| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/XPathExpression.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/xml/xpath/XPathException.html)   [**NEXT CLASS**](http://docs.google.com/javax/xml/xpath/XPathExpressionException.html) | [**FRAMES**](http://docs.google.com/index.html?javax/xml/xpath/XPathExpression.html)    [**NO FRAMES**](http://docs.google.com/XPathExpression.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#2et92p0) | DETAIL: FIELD | CONSTR | [METHOD](#tyjcwt) |

## **javax.xml.xpath**

Interface XPathExpression

public interface **XPathExpression**

XPathExpression provides access to compiled XPath expressions.

| Evaluation of XPath Expressions. | |
| --- | --- |
| context | If a request is made to evaluate the expression in the absence of a context item, an empty document node will be used for the context. For the purposes of evaluating XPath expressions, a DocumentFragment is treated like a Document node. |
| variables | If the expression contains a variable reference, its value will be found through the [XPathVariableResolver](http://docs.google.com/javax/xml/xpath/XPathVariableResolver.html). An [XPathExpressionException](http://docs.google.com/javax/xml/xpath/XPathExpressionException.html) is raised if the variable resolver is undefined or the resolver returns null for the variable. The value of a variable must be immutable through the course of any single evaluation. |
| functions | If the expression contains a function reference, the function will be found through the [XPathFunctionResolver](http://docs.google.com/javax/xml/xpath/XPathFunctionResolver.html). An [XPathExpressionException](http://docs.google.com/javax/xml/xpath/XPathExpressionException.html) is raised if the function resolver is undefined or the function resolver returns null for the function. |
| QNames | QNames in the expression are resolved against the XPath namespace context. |
| result | This result of evaluating an expression is converted to an instance of the desired return type. Valid return types are defined in [XPathConstants](http://docs.google.com/javax/xml/xpath/XPathConstants.html). Conversion to the return type follows XPath conversion rules. |

An XPath expression is not thread-safe and not reentrant. In other words, it is the application's responsibility to make sure that one [XPathExpression](http://docs.google.com/javax/xml/xpath/XPathExpression.html) object is not used from more than one thread at any given time, and while the evaluate method is invoked, applications may not recursively call the evaluate method.

**Since:** 1.5 **See Also:**[XML Path Language (XPath) Version 1.0, Expressions](http://www.w3.org/TR/xpath#section-Expressions)

| **Method Summary** | |
| --- | --- |
| [String](http://docs.google.com/java/lang/String.html) | [**evaluate**](http://docs.google.com/javax/xml/xpath/XPathExpression.html#evaluate(org.xml.sax.InputSource))([InputSource](http://docs.google.com/org/xml/sax/InputSource.html) source)            Evaluate the compiled XPath expression in the context of the specified InputSource and return the result as a String. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**evaluate**](http://docs.google.com/javax/xml/xpath/XPathExpression.html#evaluate(org.xml.sax.InputSource,%20javax.xml.namespace.QName))([InputSource](http://docs.google.com/org/xml/sax/InputSource.html) source, [QName](http://docs.google.com/javax/xml/namespace/QName.html) returnType)            Evaluate the compiled XPath expression in the context of the specified InputSource and return the result as the specified type. |
| [String](http://docs.google.com/java/lang/String.html) | [**evaluate**](http://docs.google.com/javax/xml/xpath/XPathExpression.html#evaluate(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) item)            Evaluate the compiled XPath expression in the specified context and return the result as a String. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**evaluate**](http://docs.google.com/javax/xml/xpath/XPathExpression.html#evaluate(java.lang.Object,%20javax.xml.namespace.QName))([Object](http://docs.google.com/java/lang/Object.html) item, [QName](http://docs.google.com/javax/xml/namespace/QName.html) returnType)            Evaluate the compiled XPath expression in the specified context and return the result as the specified type. |

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

### evaluate

[Object](http://docs.google.com/java/lang/Object.html) **evaluate**([Object](http://docs.google.com/java/lang/Object.html) item,  
 [QName](http://docs.google.com/javax/xml/namespace/QName.html) returnType)  
 throws [XPathExpressionException](http://docs.google.com/javax/xml/xpath/XPathExpressionException.html)

Evaluate the compiled XPath expression in the specified context and return the result as the specified type.

See [Evaluation of XPath Expressions](#3znysh7) for context item evaluation, variable, function and QName resolution and return type conversion.

If returnType is not one of the types defined in [XPathConstants](http://docs.google.com/javax/xml/xpath/XPathConstants.html), then an IllegalArgumentException is thrown.

If a null value is provided for item, an empty document will be used for the context. If returnType is null, then a NullPointerException is thrown.

**Parameters:**item - The starting context (a node, for example).returnType - The desired return type. **Returns:**The Object that is the result of evaluating the expression and converting the result to returnType. **Throws:** [XPathExpressionException](http://docs.google.com/javax/xml/xpath/XPathExpressionException.html) - If the expression cannot be evaluated. [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - If returnType is not one of the types defined in [XPathConstants](http://docs.google.com/javax/xml/xpath/XPathConstants.html). [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - If returnType is null.

### evaluate

[String](http://docs.google.com/java/lang/String.html) **evaluate**([Object](http://docs.google.com/java/lang/Object.html) item)  
 throws [XPathExpressionException](http://docs.google.com/javax/xml/xpath/XPathExpressionException.html)

Evaluate the compiled XPath expression in the specified context and return the result as a String.

This method calls [evaluate(Object item, QName returnType)](http://docs.google.com/javax/xml/xpath/XPathExpression.html#evaluate(java.lang.Object,%20javax.xml.namespace.QName)) with a returnType of [XPathConstants.STRING](http://docs.google.com/javax/xml/xpath/XPathConstants.html#STRING).

See [Evaluation of XPath Expressions](#3znysh7) for context item evaluation, variable, function and QName resolution and return type conversion.

If a null value is provided for item, an empty document will be used for the context.

**Parameters:**item - The starting context (a node, for example). **Returns:**The String that is the result of evaluating the expression and converting the result to a String. **Throws:** [XPathExpressionException](http://docs.google.com/javax/xml/xpath/XPathExpressionException.html) - If the expression cannot be evaluated.

### evaluate

[Object](http://docs.google.com/java/lang/Object.html) **evaluate**([InputSource](http://docs.google.com/org/xml/sax/InputSource.html) source,  
 [QName](http://docs.google.com/javax/xml/namespace/QName.html) returnType)  
 throws [XPathExpressionException](http://docs.google.com/javax/xml/xpath/XPathExpressionException.html)

Evaluate the compiled XPath expression in the context of the specified InputSource and return the result as the specified type.

This method builds a data model for the [InputSource](http://docs.google.com/org/xml/sax/InputSource.html) and calls [evaluate(Object item, QName returnType)](http://docs.google.com/javax/xml/xpath/XPathExpression.html#evaluate(java.lang.Object,%20javax.xml.namespace.QName)) on the resulting document object.

See [Evaluation of XPath Expressions](#3znysh7) for context item evaluation, variable, function and QName resolution and return type conversion.

If returnType is not one of the types defined in [XPathConstants](http://docs.google.com/javax/xml/xpath/XPathConstants.html), then an IllegalArgumentException is thrown.

If source or returnType is null, then a NullPointerException is thrown.

**Parameters:**source - The InputSource of the document to evaluate over.returnType - The desired return type. **Returns:**The Object that is the result of evaluating the expression and converting the result to returnType. **Throws:** [XPathExpressionException](http://docs.google.com/javax/xml/xpath/XPathExpressionException.html) - If the expression cannot be evaluated. [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - If returnType is not one of the types defined in [XPathConstants](http://docs.google.com/javax/xml/xpath/XPathConstants.html). [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - If source or returnType is null.

### evaluate

[String](http://docs.google.com/java/lang/String.html) **evaluate**([InputSource](http://docs.google.com/org/xml/sax/InputSource.html) source)  
 throws [XPathExpressionException](http://docs.google.com/javax/xml/xpath/XPathExpressionException.html)

Evaluate the compiled XPath expression in the context of the specified InputSource and return the result as a String.

This method calls [evaluate(InputSource source, QName returnType)](http://docs.google.com/javax/xml/xpath/XPathExpression.html#evaluate(org.xml.sax.InputSource,%20javax.xml.namespace.QName)) with a returnType of [XPathConstants.STRING](http://docs.google.com/javax/xml/xpath/XPathConstants.html#STRING).

See [Evaluation of XPath Expressions](#3znysh7) for context item evaluation, variable, function and QName resolution and return type conversion.

If source is null, then a NullPointerException is thrown.

**Parameters:**source - The InputSource of the document to evaluate over. **Returns:**The String that is the result of evaluating the expression and converting the result to a String. **Throws:** [XPathExpressionException](http://docs.google.com/javax/xml/xpath/XPathExpressionException.html) - If the expression cannot be evaluated. [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - If source is null.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/XPathExpression.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/xml/xpath/XPathException.html)   [**NEXT CLASS**](http://docs.google.com/javax/xml/xpath/XPathExpressionException.html) | [**FRAMES**](http://docs.google.com/index.html?javax/xml/xpath/XPathExpression.html)    [**NO FRAMES**](http://docs.google.com/XPathExpression.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#2et92p0) | DETAIL: FIELD | CONSTR | [METHOD](#tyjcwt) |

[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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