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

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

Interface KeyInfo

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

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

A representation of the XML KeyInfo element as defined in the  [W3C Recommendation for XML-Signature Syntax and Processing](http://www.w3.org/TR/xmldsig-core/). A KeyInfo contains a list of [XMLStructure](http://docs.google.com/javax/xml/crypto/XMLStructure.html)s, each of which contain information that enables the recipient(s) to obtain the key needed to validate an XML signature. The XML Schema Definition is defined as:

<element name="KeyInfo" type="ds:KeyInfoType"/>   
 <complexType name="KeyInfoType" mixed="true">  
 <choice maxOccurs="unbounded">   
 <element ref="ds:KeyName"/>   
 <element ref="ds:KeyValue"/>   
 <element ref="ds:RetrievalMethod"/>  
 <element ref="ds:X509Data"/>  
 <element ref="ds:PGPData"/>  
 <element ref="ds:SPKIData"/>  
 <element ref="ds:MgmtData"/>  
 <any processContents="lax" namespace="##other"/>  
 <!-- (1,1) elements from (0,unbounded) namespaces -->  
 </choice>  
 <attribute name="Id" type="ID" use="optional"/>   
 </complexType>

A KeyInfo instance may be created by invoking one of the [newKeyInfo](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfoFactory.html#newKeyInfo(java.util.List)) methods of the [KeyInfoFactory](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfoFactory.html) class, and passing it a list of one or more XMLStructures and an optional id parameter; for example:

KeyInfoFactory factory = KeyInfoFactory.getInstance("DOM");  
 KeyInfo keyInfo = factory.newKeyInfo  
 (Collections.singletonList(factory.newKeyName("Alice"), "keyinfo-1"));

KeyInfo objects can also be marshalled to XML by invoking the [marshal](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfo.html#marshal(javax.xml.crypto.XMLStructure,%20javax.xml.crypto.XMLCryptoContext)) method.

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

| **Method Summary** | |
| --- | --- |
| [List](http://docs.google.com/java/util/List.html) | [**getContent**](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfo.html#getContent())()            Returns an [unmodifiable list](http://docs.google.com/java/util/Collections.html#unmodifiableList(java.util.List)) containing the key information. |
| [String](http://docs.google.com/java/lang/String.html) | [**getId**](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfo.html#getId())()            Return the optional Id attribute of this KeyInfo, which may be useful for referencing this KeyInfo from other XML structures. |
| void | [**marshal**](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfo.html#marshal(javax.xml.crypto.XMLStructure,%20javax.xml.crypto.XMLCryptoContext))([XMLStructure](http://docs.google.com/javax/xml/crypto/XMLStructure.html) parent, [XMLCryptoContext](http://docs.google.com/javax/xml/crypto/XMLCryptoContext.html) context)            Marshals the key info to XML. |

| **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)) |

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

### getContent

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

Returns an [unmodifiable list](http://docs.google.com/java/util/Collections.html#unmodifiableList(java.util.List)) containing the key information. Each entry of the list is an [XMLStructure](http://docs.google.com/javax/xml/crypto/XMLStructure.html).

If there is a public subclass representing the type of XMLStructure, it is returned as an instance of that class (ex: an X509Data element would be returned as an instance of [X509Data](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/X509Data.html)).

**Returns:**an unmodifiable list of one or more XMLStructures in this KeyInfo. Never returns null or an empty list.

### getId

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

Return the optional Id attribute of this KeyInfo, which may be useful for referencing this KeyInfo from other XML structures.

**Returns:**the Id attribute of this KeyInfo (may be null if not specified)

### marshal

void **marshal**([XMLStructure](http://docs.google.com/javax/xml/crypto/XMLStructure.html) parent,  
 [XMLCryptoContext](http://docs.google.com/javax/xml/crypto/XMLCryptoContext.html) context)  
 throws [MarshalException](http://docs.google.com/javax/xml/crypto/MarshalException.html)

Marshals the key info to XML.

**Parameters:**parent - a mechanism-specific structure containing the parent node that the marshalled key info will be appended tocontext - the XMLCryptoContext containing additional context (may be null if not applicable) **Throws:** [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - if the type of parent or context is not compatible with this key info [MarshalException](http://docs.google.com/javax/xml/crypto/MarshalException.html) - if the key info cannot be marshalled [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if parent 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/KeyInfo.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   [**NEXT CLASS**](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfoFactory.html) | [**FRAMES**](http://docs.google.com/index.html?javax/xml/crypto/dsig/keyinfo/KeyInfo.html)    [**NO FRAMES**](http://docs.google.com/KeyInfo.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | 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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