| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/ScriptEngine.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/script/ScriptContext.html)   [**NEXT CLASS**](http://docs.google.com/javax/script/ScriptEngineFactory.html) | [**FRAMES**](http://docs.google.com/index.html?javax/script/ScriptEngine.html)    [**NO FRAMES**](http://docs.google.com/ScriptEngine.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | CONSTR | [METHOD](#2et92p0) | DETAIL: [FIELD](#tyjcwt) | CONSTR | [METHOD](#lnxbz9) |

## **javax.script**

Interface ScriptEngine

**All Known Implementing Classes:** [AbstractScriptEngine](http://docs.google.com/javax/script/AbstractScriptEngine.html)

public interface **ScriptEngine**

ScriptEngine is the fundamental interface whose methods must be fully functional in every implementation of this specification.

These methods provide basic scripting functionality. Applications written to this simple interface are expected to work with minimal modifications in every implementation. It includes methods that execute scripts, and ones that set and get values.

The values are key/value pairs of two types. The first type of pairs consists of those whose keys are reserved and defined in this specification or by individual implementations. The values in the pairs with reserved keys have specified meanings.

The other type of pairs consists of those that create Java language Bindings, the values are usually represented in scripts by the corresponding keys or by decorated forms of them.

**Since:** 1.6

| **Field Summary** | |
| --- | --- |
| static [String](http://docs.google.com/java/lang/String.html) | [**ARGV**](http://docs.google.com/javax/script/ScriptEngine.html#ARGV)            Reserved key for a named value that passes an array of positional arguments to a script. |
| static [String](http://docs.google.com/java/lang/String.html) | [**ENGINE**](http://docs.google.com/javax/script/ScriptEngine.html#ENGINE)            Reserved key for a named value that is the name of the ScriptEngine implementation. |
| static [String](http://docs.google.com/java/lang/String.html) | [**ENGINE\_VERSION**](http://docs.google.com/javax/script/ScriptEngine.html#ENGINE_VERSION)            Reserved key for a named value that identifies the version of the ScriptEngine implementation. |
| static [String](http://docs.google.com/java/lang/String.html) | [**FILENAME**](http://docs.google.com/javax/script/ScriptEngine.html#FILENAME)            Reserved key for a named value that is the name of the file being executed. |
| static [String](http://docs.google.com/java/lang/String.html) | [**LANGUAGE**](http://docs.google.com/javax/script/ScriptEngine.html#LANGUAGE)            Reserved key for a named value that is the full name of Scripting Language supported by the implementation. |
| static [String](http://docs.google.com/java/lang/String.html) | [**LANGUAGE\_VERSION**](http://docs.google.com/javax/script/ScriptEngine.html#LANGUAGE_VERSION)            Reserved key for the named value that identifies the version of the scripting language supported by the implementation. |
| static [String](http://docs.google.com/java/lang/String.html) | [**NAME**](http://docs.google.com/javax/script/ScriptEngine.html#NAME)            Reserved key for a named value that identifies the short name of the scripting language. |

| **Method Summary** | |
| --- | --- |
| [Bindings](http://docs.google.com/javax/script/Bindings.html) | [**createBindings**](http://docs.google.com/javax/script/ScriptEngine.html#createBindings())()            Returns an uninitialized Bindings. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**eval**](http://docs.google.com/javax/script/ScriptEngine.html#eval(java.io.Reader))([Reader](http://docs.google.com/java/io/Reader.html) reader)            Same as eval(String) except that the source of the script is provided as a Reader |
| [Object](http://docs.google.com/java/lang/Object.html) | [**eval**](http://docs.google.com/javax/script/ScriptEngine.html#eval(java.io.Reader,%20javax.script.Bindings))([Reader](http://docs.google.com/java/io/Reader.html) reader, [Bindings](http://docs.google.com/javax/script/Bindings.html) n)            Same as eval(String, Bindings) except that the source of the script is provided as a Reader. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**eval**](http://docs.google.com/javax/script/ScriptEngine.html#eval(java.io.Reader,%20javax.script.ScriptContext))([Reader](http://docs.google.com/java/io/Reader.html) reader, [ScriptContext](http://docs.google.com/javax/script/ScriptContext.html) context)            Same as eval(String, ScriptContext) where the source of the script is read from a Reader. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**eval**](http://docs.google.com/javax/script/ScriptEngine.html#eval(java.lang.String))([String](http://docs.google.com/java/lang/String.html) script)            Executes the specified script. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**eval**](http://docs.google.com/javax/script/ScriptEngine.html#eval(java.lang.String,%20javax.script.Bindings))([String](http://docs.google.com/java/lang/String.html) script, [Bindings](http://docs.google.com/javax/script/Bindings.html) n)            Executes the script using the Bindings argument as the ENGINE\_SCOPE Bindings of the ScriptEngine during the script execution. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**eval**](http://docs.google.com/javax/script/ScriptEngine.html#eval(java.lang.String,%20javax.script.ScriptContext))([String](http://docs.google.com/java/lang/String.html) script, [ScriptContext](http://docs.google.com/javax/script/ScriptContext.html) context)            Causes the immediate execution of the script whose source is the String passed as the first argument. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**get**](http://docs.google.com/javax/script/ScriptEngine.html#get(java.lang.String))([String](http://docs.google.com/java/lang/String.html) key)            Retrieves a value set in the state of this engine. |
| [Bindings](http://docs.google.com/javax/script/Bindings.html) | [**getBindings**](http://docs.google.com/javax/script/ScriptEngine.html#getBindings(int))(int scope)            Returns a scope of named values. |
| [ScriptContext](http://docs.google.com/javax/script/ScriptContext.html) | [**getContext**](http://docs.google.com/javax/script/ScriptEngine.html#getContext())()            Returns the default ScriptContext of the ScriptEngine whose Bindings, Reader and Writers are used for script executions when no ScriptContext is specified. |
| [ScriptEngineFactory](http://docs.google.com/javax/script/ScriptEngineFactory.html) | [**getFactory**](http://docs.google.com/javax/script/ScriptEngine.html#getFactory())()            Returns a ScriptEngineFactory for the class to which this ScriptEngine belongs. |
| void | [**put**](http://docs.google.com/javax/script/ScriptEngine.html#put(java.lang.String,%20java.lang.Object))([String](http://docs.google.com/java/lang/String.html) key, [Object](http://docs.google.com/java/lang/Object.html) value)            Sets a key/value pair in the state of the ScriptEngine that may either create a Java Language Binding to be used in the execution of scripts or be used in some other way, depending on whether the key is reserved. |
| void | [**setBindings**](http://docs.google.com/javax/script/ScriptEngine.html#setBindings(javax.script.Bindings,%20int))([Bindings](http://docs.google.com/javax/script/Bindings.html) bindings, int scope)            Sets a scope of named values to be used by scripts. |
| void | [**setContext**](http://docs.google.com/javax/script/ScriptEngine.html#setContext(javax.script.ScriptContext))([ScriptContext](http://docs.google.com/javax/script/ScriptContext.html) context)            Sets the default ScriptContext of the ScriptEngine whose Bindings, Reader and Writers are used for script executions when no ScriptContext is specified. |

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

### ARGV

static final [String](http://docs.google.com/java/lang/String.html) **ARGV**

Reserved key for a named value that passes an array of positional arguments to a script.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#javax.script.ScriptEngine.ARGV)

### FILENAME

static final [String](http://docs.google.com/java/lang/String.html) **FILENAME**

Reserved key for a named value that is the name of the file being executed.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#javax.script.ScriptEngine.FILENAME)

### ENGINE

static final [String](http://docs.google.com/java/lang/String.html) **ENGINE**

Reserved key for a named value that is the name of the ScriptEngine implementation.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#javax.script.ScriptEngine.ENGINE)

### ENGINE\_VERSION

static final [String](http://docs.google.com/java/lang/String.html) **ENGINE\_VERSION**

Reserved key for a named value that identifies the version of the ScriptEngine implementation.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#javax.script.ScriptEngine.ENGINE_VERSION)

### NAME

static final [String](http://docs.google.com/java/lang/String.html) **NAME**

Reserved key for a named value that identifies the short name of the scripting language. The name is used by the ScriptEngineManager to locate a ScriptEngine with a given name in the getEngineByName method.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#javax.script.ScriptEngine.NAME)

### LANGUAGE

static final [String](http://docs.google.com/java/lang/String.html) **LANGUAGE**

Reserved key for a named value that is the full name of Scripting Language supported by the implementation.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#javax.script.ScriptEngine.LANGUAGE)

### LANGUAGE\_VERSION

static final [String](http://docs.google.com/java/lang/String.html) **LANGUAGE\_VERSION**

Reserved key for the named value that identifies the version of the scripting language supported by the implementation.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#javax.script.ScriptEngine.LANGUAGE_VERSION)

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

### eval

[Object](http://docs.google.com/java/lang/Object.html) **eval**([String](http://docs.google.com/java/lang/String.html) script,  
 [ScriptContext](http://docs.google.com/javax/script/ScriptContext.html) context)  
 throws [ScriptException](http://docs.google.com/javax/script/ScriptException.html)

Causes the immediate execution of the script whose source is the String passed as the first argument. The script may be reparsed or recompiled before execution. State left in the engine from previous executions, including variable values and compiled procedures may be visible during this execution.

**Parameters:**script - The script to be executed by the script engine.context - A ScriptContext exposing sets of attributes in different scopes. The meanings of the scopes ScriptContext.GLOBAL\_SCOPE, and ScriptContext.ENGINE\_SCOPE are defined in the specification.

The ENGINE\_SCOPE Bindings of the ScriptContext contains the bindings of scripting variables to application objects to be used during this script execution. **Returns:**The value returned from the execution of the script. **Throws:** [ScriptException](http://docs.google.com/javax/script/ScriptException.html) - if an error occurrs in script. ScriptEngines should create and throw ScriptException wrappers for checked Exceptions thrown by underlying scripting implementations. [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if either argument is null.

### eval

[Object](http://docs.google.com/java/lang/Object.html) **eval**([Reader](http://docs.google.com/java/io/Reader.html) reader,  
 [ScriptContext](http://docs.google.com/javax/script/ScriptContext.html) context)  
 throws [ScriptException](http://docs.google.com/javax/script/ScriptException.html)

Same as eval(String, ScriptContext) where the source of the script is read from a Reader.

**Parameters:**reader - The source of the script to be executed by the script engine.context - The ScriptContext passed to the script engine. **Returns:**The value returned from the execution of the script. **Throws:** [ScriptException](http://docs.google.com/javax/script/ScriptException.html) - if an error occurrs in script. [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if either argument is null.

### eval

[Object](http://docs.google.com/java/lang/Object.html) **eval**([String](http://docs.google.com/java/lang/String.html) script)  
 throws [ScriptException](http://docs.google.com/javax/script/ScriptException.html)

Executes the specified script. The default ScriptContext for the ScriptEngine is used.

**Parameters:**script - The script language source to be executed. **Returns:**The value returned from the execution of the script. **Throws:** [ScriptException](http://docs.google.com/javax/script/ScriptException.html) - if error occurrs in script. [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if the argument is null.

### eval

[Object](http://docs.google.com/java/lang/Object.html) **eval**([Reader](http://docs.google.com/java/io/Reader.html) reader)  
 throws [ScriptException](http://docs.google.com/javax/script/ScriptException.html)

Same as eval(String) except that the source of the script is provided as a Reader

**Parameters:**reader - The source of the script. **Returns:**The value returned by the script. **Throws:** [ScriptException](http://docs.google.com/javax/script/ScriptException.html) - if an error occurrs in script. [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if the argument is null.

### eval

[Object](http://docs.google.com/java/lang/Object.html) **eval**([String](http://docs.google.com/java/lang/String.html) script,  
 [Bindings](http://docs.google.com/javax/script/Bindings.html) n)  
 throws [ScriptException](http://docs.google.com/javax/script/ScriptException.html)

Executes the script using the Bindings argument as the ENGINE\_SCOPE Bindings of the ScriptEngine during the script execution. The Reader, Writer and non-ENGINE\_SCOPE Bindings of the default ScriptContext are used. The ENGINE\_SCOPE Bindings of the ScriptEngine is not changed, and its mappings are unaltered by the script execution.

**Parameters:**script - The source for the script.n - The Bindings of attributes to be used for script execution. **Returns:**The value returned by the script. **Throws:** [ScriptException](http://docs.google.com/javax/script/ScriptException.html) - if an error occurrs in script. [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if either argument is null.

### eval

[Object](http://docs.google.com/java/lang/Object.html) **eval**([Reader](http://docs.google.com/java/io/Reader.html) reader,  
 [Bindings](http://docs.google.com/javax/script/Bindings.html) n)  
 throws [ScriptException](http://docs.google.com/javax/script/ScriptException.html)

Same as eval(String, Bindings) except that the source of the script is provided as a Reader.

**Parameters:**reader - The source of the script.n - The Bindings of attributes. **Returns:**The value returned by the script. **Throws:** [ScriptException](http://docs.google.com/javax/script/ScriptException.html) - if an error occurrs. [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if either argument is null.

### put

void **put**([String](http://docs.google.com/java/lang/String.html) key,  
 [Object](http://docs.google.com/java/lang/Object.html) value)

Sets a key/value pair in the state of the ScriptEngine that may either create a Java Language Binding to be used in the execution of scripts or be used in some other way, depending on whether the key is reserved. Must have the same effect as getBindings(ScriptContext.ENGINE\_SCOPE).put.

**Parameters:**key - The name of named value to addvalue - The value of named value to add. **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if key is null. [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if key is empty.

### get

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

Retrieves a value set in the state of this engine. The value might be one which was set using setValue or some other value in the state of the ScriptEngine, depending on the implementation. Must have the same effect as getBindings(ScriptContext.ENGINE\_SCOPE).get

**Parameters:**key - The key whose value is to be returned **Returns:**the value for the given key **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if key is null. [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if key is empty.

### getBindings

[Bindings](http://docs.google.com/javax/script/Bindings.html) **getBindings**(int scope)

Returns a scope of named values. The possible scopes are:

* ScriptContext.GLOBAL\_SCOPE - The set of named values representing global scope. If this ScriptEngine is created by a ScriptEngineManager, then the manager sets global scope bindings. This may be null if no global scope is associated with this ScriptEngine
* ScriptContext.ENGINE\_SCOPE - The set of named values representing the state of this ScriptEngine. The values are generally visible in scripts using the associated keys as variable names.
* Any other value of scope defined in the default ScriptContext of the ScriptEngine.

The Bindings instances that are returned must be identical to those returned by the getBindings method of ScriptContext called with corresponding arguments on the default ScriptContext of the ScriptEngine.

**Parameters:**scope - Either ScriptContext.ENGINE\_SCOPE or ScriptContext.GLOBAL\_SCOPE which specifies the Bindings to return. Implementations of ScriptContext may define additional scopes. If the default ScriptContext of the ScriptEngine defines additional scopes, any of them can be passed to get the corresponding Bindings. **Returns:**The Bindings with the specified scope. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if specified scope is invalid

### setBindings

void **setBindings**([Bindings](http://docs.google.com/javax/script/Bindings.html) bindings,  
 int scope)

Sets a scope of named values to be used by scripts. The possible scopes are:

* ScriptContext.ENGINE\_SCOPE - The specified Bindings replaces the engine scope of the ScriptEngine.
* ScriptContext.GLOBAL\_SCOPE - The specified Bindings must be visible as the GLOBAL\_SCOPE.
* Any other value of scope defined in the default ScriptContext of the ScriptEngine.

The method must have the same effect as calling the setBindings method of ScriptContext with the corresponding value of scope on the default ScriptContext of the ScriptEngine.

**Parameters:**bindings - The Bindings for the specified scope.scope - The specified scope. Either ScriptContext.ENGINE\_SCOPE, ScriptContext.GLOBAL\_SCOPE, or any other valid value of scope. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if the scope is invalid [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if the bindings is null and the scope is ScriptContext.ENGINE\_SCOPE

### createBindings

[Bindings](http://docs.google.com/javax/script/Bindings.html) **createBindings**()

Returns an uninitialized Bindings.

**Returns:**A Bindings that can be used to replace the state of this ScriptEngine.

### getContext

[ScriptContext](http://docs.google.com/javax/script/ScriptContext.html) **getContext**()

Returns the default ScriptContext of the ScriptEngine whose Bindings, Reader and Writers are used for script executions when no ScriptContext is specified.

**Returns:**The default ScriptContext of the ScriptEngine.

### setContext

void **setContext**([ScriptContext](http://docs.google.com/javax/script/ScriptContext.html) context)

Sets the default ScriptContext of the ScriptEngine whose Bindings, Reader and Writers are used for script executions when no ScriptContext is specified.

**Parameters:**context - A ScriptContext that will replace the default ScriptContext in the ScriptEngine. **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if context is null.

### getFactory

[ScriptEngineFactory](http://docs.google.com/javax/script/ScriptEngineFactory.html) **getFactory**()

Returns a ScriptEngineFactory for the class to which this ScriptEngine belongs.

**Returns:**The ScriptEngineFactory

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/ScriptEngine.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/script/ScriptContext.html)   [**NEXT CLASS**](http://docs.google.com/javax/script/ScriptEngineFactory.html) | [**FRAMES**](http://docs.google.com/index.html?javax/script/ScriptEngine.html)    [**NO FRAMES**](http://docs.google.com/ScriptEngine.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | CONSTR | [METHOD](#2et92p0) | DETAIL: [FIELD](#tyjcwt) | CONSTR | [METHOD](#lnxbz9) |

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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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