| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/CodeSource.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/CodeSigner.html)   [**NEXT CLASS**](http://docs.google.com/java/security/DigestException.html) | [**FRAMES**](http://docs.google.com/index.html?java/security/CodeSource.html)    [**NO FRAMES**](http://docs.google.com/CodeSource.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#2s8eyo1) |

## **java.security**

Class CodeSource

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

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

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

This class extends the concept of a codebase to encapsulate not only the location (URL) but also the certificate chains that were used to verify signed code originating from that location.

**See Also:**[Serialized Form](http://docs.google.com/serialized-form.html#java.security.CodeSource)

| **Constructor Summary** | |
| --- | --- |
| [**CodeSource**](http://docs.google.com/java/security/CodeSource.html#CodeSource(java.net.URL,%20java.security.cert.Certificate%5B%5D))([URL](http://docs.google.com/java/net/URL.html) url, [Certificate](http://docs.google.com/java/security/cert/Certificate.html)[] certs)            Constructs a CodeSource and associates it with the specified location and set of certificates. |
| [**CodeSource**](http://docs.google.com/java/security/CodeSource.html#CodeSource(java.net.URL,%20java.security.CodeSigner%5B%5D))([URL](http://docs.google.com/java/net/URL.html) url, [CodeSigner](http://docs.google.com/java/security/CodeSigner.html)[] signers)            Constructs a CodeSource and associates it with the specified location and set of code signers. |

| **Method Summary** | |
| --- | --- |
| boolean | [**equals**](http://docs.google.com/java/security/CodeSource.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. |
| [Certificate](http://docs.google.com/java/security/cert/Certificate.html)[] | [**getCertificates**](http://docs.google.com/java/security/CodeSource.html#getCertificates())()            Returns the certificates associated with this CodeSource. |
| [CodeSigner](http://docs.google.com/java/security/CodeSigner.html)[] | [**getCodeSigners**](http://docs.google.com/java/security/CodeSource.html#getCodeSigners())()            Returns the code signers associated with this CodeSource. |
| [URL](http://docs.google.com/java/net/URL.html) | [**getLocation**](http://docs.google.com/java/security/CodeSource.html#getLocation())()            Returns the location associated with this CodeSource. |
| int | [**hashCode**](http://docs.google.com/java/security/CodeSource.html#hashCode())()            Returns the hash code value for this object. |
| boolean | [**implies**](http://docs.google.com/java/security/CodeSource.html#implies(java.security.CodeSource))([CodeSource](http://docs.google.com/java/security/CodeSource.html) codesource)            Returns true if this CodeSource object "implies" the specified CodeSource. |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/java/security/CodeSource.html#toString())()            Returns a string describing this CodeSource, telling its URL and certificates. |

| **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()), [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** |
| --- |

### CodeSource

public **CodeSource**([URL](http://docs.google.com/java/net/URL.html) url,  
 [Certificate](http://docs.google.com/java/security/cert/Certificate.html)[] certs)

Constructs a CodeSource and associates it with the specified location and set of certificates.

**Parameters:**url - the location (URL).certs - the certificate(s). It may be null. The contents of the array are copied to protect against subsequent modification.

### CodeSource

public **CodeSource**([URL](http://docs.google.com/java/net/URL.html) url,  
 [CodeSigner](http://docs.google.com/java/security/CodeSigner.html)[] signers)

Constructs a CodeSource and associates it with the specified location and set of code signers.

**Parameters:**url - the location (URL).signers - the code signers. It may be null. The contents of the array are copied to protect against subsequent modification.**Since:** 1.5

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

### hashCode

public int **hashCode**()

Returns the hash code value for this object.

**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 CodeSource objects are considered equal if their locations are of identical value and if their signer certificate chains are of identical value. It is not required that the certificate chains be in the same order.

**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 otherwise.**See Also:**[Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### getLocation

public final [URL](http://docs.google.com/java/net/URL.html) **getLocation**()

Returns the location associated with this CodeSource.

**Returns:**the location (URL).

### getCertificates

public final [Certificate](http://docs.google.com/java/security/cert/Certificate.html)[] **getCertificates**()

Returns the certificates associated with this CodeSource.

If this CodeSource object was created using the [CodeSource(URL url, CodeSigner[] signers)](http://docs.google.com/java/security/CodeSource.html#CodeSource(java.net.URL,%20java.security.CodeSigner%5B%5D)) constructor then its certificate chains are extracted and used to create an array of Certificate objects. Each signer certificate is followed by its supporting certificate chain (which may be empty). Each signer certificate and its supporting certificate chain is ordered bottom-to-top (i.e., with the signer certificate first and the (root) certificate authority last).

**Returns:**A copy of the certificates array, or null if there is none.

### getCodeSigners

public final [CodeSigner](http://docs.google.com/java/security/CodeSigner.html)[] **getCodeSigners**()

Returns the code signers associated with this CodeSource.

If this CodeSource object was created using the [CodeSource(URL url, Certificate[] certs)](http://docs.google.com/java/security/CodeSource.html#CodeSource(java.net.URL,%20java.security.cert.Certificate%5B%5D)) constructor then its certificate chains are extracted and used to create an array of CodeSigner objects. Note that only X.509 certificates are examined - all other certificate types are ignored.

**Returns:**A copy of the code signer array, or null if there is none.**Since:** 1.5

### implies

public boolean **implies**([CodeSource](http://docs.google.com/java/security/CodeSource.html) codesource)

Returns true if this CodeSource object "implies" the specified CodeSource.

More specifically, this method makes the following checks, in order. If any fail, it returns false. If they all succeed, it returns true.

1. *codesource* must not be null.
2. If this object's certificates are not null, then all of this object's certificates must be present in *codesource*'s certificates.
3. If this object's location (getLocation()) is not null, then the following checks are made against this object's location and *codesource*'s:  
   1. *codesource*'s location must not be null.
   2. If this object's location equals *codesource*'s location, then return true.
   3. This object's protocol (getLocation().getProtocol()) must be equal to *codesource*'s protocol.
   4. If this object's host (getLocation().getHost()) is not null, then the SocketPermission constructed with this object's host must imply the SocketPermission constructed with *codesource*'s host.
   5. If this object's port (getLocation().getPort()) is not equal to -1 (that is, if a port is specified), it must equal *codesource*'s port.
   6. If this object's file (getLocation().getFile()) doesn't equal *codesource*'s file, then the following checks are made: If this object's file ends with "/-", then *codesource*'s file must start with this object's file (exclusive the trailing "-"). If this object's file ends with a "/\*", then *codesource*'s file must start with this object's file and must not have any further "/" separators. If this object's file doesn't end with a "/", then *codesource*'s file must match this object's file with a '/' appended.
   7. If this object's reference (getLocation().getRef()) is not null, it must equal *codesource*'s reference.

For example, the codesource objects with the following locations and null certificates all imply the codesource with the location "http://java.sun.com/classes/foo.jar" and null certificates:

http:  
 http://\*.sun.com/classes/\*  
 http://java.sun.com/classes/-  
 http://java.sun.com/classes/foo.jar

Note that if this CodeSource has a null location and a null certificate chain, then it implies every other CodeSource.

**Parameters:**codesource - CodeSource to compare against. **Returns:**true if the specified codesource is implied by this codesource, false if not.

### toString

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

Returns a string describing this CodeSource, telling its URL and certificates.

**Overrides:**[toString](http://docs.google.com/java/lang/Object.html#toString()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**information about this CodeSource.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/CodeSource.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/CodeSigner.html)   [**NEXT CLASS**](http://docs.google.com/java/security/DigestException.html) | [**FRAMES**](http://docs.google.com/index.html?java/security/CodeSource.html)    [**NO FRAMES**](http://docs.google.com/CodeSource.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#2s8eyo1) |

[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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