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# NSSegmentedControl Class Reference

User Experience: Controls



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# NSSegmentedControl Class Reference

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<b>Inherits from</b>	NSControl : NSView : NSResponder : NSObject
<b>Conforms to</b>	NSAnimatablePropertyContainer (NSView) NSCoding (NSResponder) NSObject (NSObject)
<b>Framework</b>	/System/Library/Frameworks/AppKit.framework
<b>Availability</b>	Available in Mac OS X v10.3 and later.
<b>Companion guide</b>	Segmented Controls Programming Guide for Cocoa
<b>Declared in</b>	NSSegmentedControl.h
<b>Related sample code</b>	ButtonMadness ImageClient ImageMap ImageMapExample PDF Annotation Editor

## Overview

An `NSSegmentedControl` object implements a horizontal button made of multiple segments.

The `NSSegmentedControl` class uses an `NSSegmentedCell` class to implement much of the control's functionality. Most methods in `NSSegmentedControl` are simply "cover methods" that call the corresponding method in `NSSegmentedCell`. The methods of `NSSegmentedCell` that do not have covers relate to accessing and setting values for tags and tool tips; programatically setting the key segment; and establishing the mode of the control.

The features of a segmented control include:

- Each segment can have an image, text (label), menu, tooltip, and tag
- Either the whole control or individual segments can be enabled or disabled
- There are three tracking modes for segments: select one mode (also known as radio button mode and illustrated by Finder's view mode selection control), momentary mode (as illustrated by Safari's toolbar buttons), or select any mode (where any combination of buttons may be on or off)
- Each segment can be either a fixed width or autosized to fit the contents
- If a segment has text and is marked as autosizing, then the text may be truncated so that the control completely fits

- If an image is too large to fit in a segment, it is clipped
- Full keyboard control of the user interface

## Tasks

### Specifying Number of Segments

- [setSegmentCount:](#) (page 16)  
Sets the number of segments in the receiver.
- [segmentCount](#) (page 12)  
Returns the number of segments in the receiver.

### Specifying Selected Segment

- [setSelectedSegment:](#) (page 18)  
Sets the selected segment of the receiver.
- [selectedSegment](#) (page 12)  
Returns the index of the selected segment of the receiver.
- [selectSegmentWithTag:](#) (page 13)  
Selects the segment with the specified tag.

### Working with Individual Segments

- [setWidth:forSegment:](#) (page 18)  
Sets the width of the specified segment.
- [widthForSegment:](#) (page 18)  
Returns the width of the specified segment.
- [setImage:forSegment:](#) (page 14)  
Sets the image for the specified segment.
- [imageForSegment:](#) (page 9)  
Returns the image associated with the specified segment.
- [setLabel:forSegment:](#) (page 15)  
Sets the label for the specified segment.
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Returns the label of the specified segment
- [setMenu:forSegment:](#) (page 15)  
Sets the menu for the specified segment.
- [menuForSegment:](#) (page 11)  
Returns the menu for the specified segment
- [setSelected:forSegment:](#) (page 17)  
Sets the selection state of the specified segment.

- [isSelectedForSegment:](#) (page 10)  
Returns a Boolean value indicating whether the specified segment is selected.
- [setEnabled:forSegment:](#) (page 13)  
Sets the enabled state of the specified segment
- [isEnabledForSegment:](#) (page 10)  
Returns a Boolean value indicating whether the specified segment is enabled.

## Specifying Segment Display

- [setSegmentStyle:](#) (page 16)  
Sets the visual style used to display the receiver.
- [segmentStyle](#) (page 12)  
Returns the visual style used to display the receiver.
- [setImageScaling:forSegment:](#) (page 14)  
Sets the scaling mode used to display the specified segment's image.
- [imageScalingForSegment:](#) (page 9)  
Returns the scaling mode used to display the specified segment's image.

## Instance Methods

### imageForSegment:

Returns the image associated with the specified segment.

```
(NSImage *)imageForSegment:(NSInteger)segment
```

#### Parameters

*segment*

The index of the segment whose image you want to get. This method raises an `NSRangeException` if the index is out of bounds.

#### Return Value

The image associated with the segment; otherwise, `nil`.

#### Availability

Available in Mac OS X v10.3 and later.

#### See Also

- [setImage:forSegment:](#) (page 14)

#### Declared In

`NSSegmentedControl.h`

### imageScalingForSegment:

Returns the scaling mode used to display the specified segment's image.

- (NSUInteger)imageScalingForSegment:(NSInteger)segment

#### Parameters

*segment*

The index of the segment whose enabled state you want to get. This method raises an `NSRangeException` if the index is out of bounds.

#### Return Value

One of the image scaling constants. For a list of possible values, see `UIImageScaling`. The default value is `UIImageScaleProportionallyDown`.

#### Availability

Available in Mac OS X v10.5 and later.

#### See Also

- [setImageScaling:forSegment:](#) (page 14)

#### Declared In

`NSSegmentedControl.h`

## isEnabledForSegment:

Returns a Boolean value indicating whether the specified segment is enabled.

- (BOOL)isEnabledForSegment:(NSInteger)segment

#### Parameters

*segment*

The index of the segment whose enabled state you want to get. This method raises an `NSRangeException` if the index is out of bounds.

#### Return Value

YES if the segment is enabled; otherwise, NO.

#### Availability

Available in Mac OS X v10.3 and later.

#### See Also

- [setEnabled:forSegment:](#) (page 13)

#### Declared In

`NSSegmentedControl.h`

## isSelectedForSegment:

Returns a Boolean value indicating whether the specified segment is selected.

- (BOOL)isSelectedForSegment:(NSInteger)segment

#### Parameters

*segment*

The index of the segment whose selection state you want to get. This method raises an `NSRangeException` if the index is out of bounds.

**Return Value**

YES if the segment is selected; otherwise, NO.

**Availability**

Available in Mac OS X v10.3 and later.

**See Also**

- [setSelected:forSegment:](#) (page 17)

**Declared In**

NSSegmentedControl.h

**labelForSegment:**

Returns the label of the specified segment

```
- (NSString *)labelForSegment:(NSInteger)segment
```

**Parameters**

*segment*

The index of the segment whose label you want to get. This method raises an `NSRangeException` if the index is out of bounds.

**Return Value**

The label of the segment. The returned string contains the entire text of the label, even if that text is normally truncated during drawing.

**Availability**

Available in Mac OS X v10.3 and later.

**See Also**

- [setLabel:forSegment:](#) (page 15)

**Declared In**

NSSegmentedControl.h

**menuForSegment:**

Returns the menu for the specified segment

```
- (NSMenu *)menuForSegment:(NSInteger)segment
```

**Parameters**

*segment*

The index of the segment whose menu you want to get. This method raises an `NSRangeException` if the index is out of bounds.

**Return Value**

The menu associated with the segment; otherwise, `nil`.

**Availability**

Available in Mac OS X v10.3 and later.

**See Also**

- [setMenu:forSegment:](#) (page 15)

**Declared In**

NSSegmentedControl.h

**segmentCount**

Returns the number of segments in the receiver.

- (NSInteger)segmentCount

**Return Value**

The number of segments.

**Availability**

Available in Mac OS X v10.3 and later.

**See Also**

- [setSegmentCount:](#) (page 16)

**Declared In**

NSSegmentedControl.h

**segmentStyle**

Returns the visual style used to display the receiver.

- (NSSegmentStyle)segmentStyle

**Return Value**

An `NSSegmentStyle` value that specifies the visual display used by the receiver. For possible values see [“Segmented Control Visual Styles”](#) (page 19).

**Availability**

Available in Mac OS X v10.5 and later.

**See Also**

- [setSegmentStyle:](#) (page 16)

**Declared In**

NSSegmentedControl.h

**selectedSegment**

Returns the index of the selected segment of the receiver.

- (NSInteger)selectedSegment

**Return Value**

The index of the currently selected segment or -1 if no segment is selected. If the receiver allows multiple selections, this method returns the most recently selected segment.

**Availability**

Available in Mac OS X v10.3 and later.

**See Also**

- [setSelectedSegment:](#) (page 18)

**Related Sample Code**

ClipboardViewer

ImageClient

ImageMap

ImageMapExample

**Declared In**

NSSegmentedControl.h

**selectSegmentWithTag:**

Selects the segment with the specified tag.

```
- (BOOL)selectSegmentWithTag:(NSInteger)tag
```

**Parameters**

*tag*

The tag associated with the desired segment.

**Return Value**

YES if the segment was selected successfully; otherwise, NO.

**Discussion**

Typically, you use Interface Builder to specify the tag for each segment. You may also set this value programmatically using the `setTag:forSegment:` method of `NSSegmentedCell`.

**Availability**

Available in Mac OS X v10.4 and later.

**See Also**

- `setTag:forSegment:` (`NSSegmentedCell`)

**Declared In**

NSSegmentedControl.h

**setEnabled:forSegment:**

Sets the enabled state of the specified segment

```
- (void)setEnabled:(BOOL)flag forSegment:(NSInteger)segment
```

**Parameters**

*flag*

YES to enable the segment; otherwise, NO to disable it.

*segment*

The index of the segment you want to enable or disable. This method raises an `NSRangeException` if the index is out of bounds.

#### Availability

Available in Mac OS X v10.3 and later.

#### See Also

- [isEnabledForSegment:](#) (page 10)

#### Related Sample Code

PDFKitLinker2

#### Declared In

NSSegmentedControl.h

### setImage:forSegment:

Sets the image for the specified segment.

```
- (void)setImage:(NSImage *)image forSegment:(NSInteger)segment
```

#### Parameters

*image*

The image to apply to the segment or `nil` if you want to clear the existing image. Images are not scaled to fit inside a segment. If the image is larger than the available space, it is clipped.

*segment*

The index of the segment whose image you want to set. This method raises an `NSRangeException` if the index is out of bounds.

#### Availability

Available in Mac OS X v10.3 and later.

#### See Also

- [imageForSegment:](#) (page 9)

#### Declared In

NSSegmentedControl.h

### setImageScaling:forSegment:

Sets the scaling mode used to display the specified segment's image.

```
- (void)setImageScaling:(NSImageScaling)scaling forSegment:(NSInteger)segment
```

#### Parameters

*scaling*

One of the image scaling constants. For a list of possible values, see `NSImageScaling`.

*segment*

The index of the segment whose enabled state you want to get. This method raises an `NSRangeException` if the index is out of bounds.

**Availability**

Available in Mac OS X v10.5 and later.

**See Also**

- [imageForSegment:](#) (page 9)

**Declared In**

NSSegmentedControl.h

**setLabel:forSegment:**

Sets the label for the specified segment.

```
- (void)setLabel:(NSString *)label forSegment:(NSInteger)segment
```

**Parameters**

*label*

The label you want to display in the segment. If the width of the string is greater than the width of the segment, the string's text is truncated during drawing.

*segment*

The index of the segment whose label you want to set. This method raises an `NSRangeException` if the index is out of bounds.

**Availability**

Available in Mac OS X v10.3 and later.

**See Also**

- [labelForSegment:](#) (page 11)

**Declared In**

NSSegmentedControl.h

**setMenu:forSegment:**

Sets the menu for the specified segment.

```
- (void)setMenu:(NSMenu *)menu forSegment:(NSInteger)segment
```

**Parameters**

*menu*

The menu you want to add to the segment or `nil` to clear the current menu. This menu is displayed when the user clicks and holds the mouse button while the mouse is over the segment.

*segment*

The index of the segment whose menu you want to set. This method raises an `NSRangeException` if the index is out of bounds.

**Discussion**

Adding a menu to a segment allows that segment to be used as a pop-up button.

**Availability**

Available in Mac OS X v10.3 and later.

**See Also**

- [menuForSegment:](#) (page 11)

**Declared In**

NSSegmentedControl.h

**setSegmentCount:**

Sets the number of segments in the receiver.

```
- (void)setSegmentCount:(NSInteger)count
```

**Parameters**

*count*

The number of segments the receiver should have. If this value is less than the number of segments currently in the receiver, segments are removed from the right of the control. Similarly, if the number is greater than the current number of segments, the new segments are added on the right. This value must be between 0 and 2049.

**Availability**

Available in Mac OS X v10.3 and later.

**See Also**

- [segmentCount](#) (page 12)

**Declared In**

NSSegmentedControl.h

**setSegmentStyle:**

Sets the visual style used to display the receiver.

```
- (void)setSegmentStyle:(NSSegmentStyle)segmentStyle
```

**Parameters**

*segmentStyle*

An `NSSegmentStyle` value that specifies the visual display used by the receiver. For the possible values see [“Segmented Control Visual Styles”](#) (page 19).

**Discussion**

[Figure 1](#) (page 17) shows the visual styles and their corresponding `NSSegmentStyle` constant. The `NSSegmentStyleAutomatic` (page 19) constant will automatically determined based on the type of window in which the control is displayed and the position within the window, and is not shown in the figure.

**Figure 1** NSSegmentStyle examples



**Availability**

Available in Mac OS X v10.5 and later.

**See Also**

- [segmentStyle](#) (page 12)

**Declared In**

NSSegmentedControl.h

**setSelected:forSegment:**

Sets the selection state of the specified segment.

- (void)setSelected:(BOOL)flag forSegment:(NSInteger)segment

**Parameters**

*flag*

YES if you want to select the segment; otherwise, NO.

*segment*

The index of the segment whose selection state you want to set. This method raises an `NSRangeException` if the index is out of bounds.

**Discussion**

If the receiver allows only a single selection, this method deselects any other selected segments.

**Availability**

Available in Mac OS X v10.3 and later.

**See Also**

- [isSelectedForSegment:](#) (page 10)

**Declared In**

NSSegmentedControl.h

## setSelectedSegment:

Sets the selected segment of the receiver.

- (void)setSelectedSegment:(NSInteger)*selectedSegment*

### Parameters

*selectedSegment*

The zero-based index of the desired segment. This method raises an `NSRangeException` if the index is out of bounds.

### Discussion

If the receiver allows multiple selections, this method selects the specified segment using [setSelected:forSegment:](#) (page 17).

### Availability

Available in Mac OS X v10.3 and later.

### See Also

- [selectedSegment](#) (page 12)

### Related Sample Code

PDFKitLinker2

### Declared In

`NSSegmentedControl.h`

## setWidth:forSegment:

Sets the width of the specified segment.

- (void)setWidth:(CGFloat)*width* forSegment:(NSInteger)*segment*

### Parameters

*width*

The width of the segment, measured in points. Specify the value 0 if you want the segment to be sized to fit the available space automatically.

*segment*

The index of the segment whose width you want to set. This method raises an `NSRangeException` if the index is out of bounds.

### Availability

Available in Mac OS X v10.3 and later.

### See Also

- [widthForSegment:](#) (page 18)

### Declared In

`NSSegmentedControl.h`

## widthForSegment:

Returns the width of the specified segment.

- (CGFloat)widthForSegment:(NSInteger)segment

#### Parameters

*segment*

The index of the segment whose width you want to get. This method raises an `NSRangeException` if the index is out of bounds.

#### Return Value

The width of the segment, measured in points, or 0 if the segment is sized to fit the available space automatically.

#### Availability

Available in Mac OS X v10.3 and later.

#### See Also

- [setWidth:forSegment:](#) (page 18)

#### Declared In

`NSSegmentedControl.h`

## Constants

### Segmented Control Visual Styles

The following constants specify the visual style used to display the segmented control. They are used by [setSegmentStyle:](#) (page 16).

```
enum {
    NSSegmentStyleAutomatic = 0,
    NSSegmentStyleRounded = 1,
    NSSegmentStyleTexturedRounded = 2,
    NSSegmentStyleRoundRect = 3,
    NSSegmentStyleTexturedSquare = 4,
    NSSegmentStyleCapsule = 5,
    NSSegmentStyleSmallSquare = 6
};
typedef NSInteger NSSegmentStyle;
```

#### Constants

`NSSegmentStyleAutomatic`

The appearance of the segmented control is automatically determined based on the type of window in which the control is displayed and the position within the window.

Available in Mac OS X v10.5 and later.

Declared in `NSSegmentedControl.h`.

`NSSegmentStyleRounded`

The control is displayed using the rounded style. See [Figure 1](#) (page 17) for examples.

Available in Mac OS X v10.5 and later.

Declared in `NSSegmentedControl.h`.

NSSegmentStyleTexturedRounded

The control is displayed using the textured rounded style. See [Figure 1](#) (page 17) for examples.

Available in Mac OS X v10.5 and later.

Declared in `NSSegmentedControl.h`.

NSSegmentStyleRoundRect

The control is displayed using the round rect style. See [Figure 1](#) (page 17) for examples.

Available in Mac OS X v10.5 and later.

Declared in `NSSegmentedControl.h`.

NSSegmentStyleTexturedSquare

The control is displayed using the textured square style. See [Figure 1](#) (page 17) for examples.

Available in Mac OS X v10.5 and later.

Declared in `NSSegmentedControl.h`.

NSSegmentStyleCapsule

The control is displayed using the capsule style. See [Figure 1](#) (page 17) for examples.

Available in Mac OS X v10.5 and later.

Declared in `NSSegmentedControl.h`.

NSSegmentStyleSmallSquare

The control is displayed using the small square style. See [Figure 1](#) (page 17) for examples.

Available in Mac OS X v10.5 and later.

Declared in `NSSegmentedControl.h`.

# Document Revision History

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

Date	Notes
2009-05-06	Added missing API.
2006-05-23	First publication of this content as a separate document.
	First publication of this content as a separate document.

**REVISION HISTORY**

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