| | [**Overview**](http://docs.google.com/overview-summary.html) | **Package** | Class | [**Use**](http://docs.google.com/package-use.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 PACKAGE**](http://docs.google.com/java/lang/ref/package-summary.html)   [**NEXT PACKAGE**](http://docs.google.com/java/math/package-summary.html) | [**FRAMES**](http://docs.google.com/index.html?java/lang/reflect/package-summary.html)    [**NO FRAMES**](http://docs.google.com/package-summary.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

## Package java.lang.reflect

Provides classes and interfaces for obtaining reflective information about classes and objects.

**See:**

[**Description**](#3znysh7)

| **Interface Summary** | |
| --- | --- |
| [**AnnotatedElement**](http://docs.google.com/java/lang/reflect/AnnotatedElement.html) | Represents an annotated element of the program currently running in this VM. |
| [**GenericArrayType**](http://docs.google.com/java/lang/reflect/GenericArrayType.html) | GenericArrayType represents an array type whose component type is either a parameterized type or a type variable. |
| [**GenericDeclaration**](http://docs.google.com/java/lang/reflect/GenericDeclaration.html) | A common interface for all entities that declare type variables. |
| [**InvocationHandler**](http://docs.google.com/java/lang/reflect/InvocationHandler.html) | InvocationHandler is the interface implemented by the *invocation handler* of a proxy instance. |
| [**Member**](http://docs.google.com/java/lang/reflect/Member.html) | Member is an interface that reflects identifying information about a single member (a field or a method) or a constructor. |
| [**ParameterizedType**](http://docs.google.com/java/lang/reflect/ParameterizedType.html) | ParameterizedType represents a parameterized type such as Collection<String>. |
| [**Type**](http://docs.google.com/java/lang/reflect/Type.html) | Type is the common superinterface for all types in the Java programming language. |
| [**TypeVariable<D extends GenericDeclaration>**](http://docs.google.com/java/lang/reflect/TypeVariable.html) | TypeVariable is the common superinterface for type variables of kinds. |
| [**WildcardType**](http://docs.google.com/java/lang/reflect/WildcardType.html) | WildcardType represents a wildcard type expression, such as ?, ? extends Number, or ? super Integer. |

| **Class Summary** | |
| --- | --- |
| [**AccessibleObject**](http://docs.google.com/java/lang/reflect/AccessibleObject.html) | The AccessibleObject class is the base class for Field, Method and Constructor objects. |
| [**Array**](http://docs.google.com/java/lang/reflect/Array.html) | The Array class provides static methods to dynamically create and access Java arrays. |
| [**Constructor<T>**](http://docs.google.com/java/lang/reflect/Constructor.html) | Constructor provides information about, and access to, a single constructor for a class. |
| [**Field**](http://docs.google.com/java/lang/reflect/Field.html) | A Field provides information about, and dynamic access to, a single field of a class or an interface. |
| [**Method**](http://docs.google.com/java/lang/reflect/Method.html) | A Method provides information about, and access to, a single method on a class or interface. |
| [**Modifier**](http://docs.google.com/java/lang/reflect/Modifier.html) | The Modifier class provides static methods and constants to decode class and member access modifiers. |
| [**Proxy**](http://docs.google.com/java/lang/reflect/Proxy.html) | Proxy provides static methods for creating dynamic proxy classes and instances, and it is also the superclass of all dynamic proxy classes created by those methods. |
| [**ReflectPermission**](http://docs.google.com/java/lang/reflect/ReflectPermission.html) | The Permission class for reflective operations. |

| **Exception Summary** | |
| --- | --- |
| [**InvocationTargetException**](http://docs.google.com/java/lang/reflect/InvocationTargetException.html) | InvocationTargetException is a checked exception that wraps an exception thrown by an invoked method or constructor. |
| [**MalformedParameterizedTypeException**](http://docs.google.com/java/lang/reflect/MalformedParameterizedTypeException.html) | Thrown when a semantically malformed parameterized type is encountered by a reflective method that needs to instantiate it. |
| [**UndeclaredThrowableException**](http://docs.google.com/java/lang/reflect/UndeclaredThrowableException.html) | Thrown by a method invocation on a proxy instance if its invocation handler's [invoke](http://docs.google.com/java/lang/reflect/InvocationHandler.html#invoke(java.lang.Object,%20java.lang.reflect.Method,%20java.lang.Object%5B%5D)) method throws a checked exception (a Throwable that is not assignable to RuntimeException or Error) that is not assignable to any of the exception types declared in the throws clause of the method that was invoked on the proxy instance and dispatched to the invocation handler. |

| **Error Summary** | |
| --- | --- |
| [**GenericSignatureFormatError**](http://docs.google.com/java/lang/reflect/GenericSignatureFormatError.html) | Thrown when a syntactically malformed signature attribute is encountered by a reflective method that needs to interpret the generic signature information for a type, method or constructor. |

## Package java.lang.reflect Description

Provides classes and interfaces for obtaining reflective information about classes and objects. Reflection allows programmatic access to information about the fields, methods and constructors of loaded classes, and the use of reflected fields, methods, and constructors to operate on their underlying counterparts, within security restrictions.

AccessibleObject allows supression of access checks if the necessary ReflectPermission is available.

Array provides static methods to dynamically create and access arrays.

Classes in this package, along with java.lang.Class accommodate applications such as debuggers, interpreters, object inspectors, class browsers, and services such as Object Serialization and JavaBeans that need access to either the public members of a target object (based on its runtime class) or the members declared by a given class.

**Since:** JDK1.1

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