| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Encoder.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/DesignMode.html)   [**NEXT CLASS**](http://docs.google.com/java/beans/EventHandler.html) | [**FRAMES**](http://docs.google.com/index.html?java/beans/Encoder.html)    [**NO FRAMES**](http://docs.google.com/Encoder.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#4d34og8) |

## **java.beans**

Class Encoder

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

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

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

An Encoder is a class which can be used to create files or streams that encode the state of a collection of JavaBeans in terms of their public APIs. The Encoder, in conjunction with its persistence delegates, is responsible for breaking the object graph down into a series of Statementss and Expressions which can be used to create it. A subclass typically provides a syntax for these expressions using some human readable form - like Java source code or XML.

**Since:** 1.4

| **Constructor Summary** | |
| --- | --- |
| [**Encoder**](http://docs.google.com/java/beans/Encoder.html#Encoder())() |

| **Method Summary** | |
| --- | --- |
| [Object](http://docs.google.com/java/lang/Object.html) | [**get**](http://docs.google.com/java/beans/Encoder.html#get(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) oldInstance)            Returns a tentative value for oldInstance in the environment created by this stream. |
| [ExceptionListener](http://docs.google.com/java/beans/ExceptionListener.html) | [**getExceptionListener**](http://docs.google.com/java/beans/Encoder.html#getExceptionListener())()            Gets the exception handler for this stream. |
| [PersistenceDelegate](http://docs.google.com/java/beans/PersistenceDelegate.html) | [**getPersistenceDelegate**](http://docs.google.com/java/beans/Encoder.html#getPersistenceDelegate(java.lang.Class))([Class](http://docs.google.com/java/lang/Class.html)<?> type)            Returns the persistence delegate for the given type. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**remove**](http://docs.google.com/java/beans/Encoder.html#remove(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) oldInstance)            Removes the entry for this instance, returning the old entry. |
| void | [**setExceptionListener**](http://docs.google.com/java/beans/Encoder.html#setExceptionListener(java.beans.ExceptionListener))([ExceptionListener](http://docs.google.com/java/beans/ExceptionListener.html) exceptionListener)            Sets the exception handler for this stream to exceptionListener. |
| void | [**setPersistenceDelegate**](http://docs.google.com/java/beans/Encoder.html#setPersistenceDelegate(java.lang.Class,%20java.beans.PersistenceDelegate))([Class](http://docs.google.com/java/lang/Class.html)<?> type, [PersistenceDelegate](http://docs.google.com/java/beans/PersistenceDelegate.html) persistenceDelegate)            Sets the persistence delegate associated with this type to persistenceDelegate. |
| void | [**writeExpression**](http://docs.google.com/java/beans/Encoder.html#writeExpression(java.beans.Expression))([Expression](http://docs.google.com/java/beans/Expression.html) oldExp)            The implementation first checks to see if an expression with this value has already been written. |
| protected  void | [**writeObject**](http://docs.google.com/java/beans/Encoder.html#writeObject(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) o)            Write the specified object to the output stream. |
| void | [**writeStatement**](http://docs.google.com/java/beans/Encoder.html#writeStatement(java.beans.Statement))([Statement](http://docs.google.com/java/beans/Statement.html) oldStm)            Writes statement oldStm to the stream. |

| **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)) |

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

### Encoder

public **Encoder**()

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

### writeObject

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

Write the specified object to the output stream. The serialized form will denote a series of expressions, the combined effect of which will create an equivalent object when the input stream is read. By default, the object is assumed to be a *JavaBean* with a nullary constructor, whose state is defined by the matching pairs of "setter" and "getter" methods returned by the Introspector.

**Parameters:**o - The object to be written to the stream.**See Also:**[XMLDecoder.readObject()](http://docs.google.com/java/beans/XMLDecoder.html#readObject())

### setExceptionListener

public void **setExceptionListener**([ExceptionListener](http://docs.google.com/java/beans/ExceptionListener.html) exceptionListener)

Sets the exception handler for this stream to exceptionListener. The exception handler is notified when this stream catches recoverable exceptions.

**Parameters:**exceptionListener - The exception handler for this stream; if null the default exception listener will be used.**See Also:**[getExceptionListener()](http://docs.google.com/java/beans/Encoder.html#getExceptionListener())

### getExceptionListener

public [ExceptionListener](http://docs.google.com/java/beans/ExceptionListener.html) **getExceptionListener**()

Gets the exception handler for this stream.

**Returns:**The exception handler for this stream; Will return the default exception listener if this has not explicitly been set.**See Also:**[setExceptionListener(java.beans.ExceptionListener)](http://docs.google.com/java/beans/Encoder.html#setExceptionListener(java.beans.ExceptionListener))

### getPersistenceDelegate

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

Returns the persistence delegate for the given type. The persistence delegate is calculated by applying the following of rules in order:

* If the type is an array, an internal persistence delegate is returned which will instantiate an array of the appropriate type and length, initializing each of its elements as if they are properties.
* If the type is a proxy, an internal persistence delegate is returned which will instantiate a new proxy instance using the static "newProxyInstance" method defined in the Proxy class.
* If the BeanInfo for this type has a BeanDescriptor which defined a "persistenceDelegate" property, this value is returned.
* In all other cases the default persistence delegate is returned. The default persistence delegate assumes the type is a *JavaBean*, implying that it has a default constructor and that its state may be characterized by the matching pairs of "setter" and "getter" methods returned by the Introspector. The default constructor is the constructor with the greatest number of parameters that has the [ConstructorProperties](http://docs.google.com/java/beans/ConstructorProperties.html) annotation. If none of the constructors have the ConstructorProperties annotation, then the nullary constructor (constructor with no parameters) will be used. For example, in the following the nullary constructor for Foo will be used, while the two parameter constructor for Bar will be used. public class Foo { public Foo() { ... } public Foo(int x) { ... } } public class Bar { public Bar() { ... }  
  **Parameters:**type - The type of the object. **Returns:**The persistence delegate for this type of object.**See Also:**[setPersistenceDelegate(java.lang.Class, java.beans.PersistenceDelegate)](http://docs.google.com/java/beans/Encoder.html#setPersistenceDelegate(java.lang.Class,%20java.beans.PersistenceDelegate)), [Introspector.getBeanInfo(java.lang.Class)](http://docs.google.com/java/beans/Introspector.html#getBeanInfo(java.lang.Class)), [BeanInfo.getBeanDescriptor()](http://docs.google.com/java/beans/BeanInfo.html#getBeanDescriptor())

### setPersistenceDelegate

public void **setPersistenceDelegate**([Class](http://docs.google.com/java/lang/Class.html)<?> type,  
 [PersistenceDelegate](http://docs.google.com/java/beans/PersistenceDelegate.html) persistenceDelegate)

Sets the persistence delegate associated with this type to persistenceDelegate.

**Parameters:**type - The class of objects that persistenceDelegate applies to.persistenceDelegate - The persistence delegate for instances of type.**See Also:**[getPersistenceDelegate(java.lang.Class)](http://docs.google.com/java/beans/Encoder.html#getPersistenceDelegate(java.lang.Class)), [Introspector.getBeanInfo(java.lang.Class)](http://docs.google.com/java/beans/Introspector.html#getBeanInfo(java.lang.Class)), [BeanInfo.getBeanDescriptor()](http://docs.google.com/java/beans/BeanInfo.html#getBeanDescriptor())

### remove

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

Removes the entry for this instance, returning the old entry.

**Parameters:**oldInstance - The entry that should be removed. **Returns:**The entry that was removed.**See Also:**[get(java.lang.Object)](http://docs.google.com/java/beans/Encoder.html#get(java.lang.Object))

### get

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

Returns a tentative value for oldInstance in the environment created by this stream. A persistence delegate can use its mutatesTo method to determine whether this value may be initialized to form the equivalent object at the output or whether a new object must be instantiated afresh. If the stream has not yet seen this value, null is returned.

**Parameters:**oldInstance - The instance to be looked up. **Returns:**The object, null if the object has not been seen before.

### writeStatement

public void **writeStatement**([Statement](http://docs.google.com/java/beans/Statement.html) oldStm)

Writes statement oldStm to the stream. The oldStm should be written entirely in terms of the callers environment, i.e. the target and all arguments should be part of the object graph being written. These expressions represent a series of "what happened" expressions which tell the output stream how to produce an object graph like the original.

The implementation of this method will produce a second expression to represent the same expression in an environment that will exist when the stream is read. This is achieved simply by calling writeObject on the target and all the arguments and building a new expression with the results.

**Parameters:**oldStm - The expression to be written to the stream.

### writeExpression

public void **writeExpression**([Expression](http://docs.google.com/java/beans/Expression.html) oldExp)

The implementation first checks to see if an expression with this value has already been written. If not, the expression is cloned, using the same procedure as writeStatement, and the value of this expression is reconciled with the value of the cloned expression by calling writeObject.

**Parameters:**oldExp - The expression to be written to the stream.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Encoder.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/DesignMode.html)   [**NEXT CLASS**](http://docs.google.com/java/beans/EventHandler.html) | [**FRAMES**](http://docs.google.com/index.html?java/beans/Encoder.html)    [**NO FRAMES**](http://docs.google.com/Encoder.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#4d34og8) |

[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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