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# QTCaptureView Class Reference

[QuickTime](#) > [Cocoa](#)



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# QTCaptureView Class Reference

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<b>Inherits from</b>	NSView : NSResponder : NSObject
<b>Conforms to</b>	NSAnimatablePropertyContainer (NSView) NSCoding (NSResponder) NSObject (NSObject)
<b>Framework</b>	/System/Library/Frameworks/QTKit.framework
<b>Availability</b>	Available in QuickTime 7.2.1 and later.
<b>Declared in</b>	QTCaptureView.h
<b>Related sample code</b>	QT Capture Widget QTRecorder

## Overview

This is a subclass of `NSView` that displays a video preview of a capture session. A `QTCaptureView` previews the video being processed by an instance of `QTCaptureSession`. This class creates and maintains its own `QTCaptureVideoPreviewOutput` as necessary to gather preview video from the capture session.

## Tasks

### Associating a View with a Capture Session

- [availableVideoPreviewConnections](#) (page 6)  
Returns an array of output video connections that can be previewed.
- [captureSession](#) (page 7)  
Returns the capture session being previewed by the receiver.
- [setCaptureSession:](#) (page 8)  
Sets the capture session to be previewed by the receiver.
- [setVideoPreviewConnection:](#) (page 9)  
Sets the output connection to be previewed by the receiver.
- [videoPreviewConnection](#) (page 10)  
Returns the output connection being previewed by the receiver.

## Controlling View Appearance

- [fillColor](#) (page 7)  
Returns the fill color drawn in the area of the view not covered by the video preview.
- [preservesAspectRatio](#) (page 7)  
Returns whether the receiver preserves the aspect ratio of the video preview when drawing it.
- [previewBounds](#) (page 8)  
Returns the rectangle occupied by the video preview in the view.
- [setFillColor:](#) (page 9)  
Sets the fill color drawn in the area of the view not covered by the video preview.
- [setPreservesAspectRatio:](#) (page 9)  
Sets whether the receiver preserves the aspect ratio of the video preview when drawing it.

## Getting and Setting a Delegate

- [delegate](#) (page 7)  
Returns the receiver's delegate.
- [setDelegate:](#) (page 8)  
Sets the receiver's delegate.

## Methods Implemented by the Delegate

- [view:willDisplayImage:](#) (page 10) *delegate method*  
Delegates of `QTCaptureView` can implement this method to modify the image that is to be drawn into a `QTCaptureView`.

## Instance Methods

### availableVideoPreviewConnections

Returns an array of output video connections that can be previewed.

```
- (NSArray *)availableVideoPreviewConnections
```

#### Return Value

An array of `QTCaptureConnection` instances for connections available to be previewed.

#### Discussion

This method returns an array of connections that can be previewed with the receiver. The returned connections can be used with the `setVideoPreviewConnection:` method to set the connection being previewed by the receiver.

If there are multiple video connections that can be previewed, this method can determine which the view will display.

**Availability**

Mac OS X v10.5 and later.

**Declared In**

QTCaptureView.h

**captureSession**

Returns the capture session being previewed by the receiver.

- (QTCaptureSession \*)captureSession

**Return Value**

A QTCaptureSession instance used for the preview.

**Availability**

Mac OS X v10.5 and later.

**Declared In**

QTCaptureView.h

**delegate**

Returns the receiver's delegate.

- (id)delegate

**Availability**

Available in Mac OS X v10.5 and later.

**Declared In**

QTCaptureView.h

**fillColor**

Returns the fill color drawn in the area of the view not covered by the video preview.

- (NSColor \*)fillColor

**Return Value**

An NSColor of the receiver's fill color.

**Availability**

Mac OS X v10.5 and later.

**Declared In**

QTCaptureView.h

**preservesAspectRatio**

Returns whether the receiver preserves the aspect ratio of the video preview when drawing it.

- (BOOL)preservesAspectRatio

**Return Value**

Returns YES if the video preview aspect ratio is preserved; otherwise, NO.

**Availability**

Mac OS X v10.5 and later.

**Declared In**

QTCaptureView.h

**previewBounds**

Returns the rectangle occupied by the video preview in the view.

- (NSRect)previewBounds

**Return Value**

The rectangle occupied by the video preview in the view.

**Discussion**

The default implementation of this method returns a video rectangle based on the value returned by `preservesAspectRatio`. Subclasses can override this method to change the rectangle occupied by the video preview.

**Availability**

Mac OS X v10.5 and later.

**Declared In**

QTCaptureView.h

**setCaptureSession:**

Sets the capture session to be previewed by the receiver.

- (void)setCaptureSession:(QTCaptureSession \*)*captureSession*

**Parameters**

*captureSession*

A QTCaptureSession instance to be used for the preview.

**Availability**

Mac OS X v10.5 and later.

**Declared In**

QTCaptureView.h

**setDelegate:**

Sets the receiver's delegate.

- (void)setDelegate:(id)*delegate*



**Availability**

Available in Mac OS X v10.5 and later.

**Declared In**

QTCaptureView.h

**setFillColor:**

Sets the fill color drawn in the area of the view not covered by the video preview.

```
- (void)setFillColor:(NSColor *)fillColor
```

**Parameters**

*fillColor*

An `NSColor` to be used for the receiver's fill color.

**Availability**

Mac OS X v10.5 and later.

**Declared In**

QTCaptureView.h

**setPreservesAspectRatio:**

Sets whether the receiver preserves the aspect ratio of the video preview when drawing it.

```
- (void)setPreservesAspectRatio:(BOOL)preservesAspectRatio
```

**Parameters**

*preservesAspectRatio*

If YES, preserves the aspect ratio; otherwise, NO.

**Availability**

Mac OS X v10.5 and later.

**Declared In**

QTCaptureView.h

**setVideoPreviewConnection:**

Sets the output connection to be previewed by the receiver.

```
- (void)setVideoPreviewConnection:(QTCaptureConnection *)connection
```

**Parameters**

*connection*

A `QTCaptureConnection` instance for the connection to be previewed.

**Discussion**

A `QTCaptureView` can only preview one video connection at a time. This method sets the output connection to be previewed by the receiver. The given connection must be one of the connections returned by `availableVideoPreviewConnections` or this method throws an `NSInvalidArgumentException`.

If there are multiple video connections that can be previewed, this method can determine which the view will display.

**Availability**

Mac OS X v10.5 and later.

**Declared In**

QTCaptureView.h

**videoPreviewConnection**

Returns the output connection being previewed by the receiver.

```
- (QTCaptureConnection *)videoPreviewConnection
```

**Return Value**

A `QTCaptureConnection` instance for the previewed connection.

**Discussion**

A `QTCaptureView` can preview only one video connection at a time. This method returns the output connection currently being previewed by the receiver.

If there are multiple video connections that can be previewed, this method can determine which the view will display.

**Availability**

Mac OS X v10.5 and later.

**Declared In**

QTCaptureView.h

## Delegate Methods

**view:willDisplayImage:**

Delegates of `QTCaptureView` can implement this method to modify the image that is to be drawn into a `QTCaptureView`.

```
- (CIImage *)view:(QTCaptureView *)view willDisplayImage:(CIImage *)image
```

**Parameters**

*view*

A `QTCaptureView` object that identifies the view which is about to draw.

*image*

A `CIImage` object that represents the frame that will otherwise be drawn to the `QTCaptureView`.

**Return Value**

Delegates should return a `CIImage` object to be drawn by the capture view, or `NIL` if the capture view should draw the original image.

**Discussion**

The `image` parameter is a `CIImage` representing the captured frame that is about to be drawn into a `QTCaptureView`. The delegate can return another image that modifies the source image (by applying a `CIFilter`, for example). The returned image will then be drawn into the capture view instead of the source image. The delegate can also return `NIL` or the original image to leave the drawn image unmodified.

**Availability**

Mac OS X v10.5 and later.

**Declared In**

`QTCaptureView.h`



# Document Revision History

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

Date	Notes
2009-04-08	Modified descriptions. Fixed typos. Minor fixes.
2009-03-04	Minor edit fixes.
2007-07-19	Added new methods; removed video field mode and previewed output methods.
2006-08-07	New document that describes the Objective-C class that displays a video preview of a capture session.

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