
NSActionCell Class Reference

User Experience: Controls



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Apple Inc.
1 Infinite Loop
Cupertino, CA 95014
408-996-1010

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NSActionCell Class Reference

Inherits from	NSCell : NSObject
Conforms to	NSCoding (NSCell) NSCopying (NSCell) NSObject (NSObject)
Framework	/System/Library/Frameworks/AppKit.framework
Availability	Available in Mac OS X v10.0 and later.
Companion guide	Action Messages
Declared in	NSActionCell.h
Related sample code	Clock Control ClockControl TrackBall

Overview

An NSActionCell defines an active area inside a control (an instance of NSControl or one of its subclasses).

As an NSControl's active area, an NSActionCell does three things: it usually performs display of text or an icon; it provides the NSControl with a target and an action; and it handles mouse (cursor) tracking by properly highlighting its area and sending action messages to its target based on cursor movement.

Tasks

Configuring an NSActionCell Object

- [setAlignment:](#) (page 9)
Sets the alignment of text in the receiver.
- [setBezeled:](#) (page 10)
Sets whether the receiver draws itself with a bezeled border.
- [setBordered:](#) (page 10)
Sets whether the receiver draws itself outlined with a plain border.
- [setEnabled:](#) (page 11)
Sets whether the receiver is enabled or disabled.

- [setFloatingPointFormat:left:right:](#) (page 11)
Sets the receiver's floating-point format.
- [setFont:](#) (page 12)
Sets the font to be used when the receiver displays text.
- [setImage:](#) (page 12)
Sets the image to be displayed in the receiver.

Obtaining and Setting Cell Values

- [doubleValue](#) (page 7)
Returns the receiver's value as a `double` after validating any editing of cell content.
- [floatValue](#) (page 8)
Returns the receiver's value as a `float` after validating any editing of cell content.
- [intValue](#) (page 8)
Returns the receiver's value as an `int` after validating any editing of cell content.
- [integerValue](#) (page 8)
Returns the receiver's value as a 64-bit compatible integer after validating any editing of cell content.
- [stringValue](#) (page 14)
Returns the receiver's value as a string object as converted by the cell's formatter, if one exists.
- [setObjectValue:](#) (page 13)
Discards any editing of the receiver's text and sets its object value to *object*.

Managing the Cell's View

- [controlView](#) (page 7)
Returns the view in which the receiver was last drawn.
- [setControlView:](#) (page 10)
Sets the receiver's control view, the view in which it is drawn.

Assigning the Target and Action

- [setAction:](#) (page 9)
Sets the selector used for action messages sent by the receiver's control.
- [action](#) (page 7)
Returns the receiver's action-message selector.
- [setTarget:](#) (page 13)
Sets the receiver's target object.
- [target](#) (page 15)
Returns the receiver's target object.

Assigning a Tag

- [setTag:](#) (page 13)
Sets the receiver's tag.
- [tag](#) (page 14)
Returns the receiver's tag.

Instance Methods

action

Returns the receiver's action-message selector.

- (SEL)action

Availability

Available in Mac OS X v10.0 and later.

See Also

- [setAction:](#) (page 9)
- [setTarget:](#) (page 13)
- [target](#) (page 15)

Declared In

NSActionCell.h

controlView

Returns the view in which the receiver was last drawn.

- (NSView *)controlView

Return Value

The returned view is normally an `NSControl` object. The method returns `nil` if the receiver has no control view (usually because it hasn't yet been placed in the view hierarchy).

Availability

Available in Mac OS X v10.0 through Mac OS X v10.5.

Declared In

NSActionCell.h

doubleValue

Returns the receiver's value as a `double` after validating any editing of cell content.

- (double)doubleValue

Discussion

If the receiver is not a text-type cell or the cell value is not scannable, the method returns 0.

Availability

Available in Mac OS X v10.0 through Mac OS X v10.5.

See Also

- `validateEditing` (NSControl)

Declared In

NSActionCell.h

floatValue

Returns the receiver's value as a `float` after validating any editing of cell content.

- `(float)floatValue`

Discussion

If the receiver is not a text-type cell or the cell value is not scannable, the method returns 0.

Availability

Available in Mac OS X v10.0 through Mac OS X v10.5.

See Also

- `validateEditing` (NSControl)

Declared In

NSActionCell.h

integerValue

Returns the receiver's value as a 64-bit compatible integer after validating any editing of cell content.

- `(NSInteger)integerValue`

Return Value

A 64-bit compatible integer value, as defined by the `NSInteger` type.

Discussion

If the receiver is not a text-type cell or the cell value is not scannable, the method returns 0.

Availability

Available in Mac OS X v10.5 and later.

Declared In

NSActionCell.h

intValue

Returns the receiver's value as an `int` after validating any editing of cell content.

- (int)intValue

Discussion

If the receiver is not a text-type cell or the cell value is not scannable, the method returns 0.

Availability

Available in Mac OS X v10.0 through Mac OS X v10.5.

See Also

- [validateEditing \(NSControl\)](#)

Declared In

NSActionCell.h

setAction:

Sets the selector used for action messages sent by the receiver's control.

- (void)setAction:(SEL)aSelector

Parameters

aSelector

The selector that identifies the action method to invoke.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [action](#) (page 7)
- [setTarget:](#) (page 13)
- [target](#) (page 15)

Related Sample Code

Quartz Composer WWDC 2005 TextEdit

Declared In

NSActionCell.h

setAlignment:

Sets the alignment of text in the receiver.

- (void)setAlignment:(NSTextAlignment)mode

Parameters

mode

One of five constants that specifies alignment within the cell: `NSLeftTextAlignment`, `NSRightTextAlignment`, `NSCenterTextAlignment`, `NSJustifiedTextAlignment`, and `NSNaturalTextAlignment` (the default alignment for the text).

Discussion

The method marks the receiver as needing redisplay after discarding any editing changes that were being made to cell text.

Availability

Available in Mac OS X v10.0 through Mac OS X v10.5.

Declared In

NSActionCell.h

setBezeled:

Sets whether the receiver draws itself with a bezeled border.

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

Parameters

flag

YES if the cell is to be drawn with a bezeled border, NO otherwise.

Discussion

After setting the attribute the method marks the receiver as needing redisplay. The `setBezeled:` and `setBordered:` (page 10) methods are mutually exclusive—that is, a border can be only plain or bezeled.

Availability

Available in Mac OS X v10.0 through Mac OS X v10.5.

Declared In

NSActionCell.h

setBordered:

Sets whether the receiver draws itself outlined with a plain border.

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

Parameters

flag

YES if the cell is to be drawn with a plain border, NO otherwise.

Discussion

After setting the attribute the method marks the receiver as needing redisplay. The `setBezeled:` (page 10) and `setBordered:` methods are mutually exclusive—that is, a border can be only plain or bezeled.

Availability

Available in Mac OS X v10.0 through Mac OS X v10.5.

Declared In

NSActionCell.h

setControlView:

Sets the receiver's control view, the view in which it is drawn.

```
- (void)setControlView:(NSView *)view
```

Parameters*view*

The view object, which is normally an NSControl *view*. Pass in *nil* if the receiver has no control view (usually because it hasn't yet been placed in the view hierarchy).

Discussion

The control view is typically set in the receiver's implementation of `drawWithFrame:inView:` (`NSCell`).

Availability

Available in Mac OS X v10.4 and later.

Declared In

`NSActionCell.h`

setEnabled:

Sets whether the receiver is enabled or disabled.

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

Parameters*flag*

YES if the cell is to be enabled, NO otherwise

Discussion

The text of disabled cells is changed to gray. If a cell is disabled, it cannot be highlighted, cannot be edited, and does not support mouse tracking (and thus cannot participate in target-action behavior). The method marks the receiver as needing redisplay after discarding any editing changes that were being made to cell text.

Availability

Available in Mac OS X v10.0 through Mac OS X v10.5.

Declared In

`NSActionCell.h`

setFloatingPointFormat:left:right:

Sets the receiver's floating-point format.

```
- (void)setFloatingPointFormat:(BOOL)autoRange left:(NSUInteger)leftDigits
right:(NSUInteger)rightDigits
```

Parameters*autoRange*

NO if you want the receiver to place digits to the right and left of the decimal point as specified (in *leftDigits* and *rightDigits*); YES if you want it to place the digits flexibly.

leftDigits

The maximum number of digits to the left of the decimal point. The receiver might interpret this value flexibly if *autoRange* is YES.

rightDigits

The maximum number of digits to the right of the decimal point. The receiver might interpret this value flexibly if `autoRange` is YES.

Discussion

The implementation of this method is based on the `NSCell` method `setFloatingPointFormat:left:right:`. See the description of that method for details.

The `NSActionCell` implementation of the method supplements the `NSCell` implementation by marking the receiver as needing redisplay after discarding any editing changes that were being made to cell text.

Note: This method is being deprecated in favor of `NSFormatter` objects. For more information, see `NSFormatter`. This documentation is provided only for developers who need to modify older applications.

Availability

Available in Mac OS X v10.0 through Mac OS X v10.5.

Declared In

`NSActionCell.h`

setFont:

Sets the font to be used when the receiver displays text.

```
- (void)setFont:(NSFont *)fontObj
```

Parameters

fontObj

The font object encapsulating information about the new font. If *fontObj* is `nil` and the receiver is a text-type cell, the font object currently held by the receiver is autoreleased.

Discussion

If the receiver is not a text-type cell, the method converts it to that type. `NSActionCell` supplements the `NSCell` implementation of this method by marking the updated cell as needing redisplay. If the receiver was converted to a text-type cell and is selected, it also updates the field editor with *fontObj*.

Availability

Available in Mac OS X v10.0 through Mac OS X v10.5.

Declared In

`NSActionCell.h`

setImage:

Sets the image to be displayed in the receiver.

```
- (void)setImage:(NSImage *)image
```

Parameters

image

The image for the receiver to display. If *image* is `nil`, the image currently displayed by the receiver is removed.

Availability

Available in Mac OS X v10.0 through Mac OS X v10.5.

Declared In

NSActionCell.h

setObjectValue:

Discards any editing of the receiver's text and sets its object value to *object*.

```
- (void)setObjectValue:(id < NSCopying >)object
```

Parameters

object

The object value to assign to the receiver.

Discussion

If the object value is afterward different from what it was before the method was invoked, the method marks the receiver as needing redisplay.

Availability

Available in Mac OS X v10.0 through Mac OS X v10.5.

Declared In

NSActionCell.h

setTag:

Sets the receiver's tag.

```
- (void)setTag:(NSInteger)anInt
```

Parameters

anInt

An integer tag to be associated with the receiver.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [tag](#) (page 14)

Declared In

NSActionCell.h

setTarget:

Sets the receiver's target object.

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

Parameters*anObject*

The object that is the target of action messages sent by the receiver's control.

Availability

Available in Mac OS X v10.0 and later.

See Also

- [action](#) (page 7)
- [setAction:](#) (page 9)
- [target](#) (page 15)

Related Sample Code

Quartz Composer WWDC 2005 TextEdit

Declared In

NSActionCell.h

stringValue

Returns the receiver's value as a string object as converted by the cell's formatter, if one exists.

- (NSString *)stringValue

Discussion

If no formatter exists and the value is an `NSString`, returns the value as a plain, attributed, or localized formatted string. If the value is not an `NSString` or cannot be converted to one, returns an empty string. The method supplements the `NSCell` implementation by validating and retaining any editing changes being made to cell text.

Availability

Available in Mac OS X v10.0 through Mac OS X v10.5.

See Also

- [validateEditing](#) (NSControl)

Declared In

NSActionCell.h

tag

Returns the receiver's tag.

- (NSInteger)tag

Availability

Available in Mac OS X v10.0 and later.

See Also

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

Declared In

NSActionCell.h

target

Returns the receiver's target object.

- (id)target

Availability

Available in Mac OS X v10.0 and later.

See Also

- [action](#) (page 7)
- [setAction:](#) (page 9)
- [setTarget:](#) (page 13)

Related Sample Code

Clock Control

ClockControl

Declared In

NSActionCell.h

Document Revision History

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

Date	Notes
2007-02-28	Updated for Mac OS X version 10.5.
2006-05-23	First publication of this content as a separate document.

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