PDFAnnotation Class Reference

Graphics & Imaging > Cocoa

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Contents

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 Value
An 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 Value
The 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`

setContents:

Specifies the textual content associated with the annotation.

```
- (void)setContents:(NSString *)contents
```

Parameters

contents
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
- `contents` (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.

Document Revision History

Index