| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/KeyStoreSpi.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/java/security/KeyStoreException.html)   [**NEXT CLASS**](http://docs.google.com/java/security/MessageDigest.html) | [**FRAMES**](http://docs.google.com/index.html?java/security/KeyStoreSpi.html)    [**NO FRAMES**](http://docs.google.com/KeyStoreSpi.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#4d34og8) |

## **java.security**

Class KeyStoreSpi

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **java.security.KeyStoreSpi**

public abstract class **KeyStoreSpi**extends [Object](http://docs.google.com/java/lang/Object.html)

This class defines the *Service Provider Interface* (**SPI**) for the KeyStore class. All the abstract methods in this class must be implemented by each cryptographic service provider who wishes to supply the implementation of a keystore for a particular keystore type.

**Since:** 1.2 **See Also:**[KeyStore](http://docs.google.com/java/security/KeyStore.html)

| **Constructor Summary** | |
| --- | --- |
| [**KeyStoreSpi**](http://docs.google.com/java/security/KeyStoreSpi.html#KeyStoreSpi())() |

| **Method Summary** | |
| --- | --- |
| abstract  [Enumeration](http://docs.google.com/java/util/Enumeration.html)<[String](http://docs.google.com/java/lang/String.html)> | [**engineAliases**](http://docs.google.com/java/security/KeyStoreSpi.html#engineAliases())()            Lists all the alias names of this keystore. |
| abstract  boolean | [**engineContainsAlias**](http://docs.google.com/java/security/KeyStoreSpi.html#engineContainsAlias(java.lang.String))([String](http://docs.google.com/java/lang/String.html) alias)            Checks if the given alias exists in this keystore. |
| abstract  void | [**engineDeleteEntry**](http://docs.google.com/java/security/KeyStoreSpi.html#engineDeleteEntry(java.lang.String))([String](http://docs.google.com/java/lang/String.html) alias)            Deletes the entry identified by the given alias from this keystore. |
| boolean | [**engineEntryInstanceOf**](http://docs.google.com/java/security/KeyStoreSpi.html#engineEntryInstanceOf(java.lang.String,%20java.lang.Class))([String](http://docs.google.com/java/lang/String.html) alias, [Class](http://docs.google.com/java/lang/Class.html)<? extends [KeyStore.Entry](http://docs.google.com/java/security/KeyStore.Entry.html)> entryClass)            Determines if the keystore Entry for the specified alias is an instance or subclass of the specified entryClass. |
| abstract  [Certificate](http://docs.google.com/java/security/cert/Certificate.html) | [**engineGetCertificate**](http://docs.google.com/java/security/KeyStoreSpi.html#engineGetCertificate(java.lang.String))([String](http://docs.google.com/java/lang/String.html) alias)            Returns the certificate associated with the given alias. |
| abstract  [String](http://docs.google.com/java/lang/String.html) | [**engineGetCertificateAlias**](http://docs.google.com/java/security/KeyStoreSpi.html#engineGetCertificateAlias(java.security.cert.Certificate))([Certificate](http://docs.google.com/java/security/cert/Certificate.html) cert)            Returns the (alias) name of the first keystore entry whose certificate matches the given certificate. |
| abstract  [Certificate](http://docs.google.com/java/security/cert/Certificate.html)[] | [**engineGetCertificateChain**](http://docs.google.com/java/security/KeyStoreSpi.html#engineGetCertificateChain(java.lang.String))([String](http://docs.google.com/java/lang/String.html) alias)            Returns the certificate chain associated with the given alias. |
| abstract  [Date](http://docs.google.com/java/util/Date.html) | [**engineGetCreationDate**](http://docs.google.com/java/security/KeyStoreSpi.html#engineGetCreationDate(java.lang.String))([String](http://docs.google.com/java/lang/String.html) alias)            Returns the creation date of the entry identified by the given alias. |
| [KeyStore.Entry](http://docs.google.com/java/security/KeyStore.Entry.html) | [**engineGetEntry**](http://docs.google.com/java/security/KeyStoreSpi.html#engineGetEntry(java.lang.String,%20java.security.KeyStore.ProtectionParameter))([String](http://docs.google.com/java/lang/String.html) alias, [KeyStore.ProtectionParameter](http://docs.google.com/java/security/KeyStore.ProtectionParameter.html) protParam)            Gets a KeyStore.Entry for the specified alias with the specified protection parameter. |
| abstract  [Key](http://docs.google.com/java/security/Key.html) | [**engineGetKey**](http://docs.google.com/java/security/KeyStoreSpi.html#engineGetKey(java.lang.String,%20char%5B%5D))([String](http://docs.google.com/java/lang/String.html) alias, char[] password)            Returns the key associated with the given alias, using the given password to recover it. |
| abstract  boolean | [**engineIsCertificateEntry**](http://docs.google.com/java/security/KeyStoreSpi.html#engineIsCertificateEntry(java.lang.String))([String](http://docs.google.com/java/lang/String.html) alias)            Returns true if the entry identified by the given alias was created by a call to setCertificateEntry, or created by a call to setEntry with a TrustedCertificateEntry. |
| abstract  boolean | [**engineIsKeyEntry**](http://docs.google.com/java/security/KeyStoreSpi.html#engineIsKeyEntry(java.lang.String))([String](http://docs.google.com/java/lang/String.html) alias)            Returns true if the entry identified by the given alias was created by a call to setKeyEntry, or created by a call to setEntry with a PrivateKeyEntry or a SecretKeyEntry. |
| abstract  void | [**engineLoad**](http://docs.google.com/java/security/KeyStoreSpi.html#engineLoad(java.io.InputStream,%20char%5B%5D))([InputStream](http://docs.google.com/java/io/InputStream.html) stream, char[] password)            Loads the keystore from the given input stream. |
| void | [**engineLoad**](http://docs.google.com/java/security/KeyStoreSpi.html#engineLoad(java.security.KeyStore.LoadStoreParameter))([KeyStore.LoadStoreParameter](http://docs.google.com/java/security/KeyStore.LoadStoreParameter.html) param)            Loads the keystore using the given KeyStore.LoadStoreParameter. |
| abstract  void | [**engineSetCertificateEntry**](http://docs.google.com/java/security/KeyStoreSpi.html#engineSetCertificateEntry(java.lang.String,%20java.security.cert.Certificate))([String](http://docs.google.com/java/lang/String.html) alias, [Certificate](http://docs.google.com/java/security/cert/Certificate.html) cert)            Assigns the given certificate to the given alias. |
| void | [**engineSetEntry**](http://docs.google.com/java/security/KeyStoreSpi.html#engineSetEntry(java.lang.String,%20java.security.KeyStore.Entry,%20java.security.KeyStore.ProtectionParameter))([String](http://docs.google.com/java/lang/String.html) alias, [KeyStore.Entry](http://docs.google.com/java/security/KeyStore.Entry.html) entry, [KeyStore.ProtectionParameter](http://docs.google.com/java/security/KeyStore.ProtectionParameter.html) protParam)            Saves a KeyStore.Entry under the specified alias. |
| abstract  void | [**engineSetKeyEntry**](http://docs.google.com/java/security/KeyStoreSpi.html#engineSetKeyEntry(java.lang.String,%20byte%5B%5D,%20java.security.cert.Certificate%5B%5D))([String](http://docs.google.com/java/lang/String.html) alias, byte[] key, [Certificate](http://docs.google.com/java/security/cert/Certificate.html)[] chain)            Assigns the given key (that has already been protected) to the given alias. |
| abstract  void | [**engineSetKeyEntry**](http://docs.google.com/java/security/KeyStoreSpi.html#engineSetKeyEntry(java.lang.String,%20java.security.Key,%20char%5B%5D,%20java.security.cert.Certificate%5B%5D))([String](http://docs.google.com/java/lang/String.html) alias, [Key](http://docs.google.com/java/security/Key.html) key, char[] password, [Certificate](http://docs.google.com/java/security/cert/Certificate.html)[] chain)            Assigns the given key to the given alias, protecting it with the given password. |
| abstract  int | [**engineSize**](http://docs.google.com/java/security/KeyStoreSpi.html#engineSize())()            Retrieves the number of entries in this keystore. |
| void | [**engineStore**](http://docs.google.com/java/security/KeyStoreSpi.html#engineStore(java.security.KeyStore.LoadStoreParameter))([KeyStore.LoadStoreParameter](http://docs.google.com/java/security/KeyStore.LoadStoreParameter.html) param)            Stores this keystore using the given KeyStore.LoadStoreParmeter. |
| abstract  void | [**engineStore**](http://docs.google.com/java/security/KeyStoreSpi.html#engineStore(java.io.OutputStream,%20char%5B%5D))([OutputStream](http://docs.google.com/java/io/OutputStream.html) stream, char[] password)            Stores this keystore to the given output stream, and protects its integrity with the given password. |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [clone](http://docs.google.com/java/lang/Object.html#clone()), [equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [hashCode](http://docs.google.com/java/lang/Object.html#hashCode()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [toString](http://docs.google.com/java/lang/Object.html#toString()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

| **Constructor Detail** |
| --- |

### KeyStoreSpi

public **KeyStoreSpi**()

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

### engineGetKey

public abstract [Key](http://docs.google.com/java/security/Key.html) **engineGetKey**([String](http://docs.google.com/java/lang/String.html) alias,  
 char[] password)  
 throws [NoSuchAlgorithmException](http://docs.google.com/java/security/NoSuchAlgorithmException.html),  
 [UnrecoverableKeyException](http://docs.google.com/java/security/UnrecoverableKeyException.html)

Returns the key associated with the given alias, using the given password to recover it. The key must have been associated with the alias by a call to setKeyEntry, or by a call to setEntry with a PrivateKeyEntry or SecretKeyEntry.

**Parameters:**alias - the alias namepassword - the password for recovering the key **Returns:**the requested key, or null if the given alias does not exist or does not identify a key-related entry. **Throws:** [NoSuchAlgorithmException](http://docs.google.com/java/security/NoSuchAlgorithmException.html) - if the algorithm for recovering the key cannot be found [UnrecoverableKeyException](http://docs.google.com/java/security/UnrecoverableKeyException.html) - if the key cannot be recovered (e.g., the given password is wrong).

### engineGetCertificateChain

public abstract [Certificate](http://docs.google.com/java/security/cert/Certificate.html)[] **engineGetCertificateChain**([String](http://docs.google.com/java/lang/String.html) alias)

Returns the certificate chain associated with the given alias. The certificate chain must have been associated with the alias by a call to setKeyEntry, or by a call to setEntry with a PrivateKeyEntry.

**Parameters:**alias - the alias name **Returns:**the certificate chain (ordered with the user's certificate first and the root certificate authority last), or null if the given alias does not exist or does not contain a certificate chain

### engineGetCertificate

public abstract [Certificate](http://docs.google.com/java/security/cert/Certificate.html) **engineGetCertificate**([String](http://docs.google.com/java/lang/String.html) alias)

Returns the certificate associated with the given alias.

If the given alias name identifies an entry created by a call to setCertificateEntry, or created by a call to setEntry with a TrustedCertificateEntry, then the trusted certificate contained in that entry is returned.

If the given alias name identifies an entry created by a call to setKeyEntry, or created by a call to setEntry with a PrivateKeyEntry, then the first element of the certificate chain in that entry (if a chain exists) is returned.

**Parameters:**alias - the alias name **Returns:**the certificate, or null if the given alias does not exist or does not contain a certificate.

### engineGetCreationDate

public abstract [Date](http://docs.google.com/java/util/Date.html) **engineGetCreationDate**([String](http://docs.google.com/java/lang/String.html) alias)

Returns the creation date of the entry identified by the given alias.

**Parameters:**alias - the alias name **Returns:**the creation date of this entry, or null if the given alias does not exist

### engineSetKeyEntry

public abstract void **engineSetKeyEntry**([String](http://docs.google.com/java/lang/String.html) alias,  
 [Key](http://docs.google.com/java/security/Key.html) key,  
 char[] password,  
 [Certificate](http://docs.google.com/java/security/cert/Certificate.html)[] chain)  
 throws [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html)

Assigns the given key to the given alias, protecting it with the given password.

If the given key is of type java.security.PrivateKey, it must be accompanied by a certificate chain certifying the corresponding public key.

If the given alias already exists, the keystore information associated with it is overridden by the given key (and possibly certificate chain).

**Parameters:**alias - the alias namekey - the key to be associated with the aliaspassword - the password to protect the keychain - the certificate chain for the corresponding public key (only required if the given key is of type java.security.PrivateKey). **Throws:** [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html) - if the given key cannot be protected, or this operation fails for some other reason

### engineSetKeyEntry

public abstract void **engineSetKeyEntry**([String](http://docs.google.com/java/lang/String.html) alias,  
 byte[] key,  
 [Certificate](http://docs.google.com/java/security/cert/Certificate.html)[] chain)  
 throws [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html)

Assigns the given key (that has already been protected) to the given alias.

If the protected key is of type java.security.PrivateKey, it must be accompanied by a certificate chain certifying the corresponding public key.

If the given alias already exists, the keystore information associated with it is overridden by the given key (and possibly certificate chain).

**Parameters:**alias - the alias namekey - the key (in protected format) to be associated with the aliaschain - the certificate chain for the corresponding public key (only useful if the protected key is of type java.security.PrivateKey). **Throws:** [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html) - if this operation fails.

### engineSetCertificateEntry

public abstract void **engineSetCertificateEntry**([String](http://docs.google.com/java/lang/String.html) alias,  
 [Certificate](http://docs.google.com/java/security/cert/Certificate.html) cert)  
 throws [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html)

Assigns the given certificate to the given alias.

If the given alias identifies an existing entry created by a call to setCertificateEntry, or created by a call to setEntry with a TrustedCertificateEntry, the trusted certificate in the existing entry is overridden by the given certificate.

**Parameters:**alias - the alias namecert - the certificate **Throws:** [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html) - if the given alias already exists and does not identify an entry containing a trusted certificate, or this operation fails for some other reason.

### engineDeleteEntry

public abstract void **engineDeleteEntry**([String](http://docs.google.com/java/lang/String.html) alias)  
 throws [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html)

Deletes the entry identified by the given alias from this keystore.

**Parameters:**alias - the alias name **Throws:** [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html) - if the entry cannot be removed.

### engineAliases

public abstract [Enumeration](http://docs.google.com/java/util/Enumeration.html)<[String](http://docs.google.com/java/lang/String.html)> **engineAliases**()

Lists all the alias names of this keystore.

**Returns:**enumeration of the alias names

### engineContainsAlias

public abstract boolean **engineContainsAlias**([String](http://docs.google.com/java/lang/String.html) alias)

Checks if the given alias exists in this keystore.

**Parameters:**alias - the alias name **Returns:**true if the alias exists, false otherwise

### engineSize

public abstract int **engineSize**()

Retrieves the number of entries in this keystore.

**Returns:**the number of entries in this keystore

### engineIsKeyEntry

public abstract boolean **engineIsKeyEntry**([String](http://docs.google.com/java/lang/String.html) alias)

Returns true if the entry identified by the given alias was created by a call to setKeyEntry, or created by a call to setEntry with a PrivateKeyEntry or a SecretKeyEntry.

**Parameters:**alias - the alias for the keystore entry to be checked **Returns:**true if the entry identified by the given alias is a key-related, false otherwise.

### engineIsCertificateEntry

public abstract boolean **engineIsCertificateEntry**([String](http://docs.google.com/java/lang/String.html) alias)

Returns true if the entry identified by the given alias was created by a call to setCertificateEntry, or created by a call to setEntry with a TrustedCertificateEntry.

**Parameters:**alias - the alias for the keystore entry to be checked **Returns:**true if the entry identified by the given alias contains a trusted certificate, false otherwise.

### engineGetCertificateAlias

public abstract [String](http://docs.google.com/java/lang/String.html) **engineGetCertificateAlias**([Certificate](http://docs.google.com/java/security/cert/Certificate.html) cert)

Returns the (alias) name of the first keystore entry whose certificate matches the given certificate.

This method attempts to match the given certificate with each keystore entry. If the entry being considered was created by a call to setCertificateEntry, or created by a call to setEntry with a TrustedCertificateEntry, then the given certificate is compared to that entry's certificate.

If the entry being considered was created by a call to setKeyEntry, or created by a call to setEntry with a PrivateKeyEntry, then the given certificate is compared to the first element of that entry's certificate chain.

**Parameters:**cert - the certificate to match with. **Returns:**the alias name of the first entry with matching certificate, or null if no such entry exists in this keystore.

### engineStore

public abstract void **engineStore**([OutputStream](http://docs.google.com/java/io/OutputStream.html) stream,  
 char[] password)  
 throws [IOException](http://docs.google.com/java/io/IOException.html),  
 [NoSuchAlgorithmException](http://docs.google.com/java/security/NoSuchAlgorithmException.html),  
 [CertificateException](http://docs.google.com/java/security/cert/CertificateException.html)

Stores this keystore to the given output stream, and protects its integrity with the given password.

**Parameters:**stream - the output stream to which this keystore is written.password - the password to generate the keystore integrity check **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - if there was an I/O problem with data [NoSuchAlgorithmException](http://docs.google.com/java/security/NoSuchAlgorithmException.html) - if the appropriate data integrity algorithm could not be found [CertificateException](http://docs.google.com/java/security/cert/CertificateException.html) - if any of the certificates included in the keystore data could not be stored

### engineStore

public void **engineStore**([KeyStore.LoadStoreParameter](http://docs.google.com/java/security/KeyStore.LoadStoreParameter.html) param)  
 throws [IOException](http://docs.google.com/java/io/IOException.html),  
 [NoSuchAlgorithmException](http://docs.google.com/java/security/NoSuchAlgorithmException.html),  
 [CertificateException](http://docs.google.com/java/security/cert/CertificateException.html)

Stores this keystore using the given KeyStore.LoadStoreParmeter.

**Parameters:**param - the KeyStore.LoadStoreParmeter that specifies how to store the keystore, which may be null **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if the given KeyStore.LoadStoreParmeter input is not recognized [IOException](http://docs.google.com/java/io/IOException.html) - if there was an I/O problem with data [NoSuchAlgorithmException](http://docs.google.com/java/security/NoSuchAlgorithmException.html) - if the appropriate data integrity algorithm could not be found [CertificateException](http://docs.google.com/java/security/cert/CertificateException.html) - if any of the certificates included in the keystore data could not be stored**Since:** 1.5

### engineLoad

public abstract void **engineLoad**([InputStream](http://docs.google.com/java/io/InputStream.html) stream,  
 char[] password)  
 throws [IOException](http://docs.google.com/java/io/IOException.html),  
 [NoSuchAlgorithmException](http://docs.google.com/java/security/NoSuchAlgorithmException.html),  
 [CertificateException](http://docs.google.com/java/security/cert/CertificateException.html)

Loads the keystore from the given input stream.

A password may be given to unlock the keystore (e.g. the keystore resides on a hardware token device), or to check the integrity of the keystore data. If a password is not given for integrity checking, then integrity checking is not performed.

**Parameters:**stream - the input stream from which the keystore is loaded, or nullpassword - the password used to check the integrity of the keystore, the password used to unlock the keystore, or null **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - if there is an I/O or format problem with the keystore data, if a password is required but not given, or if the given password was incorrect. If the error is due to a wrong password, the [cause](http://docs.google.com/java/lang/Throwable.html#getCause()) of the IOException should be an UnrecoverableKeyException [NoSuchAlgorithmException](http://docs.google.com/java/security/NoSuchAlgorithmException.html) - if the algorithm used to check the integrity of the keystore cannot be found [CertificateException](http://docs.google.com/java/security/cert/CertificateException.html) - if any of the certificates in the keystore could not be loaded

### engineLoad

public void **engineLoad**([KeyStore.LoadStoreParameter](http://docs.google.com/java/security/KeyStore.LoadStoreParameter.html) param)  
 throws [IOException](http://docs.google.com/java/io/IOException.html),  
 [NoSuchAlgorithmException](http://docs.google.com/java/security/NoSuchAlgorithmException.html),  
 [CertificateException](http://docs.google.com/java/security/cert/CertificateException.html)

Loads the keystore using the given KeyStore.LoadStoreParameter.

Note that if this KeyStore has already been loaded, it is reinitialized and loaded again from the given parameter.

**Parameters:**param - the KeyStore.LoadStoreParameter that specifies how to load the keystore, which may be null **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if the given KeyStore.LoadStoreParameter input is not recognized [IOException](http://docs.google.com/java/io/IOException.html) - if there is an I/O or format problem with the keystore data. If the error is due to an incorrect ProtectionParameter (e.g. wrong password) the [cause](http://docs.google.com/java/lang/Throwable.html#getCause()) of the IOException should be an UnrecoverableKeyException [NoSuchAlgorithmException](http://docs.google.com/java/security/NoSuchAlgorithmException.html) - if the algorithm used to check the integrity of the keystore cannot be found [CertificateException](http://docs.google.com/java/security/cert/CertificateException.html) - if any of the certificates in the keystore could not be loaded**Since:** 1.5

### engineGetEntry

public [KeyStore.Entry](http://docs.google.com/java/security/KeyStore.Entry.html) **engineGetEntry**([String](http://docs.google.com/java/lang/String.html) alias,  
 [KeyStore.ProtectionParameter](http://docs.google.com/java/security/KeyStore.ProtectionParameter.html) protParam)  
 throws [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html),  
 [NoSuchAlgorithmException](http://docs.google.com/java/security/NoSuchAlgorithmException.html),  
 [UnrecoverableEntryException](http://docs.google.com/java/security/UnrecoverableEntryException.html)

Gets a KeyStore.Entry for the specified alias with the specified protection parameter.

**Parameters:**alias - get the KeyStore.Entry for this aliasprotParam - the ProtectionParameter used to protect the Entry, which may be null **Returns:**the KeyStore.Entry for the specified alias, or null if there is no such entry **Throws:** [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html) - if the operation failed [NoSuchAlgorithmException](http://docs.google.com/java/security/NoSuchAlgorithmException.html) - if the algorithm for recovering the entry cannot be found [UnrecoverableEntryException](http://docs.google.com/java/security/UnrecoverableEntryException.html) - if the specified protParam were insufficient or invalid [UnrecoverableKeyException](http://docs.google.com/java/security/UnrecoverableKeyException.html) - if the entry is a PrivateKeyEntry or SecretKeyEntry and the specified protParam does not contain the information needed to recover the key (e.g. wrong password)**Since:** 1.5

### engineSetEntry

public void **engineSetEntry**([String](http://docs.google.com/java/lang/String.html) alias,  
 [KeyStore.Entry](http://docs.google.com/java/security/KeyStore.Entry.html) entry,  
 [KeyStore.ProtectionParameter](http://docs.google.com/java/security/KeyStore.ProtectionParameter.html) protParam)  
 throws [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html)

Saves a KeyStore.Entry under the specified alias. The specified protection parameter is used to protect the Entry.

If an entry already exists for the specified alias, it is overridden.

**Parameters:**alias - save the KeyStore.Entry under this aliasentry - the Entry to saveprotParam - the ProtectionParameter used to protect the Entry, which may be null **Throws:** [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html) - if this operation fails**Since:** 1.5

### engineEntryInstanceOf

public boolean **engineEntryInstanceOf**([String](http://docs.google.com/java/lang/String.html) alias,  
 [Class](http://docs.google.com/java/lang/Class.html)<? extends [KeyStore.Entry](http://docs.google.com/java/security/KeyStore.Entry.html)> entryClass)

Determines if the keystore Entry for the specified alias is an instance or subclass of the specified entryClass.

**Parameters:**alias - the alias nameentryClass - the entry class **Returns:**true if the keystore Entry for the specified alias is an instance or subclass of the specified entryClass, false otherwise**Since:** 1.5

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/KeyStoreSpi.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/java/security/KeyStoreException.html)   [**NEXT CLASS**](http://docs.google.com/java/security/MessageDigest.html) | [**FRAMES**](http://docs.google.com/index.html?java/security/KeyStoreSpi.html)    [**NO FRAMES**](http://docs.google.com/KeyStoreSpi.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#4d34og8) |

[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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