

IBM Operational Decision Manager  
Version 8 Release 6

*Configuring Operational Decision  
Manager on Java SE*



**Note**

Before using this information and the product it supports, read the information in "Notices" on page 5.

This edition applies to version 8, release 6, modification 0 of Operational Decision Manager and to all subsequent releases and modifications until otherwise indicated in new editions.

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## Configuring on Java SE 7

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### Configuring Rule Execution Server on Java SE

On the Java™ SE platform, the execution unit (XU) is deployed as a simple Java Standard Edition JAR file. This deployment implements a lightweight J2C container, which uses the Operational Decision Manager pooling infrastructure. The resource is scoped to a client application.

#### Before you configure Rule Execution Server on Java SE

Some limitations affect the configuration of Rule Execution Server on Java SE.

If you use Java SE embedded in your application server, you can use the standard Java Management Extensions (JMX) notification mechanism, provided that the Rule Execution Server console is deployed in the same Java virtual machine (JVM). If you use Rule Execution Server in a Java SE environment on a stand-alone JVM, you must enable the TCP/IP management mode to manage Java SE notification. See Configuring execution units (XU) to connect to a TCP/IP management server.

Typically, you configure Rule Execution Server in the following steps:

1. "Setting the class path for Java SE."
2. "Changing the persistence mode" on page 2. If necessary, create your database and SQL table, and JDBC access, with JNDI lookup.

The following limitations apply to rule sessions:

- The execution unit (XU) is not shared. Therefore, it consumes more memory.
- Connection pools are configured only through the `ra.xml` deployment descriptor.
- Only Java SE rule sessions are available. This restriction has the following consequences:
  - Remote calls such as Java Message Services (JMS) or EJB are not possible.
  - No transaction support: you must implement your own transaction management logic as EJB does.

#### Setting the class path for Java SE

When you configure Rule Execution Server for Java SE, set the class path to the required set of JAR files for executing with Java SE. You can build or execute your business rule applications in different ways. Follow the given procedure if you build your applications by using Ant scripts, or else adapt the example to your situation.

##### About this task

The `executionserver.j2se.classpath` property in the `<ODM_InstallDir>/executionserver/lib/classpath-executionserver.xml` file lists the various JAR files that are required for running Rule Execution Server on Java SE.

##### Procedure

1. Set the `executionserver.home` property:

```
<property name="executionserver.home" value="<InstallDir>/executionserver"/>
```
2. Import the `classpath-executionserver.xml` file:

```
<import file forexecutionserver.home/lib/classpath-executionserver.xml"/>
```

3. Set the path for the `executionserver.j2se.classpath` property.

## What to do next

You can use the Ant script to package the appropriate JAR files and build your application, or build you application in a different way.

## Packaging JAR files for Rule Execution Server on Java SE

If you use Rule Execution Server in a stand-alone Java SE environment, only some of the provided JAR files are necessary. A tool is available to help you select and package the appropriate JAR files.

### Before you begin

Find and select the JAR files that you need by using Ant and by referencing the `executionserver.j2se.classpath` variable. For more information, see “Setting the class path for Java SE” on page 1.

Before deploying your application, make sure you Enable IBM License Metric Tool.

### About this task

A number of JAR files are provided with the product distribution for you to build your applications. These JAR files are installed in the `<ODM_InstallDir>/executionserver/lib` folder. If you need to extract those files or if you do not use Ant to build your application, you can use the `classpath-executionserver.xml` file, which is provided in `<ODM_InstallDir>/shared/tools/ant/bin/ant` folder.

This Ant script provides three actions:

- **display:** to display the list of JAR files
- **copy:** to copy the necessary JAR files to a dedicated folder. Parameter: `target.copy.dir`
- **package:** to compress the JAR files into a single portable archive named `jse-res-jars.zip` for redistribution. Parameter: `target.zip.dir`

### Example

For example, on a DOS command line from the `<ODM_InstallDir>/executionserver/lib` directory, you can run the following commands:

```
..\..\shared\tools\ant\bin\ant -f classpath-executionserver.xml display
..\..\shared\tools\ant\bin\ant -f classpath-executionserver.xml copy -Dtarget.copy.dir=c:\myapplicat
..\..\shared\tools\ant\bin\ant -f classpath-executionserver.xml package -Dtarget.zip.dir=c:\myapplic
```

## Changing the persistence mode

Change the persistence mode.

### About this task

To change the persistence mode, modify the resource adapter descriptor file, then add it to your class path.

The deployment descriptor includes comments to help you configure the file to your needs. The properties to change to modify persistence are:

- persistenceType
- persistenceProperties

For information on creating archives configured with a persistence type, refer to the `resetup.xml` Ant script.

### Procedure

1. To change the execution stack from the default file persistence modify the resource adapter descriptor file `ra.xml` located in:  
`<InstallDir>/executionserver/bin`
2. After you have configured this file, add it to your class path. At run time, `ra.xml` overrides the `default_ra.xml` file provided in `jrules-res-execution.jar`.

### Database driver issues

The JDBC Not Bound error message is issued when an error occurs during the creation of the data source.

Refer to the traces to locate the original cause. In the vast majority of cases one of the following is likely:

- A directory does not exist or cannot be read or written to (Derby).
- There is a missing schema or table.
- There are missing privileges to access the database resource.





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