

IBM Rational Rhapsody Developer RulesComposer Add On

Statemate - Importing rules



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Overview

In this tutorial, you will learn to customize Xmi toolkit ruleset for Statemate.

This tutorial shows:

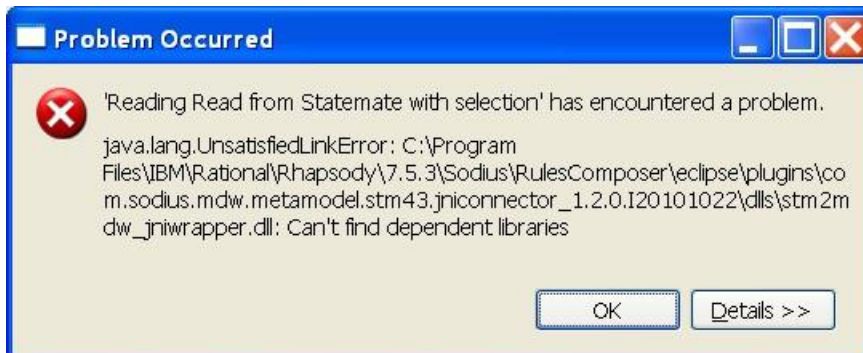
- How to configure RulesComposer to work with Statemate
- How to import ruleset sources in RulesComposer workspace.
- How to test and debug your customized rules.
- How to deploy new ruleset under Statemate.

Configure RulesComposer for Statemate

If you select the metamodel **Statemate** in the **Models** view and on click-right select command **Open Model**, choose connector: **Read from Statemate with selection** and then a message box displays the following error:



And or:



It is not necessary to re-install **RulesComposer**. This needs only to be configured to work with **Statemate**, and then it will be able to read some models from **Statemate**.

Please look at folder:

`<RhapsodyInstallationDir>\Sodius\RulesComposer\bin`

You will find several DOS script files in this folder, one concerns this tutorial:

```
rc4stm_ini_update.bat
```

Follow these instructions below:

1. Close **Rhapsody** and **RulesComposer** applications, open a **Command Prompt** window and enter following commands to go in folder
`<RhapsodyInstallationDir>\Sodius\RulesComposer\bin`

Example:

```
C:
```

```
CD C:\Program Files\IBM\Rational\Rhapsody\7.5.3
```

```
CD Sodius\RulesComposer\bin
```

2. Enter the DOS script mentioned above with:
- Only one argument: the path of Statemate Application folder

Example:

```
rc4stm_ini_update C:\IBM\Rational\Statemate\4.6\bin
```

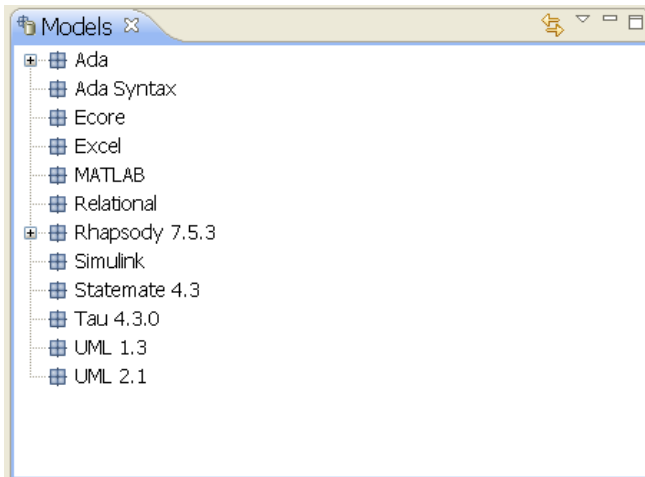
3. Now restart Rhapsody, open a project and click on main menu **Tool > RulesComposer for Statemate**.
4. Select the metamodel **Statemate** in the **Models** view and on click-right select command **Open Model**.
5. Choose connector: **Read from Statemate with selection**, and answer to all questions displayed in small windows.
6. After, that **RulesComposer** reports completion of reading in the **Console** view, and finally Statemate model is displayed in a model viewer tab.

Note: it's not required to keep the application **Statemate** opened, but the service **X Server** must remain active (see chapter **Troubleshooting**).

Upgrade the metamodel for StateMate 6.4.1

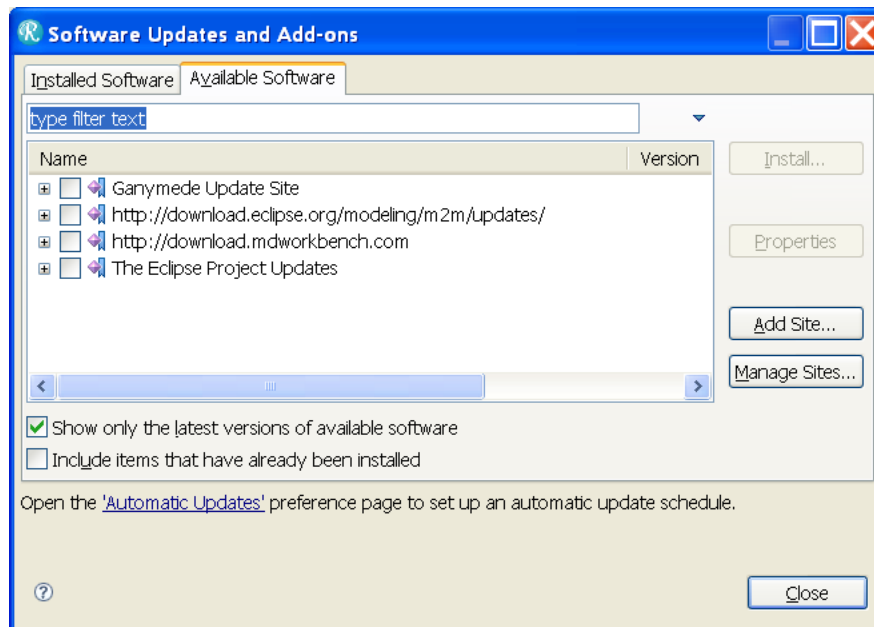
If you work with **IBM Rational StateMate 4.3** to **4.6**, ignore this procedure and read next chapter at page 12.

Some changes between **StateMate 4.6** and **4.6.1** require upgrading the metamodel **StateMate 4.3**:



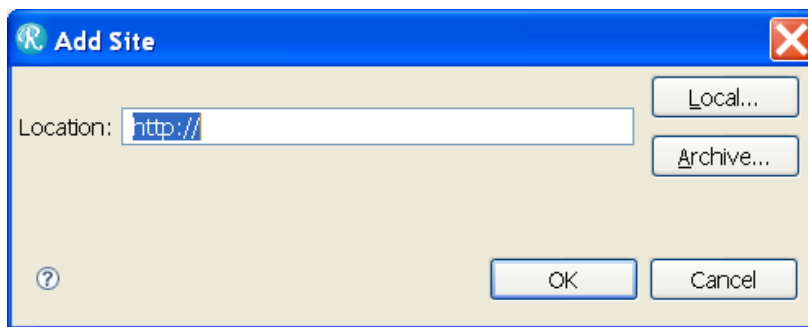
To upgrade this metamodel, proceed as follow:

1. From the main menu bar, select **Help > Software updates...**
Then following wizard opens:



2. Press **Add Site...**

Then following window opens:



3. Press button **Archive...**

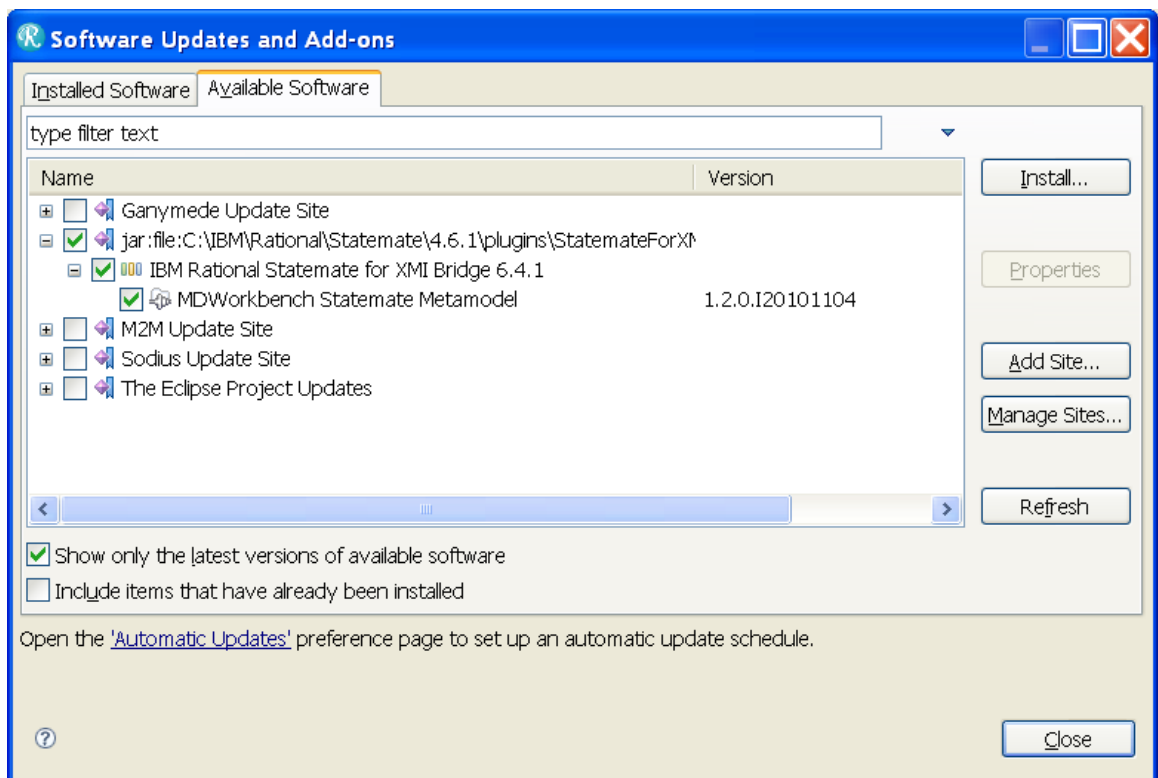
And locate the zip file:

update-site.zip

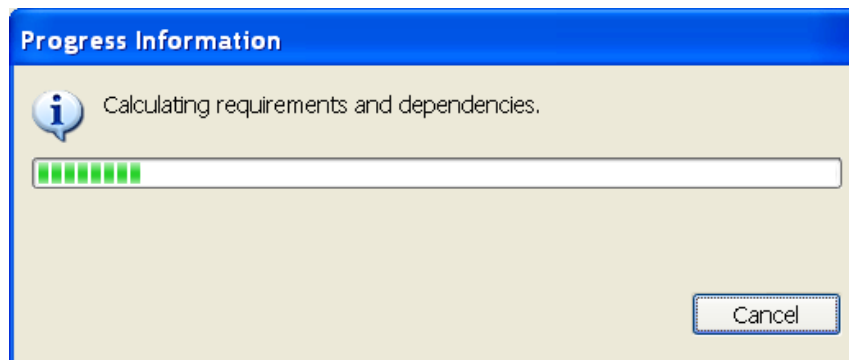
In folder:

StateMate_INSTALL_PATH\plugins\StateMateForXMIBridge\update-site

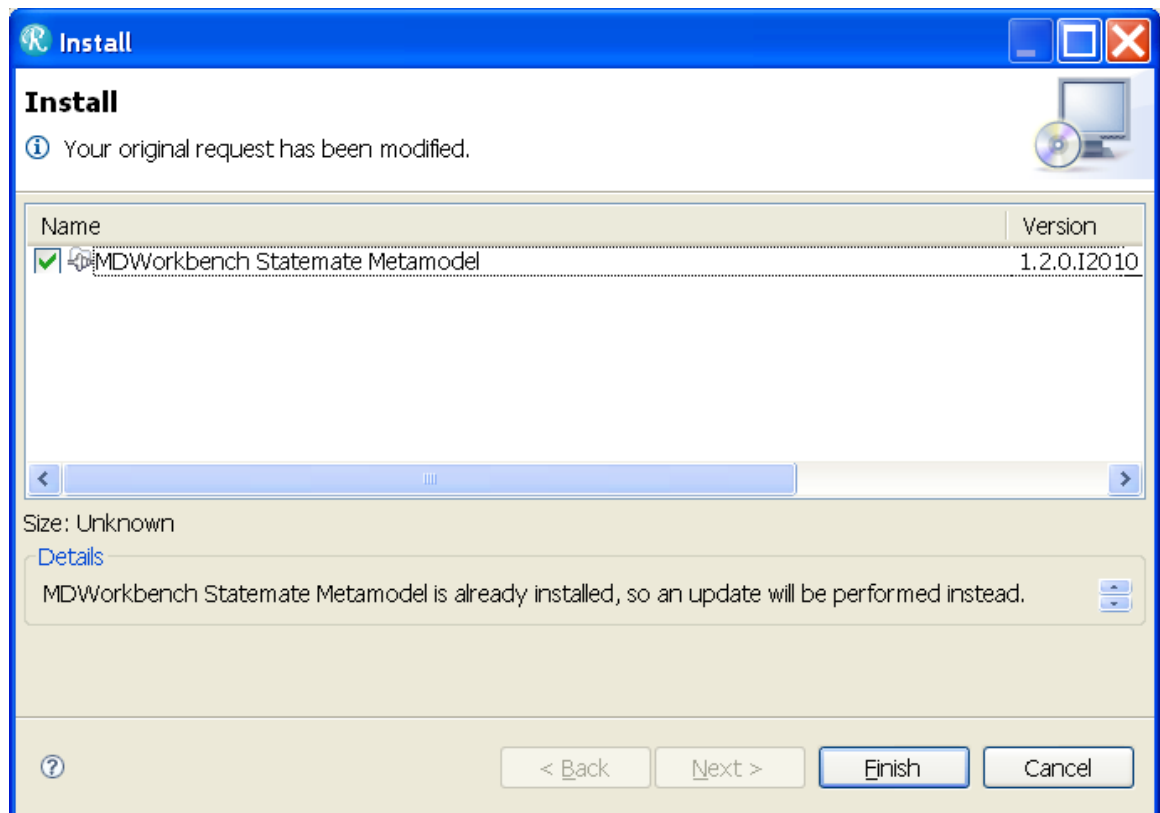
4. Press **OK** and the Software updates wizard contains now the new **StateMate** metamodel, select this one and press **Install...**



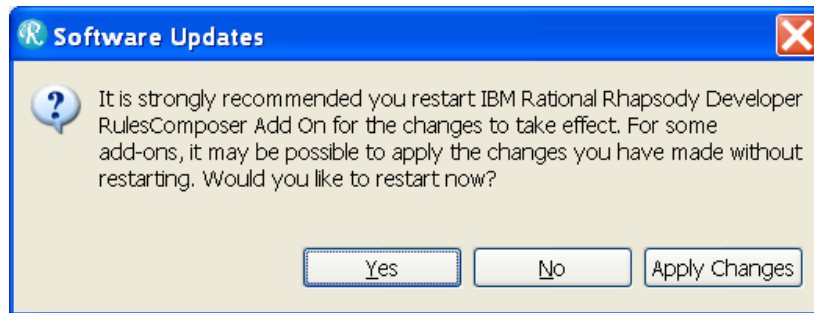
5. During several minutes, **RulesComposer** displays this box:



6. Wait until the following window opens:

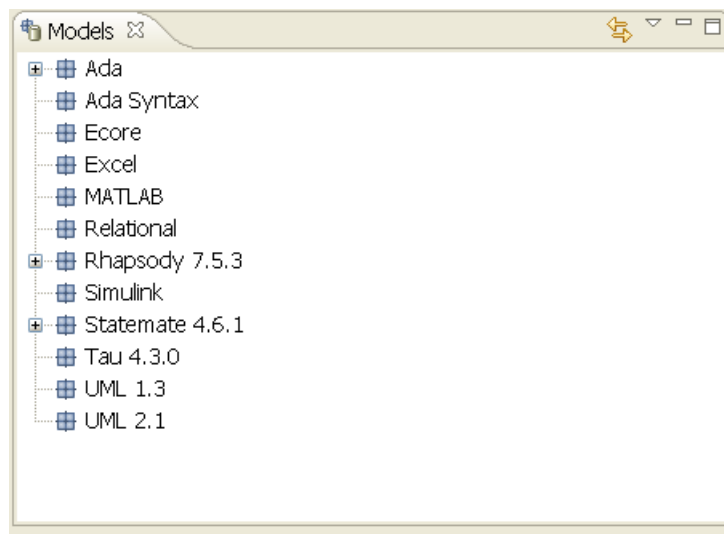


7. In **Details** box, RulesComposer warns about an existing metamodel and proposes to update it, press **Finish** to confirm upgrade.
8. Wait until the following window opens:



9. Press **Yes** to confirm restart of **RulesComposer**.

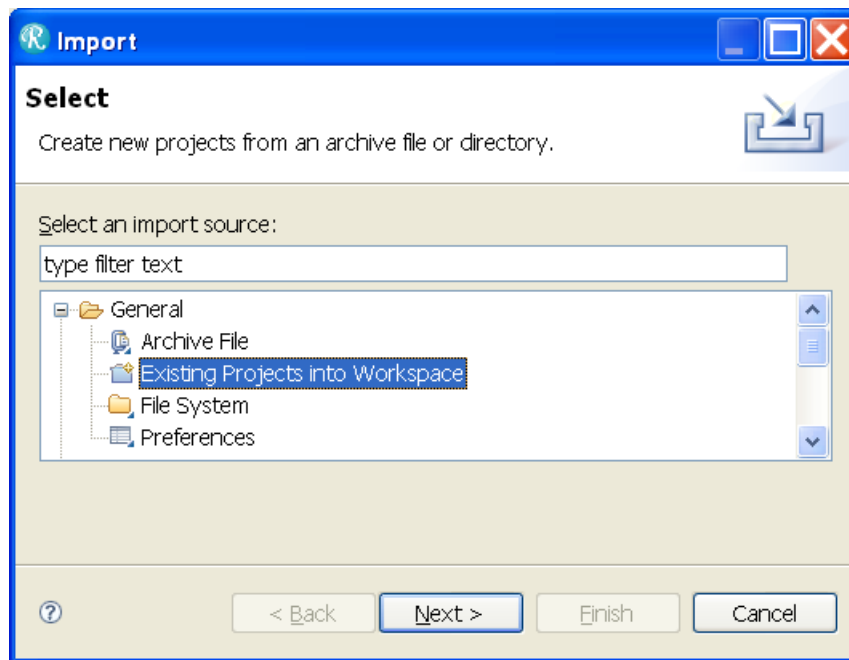
10. After restart check in **Models** view that **StateMate 4.6.1** metamodel is available:



Importing Rules

You can use the **Import** Wizard to import the StateMate to UML Rules Set into your RulesComposer workspace.

11. From the main menu bar, select **File > Import**
Then the **Import** wizard opens.
12. Select **General > Existing Project into Workspace** and click **Next**.

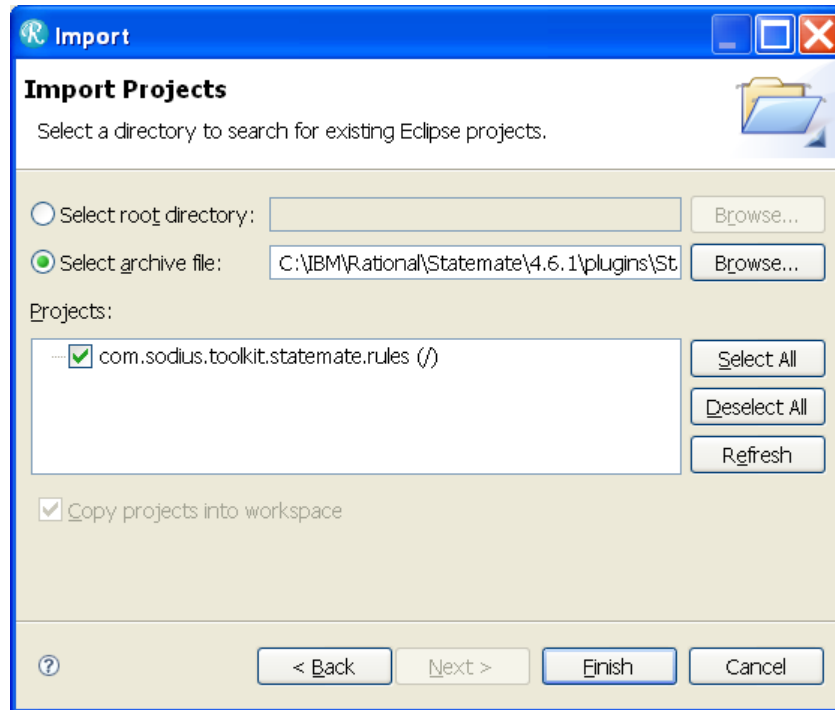


13. Choose **Select archive file** and click on the associated **Browse** button to locate the zip file:

StateMateToolkitSRCForRulesComposer.zip

Available under folder:

StateMate_INSTALL_PATH\plugins\StateMateForXMIBridge\src.



14. Under Projects select `com.sodius.toolkit.statemate.rules` project.
15. Click **Finish** to start the import.

Editing Rules

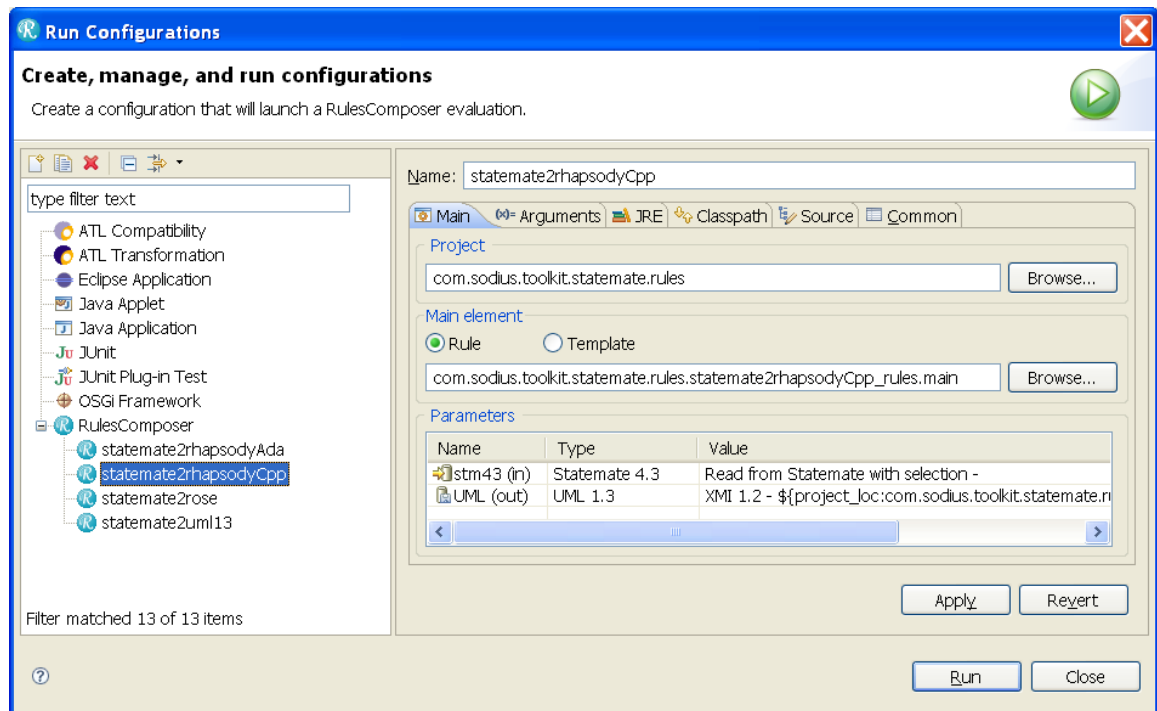
An Help is available in RulesComposer Help:

Select **Help > Help Contents** and book **MDWorkbench Documentation**,
Then **Tasks > Developing Rules > Editing rules**.

Testing Rules

To run rules you have to use a Rule Set launch configuration:

1. From the main menu bar, select **Run > Run Configurations**
Then the **Run Configurations** wizard opens.



2. In RulesComposer browser four **launch configurations** imported with project appear: **state2mate2rhapsodyAda**, **state2mate2rhapsodyCpp**, **state2mate2rose**, and **state2mate2uml13**.
3. Choose the launch configuration corresponding to the main rule you want to test.

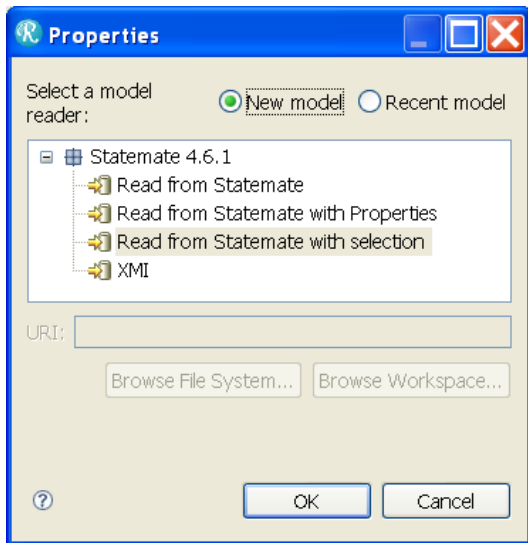
In **Parameters** you can specify the input Statemate model and the output UML one.

By default the input model is pointing to a sample XMI model **pingpong.xmi** imported with Rules Set project in the view **Models**. You can change this model by another model exported with the **XMI Bridge** in format: **XMI Statemate**.

4. Click **Run** to execute the main rule.

For more details, select **Help > Help Contents**, and in book **MDWorkbench Documentation**, select **Tasks > Developing Rules > Running and debugging**.

Note: when you click on parameter stm43(in), the following window wizard is opened:

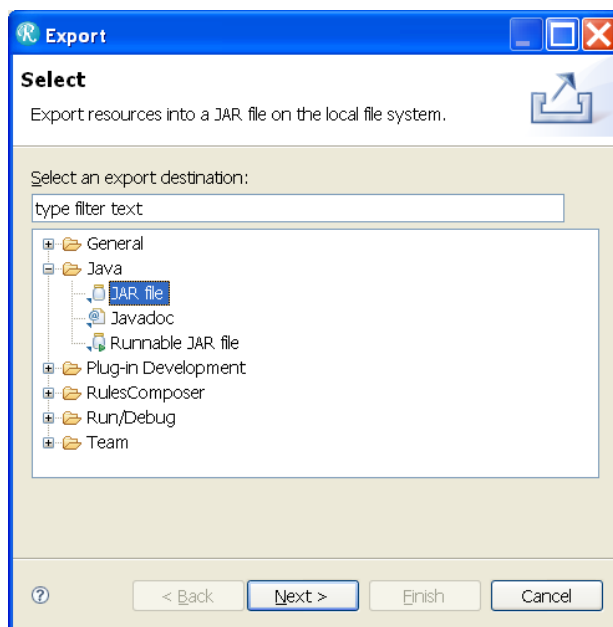


Use only XMI connector, other connectors are not available under RulesComposer.

Deploying Rules

To integrate your new rules to the StateMate XMI Toolkit you have to deploy them. For that you can use the **Export** wizard from RulesComposer.

1. In the projects browser, select the Rule Set project.
2. From the main menu bar, select **File > Export**, then the **Export** wizard opens.
3. Select **Java > JAR file** and click **Next**.

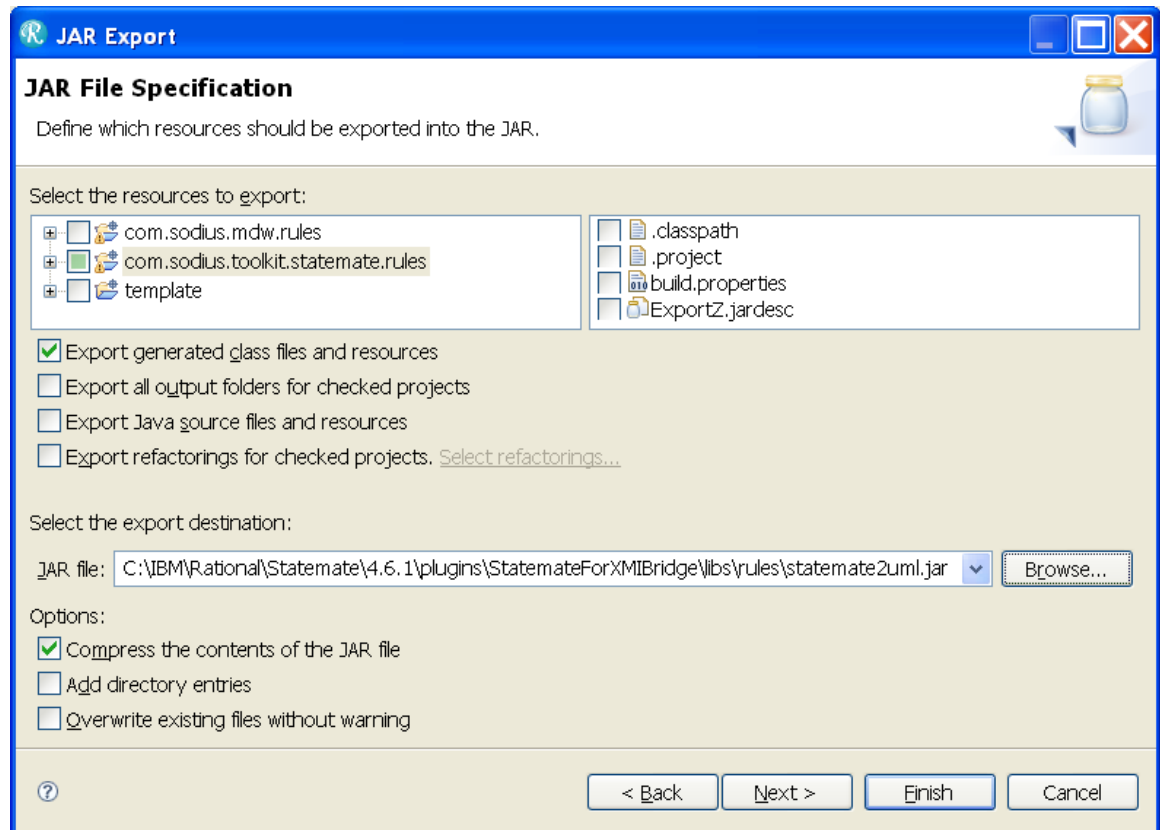


4. In box **Select the resources to export** choose only `src` package, Check **Export generated class files and resources**, Then save the jar file under folder:

Statemate_INSTALL_PATH\plugins\StatemateForXMIBridge\rules

with filename:

statemate2uml.jar (replace the old jar) and click **Finish**.



Troubleshooting

Sometimes, if you get this error message box in **RulesComposer**:



Maybe the **X Server** service used by Statemate needs to restart. If this is inefficient, please restart your session or your machine, this will be enough to solve this problem. If after trying all, this problem persists, please re-install Statemate and its X Server.