# WebEditingDelegate Protocol Reference

Cocoa > User Experience



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## Contents

### WebEditingDelegate Protocol Reference 5

Overview 5 Tasks 5 Controlling Editing Behavior 5 Responding to Notifications 6 Performing Commands 6 Getting the Undo Manager 6 Instance Methods 6 undoManagerForWebView: 6 webView:doCommandBySelector: 6 webView:shouldApplyStyle:toElementsInDOMRange: 7 webView:shouldBeginEditingInDOMRange: 7 webView:shouldChangeSelectedDOMRange:toDOMRange:affinity:stillSelecting: 8 webView:shouldChangeTypingStyle:toStyle: 8 webView:shouldDeleteDOMRange: 8 webView:shouldEndEditingInDOMRange: 9 webView:shouldInsertNode:replacingDOMRange:givenAction: 9 webView:shouldInsertText:replacingDOMRange:givenAction: 10 webViewDidBeginEditing: 10 webViewDidChange: 10 webViewDidChangeSelection: 11 webViewDidChangeTypingStyle: 11 webViewDidEndEditing: 12 Constants 12 WebViewInsertAction 12

### Document Revision History 15

Index 17

CONTENTS

# WebEditingDelegate Protocol Reference

(informal protocol)

Framework	/System/Library/Frameworks/WebKit.framework
Availability	Available in Mac OS X v10.3.9 and later.
Companion guide	WebKit Objective-C Programming Guide
Declared in	WebEditingDelegate.h

# Overview

You use a WebEditingDelegate to control or augment the editing behavior of a WebView object. Objects conforming to the WebEditingDelegate informal protocol may receive *should* messages before or *did* messages after an editing action. Typically, you implement an editing delegate if you want to change the default editing behavior.

# Tasks

## **Controlling Editing Behavior**

- webView:shouldApplyStyle:toElementsInDOMRange: (page 7)
   Returns whether the user should be allowed to apply a style to a range of content.
- webView:shouldBeginEditingInDOMRange: (page 7)
   Returns whether the user is allowed to edit a range of content in a web view.
- webView:shouldChangeSelectedDOMRange:toDOMRange:affinity:stillSelecting: (page 8)
   Returns whether the user should be allowed to change the selected range.
- webView:shouldChangeTypingStyle:toStyle: (page 8)
  - Returns whether the user should be allowed to change the typing style in a web view.
- webView:shouldDeleteDOMRange: (page 8)
   Returns whether the user should be allowed to delete a range of content.
- webView:shouldEndEditingInDOMRange: (page 9)
   Returns whether the user should be allowed to end editing.
- webView:shouldInsertNode:replacingDOMRange:givenAction: (page 9)
   Returns whether the user should be allowed to insert a node in place of a range of content.
- webView:shouldInsertText:replacingDOMRange:givenAction: (page 10)
   Returns whether a user should be allowed to insert text in place of a range of content.

## **Responding to Notifications**

- webViewDidBeginEditing: (page 10)
  - Sent by the default notification center when the user begins editing the web view.
- webViewDidChange: (page 10)
  - Sent by the default notification center when the user changes content in the web view.
- webViewDidChangeSelection: (page 11)
  - Sent by the default notification center when the user changes the selection in the web view.
- webViewDidChangeTypingStyle: (page 11)
  - Sent by the default notification center when the user changes the typing style in the web view.
- webViewDidEndEditing: (page 12)
   Sent by the default notification center when the user stops editing the web view.

## **Performing Commands**

webView:doCommandBySelector: (page 6)
 Returns whether the receiver will perform a command instead of the webView.

## Getting the Undo Manager

undoManagerForWebView: (page 6)
 Returns the undo manager to be used by a webView.

# **Instance Methods**

## undoManagerForWebView:

Returns the undo manager to be used by a webView.

- (NSUndoManager \*)undoManagerForWebView:(WebView \*)webView

#### Availability

Available in Mac OS X v10.3.9 and later.

Declared In WebEditingDelegate.h

## webView:doCommandBySelector:

Returns whether the receiver will perform a command instead of the webView.

- (BOOL)webView:(WebView \*)webView doCommandBySelector:(SEL)command

#### Discussion

This method returns YES if the receiver will perform *command*, N0 otherwise. Implement this method if you want to perform *command* instead of letting the webView perform *command*.

#### Availability

Available in Mac OS X v10.3.9 and later.

Declared In WebEditingDelegate.h

## webView:shouldApplyStyle:toElementsInDOMRange:

Returns whether the user should be allowed to apply a style to a range of content.

- (BOOL)webView:(WebView \*)webView shouldApplyStyle:(DOMCSSStyleDeclaration \*)style toElementsInDOMRange:(DOMRange \*)range

#### Discussion

This method returns YES if the user should be allowed to apply a style, specified by *style*, to the content, specified by *range*, in *webView*, N0 otherwise.

#### Availability

Available in Mac OS X v10.3.9 and later.

#### **Declared In**

WebEditingDelegate.h

## webView:shouldBeginEditingInDOMRange:

Returns whether the user is allowed to edit a range of content in a web view.

- (BOOL)webView:(WebView \*)webView shouldBeginEditingInDOMRange:(DOMRange \*)range

#### Discussion

This method returns YES if the user is allowed to edit *webView*, N0 otherwise. This method is invoked when a web view attempts to become the first responder or when the user drops an object on *webView*. The *range* argument marks the section of the begin-editing request and is used to determine if editing is allowed. Typically, *range* is not the current selection but may becomes the current selection if this method returns YES.

### Availability

Available in Mac OS X v10.3.9 and later.

#### See Also

- webView:shouldEndEditingInDOMRange: (page 9)
- webViewDidBeginEditing: (page 10)

#### **Declared In**

WebEditingDelegate.h

## webView:shouldChangeSelectedDOMRange:toDOMRange:affinity:stillSelecting:

Returns whether the user should be allowed to change the selected range.

- (BOOL)webView:(WebView \*)webView shouldChangeSelectedDOMRange:(DOMRange \*)currentRange toDOMRange:(DOMRange \*)proposedRange affinity:(NSSelectionAffinity)selectionAffinity stillSelecting:(BOOL)flag

#### Discussion

This method returns YES if the user is allowed to change the selected range specified by the *currentRange* and *proposedRange* arguments; otherwise, NO. The *selectionAffinity* argument specifies the direction of the selection. The *flag* argument is YES if the user is still selecting, NO otherwise.

#### Availability

Available in Mac OS X v10.3.9 and later.

#### See Also

- webViewDidChangeSelection: (page 11)

#### Declared In

WebEditingDelegate.h

## webView:shouldChangeTypingStyle:toStyle:

Returns whether the user should be allowed to change the typing style in a web view.

- (BOOL)webView:(WebView \*)webView shouldChangeTypingStyle:(DOMCSSStyleDeclaration \*)currentStyle toStyle:(DOMCSSStyleDeclaration \*)proposedStyle

#### Discussion

This method returns YES if the user should be allowed to change the typing style in webView to proposedStyle, N0 otherwise. The currentStyle argument is the old style. You can implement this method to take some other action—for example, set the typing style to a different style—and return N0.

#### Availability

Available in Mac OS X v10.3.9 and later.

#### See Also

- webViewDidChangeTypingStyle: (page 11)

#### **Declared In**

WebEditingDelegate.h

## webView:shouldDeleteDOMRange:

Returns whether the user should be allowed to delete a range of content.

- (BOOL)webView:(WebView \*)webView shouldDeleteDOMRange:(DOMRange \*)range

#### Discussion

8

This method should returns YES if the user should be allowed to delete the content specified by *range*, N0 otherwise. This method may perform an alternate action—for example, delete a different range—and return N0.

**Availability** Available in Mac OS X v10.3.9 and later.

See Also
- webViewDidChange: (page 10)

Declared In WebEditingDelegate.h

## webView:shouldEndEditingInDOMRange:

Returns whether the user should be allowed to end editing.

- (BOOL)webView:(WebView \*)webView shouldEndEditingInDOMRange:(DOMRange \*)range

#### Discussion

This method returns YES if the user should be allowed to end editing *webView*, N0 otherwise. This method is invoked when a web view attempts to resign as the first responder. Typically, the *range* argument designates the current selection, although it might not. Use the *range* argument to help determine if the user can end editing. If this method returnsYES, *webView* will end editing and resign as the first responder.

#### Availability

Available in Mac OS X v10.3.9 and later.

#### See Also

- webView:shouldBeginEditingInDOMRange: (page 7)
- webViewDidEndEditing: (page 12)

#### Declared In

WebEditingDelegate.h

## webView:shouldInsertNode:replacingDOMRange:givenAction:

Returns whether the user should be allowed to insert a node in place of a range of content.

- (BOOL)webView:(WebView \*)webView shouldInsertNode:(DOMNode \*)node replacingDOMRange:(DOMRange \*)range givenAction:(WebViewInsertAction)action

#### Discussion

This method returns YES if the user should be allowed to insert *node* in *webView*, N0 otherwise. The *range* argument is the portion of the content that will be replaced with *node*. The *action* argument indicates the type of user action that initiated the insertion. This method may perform an alternate action—for example, insert a different node—and return N0.

#### Availability

Available in Mac OS X v10.3.9 and later.

#### See Also

- webView:shouldInsertText:replacingDOMRange:givenAction: (page 10)
- webViewDidChange: (page 10)

Declared In WebEditingDelegate.h

## webView:shouldInsertText:replacingDOMRange:givenAction:

Returns whether a user should be allowed to insert text in place of a range of content.

- (BOOL)webView:(WebView \*)webView shouldInsertText:(NSString \*)text replacingDOMRange:(DOMRange \*)range givenAction:(WebViewInsertAction)action

#### Discussion

This method returns YES if the user should be allowed to insert *text* in *webView*, N0 otherwise. This method is invoked when one of the replaceSelectionWith... messages is sent to a *webView*. The *range* argument is the portiion of the document that will be replaced with *text*. The *action* argument indicates the type of user action that initiated the insertion. This method may perform an alternate action—for example, insert different text—and return N0.

#### Availability

Available in Mac OS X v10.3.9 and later.

#### See Also

```
- webView:shouldInsertNode:replacingDOMRange:givenAction: (page 9)
```

- webViewDidChange: (page 10)

#### **Declared In**

WebEditingDelegate.h

## webViewDidBeginEditing:

Sent by the default notification center when the user begins editing the web view.

- (void)webViewDidBeginEditing:(NSNotification \*)notification

#### Discussion

The *notification* argument is always WebViewDidBeginEditingNotification. You can retrieve the WebView object by sending object to *notification*.

#### Availability

Available in Mac OS X v10.3.9 and later.

#### See Also

- webViewDidEndEditing: (page 12)
- webView:shouldBeginEditingInDOMRange: (page 7)

#### **Declared In**

WebEditingDelegate.h

## webViewDidChange:

Sent by the default notification center when the user changes content in the web view.

- (void)webViewDidChange:(NSNotification \*)notification

#### Discussion

The *notification* argument is always WebViewDidChangeNotification. You can retrieve the WebView object by sending object to *notification*.

#### Availability

Available in Mac OS X v10.3.9 and later.

#### See Also

- webView:shouldDeleteDOMRange: (page 8)
- webView:shouldInsertNode:replacingDOMRange:givenAction: (page 9)
- webView:shouldInsertText:replacingDOMRange:givenAction: (page 10)
- webView:shouldDeleteDOMRange: (page 8)

#### **Declared In**

WebEditingDelegate.h

## webViewDidChangeSelection:

Sent by the default notification center when the user changes the selection in the web view.

- (void)webViewDidChangeSelection:(NSNotification \*)notification

#### Discussion

The *notification* argument is always WebViewDidChangeSelectionNotification. You can retrieve the WebView object by sending object to *notification*.

#### Availability

Available in Mac OS X v10.3.9 and later.

#### See Also

- webView:shouldChangeSelectedDOMRange:toDOMRange:affinity:stillSelecting: (page 8)

#### **Declared In**

WebEditingDelegate.h

## webViewDidChangeTypingStyle:

Sent by the default notification center when the user changes the typing style in the web view.

- (void)webViewDidChangeTypingStyle:(NSNotification \*)notification

#### Discussion

The *notification* argument is always WebViewDidChangeTypingStyleNotification. You can retrieve the WebView object by sending object to *notification*.

#### Availability

Available in Mac OS X v10.3.9 and later.

#### See Also

- webView:shouldChangeTypingStyle:toStyle: (page 8)

#### Declared In

WebEditingDelegate.h

## webViewDidEndEditing:

Sent by the default notification center when the user stops editing the web view.

- (void)webViewDidEndEditing:(NSNotification \*)notification

#### Discussion

The *notification* argument is always WebViewDidEndEditingNotification. You can retrieve the WebView object by sending object to *notification*.

#### Availability

Available in Mac OS X v10.3.9 and later.

#### See Also

- webViewDidBeginEditing: (page 10)

- webView:shouldEndEditingInDOMRange: (page 9)

#### **Declared In**

WebEditingDelegate.h

## Constants

## WebViewInsertAction

Indicate the type of user action that initiated a delegate message.

```
typedef enum {
    WebViewInsertActionTyped,
    WebViewInsertActionPasted,
    WebViewInsertActionDropped,
} WebViewInsertAction;
```

#### Constants

WebViewInsertActionTyped

Indicates the user inserted content by typing.

Available in Mac OS X v10.3 and later.

Declared in WebEditingDelegate.h.

WebViewInsertActionPasted

Indicates the user inserted content by pasting.

Available in Mac OS X v10.3 and later.

Declared in WebEditingDelegate.h.

#### WebViewInsertActionDropped

#### Indicates the user inserted content by dropping.

Available in Mac OS X v10.3 and later.

Declared in WebEditingDelegate.h.

#### Discussion

These constants are described in WebEditingDelegate.

**Availability** Available in Mac OS X v10.3.9 and later.

WebEditingDelegate Protocol Reference

# **Document Revision History**

This table describes the changes to WebEditingDelegate Protocol Reference.

Date	Notes
2009-04-08	Minor edits throughout.
2008-10-15	Minor edits throughout.
2006-05-23	First publication of this content as a separate document.

#### **REVISION HISTORY**

**Document Revision History** 

# Index

## U

undoManagerForWebView: <NSObject> instance
 method 6

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## W

<pre>webView:doCommandBySelector: <nsobject> instance</nsobject></pre>
method 6
<pre>webView:shouldApplyStyle:toElementsInDOMRange:</pre>
<nsobject> instance method 7</nsobject>
webView:shouldBeginEditingInDOMRange:
<nsobject> instance method 7</nsobject>
webView:shouldChangeSelectedDOMRange:toDOMRange:
affinity:stillSelecting:< <b>NSObject&gt;instance</b>
method 8
<pre>webView:shouldChangeTypingStyle:toStyle:</pre>
<nsobject> instance method 8</nsobject>
<pre>webView:shouldDeleteDOMRange: <nsobject></nsobject></pre>
instance method 8
<pre>webView:shouldEndEditingInDOMRange: <nsobject></nsobject></pre>
instance method 9
<pre>webView:shouldInsertNode:replacingDOMRange:</pre>
givenAction: <nsobject> instance method 9</nsobject>
<pre>webView:shouldInsertText:replacingDOMRange:</pre>
givenAction: <nsobject> instance method 10</nsobject>
<pre>webViewDidBeginEditing: <nsobject> instance</nsobject></pre>
method 10
<pre>webViewDidChange: <nsobject> instance method 10</nsobject></pre>
<pre>webViewDidChangeSelection: <nsobject> instance</nsobject></pre>
method 11
<pre>webViewDidChangeTypingStyle: <nsobject> instance</nsobject></pre>
method 11
webViewDidEndEditing: <nsobject> instance method</nsobject>
12
WebViewInsertAction 12
WebViewInsertActionDropped constant 12
WebViewInsertActionPasted constant 12
WebViewInsertActionTyped constant 12