
CATextLayer Class Reference

[Graphics & Imaging](#) > Quartz





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CATextLayer Class Reference

Inherits from	CALayer : NSObject
Conforms to	NSCoding (CALayer) CAMediaTiming (CALayer) NSObject (NSObject)
Framework	/System/Library/Frameworks/QuartzCore.framework
Availability	Available in Mac OS X v10.5 and later.
Declared in	CATextLayer.h
Companion guides	Core Animation Programming Guide Core Animation Cookbook
Related sample code	CALayerEssentials

Overview

The `CATextLayer` provides simple text layout and rendering of plain or attributed strings. The first line is aligned to the top of the layer.

Note: `CATextLayer` disabled sub-pixel antialiasing when rendering text. Text can only be drawn using sub-pixel antialiasing when it is composited into an existing opaque background at the same time that it's rasterized. There is no way to draw subpixel-antialiased text by itself, whether into an image or a layer, separately in advance of having the background pixels to weave the text pixels into. Setting the `opacity` property of the layer to `YES` does not change the rendering mode.

Note: When a `CATextLayer` instance is positioned using the *CAConstraintLayoutManager Class Reference* the bounds of the layer is resized to fit the text content.

Tasks

Getting and Setting the Text

[string](#) (page 8) *property*

The text to be rendered by the receiver.

Text Visual Properties

[font](#) (page 6) *property*

The font used to render the receiver's text.

[fontSize](#) (page 7) *property*

The font size used to render the receiver's text.

[foregroundColor](#) (page 7) *property*

The color used to render the receiver's text.

Text Alignment and Truncation

[wrapped](#) (page 8) *property*

Determines whether the text is wrapped to fit within the receiver's bounds.

- [isWrapped](#) (page 9)

A synthesized accessor for the [wrapped](#) (page 8) property.

[alignmentMode](#) (page 6) *property*

Determines how individual lines of text are horizontally aligned within the receiver's bounds.

[truncationMode](#) (page 8) *property*

Determines how the text is truncated to fit within the receiver's bounds.

Properties

For more about Objective-C properties, see "Properties" in *The Objective-C 2.0 Programming Language*.

alignmentMode

Determines how individual lines of text are horizontally aligned within the receiver's bounds.

```
@property(copy) NSString *alignmentMode
```

Discussion

The possible values are described in "[Horizontal alignment modes](#)" (page 10). Defaults to [kCAAlignmentNatural](#) (page 10).

Availability

Available in Mac OS X v10.5 and later.

Declared In

CATextLayer.h

font

The font used to render the receiver's text.

```
@property CTypeRef font
```

Discussion

May be either a `CTFontRef`, a `CGFontRef`, an instance of `NSFont`, or a string naming the font. Defaults to Helvetica.

The `font` property is only used when the `string` (page 8) property is not an `NSAttributedString`.

Note: If the `font` property specifies a font size (if it is a `CTFontRef`, a `CGFontRef`, an instance of `NSFont`) the font size is ignored.

Availability

Available in Mac OS X v10.5 and later.

Declared In

`CATextLayer.h`

fontSize

The font size used to render the receiver's text.

```
@property CGFloat fontSize
```

Discussion

Defaults to 36.0.

The `font` property is only used when the `string` (page 8) property is not an `NSAttributedString`.

Availability

Available in Mac OS X v10.5 and later.

Declared In

`CATextLayer.h`

foregroundColor

The color used to render the receiver's text.

```
@property CGColorRef foregroundColor
```

Discussion

Defaults to opaque white.

The `font` property is only used when the `string` (page 8) property is not an `NSAttributedString`.

Availability

Available in Mac OS X v10.5 and later.

Related Sample Code

`CALayerEssentials`

Declared In

`CATextLayer.h`

string

The text to be rendered by the receiver.

```
@property(copy) id string
```

Discussion

The text must be an instance of `NSString` or `NSAttributedString`. Defaults to `nil`.

Availability

Available in Mac OS X v10.5 and later.

Related Sample Code

`CALayerEssentials`

Declared In

`CATextLayer.h`

truncationMode

Determines how the text is truncated to fit within the receiver's bounds.

```
@property(copy) NSString *truncationMode
```

Discussion

The possible values are described in “[Truncation modes](#)” (page 9). Defaults to `kCATruncationNone` (page 9).

Availability

Available in Mac OS X v10.5 and later.

Declared In

`CATextLayer.h`

wrapped

Determines whether the text is wrapped to fit within the receiver's bounds.

```
@property BOOL wrapped
```

Discussion

Defaults to `NO`.

Availability

Available in Mac OS X v10.5 and later.

See Also

- [isWrapped](#) (page 9)

Declared In

`CATextLayer.h`

Instance Methods

isWrapped

A synthesized accessor for the [wrapped](#) (page 8) property.

- (BOOL)isWrapped

See Also

[@property wrapped](#) (page 8)

Constants

Truncation modes

These constants are used by the [truncationMode](#) (page 8) property.

```
NSString * const kCATruncationNone;
NSString * const kCATruncationStart;
NSString * const kCATruncationEnd;
NSString * const kCATruncationMiddle;
```

Constants

`kCATruncationNone`

If the [wrapped](#) (page 8) property is YES, the text is wrapped to the receiver's bounds, otherwise the text is clipped to the receiver's bounds.

Available in Mac OS X v10.5 and later.

Declared in `CATextLayer.h`.

`kCATruncationStart`

Each line is displayed so that the end fits in the container and the missing text is indicated by some kind of ellipsis glyph.

Available in Mac OS X v10.5 and later.

Declared in `CATextLayer.h`.

`kCATruncationEnd`

Each line is displayed so that the beginning fits in the container and the missing text is indicated by some kind of ellipsis glyph.

Available in Mac OS X v10.5 and later.

Declared in `CATextLayer.h`.

`kCATruncationMiddle`

Each line is displayed so that the beginning and end fit in the container and the missing text is indicated by some kind of ellipsis glyph in the middle.

Available in Mac OS X v10.5 and later.

Declared in `CATextLayer.h`.

Declared In

`CATextLayer.h`

Horizontal alignment modes

These constants are used by the [alignmentMode](#) (page 6) property.

```
NSString * const kCAAlignmentNatural;
NSString * const kCAAlignmentLeft;
NSString * const kCAAlignmentRight;
NSString * const kCAAlignmentCenter;
NSString * const kCAAlignmentJustified;
```

Constants

`kCAAlignmentNatural`

Use the natural alignment of the text's script.

Available in Mac OS X v10.5 and later.

Declared in `CATextLayer.h`.

`kCAAlignmentLeft`

Text is visually left aligned.

Available in Mac OS X v10.5 and later.

Declared in `CATextLayer.h`.

`kCAAlignmentRight`

Text is visually right aligned.

Available in Mac OS X v10.5 and later.

Declared in `CATextLayer.h`.

`kCAAlignmentCenter`

Text is visually center aligned.

Available in Mac OS X v10.5 and later.

Declared in `CATextLayer.h`.

`kCAAlignmentJustified`

Text is justified.

Available in Mac OS X v10.5 and later.

Declared in `CATextLayer.h`.

Declared In

`CATextLayer.h`

Document Revision History

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

Date	Notes
2007-12-11	Added description of the sub-pixel antialiasing limitations of CATextLayer rendering.
2007-10-31	Added note about the font property font size being ignored.
2007-07-24	New document that describes the class that simplifies rendering text in a layer.

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