| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/UndoableEditSupport.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/javax/swing/undo/UndoableEdit.html)   [**NEXT CLASS**](http://docs.google.com/javax/swing/undo/UndoManager.html) | [**FRAMES**](http://docs.google.com/index.html?javax/swing/undo/UndoableEditSupport.html)    [**NO FRAMES**](http://docs.google.com/UndoableEditSupport.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: [FIELD](#1t3h5sf) | [CONSTR](#26in1rg) | [METHOD](#1ksv4uv) |

## **javax.swing.undo**

Class UndoableEditSupport

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **javax.swing.undo.UndoableEditSupport**

public class **UndoableEditSupport**extends [Object](http://docs.google.com/java/lang/Object.html)

A support class used for managing UndoableEdit listeners.

| **Field Summary** | |
| --- | --- |
| protected  [CompoundEdit](http://docs.google.com/javax/swing/undo/CompoundEdit.html) | [**compoundEdit**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#compoundEdit) |
| protected  [Vector](http://docs.google.com/java/util/Vector.html)<[UndoableEditListener](http://docs.google.com/javax/swing/event/UndoableEditListener.html)> | [**listeners**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#listeners) |
| protected  [Object](http://docs.google.com/java/lang/Object.html) | [**realSource**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#realSource) |
| protected  int | [**updateLevel**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#updateLevel) |

| **Constructor Summary** | |
| --- | --- |
| [**UndoableEditSupport**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#UndoableEditSupport())()            Constructs an UndoableEditSupport object. |
| [**UndoableEditSupport**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#UndoableEditSupport(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) r)            Constructs an UndoableEditSupport object. |

| **Method Summary** | |
| --- | --- |
| protected  void | [**\_postEdit**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#_postEdit(javax.swing.undo.UndoableEdit))([UndoableEdit](http://docs.google.com/javax/swing/undo/UndoableEdit.html) e)            Called only from postEdit and endUpdate. |
| void | [**addUndoableEditListener**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#addUndoableEditListener(javax.swing.event.UndoableEditListener))([UndoableEditListener](http://docs.google.com/javax/swing/event/UndoableEditListener.html) l)            Registers an UndoableEditListener. |
| void | [**beginUpdate**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#beginUpdate())() |
| protected  [CompoundEdit](http://docs.google.com/javax/swing/undo/CompoundEdit.html) | [**createCompoundEdit**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#createCompoundEdit())()            Called only from beginUpdate. |
| void | [**endUpdate**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#endUpdate())()            DEADLOCK WARNING: Calling this method may call undoableEditHappened in all listeners. |
| [UndoableEditListener](http://docs.google.com/javax/swing/event/UndoableEditListener.html)[] | [**getUndoableEditListeners**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#getUndoableEditListeners())()            Returns an array of all the UndoableEditListeners added to this UndoableEditSupport with addUndoableEditListener(). |
| int | [**getUpdateLevel**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#getUpdateLevel())()            Returns the update level value. |
| void | [**postEdit**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#postEdit(javax.swing.undo.UndoableEdit))([UndoableEdit](http://docs.google.com/javax/swing/undo/UndoableEdit.html) e)            DEADLOCK WARNING: Calling this method may call undoableEditHappened in all listeners. |
| void | [**removeUndoableEditListener**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#removeUndoableEditListener(javax.swing.event.UndoableEditListener))([UndoableEditListener](http://docs.google.com/javax/swing/event/UndoableEditListener.html) l)            Removes an UndoableEditListener. |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#toString())()            Returns a string that displays and identifies this object's properties. |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [clone](http://docs.google.com/java/lang/Object.html#clone()), [equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [hashCode](http://docs.google.com/java/lang/Object.html#hashCode()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

| **Field Detail** |
| --- |

### updateLevel

protected int **updateLevel**

### compoundEdit

protected [CompoundEdit](http://docs.google.com/javax/swing/undo/CompoundEdit.html) **compoundEdit**

### listeners

protected [Vector](http://docs.google.com/java/util/Vector.html)<[UndoableEditListener](http://docs.google.com/javax/swing/event/UndoableEditListener.html)> **listeners**

### realSource

protected [Object](http://docs.google.com/java/lang/Object.html) **realSource**

| **Constructor Detail** |
| --- |

### UndoableEditSupport

public **UndoableEditSupport**()

Constructs an UndoableEditSupport object.

### UndoableEditSupport

public **UndoableEditSupport**([Object](http://docs.google.com/java/lang/Object.html) r)

Constructs an UndoableEditSupport object.

**Parameters:**r - an Object

| **Method Detail** |
| --- |

### addUndoableEditListener

public void **addUndoableEditListener**([UndoableEditListener](http://docs.google.com/javax/swing/event/UndoableEditListener.html) l)

Registers an UndoableEditListener. The listener is notified whenever an edit occurs which can be undone.

**Parameters:**l - an UndoableEditListener object**See Also:**[removeUndoableEditListener(javax.swing.event.UndoableEditListener)](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#removeUndoableEditListener(javax.swing.event.UndoableEditListener))

### removeUndoableEditListener

public void **removeUndoableEditListener**([UndoableEditListener](http://docs.google.com/javax/swing/event/UndoableEditListener.html) l)

Removes an UndoableEditListener.

**Parameters:**l - the UndoableEditListener object to be removed**See Also:**[addUndoableEditListener(javax.swing.event.UndoableEditListener)](http://docs.google.com/javax/swing/undo/UndoableEditSupport.html#addUndoableEditListener(javax.swing.event.UndoableEditListener))

### getUndoableEditListeners

public [UndoableEditListener](http://docs.google.com/javax/swing/event/UndoableEditListener.html)[] **getUndoableEditListeners**()

Returns an array of all the UndoableEditListeners added to this UndoableEditSupport with addUndoableEditListener().

**Returns:**all of the UndoableEditListeners added or an empty array if no listeners have been added**Since:** 1.4

### \_postEdit

protected void **\_postEdit**([UndoableEdit](http://docs.google.com/javax/swing/undo/UndoableEdit.html) e)

Called only from postEdit and endUpdate. Calls undoableEditHappened in all listeners. No synchronization is performed here, since the two calling methods are synchronized.

### postEdit

public void **postEdit**([UndoableEdit](http://docs.google.com/javax/swing/undo/UndoableEdit.html) e)

DEADLOCK WARNING: Calling this method may call undoableEditHappened in all listeners. It is unwise to call this method from one of its listeners.

### getUpdateLevel

public int **getUpdateLevel**()

Returns the update level value.

**Returns:**an integer representing the update level

### beginUpdate

public void **beginUpdate**()

### createCompoundEdit

protected [CompoundEdit](http://docs.google.com/javax/swing/undo/CompoundEdit.html) **createCompoundEdit**()

Called only from beginUpdate. Exposed here for subclasses' use.

### endUpdate

public void **endUpdate**()

DEADLOCK WARNING: Calling this method may call undoableEditHappened in all listeners. It is unwise to call this method from one of its listeners.

### toString

public [String](http://docs.google.com/java/lang/String.html) **toString**()

Returns a string that displays and identifies this object's properties.

**Overrides:**[toString](http://docs.google.com/java/lang/Object.html#toString()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a String representation of this object

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/UndoableEditSupport.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/javax/swing/undo/UndoableEdit.html)   [**NEXT CLASS**](http://docs.google.com/javax/swing/undo/UndoManager.html) | [**FRAMES**](http://docs.google.com/index.html?javax/swing/undo/UndoableEditSupport.html)    [**NO FRAMES**](http://docs.google.com/UndoableEditSupport.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: [FIELD](#1t3h5sf) | [CONSTR](#26in1rg) | [METHOD](#1ksv4uv) |

[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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