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

## **javax.crypto**

Class SecretKeyFactorySpi

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **javax.crypto.SecretKeyFactorySpi**

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

This class defines the *Service Provider Interface* (**SPI**) for the SecretKeyFactory class. All the abstract methods in this class must be implemented by each cryptographic service provider who wishes to supply the implementation of a secret-key factory for a particular algorithm.

A provider should document all the key specifications supported by its secret key factory. For example, the DES secret-key factory supplied by the "SunJCE" provider supports DESKeySpec as a transparent representation of DES keys, and that provider's secret-key factory for Triple DES keys supports DESedeKeySpec as a transparent representation of Triple DES keys.

**Since:** 1.4 **See Also:**[SecretKey](http://docs.google.com/javax/crypto/SecretKey.html), [DESKeySpec](http://docs.google.com/javax/crypto/spec/DESKeySpec.html), [DESedeKeySpec](http://docs.google.com/javax/crypto/spec/DESedeKeySpec.html)

| **Constructor Summary** | |
| --- | --- |
| [**SecretKeyFactorySpi**](http://docs.google.com/javax/crypto/SecretKeyFactorySpi.html#SecretKeyFactorySpi())() |

| **Method Summary** | |
| --- | --- |
| protected abstract  [SecretKey](http://docs.google.com/javax/crypto/SecretKey.html) | [**engineGenerateSecret**](http://docs.google.com/javax/crypto/SecretKeyFactorySpi.html#engineGenerateSecret(java.security.spec.KeySpec))([KeySpec](http://docs.google.com/java/security/spec/KeySpec.html) keySpec)            Generates a SecretKey object from the provided key specification (key material). |
| protected abstract  [KeySpec](http://docs.google.com/java/security/spec/KeySpec.html) | [**engineGetKeySpec**](http://docs.google.com/javax/crypto/SecretKeyFactorySpi.html#engineGetKeySpec(javax.crypto.SecretKey,%20java.lang.Class))([SecretKey](http://docs.google.com/javax/crypto/SecretKey.html) key, [Class](http://docs.google.com/java/lang/Class.html) keySpec)            Returns a specification (key material) of the given key object in the requested format. |
| protected abstract  [SecretKey](http://docs.google.com/javax/crypto/SecretKey.html) | [**engineTranslateKey**](http://docs.google.com/javax/crypto/SecretKeyFactorySpi.html#engineTranslateKey(javax.crypto.SecretKey))([SecretKey](http://docs.google.com/javax/crypto/SecretKey.html) key)            Translates a key object, whose provider may be unknown or potentially untrusted, into a corresponding key object of this secret-key factory. |

| **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** |
| --- |

### SecretKeyFactorySpi

public **SecretKeyFactorySpi**()

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

### engineGenerateSecret

protected abstract [SecretKey](http://docs.google.com/javax/crypto/SecretKey.html) **engineGenerateSecret**([KeySpec](http://docs.google.com/java/security/spec/KeySpec.html) keySpec)  
 throws [InvalidKeySpecException](http://docs.google.com/java/security/spec/InvalidKeySpecException.html)

Generates a SecretKey object from the provided key specification (key material).

**Parameters:**keySpec - the specification (key material) of the secret key **Returns:**the secret key **Throws:** [InvalidKeySpecException](http://docs.google.com/java/security/spec/InvalidKeySpecException.html) - if the given key specification is inappropriate for this secret-key factory to produce a secret key.

### engineGetKeySpec

protected abstract [KeySpec](http://docs.google.com/java/security/spec/KeySpec.html) **engineGetKeySpec**([SecretKey](http://docs.google.com/javax/crypto/SecretKey.html) key,  
 [Class](http://docs.google.com/java/lang/Class.html) keySpec)  
 throws [InvalidKeySpecException](http://docs.google.com/java/security/spec/InvalidKeySpecException.html)

Returns a specification (key material) of the given key object in the requested format.

**Parameters:**key - the keykeySpec - the requested format in which the key material shall be returned **Returns:**the underlying key specification (key material) in the requested format **Throws:** [InvalidKeySpecException](http://docs.google.com/java/security/spec/InvalidKeySpecException.html) - if the requested key specification is inappropriate for the given key (e.g., the algorithms associated with key and keySpec do not match, or key references a key on a cryptographic hardware device whereas keySpec is the specification of a software-based key), or the given key cannot be dealt with (e.g., the given key has an algorithm or format not supported by this secret-key factory).

### engineTranslateKey

protected abstract [SecretKey](http://docs.google.com/javax/crypto/SecretKey.html) **engineTranslateKey**([SecretKey](http://docs.google.com/javax/crypto/SecretKey.html) key)  
 throws [InvalidKeyException](http://docs.google.com/java/security/InvalidKeyException.html)

Translates a key object, whose provider may be unknown or potentially untrusted, into a corresponding key object of this secret-key factory.

**Parameters:**key - the key whose provider is unknown or untrusted **Returns:**the translated key **Throws:** [InvalidKeyException](http://docs.google.com/java/security/InvalidKeyException.html) - if the given key cannot be processed by this secret-key factory.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/SecretKeyFactorySpi.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/crypto/SecretKeyFactory.html)   [**NEXT CLASS**](http://docs.google.com/javax/crypto/ShortBufferException.html) | [**FRAMES**](http://docs.google.com/index.html?javax/crypto/SecretKeyFactorySpi.html)    [**NO FRAMES**](http://docs.google.com/SecretKeyFactorySpi.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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