| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/KeyStore.Builder.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/KeyStore.html)   [**NEXT CLASS**](http://docs.google.com/java/security/KeyStore.CallbackHandlerProtection.html) | [**FRAMES**](http://docs.google.com/index.html?java/security/KeyStore.Builder.html)    [**NO FRAMES**](http://docs.google.com/KeyStore.Builder.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 KeyStore.Builder

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

**Enclosing class:**[KeyStore](http://docs.google.com/java/security/KeyStore.html)

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

A description of a to-be-instantiated KeyStore object.

An instance of this class encapsulates the information needed to instantiate and initialize a KeyStore object. That process is triggered when the [getKeyStore()](http://docs.google.com/java/security/KeyStore.Builder.html#getKeyStore()) method is called.

This makes it possible to decouple configuration from KeyStore object creation and e.g. delay a password prompt until it is needed.

**Since:** 1.5 **See Also:**[KeyStore](http://docs.google.com/java/security/KeyStore.html), [KeyStoreBuilderParameters](http://docs.google.com/javax/net/ssl/KeyStoreBuilderParameters.html)

| **Constructor Summary** | |
| --- | --- |
| protected | [**KeyStore.Builder**](http://docs.google.com/java/security/KeyStore.Builder.html#KeyStore.Builder())()            Construct a new Builder. |

| **Method Summary** | |
| --- | --- |
| abstract  [KeyStore](http://docs.google.com/java/security/KeyStore.html) | [**getKeyStore**](http://docs.google.com/java/security/KeyStore.Builder.html#getKeyStore())()            Returns the KeyStore described by this object. |
| abstract  [KeyStore.ProtectionParameter](http://docs.google.com/java/security/KeyStore.ProtectionParameter.html) | [**getProtectionParameter**](http://docs.google.com/java/security/KeyStore.Builder.html#getProtectionParameter(java.lang.String))([String](http://docs.google.com/java/lang/String.html) alias)            Returns the ProtectionParameters that should be used to obtain the [Entry](http://docs.google.com/java/security/KeyStore.Entry.html) with the given alias. |
| static [KeyStore.Builder](http://docs.google.com/java/security/KeyStore.Builder.html) | [**newInstance**](http://docs.google.com/java/security/KeyStore.Builder.html#newInstance(java.security.KeyStore,%20java.security.KeyStore.ProtectionParameter))([KeyStore](http://docs.google.com/java/security/KeyStore.html) keyStore, [KeyStore.ProtectionParameter](http://docs.google.com/java/security/KeyStore.ProtectionParameter.html) protectionParameter)            Returns a new Builder that encapsulates the given KeyStore. |
| static [KeyStore.Builder](http://docs.google.com/java/security/KeyStore.Builder.html) | [**newInstance**](http://docs.google.com/java/security/KeyStore.Builder.html#newInstance(java.lang.String,%20java.security.Provider,%20java.io.File,%20java.security.KeyStore.ProtectionParameter))([String](http://docs.google.com/java/lang/String.html) type, [Provider](http://docs.google.com/java/security/Provider.html) provider, [File](http://docs.google.com/java/io/File.html) file, [KeyStore.ProtectionParameter](http://docs.google.com/java/security/KeyStore.ProtectionParameter.html) protection)            Returns a new Builder object. |
| static [KeyStore.Builder](http://docs.google.com/java/security/KeyStore.Builder.html) | [**newInstance**](http://docs.google.com/java/security/KeyStore.Builder.html#newInstance(java.lang.String,%20java.security.Provider,%20java.security.KeyStore.ProtectionParameter))([String](http://docs.google.com/java/lang/String.html) type, [Provider](http://docs.google.com/java/security/Provider.html) provider, [KeyStore.ProtectionParameter](http://docs.google.com/java/security/KeyStore.ProtectionParameter.html) protection)            Returns a new Builder object. |

| **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** |
| --- |

### KeyStore.Builder

protected **KeyStore.Builder**()

Construct a new Builder.

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

### getKeyStore

public abstract [KeyStore](http://docs.google.com/java/security/KeyStore.html) **getKeyStore**()  
 throws [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html)

Returns the KeyStore described by this object.

**Throws:** [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html) - if an error occured during the operation, for example if the KeyStore could not be instantiated or loaded

### getProtectionParameter

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

Returns the ProtectionParameters that should be used to obtain the [Entry](http://docs.google.com/java/security/KeyStore.Entry.html) with the given alias. The getKeyStore method must be invoked before this method may be called.

**Parameters:**alias - the alias of the KeyStore entry **Returns:**the ProtectionParameters that should be used to obtain the [Entry](http://docs.google.com/java/security/KeyStore.Entry.html) with the given alias. **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if alias is null [KeyStoreException](http://docs.google.com/java/security/KeyStoreException.html) - if an error occured during the operation [IllegalStateException](http://docs.google.com/java/lang/IllegalStateException.html) - if the getKeyStore method has not been invoked prior to calling this method

### newInstance

public static [KeyStore.Builder](http://docs.google.com/java/security/KeyStore.Builder.html) **newInstance**([KeyStore](http://docs.google.com/java/security/KeyStore.html) keyStore,  
 [KeyStore.ProtectionParameter](http://docs.google.com/java/security/KeyStore.ProtectionParameter.html) protectionParameter)

Returns a new Builder that encapsulates the given KeyStore. The [getKeyStore()](http://docs.google.com/java/security/KeyStore.Builder.html#getKeyStore()) method of the returned object will return keyStore, the [getProtectionParameter()](http://docs.google.com/java/security/KeyStore.Builder.html#getProtectionParameter(java.lang.String)) method will return protectionParameters.

This is useful if an existing KeyStore object needs to be used with Builder-based APIs.

**Parameters:**keyStore - the KeyStore to be encapsulatedprotectionParameter - the ProtectionParameter used to protect the KeyStore entries **Returns:**a new Builder object **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if keyStore or protectionParameters is null [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if the keyStore has not been initialized

### newInstance

public static [KeyStore.Builder](http://docs.google.com/java/security/KeyStore.Builder.html) **newInstance**([String](http://docs.google.com/java/lang/String.html) type,  
 [Provider](http://docs.google.com/java/security/Provider.html) provider,  
 [File](http://docs.google.com/java/io/File.html) file,  
 [KeyStore.ProtectionParameter](http://docs.google.com/java/security/KeyStore.ProtectionParameter.html) protection)

Returns a new Builder object.

The first call to the [getKeyStore()](http://docs.google.com/java/security/KeyStore.Builder.html#getKeyStore()) method on the returned builder will create a KeyStore of type type and call its [load()](http://docs.google.com/java/security/KeyStore.html#load(java.io.InputStream,%20char%5B%5D)) method. The inputStream argument is constructed from file. If protection is a PasswordProtection, the password is obtained by calling the getPassword method. Otherwise, if protection is a CallbackHandlerProtection, the password is obtained by invoking the CallbackHandler.

Subsequent calls to [getKeyStore()](http://docs.google.com/java/security/KeyStore.Builder.html#getKeyStore()) return the same object as the initial call. If the initial call to failed with a KeyStoreException, subsequent calls also throw a KeyStoreException.

The KeyStore is instantiated from provider if non-null. Otherwise, all installed providers are searched.

Calls to [getProtectionParameter()](http://docs.google.com/java/security/KeyStore.Builder.html#getProtectionParameter(java.lang.String)) will return a [PasswordProtection](http://docs.google.com/java/security/KeyStore.PasswordProtection.html) object encapsulating the password that was used to invoke the load method.

*Note* that the [getKeyStore()](http://docs.google.com/java/security/KeyStore.Builder.html#getKeyStore()) method is executed within the [AccessControlContext](http://docs.google.com/java/security/AccessControlContext.html) of the code invoking this method.

**Parameters:**type - the type of KeyStore to be constructedprovider - the provider from which the KeyStore is to be instantiated (or null)file - the File that contains the KeyStore dataprotection - the ProtectionParameter securing the KeyStore data **Returns:**a new Builder object **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if type, file or protection is null [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if protection is not an instance of either PasswordProtection or CallbackHandlerProtection; or if file does not exist or does not refer to a normal file

### newInstance

public static [KeyStore.Builder](http://docs.google.com/java/security/KeyStore.Builder.html) **newInstance**([String](http://docs.google.com/java/lang/String.html) type,  
 [Provider](http://docs.google.com/java/security/Provider.html) provider,  
 [KeyStore.ProtectionParameter](http://docs.google.com/java/security/KeyStore.ProtectionParameter.html) protection)

Returns a new Builder object.

Each call to the [getKeyStore()](http://docs.google.com/java/security/KeyStore.Builder.html#getKeyStore()) method on the returned builder will return a new KeyStore object of type type. Its [load()](http://docs.google.com/java/security/KeyStore.html#load(java.security.KeyStore.LoadStoreParameter)) method is invoked using a LoadStoreParameter that encapsulates protection.

The KeyStore is instantiated from provider if non-null. Otherwise, all installed providers are searched.

Calls to [getProtectionParameter()](http://docs.google.com/java/security/KeyStore.Builder.html#getProtectionParameter(java.lang.String)) will return protection.

*Note* that the [getKeyStore()](http://docs.google.com/java/security/KeyStore.Builder.html#getKeyStore()) method is executed within the [AccessControlContext](http://docs.google.com/java/security/AccessControlContext.html) of the code invoking this method.

**Parameters:**type - the type of KeyStore to be constructedprovider - the provider from which the KeyStore is to be instantiated (or null)protection - the ProtectionParameter securing the Keystore **Returns:**a new Builder object **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if type or protection 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/KeyStore.Builder.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/KeyStore.html)   [**NEXT CLASS**](http://docs.google.com/java/security/KeyStore.CallbackHandlerProtection.html) | [**FRAMES**](http://docs.google.com/index.html?java/security/KeyStore.Builder.html)    [**NO FRAMES**](http://docs.google.com/KeyStore.Builder.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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