
PDFAnnotation Class Reference

[Graphics & Imaging](#) > Cocoa



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Apple Inc.
1 Infinite Loop
Cupertino, CA 95014
408-996-1010

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PDFAnnotation Class Reference

Inherits from	NSObject
Conforms to	NSObject (NSObject)
Framework	Library/Frameworks/Quartz.framework/Frameworks/PDFKit.framework
Availability	Available in Mac OS X v10.4 and later.
Declared in	PDFAnnotation.h

Overview

`PDFAnnotation`, a subclass of `NSObject`, represents an annotation in a PDF document, which associates an object (such as a note or a sound) with a location in a PDF document.

In addition to its primary textual content, a PDF file can contain annotations that represent links, form elements, highlighting circles, textual notes, and so on. Each annotation is associated with a specific location on a page and may offer interactivity with the user. See the Adobe PDF Specification for more on annotations.

You are not likely to work with a `PDFAnnotation` object by itself, because the specific subclasses, such as `PDFAnnotationCircle`, are much more useful. When a PDF file is being parsed, however, any unknown or unsupported annotation is represented as a `PDFAnnotation` object.

`PDFAnnotation` is an abstract superclass of the following concrete classes:

- `PDFAnnotationButtonWidget`
- `PDFAnnotationCircle`
- `PDFAnnotationFreeText`
- `PDFAnnotationInk`
- `PDFAnnotationLine`
- `PDFAnnotationLink`
- `PDFAnnotationMarkup`
- `PDFAnnotationPopup`
- `PDFAnnotationSquare`
- `PDFAnnotationStamp`
- `PDFAnnotationText`
- `PDFAnnotationTextWidget`

Tasks

Initializing an Annotation

- [initWithBounds:](#) (page 10)
Initializes a PDF annotation object.

Accessing Information About an Annotation

- [page](#) (page 11)
Returns the page that the annotation is associated with.
- [modificationDate](#) (page 10)
Returns the modification date of the annotation.
- [setModificationDate:](#) (page 13)
Sets the modification date of the annotation.
- [userName](#) (page 17)
Returns the name of the user who created the annotation.
- [setUserName:](#) (page 15)
Sets the name of the user who created the annotation.
- [popup](#) (page 11)
Returns the pop-up annotation associated with an annotation.
- [setPopup:](#) (page 14)
Sets the pop-up annotation associated with an annotation.
- [mouseUpAction](#) (page 10)
Returns the optional action performed when a user releases the mouse button within an annotation.
- [setMouseUpAction:](#) (page 14)
Sets the action performed when a user releases the mouse button within an annotation.
- [type](#) (page 17)
Returns the type of the annotation.
- [contents](#) (page 8)
Returns the textual content (if any) associated with the annotation.
- [setContents:](#) (page 13)
Specifies the textual content associated with the annotation.
- [toolTip](#) (page 16)
Returns text for display as a help tag.

Managing Annotation Display Characteristics

- [bounds](#) (page 8)
Returns the bounding box for the annotation in page space.
- [setBounds:](#) (page 12)
Sets the bounding box for the annotation.

- [border](#) (page 7)
Returns the border style for the annotation.
- [setBorder:](#) (page 12)
Sets the border style for the annotation.
- [color](#) (page 8)
Returns the stroke color for the annotation.
- [setColor:](#) (page 12)
Sets the stroke color for the annotation.
- [hasAppearanceStream](#) (page 9)
Returns a Boolean value that indicates whether the annotation has an appearance stream associated with it.

Managing Annotation Drawing and Output

- [drawWithBox:](#) (page 9)
Draws the annotation on its associated page.
- [shouldDisplay](#) (page 16)
Returns a Boolean value indicating whether the annotation should be displayed.
- [setShouldDisplay:](#) (page 14)
Specifies whether the annotation should be displayed.
- [shouldPrint](#) (page 16)
Returns a Boolean value indicating whether the annotation should appear when the document is printed.
- [setShouldPrint:](#) (page 15)
Specifies whether the annotation should appear when the document is printed.

Instance Methods

border

Returns the border style for the annotation.

```
- (PDFBorder *)border
```

Return Value

The border style for the annotation. See “Constants” in the PDFBorder class for possible values.

Availability

Available in Mac OS X v10.4 and later.

See Also

- [setBorder:](#) (page 12)

Declared In

PDFAnnotation.h

bounds

Returns the bounding box for the annotation in page space.

- (NSRect)bounds

Return Value

The bounding box for the annotation in page space.

Discussion

Page space is a 72-dpi coordinate system with the origin at the lower-left corner of the current page.

Availability

Available in Mac OS X v10.4 and later.

See Also

- [setBounds:](#) (page 12)

Declared In

PDFAnnotation.h

color

Returns the stroke color for the annotation.

- (NSColor *)color

Return Value

The stroke color for the annotation.

Discussion

Where this color is used depends on the type of annotation.

Availability

Available in Mac OS X v10.4 and later.

See Also

- [setColor:](#) (page 12)

Declared In

PDFAnnotation.h

contents

Returns the textual content (if any) associated with the annotation.

- (NSString *)contents

Return Value

A string representing the textual content associated with the annotation.

Discussion

Textual content is typically associated with `PDFAnnotationText` and `PDFAnnotationFreeText` annotations.

Availability

Available in Mac OS X v10.4 and later.

See Also

- [setContents:](#) (page 13)
- [toolTip](#) (page 16)

Declared In

PDFAnnotation.h

drawWithBox:

Draws the annotation on its associated page.

- (void)drawWithBox:(PDFDisplayBox) *box*

Parameters

box

The bounding box used to draw the annotation in.

Discussion

The annotation is drawn relative to the origin of *box* in page space.

Page space is a 72 dpi coordinate system with the origin at the lower-left corner of the current page.

For additional information see the “Constants” section in the PDFPage class.

Availability

Available in Mac OS X v10.4 and later.

See Also

- [boundsForBox:](#)

Declared In

PDFAnnotation.h

hasAppearanceStream

Returns a Boolean value that indicates whether the annotation has an appearance stream associated with it.

- (BOOL) hasAppearanceStream

Return Value

YES if the annotation has an appearance stream; otherwise NO.

Discussion

An appearance stream is a sequence of draw instructions used to render a PDF item. If an appearance stream exists, PDF Kit draws the annotation using the stream, which may override existing set parameters (such as the stroke color set with [setColor](#)).

Availability

Available in Mac OS X v10.4 and later.

Declared In

PDFAnnotation.h

initWithBounds:

Initializes a PDF annotation object.

- (id)initWithBounds:(NSRect)bounds

Parameters*bounds*

The bounding box of the annotation, in page space.

Return ValueAn initialized `PDFAnnotation` instance, or `NULL` if the object could not be initialized.**Discussion**Subclasses of `PDFAnnotation` should use this method to initialize annotation instances. Provide *bounds* in page space. Invoking `initWithBounds:` directly on a `PDFAnnotation` object creates an illegal `NULL` type.

Page space is a 72 dpi coordinate system with the origin at the lower-left corner of the current page.

Availability

Available in Mac OS X v10.4 and later.

Declared In

PDFAnnotation.h

modificationDate

Returns the modification date of the annotation.

- (NSDate *)modificationDate

Return ValueThe modification date of the annotation, or `NULL` if there is no modification date.**Availability**

Available in Mac OS X v10.5 and later.

See Also- [setModificationDate](#) (page \$@)**Declared In**

PDFAnnotation.h

mouseUpAction

Returns the optional action performed when a user releases the mouse button within an annotation.

- (PDFAction *)mouseUpAction

Return Value

The PDF action performed when a user releases the mouse button within an annotation.

Availability

Available in Mac OS X v10.5 and later.

See Also

- [setMouseUpAction](#) (page \$@)

Declared In

PDFAnnotation.h

page

Returns the page that the annotation is associated with.

- (PDFPage *)page

Return Value

The PDF page associated with the annotation.

Discussion

The `addAnnotation:` method in the `PDFPage` class lets you associate an annotation with a page.

Availability

Available in Mac OS X v10.4 and later.

Declared In

PDFAnnotation.h

popup

Returns the pop-up annotation associated with an annotation.

- (PDFAnnotationPopup *)popup

Return Value

The pop-up annotation associated with the annotation, or `NULL` if no pop-up exists.

Discussion

Pop-up annotations are not used with links or widgets. The bounds and open state of the pop-up annotation indicate the placement and open state of the pop-up window.

Availability

Available in Mac OS X v10.5 and later.

See Also

- [setPopup](#) (page \$@)

Declared In

PDFAnnotation.h

setBorder:

Sets the border style for the annotation.

```
- (void)setBorder:(PDFBorder *)border
```

Parameters

border

The border style for the annotation. See “Constants” in the PDFBorder class for the available styles. The border style attribute is optional.

Availability

Available in Mac OS X v10.4 and later.

See Also

- [border](#) (page 7)

Declared In

PDFAnnotation.h

setBounds:

Sets the bounding box for the annotation.

```
- (void)setBounds:(NSRect)bounds
```

Parameters

bounds

The bounding box for the annotation. Use page space for *bounds*. The bounds attribute is required for all annotations.

Discussion

Page space is a 72-dpi coordinate system with the origin at the lower-left corner of the current page.

Availability

Available in Mac OS X v10.4 and later.

See Also

- [bounds](#) (page 8)

Declared In

PDFAnnotation.h

setColor:

Sets the stroke color for the annotation.

```
- (void)setColor:(NSColor *)color
```

Parameters

color

The stroke color for the annotation.

Discussion

Where this color is used depends on the annotation type.

Availability

Available in Mac OS X v10.4 and later.

See Also

- [color](#) (page 8)

Declared In

PDFAnnotation.h

setContentts:

Specifies the textual content associated with the annotation.

```
- (void)setContentts:(NSString *)contentts
```

Parameters

contentts

A string representing the textual contents associated with the annotation.

Discussion

Textual content is typically associated with PDFAnnotationText and PDFAnnotationFreeText annotations. For most annotation types, PDFView displays the associated textual content as a help tag.

Availability

Available in Mac OS X v10.4 and later.

See Also

- [contentts](#) (page 8)

- [toolTip](#) (page 16)

Declared In

PDFAnnotation.h

setModificationDate:

Sets the modification date of the annotation.

```
- (void)setModificationDate:(NSDate *)date
```

Parameters

date

The modification date to associate with the annotation.

Discussion

The modification date is optional.

Availability

Available in Mac OS X v10.5 and later.

See Also

- [modificationDate](#) (page \$@)

Declared In

PDFAnnotation.h

setMouseUpAction:

Sets the action performed when a user releases the mouse button within an annotation.

```
- (void)setMouseUpAction:(PDFAction *)action
```

Parameters

action

The PDF action to be performed when a user releases the mouse button within an annotation.

Discussion

The mouse-up action is optional.

Availability

Available in Mac OS X v10.5 and later.

See Also

- [mouseUpAction](#) (page \$@)

Declared In

PDFAnnotation.h

setPopup:

Sets the pop-up annotation associated with an annotation.

```
- (void)setPopup:(PDFAnnotationPopup *)popup
```

Parameters

popup

The pop-up annotation to associate with the annotation.

Discussion

A pop-up annotation is not associated with links or widgets. The bounds and open state of the pop-up annotation indicate the placement and open state of the pop-up window.

Availability

Available in Mac OS X v10.5 and later.

See Also

- [popup](#) (page \$@)

Declared In

PDFAnnotation.h

setShouldDisplay:

Specifies whether the annotation should be displayed.

```
- (void)setShouldDisplay:(BOOL)display
```

Parameters

display

Set this value to YES to display the annotation or NO otherwise.

Availability

Available in Mac OS X v10.4 and later.

See Also

- [shouldDisplay](#) (page 16)

Declared In

PDFAnnotation.h

setShouldPrint:

Specifies whether the annotation should appear when the document is printed.

```
- (void)setShouldPrint:(BOOL)print
```

Parameters

print

Set this value to YES to ensure the annotation appears when the document is printed or NO otherwise.

Availability

Available in Mac OS X v10.4 and later.

See Also

- [shouldPrint](#) (page 16)

Declared In

PDFAnnotation.h

setUserName:

Sets the name of the user who created the annotation.

```
- (void)userName:(NSString *)name
```

Parameters

name

The name of the user who created the annotation.

Discussion

The user name is optional.

Availability

Available in Mac OS X v10.5 and later.

See Also

- [userName](#) (page \$@)

Declared In

PDFAnnotation.h

shouldDisplay

Returns a Boolean value indicating whether the annotation should be displayed.

- (BOOL)shouldDisplay

Return Value

YES if the annotation should be displayed; otherwise NO.

Discussion

PDFPage respects this flag when drawing.

Availability

Available in Mac OS X v10.4 and later.

See Also

- [setShouldDisplay](#): (page 14)

Declared In

PDFAnnotation.h

shouldPrint

Returns a Boolean value indicating whether the annotation should appear when the document is printed.

- (BOOL)shouldPrint

Return Value

YES if the annotation should appear when the PDF document is printed; otherwise NO.

Discussion

PDFPage respects this flag when printing.

Availability

Available in Mac OS X v10.4 and later.

See Also

- [setShouldPrint](#): (page 15)

Declared In

PDFAnnotation.h

toolTip

Returns text for display as a help tag.

- (NSString *)toolTip

Return Value

A string that contains help tag content, or NULL if there is no text associated with the annotation.

Discussion

This method is equivalent to sending the message `[self contents]`. PDF Kit's annotation subclasses override this behavior as appropriate. For example, a `PDFAnnotationLink` object displays a URL or page destination for its help tag.

Availability

Available in Mac OS X v10.4 and later.

Declared In

`PDFAnnotation.h`

type

Returns the type of the annotation.

- (NSString *)type

Return Value

The type of the annotation. Types include `Line`, `Link`, `Text`, and so on, referring to the `PDFAnnotation` subclasses. In the Adobe PDF Specification, this attribute is called `Subtype`, and the common "type" for all annotations in the PDF Specification is `Annot`.

Availability

Available in Mac OS X v10.4 and later.

Declared In

`PDFAnnotation.h`

userName

Returns the name of the user who created the annotation.

- (NSString *)userName

Return Value

The name of the user who created the annotation, or `NULL` if no user name is set.

Availability

Available in Mac OS X v10.5 and later.

See Also

- [setUserName](#) (page \$@)

Declared In

`PDFAnnotation.h`

Document Revision History

This table describes the changes to *PDFAnnotation Class Reference*.

Date	Notes
2007-12-11	Made minor corrections.
2007-10-31	Updated for Mac OS X v10.5.
2007-06-08	Updated for Mac OS X v10.5.
2006-05-23	First publication of this content as a separate document.

REVISION HISTORY

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