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

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

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

This class defines the *Service Provider Interface* (**SPI**) for the AlgorithmParameterGenerator class, which is used to generate a set of parameters to be used with a certain algorithm.

All the abstract methods in this class must be implemented by each cryptographic service provider who wishes to supply the implementation of a parameter generator for a particular algorithm.

In case the client does not explicitly initialize the AlgorithmParameterGenerator (via a call to an engineInit method), each provider must supply (and document) a default initialization. For example, the Sun provider uses a default modulus prime size of 1024 bits for the generation of DSA parameters.

**Since:** 1.2 **See Also:**[AlgorithmParameterGenerator](http://docs.google.com/java/security/AlgorithmParameterGenerator.html), [AlgorithmParameters](http://docs.google.com/java/security/AlgorithmParameters.html), [AlgorithmParameterSpec](http://docs.google.com/java/security/spec/AlgorithmParameterSpec.html)

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

| **Method Summary** | |
| --- | --- |
| protected abstract  [AlgorithmParameters](http://docs.google.com/java/security/AlgorithmParameters.html) | [**engineGenerateParameters**](http://docs.google.com/java/security/AlgorithmParameterGeneratorSpi.html#engineGenerateParameters())()            Generates the parameters. |
| protected abstract  void | [**engineInit**](http://docs.google.com/java/security/AlgorithmParameterGeneratorSpi.html#engineInit(java.security.spec.AlgorithmParameterSpec,%20java.security.SecureRandom))([AlgorithmParameterSpec](http://docs.google.com/java/security/spec/AlgorithmParameterSpec.html) genParamSpec, [SecureRandom](http://docs.google.com/java/security/SecureRandom.html) random)            Initializes this parameter generator with a set of algorithm-specific parameter generation values. |
| protected abstract  void | [**engineInit**](http://docs.google.com/java/security/AlgorithmParameterGeneratorSpi.html#engineInit(int,%20java.security.SecureRandom))(int size, [SecureRandom](http://docs.google.com/java/security/SecureRandom.html) random)            Initializes this parameter generator for a certain size and source of randomness. |

| **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** |
| --- |

### AlgorithmParameterGeneratorSpi

public **AlgorithmParameterGeneratorSpi**()

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

### engineInit

protected abstract void **engineInit**(int size,  
 [SecureRandom](http://docs.google.com/java/security/SecureRandom.html) random)

Initializes this parameter generator for a certain size and source of randomness.

**Parameters:**size - the size (number of bits).random - the source of randomness.

### engineInit

protected abstract void **engineInit**([AlgorithmParameterSpec](http://docs.google.com/java/security/spec/AlgorithmParameterSpec.html) genParamSpec,  
 [SecureRandom](http://docs.google.com/java/security/SecureRandom.html) random)  
 throws [InvalidAlgorithmParameterException](http://docs.google.com/java/security/InvalidAlgorithmParameterException.html)

Initializes this parameter generator with a set of algorithm-specific parameter generation values.

**Parameters:**genParamSpec - the set of algorithm-specific parameter generation values.random - the source of randomness. **Throws:** [InvalidAlgorithmParameterException](http://docs.google.com/java/security/InvalidAlgorithmParameterException.html) - if the given parameter generation values are inappropriate for this parameter generator.

### engineGenerateParameters

protected abstract [AlgorithmParameters](http://docs.google.com/java/security/AlgorithmParameters.html) **engineGenerateParameters**()

Generates the parameters.

**Returns:**the new AlgorithmParameters object.

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