| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/AbstractListModel.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/AbstractCellEditor.html)   [**NEXT CLASS**](http://docs.google.com/javax/swing/AbstractSpinnerModel.html) | [**FRAMES**](http://docs.google.com/index.html?javax/swing/AbstractListModel.html)    [**NO FRAMES**](http://docs.google.com/AbstractListModel.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: [FIELD](#4d34og8) | [CONSTR](#17dp8vu) | [METHOD](#26in1rg) |

## **javax.swing**

Class AbstractListModel

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

**All Implemented Interfaces:** [Serializable](http://docs.google.com/java/io/Serializable.html), [ListModel](http://docs.google.com/javax/swing/ListModel.html) **Direct Known Subclasses:** [BasicDirectoryModel](http://docs.google.com/javax/swing/plaf/basic/BasicDirectoryModel.html), [DefaultComboBoxModel](http://docs.google.com/javax/swing/DefaultComboBoxModel.html), [DefaultListModel](http://docs.google.com/javax/swing/DefaultListModel.html), [MetalFileChooserUI.DirectoryComboBoxModel](http://docs.google.com/javax/swing/plaf/metal/MetalFileChooserUI.DirectoryComboBoxModel.html), [MetalFileChooserUI.FilterComboBoxModel](http://docs.google.com/javax/swing/plaf/metal/MetalFileChooserUI.FilterComboBoxModel.html)

public abstract class **AbstractListModel**extends [Object](http://docs.google.com/java/lang/Object.html)implements [ListModel](http://docs.google.com/javax/swing/ListModel.html), [Serializable](http://docs.google.com/java/io/Serializable.html)

The abstract definition for the data model that provides a List with its contents.

**Warning:** Serialized objects of this class will not be compatible with future Swing releases. The current serialization support is appropriate for short term storage or RMI between applications running the same version of Swing. As of 1.4, support for long term storage of all JavaBeansTM has been added to the java.beans package. Please see [XMLEncoder](http://docs.google.com/java/beans/XMLEncoder.html).

| **Field Summary** | |
| --- | --- |
| protected  [EventListenerList](http://docs.google.com/javax/swing/event/EventListenerList.html) | [**listenerList**](http://docs.google.com/javax/swing/AbstractListModel.html#listenerList) |

| **Constructor Summary** | |
| --- | --- |
| [**AbstractListModel**](http://docs.google.com/javax/swing/AbstractListModel.html#AbstractListModel())() |

| **Method Summary** | |
| --- | --- |
| void | [**addListDataListener**](http://docs.google.com/javax/swing/AbstractListModel.html#addListDataListener(javax.swing.event.ListDataListener))([ListDataListener](http://docs.google.com/javax/swing/event/ListDataListener.html) l)            Adds a listener to the list that's notified each time a change to the data model occurs. |
| protected  void | [**fireContentsChanged**](http://docs.google.com/javax/swing/AbstractListModel.html#fireContentsChanged(java.lang.Object,%20int,%20int))([Object](http://docs.google.com/java/lang/Object.html) source, int index0, int index1)            AbstractListModel subclasses must call this method **after** one or more elements of the list change. |
| protected  void | [**fireIntervalAdded**](http://docs.google.com/javax/swing/AbstractListModel.html#fireIntervalAdded(java.lang.Object,%20int,%20int))([Object](http://docs.google.com/java/lang/Object.html) source, int index0, int index1)            AbstractListModel subclasses must call this method **after** one or more elements are added to the model. |
| protected  void | [**fireIntervalRemoved**](http://docs.google.com/javax/swing/AbstractListModel.html#fireIntervalRemoved(java.lang.Object,%20int,%20int))([Object](http://docs.google.com/java/lang/Object.html) source, int index0, int index1)            AbstractListModel subclasses must call this method **after** one or more elements are removed from the model. |
| [ListDataListener](http://docs.google.com/javax/swing/event/ListDataListener.html)[] | [**getListDataListeners**](http://docs.google.com/javax/swing/AbstractListModel.html#getListDataListeners())()            Returns an array of all the list data listeners registered on this AbstractListModel. |
| | <T extends [EventListener](http://docs.google.com/java/util/EventListener.html)>  T[] | | --- | | [**getListeners**](http://docs.google.com/javax/swing/AbstractListModel.html#getListeners(java.lang.Class))([Class](http://docs.google.com/java/lang/Class.html)<T> listenerType)            Returns an array of all the objects currently registered as *Foo*Listeners upon this model. |
| void | [**removeListDataListener**](http://docs.google.com/javax/swing/AbstractListModel.html#removeListDataListener(javax.swing.event.ListDataListener))([ListDataListener](http://docs.google.com/javax/swing/event/ListDataListener.html) l)            Removes a listener from the list that's notified each time a change to the data model occurs. |

| **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()), [toString](http://docs.google.com/java/lang/Object.html#toString()), [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)) |

| **Methods inherited from interface javax.swing.**[**ListModel**](http://docs.google.com/javax/swing/ListModel.html) |
| --- |
| [getElementAt](http://docs.google.com/javax/swing/ListModel.html#getElementAt(int)), [getSize](http://docs.google.com/javax/swing/ListModel.html#getSize()) |

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

### listenerList

protected [EventListenerList](http://docs.google.com/javax/swing/event/EventListenerList.html) **listenerList**

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

### AbstractListModel

public **AbstractListModel**()

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

### addListDataListener

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

Adds a listener to the list that's notified each time a change to the data model occurs.

**Specified by:**[addListDataListener](http://docs.google.com/javax/swing/ListModel.html#addListDataListener(javax.swing.event.ListDataListener)) in interface [ListModel](http://docs.google.com/javax/swing/ListModel.html) **Parameters:**l - the ListDataListener to be added

### removeListDataListener

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

Removes a listener from the list that's notified each time a change to the data model occurs.

**Specified by:**[removeListDataListener](http://docs.google.com/javax/swing/ListModel.html#removeListDataListener(javax.swing.event.ListDataListener)) in interface [ListModel](http://docs.google.com/javax/swing/ListModel.html) **Parameters:**l - the ListDataListener to be removed

### getListDataListeners

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

Returns an array of all the list data listeners registered on this AbstractListModel.

**Returns:**all of this model's ListDataListeners, or an empty array if no list data listeners are currently registered**Since:** 1.4 **See Also:**[addListDataListener(javax.swing.event.ListDataListener)](http://docs.google.com/javax/swing/AbstractListModel.html#addListDataListener(javax.swing.event.ListDataListener)), [removeListDataListener(javax.swing.event.ListDataListener)](http://docs.google.com/javax/swing/AbstractListModel.html#removeListDataListener(javax.swing.event.ListDataListener))

### fireContentsChanged

protected void **fireContentsChanged**([Object](http://docs.google.com/java/lang/Object.html) source,  
 int index0,  
 int index1)

AbstractListModel subclasses must call this method **after** one or more elements of the list change. The changed elements are specified by the closed interval index0, index1 -- the endpoints are included. Note that index0 need not be less than or equal to index1.

**Parameters:**source - the ListModel that changed, typically "this"index0 - one end of the new intervalindex1 - the other end of the new interval**See Also:**[EventListenerList](http://docs.google.com/javax/swing/event/EventListenerList.html), [DefaultListModel](http://docs.google.com/javax/swing/DefaultListModel.html)

### fireIntervalAdded

protected void **fireIntervalAdded**([Object](http://docs.google.com/java/lang/Object.html) source,  
 int index0,  
 int index1)

AbstractListModel subclasses must call this method **after** one or more elements are added to the model. The new elements are specified by a closed interval index0, index1 -- the enpoints are included. Note that index0 need not be less than or equal to index1.

**Parameters:**source - the ListModel that changed, typically "this"index0 - one end of the new intervalindex1 - the other end of the new interval**See Also:**[EventListenerList](http://docs.google.com/javax/swing/event/EventListenerList.html), [DefaultListModel](http://docs.google.com/javax/swing/DefaultListModel.html)

### fireIntervalRemoved

protected void **fireIntervalRemoved**([Object](http://docs.google.com/java/lang/Object.html) source,  
 int index0,  
 int index1)

AbstractListModel subclasses must call this method **after** one or more elements are removed from the model. index0 and index1 are the end points of the interval that's been removed. Note that index0 need not be less than or equal to index1.

**Parameters:**source - the ListModel that changed, typically "this"index0 - one end of the removed interval, including index0index1 - the other end of the removed interval, including index1**See Also:**[EventListenerList](http://docs.google.com/javax/swing/event/EventListenerList.html), [DefaultListModel](http://docs.google.com/javax/swing/DefaultListModel.html)

### getListeners

public <T extends [EventListener](http://docs.google.com/java/util/EventListener.html)> T[] **getListeners**([Class](http://docs.google.com/java/lang/Class.html)<T> listenerType)

Returns an array of all the objects currently registered as *Foo*Listeners upon this model. *Foo*Listeners are registered using the add*Foo*Listener method.

You can specify the listenerType argument with a class literal, such as *Foo*Listener.class. For example, you can query a list model m for its list data listeners with the following code:

ListDataListener[] ldls = (ListDataListener[])(m.getListeners(ListDataListener.class));

If no such listeners exist, this method returns an empty array.

**Parameters:**listenerType - the type of listeners requested; this parameter should specify an interface that descends from java.util.EventListener **Returns:**an array of all objects registered as *Foo*Listeners on this model, or an empty array if no such listeners have been added **Throws:** [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - if listenerType doesn't specify a class or interface that implements java.util.EventListener**Since:** 1.3 **See Also:**[getListDataListeners()](http://docs.google.com/javax/swing/AbstractListModel.html#getListDataListeners())

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/AbstractListModel.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/AbstractCellEditor.html)   [**NEXT CLASS**](http://docs.google.com/javax/swing/AbstractSpinnerModel.html) | [**FRAMES**](http://docs.google.com/index.html?javax/swing/AbstractListModel.html)    [**NO FRAMES**](http://docs.google.com/AbstractListModel.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: [FIELD](#4d34og8) | [CONSTR](#17dp8vu) | [METHOD](#26in1rg) |

[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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