| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Modifier.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/lang/reflect/Method.html)   [**NEXT CLASS**](http://docs.google.com/java/lang/reflect/ParameterizedType.html) | [**FRAMES**](http://docs.google.com/index.html?java/lang/reflect/Modifier.html)    [**NO FRAMES**](http://docs.google.com/Modifier.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: [FIELD](#1t3h5sf) | [CONSTR](#1y810tw) | [METHOD](#2xcytpi) |

## **java.lang.reflect**

Class Modifier

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

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

The Modifier class provides static methods and constants to decode class and member access modifiers. The sets of modifiers are represented as integers with distinct bit positions representing different modifiers. The values for the constants representing the modifiers are taken from [*The Java*TM *Virtual Machine Specification, Second edition*](http://java.sun.com/docs/books/vmspec/2nd-edition/html/VMSpecTOC.doc.html) tables [4.1](http://java.sun.com/docs/books/vmspec/2nd-edition/html/ClassFile.doc.html#75734), [4.4](http://java.sun.com/docs/books/vmspec/2nd-edition/html/ClassFile.doc.html#88358), [4.5](http://java.sun.com/docs/books/vmspec/2nd-edition/html/ClassFile.doc.html#75568), and [4.7](http://java.sun.com/docs/books/vmspec/2nd-edition/html/ClassFile.doc.html#88478).

**See Also:**[Class.getModifiers()](http://docs.google.com/java/lang/Class.html#getModifiers()), [Member.getModifiers()](http://docs.google.com/java/lang/reflect/Member.html#getModifiers())

| **Field Summary** | |
| --- | --- |
| static int | [**ABSTRACT**](http://docs.google.com/java/lang/reflect/Modifier.html#ABSTRACT)            The int value representing the abstract modifier. |
| static int | [**FINAL**](http://docs.google.com/java/lang/reflect/Modifier.html#FINAL)            The int value representing the final modifier. |
| static int | [**INTERFACE**](http://docs.google.com/java/lang/reflect/Modifier.html#INTERFACE)            The int value representing the interface modifier. |
| static int | [**NATIVE**](http://docs.google.com/java/lang/reflect/Modifier.html#NATIVE)            The int value representing the native modifier. |
| static int | [**PRIVATE**](http://docs.google.com/java/lang/reflect/Modifier.html#PRIVATE)            The int value representing the private modifier. |
| static int | [**PROTECTED**](http://docs.google.com/java/lang/reflect/Modifier.html#PROTECTED)            The int value representing the protected modifier. |
| static int | [**PUBLIC**](http://docs.google.com/java/lang/reflect/Modifier.html#PUBLIC)            The int value representing the public modifier. |
| static int | [**STATIC**](http://docs.google.com/java/lang/reflect/Modifier.html#STATIC)            The int value representing the static modifier. |
| static int | [**STRICT**](http://docs.google.com/java/lang/reflect/Modifier.html#STRICT)            The int value representing the strictfp modifier. |
| static int | [**SYNCHRONIZED**](http://docs.google.com/java/lang/reflect/Modifier.html#SYNCHRONIZED)            The int value representing the synchronized modifier. |
| static int | [**TRANSIENT**](http://docs.google.com/java/lang/reflect/Modifier.html#TRANSIENT)            The int value representing the transient modifier. |
| static int | [**VOLATILE**](http://docs.google.com/java/lang/reflect/Modifier.html#VOLATILE)            The int value representing the volatile modifier. |

| **Constructor Summary** | |
| --- | --- |
| [**Modifier**](http://docs.google.com/java/lang/reflect/Modifier.html#Modifier())() |

| **Method Summary** | |
| --- | --- |
| static boolean | [**isAbstract**](http://docs.google.com/java/lang/reflect/Modifier.html#isAbstract(int))(int mod)            Return true if the integer argument includes the abstract modifier, false otherwise. |
| static boolean | [**isFinal**](http://docs.google.com/java/lang/reflect/Modifier.html#isFinal(int))(int mod)            Return true if the integer argument includes the final modifier, false otherwise. |
| static boolean | [**isInterface**](http://docs.google.com/java/lang/reflect/Modifier.html#isInterface(int))(int mod)            Return true if the integer argument includes the interface modifier, false otherwise. |
| static boolean | [**isNative**](http://docs.google.com/java/lang/reflect/Modifier.html#isNative(int))(int mod)            Return true if the integer argument includes the native modifier, false otherwise. |
| static boolean | [**isPrivate**](http://docs.google.com/java/lang/reflect/Modifier.html#isPrivate(int))(int mod)            Return true if the integer argument includes the private modifier, false otherwise. |
| static boolean | [**isProtected**](http://docs.google.com/java/lang/reflect/Modifier.html#isProtected(int))(int mod)            Return true if the integer argument includes the protected modifier, false otherwise. |
| static boolean | [**isPublic**](http://docs.google.com/java/lang/reflect/Modifier.html#isPublic(int))(int mod)            Return true if the integer argument includes the public modifier, false otherwise. |
| static boolean | [**isStatic**](http://docs.google.com/java/lang/reflect/Modifier.html#isStatic(int))(int mod)            Return true if the integer argument includes the static modifier, false otherwise. |
| static boolean | [**isStrict**](http://docs.google.com/java/lang/reflect/Modifier.html#isStrict(int))(int mod)            Return true if the integer argument includes the strictfp modifier, false otherwise. |
| static boolean | [**isSynchronized**](http://docs.google.com/java/lang/reflect/Modifier.html#isSynchronized(int))(int mod)            Return true if the integer argument includes the synchronized modifier, false otherwise. |
| static boolean | [**isTransient**](http://docs.google.com/java/lang/reflect/Modifier.html#isTransient(int))(int mod)            Return true if the integer argument includes the transient modifier, false otherwise. |
| static boolean | [**isVolatile**](http://docs.google.com/java/lang/reflect/Modifier.html#isVolatile(int))(int mod)            Return true if the integer argument includes the volatile modifier, false otherwise. |
| static [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/java/lang/reflect/Modifier.html#toString(int))(int mod)            Return a string describing the access modifier flags in the specified modifier. |

| **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)) |

| **Field Detail** |
| --- |

### PUBLIC

public static final int **PUBLIC**

The int value representing the public modifier.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.lang.reflect.Modifier.PUBLIC)

### PRIVATE

public static final int **PRIVATE**

The int value representing the private modifier.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.lang.reflect.Modifier.PRIVATE)

### PROTECTED

public static final int **PROTECTED**

The int value representing the protected modifier.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.lang.reflect.Modifier.PROTECTED)

### STATIC

public static final int **STATIC**

The int value representing the static modifier.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.lang.reflect.Modifier.STATIC)

### FINAL

public static final int **FINAL**

The int value representing the final modifier.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.lang.reflect.Modifier.FINAL)

### SYNCHRONIZED

public static final int **SYNCHRONIZED**

The int value representing the synchronized modifier.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.lang.reflect.Modifier.SYNCHRONIZED)

### VOLATILE

public static final int **VOLATILE**

The int value representing the volatile modifier.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.lang.reflect.Modifier.VOLATILE)

### TRANSIENT

public static final int **TRANSIENT**

The int value representing the transient modifier.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.lang.reflect.Modifier.TRANSIENT)

### NATIVE

public static final int **NATIVE**

The int value representing the native modifier.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.lang.reflect.Modifier.NATIVE)

### INTERFACE

public static final int **INTERFACE**

The int value representing the interface modifier.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.lang.reflect.Modifier.INTERFACE)

### ABSTRACT

public static final int **ABSTRACT**

The int value representing the abstract modifier.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.lang.reflect.Modifier.ABSTRACT)

### STRICT

public static final int **STRICT**

The int value representing the strictfp modifier.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.lang.reflect.Modifier.STRICT)

| **Constructor Detail** |
| --- |

### Modifier

public **Modifier**()

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

### isPublic

public static boolean **isPublic**(int mod)

Return true if the integer argument includes the public modifier, false otherwise.

**Parameters:**mod - a set of modifiers **Returns:**true if mod includes the public modifier; false otherwise.

### isPrivate

public static boolean **isPrivate**(int mod)

Return true if the integer argument includes the private modifier, false otherwise.

**Parameters:**mod - a set of modifiers **Returns:**true if mod includes the private modifier; false otherwise.

### isProtected

public static boolean **isProtected**(int mod)

Return true if the integer argument includes the protected modifier, false otherwise.

**Parameters:**mod - a set of modifiers **Returns:**true if mod includes the protected modifier; false otherwise.

### isStatic

public static boolean **isStatic**(int mod)

Return true if the integer argument includes the static modifier, false otherwise.

**Parameters:**mod - a set of modifiers **Returns:**true if mod includes the static modifier; false otherwise.

### isFinal

public static boolean **isFinal**(int mod)

Return true if the integer argument includes the final modifier, false otherwise.

**Parameters:**mod - a set of modifiers **Returns:**true if mod includes the final modifier; false otherwise.

### isSynchronized

public static boolean **isSynchronized**(int mod)

Return true if the integer argument includes the synchronized modifier, false otherwise.

**Parameters:**mod - a set of modifiers **Returns:**true if mod includes the synchronized modifier; false otherwise.

### isVolatile

public static boolean **isVolatile**(int mod)

Return true if the integer argument includes the volatile modifier, false otherwise.

**Parameters:**mod - a set of modifiers **Returns:**true if mod includes the volatile modifier; false otherwise.

### isTransient

public static boolean **isTransient**(int mod)

Return true if the integer argument includes the transient modifier, false otherwise.

**Parameters:**mod - a set of modifiers **Returns:**true if mod includes the transient modifier; false otherwise.

### isNative

public static boolean **isNative**(int mod)

Return true if the integer argument includes the native modifier, false otherwise.

**Parameters:**mod - a set of modifiers **Returns:**true if mod includes the native modifier; false otherwise.

### isInterface

public static boolean **isInterface**(int mod)

Return true if the integer argument includes the interface modifier, false otherwise.

**Parameters:**mod - a set of modifiers **Returns:**true if mod includes the interface modifier; false otherwise.

### isAbstract

public static boolean **isAbstract**(int mod)

Return true if the integer argument includes the abstract modifier, false otherwise.

**Parameters:**mod - a set of modifiers **Returns:**true if mod includes the abstract modifier; false otherwise.

### isStrict

public static boolean **isStrict**(int mod)

Return true if the integer argument includes the strictfp modifier, false otherwise.

**Parameters:**mod - a set of modifiers **Returns:**true if mod includes the strictfp modifier; false otherwise.

### toString

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

Return a string describing the access modifier flags in the specified modifier. For example:

public final synchronized strictfp

The modifier names are returned in an order consistent with the suggested modifier orderings given in [*The Java Language Specification, Second Edition*](http://java.sun.com/docs/books/jls/second_edition/html/j.title.doc.html) sections [§8.1.1](http://java.sun.com/docs/books/jls/second_edition/html/classes.doc.html#21613), [§8.3.1](http://java.sun.com/docs/books/jls/second_edition/html/classes.doc.html#78091), [§8.4.3](http://java.sun.com/docs/books/jls/second_edition/html/classes.doc.html#78188), [§8.8.3](http://java.sun.com/docs/books/jls/second_edition/html/classes.doc.html#42018), and [§9.1.1](http://java.sun.com/docs/books/jls/second_edition/html/interfaces.doc.html#235947). The full modifier ordering used by this method is:public protected private abstract static final transient volatile synchronized native strictfp interfaceThe interface modifier discussed in this class is not a true modifier in the Java language and it appears after all other modifiers listed by this method. This method may return a string of modifiers that are not valid modifiers of a Java entity; in other words, no checking is done on the possible validity of the combination of modifiers represented by the input.

**Parameters:**mod - a set of modifiers **Returns:**a string representation of the set of modifiers represented by mod

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