| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/KeyValue.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/keyinfo/KeyName.html)   [**NEXT CLASS**](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/PGPData.html) | [**FRAMES**](http://docs.google.com/index.html?javax/xml/crypto/dsig/keyinfo/KeyValue.html)    [**NO FRAMES**](http://docs.google.com/KeyValue.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | CONSTR | [METHOD](#2et92p0) | DETAIL: [FIELD](#3dy6vkm) | CONSTR | [METHOD](#2s8eyo1) |

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

Interface KeyValue

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

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

A representation of the XML KeyValue element as defined in the  [W3C Recommendation for XML-Signature Syntax and Processing](http://www.w3.org/TR/xmldsig-core/). A KeyValue object contains a single public key that may be useful in validating the signature. The XML schema definition is defined as:

<element name="KeyValue" type="ds:KeyValueType"/>  
 <complexType name="KeyValueType" mixed="true">  
 <choice>  
 <element ref="ds:DSAKeyValue"/>  
 <element ref="ds:RSAKeyValue"/>  
 <any namespace="##other" processContents="lax"/>  
 </choice>  
 </complexType>  
  
 <element name="DSAKeyValue" type="ds:DSAKeyValueType"/>  
 <complexType name="DSAKeyValueType">  
 <sequence>  
 <sequence minOccurs="0">  
 <element name="P" type="ds:CryptoBinary"/>  
 <element name="Q" type="ds:CryptoBinary"/>  
 </sequence>  
 <element name="G" type="ds:CryptoBinary" minOccurs="0"/>   
 <element name="Y" type="ds:CryptoBinary"/>   
 <element name="J" type="ds:CryptoBinary" minOccurs="0"/>  
 <sequence minOccurs="0">  
 <element name="Seed" type="ds:CryptoBinary"/>   
 <element name="PgenCounter" type="ds:CryptoBinary"/>   
 </sequence>  
 </sequence>  
 </complexType>  
  
 <element name="RSAKeyValue" type="ds:RSAKeyValueType"/>  
 <complexType name="RSAKeyValueType">  
 <sequence>  
 <element name="Modulus" type="ds:CryptoBinary"/>   
 <element name="Exponent" type="ds:CryptoBinary"/>  
 </sequence>  
 </complexType>

A KeyValue instance may be created by invoking the [newKeyValue](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfoFactory.html#newKeyValue(java.security.PublicKey)) method of the [KeyInfoFactory](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfoFactory.html) class, and passing it a [PublicKey](http://docs.google.com/java/security/PublicKey.html) representing the value of the public key. Here is an example of creating a KeyValue from a [DSAPublicKey](http://docs.google.com/java/security/interfaces/DSAPublicKey.html) of a [Certificate](http://docs.google.com/java/security/cert/Certificate.html) stored in a [KeyStore](http://docs.google.com/java/security/KeyStore.html):

KeyStore keyStore = KeyStore.getInstance(KeyStore.getDefaultType());  
 PublicKey dsaPublicKey = keyStore.getCertificate("myDSASigningCert").getPublicKey();  
 KeyInfoFactory factory = KeyInfoFactory.getInstance("DOM");  
 KeyValue keyValue = factory.newKeyValue(dsaPublicKey);

This class returns the DSAKeyValue and RSAKeyValue elements as objects of type [DSAPublicKey](http://docs.google.com/java/security/interfaces/DSAPublicKey.html) and [RSAPublicKey](http://docs.google.com/java/security/interfaces/RSAPublicKey.html), respectively. Note that not all of the fields in the schema are accessible as parameters of these types.

**Since:** 1.6 **See Also:**[KeyInfoFactory.newKeyValue(PublicKey)](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfoFactory.html#newKeyValue(java.security.PublicKey))

| **Field Summary** | |
| --- | --- |
| static [String](http://docs.google.com/java/lang/String.html) | [**DSA\_TYPE**](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyValue.html#DSA_TYPE)            URI identifying the DSA KeyValue KeyInfo type: http://www.w3.org/2000/09/xmldsig#DSAKeyValue. |
| static [String](http://docs.google.com/java/lang/String.html) | [**RSA\_TYPE**](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyValue.html#RSA_TYPE)            URI identifying the RSA KeyValue KeyInfo type: http://www.w3.org/2000/09/xmldsig#RSAKeyValue. |

| **Method Summary** | |
| --- | --- |
| [PublicKey](http://docs.google.com/java/security/PublicKey.html) | [**getPublicKey**](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyValue.html#getPublicKey())()            Returns the public key of this KeyValue. |

| **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** |
| --- |

### DSA\_TYPE

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

URI identifying the DSA KeyValue KeyInfo type: http://www.w3.org/2000/09/xmldsig#DSAKeyValue. This can be specified as the value of the type parameter of the [RetrievalMethod](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/RetrievalMethod.html) class to describe a remote DSAKeyValue structure.

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

### RSA\_TYPE

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

URI identifying the RSA KeyValue KeyInfo type: http://www.w3.org/2000/09/xmldsig#RSAKeyValue. This can be specified as the value of the type parameter of the [RetrievalMethod](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/RetrievalMethod.html) class to describe a remote RSAKeyValue structure.

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

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

### getPublicKey

[PublicKey](http://docs.google.com/java/security/PublicKey.html) **getPublicKey**()  
 throws [KeyException](http://docs.google.com/java/security/KeyException.html)

Returns the public key of this KeyValue.

**Returns:**the public key of this KeyValue **Throws:** [KeyException](http://docs.google.com/java/security/KeyException.html) - if this KeyValue cannot be converted to a PublicKey

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/KeyValue.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/keyinfo/KeyName.html)   [**NEXT CLASS**](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/PGPData.html) | [**FRAMES**](http://docs.google.com/index.html?javax/xml/crypto/dsig/keyinfo/KeyValue.html)    [**NO FRAMES**](http://docs.google.com/KeyValue.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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