| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/SecretKeySpec.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/spec/RC5ParameterSpec.html)   NEXT CLASS | [**FRAMES**](http://docs.google.com/index.html?javax/crypto/spec/SecretKeySpec.html)    [**NO FRAMES**](http://docs.google.com/SecretKeySpec.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#tyjcwt) | [METHOD](#3dy6vkm) | DETAIL: FIELD | [CONSTR](#4d34og8) | [METHOD](#3rdcrjn) |

## **javax.crypto.spec**

Class SecretKeySpec

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

**All Implemented Interfaces:** [Serializable](http://docs.google.com/java/io/Serializable.html), [Key](http://docs.google.com/java/security/Key.html), [KeySpec](http://docs.google.com/java/security/spec/KeySpec.html), [SecretKey](http://docs.google.com/javax/crypto/SecretKey.html)

public class **SecretKeySpec**extends [Object](http://docs.google.com/java/lang/Object.html)implements [KeySpec](http://docs.google.com/java/security/spec/KeySpec.html), [SecretKey](http://docs.google.com/javax/crypto/SecretKey.html)

This class specifies a secret key in a provider-independent fashion.

It can be used to construct a SecretKey from a byte array, without having to go through a (provider-based) SecretKeyFactory.

This class is only useful for raw secret keys that can be represented as a byte array and have no key parameters associated with them, e.g., DES or Triple DES keys.

**Since:** 1.4 **See Also:**[SecretKey](http://docs.google.com/javax/crypto/SecretKey.html), [SecretKeyFactory](http://docs.google.com/javax/crypto/SecretKeyFactory.html), [Serialized Form](http://docs.google.com/serialized-form.html#javax.crypto.spec.SecretKeySpec)

| **Field Summary** | |
| --- | --- |

| **Fields inherited from interface javax.crypto.**[**SecretKey**](http://docs.google.com/javax/crypto/SecretKey.html) |
| --- |
| [serialVersionUID](http://docs.google.com/javax/crypto/SecretKey.html#serialVersionUID) |

| **Constructor Summary** | |
| --- | --- |
| [**SecretKeySpec**](http://docs.google.com/javax/crypto/spec/SecretKeySpec.html#SecretKeySpec(byte%5B%5D,%20int,%20int,%20java.lang.String))(byte[] key, int offset, int len, [String](http://docs.google.com/java/lang/String.html) algorithm)            Constructs a secret key from the given byte array, using the first len bytes of key, starting at offset inclusive. |
| [**SecretKeySpec**](http://docs.google.com/javax/crypto/spec/SecretKeySpec.html#SecretKeySpec(byte%5B%5D,%20java.lang.String))(byte[] key, [String](http://docs.google.com/java/lang/String.html) algorithm)            Constructs a secret key from the given byte array. |

| **Method Summary** | |
| --- | --- |
| boolean | [**equals**](http://docs.google.com/javax/crypto/spec/SecretKeySpec.html#equals(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) obj)            Tests for equality between the specified object and this object. |
| [String](http://docs.google.com/java/lang/String.html) | [**getAlgorithm**](http://docs.google.com/javax/crypto/spec/SecretKeySpec.html#getAlgorithm())()            Returns the name of the algorithm associated with this secret key. |
| byte[] | [**getEncoded**](http://docs.google.com/javax/crypto/spec/SecretKeySpec.html#getEncoded())()            Returns the key material of this secret key. |
| [String](http://docs.google.com/java/lang/String.html) | [**getFormat**](http://docs.google.com/javax/crypto/spec/SecretKeySpec.html#getFormat())()            Returns the name of the encoding format for this secret key. |
| int | [**hashCode**](http://docs.google.com/javax/crypto/spec/SecretKeySpec.html#hashCode())()            Calculates a hash code value for the 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()), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [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** |
| --- |

### SecretKeySpec

public **SecretKeySpec**(byte[] key,  
 [String](http://docs.google.com/java/lang/String.html) algorithm)

Constructs a secret key from the given byte array.

This constructor does not check if the given bytes indeed specify a secret key of the specified algorithm. For example, if the algorithm is DES, this constructor does not check if key is 8 bytes long, and also does not check for weak or semi-weak keys. In order for those checks to be performed, an algorithm-specific *key specification* class (in this case: [DESKeySpec](http://docs.google.com/javax/crypto/spec/DESKeySpec.html)) should be used.

**Parameters:**key - the key material of the secret key. The contents of the array are copied to protect against subsequent modification.algorithm - the name of the secret-key algorithm to be associated with the given key material. See Appendix A in the  [Java Cryptography Architecture Reference Guide](http://docs.google.com/technotes/guides/security/crypto/CryptoSpec.html#AppA) for information about standard algorithm names. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if algorithm is null or key is null or empty.

### SecretKeySpec

public **SecretKeySpec**(byte[] key,  
 int offset,  
 int len,  
 [String](http://docs.google.com/java/lang/String.html) algorithm)

Constructs a secret key from the given byte array, using the first len bytes of key, starting at offset inclusive.

The bytes that constitute the secret key are those between key[offset] and key[offset+len-1] inclusive.

This constructor does not check if the given bytes indeed specify a secret key of the specified algorithm. For example, if the algorithm is DES, this constructor does not check if key is 8 bytes long, and also does not check for weak or semi-weak keys. In order for those checks to be performed, an algorithm-specific key specification class (in this case: [DESKeySpec](http://docs.google.com/javax/crypto/spec/DESKeySpec.html)) must be used.

**Parameters:**key - the key material of the secret key. The first len bytes of the array beginning at offset inclusive are copied to protect against subsequent modification.offset - the offset in key where the key material starts.len - the length of the key material.algorithm - the name of the secret-key algorithm to be associated with the given key material. See Appendix A in the  [Java Cryptography Architecture Reference Guide](http://docs.google.com/technotes/guides/security/crypto/CryptoSpec.html#AppA) for information about standard algorithm names. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if algorithm is null or key is null, empty, or too short, i.e. key.length-offset. [ArrayIndexOutOfBoundsException](http://docs.google.com/java/lang/ArrayIndexOutOfBoundsException.html) - is thrown if offset or len index bytes outside the key.

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

### getAlgorithm

public [String](http://docs.google.com/java/lang/String.html) **getAlgorithm**()

Returns the name of the algorithm associated with this secret key.

**Specified by:**[getAlgorithm](http://docs.google.com/java/security/Key.html#getAlgorithm()) in interface [Key](http://docs.google.com/java/security/Key.html) **Returns:**the secret key algorithm.

### getFormat

public [String](http://docs.google.com/java/lang/String.html) **getFormat**()

Returns the name of the encoding format for this secret key.

**Specified by:**[getFormat](http://docs.google.com/java/security/Key.html#getFormat()) in interface [Key](http://docs.google.com/java/security/Key.html) **Returns:**the string "RAW".

### getEncoded

public byte[] **getEncoded**()

Returns the key material of this secret key.

**Specified by:**[getEncoded](http://docs.google.com/java/security/Key.html#getEncoded()) in interface [Key](http://docs.google.com/java/security/Key.html) **Returns:**the key material. Returns a new array each time this method is called.

### hashCode

public int **hashCode**()

Calculates a hash code value for the object. Objects that are equal will also have the same hashcode.

**Overrides:**[hashCode](http://docs.google.com/java/lang/Object.html#hashCode()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a hash code value for this object.**See Also:**[Object.equals(java.lang.Object)](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### equals

public boolean **equals**([Object](http://docs.google.com/java/lang/Object.html) obj)

Tests for equality between the specified object and this object. Two SecretKeySpec objects are considered equal if they are both SecretKey instances which have the same case-insensitive algorithm name and key encoding.

**Overrides:**[equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)) in class [Object](http://docs.google.com/java/lang/Object.html) **Parameters:**obj - the object to test for equality with this object. **Returns:**true if the objects are considered equal, false if obj is null or otherwise.**See Also:**[Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/SecretKeySpec.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*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
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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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