
NSTextField Class Reference

[Cocoa](#) > [User Experience](#)



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NSTextField Class Reference

Inherits from	NSControl : NSView : NSResponder : NSObject
Conforms to	NSUserInterfaceValidations NSAnimatablePropertyContainer (NSView) NSCoding (NSResponder) NSObject (NSObject)
Framework	/System/Library/Frameworks/AppKit.framework
Availability	Available in Mac OS X v10.0 and later.
Companion guide	Text Fields
Declared in	NSTextField.h
Related sample code	EnhancedAudioBurn EnhancedDataBurn ImageClient MyPhoto PDF Annotation Editor

Overview

An `NSTextField` object is a kind of `NSControl` that displays text that the user can select or edit and that sends its action message to its target when the user presses the Return key while editing.

The `NSTextField` class uses the `NSTextFieldCell` class to implement its user interface.

Tasks

Controlling Editability and Selectability

- [setEditable:](#) (page 15)
Controls whether the user can edit the receiver's text.
- [isEditable](#) (page 11)
Returns a Boolean value indicating whether the user is allowed to select and edit the receiver's text.
- [setSelectable:](#) (page 16)
Sets whether the receiver is selectable (but not editable).

- [isSelectable](#) (page 11)
Returns a Boolean value indicating whether the user is allowed to select the receiver's text.

Controlling Rich Text Behavior

- [setAllowsEditingTextAttributes:](#) (page 12)
Controls whether the receiver allows the user to change font attributes of the receiver's text.
- [allowsEditingTextAttributes](#) (page 8)
Returns a Boolean value indicating whether the user is allowed to change font attributes of the receiver's text.
- [setImportsGraphics:](#) (page 16)
Controls whether the receiver allows the user to drag image files into it.
- [importsGraphics](#) (page 10)
Returns a Boolean value indicating whether the receiver allows the user to drag image files into it.

Setting the Text Color

- [setTextColor:](#) (page 17)
Sets the color used to draw the receiver's text.
- [textColor](#) (page 18)
Returns the color used to draw the receiver's text.

Controlling the Background

- [setBackgroundcolor:](#) (page 13)
Sets the color of the background that the receiver's cell draws behind the text.
- [backgroundcolor](#) (page 8)
Returns the color of the background that the receiver's cell draws behind the text.
- [setDrawsBackground:](#) (page 15)
Controls whether the receiver's cell draws its background color behind its text.
- [drawsBackground](#) (page 9)
Returns a Boolean value indicating whether the receiver's cell draws its background color.

Setting a Border

- [setBezeled:](#) (page 13)
Controls whether the receiver draws a beveled border around its contents.
- [isBezeled](#) (page 10)
Returns a Boolean value indicating whether the receiver draws a beveled frame.
- [setBezelStyle:](#) (page 14)
Sets the receiver's bezel style.
- [bezelStyle](#) (page 9)
Returns the receiver's bezel style.

- [setBordered:](#) (page 14)
Controls whether the receiver draws a solid black border around its contents.
- [isBordered](#) (page 11)
Returns a Boolean value indicating whether the receiver draws a black border around its contents.

Selecting the Text

- [selectText:](#) (page 12)
Ends editing and selects the entire contents of the receiver if it's selectable.

Working with the Responder Chain

- [acceptsFirstResponder](#) (page 8)
Returns a Boolean value indicating whether the receiver is editable.

Using Keyboard Interface Control

- [setTitleWithMnemonic:](#) (page 17)
Sets the receiver's string value, using the embedded character as the keyboard mnemonic.

Setting the Delegate

- [setDelegate:](#) (page 14)
Sets the receiver's delegate.
- [delegate](#) (page 9)
Returns the receiver's delegate.

NSText Delegate Method Implementations

- [textShouldBeginEditing:](#) (page 20)
Requests permission to begin editing a text object.
- [textDidBeginEditing:](#) (page 18)
Posts a notification that the text is about to begin editing to the default notification center.
- [textDidChange:](#) (page 18)
Posts a notification that the text has changed and forwards this message to the receiver's cell if it responds.
- [textShouldEndEditing:](#) (page 20)
Performs validation on the receiver's new value.
- [textDidEndEditing:](#) (page 19)
Handles an end of editing.

Instance Methods

acceptsFirstResponder

Returns a Boolean value indicating whether the receiver is editable.

- (BOOL)acceptsFirstResponder

Return Value

YES if the receiver is editable, NO otherwise.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSTextField.h

allowsEditingTextAttributes

Returns a Boolean value indicating whether the user is allowed to change font attributes of the receiver's text.

- (BOOL)allowsEditingTextAttributes

Return Value

YES if the receiver allows the user to change font attributes of the receiver's text, otherwise NO. You can change text attributes programmatically regardless of this setting.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [importsGraphics](#) (page 10)
- [setAllowsEditingTextAttributes:](#) (page 12)

Declared In

NSTextField.h

backgroundColor

Returns the color of the background that the receiver's cell draws behind the text.

- (NSColor *)backgroundColor

Return Value

The color used to draw the background.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [drawsBackground](#) (page 9)
- [setBackground-color:](#) (page 13)

Declared In

NSTextField.h

bezelStyle

Returns the receiver's bezel style.

- (NSTextFieldBezelStyle)bezelStyle

Return Value

A constant indicating the bezel style. Possible values are described in the "Constants" section of NSTextFieldCell.

Availability

Available in Mac OS X v10.2 and later.

See Also

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

Declared In

NSTextField.h

delegate

Returns the receiver's delegate.

- (id)delegate

Return Value

The object that acts as the receiver's delegate.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [textShouldBeginEditing:](#) (page 20)
- [textShouldEndEditing:](#) (page 20)
- [textDidBeginEditing:](#) (page 18)
- [textDidEndEditing:](#) (page 19)
- [textDidChange:](#) (page 18)
- [setDelegate:](#) (page 14)

Declared In

NSTextField.h

drawsBackground

Returns a Boolean value indicating whether the receiver's cell draws its background color.

- (BOOL)drawsBackground

Return Value

YES if the receiver's cell draws its background color behind its text, NO if it draws no background.

Discussion

In order to prevent inconsistent rendering, background color rendering is disabled for rounded-bezel text fields.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [backgroundColor](#) (page 8)
- [drawsBackground](#) (NSTextFieldCell)
- [setDrawsBackground:](#) (page 15)

Declared In

NSTextField.h

importsGraphics

Returns a Boolean value indicating whether the receiver allows the user to drag image files into it.

- (BOOL)importsGraphics

Return Value

YES if the receiver allows the user to drag image files into it, otherwise NO. You can add images programmatically regardless of this setting.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [allowsEditingTextAttributes](#) (page 8)
- [importsGraphics](#) (NSTextView)
- [setImportsGraphics:](#) (page 16)

Declared In

NSTextField.h

isBezeled

Returns a Boolean value indicating whether the receiver draws a bezeled frame.

- (BOOL)isBezeled

Return Value

YES if the receiver draws a bezeled frame around its contents; otherwise, NO.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [isBordered](#) (page 11)
- [setBezeled:](#) (page 13)

Declared In

NSTextField.h

isBordered

Returns a Boolean value indicating whether the receiver draws a black border around its contents.

- (BOOL)isBordered

Return Value

YES if the receiver draws a solid black border around its contents; otherwise NO.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [isBezeled](#) (page 10)
- [setBordered:](#) (page 14)

Declared In

NSTextField.h

isEditable

Returns a Boolean value indicating whether the user is allowed to select and edit the receiver's text.

- (BOOL)isEditable

Return Value

YES if the user is allowed to select and edit the receiver's text, NO if the user isn't allowed to edit it (though the user may be able to select it).

Availability

Available in Mac OS X v10.0 and later.

See Also

- [isSelectable](#) (page 11)
- [setEditable:](#) (page 15)

Declared In

NSTextField.h

isSelectable

Returns a Boolean value indicating whether the user is allowed to select the receiver's text.

- (BOOL)isSelectable

Return Value

YES if the user is allowed to select the receiver's text; otherwise NO.

Discussion

Selectable text isn't necessarily editable; use [isEditable](#) (page 11) to check for editability.

Availability

Available in Mac OS X v10.0 and later.

See Also

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

Declared In

NSTextField.h

selectText:

Ends editing and selects the entire contents of the receiver if it's selectable.

```
- (void)selectText:(id)sender
```

Parameters

sender

The sender of the message.

Discussion

If the receiver isn't in some window's view hierarchy, this method has no effect.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [isSelectable](#) (page 11)

Related Sample Code

QTMetadataEditor

Declared In

NSTextField.h

setAllowsEditingTextAttributes:

Controls whether the receiver allows the user to change font attributes of the receiver's text.

```
- (void)setAllowsEditingTextAttributes:(BOOL)flag
```

Parameters

flag

If YES, the user is permitted to change font attributes of the receiver's text; if *flag* is NO, the user isn't so permitted. You can change text attributes programmatically regardless of this setting.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [setImportsGraphics:](#) (page 16)
- [allowsEditingTextAttributes](#) (page 8)

Declared In

NSTextField.h

setBackground-color:

Sets the color of the background that the receiver's cell draws behind the text.

```
- (void)setBackgroundColor:(NSColor *)aColor
```

Parameters*aColor*

The color used to draw the background.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [setDrawsBackground:](#) (page 15)
- [backgroundColor](#) (page 8)

Declared In

NSTextField.h

setBezeled:

Controls whether the receiver draws a bezeled border around its contents.

```
- (void)setBezeled:(BOOL)flag
```

Parameters*flag*

If YES, it draws a bezeled border and invokes [setDrawsBackground:](#) (page 15) with an argument of NO; if NO, the receiver does not draw a border.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [isBezeled](#) (page 10)
- [setBordered:](#) (page 14)

Related Sample Code

Quartz Composer QCTV

Vertex Optimization

Declared In

NSTextField.h

setBezelStyle:

Sets the receiver's bezel style.

```
- (void)setBezelStyle:(NSTextFieldBezelStyle)style
```

Parameters

style

A constant indicating the bezel style. Possible values for *style* are described in the “Constants” section of `NSTextFieldCell`. You must have already sent the receiver `setBezeled:` (page 13) with an argument of YES

Availability

Available in Mac OS X v10.2 and later.

See Also

- [bezelStyle](#) (page 9)

Declared In

`NSTextField.h`

setBordered:

Controls whether the receiver draws a solid black border around its contents.

```
- (void)setBordered:(BOOL)flag
```

Parameters

flag

If YES, the receiver draws a border; if NO, it draws no border.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [isBordered](#) (page 11)

- [setBezeled:](#) (page 13)

Declared In

`NSTextField.h`

setDelegate:

Sets the receiver's delegate.

```
- (void)setDelegate:(id)anObject
```

Parameters

anObject

The object that acts as the receiver's delegate.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [textShouldBeginEditing:](#) (page 20)
- [textShouldEndEditing:](#) (page 20)
- [textDidBeginEditing:](#) (page 18)
- [textDidEndEditing:](#) (page 19)
- [textDidChange:](#) (page 18)
- [delegate](#) (page 9)

Declared In

NSTextField.h

setDrawsBackground:

Controls whether the receiver's cell draws its background color behind its text.

```
- (void)setDrawsBackground:(BOOL)flag
```

Parameters

flag

If YES, the receiver's cell draws its background; if NO, it draws nothing behind its text.

Discussion

In order to prevent inconsistent rendering, background color rendering is disabled for rounded-bezel text fields.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [setBackground-color:](#) (page 13)
- [setDrawsBackground:](#) (NSTextFieldCell)
- [drawsBackground](#) (page 9)

Related Sample Code

Quartz Composer QCTV

Declared In

NSTextField.h

setEditable:

Controls whether the user can edit the receiver's text.

```
- (void)setEditable:(BOOL)flag
```

Parameters

flag

If YES, then the user is allowed to both select and edit text. If *flag* is NO, then the user isn't permitted to edit text, and the receiver's selectability is restored to its previous value.

Discussion

For example, if an `NSTextField` object is selectable but not editable, then made editable for a time, then made not editable, it remains selectable. To guarantee that text is neither editable nor selectable, simply use [setSelectable:](#) (page 16) to turn off selectability.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [isEditable](#) (page 11)

Related Sample Code

Quartz Composer QCTV

Declared In

`NSTextField.h`

setImportsGraphics:

Controls whether the receiver allows the user to drag image files into it.

```
- (void)setImportsGraphics:(BOOL)flag
```

Parameters

flag

If YES, the receiver accepts dragged images; if NO, it doesn't. You can add images programmatically regardless of this setting.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [setAllowsEditingTextAttributes:](#) (page 12)
 - [setImportsGraphics:](#) (NSTextView)
 - [importsGraphics](#) (page 10)

Declared In

`NSTextField.h`

setSelectable:

Sets whether the receiver is selectable (but not editable).

```
- (void)setSelectable:(BOOL)flag
```

Parameters

flag

If YES, the receiver is made selectable but not editable (use [setEditable:](#) (page 15) to make text both selectable and editable). If NO, the text is neither editable nor selectable.

Availability

Available in Mac OS X v10.0 and later.

See Also

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

Related Sample Code

Quartz Composer QCTV

Declared In

NSTextField.h

setTextColor:

Sets the color used to draw the receiver's text.

```
- (void)setTextColor:(NSColor *)aColor
```

Parameters

aColor

The color used to draw text.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [setBackground-color:](#) (page 13)

- [setTextColor:](#) (NSTextFieldCell)

- [text-color](#) (page 18)

Related Sample Code

Vertex Optimization

Declared In

NSTextField.h

setTitleWithMnemonic:

Sets the receiver's string value, using the embedded character as the keyboard mnemonic.

```
- (void)setTitleWithMnemonic:(NSString *)aString
```

Parameters

aString

The string to set as the title. The first character preceded by an ampersand ('&') is used as the mnemonic (the first ampersand character is stripped out).

Discussion

Mnemonics are not supported in Mac OS X.

Availability

Available in Mac OS X v10.0 and later.

Declared In

NSTextField.h

textColor

Returns the color used to draw the receiver's text.

- (NSColor *)textColor

Return Value

The color used to draw text.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [backgroundColor](#) (page 8)
- [textColor](#) (NSTextFieldCell)
- [setTextColor:](#) (page 17)

Declared In

NSTextField.h

textDidBeginEditing:

Posts a notification that the text is about to begin editing to the default notification center.

- (void)textDidBeginEditing:(NSNotification *)*aNotification*

Parameters

aNotification

The `NSNotification` notification to post.

Discussion

This action causes the receiver's delegate to receive a `controlTextDidBeginEditing:` message. See the `NSControl` class specification for more information on the text delegate method.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [textDidBeginEditing:](#) (page 18)
- [textDidChange:](#) (page 18)
- [textShouldEndEditing:](#) (page 20)
- [textDidEndEditing:](#) (page 19)

Declared In

NSTextField.h

textDidChange:

Posts a notification that the text has changed and forwards this message to the receiver's cell if it responds.

- (void)textDidChange:(NSNotification *)*aNotification*

Parameters*aNotification*

The `NSNotification` notification that is posted to the default notification center.

Discussion

This method causes the receiver's delegate to receive a `controlTextDidChange:` message. See the `NSControl` class specification for more information on the text delegate method.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [textShouldBeginEditing:](#) (page 20)
- [textDidBeginEditing:](#) (page 18)
- [textShouldEndEditing:](#) (page 20)
- [textDidEndEditing:](#) (page 19)

Declared In

`NSTextField.h`

textDidEndEditing:

Handles an end of editing.

```
- (void)textDidEndEditing:(NSNotification *)aNotification
```

Parameters*aNotification*

The notification that editing has ended.

Discussion

After validating the new value, posts an `NSNotification` to the default notification center. This posting causes the receiver's delegate to receive a `controlTextDidEndEditing:` message. After this message, sends `endEditing:` to the receiver's cell and handles the key that caused editing to end:

- If the user ended editing by pressing Return, this method tries to send the receiver's action to its target; if unsuccessful, it sends `performKeyEquivalent:` to its `NSView` (for example, to handle the default button on a panel); if that also fails, the receiver simply selects its text.
- If the user ended editing by pressing Tab or Shift-Tab, the receiver tries to have its `NSWindow` object select its next or previous key view, using the `NSWindow` method `selectKeyViewFollowingView:` or `selectKeyViewPrecedingView:`. If unsuccessful in doing this, the receiver simply selects its text.

See the `NSControl` class specification for more information on the text delegate method.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [textShouldBeginEditing:](#) (page 20)
- [textDidBeginEditing:](#) (page 18)

- [textDidChange:](#) (page 18)
- [textShouldEndEditing:](#) (page 20)

Declared In

NSTextField.h

textShouldBeginEditing:

Requests permission to begin editing a text object.

```
- (BOOL)textShouldBeginEditing:(NSText *)textObject
```

Parameters*textObject*

The object to begin editing.

Return Value

YES if editing should be allowed to occur, NO otherwise.

Discussion

If the receiver isn't editable, returns NO immediately. If it is editable and its delegate responds to `control:textShouldBeginEditing:`, this invokes that method and returns the result. Otherwise it simply returns YES to allow editing to occur. See the NSControl class specification for more information on the text delegate method.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [textDidBeginEditing:](#) (page 18)
- [textDidChange:](#) (page 18)
- [textShouldEndEditing:](#) (page 20)
- [textDidEndEditing:](#) (page 19)

Declared In

NSTextField.h

textShouldEndEditing:

Performs validation on the receiver's new value.

```
- (BOOL)textShouldEndEditing:(NSText *)textObject
```

Parameters*textObject*

The text object requesting permission to end editing.

Return Value

YES if the new value is valid; otherwise NO.

Discussion

This method validates the receiver's new value using the `NSCell` method `isEntryAcceptable:`. If the new value is valid and the delegate responds to `control:textShouldEndEditing:`, invokes that method and returns the result, in addition beeping if the delegate returns `NO`. See the `NSControl` class specification for more information on the text delegate method.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [textShouldBeginEditing:](#) (page 20)
- [textDidBeginEditing:](#) (page 18)
- [textDidChange:](#) (page 18)
- [textDidEndEditing:](#) (page 19)

Declared In

`NSTextField.h`

Document Revision History

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

Date	Notes
2009-01-06	Added note that background color rendering is disabled for rounded-bezel text fields.
2007-10-31	Corrected minor errors. Clarified the NSText delegate method group heading.
	Removed mention of error action message from <code>textShouldEndEditing</code> .
2006-05-23	First publication of this content as a separate document.

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