| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/MBeanServerFactory.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/javax/management/MBeanServerDelegateMBean.html)   [**NEXT CLASS**](http://docs.google.com/javax/management/MBeanServerInvocationHandler.html) | [**FRAMES**](http://docs.google.com/index.html?javax/management/MBeanServerFactory.html)    [**NO FRAMES**](http://docs.google.com/MBeanServerFactory.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | DETAIL: FIELD | CONSTR | [METHOD](#tyjcwt) |

## **javax.management**

Class MBeanServerFactory

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **javax.management.MBeanServerFactory**

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

Provides MBean server references. There are no instances of this class.

Since JMX 1.2 this class makes it possible to replace the default MBeanServer implementation. This is done using the [MBeanServerBuilder](http://docs.google.com/javax/management/MBeanServerBuilder.html) class. The class of the initial MBeanServerBuilder to be instantiated can be specified through the **javax.management.builder.initial** system property. The specified class must be a public subclass of [MBeanServerBuilder](http://docs.google.com/javax/management/MBeanServerBuilder.html), and must have a public empty constructor.

By default, if no value for that property is specified, an instance of [javax.management.MBeanServerBuilder](http://docs.google.com/javax/management/MBeanServerBuilder.html) is created. Otherwise, the MBeanServerFactory attempts to load the specified class using [Thread.currentThread().getContextClassLoader()](http://docs.google.com/java/lang/Thread.html#getContextClassLoader()), or if that is null, [Class.forName()](http://docs.google.com/java/lang/Class.html#forName(java.lang.String)). Then it creates an initial instance of that Class using [Class.newInstance()](http://docs.google.com/java/lang/Class.html#newInstance()). If any checked exception is raised during this process (e.g. [ClassNotFoundException](http://docs.google.com/java/lang/ClassNotFoundException.html), [InstantiationException](http://docs.google.com/java/lang/InstantiationException.html)) the MBeanServerFactory will propagate this exception from within a RuntimeException.

The **javax.management.builder.initial** system property is consulted every time a new MBeanServer needs to be created, and the class pointed to by that property is loaded. If that class is different from that of the current MBeanServerBuilder, then a new MBeanServerBuilder is created. Otherwise, the MBeanServerFactory may create a new MBeanServerBuilder or reuse the current one.

If the class pointed to by the property cannot be loaded, or does not correspond to a valid subclass of MBeanServerBuilder then an exception is propagated, and no MBeanServer can be created until the **javax.management.builder.initial** system property is reset to valid value.

The MBeanServerBuilder makes it possible to wrap the MBeanServers returned by the default MBeanServerBuilder implementation, for the purpose of e.g. adding an additional security layer.

**Since:** 1.5

| **Method Summary** | |
| --- | --- |
| static [MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) | [**createMBeanServer**](http://docs.google.com/javax/management/MBeanServerFactory.html#createMBeanServer())()            Return a new object implementing the MBeanServer interface with a standard default domain name. |
| static [MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) | [**createMBeanServer**](http://docs.google.com/javax/management/MBeanServerFactory.html#createMBeanServer(java.lang.String))([String](http://docs.google.com/java/lang/String.html) domain)            Return a new object implementing the [MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) interface with the specified default domain name. |
| static [ArrayList](http://docs.google.com/java/util/ArrayList.html)<[MBeanServer](http://docs.google.com/javax/management/MBeanServer.html)> | [**findMBeanServer**](http://docs.google.com/javax/management/MBeanServerFactory.html#findMBeanServer(java.lang.String))([String](http://docs.google.com/java/lang/String.html) agentId)            Return a list of registered MBeanServer objects. |
| static [ClassLoaderRepository](http://docs.google.com/javax/management/loading/ClassLoaderRepository.html) | [**getClassLoaderRepository**](http://docs.google.com/javax/management/MBeanServerFactory.html#getClassLoaderRepository(javax.management.MBeanServer))([MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) server)            Return the ClassLoaderRepository used by the given MBeanServer. |
| static [MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) | [**newMBeanServer**](http://docs.google.com/javax/management/MBeanServerFactory.html#newMBeanServer())()            Return a new object implementing the MBeanServer interface with a standard default domain name, without keeping an internal reference to this new object. |
| static [MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) | [**newMBeanServer**](http://docs.google.com/javax/management/MBeanServerFactory.html#newMBeanServer(java.lang.String))([String](http://docs.google.com/java/lang/String.html) domain)            Return a new object implementing the MBeanServer interface with the specified default domain name, without keeping an internal reference to this new object. |
| static void | [**releaseMBeanServer**](http://docs.google.com/javax/management/MBeanServerFactory.html#releaseMBeanServer(javax.management.MBeanServer))([MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) mbeanServer)            Remove internal MBeanServerFactory references to a created MBeanServer. |

| **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)) |

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

### releaseMBeanServer

public static void **releaseMBeanServer**([MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) mbeanServer)

Remove internal MBeanServerFactory references to a created MBeanServer. This allows the garbage collector to remove the MBeanServer object.

**Parameters:**mbeanServer - the MBeanServer object to remove. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if mbeanServer was not generated by one of the createMBeanServer methods, or if releaseMBeanServer was already called on it. [SecurityException](http://docs.google.com/java/lang/SecurityException.html) - if there is a SecurityManager and the caller's permissions do not include or imply [MBeanServerPermission](http://docs.google.com/javax/management/MBeanServerPermission.html)("releaseMBeanServer").

### createMBeanServer

public static [MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) **createMBeanServer**()

Return a new object implementing the MBeanServer interface with a standard default domain name. The default domain name is used as the domain part in the ObjectName of MBeans when the domain is specified by the user is null.

The standard default domain name is DefaultDomain.

The MBeanServer reference is internally kept. This will allow findMBeanServer to return a reference to this MBeanServer object.

This method is equivalent to createMBeanServer(null).

**Returns:**the newly created MBeanServer. **Throws:** [SecurityException](http://docs.google.com/java/lang/SecurityException.html) - if there is a SecurityManager and the caller's permissions do not include or imply [MBeanServerPermission](http://docs.google.com/javax/management/MBeanServerPermission.html)("createMBeanServer"). [JMRuntimeException](http://docs.google.com/javax/management/JMRuntimeException.html) - if the property javax.management.builder.initial exists but the class it names cannot be instantiated through a public no-argument constructor; or if the instantiated builder returns null from its [newMBeanServerDelegate](http://docs.google.com/javax/management/MBeanServerBuilder.html#newMBeanServerDelegate()) or [newMBeanServer](http://docs.google.com/javax/management/MBeanServerBuilder.html#newMBeanServer(java.lang.String,%20javax.management.MBeanServer,%20javax.management.MBeanServerDelegate)) methods. [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - if the property javax.management.builder.initial exists and can be instantiated but is not assignment compatible with [MBeanServerBuilder](http://docs.google.com/javax/management/MBeanServerBuilder.html).

### createMBeanServer

public static [MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) **createMBeanServer**([String](http://docs.google.com/java/lang/String.html) domain)

Return a new object implementing the [MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) interface with the specified default domain name. The given domain name is used as the domain part in the ObjectName of MBeans when the domain is specified by the user is null.

The MBeanServer reference is internally kept. This will allow findMBeanServer to return a reference to this MBeanServer object.

**Parameters:**domain - the default domain name for the created MBeanServer. This is the value that will be returned by [MBeanServer.getDefaultDomain()](http://docs.google.com/javax/management/MBeanServer.html#getDefaultDomain()). **Returns:**the newly created MBeanServer. **Throws:** [SecurityException](http://docs.google.com/java/lang/SecurityException.html) - if there is a SecurityManager and the caller's permissions do not include or imply [MBeanServerPermission](http://docs.google.com/javax/management/MBeanServerPermission.html)("createMBeanServer"). [JMRuntimeException](http://docs.google.com/javax/management/JMRuntimeException.html) - if the property javax.management.builder.initial exists but the class it names cannot be instantiated through a public no-argument constructor; or if the instantiated builder returns null from its [newMBeanServerDelegate](http://docs.google.com/javax/management/MBeanServerBuilder.html#newMBeanServerDelegate()) or [newMBeanServer](http://docs.google.com/javax/management/MBeanServerBuilder.html#newMBeanServer(java.lang.String,%20javax.management.MBeanServer,%20javax.management.MBeanServerDelegate)) methods. [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - if the property javax.management.builder.initial exists and can be instantiated but is not assignment compatible with [MBeanServerBuilder](http://docs.google.com/javax/management/MBeanServerBuilder.html).

### newMBeanServer

public static [MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) **newMBeanServer**()

Return a new object implementing the MBeanServer interface with a standard default domain name, without keeping an internal reference to this new object. The default domain name is used as the domain part in the ObjectName of MBeans when the domain is specified by the user is null.

The standard default domain name is DefaultDomain.

No reference is kept. findMBeanServer will not be able to return a reference to this MBeanServer object, but the garbage collector will be able to remove the MBeanServer object when it is no longer referenced.

This method is equivalent to newMBeanServer(null).

**Returns:**the newly created MBeanServer. **Throws:** [SecurityException](http://docs.google.com/java/lang/SecurityException.html) - if there is a SecurityManager and the caller's permissions do not include or imply [MBeanServerPermission](http://docs.google.com/javax/management/MBeanServerPermission.html)("newMBeanServer"). [JMRuntimeException](http://docs.google.com/javax/management/JMRuntimeException.html) - if the property javax.management.builder.initial exists but the class it names cannot be instantiated through a public no-argument constructor; or if the instantiated builder returns null from its [newMBeanServerDelegate](http://docs.google.com/javax/management/MBeanServerBuilder.html#newMBeanServerDelegate()) or [newMBeanServer](http://docs.google.com/javax/management/MBeanServerBuilder.html#newMBeanServer(java.lang.String,%20javax.management.MBeanServer,%20javax.management.MBeanServerDelegate)) methods. [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - if the property javax.management.builder.initial exists and can be instantiated but is not assignment compatible with [MBeanServerBuilder](http://docs.google.com/javax/management/MBeanServerBuilder.html).

### newMBeanServer

public static [MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) **newMBeanServer**([String](http://docs.google.com/java/lang/String.html) domain)

Return a new object implementing the MBeanServer interface with the specified default domain name, without keeping an internal reference to this new object. The given domain name is used as the domain part in the ObjectName of MBeans when the domain is specified by the user is null.

No reference is kept. findMBeanServer will not be able to return a reference to this MBeanServer object, but the garbage collector will be able to remove the MBeanServer object when it is no longer referenced.

**Parameters:**domain - the default domain name for the created MBeanServer. This is the value that will be returned by [MBeanServer.getDefaultDomain()](http://docs.google.com/javax/management/MBeanServer.html#getDefaultDomain()). **Returns:**the newly created MBeanServer. **Throws:** [SecurityException](http://docs.google.com/java/lang/SecurityException.html) - if there is a SecurityManager and the caller's permissions do not include or imply [MBeanServerPermission](http://docs.google.com/javax/management/MBeanServerPermission.html)("newMBeanServer"). [JMRuntimeException](http://docs.google.com/javax/management/JMRuntimeException.html) - if the property javax.management.builder.initial exists but the class it names cannot be instantiated through a public no-argument constructor; or if the instantiated builder returns null from its [newMBeanServerDelegate](http://docs.google.com/javax/management/MBeanServerBuilder.html#newMBeanServerDelegate()) or [newMBeanServer](http://docs.google.com/javax/management/MBeanServerBuilder.html#newMBeanServer(java.lang.String,%20javax.management.MBeanServer,%20javax.management.MBeanServerDelegate)) methods. [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - if the property javax.management.builder.initial exists and can be instantiated but is not assignment compatible with [MBeanServerBuilder](http://docs.google.com/javax/management/MBeanServerBuilder.html).

### findMBeanServer

public static [ArrayList](http://docs.google.com/java/util/ArrayList.html)<[MBeanServer](http://docs.google.com/javax/management/MBeanServer.html)> **findMBeanServer**([String](http://docs.google.com/java/lang/String.html) agentId)

Return a list of registered MBeanServer objects. A registered MBeanServer object is one that was created by one of the createMBeanServer methods and not subsequently released with releaseMBeanServer.

**Parameters:**agentId - The agent identifier of the MBeanServer to retrieve. If this parameter is null, all registered MBeanServers in this JVM are returned. Otherwise, only MBeanServers whose id is equal to agentId are returned. The id of an MBeanServer is the MBeanServerId attribute of its delegate MBean. **Returns:**A list of MBeanServer objects. **Throws:** [SecurityException](http://docs.google.com/java/lang/SecurityException.html) - if there is a SecurityManager and the caller's permissions do not include or imply [MBeanServerPermission](http://docs.google.com/javax/management/MBeanServerPermission.html)("findMBeanServer").

### getClassLoaderRepository

public static [ClassLoaderRepository](http://docs.google.com/javax/management/loading/ClassLoaderRepository.html) **getClassLoaderRepository**([MBeanServer](http://docs.google.com/javax/management/MBeanServer.html) server)

Return the ClassLoaderRepository used by the given MBeanServer. This method is equivalent to [server.getClassLoaderRepository()](http://docs.google.com/javax/management/MBeanServer.html#getClassLoaderRepository()).

**Parameters:**server - The MBeanServer under examination. Since JMX 1.2, if server is null, the result is a [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html). This behavior differs from what was implemented in JMX 1.1 - where the possibility to use null was deprecated. **Returns:**The Class Loader Repository used by the given MBeanServer. **Throws:** [SecurityException](http://docs.google.com/java/lang/SecurityException.html) - if there is a SecurityManager and the caller's permissions do not include or imply [MBeanPermission](http://docs.google.com/javax/management/MBeanPermission.html)("getClassLoaderRepository"). [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if server is null.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/MBeanServerFactory.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/javax/management/MBeanServerDelegateMBean.html)   [**NEXT CLASS**](http://docs.google.com/javax/management/MBeanServerInvocationHandler.html) | [**FRAMES**](http://docs.google.com/index.html?javax/management/MBeanServerFactory.html)    [**NO FRAMES**](http://docs.google.com/MBeanServerFactory.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | DETAIL: FIELD | CONSTR | [METHOD](#tyjcwt) |

[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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