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

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

**All Implemented Interfaces:** [Serializable](http://docs.google.com/java/io/Serializable.html)

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

This class defines the *Service Provider Interface* (**SPI**) for the SecureRandom class. All the abstract methods in this class must be implemented by each service provider who wishes to supply the implementation of a cryptographically strong pseudo-random number generator.

**Since:** 1.2 **See Also:**[SecureRandom](http://docs.google.com/java/security/SecureRandom.html), [Serialized Form](http://docs.google.com/serialized-form.html#java.security.SecureRandomSpi)

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

| **Method Summary** | |
| --- | --- |
| protected abstract  byte[] | [**engineGenerateSeed**](http://docs.google.com/java/security/SecureRandomSpi.html#engineGenerateSeed(int))(int numBytes)            Returns the given number of seed bytes. |
| protected abstract  void | [**engineNextBytes**](http://docs.google.com/java/security/SecureRandomSpi.html#engineNextBytes(byte%5B%5D))(byte[] bytes)            Generates a user-specified number of random bytes. |
| protected abstract  void | [**engineSetSeed**](http://docs.google.com/java/security/SecureRandomSpi.html#engineSetSeed(byte%5B%5D))(byte[] seed)            Reseeds this random 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** |
| --- |

### SecureRandomSpi

public **SecureRandomSpi**()

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

### engineSetSeed

protected abstract void **engineSetSeed**(byte[] seed)

Reseeds this random object. The given seed supplements, rather than replaces, the existing seed. Thus, repeated calls are guaranteed never to reduce randomness.

**Parameters:**seed - the seed.

### engineNextBytes

protected abstract void **engineNextBytes**(byte[] bytes)

Generates a user-specified number of random bytes.

If a call to engineSetSeed had not occurred previously, the first call to this method forces this SecureRandom implementation to seed itself. This self-seeding will not occur if engineSetSeed was previously called.

**Parameters:**bytes - the array to be filled in with random bytes.

### engineGenerateSeed

protected abstract byte[] **engineGenerateSeed**(int numBytes)

Returns the given number of seed bytes. This call may be used to seed other random number generators.

**Parameters:**numBytes - the number of seed bytes to generate. **Returns:**the seed bytes.

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