| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/XMLSignature.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/crypto/dsig/XMLObject.html)   [**NEXT CLASS**](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.SignatureValue.html) | [**FRAMES**](http://docs.google.com/index.html?javax/xml/crypto/dsig/XMLSignature.html)    [**NO FRAMES**](http://docs.google.com/XMLSignature.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#3znysh7) | [FIELD](#2et92p0) | CONSTR | [METHOD](#tyjcwt) | DETAIL: [FIELD](#1t3h5sf) | CONSTR | [METHOD](#2s8eyo1) |

## **javax.xml.crypto.dsig**

Interface XMLSignature

**All Superinterfaces:** [XMLStructure](http://docs.google.com/javax/xml/crypto/XMLStructure.html)

public interface **XMLSignature**extends [XMLStructure](http://docs.google.com/javax/xml/crypto/XMLStructure.html)

A representation of the XML Signature element as defined in the  [W3C Recommendation for XML-Signature Syntax and Processing](http://www.w3.org/TR/xmldsig-core/). This class contains methods for signing and validating XML signatures with behavior as defined by the W3C specification. The XML Schema Definition is defined as:

<element name="Signature" type="ds:SignatureType"/>  
 <complexType name="SignatureType">  
 <sequence>   
 <element ref="ds:SignedInfo"/>   
 <element ref="ds:SignatureValue"/>   
 <element ref="ds:KeyInfo" minOccurs="0"/>   
 <element ref="ds:Object" minOccurs="0" maxOccurs="unbounded"/>   
 </sequence>   
 <attribute name="Id" type="ID" use="optional"/>  
 </complexType>

An XMLSignature instance may be created by invoking one of the [newXMLSignature](http://docs.google.com/javax/xml/crypto/dsig/XMLSignatureFactory.html#newXMLSignature(javax.xml.crypto.dsig.SignedInfo,%20javax.xml.crypto.dsig.keyinfo.KeyInfo)) methods of the [XMLSignatureFactory](http://docs.google.com/javax/xml/crypto/dsig/XMLSignatureFactory.html) class.

If the contents of the underlying document containing the XMLSignature are subsequently modified, the behavior is undefined.

Note that this class is named XMLSignature rather than Signature to avoid naming clashes with the existing [java.security.Signature](http://docs.google.com/java/security/Signature.html) class.

**Since:** 1.6 **See Also:**[XMLSignatureFactory.newXMLSignature(SignedInfo, KeyInfo)](http://docs.google.com/javax/xml/crypto/dsig/XMLSignatureFactory.html#newXMLSignature(javax.xml.crypto.dsig.SignedInfo,%20javax.xml.crypto.dsig.keyinfo.KeyInfo)), [XMLSignatureFactory.newXMLSignature(SignedInfo, KeyInfo, List, String, String)](http://docs.google.com/javax/xml/crypto/dsig/XMLSignatureFactory.html#newXMLSignature(javax.xml.crypto.dsig.SignedInfo,%20javax.xml.crypto.dsig.keyinfo.KeyInfo,%20java.util.List,%20java.lang.String,%20java.lang.String))

| **Nested Class Summary** | |
| --- | --- |
| static interface | [**XMLSignature.SignatureValue**](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.SignatureValue.html)            A representation of the XML SignatureValue element as defined in the  [W3C Recommendation for XML-Signature Syntax and Processing](http://www.w3.org/TR/xmldsig-core/). |

| **Field Summary** | |
| --- | --- |
| static [String](http://docs.google.com/java/lang/String.html) | [**XMLNS**](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.html#XMLNS)            The XML Namespace URI of the W3C Recommendation for XML-Signature Syntax and Processing. |

| **Method Summary** | |
| --- | --- |
| [String](http://docs.google.com/java/lang/String.html) | [**getId**](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.html#getId())()            Returns the optional Id of this XMLSignature. |
| [KeyInfo](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfo.html) | [**getKeyInfo**](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.html#getKeyInfo())()            Returns the key info of this XMLSignature. |
| [KeySelectorResult](http://docs.google.com/javax/xml/crypto/KeySelectorResult.html) | [**getKeySelectorResult**](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.html#getKeySelectorResult())()            Returns the result of the [KeySelector](http://docs.google.com/javax/xml/crypto/KeySelector.html), if specified, after this XMLSignature has been signed or validated. |
| [List](http://docs.google.com/java/util/List.html) | [**getObjects**](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.html#getObjects())()            Returns an [unmodifiable list](http://docs.google.com/java/util/Collections.html#unmodifiableList(java.util.List)) of [XMLObject](http://docs.google.com/javax/xml/crypto/dsig/XMLObject.html)s contained in this XMLSignature. |
| [XMLSignature.SignatureValue](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.SignatureValue.html) | [**getSignatureValue**](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.html#getSignatureValue())()            Returns the signature value of this XMLSignature. |
| [SignedInfo](http://docs.google.com/javax/xml/crypto/dsig/SignedInfo.html) | [**getSignedInfo**](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.html#getSignedInfo())()            Returns the signed info of this XMLSignature. |
| void | [**sign**](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.html#sign(javax.xml.crypto.dsig.XMLSignContext))([XMLSignContext](http://docs.google.com/javax/xml/crypto/dsig/XMLSignContext.html) signContext)            Signs this XMLSignature. |
| boolean | [**validate**](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.html#validate(javax.xml.crypto.dsig.XMLValidateContext))([XMLValidateContext](http://docs.google.com/javax/xml/crypto/dsig/XMLValidateContext.html) validateContext)            Validates the signature according to the  [core validation processing rules](http://www.w3.org/TR/xmldsig-core/#sec-CoreValidation). |

| **Methods inherited from interface javax.xml.crypto.**[**XMLStructure**](http://docs.google.com/javax/xml/crypto/XMLStructure.html) |
| --- |
| [isFeatureSupported](http://docs.google.com/javax/xml/crypto/XMLStructure.html#isFeatureSupported(java.lang.String)) |

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

### XMLNS

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

The XML Namespace URI of the W3C Recommendation for XML-Signature Syntax and Processing.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#javax.xml.crypto.dsig.XMLSignature.XMLNS)

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

### validate

boolean **validate**([XMLValidateContext](http://docs.google.com/javax/xml/crypto/dsig/XMLValidateContext.html) validateContext)  
 throws [XMLSignatureException](http://docs.google.com/javax/xml/crypto/dsig/XMLSignatureException.html)

Validates the signature according to the  [core validation processing rules](http://www.w3.org/TR/xmldsig-core/#sec-CoreValidation). This method validates the signature using the existing state, it does not unmarshal and reinitialize the contents of the XMLSignature using the location information specified in the context.

This method only validates the signature the first time it is invoked. On subsequent invocations, it returns a cached result.

**Parameters:**validateContext - the validating context **Returns:**true if the signature passed core validation, otherwise false **Throws:** [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - if the type of validateContext is not compatible with this XMLSignature [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if validateContext is null [XMLSignatureException](http://docs.google.com/javax/xml/crypto/dsig/XMLSignatureException.html) - if an unexpected error occurs during validation that prevented the validation operation from completing

### getKeyInfo

[KeyInfo](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfo.html) **getKeyInfo**()

Returns the key info of this XMLSignature.

**Returns:**the key info (may be null if not specified)

### getSignedInfo

[SignedInfo](http://docs.google.com/javax/xml/crypto/dsig/SignedInfo.html) **getSignedInfo**()

Returns the signed info of this XMLSignature.

**Returns:**the signed info (never null)

### getObjects

[List](http://docs.google.com/java/util/List.html) **getObjects**()

Returns an [unmodifiable list](http://docs.google.com/java/util/Collections.html#unmodifiableList(java.util.List)) of [XMLObject](http://docs.google.com/javax/xml/crypto/dsig/XMLObject.html)s contained in this XMLSignature.

**Returns:**an unmodifiable list of XMLObjects (may be empty but never null)

### getId

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

Returns the optional Id of this XMLSignature.

**Returns:**the Id (may be null if not specified)

### getSignatureValue

[XMLSignature.SignatureValue](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.SignatureValue.html) **getSignatureValue**()

Returns the signature value of this XMLSignature.

**Returns:**the signature value

### sign

void **sign**([XMLSignContext](http://docs.google.com/javax/xml/crypto/dsig/XMLSignContext.html) signContext)  
 throws [MarshalException](http://docs.google.com/javax/xml/crypto/MarshalException.html),  
 [XMLSignatureException](http://docs.google.com/javax/xml/crypto/dsig/XMLSignatureException.html)

Signs this XMLSignature.

If this method throws an exception, this XMLSignature and the signContext parameter will be left in the state that it was in prior to the invocation.

**Parameters:**signContext - the signing context **Throws:** [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - if the type of signContext is not compatible with this XMLSignature [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if signContext is null [MarshalException](http://docs.google.com/javax/xml/crypto/MarshalException.html) - if an exception occurs while marshalling [XMLSignatureException](http://docs.google.com/javax/xml/crypto/dsig/XMLSignatureException.html) - if an unexpected exception occurs while generating the signature

### getKeySelectorResult

[KeySelectorResult](http://docs.google.com/javax/xml/crypto/KeySelectorResult.html) **getKeySelectorResult**()

Returns the result of the [KeySelector](http://docs.google.com/javax/xml/crypto/KeySelector.html), if specified, after this XMLSignature has been signed or validated.

**Returns:**the key selector result, or null if a key selector has not been specified or this XMLSignature has not been signed or validated

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/XMLSignature.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/crypto/dsig/XMLObject.html)   [**NEXT CLASS**](http://docs.google.com/javax/xml/crypto/dsig/XMLSignature.SignatureValue.html) | [**FRAMES**](http://docs.google.com/index.html?javax/xml/crypto/dsig/XMLSignature.html)    [**NO FRAMES**](http://docs.google.com/XMLSignature.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
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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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