> You cannot specify <code>texture kind</code> and <code>texture definition</code> at the same time.
<code>texture definition</code>	alias	The file that contains the texture image.

The following code sample demonstrates how to apply the Glass filter using the `filter` command of the `glass` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
  filter current layer of the current document using glass filter ~
    with options {class:glass filter, distortion:20, ~
      smoothness:100, scaling:155, ~
      texture definition:"Data:docsamples:testfiles:texturefill.psd"}
end tell
```

## gray color

Options that can be specified for a Gray color: the numeric values of component colors. The `Gray color` class inherits properties from the [color value](#) class.

This class a property of the [color value](#) object and is used to define a record that specifies options when creating color value.

### Properties

Property	Value Type	What it is
<code>gray value</code>	real	The gray value (0.0 - 100.0; default: 0.0).

## high pass

Options that may be supplied when applying a High Pass filter.

The `high pass` class supplies properties for the `filter options` class. The `high pass` class is used only to define a record whose properties specify options when applying a High Pass filter. `high pass options` can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `high pass` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>radius</code>	real	(0.1 - 250.0) in pixels.

The following code sample demonstrates how to apply the High Pass filter using the `filter` command of the `high pass` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
  filter current layer of the current document using high pass ~
    with options {class:high pass, radius:25.5}
end tell
```

## history state, history states

A history state for the document.

### Properties

Property	Value Type	What it is
<b>best type</b>	type class	Read-only. The best type for the object's value.
<b>class</b>	type class	Read-only. The object's class.
<b>default type</b>	type class	Read-only. The default type for the object's value.
<b>index</b>	integer	Read-only. The index of this instance of the object.
<b>properties</b>	record	All of this objects properties returned in a single record.
<b>container</b>	reference	Read-only. The object's container.
<b>name</b>	Unicode text	Read-only. The history state's name.
<b>snapshot</b>	boolean	Read-only. Indicates whether to the history state is a snapshot.

### Valid Commands

[count](#)  
[exists](#)  
[index](#)

## HSB color

Options that can be specified for an HSB color: the numeric values of component colors. The `HSB color` class inherits properties from the [color value](#) class.

This class a property of the [color value](#) object and is used to define a record that specifies options when creating color value.

### Properties

Property	Value Type	What it is
<code>hue</code>	real	The hue value (0.0 - 360.0; default: 0.0).
<code>saturation</code>	real	The saturation value (0.0 - 100.0; default: 0.0).
<code>brightness</code>	real	The brightness value (0.0 - 100.0; default: 0.0).

## Illustrator paths export options

Options that can be specified when exporting a path item to an Adobe Illustrator® file. See [path item, path items](#) on page 109.

The `Illustrator paths export options` class supplies properties for the [export options](#) class. `Illustrator paths export options` options can be supplied only in conjunction with the `export` command. It is not possible to get or create a `Illustrator paths export options` object.

See the [export](#) command for further details.

### Properties

Property	Value Type	What it is
<code>path name</code>	Unicode text	The name of path to export. <b>Note:</b> Valid only when <code>target path: named path</code> .
<code>target path</code>	Valid values: all paths document bounds named path	The sort of path(s) to export (default: document bounds).

## indexed mode options

Options that can be specified when changing the document mode to Indexed using the `change mode` command. The `indexed mode` class inherits properties from the [change mode options](#) class.

This class is used to define a record containing properties used to specify options when changing a document's mode. `Indexed mode options` can only be supplied in conjunction with the `change mode` command. It is not possible to get or create a `Indexed mode options` object. See the [change mode](#) command for more details.

### Properties

Property	Value Type	What it is
<code>colors in palette</code>	integer	The number of colors in the Color palette.  <b>Note:</b> Valid only when palette: local adaptive; palette: local perceptual; palette: local selective; palette: Mac OS system; palette: uniform; palette: web; <b>or</b> palette: Windows system. See <a href="#">palette</a> .
<code>dither</code>	Valid values:  diffusion noise none pattern	The dither type to use.
<code>dither amount</code>	integer	The amount of dither to use (1 - 100).  <b>Note:</b> Valid only when <code>dither: diffusion</code> .
<code>forced colors</code>	Valid values:  black and white none primaries web	The type of colors to force into the color palette.
<code>matte background color</code>	Valid values:  background color matte black matte foreground color matte Netscape gray none semi gray white matte	The color to use to fill antialiased edges adjacent to transparent areas of the image (default: <code>matte white</code> ).  <b>Note:</b> When <code>transparency: false</code> , the matte color is applied to transparent areas. See <a href="#">transparency</a> .

Property	Value Type	What it is (Continued)
<b>palette</b>	Valid values:  exact local adaptive local perceptual local selective Mac OS system master adaptive master perceptual master selective previous uniform web Windows system	The type of palette to use (default: <code>exact</code> ).
<b>preserve exact colors</b>	boolean	Indicates whether to protect colors in the image that contain entries in the color table from being dithered.  <b>Note:</b> Valid only when <code>dither: diffusion</code> . See <a href="#">dither</a> .
<b>transparency</b>	boolean	Indicates whether to preserve transparent areas of the image during conversion to GIF format.



## info-object

Document metadata. This class is a property of the `document` object and is used to define a record containing properties that specify application preferences. See [document](#), [documents](#) on page 51.

### Properties

Property	Value Type	What it is
<code>best type</code>	type class	Read-only. The best type for the object's value.
<code>class type</code>	class	Read-only. The object's class.
<code>default type</code>	type class	Read-only. The default type for the object's value.
<code>properties</code>	record	All of this objects properties returned in a single record.
<code>author</code>	Unicode text	
<code>author position</code>	Unicode text	
<code>caption</code>	Unicode text	
<code>caption writer</code>	Unicode text	
<code>category</code>	Unicode text	
<code>city</code>	Unicode text	
<code>container</code>	reference	Read-only. The object's container.
<code>copyright notice</code>	Unicode text	
<code>copyrighted</code>	Valid values: copyrighted work public domain unmarked	The document's copyrighted status.
<code>country</code>	Unicode text	
<code>creation date</code>	Unicode text	
<code>credit</code>	Unicode text	
<b>EXIF</b>	list of lists: list (list {tag, tag data}), ...	Read-only. Camera data that includes camera settings used when the image was taken. Sample list values are: tag = "camera"; tag value = "Cannon".
<code>headline</code>	Unicode text	
<code>instructions</code>	Unicode text	
<code>job name</code>	Unicode text	
<code>keywords</code>	list of Unicode text	A list of keywords that can identify the document or its contents.
<code>owner url</code>	Unicode text	

<b>Property</b>	<b>Value Type</b>	<b>What it is (Continued)</b>
<b>province or state</b>	Unicode text	
<b>source</b>	Unicode text	
<b>supplemental categories</b>	list of Unicode text	
<b>title</b>	Unicode text	
<b>transmission reference</b>	Unicode text	
<b>urgency</b>	Valid values:  four high low none normal seven six three two	

## inversion

The `inversion` class supplies options for the [adjustment options](#) class to invert the colors in an image.

The `inversion` class, which is analogous to the Invert command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when using the `adjust` command to apply an Invert adjustment to an image. The `inversion` class can be used only in conjunction with the `adjust` command. It is not possible to get or create an `inversion` object.

See the [adjust](#) command for additional details.

The following code sample demonstrates how to apply a `Inversion` adjustment using the `adjust` command of the `inversion` class (inherited from the `adjustment options` super class).

```
tell application "Adobe Photoshop CC"
    adjust current layer of the current document using inversion
end tell
```

## JPEG save options

Options that can be specified when saving a document in JPEG format. See the [save](#) command for additional details. The `JPEG save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a JPEG file. `JPEG save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `JPEG save options` object.

### Properties

Property	Value Type	What it is
<code>embed color profile</code>	boolean	Indicates whether to embed the color profile in the document.
<code>format options</code>	Valid values: optimized progressive standard	The download format to use (default: standard).
<code>matte</code>	Valid values: background color matte black matte foreground color matte Netscape gray none semi gray white matte	The color to use to fill antialiased edges adjacent to transparent areas of the image (default: white matte).  <b>Note:</b> When <code>transparency: false</code> , the matte color is applied to transparent areas. See <a href="#">transparency</a> on page 81.
<code>quality</code>	integer	The quality of the produced image (0 - 12; default: 3).
<code>scans</code>	integer	The number of increasingly detailed scans to use to display the image on the screen (3 - 5).  <b>Note:</b> Valid only when <code>format options: progressive</code> . See <a href="#">format options</a> .

The following code creates the `myOptions` variable to hold the JPEG save options, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  make new document
  set myFile to "Data:docsamples:testfiles:JpegSave.jpg"

  set myOptions to -
    {class:JPEG save options, embed color profile:true, -
    format options:progressive, quality:12, scans:3}
  save current document in file myFile as JPEG with options -
    myOptions appending no extension without copying
end tell
```

## Lab color

Options that can be specified for an Lab color: numeric values for the component colors. The `Lab color` class inherits properties from the [color value](#) class.

This class a property of the [color value](#) object and is used to define a record that specifies options when creating color value.

See the [convert color](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>value_L</code>	real	The L value (0.0 - 100.0).
<code>value_a</code>	real	The a value (-128.0 - 127.0).
<code>value_b</code>	real	The b value (-128.0 - 127.0).

## layer, layers

A layer object. The following classes inherit properties from the `layer` class: [art layer](#), [art layers](#), [layer set](#), [layer sets](#).

### Properties

Property	Value Type	What it is
<b>best type</b>	type class	Read-only. The best type for the object's value.
<b>class</b>	type class	Read-only. The object's class.
<b>default type</b>	type class	Read-only. The default type for the object's value.
<b>index</b>	integer	Read-only. The index of this instance of the object.
<b>properties</b>	record	All of this object's properties returned in a single record.
<b>all locked</b>	boolean	Indicates whether all of the layer's contents are locked or editable.
<b>blend mode</b>	Valid Values: color blend color burn color dodge darken difference dissolve exclusion hard light hard mix hue blend lighten linear burn linear dodge linear light luminosity multiply normal overlay pass through pin light saturation blend screen soft light vivid light	The mode to use when compositing an object.
<b>bounds</b>	list	Read-only. A list of coordinates that describe the corners of the bounding rectangle of the layer.
<b>container</b>	reference	Read-only. The object's container.
<b>linked layers</b>	list of layers	Read-only. The layers linked to this layer.
<b>name</b>	Unicode text	The layer's name.

Property	Value Type	What it is (Continued)
<b>opacity</b>	real	The layer's master opacity (as percent) (0.0 - 100.0).
<b>visible</b>	boolean	Indicates whether the layer is visible.

**Valid Commands**

[count](#)  
[delete](#)  
[duplicate](#)  
[exists](#)  
[index](#)  
[link](#)  
[make](#)  
[move](#)  
[rotate](#)  
[scale](#)  
[translate](#)  
[unlink](#)

## layer comp, layer comps

A "snapshot" of a temporary composition of the layers in a document.

### Properties

Property	Value Type	What it is
<b>best type</b>	type class	Read-only. The best type for the object's value.
<b>class</b>	type class	Read-only. The object's class.
<b>default type</b>	type class	Read-only. The default type for the object's value.
<b>index</b>	integer	Read-only. The index of this instance of the object.
<b>properties</b>	record	All of this object's properties returned in a single record.
<b>appearance</b>	boolean	Indicates whether to use layer appearance (layer styles) settings.
<b>comment</b>	anything	A description of the layer comp.
<b>container</b>	reference	Read-only. The object's container.
<b>name</b>	Unicode text	The layer's name.
<b>position</b>	boolean	Indicates whether to use layer position.
<b>selected</b>	boolean	Read-only. Indicates whether the layer comp is selected.
<b>visibility</b>	boolean	Indicates whether to use layer visibility settings.

### Valid Commands

[apply](#)  
[count](#)  
[delete](#)  
[exists](#)  
[index](#)  
[make](#)  
[recapture](#)  
[reset from comp](#)



## layer set, layer sets

A layer set.

### Elements

Element	Refer to by
<code>art layer</code>	name, numeric index, as a range of elements, before/after another element, satisfying a test.
<code>layer</code>	name, numeric index, as a range of elements, before/after another element, satisfying a test.
<code>layer set</code>	name, numeric index, as a range of elements, before/after another element, satisfying a test.

### Properties

Property	Value Type	What it is
<b>best type</b>	<code>type class</code>	Read-only. (Inherited from the <code>layer</code> class) The best type for the object's value.
<b>class</b>	<code>type class</code>	Read-only. (Inherited from the <code>layer</code> class) The object's class.
<b>default type</b>	<code>type class</code>	Read-only. (Inherited from the <code>layer</code> class) The default type for the object's value.
<b>index</b>	<code>integer</code>	Read-only. (Inherited from the <code>layer</code> class) The index of this instance of the object.
<b>properties</b>	<code>record</code>	(Inherited from the <code>layer</code> class) All of this object's properties returned in a single record.
<b>all locked</b>	<code>boolean</code>	(Inherited from the <code>layer</code> class) Indicates whether the contents in the layers contained in the layer set are editable.

Property	Value Type	What it is
<b>blend mode</b>	Valid Values: color blend color burn color dodge darken difference dissolve exclusion hard light hard mix hue blend lighten linear burn linear dodge linear light luminosity multiply normal overlay pass through pin light saturation blend screen soft light vivid light	(Inherited from the <code>layer</code> class) The mode to use when compositing an object.
<b>bounds</b>	list	Read-only. (Inherited from the <code>layer</code> class) The bounding rectangle of the layer.
<b>container</b>	reference	Read-only. (Inherited from the <code>layer</code> class) The object's container.
<b>linked layers</b>	list of layers	Read-only. (Inherited from the <code>layer</code> class) The layers linked to this layer set.
<b>name</b>	Unicode text	(Inherited from the <code>layer</code> class) The layer set's name.
<b>opacity</b>	real	(Inherited from the <code>layer</code> class) The layer set's master opacity (0.0 - 100.0).
<b>visible</b>	boolean	(Inherited from the <code>layer</code> class) Indicates whether the layer set is visible.
<b>enabled channels</b>	list of channels	Channels that are enabled for the layer set.  <b>Note:</b> Must be a list of component channels.

### Valid Commands

[count](#)  
[delete](#)  
[duplicate](#)  
[exists](#)  
[index](#)  
[link](#)  
[make](#)  
[merge](#)  
[move](#)  
[rotate](#)

[scale](#)  
[translate](#)  
[unlink](#)

## lens blur

Options that can be specified when applying a Lens Blur filter.

The `lens blur` class supplies properties for the `filter options` class. The `lens blur` class is used only to define a record whose properties specify options when applying a Lens Blur filter. `lens blur options` can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `lens blur` object.

See the [filter](#) command for additional details.

### Properties

Property	Value type	What it is
<code>amount</code>	integer	The amount of noise (default: 0).
<code>blade curvature</code>	integer	The blade curvature of the iris (default: 0).
<code>brightness</code>	integer	The brightness for the specular highlights (default: 0).
<code>distribution</code>	Valid values: Gaussian uniform	The distribution value for the noise (default: uniform).
<code>focal distance</code>	integer	The blur focal distance for the depth map (default: 0).
<code>invert depth map</code>	boolean	Indicates whether the depth map is inverted (default: false).
<code>iris shape</code>	Valid values: heptagon hexagon octagon pentagon square triangle	The shape of the iris (default: hexagon).
<code>monochromatic</code>	boolean	Indicates whether the noise is monochromatic (default: false).
<code>radius</code>	integer	The radius of the iris (default: 15).
<code>rotation</code>	integer	The rotation of the iris (default: 0).
<code>source</code>	Valid values: image highlight layer mask none transparency channel	The source for the depth map (default: none).
<code>threshold</code>	integer	The threshold for the specular highlights (default: 0).

The following code sample demonstrates how to apply the Lens Blur filter using the `filter` command of the `Lens blur` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using lens blur -
        with options {class:lens blur, radius:13}
end tell
```

## lens flare

Options that may be supplied when applying a Lens Flare filter.

The `lens flare` class supplies properties for the `filter options` class. The `lens flare` class is used only to define a record whose properties specify options when applying a Lens Flare filter. `lens flare` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `lens flare` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>brightness</code>	integer	(10 - 300) as percent.
<code>flare center</code>	list	The x and y coordinates of the center of the flare (unit value).
<code>lens type</code>	Valid values: Movie Prime Prime 105 Prime 35 zoom	

The following code sample demonstrates how to apply the Lens Flare filter using the `filter` command of the `lens flare` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using lens flare ~
        with options {class:lens flare, brightness:209, ~
            flare center:{2 as inches, 4 as inches}, lens type:Prime 35}
    end tell
```

## levels adjustment

The `levels adjustment` class supplies options for the [adjustment options](#) class to correct the tonal range and color balance of an image.

The `levels adjustment` class, which is analogous to the Levels command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when applying a Levels adjustment to an image. The `levels adjustment` class can be used only in conjunction with the `adjust` command. It is not possible to get or create a `levels adjustment` object.

See the [adjust](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>input range start</code>	integer	(0 - 253)
<code>input range end</code>	integer	$((\text{inputRangeStart} + 2) - 255)$
<code>input range gamma</code>	real	(0.10 - 9.99)
<code>output range start</code>	integer	(0 - 253)
<code>output range end</code>	integer	$((\text{outputRangeStart} + 2) - 255)$

The following code sample demonstrates how to apply a Levels Adjustment using the `adjust` command of the `levels adjustment` class (inherited from the `adjustment options` super class).

```
tell application "Adobe Photoshop CC"
    adjust current layer of the current document using levels adjustment -
        with options {class:levels adjustment, input range start:4, -
            input range end:245, input range gamma:4.8, -
            output range start:5, output range end:7}
end tell
```

## maximum filter

Options that may be supplied when applying a Maximum filter.

The `maximum filter` class supplies properties for the `filter options` class. The `maximum filter` class is used only to define a record whose properties specify options when applying a Maximum filter. `maximum filter options` can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `maximum filter` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>radius</code>	real	(1 - 100) in pixels.

The following code sample demonstrates how to apply the Maximum filter using the `filter` command of the `maximum filter` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
  filter current layer of the current document using maximum filter ~
    with options {class:maximum filter, radius:29}
end tell
```



## measurement scale

The measurement scale of a document. This class is a property of the document object, see [measurement scale](#).

**Note:** This feature is available in the Extended Version only.

### Properties

Property	Value Type	What it is
<code>pixel length</code>	number (Long)	Read-write. The length in pixels this scale equates to.
<code>logical length</code>	number (Double)	Read-write. The logical length this scale equates to.
<code>logical unit</code>	Unicode text	Read-write. The logical units for this scale.

The following code sample shows how to set the properties of the measurement scale object.

```
tell application "Adobe Photoshop CC"
  tell current document
    set pixel length of measurement scale to 1
    set logical length of measurement scale to 100
    set logical units of measurement scale to "My Units"
  end tell
end tell
```

## median noise

Options that may be supplied when applying a Median Noise filter.

The `median noise` class supplies properties for the [filter options](#) class. The `median noise` class is used only to define a record whose properties specify options when applying a Median Noise filter. `median noise` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `median noise` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>radius</code>	real	(1 - 100) in pixels.

The following code sample demonstrates how to apply the Median Noise filter using the `filter` command of the `median noise` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
  filter current layer of the current document using median noise ~
    with options {class:median noise, radius:22}
end tell
```

## minimum filter

Options that may be supplied when applying a Minimum filter.

The `minimum filter` class supplies properties for the `filter options` class. The `minimum filter` class is used only to define a record whose properties specify options when applying a Minimum filter. `minimum filter options` can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `minimum filter` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>radius</code>	real	(1 - 100) in pixels.

The following code sample demonstrates how to apply the Minimum filter using the `filter` command of the `minimum filter` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
  filter current layer of the current document using minimum filter ~
    with options {class:minimum filter, radius:29}
end tell
```

## mix channels

The `mix channels` class supplies options for the [adjustment options](#) class to modify a targeted (output) color channel using a mix of the existing color channels in the image.

The `mix channels` class, which is analogous to the Channel Mixer command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when applying a Channel Mixer adjustment to an image. The `mix channels` class can be used only in conjunction with the `adjust` command. It is not possible to get or create a `mix channels` object.

See the [adjust](#) command for additional details.

**Note:** Valid only for RGB or CMYK documents.

## Properties

Property	Value Type	What it is
<code>output channels</code>	list of anything	<p>A list of channel specifications. For each component channel, you must specify a list of adjustment values (-200 - 200) followed by a 'constant' value (-200 - 200).</p> <p><b>Note:</b> When <code>monochrome mixing: true</code>, the maximum number of channel value specifications is 1.</p> <p><b>Note:</b> Valid only when the document mode is RGB or CMYK. See <code>mode</code> in the Properties table of the <a href="#">document, documents</a> class.</p>
<code>monochrome mixing</code>	boolean	Indicates whether to use monochrome mixing (default: <code>false</code> ).

The following code sample demonstrates how to apply a Mix Channels adjustment using the `adjust` command of the `mix channels` class (inherited from the `adjustment options` super class). This code assumes an RGB document mode and uses the default value for the `monochrome mixing` property by not specifying a value.

```
tell application "Adobe Photoshop CC"
    adjust current layer of the current document using mix channels ~
        with options {class:mix channels, ~
            output channels:{red:{-42, 62, 5, 116}, ~
                green:{0, 172, 136, 0}, blue:{-66, 0, 100, -112}}
        }
end tell
```

## motion blur

Options that may be supplied when applying a Motion Blur filter.

The `motion blur` class supplies properties for the [filter options](#) class. The `motion blur` class is used only to define a record whose properties specify options when applying a Motion Blur filter. `motion blur` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `motion blur` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>angle</code>	integer	(angle: -360 - 360)
<code>radius</code>	real	(radius: 1 - 999) in pixels.

The following code sample demonstrates how to apply the Motion Blur filter using the `filter` command of the `motion blur` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using motion blur -
        with options {class:motion blur, angle:-224, radius:29}
end tell
```

## no color

An object that represents a missing color. The `no color` class inherits properties from the [color value](#) class.

## notifier, notifiers

An event-handler object that tells the script to execute specified code when a specified event occurs.

**Note:** You can remove a `notifier` object from the Script Events Manager drop-down list by deleting the file named `Script Events Manager.xml` from in the Photoshop preferences folder. See Adobe Photoshop CC help for more information.

### Properties

Property	Value type	What it is
<code>best type</code>	type class	Read-only. The best type for the object's value.
<code>class</code>	type class	Read-only. The object's class.
<code>default type</code>	type class	Read-only. The default type for the object's value.
<code>index</code>	integer	Read-only. The index of this instance of the object.
<code>properties</code>	record	All of this object's properties returned in a single record.
<code>event</code>	string	Read-only. The event ID in four characters or a unique string that the notifier is associated with.
<code>event class</code>	string	Read-only. The class ID of the event: the class of the object the event is applied to. Four characters or a unique string.  <b>Note:</b> When an <code>event</code> applies to multiple types of objects, you use this property to distinguish which object this <code>notifier</code> applies to. For example, the Make event ( <code>"Mk "</code> ) applies to documents ( <code>"Dcmn"</code> ), channels ( <code>"Chnl"</code> ) and other objects.
<code>event file</code>	file	Read-only. The path to the file to execute when the event occurs/activates the notifier.

### Valid commands:

[count](#)  
[delete](#)  
[exists](#)  
[index](#)  
[make](#)

## NTSC colors

Options that may be supplied when applying the NTSC colors filter.

The `NTSC colors` class supplies properties for the [filter options](#) class. The `NTSC colors` class is used only to define a record whose properties specify options when using the `filter` command to apply an NTSC colors filter. `NTSC colors` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `NTSC colors` object.

See the [filter](#) command for additional details.

The following code sample demonstrates how to apply the NTSC colors filter using the `filter` command of the `motion blur` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using NTSC colors
end tell
```



## ocean ripple

Options that may be supplied when applying an Ocean Ripple filter.

The `ocean ripple` class supplies properties for the `filter options` class. The `ocean ripple` class is used only to define a record whose properties specify options when applying an Ocean Ripple filter. `ocean ripple options` can be supplied only in conjunction with the `filter` command. It is not possible to get or create an `ocean ripple` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>ripple size</code>	integer	(1 - 15)
<code>ripple magnitude</code>	integer	(0 - 20)

The following code sample demonstrates how to apply the Ocean Ripple filter using the `filter` command of the `ocean ripple` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using ocean ripple ~
        with options {class:ocean ripple, ripple size:4, ripple magnitude:2}
end tell
```

## offset filter

Options that may be supplied when applying an Offset filter.

The `offset filter` class supplies properties for the `filter options` class. The `offset filter` class is used only to define a record whose properties specify options when applying an Offset filter. `offset filter options` can be supplied only in conjunction with the `filter` command. It is not possible to get or create an `offset filter` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>horizontal offset</code>	real	(unit value) (min/max amounts depend on layer size).
<code>vertical offset</code>	real	(unit value) (min/max amounts depend on layer size).
<code>undefined areas</code>	Valid values: repeat edge pixels set to layer fill wrap around	The method to use to fill areas left undefined when the image is moved.

The following code sample demonstrates how to apply the Offset filter using the `filter` command of the `offset filter` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
  filter current layer of the current document using offset filter ~
    with options {class:offset filter, horizontal offset:3 as centimeters, ~
      vertical offset:2 as centimeters, undefined areas:wrap around}
end tell
```

## open options

Options used with the open command.

The following classes inherit properties from the open options class: [Camera RAW open options](#), [DICOM open options](#), [EPS open options](#), [PDF open options](#), [Photo CD open options](#), [raw format open options](#).

### Valid Commands

[open](#)

## path item, path items

An artwork path.

### Elements

Element	Refer to by
sub path item	numeric index, as a range of elements, before/after another element, satisfying a test

### Properties

Property	Value Type	What it is
<b>best type</b>	type class	Read-only. The best type for the object's value.
<b>class</b>	type class	Read-only. The object's class.
<b>default type</b>	type class	Read-only. The default type for the object's value.
<b>index</b>	integer	Read-only. The index of this instance of the object.
<b>properties</b>	record	All of this object's properties returned in a single record.
<b>container</b>	reference	Read-only. The object's container.
<b>entire path</b>	list of <a href="#">sub path info</a> objects	Read-only. The item's sub paths.
<b>kind</b>	Valid values: clipping normal text mask vector mask work	The type of path.
<b>name</b>	Unicode text	The path item's name.

The following code creates a path in three segments that end up looking like an ice cream cone: two connected diagonal lines that form a V (or the "cone"), and a curved line that arcs above the V to create a 2-d ice cream cone.

```
tell application "Adobe Photoshop CC"
    set ruler units of settings to pixel units
    set type units of settings to pixel units

    set docRef to make new document with properties {height:700, width:500, -
        name:"Snow Cone"}

    set pathPointInfo1 to {class:path point info, kind:corner point, -
        anchor:{100, 100}, left direction:{100, 100}, right direction:{100, 100}}
    set pathPointInfo2 to {class:path point info, kind:corner point, -
        anchor:{150, 200}, left direction:{150, 200}, right direction:{150, 200}}
```

```
set subPathInfo1 to {class:sub path info, ↵
    entire sub path:{pathPointInfo1, pathPointInfo2}, ↵
    operation:shape xor, closed:false}

set pathPointInfo3 to {class:path point info, kind:corner point, ↵
    anchor:{150, 200}, left direction:{150, 200}, right direction:{150, 200}}
set pathPointInfo4 to {class:path point info, kind:corner point, ↵
    anchor:{200, 100}, left direction:{200, 100}, right direction:{200, 100}}
set subPathInfo2 to {class:sub path info, ↵
    entire sub path:{pathPointInfo3, pathPointInfo4}, ↵
    operation:shape xor, closed:false}

set pathPointInfo5 to {class:path point info, kind:corner point, ↵
    anchor:{200, 100}, left direction:{200, 100}, right direction:{200, 100}}
set pathPointInfo6 to {class:path point info, kind:corner point, ↵
    anchor:{150, 50}, left direction:{100, 50}, right direction:{200, 50}}
set pathPointInfo7 to {class:path point info, kind:corner point, ↵
    anchor:{100, 100}, left direction:{100, 100}, right direction:{100, 100}}
set subPathInfo3 to {class:sub path info, ↵
    entire sub path:{pathPointInfo5, pathPointInfo6, pathPointInfo7}, ↵
    operation:shape xor, closed:false}

set newPathItem to make new path item in docRef with properties ↵
    {entire path:{subPathInfo1, subPathInfo2, subPathInfo3}, ↵
    name:"Snow Cone", kind:normal}

end tell
```

## Valid Commands

[count](#)  
[create selection](#)  
[delete](#)  
[deselect](#)  
[duplicate](#)  
[exists](#)  
[fill path](#)  
[index](#)  
[make](#)  
[make clipping path](#)  
[select](#)  
[stroke path](#)

## path point, path points

Information about a [path point info](#) object.

**Tip:** You do not use the path point object to create a path point. Rather, you use the path point object to retrieve information about a path point. To create points that describe path segments, see [path point info](#).

### Properties

Property	Value Type	What it is
<b>best type</b>	type class	Read-only. The best type for the object's value.
<b>class</b>	type class	Read-only. The object's class.
<b>default type</b>	type class	Read-only. The default type for the object's value.
<b>index</b>	integer	Read-only. The index of this instance of the object.
<b>properties</b>	record	All of this object's properties returned in a single record.
<b>anchor</b>	list	Read-only. The position (coordinates) of the anchor point.
<b>container</b>	reference	Read-only. The object's container.
<b>entire path</b>	list of <a href="#">sub path info</a> objects	Read-only. The item's sub paths.
<b>kind</b>	Valid values: corner point smooth point	Read-only. The type of point.
<b>left direction</b>	list	Read-only. The location of the left-direction ('in' position) point.
<b>right direction</b>	list	Read-only. The location of the right-direction ('out' position) point.

### Valid Commands

[count](#)  
[exists](#)  
[index](#)

## path point info

A point on a path, expressed in three sets of coordinates:

- anchor point
- left direction point
- right direction point

For paths that are straight segments (not curved), the coordinates of all three points are the same.

For curved segments, the coordinates are different; the difference between the anchor point and the left or right direction points determines the arc of the curve. You use the left direction point to bend the curve “outward” or make it convex; you use the right direction point to bend the curve “inward” or make it concave.

### Properties

Property	Value Type	What it is
<b>anchor</b>	list of coordinates	The position (in x and y coordinates) of the anchor point.
<b>kind</b>	Valid values: corner point smooth point	The type of point.
<b>left direction</b>	list of coordinates	The location (in x and y coordinates) of the left-direction (‘in’ position) point.
<b>right direction</b>	list of coordinates	The location (in x and y coordinates) of the right-direction (‘out’ position) point.

### Valid Commands

[exists](#)

## PDF open options

Settings related to opening a generic PDF document. The `PDF open options` class inherits properties from the [open options](#) class.

This class is used to define a record containing properties that specify options when opening a document as a PDF file. `PDF open options` can be supplied only in conjunction with the `open` command. It is not possible to get or create a `PDF open options` object.

### Properties

Property	Value Type	What it is
<code>bits per channel</code>	Valid values: eight one sixteen thirtytwo	The number of bits per channel.
<code>constrain proportions</code>	boolean	Deprecated for Adobe Photoshop CC.
<code>crop page</code>	Valid values: art box bleed box bounding box crop box media box trim box	The method of cropping to use.
<code>height</code>	real	Deprecated for Adobe Photoshop CC.
<code>mode</code>	Valid values: CMYK grayscale Lab RGB	The color model to use.
<code>name</code>	Unicode text	The name of the document.
<code>object</code>	integer	The number of 3d objects to open.
<code>page</code>	integer	The page to which to open the document.
<code>resolution</code>	real	The resolution of the document (in pixels per inch).
<code>suppress warnings</code>	boolean	Indicates whether to suppress warnings when opening the document.
<code>use 3d object number</code>	boolean	If true, the 3d property refers to using 3d object; if false, then <code>use page number</code> is used.
<code>use antialias</code>	boolean	Indicates whether to use antialias.



Property	Value Type	What it is (Continued)
<code>use page number</code>	boolean	Indicates whether the value specified in the <code>page</code> property refers to a page number or an image number. If <code>usePageNumber = false</code> , the <code>page</code> property refers to an image number. See <a href="#">page</a> .
<code>width</code>	real	Deprecated for Adobe Photoshop CC.

The following code opens a PDF document.

```
tell application "Adobe Photoshop CC"
  set display dialogs to never
  set myFilePath to alias "Data:docsamples:testfiles:PdfTest.pdf"
  open myFilePath as PDF with options -
    {class:PDF open options, height:pixels 100, width:pixels 200, mode:RGB, -
      resolution:72, use antialias:true, page:1, constrain proportions:false}
end tell
```

## PDF save options

Options that can be specified when saving a document in PDF format. See the [save](#) command for additional details. The `PDF save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a PDF file. `PDF save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `PDF save options` object.

### Properties

Property	Value Type	What it is
<code>color conversion</code>	boolean	Indicates whether to convert the color profile to a destination profile.
<code>descripton</code>	Unicode text	Description of the save options to use.
<code>destination profile</code>	Unicode text	Description of the final RGB or CMYK output device, such as a monitor or a press standard.
<code>downgrade color profile</code>	boolean	Deprecated for Adobe Photoshop CC.
<code>down sample</code>	Valid values: none PDF average PDF bicubic PDF subsample	The down sample method to use.
<code>down sample limit</code>	real	Limits downsampling or subsampling to images that exceed this value in pixels per inch.
<code>down sample size</code>	real	The size to downsample images if they exceed the limit in pixels per inch.
<code>eight convert</code>	boolean	Indicates whether to convert a 16-bit image to 8-bit for better compatibility with other applications.
<code>embed color profile</code>	boolean	Indicates whether to embed the color profile in the document.
<code>embed fonts</code>	boolean	Deprecated for Adobe Photoshop CC.
<code>embed thumbnail</code>	boolean	Indicates whether to include a small preview image in Adobe PDF files.

Property	Value Type	What it is (Continued)
<code>encoding</code>	Valid values: JPEG JPEG 2000 high JPEG 2000 lossless JPEG 2000 low JPEG 2000 med JPEG 2000 med high JPEG 2000 med low JPEG high JPEG low JPEG med JPEG med high JPEG med low none ZIP ZIP 4	The encoding or compression method to use (default: ZIP).
<code>image interpolation</code>	boolean	Deprecated for Adobe Photoshop CC.
<code>JPEG quality</code>	integer	The quality of the produced image (0 - 12; default: 10).  <b>Note:</b> Valid only when <code>encoding: JPEG</code> . See <a href="#">encoding</a> .
<code>output condition</code>	Unicode text	An optional comment field for inserting descriptions of the output condition. The text is stored in the PDF/X file.
<code>output condition ID</code>	Unicode text	Identifier for the output condition.
<code>PDF compatibility</code>	Valid values: PDF 13 PDF 14 PDF 15 PDF 16	The PDF version to make the document compatible with.
<code>PDF standard</code>	Valid values: none PDFX1a2001 standard PDFX1a2003 standard PDFX32002 standard PDFX32003 standard	The PDF standard to make the document compatible with.
<code>preserve editing</code>	boolean	Indicates whether to reopen the PDF in Adobe Photoshop CC with native Photoshop data intact.
<code>presetfile</code>	Unicode text	The preset file to use for settings.  <b>Note:</b> This option overrides other settings.
<code>profile inclusion policy</code>	boolean	Indicates whether to show which profiles to include.
<code>registry name</code>	Unicode text	URL where the output condition is registered.

Property	Value Type	What it is (Continued)
<code>save alpha channels</code>	boolean	Indicates whether to save the alpha channels.
<code>save annotations</code>	boolean	Indicates whether to save the annotations.
<code>save layers</code>	boolean	Indicates whether to save the documents layers.
<code>save spot colors</code>	boolean	Indicates whether to save the spot colors.
<code>transparency</code>	boolean	Indicates whether to use transparency (default: <code>true</code> ).
<code>tile size</code>	integer	Compression option. <b>Note:</b> Valid only when <code>encoding: JPEG 2000</code> .
<code>transparency</code>	boolean	Deprecated for Adobe Photoshop CC.
<code>use outlines for text</code>	boolean	Deprecated for Adobe Photoshop CC.
<code>vector data</code>	boolean	Deprecated for Adobe Photoshop CC.
<code>view</code>	boolean	Indicates whether to open the saved PDF in Adobe Acrobat.
<code>web optimize</code>	boolean	Indicates whether to improve performance of PDF files on Web servers.

The following code creates the `myOptions` variable to hold the PDF save options, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
    set theDocRef to make new document
    set myFile to "Data:docsamples:testfiles:PDFSave.pdf"

    --create a variable that contains a color object of the RGB color class
    --whose color is red
    set theTextColor to {class:RGB color, red:255, green:0, blue:0}

    -- create a text layer
    set theTextLayer to make new art layer in theDocRef with properties -
        {kind:text layer}

    --Set the contents, size, position and color of the text layer
    set contents of text object of theTextLayer to "Hello, World!"
    set size of text object of theTextLayer to 36
    set position of text object of theTextLayer to {0.75 as inches, 1 as inches}
    set stroke color of text object of theTextLayer to theTextColor
    set myOptions to -
        {class:PDF save options, embed color profile:true, -
        save alpha channels:true, vector data:true, use outlines for text:true}
    save current document in file myFile as Photoshop PDF with options -
        myOptions appending no extension without copying
end tell
```

## Photo CD open options

DEPRECATED. Options that can be specified when opening a Kodak Photo CD (PCD) files, including high-resolution files from Pro Photo CD discs. The `Photo CD open options` class inherits properties from the [open options](#) class.

This class is used to define a record containing properties that specify options when opening a Photo CD document. `Photo CD open options` can be supplied only in conjunction with the `open` command. It is not possible to get or create a `Photo CD open options` object.

### Properties

Property	Value Type	What it is
<code>color profile name</code>	Unicode text	The profile to use when reading the image.
<code>color space</code>	Valid Values: Lab 16 Lab 8 RGB 16 RGB 8	The colorspace for the image.
<code>orientation</code>	Valid Values: landscape portrait	The image orientation.
<code>pixel size</code>	Valid Values: extra large large maximum medium minimum small	The image dimensions.  extra large = 1024x1536 large = 512x768 maximum = 2048x3072 medium = 256x384 minimum = 64x96 small = 128x192
<code>resolution</code>	real	The image resolution (in pixels per inch).

The following code opens a Photo CD document.

```
tell application "Adobe Photoshop CC"
  set myFilePath to alias "Data:docsamples:testfiles:IMG0001.PCD"
  open myFilePath as Photo CD with options -
    {class:Photo CD open options, color profile name:"Adobe RGB (1998)", -
    color space:RGB 8, resolution:72, orientation:landscape, pixel size:medium}
end tell
```

## photo filter

The `photo filter` class supplies options for the [adjustment options](#) class to adjust the layer's color balance and temperature.

The `photo filter` class, which is analogous to the Photo Filter command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when using the `adjust` command to apply a Photo Filter adjustment to an image. The `photo filter` class can be used only in conjunction with the `adjust` command. It is not possible to get or create a `photo filter` object.

See the [adjust](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>with contents</code>	<a href="#">color value</a>	The color hue adjustment to use for the image.
<code>density</code>	integer	The density of the filter effect as a percent. (default:25)
<code>preserve luminosity</code>	boolean	Indicates whether to preserve luminosity (i.e. the image is not darkened by adding the color filter.)

## Photoshop DCS 1.0 save options

Options that can be specified when saving a document in Photoshop DCS 1.0 format. See the [save](#) command for additional details. The `Photoshop DCS 1.0 save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a Photoshop DCS 1.0 file. `Photoshop DCS 1.0 save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `Photoshop DCS 1.0 save options` object.

### Properties

Property	Value Type	What it is
<code>DCS</code>	Valid Values: color composite grayscale composite no composite PostScript	The DCS color to use (default: <code>color composite</code> ).
<code>embed color profile</code>	boolean	Indicates whether to embed the color profile in the document.
<code>encoding</code>	Valid Values: ASCII binary high quality JPEG low quality JPEG maximum quality JPEG medium quality JPEG	The type of encoding to use (default: <code>binary</code> ).
<code>halftone screen</code>	boolean	Indicates whether to include the halftone screen (default: <code>false</code> ).
<code>image interpolation</code>	boolean	Indicates whether to use image interpolation (default: <code>false</code> ).
<code>preview type</code>	Valid Values: eight bit Mac OS eight bit TIFF JPEG Mac OS monochrome Mac OS monochrome TIFF none	The type of preview (default: <code>eight bit Mac OS</code> ).
<code>transfer function</code>	boolean	Indicates whether to include the Transfer functions to compensate for dot gain between the image and film (default: <code>false</code> ).
<code>vector data</code>	boolean	Indicates whether to include vector data (un-rasterized text) (default: <code>false</code> ).

The following code creates the `myOptions` variable to hold the `Photoshop DCS 1.0 save options`, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
    activate
```

```
set theDocRef to make new document
set myFile to "Data:docsamples:testfiles:DCS1.eps"

-- create a text layer
set theTextLayer to make new art layer in theDocRef with properties -
    {kind:text layer}

--Set the contents, size, position and color of the text layer
set contents of text object of theTextLayer to "Hello, World!"
set size of text object of theTextLayer to 36
set position of text object of theTextLayer to {0.75 as inches, 1 as inches}
set theTextColor to {class:RGB color, red:255, green:0, blue:0}
set stroke color of text object of theTextLayer to theTextColor
set myOptions to -
    {class:Photoshop DCS 1.0 save options, embed color profile:true,-
    vector data:true}
save current document in file myFile as Photoshop DCS 1.0 with options -
    myOptions appending no extension without copying
end tell
```



## Photoshop DCS 2.0 save options

Options that can be specified when saving a document in Photoshop DCS 2.0 format. See the [save](#) command for additional details. The `Photoshop DCS 2.0 save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a Photoshop DCS 2.0 file. `Photoshop DCS 2.0 save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `Photoshop DCS 2.0 save options` object.

### Properties

Property	Value Type	What it is
<code>DCS</code>	Valid Values: color composite grayscale composite no composite PostScript	The DCS color to use (default: no composite PostScript).
<code>embed color profile</code>	boolean	Indicates whether to embed the color profile in the document.
<code>encoding</code>	Valid Values: ASCII binary high quality JPEG low quality JPEG maximum quality JPEG medium quality JPEG	The type of encoding to use (default: binary)
<code>halftone screen</code>	boolean	Indicates whether to include the halftone screen (default: false).
<code>image interpolation</code>	boolean	Indicates whether to use image interpolation (default: false).
<code>multifile DCS</code>	boolean	Indicates whether to save color channels as multiple files or a single file (default: false).
<code>preview type</code>	Valid Values: eight bit Mac OS eight bit TIFF JPEG Mac OS monochrome Mac OS monochrome TIFF none	The type of preview (default: eight bit Mac OS).
<code>save spot colors</code>	boolean	Indicates whether to save the spot colors.
<code>transfer function</code>	boolean	Indicates whether to include the Transfer functions to compensate for dot gain between the image and film (default: false).
<code>vector data</code>	boolean	Indicates whether to include vector data (un-rasterized text) (default: false).

The following code creates the `myOptions` variable to hold the `Photoshop DCS 2.0 save options`, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  set display dialogs to never
  set theDocRef to make new document
  set myFile to "Data:docsamples:testfiles:DCS2.eps"

  -- create a text layer
  set theTextLayer to make new art layer in theDocRef with properties ~
    {kind:text layer}

  --Set the contents, size, position and color of the text layer
  set contents of text object of theTextLayer to "Hello, World!"
  set size of text object of theTextLayer to 36
  set theTextColor to {class:RGB color, red:255, green:0, blue:0}
  set position of text object of theTextLayer to {0.75 as inches, 1 as inches}
  set stroke color of text object of theTextLayer to theTextColor
  set myOptions to ~
    {class:Photoshop DCS 2.0 save options, embed color profile:true, ~
      save spot colors:true, vector data:true}
  save current document in file myFile as Photoshop DCS 2.0 with options ~
    myOptions appending no extension without copying
end tell
```

## Photoshop save options

Options that can be specified when saving a document in PSD format. See the [save](#) command for additional details. The `PSD save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a Photoshop file. `PSD save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `PSD save options` object.

### Properties

Property	Value Type	What it is
<code>embed color profile</code>	boolean	Indicates whether to embed the color profile in the document.
<code>save alpha channels</code>	boolean	Indicates whether to save the alpha channels.
<code>save annotations</code>	boolean	Indicates whether to save the annotations.
<code>save layers</code>	boolean	Indicates whether to save the layers.
<code>save spot colors</code>	boolean	Indicates whether to save the spot colors.

The following code creates the `myOptions` variable to hold the Photoshop save options, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  set theDocRef to make new document
  set myFile to "Data:docsamples:testfiles:PSDSave.psd"

  -- create a text layer
  set theTextLayer to make new art layer in theDocRef with properties -
    {kind:text layer}

  --Set the contents, size, position and color of the text layer
  set contents of text object of theTextLayer to "Hello, World!"
  set size of text object of theTextLayer to 36
  set position of text object of theTextLayer to {0.75 as inches, 1 as inches}
  set theTextColor to {class:RGB color, red:0, green:64, blue:255}
  set stroke color of text object of theTextLayer to theTextColor
  set myOptions to -
    {class:Photoshop save options, embed color profile:true, -
      save spot colors:true, save alpha channels:true, save annotations:true, -
      save layers:true}
  save current document in file myFile as Photoshop format with options -
    myOptions appending no extension without copying
end tell
```

## PICT file save options

Options that can be specified when saving a document in PICT format. See the [save](#) command for additional details. The `PICT file save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a PICT file. `PICT file save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `PICT file save options` object.

### Properties

Property	Value Type	What it is
<code>compression</code>	Valid Values: high quality JPEG low quality JPEG maximum quality JPEG medium quality JPEG none	(default: none).
<code>embed color profile</code>	boolean	Indicates whether to embed the color profile in the document.
<code>resolution</code>	Valid Values: eight four sixteen thirty two two	The number of bits per pixel.
<code>save alpha channels</code>	boolean	Indicates whether to save the alpha channels.

The following code creates the `myOptions` variable to hold the `PICT file save options`, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  activate
  close documents saving no
  make new document
  set myFile to "Data:docsamples:testfiles:PICTSave.pct"

  set myOptions to -
    {class:PICT file save options, compression:maximum quality JPEG, -
      embed color profile:true, save alpha channels:false, resolution:thirty two}
  save current document in file myFile as PICT file with options -
    myOptions appending no extension without copying
end tell
```

## PICT resource save options

Options that can be specified when saving a document as a PICT resource. See the [save](#) command for additional details. The `PICT resource save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a PICT resource file. `PICT resource save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `PICT resource save options` object.

### Properties

Property	Value Type	What it is
<code>compression</code>	Valid Values: high quality JPEG low quality JPEG maximum quality JPEG medium quality JPEG none	(default: none).
<code>embed color profile</code>	boolean	Indicates whether to embed the color profile in the document.
<code>name</code>	Unicode text	The name of the PICT resource.
<code>resolution</code>	Valid Values: eight four sixteen thirty two two	The number of bits per pixel.
<code>resource id</code>	integer	The ID of the PICT resource (default: 128).
<code>save alpha channels</code>	boolean	Indicates whether to save the alpha channels.

The following code creates the `myOptions` variable to hold the `PICT resource save options`, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  make new document
  set myFile to "Data:docsamples:testfiles:PicResorce.pic"
  set myOptions to ¬
    {class:PICT resource save options, embed color profile:true, ¬
      save alpha channels:true, name:"My PICT resource", resolution:sixteen}
  save current document in file myFile as PICT resource with options ¬
    myOptions appending no extension without copying
end tell
```

## picture package options

Options that can be specified for a picture package. See [create photo gallery](#).

Property	Value type	What it is
<code>content</code>	Valid values: caption text copyright text credit text filename text no text origin text user text	The content information (default: <code>user</code> ).
<code>content text</code>	string	The picture package custom text.  <b>Note:</b> Valid only when <code>content</code> : <code>user text</code> . See <a href="#">content</a> .
<code>flatten final</code>	boolean	Indicates whether all layers in the final document are flattened (default: <code>true</code> ).
<code>font</code>	Valid values: Arial Courier New Helvetica Times New Roman	The font used for security text (default: <code>arial</code> ).
<code>size</code>	real	The font size used for security text (default: 12).
<code>layout</code>	Unicode text	The layout to use to generate the picture package (default: "(2) 5x7").
<code>mode</code>	Valid values: bitmap CMYK grayscale lab RGB	The color profile to use as the document mode (default: <code>RGB</code> ).
<code>opacity</code>	integer	The web page security opacity as a percent (default: 100).
<code>resolution</code>	real	The resolution of the document in pixels per inch (default: 72.0).
<code>text color</code>	<a href="#">RGB color</a>	The color to use for text.

<b>Property</b>	<b>Value type</b>	<b>What it is (Continued)</b>
<code>text position</code>	Valid values: gallery centered gallery lower left gallery lower right gallery upper left gallery upper right	The text position (default: gallery centered).
<code>text rotate</code>	Valid values: clock wise 45 clock wise 90 counter clock wise 45 counter clock wise 90 zero	The orientation to use for text (default: zero).

## pinch

Options that may be supplied when applying a Pinch filter.

The `pinch` class supplies properties for the [filter options](#) class. The `pinch` class is used only to define a record whose properties specify options when applying a Pinch filter. `pinch` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `pinch` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>amount</code>	integer	(-100 - 100)

The following code sample demonstrates how to apply the Pinch filter using the `filter` command of the `pinch` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using pinch ~
        with options {class:pinch, amount:40}
end tell
```



## Pixar save options

Options that can be specified when saving a document in Pixar format. See the [save](#) command for additional details. The `Pixar save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a Pixar file. `Pixar save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `Pixar save options` object.

### Properties

Property	Value Type	What it is
<code>save alpha channels</code>	boolean	Indicates whether to save the alpha channels.

The following code creates the `myOptions` variable to hold the Pixar file save options, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  make new document
  set myFile to "Data:docsamples:testfiles:PixarSave.pxr"

  set myOptions to {class:Pixar save options, save alpha channels:true} -

  save current document in file myFile as Pixar with options -
    myOptions appending no extension without copying
end tell
```

## PNG save options

Options that can be specified when saving a document in PNG format. See the [save](#) command for additional details. The `PNG save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a PNG file. `PNG save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `PNG save options` object.

### Properties

Property	Value Type	What it is
<code>compression</code>	integer	(0 - 9) (default: 0).
<code>interlaced</code>	boolean	Indicates whether rows should be interlaced (default: <code>false</code> ).

The following code creates the `myOptions` variable to hold the `PNG save options`, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  make new document
  set myFile to "Data:docsamples:testfiles:PngTest.png"
  set myOptions to {class:PNG save options}
  save current document in file myFile as PNG with options ↵
    myOptions appending no extension without copying
end tell
```

## polar coordinates

Options that may be supplied when applying a Polar Coordinates filter.

The `polar coordinates` class supplies properties for the [filter options](#) class. The `polar coordinates` class is used only to define a record whose properties specify options when applying a Polar Coordinates filter. `polar coordinates` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `polar coordinates` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>kind</code>	Valid Values: polar to rectangular rectangular to polar	The type of polar conversion to use.

The following code sample demonstrates how to apply the Polar Coordinates filter using the `filter` command of the `polar coordinates` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using polar coordinates -
        with options {class:polar coordinates, kind:rectangular to polar}
end tell
```

## posterize

The `posterize` class supplies options for the [adjustment options](#) class to specify the number of tonal levels for each channel and then map pixels to the closest matching level.

The `posterize` class, which is analogous to the Posterize command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when using the `adjust` command to apply a Posterize adjustment to an image. The `posterize` class can be used only in conjunction with the `adjust` command. It is not possible to get or create a `posterize` object.

See the [adjust](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>levels</code>	integer	(2 - 255)

The following code sample demonstrates how to apply a Posterize adjustment using the `adjust` command of the `posterize` class (inherited from the `adjustment options` super class).

```
tell application "Adobe Photoshop CC"
    adjust current layer of the current document using posterize -
        with options {class:posterize, level:15}
end tell
```

## presentation options

Options for the `create PDF presentation` command. See [create PDF presentation](#).

### Properties

Property	Value Type	What it is
<code>auto advance</code>	boolean	Indicates whether to auto advance images when viewing the presentation (default: <code>true</code> ).  <b>Note:</b> Valid only when <code>presentation: true</code> . See <a href="#">presentation</a> .
<code>include file name</code>	boolean	Indicates whether to include the file name for the image (default: <code>false</code> ).
<code>interval</code>	integer	The number of seconds before the view is auto advanced (default: 5).  <b>Note:</b> Valid only when <code>auto advance: true</code> . See <a href="#">auto advance</a> .
<code>loop</code>	boolean	Indicates whether to loop after the last page of the presentation.  <b>Note:</b> Valid only when <code>auto advance: true</code> . See <a href="#">auto advance</a> .
<code>magnification</code>	Valid Values: actual size fit page	The magnification type to use when viewing the image.
<code>PDF options</code>	<a href="#">PDF save options</a>	Options to use when creating the PDF file.

Property	Value Type	What it is (Continued)
<b>presentation</b>	boolean	Indicates whether the file type is presentation (default: <code>false</code> ).  <b>Note:</b> <code>false</code> indicates a Multi-Page document.
<b>transition</b>	Valid Values: blinds horizontal blinds vertical box in box out dissolve glitter down glitter right glitter right down none random split horizontal in split horizontal out split vertical in split vertical out wipe down wipe left wipe right wipe up	The transition from one image to the next (default: <code>none</code> ).  <b>Note:</b> Valid only when <code>auto advance</code> : <code>true</code> . See <a href="#">auto advance</a> .

**Valid Commands**

[create PDF presentation](#)

## radial blur

Options that may be supplied when applying a Radial Blur filter.

The `radial blur` class supplies properties for the [filter options](#) class. The `radial blur` class is used only to define a record whose properties specify options when applying a Radial Blur filter. `radial blur` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `radial blur` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>amount</code>	integer	(0 - 100)
<code>blur center</code>	real	This is the position (unit value).
<code>blur method</code>	Valid Values: spin zoom	The type of blur effect to use.
<code>quality</code>	Valid Values: best draft good	

The following code sample demonstrates how to apply the Radial Blur filter using the `filter` command of the `radial blur` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using radial blur with options -
        {class:radial blur, amount:35, blur center:12, blur method:spin,
        quality:draft}
end tell
```

## raw format open options

Settings related to opening a raw format document. The `raw format open options` class inherits properties from the [open options](#) class.

This class is used to define a record containing properties that specify options when opening a document in raw format. `raw format open options` can be supplied only in conjunction with the `open` command. It is not possible to get or create a `raw format open options` object.

### Properties

Property	Value Type	What it is
<code>bits per channel</code>	integer	The number of bits for each channel (8 or 16).
<code>byte order</code>	Valid Values: IBM PC Mac OS	The order in which bytes will be read.  <b>Note:</b> Valid only when <code>bits per channel</code> : 16.
<code>header size</code>	integer	The number of bytes of information that appears in the file before actual image information begins; that is, the number of zeroes inserted at the beginning of the file as placeholders (0 - 1919999).
<code>height</code>	integer	The image height (in pixels).
<code>interleave channels</code>	boolean	Indicates whether to store color values sequentially.
<code>number of channels</code>	integer	The number of channels in the image (1 - 56).  <b>Note:</b> The value of <code>number of channels</code> cannot exceed the number of channels in the image. When <code>bitsPerChannel</code> : 16, only the following values are valid: 1, 3, or 4. See <a href="#">bits per channel</a> .
<code>retain header</code>	boolean	Indicates whether to retain the header when saving the document.  <b>Note:</b> Valid only when <a href="#">header size</a> is 1 or greater.
<code>width</code>	integer	The image width (in pixels).

The following code opens a raw format document.

```
tell application "Adobe Photoshop CC"
  set myFilePath to alias "Data:docsamples:testfiles:Fern.raw"
  open myFilePath as raw with options ~
    {class:raw format open options, bits per channel:8, ~
      header size:0, height:480, width:400, number of channels:3, ~
      retain header:true, interleave channels:true}
end tell
```



## raw save options

Options that can be specified when saving a document in raw format. See the [save](#) command for additional details. The `raw save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a raw file. `raw save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `raw save options` object.

### Properties

Property	Value Type	What it is
<code>save alpha channels</code>	boolean	Indicates whether alpha channels should be saved.
<code>save spot colors</code>	boolean	Indicates whether the spot colors should be saved.

The following code creates the `myOptions` variable to hold the `raw save options`, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  make new document
  set myFile to "Data:docsamples:testfiles:RawSave.raw"

  set myOptions to -
    {class:raw save options, save alpha channels:true, save spot colors:false}
  save current document in file myFile as raw with options -
    myOptions appending no extension without copying
end tell
```

## RGB color

An RGB color specification: numeric values for the component colors (red, green, and blue). The `RGB color` class inherits properties from the [color value](#) class.

This class a property of the [color value](#) object and is used to define a record that specifies options when creating a color value.

If the `mode` of a document is RGB and you specify the color value for a stroke, foreground, or background color property using a `CMYK color` object, Adobe Photoshop CC translates the CMYK color specification into an RGB color specification. The same thing happens if the document's color mode is CMYK and you specify colors using a `RGB color` object. Since this translation can cause information loss you should specify colors using the color class that matches the document's color mode.

## Properties

Property	Value Type	What it is
<code>red</code>	real	The red color value (0.0 - 255.0; default: 255 . 0).
<code>green</code>	real	The green color value (0.0 - 255.0; default: 255 . 0).
<code>blue</code>	real	The blue color value (0.0 - 255.0; default: 255 . 0).

The following code creates a color value using the `RGB color` class, assigns the color to the variable `theTextColor`, and then uses the variable to set the text color to the `RGB color`.

```
tell application "Adobe Photoshop CC"
  activate

  --create a variable named theDocRef
  --assign the current (active) document to it
  set theDocRef to the current document

  --create a variable that contains a color object of the RGB color class
  --whose color is red
  set theTextColor to {class:RGB color, red:255, green:0, blue:0}

  --create a variable for the text layer, create the layer as an art layer object
  --and use the kind property of the art layer object to make it a text layer
  set theTextLayer to make new art layer in theDocRef with properties -
    {kind:text layer}

  --Set the contents, size, position and color of the text layer
  set contents of text object of theTextLayer to "Hello, World!"
  set size of text object of theTextLayer to 36
  set position of text object of theTextLayer to {0.75 as inches, 1 as inches}
  set stroke color of text object of theTextLayer to theTextColor
end tell
```

## RGB hex color

A hexadecimal specification of an RGB color. The `RGB hex color` class inherits properties from the [color value](#) class.

### Properties

Property	Value Type	What it is
<code>hex value</code>	Unicode text	The hex representation of an RGB color.

## ripple

Used to apply the Ripple filter. The `ripple` class inherits properties from the [filter options](#) class.

Options that may be supplied when applying a filter to a layer or selection. See the [filter](#) command for additional details.

This class is used to define a record containing properties used to specify options when applying a filter. `ripple` options can only be supplied in conjunction with the `filter` command. It is not possible to get or create a `ripple` object.

### Properties

Property	Value Type	What it is
<code>amount</code>	integer	(-999 - 999)
<code>ripple size</code>	Valid Values: large medium small	

The following code sample demonstrates how to apply the Ripple filter using the `filter` command of the `ripple` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
  filter current layer of the current document using ripple with options ~
    {class:ripple, amount:345, ripple size:small}
end tell
```

## save for web export options

Options that can be specified when optimizing a document for the web or devices.

The `save for web export options` class supplies properties for the `export options` class. `save for web export options` options can be supplied only in conjunction with the `export` command. It is not possible to get or create a `save for web export options` object.

See the [export](#) command for further details.

### Properties

Property	Value type	What it is
<code>blur</code>	real	Applies blur to the image to reduce artifacts (default: 0.0).
<code>color reduction</code>	Valid values: adaptive black white custom reduction grayscale macintosh colors perceptual reduction restrictive selective windows colors	The color reduction algorithm (default: selective).
<code>colors in palette</code>	integer	The number of colors in the palette (default: 256).
<code>dither</code>	Valid values: diffusion noise none pattern	The type of dither (default: diffusion).
<code>dither amount</code>	integer	The amount of dither (default: 100).  <b>Note:</b> Valid only when <code>dither:diffusion</code> . See <a href="#">dither</a> .
<code>interlaced</code>	boolean	Indicates whether to download in multiple passes; progressive (default: false).
<code>lossy</code>	integer	The amount of lossiness allowed (default: 0).
<code>matte</code>	<a href="#">RGB color</a>	The colors to blend transparent pixels against.
<code>optimized size</code>	boolean	Indicates whether to create smaller but less compatible files (default: true).  <b>Note:</b> Valid only when <code>format:JPEG</code> . See <a href="#">web format</a> .

Property	Value type	What it is (Continued)
<code>png eight</code>	boolean	Indicates the number of bits; <code>true = 8</code> , <code>false = 24</code> (default: <code>true</code> ).  <b>Note:</b> Valid only when <code>format : PNG</code> . See <a href="#">web format</a> .
<code>quality</code>	integer	The quality of the produced image (0 - 100 as percentage; default: 60).
<code>transparency</code>	boolean	Indication of transparent areas of the image should be included in the saved image (default: <code>true</code> ).
<code>transparency amount</code>	integer	The amount of transparency dither (default: 100).  <b>Note:</b> Valid only if <code>transparency : true</code> . See <a href="#">transparency</a> .
<code>transparency dither</code>	Valid values: diffusion noise none pattern	The transparency dither algorithm (default: none).
<code>web format</code>	Valid values: CompuServe GIF/ JPEG/ PNG/ Wireless Bitmap	The file format to use (default: CompuServe GIF).
<code>web snap</code>	integer	The tolerance amount within which to snap close colors to web palette colors (default: 0).
<code>with profile</code>	boolean	Indicates whether to include the document's embedded color profile (default: <code>false</code> ).

## save options

Options used with the save command. The following classes inherit properties from the `save options` class: [BMP save options](#), [EPS save options](#), [GIF save options](#), [JPEG save options](#), [PDF save options](#), [Photoshop DCS 1.0 save options](#), [Photoshop DCS 2.0 save options](#), [Photoshop save options](#), [PICT file save options](#), [PICT resource save options](#), [Pixar save options](#), [PNG save options](#), [raw save options](#), [SGI RGB save options](#), [Targa save options](#), [TIFF save options](#).

### Valid Commands

[save](#)

## selection-object

The selection of the document.

### Properties

Property	Value Type	What it is
<b>best type</b>	type class	Read-only. The best type for the object's value.
<b>class</b>	type class	Read-only. The object's class.
<b>default type</b>	type class	Read-only. The default type for the object's value.
<b>properties</b>	record	All of this object's properties returned in a single record.
<b>container</b>	reference	Read-only. The object's container.
<b>bounds</b>	list of real	Read-only. The bounding rectangle of the entire selection
<b>solid</b>	boolean	Read-only. Indicates whether the bounding rectangle is solid.

### Valid Commands

[clear](#)  
[contract](#)  
[copy](#)  
[copy merged](#)  
[cut](#)  
[deselect](#)  
[expand](#)  
[feather](#)  
[fill](#)  
[grow](#)  
[invert](#)  
[load](#)  
[make work path](#)  
[rotate](#)  
[rotate boundary](#)  
[scale](#)  
[scale boundary](#)  
[select](#)  
[select all](#)  
[select border](#)  
[similar](#)  
[smooth](#)  
[store](#)  
[stroke](#)  
[translate](#)  
[translate boundary](#)



## selective color

The `selective color` class supplies options for the [adjustment options](#) class to modify the amount of a process color in a specified primary color without affecting the other primary colors.

The `selective color` class, which is analogous to the Selective Color command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when using the `adjust` command to apply a Selective Color adjustment to an image. The `selective color` class can be used only in conjunction with the `adjust` command. It is not possible to get or create a `selective color` object.

See the [adjust](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>selection method</code>	Valid Values: absolute relative	The method to use for interpreting selective color adjustment specifications: <code>absolute</code> = % of the whole; <code>relative</code> = % of the existing color amount.
<code>reds</code>	list of reals	Array of 4 values: cyan, magenta, yellow, black.
<code>yellows</code>	list of reals	Array of 4 values: cyan, magenta, yellow, black.
<code>greens</code>	list of reals	Array of 4 values: cyan, magenta, yellow, black.
<code>cyans</code>	list of reals	Array of 4 values: cyan, magenta, yellow, black.
<code>blues</code>	list of reals	Array of 4 values: cyan, magenta, yellow, black.
<code>magentas</code>	list of reals	Array of 4 values: cyan, magenta, yellow, black.
<code>whites</code>	list of reals	Array of 4 values: cyan, magenta, yellow, black.
<code>neutrals</code>	list of reals	Array of 4 values: cyan, magenta, yellow, black.
<code>blacks</code>	list of reals	Array of 4 values: cyan, magenta, yellow, black.

## settings-object

Preferences for the Adobe Photoshop CC application.

### Properties

Property	Value Type	What it is
<code>best type</code>	type class	Read-only. The best type for the object's value.
<code>class</code>	type class	Read-only. The object's class.
<code>default type</code>	type class	Read-only. The default type for the object's value.
<code>properties</code>	record	All of this object's properties returned in a single record.
<code>additional plugin folder</code>	alias	The path to an additional plug-in folder. Valid only when use <code>additional plugin folder: true</code> . See <a href="#">use additional plugin folder</a> .
<code>append extension</code>	Valid Values: ask no yes	Save files with extensions on Windows.
<code>ask before saving layered TIFF</code>	boolean	Indicates whether to ask the user to verify layer preservation options when saving a file in TIFF format.
<code>auto update open documents</code>	boolean	Indicates whether to automatically update open documents.
<code>beep when done</code>	boolean	Indicates whether to beep when a process finishes.
<code>cache levels</code>	integer	The number of images to hold in the cache (1 - 8).
<code>color picker</code>	Valid Values: Adobe color picker Apple color picker plug in color picker Windows color picker	
<code>column gutter</code>	real	The width of the column gutters (in points).
<code>column width</code>	real	The width of the columns (in points).
<code>create first snapshot</code>	boolean	Indicates whether to automatically make first snapshot when a new document is created.
<code>display color channels in color</code>	boolean	Indicates whether to display component channels in the Channels palette in color.

Property	Value Type	What it is (Continued)
<code>dynamic color sliders</code>	boolean	Indicates whether to display dynamic sliders in the Channels palette.
<code>edit log items</code>	Valid Values: concise detailed sessiononly	The options for editing history log items. Valid only when <code>use history log: true</code> . See <a href="#">use history log</a> .
<code>export clipboard</code>	boolean	Indicates whether to retain Adobe Photoshop CC contents on the clipboard after you exit the application.
<code>font preview size</code>	Valid Values: none preview huge extra large preview large preview medium preview small	Indicates whether to show font previews in the type tool font menus.
<code>full size preview</code>	boolean	(Mac only.) Indicates whether to display image previews as full size images or thumbnails.
<code>gamut warning opacity</code>	real	(0 - 100 as percent).
<code>grid size</code>	Valid Values: large medium none small	The size to use for squares in the grid.
<code>grid style</code>	Valid Values: dashed line dotted line solid line	The formatting style for non-printing grid lines.
<code>grid subdivisions</code>	integer	(1 - 100)
<code>guide style</code>	Valid Values: dashed line solid line	The formatting style for non-printing guide lines.
<code>icon preview</code>	boolean	(Mac only.)
<code>image previews</code>	Valid Values: ask no yes	The behavior mode to use when saving files.
<code>interpolation method</code>	Valid Values: bicubic bicubic sharper bicubic smoother bilinear closest neighbor none	The method to use to assign color values to any new pixels created when an image is resampled or resized.

Property	Value Type	What it is (Continued)
<code>keyboard zoom resizes windows</code>	boolean	Indicates whether to automatically resize the window when zooming in or out using keyboard shortcuts.
<code>Mac OS thumbnail</code>	boolean	(Mac only.) Indicates whether to create a thumbnail when saving the image.
<code>maximize compatibility</code>	Valid Values: always ask never	Indicates whether and when to maximize compatibility when opening Adobe Photoshop CC (PSD) files.
<code>maximum RAM use</code>	integer	Maximum percentage of available RAM used by Adobe Photoshop CC (5 - 100).
<code>nonlinear history</code>	boolean	Indicates whether to allow non-linear history.
<code>number of history states</code>	integer	The number of history states to remember (1 - 100).
<code>other cursors</code>	Valid Values: precise standard	The type of pointer to use.
<code>painting cursors</code>	Valid Values: brush size precise standard	The type of pointer to use.
<code>pixel doubling</code>	boolean	Indicates whether to halve the resolution or (double the size of pixels) to make previews display more quickly.
<code>point size</code>	Valid Values: postscript size traditional size	The point/pica size.
<code>recent file list length</code>	integer	The number of items in the recent file list (0 - 30)
<code>ruler units</code>	Valid Values: cm units inch units mm units percent units pica units pixel units point units	The unit that the scripting system will use when receiving and returning values.  <b>Note:</b> For properties that accept ruler unit values (such as <code>height of document</code> ); the values cannot be provided as <code>mm</code> or as <code>cm</code> . These unit types are not recognized by the AppleScript terminology.
<code>save log items</code>	Valid Values: both log file metadata	Options for saving the history items.
<code>save log items file</code>	alias	The file in which to save the history log.

Property	Value Type	What it is (Continued)
<code>save palette locations</code>	boolean	Indicates whether to make new palette locations the default location.
<code>show Asian text options</code>	boolean	Indicates whether to display Asian text options in the Paragraph palette.
<code>show English font names</code>	boolean	Indicates whether to list Asian font names in English.
<code>show slice numbers</code>	boolean	Indicates whether to display slice numbers in the document window when using the Slice tool.
<code>show tool tips</code>	boolean	Indicates whether to show pop up definitions on mouse over.
<code>smart quotes</code>	boolean	Indicates whether to use curly or straight quote marks.
<code>type units</code>	Valid Values: mm units pixel units point units	The unit type-size that the numeric inputs are assumed to represent.
<code>use additional plugin folder</code>	boolean	Indicates whether to use an additional folder for compatible plug-ins stored with a different application.
<code>use history log</code>	boolean	Turn on and off the history logging
<code>use lowercase extension</code>	boolean	Indicates whether to use lowercase for file extensions.
<code>use Shift key for tool switch</code>	boolean	Indicates whether to enable cycling through a set of hidden tools.
<code>use video alpha</code>	boolean	Indicates whether to enable Adobe Photoshop CC to send transparency information to your computer's video board. (Requires hardware support.)
<code>Windows thumbnail</code>	boolean	(Requires hardware support.) Indicates whether to create a thumbnail when saving the image.

## SGI RGB save options

Options that can be specified when saving a document in SGI RGB format. See the [save](#) command for additional details. The `SGI RGB save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a SGI RGB file. `SGI RGB save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `SGI RGB save options` object.

### Properties

Property	Value Type	What it is
<code>save alpha channels</code>	boolean	Indicates whether to save the alpha channels.
<code>save spot colors</code>	boolean	Indicates whether to save the spot colors.

The following code creates the `myOptions` variable to hold the `SGI RGB save options`, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  make new document
  set myFile to "Data:docsamples:testfiles:MySGIRGB.rgb"
  set myOptions to {class:SGI RGB save options, save alpha channels:true, ↵
    save spot colors:true}
  save current document in file myFile as SGI RGB with options ↵
    myOptions appending no extension without copying
end tell
```

## sharpen

Options that may be supplied when applying a Sharpen filter.

The `sharpen` class supplies properties for the [filter options](#) class. The `sharpen` class is used only to define a record whose properties specify options when using the `filter` command to apply a Sharpen filter. `sharpen` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `sharpen` object.

See the [filter](#) command for additional details.

The following code sample demonstrates how to apply the Sharpen filter using the `filter` command of the `sharpen` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using sharpen with options end tell
```

## sharpen edges

Options that may be supplied when applying a Sharpen Edges filter.

The `sharpen edges` class supplies properties for the [filter options](#) class. The `sharpen edges` class is used only to define a record when using the `filter` command to apply a Sharpen Edges filter. `sharpen edges options` can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `sharpen edges` object.

See the [filter](#) command for additional details.

The following code sample demonstrates how to apply the Sharpen Edges filter using the `filter` command of the `sharpen edges` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using sharpen edges
end tell
```



## sharpen more

Options that may be supplied when applying a Sharpen More filter.

The `sharpen more` class supplies properties for the [filter options](#) class. The `sharpen more` class is used only to define a record when using the `filter` command to apply a Sharpen More filter. `sharpen more` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `sharpen more` object.

See the [filter](#) command for additional details.

The following code sample demonstrates how to apply the Sharpen More filter using the `filter` command of the `sharpen more` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using sharpen more
end tell
```

## shear

Options that may be supplied when applying a Shear filter.

The `shear` class supplies properties for the [filter options](#) class. The `shear` class is used only to define a record whose properties specify options when applying a Shear filter. `shear` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `shear` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<b>curve</b>	list of points	A list of curve coordinates (x, y) that define the points that describe the shear curve. You must provide x and y coordinates for a minimum of 2 points.
<b>undefined areas</b>	Valid Values: repeat edge pixels wrap around	The method to use to treat undistorted areas or areas left blank in an image to which the a filter in the Distort category has been applied.

The following code sample demonstrates how to apply the Shear filter using the `filter` command of the `shear` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using shear with options -
        {class:shear, curve:{{12, 4}, {12, 8}, {8, 13}}, undefined areas:wrap around}
end tell
```

## smart blur

Options that may be supplied when applying a Smart Blur filter.

The `smart blur` class supplies properties for the `filter options` class. The `smart blur` class is used only to define a record whose properties specify options when applying a Smart Blur filter. `smart blur` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `smart blur` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<b>radius</b>	real	(0 - 1000)
<b>threshold</b>	real	(0 - 1000)
<b>quality</b>	Valid Values: high low medium	
<b>mode</b>	Valid Values: edge only normal overlay edge	The method to use for smart blurring: edge only, overlay edges: Apply blur only to edges of color transitions; normal: Apply blur to entire image.

The following code sample demonstrates how to apply the Smart Blur filter using the `filter` command of the `smart blur` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using smart blur with options -
        {class:smart blur, radius:765, threshold:88, quality:high, mode:normal}
end tell
```

## spherize

Options that may be supplied when applying a Spherize filter.

The `spherize` class supplies properties for the `filter options` class. The `spherize` class is used only to define a record whose properties specify options when applying a Spherize filter. `spherize` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `spherize` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>amount</code>	integer	(-100 - 100)
<code>mode</code>	Valid Values: horizontal normal vertical	The curve (or stretch shape) to use for the distortion.

The following code sample demonstrates how to apply the Spherize filter using the `filter` command of the `spherize` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using spherize with options ~
        {class:spherize, amount:27, mode:normal}
end tell
```

## sub path info

Sub path information (returned by the `entire path` property of the [path item, path items](#) class).

You add sub path information to a path by passing a `sub path info` object to the `make` command (through the `entire path` property) for a `path item` object. This method creates the `sub path item` objects associated with each `sub path info` object, and returns a `path item` object that is the path represented by all the sub paths.

**Note:** For an example of creating sub path info object, see [path item, path items](#).

### Properties

Property	Value Type	What it is
<code>closed</code>	boolean	Indicates whether the path describes an enclosed area.
<code>entire sub path</code>	list of <a href="#">path point info</a> objects	The sub path item's path points.
<code>operation</code>	Valid Values: shape add shape intersect shape subtract shape xor	The sub path's operation on other sub paths.

### Valid Commands

[exists](#)

## sub path item, sub path items

An array of `path point info` objects that describes a straight or curved segment of a path.

**Tip:** You do not use the `sub path item` object to create a sub path. Rather, you use the `sub path item` object to retrieve information about a sub path. To create sub paths, see [sub path info](#).

### Elements

Element	Refer to by
<code>path point</code>	numeric index, as a range of elements, before after another element, satisfying a test

### Properties

Property	Value Type	What it is
<code>best type</code>	<code>type class</code>	Read-only. The best type for the object's value.
<code>class</code>	<code>type class</code>	Read-only. The object's class.
<code>default type</code>	<code>type class</code>	Read-only. The default type for the object's value.
<code>index</code>	<code>integer</code>	Read-only. The index of this instance of the object.
<code>properties</code>	<code>record</code>	All of this object's properties returned in a single record.
<code>closed</code>	<code>boolean</code>	Read-only. Indicates whether the sub path item describes an enclosed area.
<code>container</code>	<code>reference</code>	Read-only. The object's container.
<code>entire sub path</code>	list of <a href="#">path point info</a> objects	Read-only. The sub path item's path points.
<code>operation</code>	Valid Values: <code>shape add</code> <code>shape intersect</code> <code>shape subtract</code> <code>shape xor</code>	Read-only. The sub path's operation on other sub paths.

### Valid Commands

[count](#)  
[exists](#)  
[index](#)

## Targa save options

Options that can be specified when saving a document in Targa format. See the [save](#) command for additional details. The `Targa save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a Targa file. `Targa save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `Targa save options` object.

### Properties

Property	Value Type	What it is
<b>resolution</b>	Valid Values: sixteen thirty two twenty four	The number of bits per pixel (default: twenty four).
<b>RLE compression</b>	boolean	Indicates whether to use RLE compression (default: true).
<b>save alpha channels</b>	boolean	Indicates whether to save the alpha channels.

The following code creates the `myOptions` variable to hold the `Targa save options`, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  make new document
  set myFile to "Data:docsamples:testfiles:TargaSave.tga"

  set myOptions to {class:Targa save options, resolution:sixteen, -
    RLE compression:true, save alpha channels:true}

  save current document in file myFile as Targa with options -
    myOptions appending no extension without copying
end tell
```

## text-object

The text item contained in an art layer. A `text-object` is a property of an art layer class whose `kind` property value is `text layer`. `text-object` is used only to define a record whose properties specify options for a text layer. `text-object` options can be supplied only in conjunction with a text layer; it is not possible to get or create a `text-object` object.

See [art layer](#), [art layers](#) for additional details.

### Properties

Property	Value Type	What it is
<code>best type</code>	type class	Read-only. The best type for the object's value.
<code>class</code>	type class	Read-only. The object's class.
<code>default type</code>	type class	Read-only. The default type for the object's value.
<code>properties</code>	record	All of this object's properties returned in a single record.
<code>alternate ligatures</code>	boolean	Indicates whether to use alternate ligatures.
<code>antialias method</code>	Valid Values: crisp none sharp smoothing strong	The method of antialiasing to use.
<code>auto kerning</code>	Valid Values: manual metrics optical	The auto kerning option to use.
<code>auto leading</code>	boolean	Indicates whether to use a font's built-in leading information.
<code>auto leading amount</code>	real	The percentage to use for auto (default) leading (0.01 - 5000.00 in points). Valid only when <code>auto leading: true</code> . See <a href="#">auto leading</a> .
<code>baseline shift</code>	real	The baseline offset of the text (unit value).
<code>capitalization</code>	Valid Values: all caps normal small caps	The text case.
<code>container</code>	reference	Read-only. The object's container.
<code>contents</code>	Unicode text	The actual text in the layer.



Property	Value Type	What it is (Continued)
<code>desired glyph scaling</code>	real	<p>The desired amount (percentage) to scale the horizontal size of the text letters (50 - 200; at 100, the width of characters is not scaled).</p> <p><b>Note:</b> Valid only when <code>justification: center justified</code>; <code>justification: fully justified</code>; <code>justification: left justified</code>; or <code>justification: right justified</code>. See <a href="#">justification</a>.</p> <p>The following values are also required: <a href="#">minimum glyph scaling</a> and <a href="#">maximum glyph scaling</a>.</p>
<p><code>desired letter scaling</code></p> <p><b>Note:</b> 'letter scaling' is basically equivalent to 'Letter Spacing' in the Adobe Photoshop CC application Justification dialog (Select Justification on the Paragraphs palette menu).'</p>	real	<p>The amount of space between letters (100 - 500; at 0, the width of characters is not scaled).</p> <p><b>Note:</b> Valid only when <code>justification: center justified</code>; <code>justification: fully justified</code>; <code>justification: left justified</code>; or <code>justification: right justified</code>. See <a href="#">justification</a>.</p> <p>The following values are also required: <a href="#">minimum letter scaling</a> and <a href="#">maximum letter scaling</a>.</p>
<p><code>desired word scaling</code></p> <p><b>Note:</b> 'word scaling' is basically equivalent to 'Word Spacing' in the Adobe Photoshop CC application Justification dialog (Select Justification on the Paragraphs palette menu).'</p>	real	<p>The amount (percentage) of space between words (0 - 1000; at 100, no additional space is added between words).</p> <p><b>Note:</b> Valid only when <code>justification: center justified</code>; <code>justification: fully justified</code>; <code>justification: left justified</code>; or <code>justification: right justified</code>. See <a href="#">justification</a>.</p> <p>The following values are also required: <a href="#">minimum word scaling</a> and <a href="#">maximum word scaling</a>.</p>
<code>faux bold</code>	boolean	Indicates whether to use faux bold.
<code>faux italic</code>	boolean	Indicates whether to use faux italic.
<code>first line indent</code>	real	The amount (unit value) to indent the first line of paragraphs (-1296 - 1296).
<code>font</code>	Unicode text	The text face of the characters.

Property	Value Type	What it is (Continued)
<code>height</code>	real	The width of the bounding box (unit value) for paragraph text.  <b>Note:</b> Valid only when <code>kind: paragraph text</code> . See <a href="#">kind</a> .
<code>horizontal scale</code>	integer	Character scaling (horizontal) in proportion to vertical scale (0 - 1000 in percent). See <a href="#">vertical scale</a> .
<code>horizontal warp distortion</code>	real	The horizontal distortion of the warp (-100 - 100 as percent).
<code>hyphen limit</code>	integer	The maximum number of consecutive lines that can end with a hyphenated word.
<code>hyphenate after first</code>	integer	The number of letters after which hyphenation in word wrap is allowed (1 - 15).
<code>hyphenate before last</code>	integer	The number of letters before which hyphenation in word wrap is allowed (1 - 15).
<code>hyphenate capitalized words</code>	boolean	Indicates whether to allow hyphenation of capitalized words.
<code>hyphenate words longer than</code>	integer	The minimum number of letters a word must have in order for hyphenation in word wrap to be allowed (2 - 25).
<code>hyphenation</code>	boolean	Indicates whether to allow hyphenation in word wrap.
<code>hyphenation zone</code>	real	The distance at the end of a line that will cause a word to break in unjustified type (0 - 720 pica).
<code>justification</code>	Valid Values: center center justified fully justified left left justified right right justified	The paragraph justification.
<code>kind</code>	Valid Values: paragraph text point text	The type of the text wrap to use.

Property	Value Type	What it is (Continued)
<b>language</b>	Valid Values: Brazilian Portuguese Canadian French Danish Dutch English UK English USA Finnish French German Italian Norwegian Nynorsk Norwegian Old German Portuguese Spanish Swedish Swiss German	The language to use.
<b>leading</b>	real	The leading amount (unit value).
<b>left indent</b>	real	The amount (unit value) of space to indent text from the left (-1296 - 1296).
<b>ligatures</b>	boolean	Indicates whether to use ligatures.
<b>maximum glyph scaling</b>	real	The maximum amount (percentage) to scale the horizontal size of the text letters (50 - 200; at 100, the width of characters is not scaled).  <b>Note:</b> Valid only when justification: center justified; justification: fully justified; justification: left justified; OR justification: right justified. See <a href="#">justification</a> .  The following values are also required: <a href="#">desired glyph scaling</a> and <a href="#">maximum glyph scaling</a> .
<b>maximum letter scaling</b>  <b>Note:</b> 'letter scaling' is basically equivalent to 'Letter Spacing' in the Adobe Photoshop CC application Justification dialog (Select Justification on the Paragraphs palette menu).'	real	The maximum amount of space to allow between letters (100 - 500; at 0, the width of characters is not scaled).  <b>Note:</b> Valid only when justification: center justified; justification: fully justified; justification: left justified; OR justification: right justified. See <a href="#">justification</a> .  The following values are also required: <a href="#">minimum letter scaling</a> and <a href="#">desired letter scaling</a> .

Property	Value Type	What it is (Continued)
<p><b>maximum word scaling</b></p> <p><b>Note:</b> 'word scaling' is basically equivalent to 'Word Spacing' in the Adobe Photoshop CC application Justification dialog (Select Justification on the Paragraphs palette menu).'</p>	real	<p>The maximum amount (percentage) of space to allow between words (0 -1000; at 100, no additional space is added between words).</p> <p><b>Note:</b> Valid only when justification: center justified; justification: fully justified; justification: left justified; or justification: right justified. See <a href="#">justification</a>.</p> <p>The following values are also required: <a href="#">minimum word scaling</a> and <a href="#">desired word scaling</a>.</p>
<p><b>minimum glyph scaling</b></p>	real	<p>The minimum amount (percentage) to scale the horizontal size of the text letters (50 - 200; at 100, the width of characters is not scaled).</p> <p><b>Note:</b> Valid only when justification: center justified; justification: fully justified; justification: left justified; or justification: right justified. See <a href="#">justification</a>.</p> <p>The following values are also required: <a href="#">maximum glyph scaling</a> and <a href="#">desired glyph scaling</a>.</p>
<p><b>minimum letter scaling</b></p> <p><b>Note:</b> 'letter scaling' is basically equivalent to 'Letter Spacing' in the Adobe Photoshop CC application Justification dialog (Select Justification on the Paragraphs palette menu).'</p>	real	<p>The minimum amount of space to allow between letters (100 - 500; at 0, the width of characters is not scaled).</p> <p><b>Note:</b> Valid only when justification: center justified; justification: fully justified; justification: left justified; or justification: right justified. See <a href="#">justification</a>.</p> <p>The following values are also required: <a href="#">desired letter scaling</a> and <a href="#">maximum letter scaling</a>.</p>

Property	Value Type	What it is (Continued)
<b>minimum word scaling</b>  <b>Note:</b> 'word scaling' is basically equivalent to 'Word Spacing' in the Adobe Photoshop CC application Justification dialog (Select Justification on the Paragraphs palette menu).	real	The minimum amount (percentage) of space to allow between words (0 -1000; at 100, no additional space is added between words).  <b>Note:</b> Valid only when <code>justification: center justified</code> ; <code>justification: fully justified</code> ; <code>justification: left justified</code> ; or <code>justification: right justified</code> . See <a href="#">justification</a> .  The following values are also required: <a href="#">desired word scaling</a> and <a href="#">maximum word scaling</a> .
<b>no break</b>	boolean	Indicates whether to allow words to break at the end of a line.  <b>Tip:</b> When enacted on large amounts of consecutive characters, <code>noBreak: true</code> can prevent word wrap and thus may prevent some text from appearing on the screen.
<b>old style</b>	boolean	Indicates whether to use old style type.
<b>position</b>	list	The position of origin for the text. The list must contain two values (unit value).  <b>Tip:</b> Setting the <code>position</code> property is basically equivalent to clicking the text tool at a point in the document to create the point of origin for text.
<b>right indent</b>	real	The amount of space (unit value) to indent text from the right (-1296 - 1296).
<b>Roman hanging punctuation</b>	boolean	Indicates whether to use Roman Hanging Punctuation.
<b>size</b>	real	The font size(unit value).
<b>space after</b>	real	The amount of space (unit value) to use after each paragraph (-1296 - 1296).
<b>space before</b>	real	The amount of space (unit value) to use before each paragraph (-1296 - 1296).
<b>strike thru</b>	Valid Values:  off strike box strike height	Options for text strikethrough.
<b>stroke color</b>	color value	The text color.

Property	Value Type	What it is (Continued)
<code>text composer</code>	Valid Values: Adobe every line Adobe single line	The composition method to use to evaluate line breaks and optimize the specified hyphenation and justification options.  <b>Note:</b> Valid only when <code>kind: paragraph text</code> . See <a href="#">kind</a> .
<code>text direction</code>	Valid Values: horizontal vertical	The text orientation.
<code>tracking</code>	real	The amount of uniform spacing between multiple characters (-1000 - 10000).  <b>Tip:</b> Tracking units are 1/1000 of an em space. The width of an em space is relative to the current type size. In a 1-point font, 1 em equals 1 point; in a 10-point font, 1 em equals 10 points. So, for example, 100 units in a 10-point font are equivalent to 1 point.
<code>underline</code>	Valid Values: left off right	Options for text underlining.
<code>vertical scale</code>	integer	Character scaling (vertical) in proportion to horizontal scale (0 - 1000 in percent). See <a href="#">horizontal scale</a> .
<code>vertical warp distortion</code>	real	(-100 - 100 as percent).
<code>warp bend</code>	real	(-100 - 100 as percent).
<code>warp direction</code>	Valid Values: horizontal vertical	

Property	Value Type	What it is (Continued)
<b>warp style</b>	Valid Values: arc arc lower arc upper arch bulge fish fish eye flag inflate none rise shell lower shell upper squeeze twist wave	
<b>width</b>	real	The width of the bounding box (unit value) for paragraph text.  <b>Note:</b> Valid only when <code>kind: paragraph text</code> . See <a href="#">kind</a> .

### Valid Commands

[convert to shape](#)  
[create work path](#)  
[exists](#)

The following code creates a text item in the art layer `textLayer`, and then uses the `contents`, `justification`, and `stroke color` properties of the `text-object` class to define the text item. For the second document, the text layer is set up using `set` properties.

```
tell application "Adobe Photoshop CC"
  activate
  set doc to make new document
  set textLayer to make new art layer of doc with properties {kind:text layer}
  set contents of text object of textLayer to "Hello, World!"
  set position of text object of textLayer to {4 as inches, 1 as inches}
  set justification of text object of textLayer to right
  set stroke color of text object of textLayer to -
    {class:RGB color, red:255, green:0, blue:0}

  set doc to make new document
  set textLayer to make new art layer of doc with properties {kind:text layer}
  set properties of text object of textLayer to {contents:"Hello, World!",-
    position:{4 as inches, 1 as inches}, justification:right, -
    stroke color:{class:RGB color, red:255, green:0, blue:0}, size:40}
end tell
```

## texture fill

Options that may be supplied when applying a Texture Fill filter.

The `texture fill` class supplies properties for the [filter options](#) class. The `texture fill` class is used only to define a record whose properties specify options when applying a Texture Fill filter. `texture fill` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `texture fill` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>file path</code>	alias	The full path to the texture file. Must be a grayscale Photoshop file.

The following code sample demonstrates how to apply the Texture Fill filter using the `filter` command of the `texture fill` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using texture fill with options -
        {class:texture fill, file path:"Data:docsamples:testfiles:texturefill.psd"}
end tell
```



## threshold adjustment

The `threshold adjustment` class supplies options properties for the [adjustment options](#) class to convert grayscale or color images to high-contrast, B/W images by converting pixels lighter than the specified threshold to white and pixels darker than the threshold to black.

The `threshold adjustment` class, which is analogous to the Threshold command in the Adobe Photoshop CC application, is used only to define a record containing properties that specify options when using the `adjust` command to apply a Threshold adjustment to an image. The `threshold adjustment` class can be used only in conjunction with the `adjust` command. It is not possible to get or create an `threshold adjustment` object.

See the [adjust](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>level</code>	integer	(1 - 255)

The following code sample demonstrates how to apply a threshold adjustment using the `adjust` command of the `threshold adjustment` class (inherited from the `adjustment options` super class).

```
tell application "Adobe Photoshop CC"
    adjust current layer of the current document using threshold adjustment -
        with options {class:threshold adjustment, level:36}
end tell
```

## TIFF save options

Options that can be specified when saving a document in TIFF format. See the [save](#) command for additional details. The `TIFF save options` class inherits properties from the [save options](#) class.

This class is used to define a record containing properties used to specify options when saving a document as a TIFF file. `TIFF save options` can only be supplied in conjunction with the `save` command. It is not possible to get or create a `TIFF save options` object.

### Properties

Property	Value Type	What it is
<code>byte order</code>	Valid Values: IBM PC Mac OS	The order in which the document's bytes will be read. (The default is <code>ByteOrder.MACOS</code> when running on Mac OS and <code>ByteOrder.IBM</code> when running on a PC.)
<code>embed color profile</code>	boolean	Indicates whether to embed the color profile in the document.
<code>image compression</code>	Valid Values: JPEG LZW none ZIP	The compression type to use (default: <code>none</code> ).
<code>interleave channels</code>	boolean	Indicates whether the channels in the image will be interleaved. (default: <code>true</code> )
<code>JPEG quality</code>	integer	The quality of the produced image (0 - 12), which is inversely proportionate to the amount of JPEG compression.  <b>Note:</b> Valid only when <code>image compression: JPEG</code> .
<code>layer compression</code>	Valid Values: RLE ZIP	The method of compression to use when saving layers (as opposed to saving composite data).  <b>Note:</b> Valid only when <code>save layers: true</code> . See <a href="#">save layers</a> .
<code>save alpha channels</code>	boolean	Indicates whether to save the alpha channels.
<code>save annotations</code>	boolean	Indicates whether to save the annotations.
<code>save image pyramid</code>	boolean	Indicates whether to preserve multiresolution information (default: <code>false</code> ).
<code>save layers</code>	boolean	Indicates whether to save the layers.
<code>save spot colors</code>	boolean	Indicates whether to save the spot colors.
<code>transparency</code>	boolean	Indicates whether to save the transparency as an additional alpha channel when the file is opened in another application.

The following code creates the `myOptions` variable to hold the TIFF save options, then uses the [save](#) command to save the document with the specified options.

```
tell application "Adobe Photoshop CC"
  make new document
  set myFile to "Data:docsamples:testfiles:TiffSave.tif"

  set myOptions to -
    {class:TIFF save options, embed color profile:true, -
      image compression:JPEG, JPEG quality:4, save layers:true, -
      save spot colors:true}

  save current document in file myFile as TIFF with options -
    myOptions appending no extension without copying
end tell
```

## twirl

Options that may be supplied when applying a Twirl filter.

The `twirl` class supplies properties for the [filter options](#) class. The `twirl` class is used only to define a record whose properties specify options when applying a Twirl filter. `twirl` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `twirl` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>angle</code>	integer	(-999 - 999)

The following code sample demonstrates how to apply the Twirl filter using the `filter` command of the `twirl` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using twirl with options -
        {class:twirl, angle:47}
end tell
```

## unsharp mask

Options that may be supplied when applying an Unsharp Mask filter.

The `unsharp mask` class supplies properties for the `filter options` class. The `unsharp mask` class is used only to define a record whose properties specify options when applying an Unsharp Mask filter. `unsharp mask` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create an `unsharp mask` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>amount</code>	real	(1 - 500 as percent)
<code>radius</code>	real	(0.1 - 250.00 in pixels)
<code>threshold</code>	integer	(0 - 255)

The following code sample demonstrates how to apply the Unsharp Mask filter using the `filter` command of the `unsharp mask` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
    filter current layer of the current document using unsharp mask with options -
        {class:unsharp mask, amount:437, radius:17.8, threshold:255}
end tell
```

## wave filter

Options that may be supplied when applying a Wave filter.

The `wave filter` class supplies properties for the `filter options` class. The `wave` class is used only to define a record whose properties specify options when applying a Wave filter. `wave filter` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `wave` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>number of generators</code>	integer	(1 - 999)
<code>minimum wavelength</code>	integer	(1 - 998)
<code>maximum wavelength</code>	integer	(2 - minimum wavelength + 1)
<code>minimum amplitude</code>	integer	(1 - 998)
<code>maximum amplitude</code>	integer	(2 - minimumAmplitude + 1)
<code>horizontal scale</code>	integer	(1 - 100 as percent)
<code>vertical scale</code>	integer	(1 - 100 as percent)
<code>wave type</code>	Valid Values: sine square triangular	
<code>undefined areas</code>	Valid Values: repeat edge pixels wrap around	The method to use to fill areas left blank by the wave distortion.
<code>random seed</code>	integer	The number to use to control random wave lengths.

The following code sample demonstrates how to apply the Wave filter using the `filter` command of the `wave` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
  filter current layer of the current document using wave filter ↵
    with options ↵
      {class:wave filter, number of generators:1 ↵
        , minimum wavelength:1, maximum wavelength:100 ↵
        , minimum amplitude:5, maximum amplitude:10 ↵
        , horizontal scale:100, vertical scale:100 ↵
        , wave type:sine, undefined areas:repeat edge pixels, random seed:0}
    end tell
```

## XMP metadata

Camera raw image file settings stored in an XMP file in the same folder as the raw file with the same base name and an XMP extension.

### Properties

Property	Value Type	What it is
<code>best type</code>	type class	Read-only. The best type for the object's value.
<code>class</code>	type class	Read-only. The object's class.
<code>default type</code>	type class	Read-only. The default type for the object's value.
<code>properties</code>	record	All of this object's properties returned in a single record.
<code>container</code>	reference	Read-only. The object's container.
<code>raw data</code>	Unicode text	The raw XML form of file information.

## zigzag

Options that may be supplied when applying a Zigzag filter.

The `zigzag` class supplies properties for the `filter options` class. The `zigzag` class is used only to define a record whose properties specify options when applying a Zigzag filter. `zigzag` options can be supplied only in conjunction with the `filter` command. It is not possible to get or create a `zigzag` object.

See the [filter](#) command for additional details.

### Properties

Property	Value Type	What it is
<code>amount</code>	integer	(-100 - 100)
<code>ridges</code>	integer	(0 - 20)
<code>style</code>	Valid Values: around center out from center pond ripples	The type of zigzag to use.

The following code sample demonstrates how to apply the Zigzag filter using the `filter` command of the `zigzag` class (inherited from the `filter options` super class).

```
tell application "Adobe Photoshop CC"
  activate
  filter current layer of the current document using zigzag -
    with options {class:zigzag, amount:-45, ridges:13, style:pond ripples}
end tell
```





# 3

## AppleScript Commands

This chapter provides a complete reference for the commands in the Adobe Photoshop CC AppleScript dictionary. The commands are presented alphabetically.

The commands supported by each object, with links to the detailed descriptions here, are listed in [‘AppleScript Objects’ on page 9](#).

### Overview

This chapter describes the commands in the Adobe Photoshop CC AppleScript dictionary, as well as some of the important standard AppleScript commands. The AppleScript dictionary itself shows only that the command returns an object, or that the command takes an object reference as a parameter; it does not show the specific objects that can respond to a particular command. Not all Adobe Photoshop CC objects can respond to all commands. This reference details which objects respond to which commands, and what type of object each command returns (if any).

The following information is given for each command.

Column heading	What it means
Parameters	Constants, keywords, and values needed by the command. <ul style="list-style-type: none"><li>• Variable values to be supplied are shown in bold.</li><li>• Literal terms and constants are shown in plain type.</li><li>• Items surrounded by brackets [ ] are optional.</li></ul>
What it is	An explanation of the parameters.
Objects supported	Which objects support the command and/or which objects the command can operate upon. The <code>document</code> object, for example, supports the command <code>close</code> , but not the command <code>quit</code> .
Returns	Many commands return values (text, numbers, lists, and object references). This column shows you what kind of reference you can expect the command to return (if any).

## activate

Makes an application active; that is, makes Adobe Photoshop CC the frontmost application.

Parameters	What it is	Objects supported	Returns
none		<a href="#">application</a>	nothing

The the first line of the following code sample directs Adobe Photoshop CC to carry out the script's commands. The second line uses the `activate` command to make Adobe Photoshop CC the frontmost application.

```
tell application "Adobe Photoshop CC"
  activate
end tell
```

**Note:** Adobe Photoshop CC must be the frontmost application when executing any command that deals with the clipboard. Use `activate` to ensure that Adobe Photoshop CC is the active application. See the clipboard commands for examples:

[copy](#)

[cut](#)

[paste](#)

## adjust

Applies an adjustment to one or more art layers.

Parameters	What it is	Objects supported	Returns
<code>adjust art layer</code>	The art layer object or objects to be operated upon.	<a href="#">art layer</a> , <a href="#">art layers</a>	
using <b>anything</b>	The options class used to invoke the method.  <b>Note:</b> The class must be a class that inherits from <a href="#">adjustment options</a> .	<a href="#">automatic contrast</a> <a href="#">automatic levels</a> <a href="#">brightness and contrast</a> <a href="#">color balance</a> <a href="#">curves</a> <a href="#">desaturate</a> <a href="#">equalize</a> <a href="#">inversion</a> <a href="#">levels adjustment</a> <a href="#">mix channels</a> <a href="#">posterize</a> <a href="#">selective color</a> <a href="#">threshold adjustment</a>	
[with options <a href="#">adjustment options</a> ]	The options that can be specified for the command.		

The following code sample demonstrates how to apply an Automatic Contrast adjustment using the `adjust` command of the `automatic contrast` class (inherited from the `adjustment options` super class).

```
tell application "Adobe Photoshop CC"
    adjust current layer of the current document using automatic contrast end tell
```

## apply

Applies the specified layer comp to the document.

Parameters	What it is	Objects supported	Returns
<code>apply layer comp</code>	The layer comp object or objects to be operated upon.	<a href="#">layer comp</a> , <a href="#">layer comps</a>	nothing

The following code creates two art layers and a layer comp, then applies the layer comp to the document.

```
tell application "Adobe Photoshop CC"
  activate

  --create a variable named theDocRef
  --assign the current (active) document to it
  set theDocRef to the current document

  --create two art layers and make a layer comp
  set layer1 to make new art layer in theDocRef with properties -
    {visible:true}
  set layer2 to make new art layer in theDocRef with properties -
    {visible:true}
  set layerComp1 to make new layer comp in theDocRef with properties -
    {visibility:true, name:"First Document State"}
  apply layerComp1
end tell
```

## apply layer style

Applies a layer style to the specified art layer.

Parameters	What it is	Objects supported	Returns
<code>apply layer style</code> <code>art layer</code>	The art layer object or objects to which you want to apply the style.	<a href="#">art layer</a> , <a href="#">art layers</a> <a href="#">layer</a> , <a href="#">layers</a>	
using <code>Unicode text</code>	The name of the layer style to apply.		

The following code creates a text layer by creating an art layer and setting its `kind` property to `text layer`, then applies the Sunset Sky layer style to the layer. The layer style is taken from the apply Layer Style list in the Layers palette in the Adobe Photoshop CC application.

```
tell application "Adobe Photoshop CC"
    activate

    --create a variable named theDocRef
    --assign the current (active) document to it
    set theDocRef to the current document

    --create a text layer and apply a style
    set layer1 to make new art layer in theDocRef with properties ~
        {kind:text layer}
    set properties of text object of layer1 to {contents:"This is myTest.", ~
        size:60, position:{0.5 as inches, 3 as inches}}
    try
        apply layer style layer1 using "Sunset Sky (Text)"
    on error
        --load default styles for localized version
        try
            open file "Data:docsamples:testfiles:Default Styles.asl"
        end try
        apply layer style layer1 using "Sunset Sky (Text)"
    end try

end tell
```

## auto count

Counts the objects in an image. Creates a `count item` object for each object counted. See [count item](#), [count items](#).

**Note:** The auto count feature is available in the Extended Version only.

For additional information about how to set up objects to count, please see the Count Tool in the Adobe Photoshop CC Help

Parameters	What it is	Objects supported	Returns
<code>auto count document</code>	The document to count objects in.	<a href="#">document</a> , <a href="#">documents</a>	
<code>from channel</code>	The channel to use for counting.	<a href="#">channel</a> , <a href="#">channels</a>	
<code>threshold integer</code>	Threshold to use for counting (0-255)		

## batch

Runs the batch automation routine. This is analogous to using the Batch command in Adobe Photoshop CC.

Parameters	What it is	Objects supported	Returns
batch <b>Unicode text</b>	The name of the action to play.  <b>Note:</b> The case of letters in the Action name must match the case of the name in the Actions palette.		Unicode text
from files list of alias	The list of files to operate on.		
from <b>Unicode text</b>	The name of the action set containing the action being played.  <b>Note:</b> The case of letters in the Action Set name must match the case of the name in the Actions palette.		
[with options <a href="#">batch options</a> ]	Options for batch automation.	<a href="#">batch options</a>	



## change mode

Changes the color mode of the document.

Parameters	What it is	Objects supported	Returns
change mode <b>document</b>	The document object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a>	
to bitmap/CMYK/grayscale/ indexed color/Lab/ multichannel/RGB	The mode to change to.		
[with options <a href="#">change mode options</a> ]	Options for changing the mode.	<a href="#">Bitmap mode options</a> <a href="#">indexed mode options</a>	

## close

Closes a document.

Parameters	What it is	Objects supported	Returns
object reference	The document to close.	<a href="#">document</a> , <a href="#">documents</a>	nothing
[saving yes/no/ask]	Specifies whether to save the document before closing (default: ask).		

### ► Closing a document

```
-- Close the first document and prompt the user with a "Save as" dialog
tell application "Adobe Photoshop CC"
  activate
  close document 1 saving ask
end tell
```

## clear

Clears the currently selected object.

Parameters	What it is	Objects supported	Returns
clear	Deletes the selected object and does not copy it to the clipboard.	<a href="#">art layer</a> , <a href="#">art layers</a> <a href="#">selection-object</a>	

## contract

Contracts the selection.

Parameters	What it is	Objects supported	Returns
<code>contract</code> <code>selection-object</code>	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	
by <code>real</code>	The amount to contract the selection (unit value).		

## convert

Converts the document from using one color profile to using another.

Parameters	What it is	Objects supported	Returns
<code>convert document</code>	The document object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a>	
<code>to profile Unicode text</code>	The name of the color profile to convert to. Either a string that names a specific color profile or Working RGB, Working CMYK, Working Gray, Lab Color (meaning one of the working color spaces or Lab color).		
<code>intent absolute colorimetric/perceptual/relative colorimetric/saturation intent</code>	The conversion intent.		
<code>[blackpoint compensation boolean]</code>	Indicates whether to use black point compensation.		
<code>[dithering boolean]</code>	Indicates whether to use dither (default: <code>true</code> ).		

## convert color

Converts an object from one color model to another.

Parameters	What it is	Objects supported	Returns
<code>convert color color value</code>	The color to convert.	<a href="#">color value</a>	color value
<code>to CMYK/grayscale/HSB/Lab/RGB/RGB Hex</code>	The color model to convert to.		

## convert to shape

Converts the text item and its containing layer to a fill layer with the text changed to a clipping path.

Parameters	What it is	Objects supported	Returns
<code>convert to shape text-object</code>	The text-object object or objects to be operated upon.	<a href="#">text-object</a>	

## copy

Copies the current selection to the clipboard.

Parameters	What it is	Objects supported	Returns
copy		<a href="#">art layer</a> , <a href="#">art layers</a> <a href="#">selection-object</a>	

## copy merged

Copies the current selection, including the data from all visible layers, to the clipboard.

Parameters	What it is	Objects supported	Returns
copy merged		<a href="#">art layer</a> , <a href="#">art layers</a> <a href="#">selection-object</a>	

**Note:** Commands that manipulate the clipboard (`cut`, `copy`, and `paste`) require that Adobe Photoshop CC be the frontmost application during these operations. Use [activate](#) to bring Adobe Photoshop CC to the front before executing a `copy` command. No error is returned if there is no selection to copy. If the application is not frontmost, an error is returned.

## count

Counts the elements of a specified type contained in a specified object.

Parameters	What it is	Objects supported	Returns
count <b>object reference</b>	The object whose elements are to be counted.	<a href="#">art layer</a> , <a href="#">art layers</a> <a href="#">channel</a> , <a href="#">channels</a> <a href="#">color sampler</a> , <a href="#">color samplers</a> <a href="#">count item</a> , <a href="#">count items</a> <a href="#">document</a> , <a href="#">documents</a> <a href="#">font</a> , <a href="#">fonts</a> <a href="#">history state</a> , <a href="#">history states</a> <a href="#">layer</a> , <a href="#">layers</a> <a href="#">layer comp</a> , <a href="#">layer comps</a> <a href="#">layer set</a> , <a href="#">layer sets</a> <a href="#">notifier</a> , <a href="#">notifiers</a> <a href="#">path item</a> , <a href="#">path items</a> <a href="#">path point</a> , <a href="#">path points</a> <a href="#">sub path item</a> , <a href="#">sub path items</a>	integer
[each <b>type class</b> ]	The class of the objects to count.		

### Notes

With the optional `each` term, use the singular form for the object type to be counted; for example, `art layer` rather than `art layers`. If you don't use `each`, you can use the singular or plural form.

### ► Counting normal path items in a document

```
-- This script shows the user how many paths
-- are normal paths out of the total number in document 1
tell application "Adobe Photoshop CC"
    set pathCount to count each path item of document 1
    set numberNormal to -
        count (path items of document 1 whose kind is normal)
    display dialog numberNormal & " of " & pathCount -
        & " paths are normal in this document." as string
end tell
```

## create contact sheet

Creates a contact sheet from multiple files. This was deprecated in Photoshop CS4.

Parameters	What it is	Objects supported	Returns
from files <b>list of alias</b>	A list of the input files to include in the contact sheet.		Unicode Text (an empty string)
[with options <b>contact sheet options</b> ]	Options that can be specified for creating the contact sheet.	<a href="#">contact sheet options</a>	

## create PDF presentation

Creates a PDF presentation file. This was deprecated in Photoshop CS4.

Parameters	What it is	Objects supported	Returns
from files <b>list of alias</b>	A list of the input files to include in the presentation.		Unicode text that can be cast to the file path.
to file <b>file specification</b>	The location of the output file.		
[with options <b>presentation options</b> ]	Options that can be specified for the PDF presentation.	<a href="#">presentation options</a>	

## create photo gallery

Creates a web photo gallery. This was deprecated in Photoshop CS4.

Parameters	What it is	Objects supported	Returns
from folder <b>anything</b>	A folder for or list of input files to include in the presentation.	file specification (for a folder), or list of alias	Unicode text
to folder <b>alias</b>	The location for output files.		
[with options <b>gallery options</b> ]	Options that can be specified for the photo gallery.	<a href="#">gallery options</a>	

## create photo merge

Merges multiple files into one.

Parameters	What it is	Objects supported	Returns
from files <b>list of alias</b>	A list of the input files to merge.		Unicode text (an empty string)



## create picture package

Creates a picture package from multiple files. This was deprecated in Photoshop CS4.

Parameters	What it is	Objects supported	Returns
from files <b>list of alias</b>	A list of the input files to include in the picture package.		Unicode text (an empty string)
[with options <b>picture package options</b> ]	Options that can be specified for creating the picture package.	<a href="#">picture package options</a>	

## create selection

Makes a selection object from the specified path; the [selection-object](#) can be accessed through the [selection](#) property of the document object.

Parameters	What it is	Objects supported	Returns
<code>create selection path item</code>	The path item object or objects to be operated upon.	<a href="#">path item</a> , <a href="#">path items</a>	
[feather amount <b>real</b> ]	The feather amount in pixels.		
[antialiasing <b>boolean</b> ]	Indicates whether to use anti aliasing for the selection.		
[operation diminished/extended/intersected/ replaced]	The operation mode for the selection.		

## create work path

Creates a work path based on the text object.

Parameters	What it is	Objects supported	Returns
<code>create work path text-object</code>	The text-object object or objects to be operated upon.	<a href="#">text-object</a>	

## crop

Crops the document.

Parameters	What it is	Objects supported	Returns
<code>crop document</code>	The document object or objects to be operated upon.	<a href="#">document, documents</a>	
<code>bounds list</code>	The area to crop (unit value). A list of four coordinates that mark the portion remaining after cropping, in the following order: left, top, right, bottom.		
<code>[angle real]</code>	The angle of the cropping bounds (default: 0.0).		
<code>[width real]</code>	The width of the resulting document (unit value).		
<code>[height real]</code>	The height of resulting document (unit value).		

## cut

Cuts the current selection to the clipboard.

Parameters	What it is	Objects supported	Returns
cut	Deletes the selected object and copies it to the clipboard.	<a href="#">art layer</a> , <a href="#">art layers</a> , <a href="#">selection-object</a>	

**Note:** Commands that manipulate the clipboard (`cut`, `copy`, and `paste`) require that Adobe Photoshop CC be the frontmost application during these operations. Use [activate](#) to bring Adobe Photoshop CC to the front before executing a `copy` command. No error is returned if there is no selection to copy. If the application is not frontmost, an error is returned.

## delete

Removes an element from an object.

Parameters	What it is	Objects supported	Returns
<code>object reference</code> or list (of <code>object references</code> )	Contained object or objects to delete.	<a href="#">art layer</a> , <a href="#">art layers</a> <a href="#">color sampler</a> , <a href="#">color samplers</a> <a href="#">count item</a> , <a href="#">count items</a> <a href="#">channel</a> , <a href="#">channels</a> <a href="#">layer</a> , <a href="#">layers</a> <a href="#">layer comp</a> , <a href="#">layer comps</a> <a href="#">layer set</a> , <a href="#">layer sets</a> <a href="#">notifier</a> , <a href="#">notifiers</a> <a href="#">path item</a> , <a href="#">path items</a>	nothing

### ► Deleting a layer

```
-- This script deletes the top layer in the document
tell application "Adobe Photoshop CC"
  activate
  set doc to make new document
  make new art layer of doc
  delay 1
  if (count layers of doc) > 1 then
    delete layer 1 of doc
  end if
end tell
```

## delete measurements

Exports the measurement data to a file.

Parameters	What it is	Objects supported	Returns
<code>delete measurement log</code>	The measurement log object or objects to be operated upon.		
<code>range</code>	Which measurements to export. Default to selected.		

## deselect

Deselects the selected object.

Parameters	What it is	Objects supported	Returns
<code>deselect object</code>	The object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a> <a href="#">selection-object</a>	

## deselect

Deselects the path item. No path item is selected. (For Path Suite).

Parameters	What it is	Objects supported	Returns
<code>deselect object</code>	The object or objects to be operated upon.	<a href="#">path item</a> , <a href="#">path items</a>	

## do action

Plays an action from the Actions Palette.

Parameters	What it is	Objects supported	Returns
<code>do action</code> <b>Unicode text</b>	The name of the action to play. <b>Note:</b> The Action name is case sensitive. Be sure to enter the Action name exactly as it appears in the Actions palette.		
<code>from</code> <b>Unicode text</b>	The name of the Action Set containing the Action to be played. <b>Note:</b> The Action Set name is case sensitive. Be sure to enter the Action Set name exactly as it appears in the Actions palette.		



## do javascript

Executes a JavaScript.

Parameters	What it is	Objects Supported	Returns
<code>do javascript anything</code>	The JavaScript code or file (.js or .jsx) to execute.		Unicode text
<code>[with arguments list of anything]</code>	The arguments to pass to the JavaScript routine.		
<code>[show debugger before running/ never/ on runtime error]</code>	Indication of when, if at all, to show the debugger (default: <code>never</code> ).		

For an example of executing JavaScript code from AppleScript, see the *Photoshop CC Scripting Guide*

## doc duplicate

Duplicates a document with parameters.

Parameters	What it is	Objects supported	Returns
<code>doc duplicate</code> <b>document</b>	The document to duplicate	<a href="#">document, documents</a>	reference to the duplicated document
[name <b>Unicode text</b> ]	The name for the duplicated document.		
[merge layers only <b>boolean</b> ]	Indicates whether only the merged layers are duplicated.		

## duplicate

Duplicates a document without parameters.

Parameters	What it is	Objects supported	Returns
<code>duplicate</code> <b>document</b>	The document to duplicate	<a href="#">document, documents</a>	reference to the duplicated document

## duplicate

Duplicates one or more objects.

Parameters	What it is	Objects supported	Returns
<code>duplicate object reference</code>	The object to duplicate	<a href="#">art layer</a> , <a href="#">art layers</a> <a href="#">channel</a> , <a href="#">channels</a> <a href="#">layer</a> , <a href="#">layers</a> <a href="#">layer set</a> , <a href="#">layer sets</a> <a href="#">path item</a> , <a href="#">path items</a>	reference to the duplicated object
[to <code>location reference</code> ]	The new container (parent object) for the object.		
[with <code>properties record</code> ]	<i>Not applicable for Photoshop objects.</i>		

## equal colors

Determines whether the specified colors are visually equal.

Parameters	What it is	Objects supported	Returns
equal colors <b>color value</b>	The original color with which to compare.	<a href="#">color value</a>	boolean
with <b>color value</b>	The color to which to compare the original color.		

## exists

Determines whether an object exists.

Parameters	What it is	Objects supported	Returns
<code>object reference</code>	The object to test for existence.	Any object except <code>application</code>	<code>boolean</code>

### ► Check if a document exists

```
-- Check if a document exists and beep twice if one does
tell application "Adobe Photoshop CC"
  if exists document 1 then
    beep 2
  end if
end tell
```

## expand

Expands the current selection.

Parameters	What it is	Objects supported	Returns
expand <code>selection-object</code>	The selection-object object or objects to be expanded.	<a href="#">selection-object</a>	
by <code>real</code>	The amount by which to expand the selection (unit value).		

## export

Exports the document.

Parameters	What it is	Objects supported	Returns
<code>export document</code>	The document object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a>	
<code>in file specification</code>	The file to export to.		
[as <code>Illustrator paths/ save for web</code> ]	The type of export (default: <code>Illustrator paths</code> ).		
[with options <a href="#">export options</a> ]	Options that can be specified for the export type.	<a href="#">Illustrator paths</a> <a href="#">export options</a> <a href="#">save for web export options</a>	

## export measurements

Exports the measurement data to a file.

Parameters	What it is	Objects supported	Returns
<code>export measurement log</code>	The measurement log object or objects to be operated upon.		
<code>data points</code>	Array of identifiers of data points to export. The order of the data points is respected in the exported file. Defaults to data points visible in Measurement Log palette.		
<code>in file specification</code>	The file to export to.		
<code>range</code>	Which measurements to export. Default to selected.		



## feather

Feathers the edges of the current selection.

Parameters	What it is	Objects supported	Returns
<code>feather</code> <code>selection-object</code>	The object or objects to be operated upon.	<a href="#">selection-object</a>	
by <code>real</code>	The amount of the edge to feather (unit value).		

## feature enabled

Determines whether the specified feature is enabled.

Parameters	What it is	Objects supported	Returns
feature enabled "photoshop/extended" "photoshop/standard" "photoshop/trial"		<a href="#">application</a>	boolean

## fill

Fills the current selection.

Parameters	What it is	Objects supported	Returns
<code>fill</code> <code>selection-object</code>	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	
<code>with contents</code> <code>anything</code>	A color object or history state object.	<a href="#">CMYK color</a> <a href="#">color value</a> <a href="#">gray color</a> <a href="#">history state, history states</a> <a href="#">HSB color</a> <a href="#">RGB color</a> <a href="#">RGB hex color</a>	
[ <code>blend mode</code> <code>behind mode</code> / <code>clear mode</code> / <code>color blend</code> / <code>color burn</code> / <code>color dodge</code> / <code>darken</code> / <code>difference</code> / <code>dissolve</code> <code>/divide</code> / <code>exclusion</code> / <code>hard</code> <code>light</code> / <code>hard mix</code> / <code>hue blend</code> / <code>lighten</code> / <code>linear burn</code> / <code>linear dodge</code> / <code>linear light</code> / <code>luminosity</code> / <code>multiply</code> / <code>normal</code> / <code>overlay</code> / <code>pin light</code> / <code>saturation blend</code> / <code>screen</code> / <code>soft</code> <code>light</code> / <code>subtract</code> / <code>vivid light</code> ]	The color blend mode to use (default: normal).		
[ <code>opacity integer</code> ]	The fill opacity (default: 100 as percent).		
[ <code>preserving transparency</code> <code>boolean</code> ]	Indicates whether to preserve the transparencies.		

## fill path

Fills the path with the specified information.

Parameters	What it is	Objects supported	Returns
<code>fill path path item</code>	The path item object or objects to be operated upon.	<a href="#">path item</a> , <a href="#">path items</a>	
[with contents <b>anything</b> ]	The color of the fill for this path.	<a href="#">CMYK color</a> <a href="#">color value</a> <a href="#">gray color</a> <a href="#">history state</a> , <a href="#">history states</a> <a href="#">HSB color</a> <a href="#">RGB color</a> <a href="#">RGB hex color</a>	
[blend mode behind mode/clear mode/ color blend/color burn/ color dodge/darken/ difference/dissolve/ exclusion/hard light/ hard mix/hue blend/ lighten/linear burn/ linear dodge/ linear light/luminosity/ multiply/normal/overlay / pin light/ saturation blend/ screen/soft light/ vivid light]	The blending mode to use for the path's fill.		
[opacity <b>real</b> ]	The opacity of the path's fill.		
[antialiasing <b>boolean</b> ]	Indicates whether to use anti aliasing for the selection.		
[preserving transparency <b>boolean</b> ]	Indicates whether to preserve the transparency of the fill for this path.		
[feather amount <b>real</b> ]	The feather amount in pixels.		
[whole path <b>boolean</b> ]	Indicates whether to use all subpaths during the fill.		

## filter

Applies a filter to one or more art layers.

Parameters	What it is	Objects supported	Returns
<code>filter art layer</code>	The art layer object or objects to be operated upon.	<a href="#">art layer</a> , <a href="#">art layers</a>	
using <b>anything</b>	The options class used to invoke the method. <b>Note:</b> The class must be a class that inherits from <a href="#">filter options</a> .		
[with options <b>filter options</b> ]	The options that can be specified for the method.	All classes that inherit from <a href="#">filter options</a>	

## flatten

Flattens all layers in the document.

Parameters	What it is	Objects supported	Returns
<code>flatten document</code>	The document object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a>	

## flip canvas

Flips the canvas horizontally or vertically.

Parameters	What it is	Objects supported	Returns
<code>flip canvas</code> <code>document</code>	The document object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a>	
<code>direction</code> <code>horizontal/vertical</code>	The direction in which to flip the canvas.		

## grow

Grows the current selection to include all adjacent pixels falling within the specified tolerance range.

Parameters	What it is	Objects supported	Returns
grow selection-object	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	
tolerance integer	(0 - 255)		
antialiasing boolean			



## import annotations

Imports annotations into the document.

Parameters	What it is	Objects supported	Returns
<code>import annotations</code> <code>document</code>	The document object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a>	
<code>from alias</code>	The document from which to import the annotations.		

## index

Gets an element from the specified element.

Parameters	What it is	Objects supported	Returns
item key	The object or objects to be operated upon.	<a href="#">art layer</a> , <a href="#">art layers</a> <a href="#">color sampler</a> , <a href="#">color samplers</a> , <a href="#">count item</a> , <a href="#">count items</a> <a href="#">channel</a> , <a href="#">channels</a> <a href="#">document</a> , <a href="#">documents</a> <a href="#">font</a> , <a href="#">fonts</a> <a href="#">history state</a> , <a href="#">history states</a> <a href="#">layer</a> , <a href="#">layers</a> <a href="#">layer comp</a> , <a href="#">layer comps</a> <a href="#">layer set</a> , <a href="#">layer sets</a> <a href="#">notifier</a> , <a href="#">notifiers</a> <a href="#">path item</a> , <a href="#">path items</a> <a href="#">path point</a> , <a href="#">path points</a> <a href="#">sub path item</a> , <a href="#">sub path items</a>	object reference

## invert

Inverts the selection.

**Tip:** To invert an art layer, see the [inversion](#) adjustment option.

Parameters	What it is	Objects supported	Returns
<code>invert</code> <code>selection-object</code>	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	

# link

Links the layer with another layer.

Parameters	What it is	Objects supported	Returns
link <b>layer</b>	The layer object or objects to be operated upon.	<a href="#">art layer</a> , <a href="#">art layers</a> , <a href="#">layer</a> , <a href="#">layers layer set</a> , <a href="#">layer sets</a>	
with <b>layer</b>	The layer to link to.		

## load

Loads a support document.

Parameters	What it is	Objects supported	Returns
load <b>document</b>	The document to open.	<a href="#">document</a> , <a href="#">documents</a>	

## load

Loads a selection from a channel.

Parameters	What it is	Objects supported	Returns
load <b>selection-object</b>	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	
from <b>channel</b>	The channel from which to load the selection.	<a href="#">channel</a> , <a href="#">channels</a>	
[combination type <b>diminished/extended</b> / <b>intersected/replaced</b> d]	The method to use to combine the channel contents with the existing selection (default: replaced).		
[inverting <b>boolean</b> ]	Indicates whether to select the inverse of the channel contents (default: <i>false</i> ).		

## make

Creates a new object and returns a reference to newly created object.

Parameters	What it is	Objects supported	Returns
new <b>type class</b>	The class of object to create. <b>Note:</b> The term <code>new</code> is optional.	<a href="#">art layer</a> , <a href="#">art layers</a> <a href="#">channel</a> , <a href="#">channels</a> <a href="#">color sampler</a> , <a href="#">color samplers</a> , <a href="#">count item</a> , <a href="#">count items</a> , <a href="#">document</a> , <a href="#">documents</a> <a href="#">layer</a> , <a href="#">layers</a> <a href="#">layer comp</a> , <a href="#">layer comps</a> <a href="#">layer set</a> , <a href="#">layer sets</a> <a href="#">notifier</a> , <a href="#">notifiers</a> <a href="#">path item</a> , <a href="#">path items</a>	object reference
at <b>location reference</b>	Location at which to insert new object.		
[with properties <b>record</b> ]	Any property of the object you wish to set at creation.		
[with data <b>anything</b> ]	Any data needed for creation that is not a property.		

### ► Creating layer objects

```
-- Make 2 layers, one at the top and one at the bottom
-- demonstrating the power of location references like beginning and end

tell application "Adobe Photoshop CC"
    set doc to make new document
    set background layer of layer 1 of doc to false
    set topLayer to make new art layer ~
        at beginning of doc with properties {name:"Top Layer"}
    set bottomLayer to make new art layer ~
        at end of doc with properties {name:"Bottom Layer"}
end tell
```

## make clipping path

Makes the current path item the clipping path for this document.

Parameters	What it is	Objects supported	Returns
<code>make clipping path</code> <code>path item</code>	The path item object or objects to be operated upon.	<a href="#">path item</a> , <a href="#">path items</a>	
[flatness <code>real</code> ]	Tells the PostScript printer how to approximate curves in the path (0.2 - 100).		

## make work path

Makes the current selection item the work path for the document.

Parameters	What it is	Objects supported	Returns
<code>make work path</code> <code>selection-object</code>	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	
[tolerance <code>real</code> ]	The tolerance in pixels.		

## merge

Merges an art layer or layer set into the layer below, or merges a spot channel into the component channels. Merging a layer or layer set returns a reference to the resulting layer. Merging a channel does not return any value.

Parameters	What it is	Objects supported	Returns
<code>merge art layer/channel/layer/ layer set</code>	The object or objects to be operated upon.	<a href="#">art layer</a> , <a href="#">art layers</a> , <a href="#">channel</a> , <a href="#">channels</a> , <a href="#">layer</a> , <a href="#">layers</a> , <a href="#">layer set</a> , <a href="#">layer sets</a>	Merging a layer or layer set returns a reference to the resulting layer. Merging a channel does not return any value.

## merge visible layers

Flattens all visible layers in the document.

Parameters	What it is	Objects supported	Returns
<code>merge visible layers document</code>	The document object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a>	



## move

Moves one or more objects to a new location; returns references to the moved object or objects at the new location.

Parameters	What it is	Objects supported	Returns
move <b>object reference</b> or list (of <b>object references</b> )	Object or objects to move.	<a href="#">art layer</a> , <a href="#">art layers layer</a> , <a href="#">layers layer set</a> , <a href="#">layer sets</a>	object reference or list (of object references)
to <b>location reference</b>	New location of the object or objects.		

### Notes

Objects cannot be moved between documents.

### ► Moving layers

```
-- This script moves the bottommost, non-background layer, to after the first layer
tell application "Adobe Photoshop CC"
  activate
  set doc to make new document
  tell doc
    set background layer of layer 1 to false
    make new art layer with properties {name:"Top Layer"}
    make new art layer with properties {name:"Buttom Layer"}
    move first layer to after last layer
  end tell
end tell
```

## open

Opens one or more specified document file(s).

Parameters	What it is	Objects supported	Returns
<code>open file specification</code>	The file to be opened.	N/A	nothing
<code>as</code> Alias PIX/BMP/Camera RAW/ CompuServe GIF/ DICOM/ Electric Image/EPS/ EPS PICT preview/ EPS TIFF preview/Filmstrip/JPEG/ PCX/PDF/Photo CD/ Photoshop DCS 1.0/ Photoshop DCS 2.0/ Photoshop EPS/ Photoshop format/ Photoshop PDF/PICT file/ PICT resource/Pixar/PNG/ Portable Bitmap/raw/ Scitex CT/SGI RGB/ SoftImage/Targa/ TIFF/Wavefront RLA/ Wireless Bitmap	The type of file to open.  <b>Note:</b> Photo CD is deprecated.  <b>Note:</b> DICOM is available in the Extended version only.		
<code>[showing dialogs always/error dialogs/never]</code>	The type of dialogs, if any, to allow when the script is run.		
<code>[smart object boolean]</code>	Indicates whether to create a smart object around the document opened. (Default:false)		
<code>with options</code> <a href="#">open options</a>	Options for opening a particular type of file.	<a href="#">Camera RAW open options</a> <a href="#">DICOM open options</a> <a href="#">EPS open options</a> <a href="#">PDF open options</a> <a href="#">Photo CD open options</a> <a href="#">raw format open options</a>	

### ► Opening a PDF file

This script sample opens a PDF document.

```
tell application "Adobe Photoshop CC"
  set myFilePath to alias "Data:docsamples:testfiles:PdfTest.pdf"
  open myFilePath as PDF with options ~
    {class:PDF open options, height:pixels 100, width:pixels 200, ~
      mode:RGB, resolution:72, use antialias:true, page:1, ~
      constrain proportions:false}
end tell
```

## paste

Paste the clipboard contents into the current document.

Parameters	What it is	Objects supported	Returns
<code>paste [clipping to selection <b>boolean</b>]</code>	Indicates whether to paste the clipboard contents into the current selection (default: <code>false</code> ).	<a href="#">document</a> , <a href="#">documents</a>	

**Note:** Commands that manipulate the clipboard (`cut`, `copy`, and `paste`) require that Adobe Photoshop CC be the frontmost application during these operations. Use [activate](#) to bring Adobe Photoshop CC to the front before executing a `copy` command. No error is returned if there is no selection to copy. If the application is not frontmost, an error is returned.

## Photoshop open dialog

Uses the Photoshop open dialog box to allow you to select files to open.

Parameters	What it is	Objects supported	Returns
Photoshop open dialog		<a href="#">document, documents</a>	list of file specification

# print

Prints one or more documents or files.

Parameters	What it is	Objects supported	Returns
<code>print anything</code>	Document or list of documents, or file or list of files to be printed.	<a href="#">document</a> , <a href="#">documents</a>	nothing
[source space <code>document space/</code> <code>proof space</code> ]	The color space for source (default: document space).		
[print space <code>Unicode text</code> ]	The color space for the printer. Can be nothing (that is, the same as the source); or <code>Working RGB</code> , <code>Working CMYK</code> , <code>Working Gray</code> , <code>Lab Color</code> (meaning one of the working color spaces or Lab color); or a string specifying a specific colorspace (default: <i>nothing</i> ).		
[intent <code>absolute colorimetric/</code> <code>perceptual/</code> <code>relative colorimetric/</code> <code>saturation intent</code> ]	The color conversion intent (default: relative colorimetric).  <b>Note:</b> Valid only when the print space is different than the source space.		
[blackpoint compensation <code>boolean</code> ]	Indicates whether the color conversion should use black point compensation (default: <code>true</code> ).  <b>Note:</b> Valid only when the print space is different than the source space.		

## ► Print a document

```
-- Print the current document
tell application "Adobe Photoshop CC"
    print document 1
end tell
```

## purge

Purges one or more caches.

Parameters	What it is	Objects supported	Returns
<code>purge</code> <code>all caches/</code> <code>clipboard cache/</code> <code>history caches/</code> <code>undo caches</code>	The caches to purge.	<a href="#">application</a>	

## quit

Forces Adobe Photoshop CC to quit.

Parameters	What it is	Objects supported	Returns
none		<a href="#">application</a>	nothing

### Notes

If there is Adobe Photoshop CC data on the clipboard, Adobe Photoshop CC displays a dialog asking if you want to save the clipboard for other applications. To prevent this dialog from being displayed, send the following command to the frontmost application

```
set the clipboard to {}
```

### ► Quitting Adobe Photoshop CC

```
tell application "Adobe Photoshop CC"  
  activate  
  set the clipboard to {}  
  close every document saving no  
  quit  
end tell
```

## rasterize

Rasterizes the contents of an art layer.

Parameters	What it is	Objects supported	Returns
<code>rasterize art layer</code>	The art layer object or objects to be operated upon.	<a href="#">art layer</a> , <a href="#">art layers</a> <a href="#">layer</a> , <a href="#">layers</a>	
<code>affecting</code> <code>all linked layers/</code> <code>entire layer/</code> <code>fill content/</code> <code>layer clipping</code> <code>path/</code> <code>shape/text contents</code>	The layers or layer contents or components to rasterize.		



## recapture

Recaptures the current layer state(s) for this layer comp.

Parameters	What it is	Objects supported	Returns
<code>recapture layer comp</code>	The layer comp object or objects to be operated upon.	<a href="#">layer comp</a> , <a href="#">layer comps</a>	

## record measurements

Exports the measurement data to a file.

Parameters	What it is	Objects supported	Returns
<code>record measurement log</code>	The measurement log object or objects to be operated upon.		
<code>data points</code>	Array of identifiers of data points to export. The order of the data points is respected in the exported file. Defaults to data points visible in Measurement Log palette.		
<code>source</code>	Source of the measurements to record.		

## refresh

Pauses the script while the application refreshes.

Parameters	What it is	Objects supported	Returns
refresh	Wait for the application to redraw the current document.	<a href="#">application</a>	

## reset from comp

Resets the layer comp state to the document state.

Parameters	What it is	Objects supported	Returns
<code>reset from comp</code> <code>layer comp</code>	The layer comp object or objects to be operated upon.	<a href="#">layer comp</a> , <a href="#">layer comps</a>	

## resize canvas

Changes the size of the canvas.

Parameters	What it is	Objects supported	Returns
<code>resize canvas</code> <code>document</code>	The document object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a>	
[width <code>real</code> ]	The desired width of the canvas (unit value).		
[height <code>real</code> ]	The desired height of the canvas (unit value).		
[anchor position <code>bottom center</code> / <code>bottom left</code> / <code>bottom right</code> / <code>middle center</code> / <code>middle left</code> / <code>middle right</code> / <code>top center</code> / <code>top left</code> / <code>top right</code> ]	The anchor to resize around (default: <code>middle center</code> ).		

## resize image

Changes the size of the image.

Parameters	What it is	Objects supported	Returns
<code>resize image</code> <code>document</code>	The document object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a>	
[width <code>real</code> ]	The desired width of the canvas (unit value).		
[height <code>real</code> ]	The desired height of the canvas (unit value).		
[resolution <code>real</code> ]	The resolution (in pixels per inch).		
[amount <code>real</code> ]	The amount of noise value when using preserve details (range: 0 - 100).		
[resample method <code>automatic</code> / <code>bicubic</code> / <code>bicubic automatic</code> / <code>bicubic sharper</code> / <code>bicubic smoother</code> / <code>bilinear</code> / <code>closest neighbor</code> / <code>none</code> / <code>preserve details</code> /]	The method to use for resampling pixels (default: <code>bicubic</code> ).		

## reveal all

Expands the document to show clipped sections.

Parameters	What it is	Objects supported	Returns
<code>reveal all document</code>	The document object or objects to be operated upon.	<a href="#">document, documents</a>	

## rotate

Rotates the object.

Parameters	What it is	Objects supported	Returns
<code>rotate layer or selection-object</code>	The object or objects to be operated upon.	<a href="#">art layer</a> , <a href="#">art layers layer</a> , <a href="#">layers layer set</a> , <a href="#">layer sets selection-object</a>	
<code>angle real</code>	The number of degrees to rotate. A positive angle will rotate the canvas clockwise; a negative value will rotate the canvas counter-clockwise.		
[ <code>anchor position bottom center/ bottom left/ bottom right/ middle center/ middle left/ middle right/ top center/ top left/top right</code> ]	The anchor point around which to rotate the layer (default: middle center).		

## rotate boundary

Rotates the boundary of the selection-object.

Parameters	What it is	Objects supported	Returns
<code>rotate boundary selection-object</code>	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	
<code>angle real</code>	The number of degrees to rotate. A positive angle will rotate the canvas clockwise; a negative value will rotate the canvas counter-clockwise.		
[ <code>anchor position bottom center/ bottom left/ bottom right/ middle center/ middle left/ middle right/ top center/ top left/top right</code> ]	The anchor point around which to rotate the layer (default: middle center).		

## rotate canvas

Rotates the canvas.

Parameters	What it is	Objects supported	Returns
<code>rotate canvas</code> <code>document</code>	The document object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a>	
angle <code>real</code>	The number of degrees to rotate. A positive angle will rotate the canvas clockwise; a negative value will rotate the canvas counter-clockwise.		



## save

Saves an Adobe Photoshop CC document. Returns a reference to the saved document.

Parameters	What it is	Objects supported	Returns
<code>save document</code>	The document to save.	<a href="#">document</a> , <a href="#">documents</a>	object referenc e
[in file specification]	The file to save to, specified as a string containing the full file path or an alias.  If not specified, the document is saved to its existing file.		
[as Alias PIX/ BMP/ CompuServe GIF/ Electric Image/ JPEG/ PCX/ Photoshop DCS 1.0/ Photoshop DCS 2.0/ Photoshop EPS/ Photoshop format/ Photoshop PDF/ PICT file/ PICT resource/ Pixar/ PNG/ Portable Bitmap/ raw/ Scitex CT/ SGI RGB/ SoftImage/ Targa/ TIFF/ Wavefront RLA]	The file type to which to save.  <b>Note:</b> To save a file in Wireless Bitmap format, use the <a href="#">export</a> comand, and <a href="#">save for web</a> <a href="#">export options</a> .		
[copying boolean]	save as copy leaving original open. Unsaved files cannot be saved as copy.		

Parameters	What it is	Objects supported	Returns
[appending lowercase extension/ no extension/ uppercase extension]	append an extension to the document name		
[with options <a href="#">save options</a> ]	The save options for the specified file type.	<a href="#">BMP save options</a> <a href="#">EPS save options</a> <a href="#">GIF save options</a> <a href="#">JPEG save options</a> <a href="#">PDF save options</a> <a href="#">Photoshop DCS 1.0 save options</a> <a href="#">Photoshop DCS 2.0 save options</a> <a href="#">Photoshop save options</a> <a href="#">PICT file save options</a> <a href="#">PICT resource save options</a> <a href="#">Pixar save options</a> <a href="#">PNG save options</a> <a href="#">raw save options</a> <a href="#">SGI RGB save options</a> <a href="#">Targa save options</a> <a href="#">TIFF save options</a>	

This example shows to batch process folders of Adobe Photoshop CC documents, saving each as a PDF file with specific settings.

```
-- Process all files in folders dropped on this script
-- (when saved as an applet)
-- Save each Adobe Photoshop CC file as a PDF file.
on run
    tell me to open {choose folder}
end run

on open droppedItems
    set destFolder to choose folder with prompt "Destination folder?"
    repeat with anItem in droppedItems
        tell application "Finder"
            -- Make sure each item processed by this script is a folder
            if class of item anItem is not folder then
                -- Not a folder, notify the user of the error
                display dialog "Please drop only folders on this script"
            else
                -- A folder, get the Adobe Photoshop CC files and process them
                set fileList to (every file of anItem whose creator type is ~
                    "8BIM") as alias list
            end if
        end tell
        SaveFilesAsPDF(fileList, destFolder)
    end repeat
end open

-- fileList is a list of aliases to Photoshop files
-- destFolder is an alias to a folder where the PDF files are to be saved
on SaveFilesAsPDF(fileList, destFolder)
    set destPath to destFolder as string
    repeat with aFile in fileList
        tell application "Finder" to set fileName to name of aFile
    end repeat
end SaveFilesAsPDF
```

```
set newFilePath to destPath & fileName & ".pdf"
tell application "Adobe Photoshop CC"
  open aFile
  save current document in file newFilePath as Photoshop PDF -
    with options {class:PDF save options, PDF compatibility:PDF 15,-
      preserve editing:true}
  close current document saving no
end tell
end repeat
end SaveFilesAsPDF
```

## scale

Scales the object to the specified size.

Parameters	What it is	Objects supported	Returns
<code>scale layer or selection-object</code>	The object or objects to be operated upon.	<a href="#">art layer</a> , <a href="#">art layers</a> <a href="#">layer</a> , <a href="#">layers</a> <a href="#">layer set</a> , <a href="#">layer sets</a> <a href="#">selection-object</a>	
[horizontal scale real]	The amount to scale the layer horizontally (default: 100.0 as percent).		
[vertical scale real]	The amount to scale the layer (default: 100.0 as percent).		
[anchor position bottom center/ bottom left/ bottom right/ middle center/ middle left/ middle right/ top center/top left/ top right]	The anchor point around which to rotate the layer (default: middle center).		

## scale boundary

Scales the boundary of selection.

Parameters	What it is	Objects supported	Returns
<code>scale boundary selection-object</code>	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	
[horizontal scale real]	The amount to scale the layer horizontally (default: 100.0 as percent).		
[vertical scale real]	The amount to scale the layer (default: 100.0 as percent).		
[anchor position bottom center/ bottom left/ bottom right/ middle center/ middle left/ middle right/ top center/top left/ top right]	The anchor point around which to rotate the layer (default: middle center).		

## select

Changes the selection. (For Photoshop Suite.)

Parameters	What it is	Objects supported	Returns
<code>select object</code>	The object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a> <a href="#">selection-object</a>	
<code>region list of anything</code>	A list of corners of the selection (in pixels).		
[combination type <code>diminished/extended / intersected/replaced</code> ]	The method to use to combine the new selection with the existing selection (default: replaced).		
[feather amount <code>real</code> ]	The feather amount (default: 0.0).		
[antialiasing <code>boolean</code> ]	Indicates whether to use antialiasing (default: <code>true</code> ).		

## select

Makes the path item the active or selected path item. (For Path Suite.)

Parameters	What it is	Objects supported	Returns
<code>select path item</code>	The path item to select.	<a href="#">path item</a> , <a href="#">path items</a>	

## select all

Selects the entire image.

Parameters	What it is	Objects supported	Returns
<code>select all document</code>	The document object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a> <a href="#">selection-object</a>	

## select border

Selects the border of the selection.

Parameters	What it is	Objects supported	Returns
<code>select border selection-object</code>	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	
<code>width real</code>	The width of the selection (unit value).		

## similar

Grows the selection to include pixels throughout the image falling within the tolerance range.

Parameters	What it is	Objects supported	Returns
<code>similar</code> <code>selection-object</code>	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	
<code>tolerance</code> <b>integer</b>			
<code>antialiasing</code> <b>boolean</b>			

## smooth

Cleans up stray pixels left inside or outside a color-based selection within the radius specified in pixels.

Parameters	What it is	Objects supported	Returns
<code>smooth</code> <code>selection-object</code>	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	
<code>radius</code> <code>integer</code>	The sample radius in pixels (0 - 100).		



## split channels

Splits the document's channels.

Parameters	What it is	Objects supported	Returns
<code>split channels</code> <code>document</code>	The document object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a>	list of document objects

## store

Saves the selection as a channel.

Parameters	What it is	Objects supported	Returns
<code>store</code> <code>selection-object</code>	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	
<code>into channel</code>	The channel to save the selection to.		
[combination type <code>diminished/extended</code> / <code>intersected/replaced</code> ]	The method to use to add the selection to the existing contents of the channel (default: <code>replaced</code> ).		

## stroke

Strokes the selection.

Parameters	What it is	Objects supported	Returns
<code>stroke</code> <code>selection-object</code>	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	
using <code>color anything</code>	The stroke color.		
width <code>integer</code>	The stroke width (in pixels).		
[ <code>location</code> <code>center/inside/outside</code> ]	The stroke placement (default: center).		
[ <code>blend mode</code> <code>behind mode/clear</code> <code>mode/</code> <code>color blend/color</code> <code>burn/</code> <code>color dodge/darken/</code> <code>difference/dissolve/</code> <code>exclusion/hard light/</code> <code>hard mix/hue blend/</code> <code>lighten/linear burn/</code> <code>linear dodge/</code> <code>linear</code> <code>light/luminosity/</code> <code>multiply/normal/overla</code> <code>y/pin light/</code> <code>saturation blend/</code> <code>screen/soft light/</code> <code>vivid light</code> ]	The color blending mode to use (default: normal).		
[ <code>opacity integer</code> ]	The opacity of the stroke (default: 100 as percent).		
[ <code>preserving</code> <code>transparency boolean</code> ]			

## stroke path

Strokes the path with the specified information.

Parameters	What it is	Objects supported	Returns
<code>stroke path path item</code>	The path item object or objects to be operated upon.	<a href="#">path item</a> , <a href="#">path items</a>	
[ <code>tool</code> <code>art history brush tool/</code> <code>background eraser tool/</code> <code>blur tool/brush tool/</code> <code>burn tool/</code> <code>clone stamp tool/</code> <code>color replacement tool/</code> <code>dodge tool/eraser tool/</code> <code>healing brush tool/</code> <code>history brush tool/</code> <code>pattern stamp tool/</code> <code>pencil tool/sharpen</code> <code>tool/</code> <code>smudge tool/sponge</code> <code>tool</code> ]	The tool to use when stroking the path.		
[ <code>simulate pressure</code> <code>boolean</code> ]	Indicates whether to simulate the pressure when using the tool.		

## translate

Moves a layer or selection the specified amount (in pixels) relative to its current position.

Parameters	What it is	Objects supported	Returns
<code>translate layer or selection-object</code>	The object or objects to be operated upon.	<a href="#">art layer</a> , <a href="#">art layers layer</a> , <a href="#">layers layer set</a> , <a href="#">layer sets selection-object</a>	
[delta x <b>real</b> ]	The horizontal transformation (unit value).		
[delta y <b>real</b> ]	The vertical transformation (unit value).		

## translate boundary

Moves the selection relative to its current position.

Parameters	What it is	Objects supported	Returns
<code>translate boundary</code> <code>selection-object</code>	The selection-object object or objects to be operated upon.	<a href="#">selection-object</a>	
[delta x <code>real</code> ]	The horizontal transformation (unit value).		
[delta y <code>real</code> ]	The vertical transformation (unit value).		

## trap

Applies trapping to a CMYK document.

Parameters	What it is	Objects supported	Returns
<code>trap document</code>	The document object or objects to be operated upon.	<a href="#">document, documents</a>	
<code>width integer</code>	The trap width in pixels.		

## trim

Trims the transparent area around the image on the specified sides of the canvas.

Parameters	What it is	Objects supported	Returns
<code>trim document</code>	The document object or objects to be operated upon.	<a href="#">document</a> , <a href="#">documents</a>	
[basing trim on <code>bottom right pixel/ top left pixel/ transparent pixels</code> ]	The color of, or type of, pixels to base trim on (default: <code>top left pixel</code> ).		
[ <code>top trim boolean</code> ]	Indicates whether to trim away the top of document (default: <code>true</code> ).		
[ <code>left trim boolean</code> ]	Indicates whether to trim away the left of document (default: <code>true</code> ).		
[ <code>bottom trim boolean</code> ]	Indicates whether to trim away the bottom of document (default: <code>true</code> ).		
[ <code>right trim boolean</code> ]	Indicates whether to trim away the right of document (default: <code>true</code> ).		



## unlink

Unlinks the layer.

Parameters	What it is	Objects supported	Returns
<code>unlink layer</code>	The layer object or objects to be operated upon.	<a href="#">art layer</a> , <a href="#">art layers</a> <a href="#">layer</a> , <a href="#">layers</a> <a href="#">layer set</a> , <a href="#">layer sets</a>	

## web safe color

Finds the closest web safe color for a color.

Parameters	What it is	Objects supported	Returns
for <a href="#">color value</a>	The color to be changed.	<a href="#">CMYK color</a> <a href="#">gray color</a> <a href="#">HSB color</a> <a href="#">Lab color</a> <a href="#">no color</a> <a href="#">RGB color</a> <a href="#">RGB hex color</a>	RGB color

## Appendix A: Event ID Codes

The following table lists events and their four-character ID codes or string identifiers for use with the `notifier` object.

**Note:** Do not include single quotes ( ' ) with four-character IDs in your code. The single quotes are used in this table to illustrate the placement of required spaces in codes that do not contain four letters. However, string identifiers, which are longer than four characters, require double quotes in the code.

**Tip:** If you can't find the event you want to use for notification in this table, you can use `ScriptListener` to determine the event ID code. See the `ScriptListener` documentation in the Action Manager chapter of the *Photoshop CC Scripting Guide*.

Event	4-char ID or String
3DTransform	'TdT '
Average	'Avrg'
ApplyStyle	'ASty'
Assert	'Asrt '
AccentedEdges	'AccE'
Add	'Add '
AddNoise	'AdNs '
AddTo	'AddT'
Align	'Algn'
All	'All '
AngledStrokes	'AngS'
ApplyImage	'AppI'
BasRelief	'BsRl '
Batch	'Btch'
BatchFromDroplet	'BtcF'
Blur	'Blr '
BlurMore	'BlrM'
Border	'Brdr'
Brightness	'BrgC'
CanvasSize	'CnvS'
ChalkCharcoal	'ChlC'
ChannelMixer	'ChnM'

<b>Event</b>	<b>4-char ID or String</b>
Charcoal	'Chrc'
Chrome	'Chrm'
Clear	'Cler'
Close	'Cls '
Clouds	'Clds'
ColorBalance	'ClrB'
ColorHalftone	'ClrH'
ColorRange	'ClrR'
ColoredPencil	'ClrP'
ContactSheet	"0B71D221-F8CE-11d2-B21B-0008C75B322C"
ConteCrayon	'CntC'
Contract	'Cntc'
ConvertMode	'CnvM'
Copy	'copy'
CopyEffects	'CpFX'
CopyMerged	'CpyM'
CopyToLayer	'CpTL'
Craquelure	'Crql'
CreateDroplet	'CrtD'
Crop	'Crop'
Crosshatch	'Crsh'
Crystallize	'Crst'
Curves	'Crvs'
Custom	'Cstm'
Cut	'cut '
CutToLayer	'CtTL'
Cutout	'Ct '
DarkStrokes	'DrkS'
DeInterlace	'Dntr'
DefinePattern	'DfnP'
Defringe	'Dfrg'
Delete	'Dlt '
Desaturate	'Dstt'

<b>Event</b>	<b>4-char ID or String</b>
Deselect	'Dslc'
Despeckle	'Dspc'
DifferenceClouds	'DrfC'
Diffuse	'Dfs '
DiffuseGlow	'DfsG'
DisableLayerFX	'dlfx'
Displace	'Dspl'
Distribute	'Dstr'
Draw	'Draw'
DryBrush	'DryB'
Duplicate	'Dplc'
DustAndScratches	'DstS'
Emboss	'Embs'
Equalize	'Eqlz'
Exchange	'Exch'
Expand	'Expn'
Export	'Expr'
JumpTo	'Jpto'
ExportTransparentImage	"02879e00-cb66-11d1-bc43-0060b0a13dc4"
Extrude	'Extr'
Facet	'Fct '
Fade	'Fade'
Feather	'Fthr'
Fibers	'Fbrs'
Fill	'Fl '
FilmGrain	'FlmG'
Filter	'Fltr'
FindEdges	'FndE'
FitImage	"3caa3434-cb67-11d1-bc43-0060b0a13dc4"
FlattenImage	'FltI'
Flip	'Flip'
Fragment	'Frgm'

<b>Event</b>	<b>4-char ID or String</b>
Fresco	'Frsc'
GaussianBlur	'GsnB'
Get	'getd'
Glass	'Gls '
GlowingEdges	'GlwE'
Gradient	'Grdn'
GradientMap	'GrMp'
Grain	'Grn '
GraphicPen	'GraP'
Group	'GrpL'
Grow	'Grow'
HalftoneScreen	'Hlfs'
Hide	'Hd '
HighPass	'HghP'
HSBHSL	'HsbP'
HueSaturation	'HStr'
ImageSize	'ImgS'
Import	'Impr'
InkOutlines	'InkO'
Intersect	'Intr'
IntersectWith	'IntW'
Inverse	'Invs'
Invert	'Invr'
LensFlare	'LnsF'
Levels	'Lvls'
LightingEffects	'LghE'
Link	'Lnk '
Make	'Mk '
Maximum	'Mxm '
Median	'Mdn '
MergeLayers	'Mrg2'
MergeLayersOld	'MrgL'
MergeSpotChannel	'MSpt'

<b>Event</b>	<b>4-char ID or String</b>
MergeVisible	'MrgV'
Mezzotint	'Mztn'
Minimum	'Mnm '
ModeChange	"8cba8cd6-cb66-11d1-bc43-0060b0a13dc4"
Mosaic	'Msc '
Mosaic_PLUGIN	'MscT'
MotionBlur	'MtnB'
Move	'move'
NTSCColors	'NTSC'
NeonGlow	'NGLw'
Next	'Nxt '
NotePaper	'NtPr'
Notify	'Ntfy'
Null	typeNull
OceanRipple	'OcnR'
Offset	'Ofst'
Open	'Opn '
Paint	'Pnt '
PaintDaubs	'PntD'
PaletteKnife	'PltK'
Paste	'past'
PasteEffects	'PaFX'
PasteInto	'PstI'
PasteOutside	'PstO'
Patchwork	'Ptch'
Photocopy	'Phtc'
PicturePackage	"4C1ABF40-DD82-11d2-B20F-0008C75B322C"
Pinch	'Pnch'
Place	'Plc '
Plaster	'Plst'
PlasticWrap	'PlsW'
Play	'Ply '

<b>Event</b>	<b>4-char ID or String</b>
Pointillize	'Pntl'
Polar	'Plr '
PosterEdges	'PstE'
Posterize	'Pstr'
Previous	'Prvs'
Print	'Prnt'
ProfileToProfile	'PrfT'
Purge	'Prge'
Quit	'quit'
RadialBlur	'RdlB'
Rasterize	'Rstr'
RasterizeTypeSheet	'RstT'
RemoveBlackMatte	'RmvB'
RemoveLayerMask	'RmvL'
RemoveWhiteMatte	'RmvW'
Rename	'Rnm '
ReplaceColor	'RplC'
Reset	'Rset'
ResizeImage	"1333cf0c-cb67-11d1-bc43-0060b0a13dc4"
Reticulation	'Rtcl'
Revert	'Rvrt'
Ripple	'Rple'
Rotate	'Rtte'
RoughPastels	'RghP'
Save	'save'
Select	'slct'
SelectiveColor	'SlcC'
Set	'setd'
SharpenEdges	'ShrE'
Sharpen	'Shrp'
SharpenMore	'ShrM'
Shear	'Shr '
Show	'Shw '



<b>Event</b>	<b>4-char ID or String</b>
Similar	'Smlr'
SmartBlur	'SmrB'
Smooth	'Smth'
SmudgeStick	'SmdS'
Solarize	'Slrz'
Spatter	'Spt '
Spherize	'Sphr'
SplitChannels	'Sp1C'
Sponge	'Spng'
SprayedStrokes	'SprS'
StainedGlass	'StnG'
Stamp	'Stmp'
Stop	'Stop'
Stroke	'Strk'
Subtract	'Sbtr'
SubtractFrom	'SbtF'
Sumie	'Smie'
TakeMergedSnapshot	'TkMr'
TakeSnapshot	'TkSn'
TextureFill	'TxtF'
Texturizer	'Tztz'
Threshold	'Thrs'
Tiles	'Tls '
TornEdges	'TrnE'
TraceContour	'TrcC'
Transform	'Trnf'
Trap	'Trap'
Twirl	'Twrl'
Underpainting	'Undr'
Undo	'undo'
Ungroup	'Ungr'
Unlink	'Unlk'
UnsharpMask	'UnsM'

<b>Event</b>	<b>4-char ID or String</b>
Variations	'Vrtn'
Wait	'Wait'
WaterPaper	'WtrP'
Watercolor	'Wtrc'
Wave	'Wave'
Wind	'Wnd '
ZigZag	'ZgZg'
BackLight	'BacL'
FillFlash	'File'
ColorCast	'ColE'

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