| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/security/PublicKey.html) | **Use** | [**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*** |
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| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/security//class-usePublicKey.html)    [**NO FRAMES**](http://docs.google.com/PublicKey.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

**Uses of Interface**

**java.security.PublicKey**

| Packages that use [PublicKey](http://docs.google.com/java/security/PublicKey.html) | |
| --- | --- |
| [**java.security**](#3znysh7) | Provides the classes and interfaces for the security framework. |
| [**java.security.cert**](#2et92p0) | Provides classes and interfaces for parsing and managing certificates, certificate revocation lists (CRLs), and certification paths. |
| [**java.security.interfaces**](#tyjcwt) | Provides interfaces for generating RSA (Rivest, Shamir and Adleman AsymmetricCipher algorithm) keys as defined in the RSA Laboratory Technical Note PKCS#1, and DSA (Digital Signature Algorithm) keys as defined in NIST's FIPS-186. |
| [**javax.crypto.interfaces**](#3dy6vkm) | Provides interfaces for Diffie-Hellman keys as defined in RSA Laboratories' PKCS #3. |
| [**javax.security.cert**](#1t3h5sf) | Provides classes for public key certificates. |
| [**javax.xml.crypto.dsig.keyinfo**](#4d34og8) | Classes for parsing and processing [KeyInfo](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfo.html) elements and structures. |

| Uses of [PublicKey](http://docs.google.com/java/security/PublicKey.html) in [java.security](http://docs.google.com/java/security/package-summary.html) | |
| --- | --- |

| Methods in [java.security](http://docs.google.com/java/security/package-summary.html) that return [PublicKey](http://docs.google.com/java/security/PublicKey.html) | |
| --- | --- |
| protected abstract  [PublicKey](http://docs.google.com/java/security/PublicKey.html) | **KeyFactorySpi.**[**engineGeneratePublic**](http://docs.google.com/java/security/KeyFactorySpi.html#engineGeneratePublic(java.security.spec.KeySpec))([KeySpec](http://docs.google.com/java/security/spec/KeySpec.html) keySpec)            Generates a public key object from the provided key specification (key material). |
| [PublicKey](http://docs.google.com/java/security/PublicKey.html) | **KeyFactory.**[**generatePublic**](http://docs.google.com/java/security/KeyFactory.html#generatePublic(java.security.spec.KeySpec))([KeySpec](http://docs.google.com/java/security/spec/KeySpec.html) keySpec)            Generates a public key object from the provided key specification (key material). |
| [PublicKey](http://docs.google.com/java/security/PublicKey.html) | **KeyPair.**[**getPublic**](http://docs.google.com/java/security/KeyPair.html#getPublic())()            Returns a reference to the public key component of this key pair. |
| [PublicKey](http://docs.google.com/java/security/PublicKey.html) | **Certificate.**[**getPublicKey**](http://docs.google.com/java/security/Certificate.html#getPublicKey())()  **Deprecated.** Returns the key of the principal-key pair being guaranteed by the guarantor. |
| [PublicKey](http://docs.google.com/java/security/PublicKey.html) | **Identity.**[**getPublicKey**](http://docs.google.com/java/security/Identity.html#getPublicKey())()  **Deprecated.** Returns this identity's public key. |

| Methods in [java.security](http://docs.google.com/java/security/package-summary.html) with parameters of type [PublicKey](http://docs.google.com/java/security/PublicKey.html) | |
| --- | --- |
| protected abstract  void | **SignatureSpi.**[**engineInitVerify**](http://docs.google.com/java/security/SignatureSpi.html#engineInitVerify(java.security.PublicKey))([PublicKey](http://docs.google.com/java/security/PublicKey.html) publicKey)            Initializes this signature object with the specified public key for verification operations. |
| abstract  [Identity](http://docs.google.com/java/security/Identity.html) | **IdentityScope.**[**getIdentity**](http://docs.google.com/java/security/IdentityScope.html#getIdentity(java.security.PublicKey))([PublicKey](http://docs.google.com/java/security/PublicKey.html) key)  **Deprecated.** Retrieves the identity with the specified public key. |
| void | **Signature.**[**initVerify**](http://docs.google.com/java/security/Signature.html#initVerify(java.security.PublicKey))([PublicKey](http://docs.google.com/java/security/PublicKey.html) publicKey)            Initializes this object for verification. |
| void | **Identity.**[**setPublicKey**](http://docs.google.com/java/security/Identity.html#setPublicKey(java.security.PublicKey))([PublicKey](http://docs.google.com/java/security/PublicKey.html) key)  **Deprecated.** Sets this identity's public key. |
| boolean | **SignedObject.**[**verify**](http://docs.google.com/java/security/SignedObject.html#verify(java.security.PublicKey,%20java.security.Signature))([PublicKey](http://docs.google.com/java/security/PublicKey.html) verificationKey, [Signature](http://docs.google.com/java/security/Signature.html) verificationEngine)            Verifies that the signature in this SignedObject is the valid signature for the object stored inside, with the given verification key, using the designated verification engine. |

| Constructors in [java.security](http://docs.google.com/java/security/package-summary.html) with parameters of type [PublicKey](http://docs.google.com/java/security/PublicKey.html) | |
| --- | --- |
| [**KeyPair**](http://docs.google.com/java/security/KeyPair.html#KeyPair(java.security.PublicKey,%20java.security.PrivateKey))([PublicKey](http://docs.google.com/java/security/PublicKey.html) publicKey, [PrivateKey](http://docs.google.com/java/security/PrivateKey.html) privateKey)            Constructs a key pair from the given public key and private key. |

| Uses of [PublicKey](http://docs.google.com/java/security/PublicKey.html) in [java.security.cert](http://docs.google.com/java/security/cert/package-summary.html) | |
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| Methods in [java.security.cert](http://docs.google.com/java/security/cert/package-summary.html) that return [PublicKey](http://docs.google.com/java/security/PublicKey.html) | |
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| [PublicKey](http://docs.google.com/java/security/PublicKey.html) | **TrustAnchor.**[**getCAPublicKey**](http://docs.google.com/java/security/cert/TrustAnchor.html#getCAPublicKey())()            Returns the public key of the most-trusted CA. |
| [PublicKey](http://docs.google.com/java/security/PublicKey.html) | **PKIXCertPathValidatorResult.**[**getPublicKey**](http://docs.google.com/java/security/cert/PKIXCertPathValidatorResult.html#getPublicKey())()            Returns the public key of the subject (target) of the certification path, including any inherited public key parameters if applicable. |
| abstract  [PublicKey](http://docs.google.com/java/security/PublicKey.html) | **Certificate.**[**getPublicKey**](http://docs.google.com/java/security/cert/Certificate.html#getPublicKey())()            Gets the public key from this certificate. |
| [PublicKey](http://docs.google.com/java/security/PublicKey.html) | **X509CertSelector.**[**getSubjectPublicKey**](http://docs.google.com/java/security/cert/X509CertSelector.html#getSubjectPublicKey())()            Returns the subjectPublicKey criterion. |

| Methods in [java.security.cert](http://docs.google.com/java/security/cert/package-summary.html) with parameters of type [PublicKey](http://docs.google.com/java/security/PublicKey.html) | |
| --- | --- |
| void | **X509CertSelector.**[**setSubjectPublicKey**](http://docs.google.com/java/security/cert/X509CertSelector.html#setSubjectPublicKey(java.security.PublicKey))([PublicKey](http://docs.google.com/java/security/PublicKey.html) key)            Sets the subjectPublicKey criterion. |
| abstract  void | **X509CRL.**[**verify**](http://docs.google.com/java/security/cert/X509CRL.html#verify(java.security.PublicKey))([PublicKey](http://docs.google.com/java/security/PublicKey.html) key)            Verifies that this CRL was signed using the private key that corresponds to the given public key. |
| abstract  void | **Certificate.**[**verify**](http://docs.google.com/java/security/cert/Certificate.html#verify(java.security.PublicKey))([PublicKey](http://docs.google.com/java/security/PublicKey.html) key)            Verifies that this certificate was signed using the private key that corresponds to the specified public key. |
| abstract  void | **X509CRL.**[**verify**](http://docs.google.com/java/security/cert/X509CRL.html#verify(java.security.PublicKey,%20java.lang.String))([PublicKey](http://docs.google.com/java/security/PublicKey.html) key, [String](http://docs.google.com/java/lang/String.html) sigProvider)            Verifies that this CRL was signed using the private key that corresponds to the given public key. |
| abstract  void | **Certificate.**[**verify**](http://docs.google.com/java/security/cert/Certificate.html#verify(java.security.PublicKey,%20java.lang.String))([PublicKey](http://docs.google.com/java/security/PublicKey.html) key, [String](http://docs.google.com/java/lang/String.html) sigProvider)            Verifies that this certificate was signed using the private key that corresponds to the specified public key. |

| Constructors in [java.security.cert](http://docs.google.com/java/security/cert/package-summary.html) with parameters of type [PublicKey](http://docs.google.com/java/security/PublicKey.html) | |
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| [**PKIXCertPathBuilderResult**](http://docs.google.com/java/security/cert/PKIXCertPathBuilderResult.html#PKIXCertPathBuilderResult(java.security.cert.CertPath,%20java.security.cert.TrustAnchor,%20java.security.cert.PolicyNode,%20java.security.PublicKey))([CertPath](http://docs.google.com/java/security/cert/CertPath.html) certPath, [TrustAnchor](http://docs.google.com/java/security/cert/TrustAnchor.html) trustAnchor, [PolicyNode](http://docs.google.com/java/security/cert/PolicyNode.html) policyTree, [PublicKey](http://docs.google.com/java/security/PublicKey.html) subjectPublicKey)            Creates an instance of PKIXCertPathBuilderResult containing the specified parameters. |
| [**PKIXCertPathValidatorResult**](http://docs.google.com/java/security/cert/PKIXCertPathValidatorResult.html#PKIXCertPathValidatorResult(java.security.cert.TrustAnchor,%20java.security.cert.PolicyNode,%20java.security.PublicKey))([TrustAnchor](http://docs.google.com/java/security/cert/TrustAnchor.html) trustAnchor, [PolicyNode](http://docs.google.com/java/security/cert/PolicyNode.html) policyTree, [PublicKey](http://docs.google.com/java/security/PublicKey.html) subjectPublicKey)            Creates an instance of PKIXCertPathValidatorResult containing the specified parameters. |
| [**TrustAnchor**](http://docs.google.com/java/security/cert/TrustAnchor.html#TrustAnchor(java.lang.String,%20java.security.PublicKey,%20byte%5B%5D))([String](http://docs.google.com/java/lang/String.html) caName, [PublicKey](http://docs.google.com/java/security/PublicKey.html) pubKey, byte[] nameConstraints)            Creates an instance of TrustAnchor where the most-trusted CA is specified as a distinguished name and public key. |
| [**TrustAnchor**](http://docs.google.com/java/security/cert/TrustAnchor.html#TrustAnchor(javax.security.auth.x500.X500Principal,%20java.security.PublicKey,%20byte%5B%5D))([X500Principal](http://docs.google.com/javax/security/auth/x500/X500Principal.html) caPrincipal, [PublicKey](http://docs.google.com/java/security/PublicKey.html) pubKey, byte[] nameConstraints)            Creates an instance of TrustAnchor where the most-trusted CA is specified as an X500Principal and public key. |

| Uses of [PublicKey](http://docs.google.com/java/security/PublicKey.html) in [java.security.interfaces](http://docs.google.com/java/security/interfaces/package-summary.html) | |
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| Subinterfaces of [PublicKey](http://docs.google.com/java/security/PublicKey.html) in [java.security.interfaces](http://docs.google.com/java/security/interfaces/package-summary.html) | |
| --- | --- |
| interface | [**DSAPublicKey**](http://docs.google.com/java/security/interfaces/DSAPublicKey.html)            The interface to a DSA public key. |
| interface | [**ECPublicKey**](http://docs.google.com/java/security/interfaces/ECPublicKey.html)            The interface to an elliptic curve (EC) public key. |
| interface | [**RSAPublicKey**](http://docs.google.com/java/security/interfaces/RSAPublicKey.html)            The interface to an RSA public key. |

| Uses of [PublicKey](http://docs.google.com/java/security/PublicKey.html) in [javax.crypto.interfaces](http://docs.google.com/javax/crypto/interfaces/package-summary.html) | |
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| Subinterfaces of [PublicKey](http://docs.google.com/java/security/PublicKey.html) in [javax.crypto.interfaces](http://docs.google.com/javax/crypto/interfaces/package-summary.html) | |
| --- | --- |
| interface | [**DHPublicKey**](http://docs.google.com/javax/crypto/interfaces/DHPublicKey.html)            The interface to a Diffie-Hellman public key. |

| Uses of [PublicKey](http://docs.google.com/java/security/PublicKey.html) in [javax.security.cert](http://docs.google.com/javax/security/cert/package-summary.html) | |
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| Methods in [javax.security.cert](http://docs.google.com/javax/security/cert/package-summary.html) that return [PublicKey](http://docs.google.com/java/security/PublicKey.html) | |
| --- | --- |
| abstract  [PublicKey](http://docs.google.com/java/security/PublicKey.html) | **Certificate.**[**getPublicKey**](http://docs.google.com/javax/security/cert/Certificate.html#getPublicKey())()            Gets the public key from this certificate. |

| Methods in [javax.security.cert](http://docs.google.com/javax/security/cert/package-summary.html) with parameters of type [PublicKey](http://docs.google.com/java/security/PublicKey.html) | |
| --- | --- |
| abstract  void | **Certificate.**[**verify**](http://docs.google.com/javax/security/cert/Certificate.html#verify(java.security.PublicKey))([PublicKey](http://docs.google.com/java/security/PublicKey.html) key)            Verifies that this certificate was signed using the private key that corresponds to the specified public key. |
| abstract  void | **Certificate.**[**verify**](http://docs.google.com/javax/security/cert/Certificate.html#verify(java.security.PublicKey,%20java.lang.String))([PublicKey](http://docs.google.com/java/security/PublicKey.html) key, [String](http://docs.google.com/java/lang/String.html) sigProvider)            Verifies that this certificate was signed using the private key that corresponds to the specified public key. |

| Uses of [PublicKey](http://docs.google.com/java/security/PublicKey.html) in [javax.xml.crypto.dsig.keyinfo](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/package-summary.html) | |
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| Methods in [javax.xml.crypto.dsig.keyinfo](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/package-summary.html) that return [PublicKey](http://docs.google.com/java/security/PublicKey.html) | |
| --- | --- |
| [PublicKey](http://docs.google.com/java/security/PublicKey.html) | **KeyValue.**[**getPublicKey**](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyValue.html#getPublicKey())()            Returns the public key of this KeyValue. |

| Methods in [javax.xml.crypto.dsig.keyinfo](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/package-summary.html) with parameters of type [PublicKey](http://docs.google.com/java/security/PublicKey.html) | |
| --- | --- |
| abstract  [KeyValue](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyValue.html) | **KeyInfoFactory.**[**newKeyValue**](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfoFactory.html#newKeyValue(java.security.PublicKey))([PublicKey](http://docs.google.com/java/security/PublicKey.html) key)            Creates a KeyValue from the specified public key. |

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/security/PublicKey.html) | **Use** | [**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   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/security//class-usePublicKey.html)    [**NO FRAMES**](http://docs.google.com/PublicKey.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

[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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