| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/PropertyDescriptor.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/java/beans/PropertyChangeSupport.html)   [**NEXT CLASS**](http://docs.google.com/java/beans/PropertyEditor.html) | [**FRAMES**](http://docs.google.com/index.html?java/beans/PropertyDescriptor.html)    [**NO FRAMES**](http://docs.google.com/PropertyDescriptor.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#1t3h5sf) | [METHOD](#3rdcrjn) |

## **java.beans**

Class PropertyDescriptor

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 [java.beans.FeatureDescriptor](http://docs.google.com/java/beans/FeatureDescriptor.html)  
 **java.beans.PropertyDescriptor**

**Direct Known Subclasses:** [IndexedPropertyDescriptor](http://docs.google.com/java/beans/IndexedPropertyDescriptor.html)

public class **PropertyDescriptor**extends [FeatureDescriptor](http://docs.google.com/java/beans/FeatureDescriptor.html)

A PropertyDescriptor describes one property that a Java Bean exports via a pair of accessor methods.

| **Constructor Summary** | |
| --- | --- |
| [**PropertyDescriptor**](http://docs.google.com/java/beans/PropertyDescriptor.html#PropertyDescriptor(java.lang.String,%20java.lang.Class))([String](http://docs.google.com/java/lang/String.html) propertyName, [Class](http://docs.google.com/java/lang/Class.html)<?> beanClass)            Constructs a PropertyDescriptor for a property that follows the standard Java convention by having getFoo and setFoo accessor methods. |
| [**PropertyDescriptor**](http://docs.google.com/java/beans/PropertyDescriptor.html#PropertyDescriptor(java.lang.String,%20java.lang.Class,%20java.lang.String,%20java.lang.String))([String](http://docs.google.com/java/lang/String.html) propertyName, [Class](http://docs.google.com/java/lang/Class.html)<?> beanClass, [String](http://docs.google.com/java/lang/String.html) readMethodName, [String](http://docs.google.com/java/lang/String.html) writeMethodName)            This constructor takes the name of a simple property, and method names for reading and writing the property. |
| [**PropertyDescriptor**](http://docs.google.com/java/beans/PropertyDescriptor.html#PropertyDescriptor(java.lang.String,%20java.lang.reflect.Method,%20java.lang.reflect.Method))([String](http://docs.google.com/java/lang/String.html) propertyName, [Method](http://docs.google.com/java/lang/reflect/Method.html) readMethod, [Method](http://docs.google.com/java/lang/reflect/Method.html) writeMethod)            This constructor takes the name of a simple property, and Method objects for reading and writing the property. |

| **Method Summary** | |
| --- | --- |
| [PropertyEditor](http://docs.google.com/java/beans/PropertyEditor.html) | [**createPropertyEditor**](http://docs.google.com/java/beans/PropertyDescriptor.html#createPropertyEditor(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) bean)            Constructs an instance of a property editor using the current property editor class. |
| boolean | [**equals**](http://docs.google.com/java/beans/PropertyDescriptor.html#equals(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) obj)            Compares this PropertyDescriptor against the specified object. |
| [Class](http://docs.google.com/java/lang/Class.html)<?> | [**getPropertyEditorClass**](http://docs.google.com/java/beans/PropertyDescriptor.html#getPropertyEditorClass())()            Gets any explicit PropertyEditor Class that has been registered for this property. |
| [Class](http://docs.google.com/java/lang/Class.html)<?> | [**getPropertyType**](http://docs.google.com/java/beans/PropertyDescriptor.html#getPropertyType())()            Gets the Class object for the property. |
| [Method](http://docs.google.com/java/lang/reflect/Method.html) | [**getReadMethod**](http://docs.google.com/java/beans/PropertyDescriptor.html#getReadMethod())()            Gets the method that should be used to read the property value. |
| [Method](http://docs.google.com/java/lang/reflect/Method.html) | [**getWriteMethod**](http://docs.google.com/java/beans/PropertyDescriptor.html#getWriteMethod())()            Gets the method that should be used to write the property value. |
| int | [**hashCode**](http://docs.google.com/java/beans/PropertyDescriptor.html#hashCode())()            Returns a hash code value for the object. |
| boolean | [**isBound**](http://docs.google.com/java/beans/PropertyDescriptor.html#isBound())()            Updates to "bound" properties will cause a "PropertyChange" event to get fired when the property is changed. |
| boolean | [**isConstrained**](http://docs.google.com/java/beans/PropertyDescriptor.html#isConstrained())()            Attempted updates to "Constrained" properties will cause a "VetoableChange" event to get fired when the property is changed. |
| void | [**setBound**](http://docs.google.com/java/beans/PropertyDescriptor.html#setBound(boolean))(boolean bound)            Updates to "bound" properties will cause a "PropertyChange" event to get fired when the property is changed. |
| void | [**setConstrained**](http://docs.google.com/java/beans/PropertyDescriptor.html#setConstrained(boolean))(boolean constrained)            Attempted updates to "Constrained" properties will cause a "VetoableChange" event to get fired when the property is changed. |
| void | [**setPropertyEditorClass**](http://docs.google.com/java/beans/PropertyDescriptor.html#setPropertyEditorClass(java.lang.Class))([Class](http://docs.google.com/java/lang/Class.html)<?> propertyEditorClass)            Normally PropertyEditors will be found using the PropertyEditorManager. |
| void | [**setReadMethod**](http://docs.google.com/java/beans/PropertyDescriptor.html#setReadMethod(java.lang.reflect.Method))([Method](http://docs.google.com/java/lang/reflect/Method.html) readMethod)            Sets the method that should be used to read the property value. |
| void | [**setWriteMethod**](http://docs.google.com/java/beans/PropertyDescriptor.html#setWriteMethod(java.lang.reflect.Method))([Method](http://docs.google.com/java/lang/reflect/Method.html) writeMethod)            Sets the method that should be used to write the property value. |

| **Methods inherited from class java.beans.**[**FeatureDescriptor**](http://docs.google.com/java/beans/FeatureDescriptor.html) |
| --- |
| [attributeNames](http://docs.google.com/java/beans/FeatureDescriptor.html#attributeNames()), [getDisplayName](http://docs.google.com/java/beans/FeatureDescriptor.html#getDisplayName()), [getName](http://docs.google.com/java/beans/FeatureDescriptor.html#getName()), [getShortDescription](http://docs.google.com/java/beans/FeatureDescriptor.html#getShortDescription()), [getValue](http://docs.google.com/java/beans/FeatureDescriptor.html#getValue(java.lang.String)), [isExpert](http://docs.google.com/java/beans/FeatureDescriptor.html#isExpert()), [isHidden](http://docs.google.com/java/beans/FeatureDescriptor.html#isHidden()), [isPreferred](http://docs.google.com/java/beans/FeatureDescriptor.html#isPreferred()), [setDisplayName](http://docs.google.com/java/beans/FeatureDescriptor.html#setDisplayName(java.lang.String)), [setExpert](http://docs.google.com/java/beans/FeatureDescriptor.html#setExpert(boolean)), [setHidden](http://docs.google.com/java/beans/FeatureDescriptor.html#setHidden(boolean)), [setName](http://docs.google.com/java/beans/FeatureDescriptor.html#setName(java.lang.String)), [setPreferred](http://docs.google.com/java/beans/FeatureDescriptor.html#setPreferred(boolean)), [setShortDescription](http://docs.google.com/java/beans/FeatureDescriptor.html#setShortDescription(java.lang.String)), [setValue](http://docs.google.com/java/beans/FeatureDescriptor.html#setValue(java.lang.String,%20java.lang.Object)) |

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

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

### PropertyDescriptor

public **PropertyDescriptor**([String](http://docs.google.com/java/lang/String.html) propertyName,  
 [Class](http://docs.google.com/java/lang/Class.html)<?> beanClass)  
 throws [IntrospectionException](http://docs.google.com/java/beans/IntrospectionException.html)

Constructs a PropertyDescriptor for a property that follows the standard Java convention by having getFoo and setFoo accessor methods. Thus if the argument name is "fred", it will assume that the writer method is "setFred" and the reader method is "getFred" (or "isFred" for a boolean property). Note that the property name should start with a lower case character, which will be capitalized in the method names.

**Parameters:**propertyName - The programmatic name of the property.beanClass - The Class object for the target bean. For example sun.beans.OurButton.class. **Throws:** [IntrospectionException](http://docs.google.com/java/beans/IntrospectionException.html) - if an exception occurs during introspection.

### PropertyDescriptor

public **PropertyDescriptor**([String](http://docs.google.com/java/lang/String.html) propertyName,  
 [Class](http://docs.google.com/java/lang/Class.html)<?> beanClass,  
 [String](http://docs.google.com/java/lang/String.html) readMethodName,  
 [String](http://docs.google.com/java/lang/String.html) writeMethodName)  
 throws [IntrospectionException](http://docs.google.com/java/beans/IntrospectionException.html)

This constructor takes the name of a simple property, and method names for reading and writing the property.

**Parameters:**propertyName - The programmatic name of the property.beanClass - The Class object for the target bean. For example sun.beans.OurButton.class.readMethodName - The name of the method used for reading the property value. May be null if the property is write-only.writeMethodName - The name of the method used for writing the property value. May be null if the property is read-only. **Throws:** [IntrospectionException](http://docs.google.com/java/beans/IntrospectionException.html) - if an exception occurs during introspection.

### PropertyDescriptor

public **PropertyDescriptor**([String](http://docs.google.com/java/lang/String.html) propertyName,  
 [Method](http://docs.google.com/java/lang/reflect/Method.html) readMethod,  
 [Method](http://docs.google.com/java/lang/reflect/Method.html) writeMethod)  
 throws [IntrospectionException](http://docs.google.com/java/beans/IntrospectionException.html)

This constructor takes the name of a simple property, and Method objects for reading and writing the property.

**Parameters:**propertyName - The programmatic name of the property.readMethod - The method used for reading the property value. May be null if the property is write-only.writeMethod - The method used for writing the property value. May be null if the property is read-only. **Throws:** [IntrospectionException](http://docs.google.com/java/beans/IntrospectionException.html) - if an exception occurs during introspection.

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

### getPropertyType

public [Class](http://docs.google.com/java/lang/Class.html)<?> **getPropertyType**()

Gets the Class object for the property.

**Returns:**The Java type info for the property. Note that the "Class" object may describe a built-in Java type such as "int". The result may be "null" if this is an indexed property that does not support non-indexed access.

This is the type that will be returned by the ReadMethod.

### getReadMethod

public [Method](http://docs.google.com/java/lang/reflect/Method.html) **getReadMethod**()

Gets the method that should be used to read the property value.

**Returns:**The method that should be used to read the property value. May return null if the property can't be read.

### setReadMethod

public void **setReadMethod**([Method](http://docs.google.com/java/lang/reflect/Method.html) readMethod)  
 throws [IntrospectionException](http://docs.google.com/java/beans/IntrospectionException.html)

Sets the method that should be used to read the property value.

**Parameters:**readMethod - The new read method. **Throws:** [IntrospectionException](http://docs.google.com/java/beans/IntrospectionException.html)

### getWriteMethod

public [Method](http://docs.google.com/java/lang/reflect/Method.html) **getWriteMethod**()

Gets the method that should be used to write the property value.

**Returns:**The method that should be used to write the property value. May return null if the property can't be written.

### setWriteMethod

public void **setWriteMethod**([Method](http://docs.google.com/java/lang/reflect/Method.html) writeMethod)  
 throws [IntrospectionException](http://docs.google.com/java/beans/IntrospectionException.html)

Sets the method that should be used to write the property value.

**Parameters:**writeMethod - The new write method. **Throws:** [IntrospectionException](http://docs.google.com/java/beans/IntrospectionException.html)

### isBound

public boolean **isBound**()

Updates to "bound" properties will cause a "PropertyChange" event to get fired when the property is changed.

**Returns:**True if this is a bound property.

### setBound

public void **setBound**(boolean bound)

Updates to "bound" properties will cause a "PropertyChange" event to get fired when the property is changed.

**Parameters:**bound - True if this is a bound property.

### isConstrained

public boolean **isConstrained**()

Attempted updates to "Constrained" properties will cause a "VetoableChange" event to get fired when the property is changed.

**Returns:**True if this is a constrained property.

### setConstrained

public void **setConstrained**(boolean constrained)

Attempted updates to "Constrained" properties will cause a "VetoableChange" event to get fired when the property is changed.

**Parameters:**constrained - True if this is a constrained property.

### setPropertyEditorClass

public void **setPropertyEditorClass**([Class](http://docs.google.com/java/lang/Class.html)<?> propertyEditorClass)

Normally PropertyEditors will be found using the PropertyEditorManager. However if for some reason you want to associate a particular PropertyEditor with a given property, then you can do it with this method.

**Parameters:**propertyEditorClass - The Class for the desired PropertyEditor.

### getPropertyEditorClass

public [Class](http://docs.google.com/java/lang/Class.html)<?> **getPropertyEditorClass**()

Gets any explicit PropertyEditor Class that has been registered for this property.

**Returns:**Any explicit PropertyEditor Class that has been registered for this property. Normally this will return "null", indicating that no special editor has been registered, so the PropertyEditorManager should be used to locate a suitable PropertyEditor.

### createPropertyEditor

public [PropertyEditor](http://docs.google.com/java/beans/PropertyEditor.html) **createPropertyEditor**([Object](http://docs.google.com/java/lang/Object.html) bean)

Constructs an instance of a property editor using the current property editor class.

If the property editor class has a public constructor that takes an Object argument then it will be invoked using the bean parameter as the argument. Otherwise, the default constructor will be invoked.

**Parameters:**bean - the source object **Returns:**a property editor instance or null if a property editor has not been defined or cannot be created**Since:** 1.5

### equals

public boolean **equals**([Object](http://docs.google.com/java/lang/Object.html) obj)

Compares this PropertyDescriptor against the specified object. Returns true if the objects are the same. Two PropertyDescriptors are the same if the read, write, property types, property editor and flags are equivalent.

**Overrides:**[equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)) in class [Object](http://docs.google.com/java/lang/Object.html) **Parameters:**obj - the reference object with which to compare. **Returns:**true if this object is the same as the obj argument; false otherwise.**Since:** 1.4 **See Also:**[Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### hashCode

public int **hashCode**()

Returns a hash code value for the object. See [Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()) for a complete description.

**Overrides:**[hashCode](http://docs.google.com/java/lang/Object.html#hashCode()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a hash code value for this object.**Since:** 1.5 **See Also:**[Object.equals(java.lang.Object)](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/PropertyDescriptor.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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[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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