| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Expression.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/ExceptionListener.html)   [**NEXT CLASS**](http://docs.google.com/java/beans/FeatureDescriptor.html) | [**FRAMES**](http://docs.google.com/index.html?java/beans/Expression.html)    [**NO FRAMES**](http://docs.google.com/Expression.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#1t3h5sf) | [METHOD](#17dp8vu) |

## **java.beans**

Class Expression

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

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

An Expression object represents a primitive expression in which a single method is applied to a target and a set of arguments to return a result - as in "a.getFoo()".

In addition to the properties of the super class, the Expression object provides a *value* which is the object returned when this expression is evaluated. The return value is typically not provided by the caller and is instead computed by dynamically finding the method and invoking it when the first call to getValue is made.

**Since:** 1.4 **See Also:**[getValue()](http://docs.google.com/java/beans/Expression.html#getValue()), [setValue(java.lang.Object)](http://docs.google.com/java/beans/Expression.html#setValue(java.lang.Object))

| **Constructor Summary** | |
| --- | --- |
| [**Expression**](http://docs.google.com/java/beans/Expression.html#Expression(java.lang.Object,%20java.lang.Object,%20java.lang.String,%20java.lang.Object%5B%5D))([Object](http://docs.google.com/java/lang/Object.html) value, [Object](http://docs.google.com/java/lang/Object.html) target, [String](http://docs.google.com/java/lang/String.html) methodName, [Object](http://docs.google.com/java/lang/Object.html)[] arguments)            Creates a new Expression object for a method that returns a result. |
| [**Expression**](http://docs.google.com/java/beans/Expression.html#Expression(java.lang.Object,%20java.lang.String,%20java.lang.Object%5B%5D))([Object](http://docs.google.com/java/lang/Object.html) target, [String](http://docs.google.com/java/lang/String.html) methodName, [Object](http://docs.google.com/java/lang/Object.html)[] arguments)            Creates a new Statement object with a target, methodName and arguments as per the parameters. |

| **Method Summary** | |
| --- | --- |
| [Object](http://docs.google.com/java/lang/Object.html) | [**getValue**](http://docs.google.com/java/beans/Expression.html#getValue())()            If the value property of this instance is not already set, this method dynamically finds the method with the specified methodName on this target with these arguments and calls it. |
| void | [**setValue**](http://docs.google.com/java/beans/Expression.html#setValue(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) value)            Sets the value of this expression to value. |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/java/beans/Expression.html#toString())()            Prints the value of this expression using a Java-style syntax. |

| **Methods inherited from class java.beans.**[**Statement**](http://docs.google.com/java/beans/Statement.html) |
| --- |
| [execute](http://docs.google.com/java/beans/Statement.html#execute()), [getArguments](http://docs.google.com/java/beans/Statement.html#getArguments()), [getMethodName](http://docs.google.com/java/beans/Statement.html#getMethodName()), [getTarget](http://docs.google.com/java/beans/Statement.html#getTarget()) |

| **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)) |

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

### Expression

public **Expression**([Object](http://docs.google.com/java/lang/Object.html) target,  
 [String](http://docs.google.com/java/lang/String.html) methodName,  
 [Object](http://docs.google.com/java/lang/Object.html)[] arguments)

Creates a new Statement object with a target, methodName and arguments as per the parameters.

**Parameters:**target - The target of this expression.methodName - The methodName of this expression.arguments - The arguments of this expression. If null then an empty array will be used.**See Also:**[getValue()](http://docs.google.com/java/beans/Expression.html#getValue())

### Expression

public **Expression**([Object](http://docs.google.com/java/lang/Object.html) value,  
 [Object](http://docs.google.com/java/lang/Object.html) target,  
 [String](http://docs.google.com/java/lang/String.html) methodName,  
 [Object](http://docs.google.com/java/lang/Object.html)[] arguments)

Creates a new Expression object for a method that returns a result. The result will never be calculated however, since this constructor uses the value parameter to set the value property by calling the setValue method.

**Parameters:**value - The value of this expression.target - The target of this expression.methodName - The methodName of this expression.arguments - The arguments of this expression. If null then an empty array will be used.**See Also:**[setValue(java.lang.Object)](http://docs.google.com/java/beans/Expression.html#setValue(java.lang.Object))

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

### getValue

public [Object](http://docs.google.com/java/lang/Object.html) **getValue**()  
 throws [Exception](http://docs.google.com/java/lang/Exception.html)

If the value property of this instance is not already set, this method dynamically finds the method with the specified methodName on this target with these arguments and calls it. The result of the method invocation is first copied into the value property of this expression and then returned as the result of getValue. If the value property was already set, either by a call to setValue or a previous call to getValue then the value property is returned without either looking up or calling the method.

The value property of an Expression is set to a unique private (non-null) value by default and this value is used as an internal indication that the method has not yet been called. A return value of null replaces this default value in the same way that any other value would, ensuring that expressions are never evaluated more than once.

See the excecute method for details on how methods are chosen using the dynamic types of the target and arguments.

**Returns:**The result of applying this method to these arguments. **Throws:** [Exception](http://docs.google.com/java/lang/Exception.html)**See Also:**[Statement.execute()](http://docs.google.com/java/beans/Statement.html#execute()), [setValue(java.lang.Object)](http://docs.google.com/java/beans/Expression.html#setValue(java.lang.Object))

### setValue

public void **setValue**([Object](http://docs.google.com/java/lang/Object.html) value)

Sets the value of this expression to value. This value will be returned by the getValue method without calling the method associated with this expression.

**Parameters:**value - The value of this expression.**See Also:**[getValue()](http://docs.google.com/java/beans/Expression.html#getValue())

### toString

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

Prints the value of this expression using a Java-style syntax.

**Overrides:**[toString](http://docs.google.com/java/beans/Statement.html#toString()) in class [Statement](http://docs.google.com/java/beans/Statement.html) **Returns:**a string representation of the 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/Expression.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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