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

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

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

This class defines the *Service Provider Interface* (**SPI**) for the AlgorithmParameters class, which is used to manage algorithm parameters.

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

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

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

| **Method Summary** | |
| --- | --- |
| protected abstract  byte[] | [**engineGetEncoded**](http://docs.google.com/java/security/AlgorithmParametersSpi.html#engineGetEncoded())()            Returns the parameters in their primary encoding format. |
| protected abstract  byte[] | [**engineGetEncoded**](http://docs.google.com/java/security/AlgorithmParametersSpi.html#engineGetEncoded(java.lang.String))([String](http://docs.google.com/java/lang/String.html) format)            Returns the parameters encoded in the specified format. |
| protected abstract   | <T extends [AlgorithmParameterSpec](http://docs.google.com/java/security/spec/AlgorithmParameterSpec.html)>  T | | --- | | [**engineGetParameterSpec**](http://docs.google.com/java/security/AlgorithmParametersSpi.html#engineGetParameterSpec(java.lang.Class))([Class](http://docs.google.com/java/lang/Class.html)<T> paramSpec)            Returns a (transparent) specification of this parameters object. |
| protected abstract  void | [**engineInit**](http://docs.google.com/java/security/AlgorithmParametersSpi.html#engineInit(java.security.spec.AlgorithmParameterSpec))([AlgorithmParameterSpec](http://docs.google.com/java/security/spec/AlgorithmParameterSpec.html) paramSpec)            Initializes this parameters object using the parameters specified in paramSpec. |
| protected abstract  void | [**engineInit**](http://docs.google.com/java/security/AlgorithmParametersSpi.html#engineInit(byte%5B%5D))(byte[] params)            Imports the specified parameters and decodes them according to the primary decoding format for parameters. |
| protected abstract  void | [**engineInit**](http://docs.google.com/java/security/AlgorithmParametersSpi.html#engineInit(byte%5B%5D,%20java.lang.String))(byte[] params, [String](http://docs.google.com/java/lang/String.html) format)            Imports the parameters from params and decodes them according to the specified decoding format. |
| protected abstract  [String](http://docs.google.com/java/lang/String.html) | [**engineToString**](http://docs.google.com/java/security/AlgorithmParametersSpi.html#engineToString())()            Returns a formatted string describing the parameters. |

| **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** |
| --- |

### AlgorithmParametersSpi

public **AlgorithmParametersSpi**()

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

### engineInit

protected abstract void **engineInit**([AlgorithmParameterSpec](http://docs.google.com/java/security/spec/AlgorithmParameterSpec.html) paramSpec)  
 throws [InvalidParameterSpecException](http://docs.google.com/java/security/spec/InvalidParameterSpecException.html)

Initializes this parameters object using the parameters specified in paramSpec.

**Parameters:**paramSpec - the parameter specification. **Throws:** [InvalidParameterSpecException](http://docs.google.com/java/security/spec/InvalidParameterSpecException.html) - if the given parameter specification is inappropriate for the initialization of this parameter object.

### engineInit

protected abstract void **engineInit**(byte[] params)  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

Imports the specified parameters and decodes them according to the primary decoding format for parameters. The primary decoding format for parameters is ASN.1, if an ASN.1 specification for this type of parameters exists.

**Parameters:**params - the encoded parameters. **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - on decoding errors

### engineInit

protected abstract void **engineInit**(byte[] params,  
 [String](http://docs.google.com/java/lang/String.html) format)  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

Imports the parameters from params and decodes them according to the specified decoding format. If format is null, the primary decoding format for parameters is used. The primary decoding format is ASN.1, if an ASN.1 specification for these parameters exists.

**Parameters:**params - the encoded parameters.format - the name of the decoding format. **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - on decoding errors

### engineGetParameterSpec

protected abstract <T extends [AlgorithmParameterSpec](http://docs.google.com/java/security/spec/AlgorithmParameterSpec.html)> T **engineGetParameterSpec**([Class](http://docs.google.com/java/lang/Class.html)<T> paramSpec)  
 throws [InvalidParameterSpecException](http://docs.google.com/java/security/spec/InvalidParameterSpecException.html)

Returns a (transparent) specification of this parameters object. paramSpec identifies the specification class in which the parameters should be returned. It could, for example, be DSAParameterSpec.class, to indicate that the parameters should be returned in an instance of the DSAParameterSpec class.

**Parameters:**paramSpec - the the specification class in which the parameters should be returned. **Returns:**the parameter specification. **Throws:** [InvalidParameterSpecException](http://docs.google.com/java/security/spec/InvalidParameterSpecException.html) - if the requested parameter specification is inappropriate for this parameter object.

### engineGetEncoded

protected abstract byte[] **engineGetEncoded**()  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

Returns the parameters in their primary encoding format. The primary encoding format for parameters is ASN.1, if an ASN.1 specification for this type of parameters exists.

**Returns:**the parameters encoded using their primary encoding format. **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - on encoding errors.

### engineGetEncoded

protected abstract byte[] **engineGetEncoded**([String](http://docs.google.com/java/lang/String.html) format)  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

Returns the parameters encoded in the specified format. If format is null, the primary encoding format for parameters is used. The primary encoding format is ASN.1, if an ASN.1 specification for these parameters exists.

**Parameters:**format - the name of the encoding format. **Returns:**the parameters encoded using the specified encoding scheme. **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - on encoding errors.

### engineToString

protected abstract [String](http://docs.google.com/java/lang/String.html) **engineToString**()

Returns a formatted string describing the parameters.

**Returns:**a formatted string describing the parameters.

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