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

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

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

This ProtectionDomain class encapsulates the characteristics of a domain, which encloses a set of classes whose instances are granted a set of permissions when being executed on behalf of a given set of Principals.

A static set of permissions can be bound to a ProtectionDomain when it is constructed; such permissions are granted to the domain regardless of the Policy in force. However, to support dynamic security policies, a ProtectionDomain can also be constructed such that it is dynamically mapped to a set of permissions by the current Policy whenever a permission is checked.

| **Constructor Summary** | |
| --- | --- |
| [**ProtectionDomain**](http://docs.google.com/java/security/ProtectionDomain.html#ProtectionDomain(java.security.CodeSource,%20java.security.PermissionCollection))([CodeSource](http://docs.google.com/java/security/CodeSource.html) codesource, [PermissionCollection](http://docs.google.com/java/security/PermissionCollection.html) permissions)            Creates a new ProtectionDomain with the given CodeSource and Permissions. |
| [**ProtectionDomain**](http://docs.google.com/java/security/ProtectionDomain.html#ProtectionDomain(java.security.CodeSource,%20java.security.PermissionCollection,%20java.lang.ClassLoader,%20java.security.Principal%5B%5D))([CodeSource](http://docs.google.com/java/security/CodeSource.html) codesource, [PermissionCollection](http://docs.google.com/java/security/PermissionCollection.html) permissions, [ClassLoader](http://docs.google.com/java/lang/ClassLoader.html) classloader, [Principal](http://docs.google.com/java/security/Principal.html)[] principals)            Creates a new ProtectionDomain qualified by the given CodeSource, Permissions, ClassLoader and array of Principals. |

| **Method Summary** | |
| --- | --- |
| [ClassLoader](http://docs.google.com/java/lang/ClassLoader.html) | [**getClassLoader**](http://docs.google.com/java/security/ProtectionDomain.html#getClassLoader())()            Returns the ClassLoader of this domain. |
| [CodeSource](http://docs.google.com/java/security/CodeSource.html) | [**getCodeSource**](http://docs.google.com/java/security/ProtectionDomain.html#getCodeSource())()            Returns the CodeSource of this domain. |
| [PermissionCollection](http://docs.google.com/java/security/PermissionCollection.html) | [**getPermissions**](http://docs.google.com/java/security/ProtectionDomain.html#getPermissions())()            Returns the static permissions granted to this domain. |
| [Principal](http://docs.google.com/java/security/Principal.html)[] | [**getPrincipals**](http://docs.google.com/java/security/ProtectionDomain.html#getPrincipals())()            Returns an array of principals for this domain. |
| boolean | [**implies**](http://docs.google.com/java/security/ProtectionDomain.html#implies(java.security.Permission))([Permission](http://docs.google.com/java/security/Permission.html) permission)            Check and see if this ProtectionDomain implies the permissions expressed in the Permission object. |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/java/security/ProtectionDomain.html#toString())()            Convert a ProtectionDomain to a String. |

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

### ProtectionDomain

public **ProtectionDomain**([CodeSource](http://docs.google.com/java/security/CodeSource.html) codesource,  
 [PermissionCollection](http://docs.google.com/java/security/PermissionCollection.html) permissions)

Creates a new ProtectionDomain with the given CodeSource and Permissions. If the permissions object is not null, then setReadOnly()) will be called on the passed in Permissions object. The only permissions granted to this domain are the ones specified; the current Policy will not be consulted.

**Parameters:**codesource - the codesource associated with this domainpermissions - the permissions granted to this domain

### ProtectionDomain

public **ProtectionDomain**([CodeSource](http://docs.google.com/java/security/CodeSource.html) codesource,  
 [PermissionCollection](http://docs.google.com/java/security/PermissionCollection.html) permissions,  
 [ClassLoader](http://docs.google.com/java/lang/ClassLoader.html) classloader,  
 [Principal](http://docs.google.com/java/security/Principal.html)[] principals)

Creates a new ProtectionDomain qualified by the given CodeSource, Permissions, ClassLoader and array of Principals. If the permissions object is not null, then setReadOnly() will be called on the passed in Permissions object. The permissions granted to this domain are dynamic; they include both the static permissions passed to this constructor, and any permissions granted to this domain by the current Policy at the time a permission is checked.

This constructor is typically used by [ClassLoaders](http://docs.google.com/java/security/SecureClassLoader.html) and [DomainCombiners](http://docs.google.com/java/security/DomainCombiner.html) which delegate to Policy to actively associate the permissions granted to this domain. This constructor affords the Policy provider the opportunity to augment the supplied PermissionCollection to reflect policy changes.

**Parameters:**codesource - the CodeSource associated with this domainpermissions - the permissions granted to this domainclassloader - the ClassLoader associated with this domainprincipals - the array of Principals associated with this domain. The contents of the array are copied to protect against subsequent modification.**Since:** 1.4 **See Also:**[Policy.refresh()](http://docs.google.com/java/security/Policy.html#refresh()), [Policy.getPermissions(ProtectionDomain)](http://docs.google.com/java/security/Policy.html#getPermissions(java.security.ProtectionDomain))

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

### getCodeSource

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

Returns the CodeSource of this domain.

**Returns:**the CodeSource of this domain which may be null.**Since:** 1.2

### getClassLoader

public final [ClassLoader](http://docs.google.com/java/lang/ClassLoader.html) **getClassLoader**()

Returns the ClassLoader of this domain.

**Returns:**the ClassLoader of this domain which may be null.**Since:** 1.4

### getPrincipals

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

Returns an array of principals for this domain.

**Returns:**a non-null array of principals for this domain. Returns a new array each time this method is called.**Since:** 1.4

### getPermissions

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

Returns the static permissions granted to this domain.

**Returns:**the static set of permissions for this domain which may be null.**See Also:**[Policy.refresh()](http://docs.google.com/java/security/Policy.html#refresh()), [Policy.getPermissions(ProtectionDomain)](http://docs.google.com/java/security/Policy.html#getPermissions(java.security.ProtectionDomain))

### implies

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

Check and see if this ProtectionDomain implies the permissions expressed in the Permission object.

The set of permissions evaluated is a function of whether the ProtectionDomain was constructed with a static set of permissions or it was bound to a dynamically mapped set of permissions.

If the ProtectionDomain was constructed to a [statically bound](http://docs.google.com/java/security/ProtectionDomain.html#ProtectionDomain(java.security.CodeSource,%20java.security.PermissionCollection)) PermissionCollection then the permission will only be checked against the PermissionCollection supplied at construction.

However, if the ProtectionDomain was constructed with the constructor variant which supports [dynamically binding](http://docs.google.com/java/security/ProtectionDomain.html#ProtectionDomain(java.security.CodeSource,%20java.security.PermissionCollection,%20java.lang.ClassLoader,%20java.security.Principal%5B%5D)) permissions, then the permission will be checked against the combination of the PermissionCollection supplied at construction and the current Policy binding.

**Parameters:**permission - the Permission object to check. **Returns:**true if "permission" is implicit to this ProtectionDomain.

### toString

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

Convert a ProtectionDomain to a String.

**Overrides:**[toString](http://docs.google.com/java/lang/Object.html#toString()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a string representation of the 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/ProtectionDomain.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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