| | [**Overview**](http://docs.google.com/overview-summary.html) | **Package** | Class | [**Use**](http://docs.google.com/package-use.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 PACKAGE**](http://docs.google.com/java/util/zip/package-summary.html)   [**NEXT PACKAGE**](http://docs.google.com/javax/activation/package-summary.html) | [**FRAMES**](http://docs.google.com/index.html?javax/accessibility/package-summary.html)    [**NO FRAMES**](http://docs.google.com/package-summary.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

## Package javax.accessibility

Defines a contract between user-interface components and an assistive technology that provides access to those components.

**See:**

[**Description**](#3znysh7)

| **Interface Summary** | |
| --- | --- |
| [**Accessible**](http://docs.google.com/javax/accessibility/Accessible.html) | Interface Accessible is the main interface for the accessibility package. |
| [**AccessibleAction**](http://docs.google.com/javax/accessibility/AccessibleAction.html) | The AccessibleAction interface should be supported by any object that can perform one or more actions. |
| [**AccessibleComponent**](http://docs.google.com/javax/accessibility/AccessibleComponent.html) | The AccessibleComponent interface should be supported by any object that is rendered on the screen. |
| [**AccessibleEditableText**](http://docs.google.com/javax/accessibility/AccessibleEditableText.html) | The AccessibleEditableText interface should be implemented by all classes that present editable textual information on the display. |
| [**AccessibleExtendedComponent**](http://docs.google.com/javax/accessibility/AccessibleExtendedComponent.html) | The AccessibleExtendedComponent interface should be supported by any object that is rendered on the screen. |
| [**AccessibleExtendedTable**](http://docs.google.com/javax/accessibility/AccessibleExtendedTable.html) | Class AccessibleExtendedTable provides extended information about a user-interface component that presents data in a two-dimensional table format. |
| [**AccessibleExtendedText**](http://docs.google.com/javax/accessibility/AccessibleExtendedText.html) | The AccessibleExtendedText interface contains additional methods not provided by the AccessibleText interface Applications can determine if an object supports the AccessibleExtendedText interface by first obtaining its AccessibleContext (see [Accessible](http://docs.google.com/javax/accessibility/Accessible.html)) and then calling the [AccessibleContext.getAccessibleText()](http://docs.google.com/javax/accessibility/AccessibleContext.html#getAccessibleText()) method of AccessibleContext. |
| [**AccessibleHypertext**](http://docs.google.com/javax/accessibility/AccessibleHypertext.html) | The AccessibleHypertext class is the base class for all classes that present hypertext information on the display. |
| [**AccessibleIcon**](http://docs.google.com/javax/accessibility/AccessibleIcon.html) | The AccessibleIcon interface should be supported by any object that has an associated icon (e.g., buttons). |
| [**AccessibleKeyBinding**](http://docs.google.com/javax/accessibility/AccessibleKeyBinding.html) | The AccessibleKeyBinding interface should be supported by any object that has a keyboard bindings such as a keyboard mnemonic and/or keyboard shortcut which can be used to select the object. |
| [**AccessibleSelection**](http://docs.google.com/javax/accessibility/AccessibleSelection.html) | This AccessibleSelection interface provides the standard mechanism for an assistive technology to determine what the current selected children are, as well as modify the selection set. |
| [**AccessibleStreamable**](http://docs.google.com/javax/accessibility/AccessibleStreamable.html) | The AccessibleStreamable interface should be implemented by the AccessibleContext of any component that presents the raw stream behind a component on the display screen. |
| [**AccessibleTable**](http://docs.google.com/javax/accessibility/AccessibleTable.html) | Class AccessibleTable describes a user-interface component that presents data in a two-dimensional table format. |
| [**AccessibleTableModelChange**](http://docs.google.com/javax/accessibility/AccessibleTableModelChange.html) | The AccessibleTableModelChange interface describes a change to the table model. |
| [**AccessibleText**](http://docs.google.com/javax/accessibility/AccessibleText.html) | The AccessibleText interface should be implemented by all classes that present textual information on the display. |
| [**AccessibleValue**](http://docs.google.com/javax/accessibility/AccessibleValue.html) | The AccessibleValue interface should be supported by any object that supports a numerical value (e.g., a scroll bar). |

| **Class Summary** | |
| --- | --- |
| [**AccessibleAttributeSequence**](http://docs.google.com/javax/accessibility/AccessibleAttributeSequence.html) | This class collects together the span of text that share the same contiguous set of attributes, along with that set of attributes. |
| [**AccessibleBundle**](http://docs.google.com/javax/accessibility/AccessibleBundle.html) | Base class used to maintain a strongly typed enumeration. |
| [**AccessibleContext**](http://docs.google.com/javax/accessibility/AccessibleContext.html) | AccessibleContext represents the minimum information all accessible objects return. |
| [**AccessibleHyperlink**](http://docs.google.com/javax/accessibility/AccessibleHyperlink.html) | Encapsulation of a link, or set of links (e.g. |
| [**AccessibleRelation**](http://docs.google.com/javax/accessibility/AccessibleRelation.html) | Class AccessibleRelation describes a relation between the object that implements the AccessibleRelation and one or more other objects. |
| [**AccessibleRelationSet**](http://docs.google.com/javax/accessibility/AccessibleRelationSet.html) | Class AccessibleRelationSet determines a component's relation set. |
| [**AccessibleResourceBundle**](http://docs.google.com/javax/accessibility/AccessibleResourceBundle.html) | **Deprecated.** *This class is deprecated as of version 1.3 of the Java Platform.* |
| [**AccessibleRole**](http://docs.google.com/javax/accessibility/AccessibleRole.html) | Class AccessibleRole determines the role of a component. |
| [**AccessibleState**](http://docs.google.com/javax/accessibility/AccessibleState.html) | Class AccessibleState describes a component's particular state. |
| [**AccessibleStateSet**](http://docs.google.com/javax/accessibility/AccessibleStateSet.html) | Class AccessibleStateSet determines a component's state set. |
| [**AccessibleTextSequence**](http://docs.google.com/javax/accessibility/AccessibleTextSequence.html) | This class collects together key details of a span of text. |

## Package javax.accessibility Description

Defines a contract between user-interface components and an assistive technology that provides access to those components. If a Java application fully supports the Java Accessibility API, then it should be compatible with, and friendly toward, assistive technologies such as screen readers, screen magnifiers, etc. With a Java application that fully supports the Java Accessibility API, no screen reader off screen model would be necessary because the API provides all of the information normally contained in an off screen model.

The Java Accessibility API package consists of 8 Java programming language interfaces, and 6 Java programming language classes. These are described below.

### [**Interface Accessible**](http://docs.google.com/Accessible.html)

[Interface Accessible](http://docs.google.com/Accessible.html) is the main interface of the Java Accessibility API. All components that support the Java Accessibility API must implement this interface. It contains a single method, getAccessibleContext, that returns an instance of the class [AccessibleContext](#_tyjcwt). Sun thinks that implementing this interface is the absolute minimum requirement of every object that is part of the user interface of a Java application, if that program is to be compatible with assistive technologies.

### [**Class AccessibleContext**](http://docs.google.com/AccessibleContext.html)

[AccessibleContext](http://docs.google.com/AccessibleContext.html) represents the minimum information all accessible objects return and is obtained by calling the getAccessibleContext method on an object that implements the [Accessible](#_2et92p0) interface. This information includes the accessible name, description, [role](#_3dy6vkm), and [state](#_1t3h5sf) of the object, as well as information about the parent and children of the object.  In addition, JavaBeans TM property change support is also included to allow assisitive technologies learn when the values of the accessible properties change. AccessibleContext also contains methods for obtaining more specific accessibility information about a component. If the component supports it, these methods will return an object that implements one or more of the following interfaces:

* [**AccessibleAction**](#_17dp8vu) - the object can perform one or more actions. This interface provides the standard mechanism for an assistive technology to determine what those actions are and tell the object to perform those actions. Any object that can be manipulated should return an object that implements this interface when the getAccessibleAction method is called on an AccessibleContext.
* [**AccessibleComponent**](#_3rdcrjn) - the object has a graphical representation. This interface provides the standard mechanism for an assistive technology to determine and set the graphical representation of the object. Any object that is rendered on the screen should return an object that implements this interface when the getAccessibleComponent method is called on an AccessibleContext.
* [**AccessibleSelection**](#_26in1rg) - the object allows its children to be selected. This interface provides the standard mechanism for an assistive technology to determine the currently selected children as well as modify the selection set. Any object that has children that can be selected should return an object that implements this interface when the getAccessibleSelection method is called on an AccessibleContext.
* [**AccessibleText**](#_lnxbz9) - the object presents editable textual information on the display. This interface provides the standard mechanism for an assistive technology to access that text via its content, attributes, and spatial location. Any object that contains editable text should return an object that implements this interface when the getAccessibleText method is called on an AccessibleContext.
* [**AccessibleHypertext**](#_35nkun2) - the object presents hypertext information on the display. This interface provides the standard mechanism for an assistive technology to access that hypertext via its content, attributes, and spatial location. Any object that contains hypertext should return an object that implements this interface when the getAccessibleText method is called on an AccessibleContext.
* [**AccessibleValue**](#_44sinio) - the object supports a numerical value. This interface provides the standard mechanism for an assistive technology to determine and set the current value of the object, as well as the minimum and maximum values. Any object that supports a numerical value should return an object that implements this interface when the getAccessibleValue method is called on an AccessibleContext.

### [**Class AccessibleRole**](http://docs.google.com/AccessibleRole.html)

This class encapsulates the Accessible object's role in the user interface and is obtained by calling the getAccessibleRole method on an [AccessibleContext](#_tyjcwt). Accessible roles include "Check box", "Menu Item", "Panel", etc. These roles are identified by the constants in this class such as AccessibleRole.CHECK\_BOX, AccessibleRole.MENU\_ITEM, and AccessibleRole.PANEL. The constants in this class present a strongly typed enumeration of common object roles. A public constructor for this class has been purposely omitted and applications should use one of the constants from this class. Although this class pre-defines a large list of standard roles, it is extensible so additional programmer-defined roles can be added in the future without needing to modify the base class.

### [**Class AccessibleState**](http://docs.google.com/AccessibleState.html)

This class encapsulates a particular state of the Accessible object. Accessible states include things like "Armed", "Busy", "Checked", "Focused", etc. These roles are identified by the constants in this class such as AccessibleState.ARMED, AccessibleState.BUSY, AccessibleState.CHECKED, and AccessibleState.FOCUSED. The sum of all the states of an Accessible object is called the [AccessibleStateSet](#_4d34og8), and can be obtained by calling the getAccessibleStateSet method on an [AccessibleContext](#_tyjcwt).

The constants in this class present a strongly typed enumeration of common object roles. A public constructor for this class has been purposely omitted and applications should use one of the constants from this class. Although this class pre-defines a large list of standard roles, it is extensible so additional, programmer-defined roles can be added in the future without needing to modify the base class.

### [**Class AccessibleStateSet**](http://docs.google.com/AccessibleStateSet.html)

This class encapsulates a collection of states of the Accessible object and is obtained by calling the getAccessibleStateSet method on an [AccessibleContext](#_tyjcwt). Since an object might have multiple states (e.g. it might be both "Checked" and "Focused"), this class is needed to encapsulate a collection of these states. Methods in the class provide for retrieving the individual [AccessibleStates](#_1t3h5sf) on the state set.

### [**Class AccessibleBundle**](http://docs.google.com/AccessibleBundle.html)

This class is used to maintain a strongly typed enumeration. It is the super class of both the [AccessibleRole](#_3dy6vkm) and [AccessibleState](#_1t3h5sf) classes. Programmers normally do not interact with this class directly, but will instead use the [AccessibleRole](#_3dy6vkm) and [AccessibleState](#_1t3h5sf) classes.

### [**Interface AccessibleAction**](http://docs.google.com/AccessibleAction.html)

The [AccessibleAction](http://docs.google.com/AccessibleAction.html) interface should be supported by any object that can perform one or more actions. This interface provides the standard mechanism for an assistive technology to determine what those actions are as well as tell the object to perform those actions. Any object that can be manipulated should support this interface.

Applications can determine if an object supports the AccessibleAction interface by first obtaining its [AccessibleContext](#_tyjcwt) (see [Accessible](#_2et92p0)) and then calling the getAccessibleAction method of [AccessibleContext](#_tyjcwt). If the return value is not null, the object supports this interface.

### [**Interface AccessibleComponent**](http://docs.google.com/AccessibleComponent.html)

The [AccessibleComponent](http://docs.google.com/AccessibleComponent.html) interface should be supported by any object that is rendered on the screen. This interface provides the standard mechanism for an assistive technology to determine and set the graphical representation of an object.

Applications can determine if an object supports the AccessibleComponent interface by first obtaining its [AccessibleContext](#_tyjcwt) (see [Accessible](#_2et92p0)) and then calling the getAccessibleComponent method of [AccessibleContext](#_tyjcwt). If the return value is not null, the object supports this interface.

### [**Interface AccessibleSelection**](http://docs.google.com/AccessibleSelection.html)

The [AccessibleSelection](http://docs.google.com/AccessibleSelection.html) interface provides the standard mechanism for an assistive technology to determine what the current selected children are, as well as modify the selection set. Any object that has children that can be selected should support this the AccessibleSelection interface.

Applications can determine if an object supports the AccessibleSelection interface by first obtaining its [AccessibleContext](#_tyjcwt) (see [Accessible](#_2et92p0)) and then calling the getAccessibleSelection method of [AccessibleContext](#_tyjcwt). If the return value is not null, the object supports this interface.

### [**Interface AccessibleText**](http://docs.google.com/AccessibleText.html)

Interface [AccessibleText](http://docs.google.com/AccessibleText.html) is the contract for making rich, editable text Accessible. Not all text displayed on the screen is rich and editable (e.g. text contained in buttons, labels, menus, etc., which users aren't expected to manipulate). However, objects containing editable text must implement interface AccessibleText if they are to interoperate with assistive technologies.

This interface provides support for going between pixel coordinates and the text at a given pixel coordinate, for retrieving the letter, word, and sentence at, before, or after a given position in the text. This interface provides support for retrieving the attributes of the character at a given position in the text (font, font size, style, etc.), as well as getting the selected text (if any), the length of the text, and the location of the text caret.

Applications can determine if an object supports the AccessibleText interface by first obtaining its [AccessibleContext](#_tyjcwt) (see [Accessible](#_2et92p0)) and then calling the getAccessibleText method of [AccessibleContext](#_tyjcwt). If the return value is not null, the object supports this interface.

### [**Interface AccessibleHypertext**](http://docs.google.com/AccessibleHypertext.html)

The [AccessibleHypertext](http://docs.google.com/AccessibleHypertext.html) interface should be supported by any object that presents hypertext information on the display. This interface provides the standard mechanism for an assistive technology to access that text via its content, attributes, and spatial location. It also provides standard mechanisms for manipulating [hyperlinks](#_1ksv4uv). Applications can determine if an object supports the AccessibleHypertext interface by first obtaining its [AccessibleContext](#_tyjcwt) (see [Accessible](#_2et92p0)) and then calling the AccessibleContext.getAccessibleText() method of [AccessibleContext](#_tyjcwt). If the return value is a class which extends AccessibleHypertext, then that object supports AccessibleHypertext.

### [**Interface AccessibleHyperlink**](http://docs.google.com/AccessibleHyperlink.html)

An object that is a hyperlink should support the [AccessibleHyperlink](http://docs.google.com/AccessibleHyperlink.html) interface.  An object that implements this interface will be returned by calling the getLink method on an [AccessibleHypertext](#_35nkun2) object.

### [**Interface AccessibleValue**](http://docs.google.com/AccessibleValue.html)

The [AccessibleValue](http://docs.google.com/AccessibleValue.html) interface should be supported by any object that supports a numerical value (e.g., a scroll bar). This interface provides the standard mechanism for an assistive technology to determine and set the numerical value as well as get the minimum and maximum values.

Applications can determine if an object supports the AccessibleValue interface by first obtaining its [AccessibleContext](#_tyjcwt) (see [Accessible](#_2et92p0)) and then calling the getAccessibleValue method of [AccessibleContext](#_tyjcwt). If the return value is not null, the object supports this interface.

**Since:** 1.2

| | [**Overview**](http://docs.google.com/overview-summary.html) | **Package** | Class | [**Use**](http://docs.google.com/package-use.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*** |
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| [**PREV PACKAGE**](http://docs.google.com/java/util/zip/package-summary.html)   [**NEXT PACKAGE**](http://docs.google.com/javax/activation/package-summary.html) | [**FRAMES**](http://docs.google.com/index.html?javax/accessibility/package-summary.html)    [**NO FRAMES**](http://docs.google.com/package-summary.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

[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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