



**Installing IBM WebSphere Integration Developer
with ILOG JRules Developer**

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19 October 2009

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Introduction

This guide explains how to install WebSphere Integration Developer with ILOG JRules. The intended audience for this guide is people who develop solutions that include IBM® WebSphere® and ILOG JRules. Prior knowledge of the installation procedure for any of the components to be installed is not required.

The following products will be installed:

- WebSphere Integration Developer V6.2
- WebSphere Process Server V6.2
- JRules V6.7.3
- JRules WebSphere Application Server Binaries V6.7.3
- JRules V6.7 Integration for WebSphere Process Server V6.2

Installing WebSphere Integration Developer

We will now install both WebSphere Integration Developer and the WebSphere Process Server test environment.

1. Start installing WebSphere Integration Developer from the launchpad.

If you are installing from a DVD, run `launchpad.exe`, which is located in the root directory of the DVD.

If you are installing from a hard disk drive, run `launchpad.exe`, which is located in the `disk1` directory of the expanded installation files.

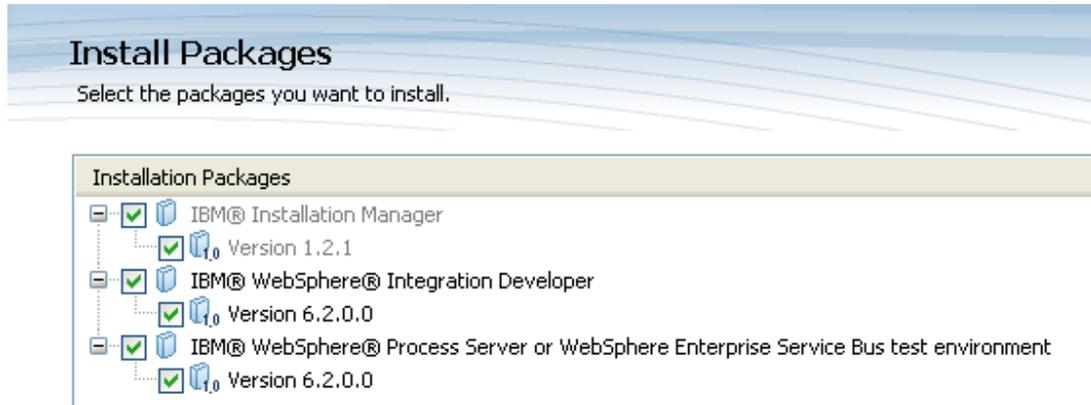
2. On the Languages page, choose your installation language and click **OK**.
3. In the Launchpad window, click **Install IBM® WebSphere® Integration Developer V6.2**.



IBM Installation Manager will start. You will use Installation Manager to install the software.

4. In the Install Packages page, select all packages including the following
 - **IBM® Installation Manager**
 - **IBM® WebSphere® Integration Developer,**
 - **IBM® WebSphere Process Server or WebSphere Enterprise Service Bus test environment.**

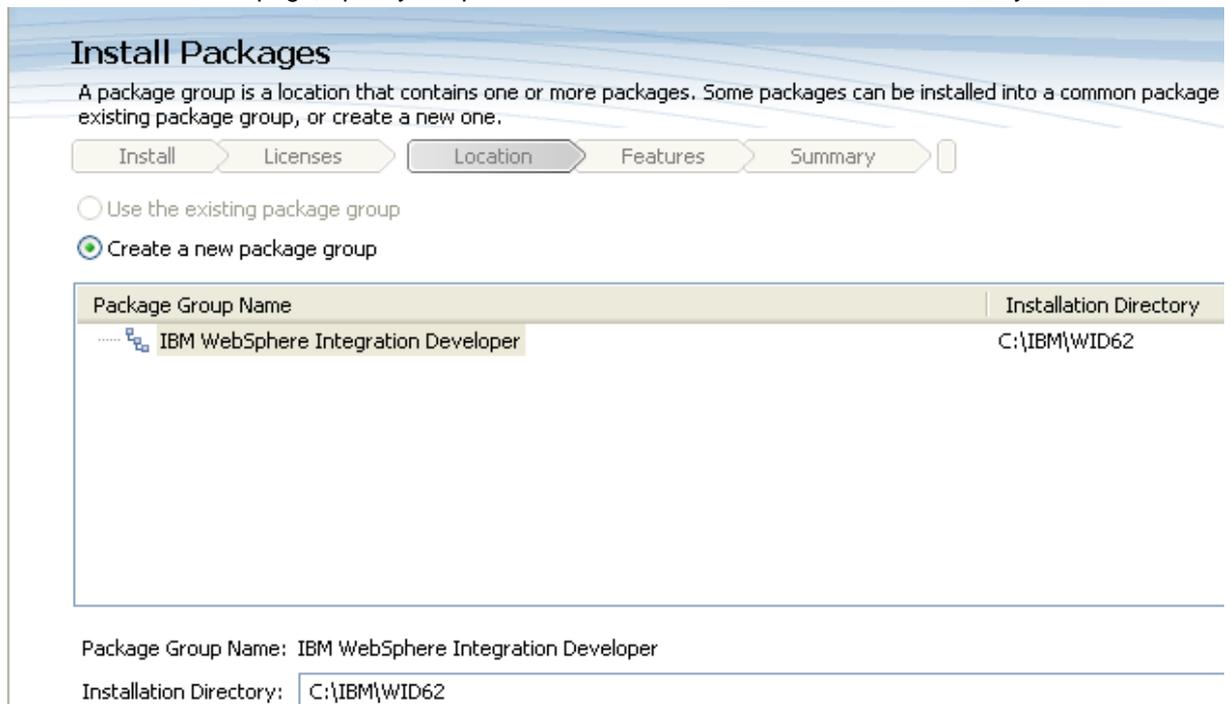
5. Click **Next**.



6. On the Licenses page, accept the license agreement for the selected packages. Click **Next**.
7. On the Location page, type the path for the shared resources directory (for example, C:\IBM\SDP70Shared) and the installation manager directory, which, if installed in the default location, is C:\IBM\Installation Manager\eclipse. Click **Next**.

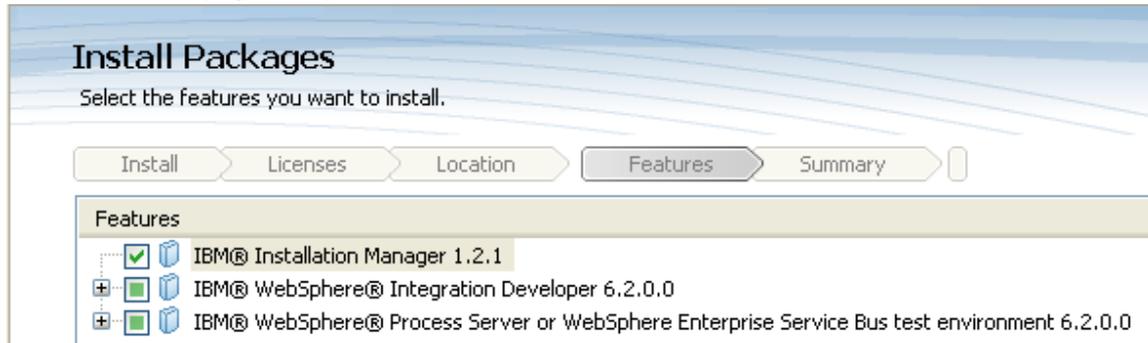
Note: Change the installation directory to one with no spaces in the path.

8. On the next Location page, specify the path C:\IBM\WID62 for the installation directory. Click **Next**.



9. On the Languages page, choose all the languages that you would like to be supported when you use this software. Click **Next**.

10. On the Features page, verify the selected features. Click **Next**.



11. On the second Features page, specify the administrative user ID and password for the test environment profiles. You can accept the defaults or specify a user ID and password of your choice (recommended). Click **Next**.
12. On the Summary page, review your choices before installing the WebSphere Integration Developer package.

When you are satisfied with your installation choices, click **Install**. A progress indicator shows the percentage of the installation that has completed.

13. When the installation process is complete, a message confirms the success of the installation. For which packages to start, Choose **None**, then click **Finish** and close the launchpad window.

Verifying the WebSphere Integration Developer installation

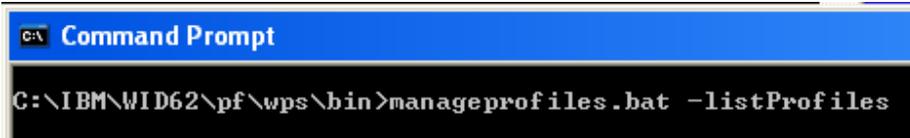
In this step, we will validate the WebSphere Process Server with the correct profile was created.

1. Open a command window and navigate to the directory <WID_HOME>\runtimes\bi_v62\bin.

Note: WID_HOME represents the installation location of WebSphere Integration Developer, which is C:\IBM\WID62 for this installation.

2. Enter the following command:
`manageprofiles.bat -listProfiles`

This will list the WebSphere Process Server profiles that are currently installed.



```
C:\> Command Prompt
C:\IBM\WID62\pf\wps\bin>manageprofiles.bat -listProfiles
```

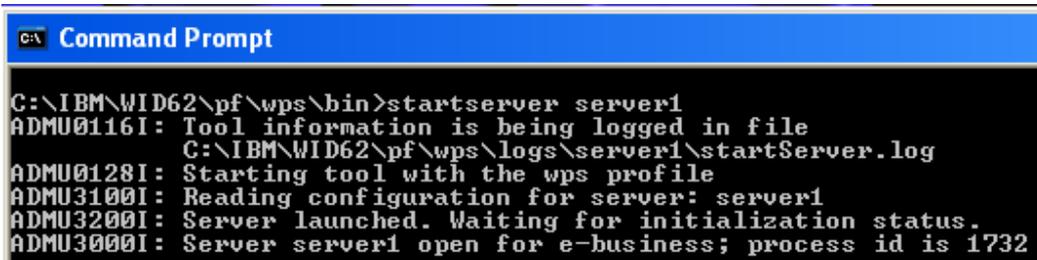
You will see one profile listed: **wps**. The wps profile is the default profile that was created when WebSphere Integration Developer was installed. Each wps profile can be thought of as a server runtime instance, operating within its own instance of the JVM. Each profile has its own configuration, log files, J2EE applications, and other attributes.

3. Enter the following command to start the server:
`startserver server1 -profileName wps`



```
C:\> Command Prompt
C:\IBM\WID62\pf\wps\bin>startserver server1 -profileName wps
```

When the server has started successfully, you will see the following message: Server server1 open for e-business.

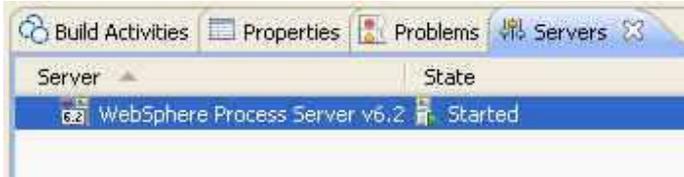


```
C:\> Command Prompt
C:\IBM\WID62\pf\wps\bin>startserver server1
ADMU0116I: Tool information is being logged in file
           C:\IBM\WID62\pf\wps\logs\server1\startServer.log
ADMU0128I: Starting tool with the wps profile
ADMU3100I: Reading configuration for server: server1
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server server1 open for e-business; process id is 1732
```

4. Close the command window.
5. Start WebSphere Integration Developer.

The first time that you start WebSphere Integration Developer, a window opens with the default workspace directory specified. Accept the default by clicking **Ok**.

6. Close the Welcome panel.
7. In the Business Integration perspective (which is open by default), click the Servers tab to open the Servers view. Verify that the server has been started; the status should be set to Started.



8. In the Servers view, right-click your server and select **Stop**.
9. Close WebSphere Integration Developer.

Installing ILOG JRules

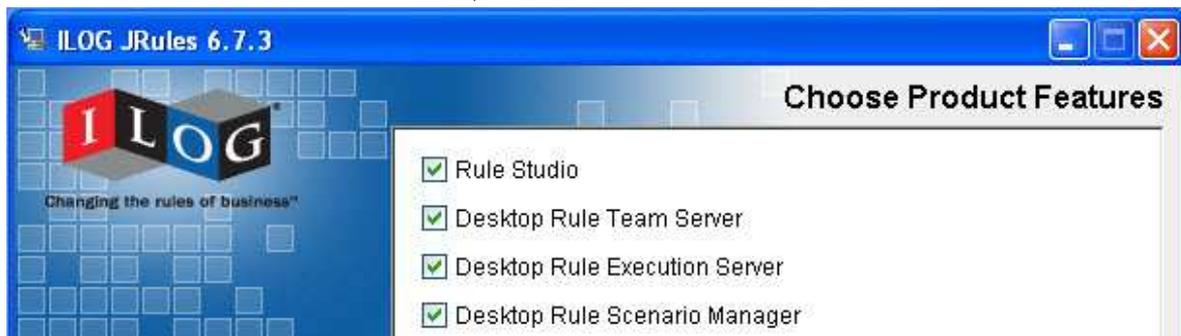
In this section we will install a desktop edition of ILOG JRules. When installing JRules, you can choose to install either ILOG JRules tools for developers or an ILOG JRules Server. These two desktop editions are full-featured versions of the actual server products but with usage rights limited to a developer's desktop computer. You can use the desktop editions to develop and test rule applications and customizations of the JRules server modules.

1. Start the installation of JRules by running `JRules673.exe`.
2. In the Introduction window click **Next**.
3. In the Choose Installation Type window, choose **ILOG JRules tools for developers**.



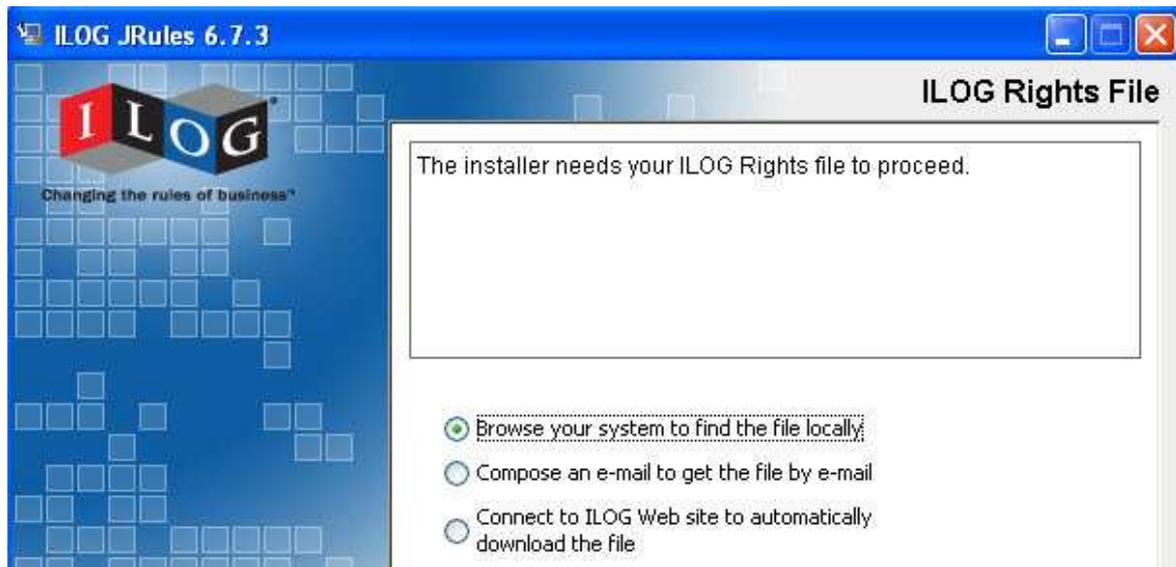
Click **Next**.

4. In the Choose Product Features window, select all of the features.



Click **Next**.

5. In the Installation Password window, enter your installation password. Click **Next**.
6. In the ILOG Rights File window, choose **Browse your system to find the file locally** and click **Next**.



Note: If you do not already have the file on your local system, choose Connect to ILOG Web Site to automatically download the file.

7. To locate or specify your log rights file, click **Choose**. Click **Next**.
8. In the Installation Authorized window, click **Next**.
9. On the Licenses page, accept the license agreement and click **Next**.
10. In the Choose Workbench window, select **No Eclipse installed, install one**.



Note: You could install JRules in an existing Eclipse installation, but for this installation we will isolate the Rules Studio in its own Eclipse installation.

Click **Next**.

11. Click **View log file** to open the installation log file for the current session in a new window. You must close the Installation Log window to continue.

12. In the Choose Install Folder window, accept the default path (C:\ILOG\JRules673) or specify a path for the directory. Click **Next**.

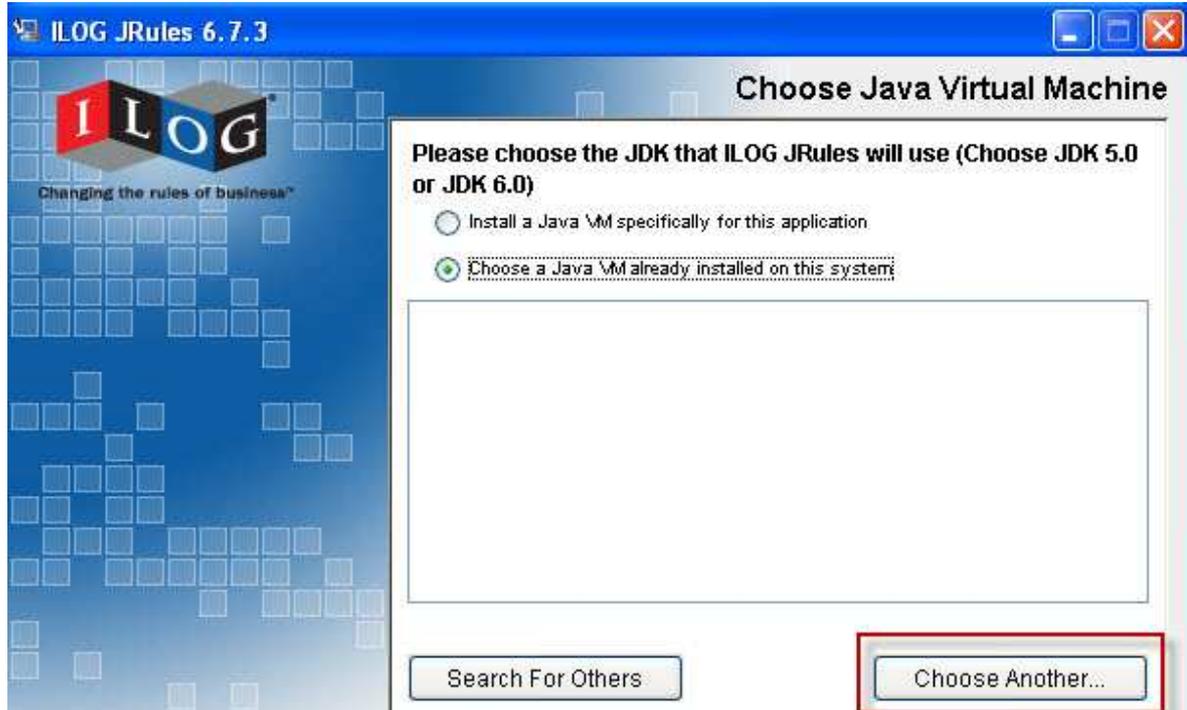


13. In the Choose Java Virtual Machine window, select **Choose a Java VM already installed on this system**.



Note: We will use the IBM Java™ VM that is already installed as part of the WebSphere Integration Developer installation rather than install an additional Java VM.

14. Click **Choose Another** to specify the IBM Java VM.



15. In the Open File window, navigate to <WID_HOME>\runtimes\bi_v62\java\bin\java.exe. The path to the IBM Java VM is displayed.



Click **Next**.

16. In the Choose Shortcut Folder window, accept the defaults and click **Next**.
17. On the summary page, review your choices before installing the JRules. When you are satisfied with your installation choices, click **Install**. A progress indicator shows the percentage of the installation that has completed.
18. When the installation process is complete, a message confirms the success of the installation. Click **Done** and close the readme file.

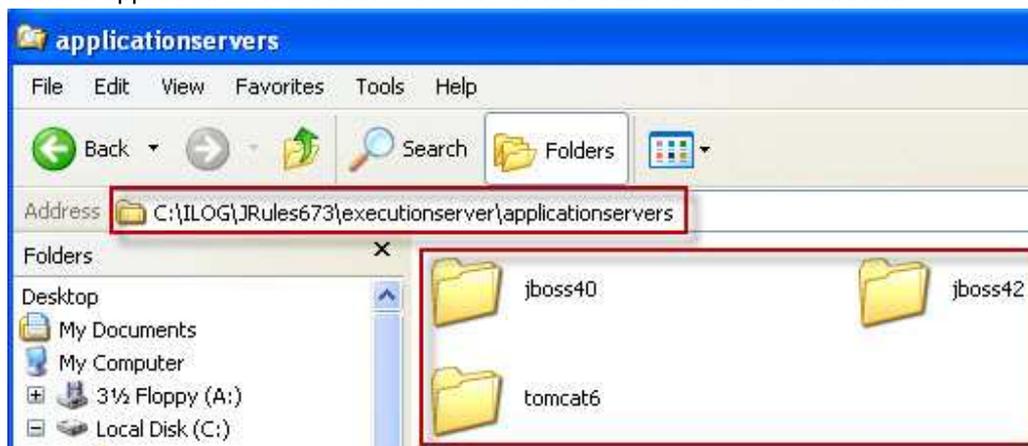
Installing JRules WebSphere Application Server binaries

You have now installed ILOG JRules authoring and web interface programs; however you still need to install the JRules servers themselves to run the rules. The installation program for this step is not included in the JRules installer, but must be downloaded from the [ILOG support site](#).

The installation programs are specific to the application server, so along with WebSphere, you will see installation programs for several other application servers. They each include the Java EE applications (Rule Execution Server and WebSphere ILOG Rule Team Server), Java libraries, and a JCA adapter for the vendor-specific application server.

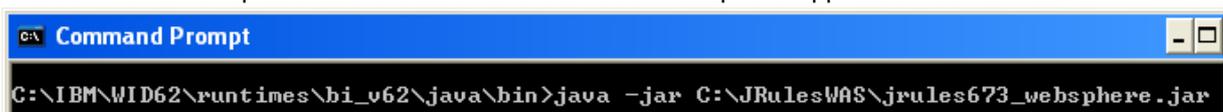
For WebSphere Application Server, the installer will be `JRulesversion_websphere.jar`. For this installation, we will be using `JRules673_websphere.jar`.

1. Using Windows® Explorer, navigate to the `<JRULES_HOME>\executionserver\applicationserver` directory. JRULES_HOME represents the installation directory of JRules, which is `C:\ILOG\JRules673` for our installation. You can see the Jboss and Tomcat application server binaries that are included with the Jrule installation.



2. Repeat step 1 for the following directories:
`<JRULES_HOME>\teamserver\applicationserver`
`<JRULES_HOME>\scenariomanager\applicationserver`
3. Open a command window and switch to the `<WID_HOME>\runtime\bi_v62\java\bin` directory.
4. Issue the following command:
`java -jar <JRulesWASHome>\ JRules673_websphere.jar`

JRulesWASHome represents the location of the JRules WebSphere Application Server installer.



- a. In the Introduction window, click **Next**.

- b. On the Licenses page, accept the license agreement and click **Next**.
- c. In the Choose Install Folder window, specify the path of your JRules installation, which is `C:\ILOG\JRules673` for our installation.



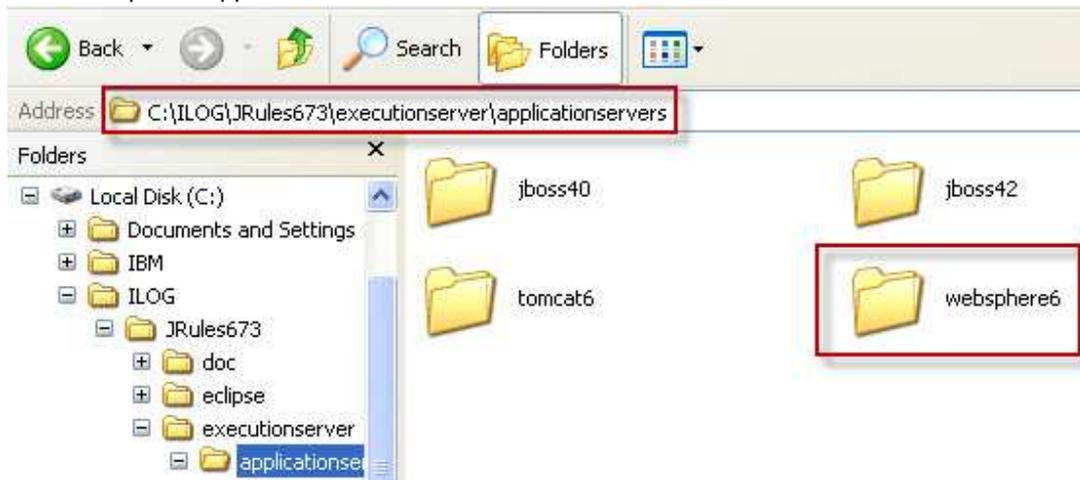
Click **Next**.

- d. On the Summary page, review your choices before installing. When you are satisfied with your installation choices, click **Install**.

A progress indicator shows the percentage of the installation that has completed.

When the installation process is complete, a message confirms the success of the installation.

5. Click **Next**.
6. In the Readme window, click **Done**.
7. Switch back to Windows Explorer and navigate to the `<JRULES_HOME>\executionserver\applicationserver` directory. You now see a `websphere6` directory, which contains the JRules Java EE applications, Java libraries, and JCA adapter that will be installed into WebSphere Application Server.



8. Repeat the previous step for the following directories:
`<JRULES_HOME>\teamserver\applicationserver`
`<JRULES_HOME>\scenariomanager\applicationserver`

Installing the ILOG JRules integration for WebSphere Process Server

When you integrate ILOG JRules into WebSphere Process Server, a WebSphere Process Server profile is created that contains the JRules runtime components (a team server, an execution server, and a resource adapter). In addition, a wizard is added to WebSphere Integration Developer to help you create an SCA component from an existing JRules rule application.

1. Set Java on the path.

The JRules integration for WebSphere Process Server requires Java to be set on the path. We will set Java on the path, using the IBM JVM:

- a. Switch back to the command window and navigate to the directory where the file `JRules673WPS62_NoVM.exe` is located.

b. Enter the command:

```
SET PATH=C:\IBM\WID62\runtimes\bi_v62\java\bin;%PATH%;
```



2. Enter the command:

`JRules673WPS62_NoVM.exe`



- a. In the Introduction window, click **Next**.
- b. On the Licenses page, accept the license agreement, and click **Next**.
- c. In the Select ILOG JRules Installation window, specify the path of your JRules installation, which is `C:\ILOG\JRules673` for our installation.



Click **Next**.

- d. In the Select Eclipse Installation window, specify the path of your JRules eclipse installation, which is C:\ILOG\JRules673\eclipse for our installation.



Click **Next**.

- e. In the Select WID Installation window, specify the path of your WebSphere Integration Developer installation, which is C:\IBM\WID62 for our installation.



Click **Next**.

- f. In the Choose Shortcut Folder window, accept the defaults and click **Next**.
- g. On the Pre-installation Summary page, review your choices before installing. When you are satisfied with your installation choices, click **Install**.

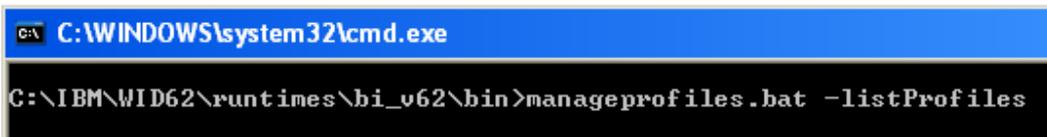
A progress indicator shows the percentage of the installation completed.

- h. When the installation process is complete, select **No** for the readme. Click **Done**.

Verifying the ILOG JRules integration for WebSphere Process Server

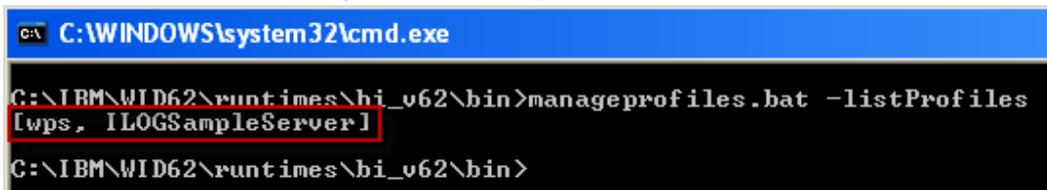
1. Switch back to the command window and navigate to the <WID_HOME>\runtimes\bi_v62\bin directory.
2. Enter the following command:
`manageprofiles.bat -listProfiles`

A list of the WebSphere Process Server profiles that are currently installed is displayed.



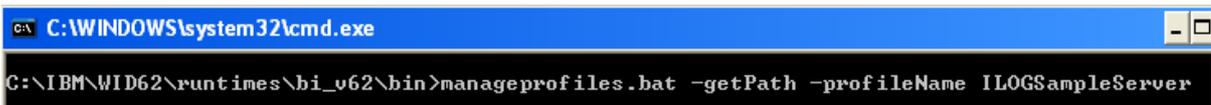
```
C:\WINDOWS\system32\cmd.exe
C:\IBM\WID62\runtimes\bi_v62\bin>manageprofiles.bat -listProfiles
```

You will see two profiles listed: **wps** and **ILOGSampleServer**. The wps profile is the profile that was created when WebSphere Integration Developer was installed. The ILOGSampleServer profile was created when the JRules integration for WebSphere Process Server was installed.



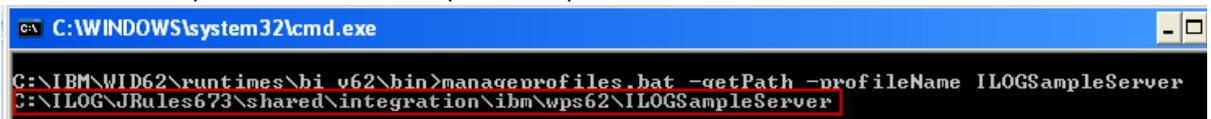
```
C:\WINDOWS\system32\cmd.exe
C:\IBM\WID62\runtimes\bi_v62\bin>manageprofiles.bat -listProfiles
[wps, ILOGSampleServer]
C:\IBM\WID62\runtimes\bi_v62\bin>
```

3. Optionally, find out where the ILOGSampleServer profile is installed by entering the command:
`manageprofiles.bat -getPath -profileName ILOGSampleServer`



```
C:\WINDOWS\system32\cmd.exe
C:\IBM\WID62\runtimes\bi_v62\bin>manageprofiles.bat -getPath -profileName ILOGSampleServer
```

You will see the path for the ILOGSampleServer profile.



```
C:\WINDOWS\system32\cmd.exe
C:\IBM\WID62\runtimes\bi_v62\bin>manageprofiles.bat -getPath -profileName ILOGSampleServer
C:\ILOG\JRules673\shared\integration\ibm\wps62\ILOGSampleServer
```

The JRules server profile is located at

<JRULES_HOME>\shared\integration\ibm\wps62\ILOGSampleServer.

4. To start the server, enter the following command:
`startserver server1 -profileName ILOGSampleServer`



```
C:\WINDOWS\system32\cmd.exe
C:\IBM\WID62\runtimes\bi_v62\bin>startserver server1 -profileName ILOGSampleServer
```

When the server has started successfully, you will see the Server server1 open for e-business message.

```
C:\WINDOWS\system32\cmd.exe

C:\IBM\WID62\runtimes\hi_u62\bin>startserver server1 -profileName ILOGSampleServer
ADMU0116I: Tool information is being logged in file
          C:\ILOG\JRules673\shared\integration\ibm\wps62\ILOGSampleServer\logs\ser
tServer.log
ADMU0128I: Starting tool with the ILOGSampleServer profile
ADMU3100I: Reading configuration for server: server1
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server server1 open for e-business; process id is 5568
```

We will now validate that the JRules runtime components for WebSphere have been installed and are running.

1. Open the [WebSphere Process Server administrative console](http://localhost:9060/ibm/console/). The default URL is <http://localhost:9060/ibm/console/>.
2. On the main screen, enter the user ID and password (the default user ID is admin and the default password is admin). Then click **Log in**.

Integrated Solutions Console

Welcome, enter your information.

User ID:

Password:

3. Navigate to **Applications > Enterprise Applications** in the administrative console. You should be able to find the JRules application components in the list.

The screenshot shows the IBM Administrative Console interface. On the left is a navigation tree with the following items: Welcome, Guided Activities, Servers, Applications (expanded), Resources, Security, Environment, Services, Integration Applications, System administration, Users and Groups, Monitoring and Tuning, Troubleshooting, Service integration, and UDDI. Under 'Applications', 'Enterprise Applications' is selected. The main content area is titled 'Enterprise Applications' and contains a table of installed applications. The table has columns for 'Select' (checkbox) and 'Name'. The applications listed are: AppScheduler, BPCECollector widNode server1, BPCEExplorer widNode server1, BPEContainer widNode server1, DefaultApplication, HTM_PredefinedTaskMsg_V620_widNode_server1, HTM_PredefinedTasks_V620_widNode_server1, ILOG Rule Execution Server, ILOG Rule Team Server, JRules Decision Service, REST Services Gateway, RemoteAL61, and SSP. The entries 'ILOG Rule Execution Server', 'ILOG Rule Team Server', and 'JRules Decision Service' are grouped by a red box, and 'SSP' is also highlighted with a red box.

4. Log out of the administrative console.

We will now verify that the Rule Execution Server has been successfully installed. Open the [Rule Execution Server Console](#).

1. Open the Rule Execution Server Console. The default URL is <http://localhost:9080/bres/>.
2. On the main screen, enter the user ID and password (the default user ID is bres and the default password is bres), then click **Log in**.

3. Click the **Diagnostics** link.



4. Click **Run Diagnostics**. You should see a report that is similar to the following report:

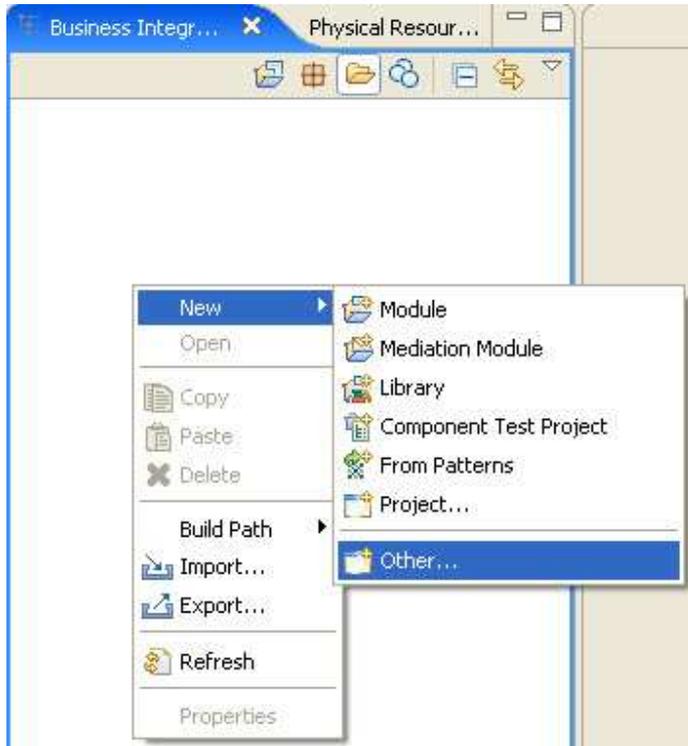


5. Log out of the Rule Execution Server Console.

We will now verify that the ILOG Rules SCA wizard has been installed in WebSphere Integration Developer.

1. Start WebSphere Integration Developer. Accept the default workspace path or specify a different path.
2. Ensure that you are in the Business Integration perspective (this is the default).

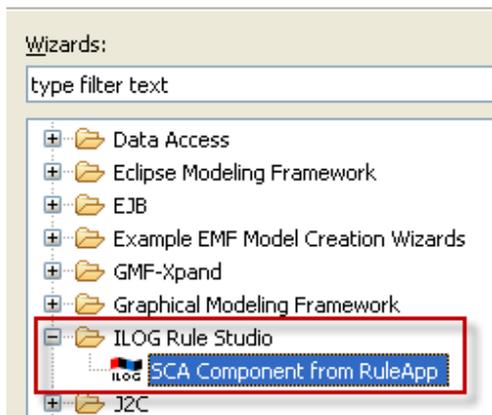
3. Select **File > New > Other** (or press **CTRL-N**).



4. Select **ILOG Rule Studio > SCA Component from RuleApp**.

Select a wizard

Create a SCA Component from an existing RuleApp



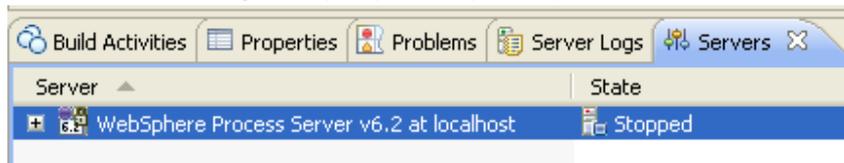
5. When the wizard opens, click **Cancel**.
We are not going to create components here. The intention was to determine that the ILOG Rules SCA wizard is now available in WebSphere Integration Developer.

Note: The ILOG JRules wizard is not available in WebSphere Integration Developer by default. It is installed as part of the JRules integration for WebSphere Process Server.

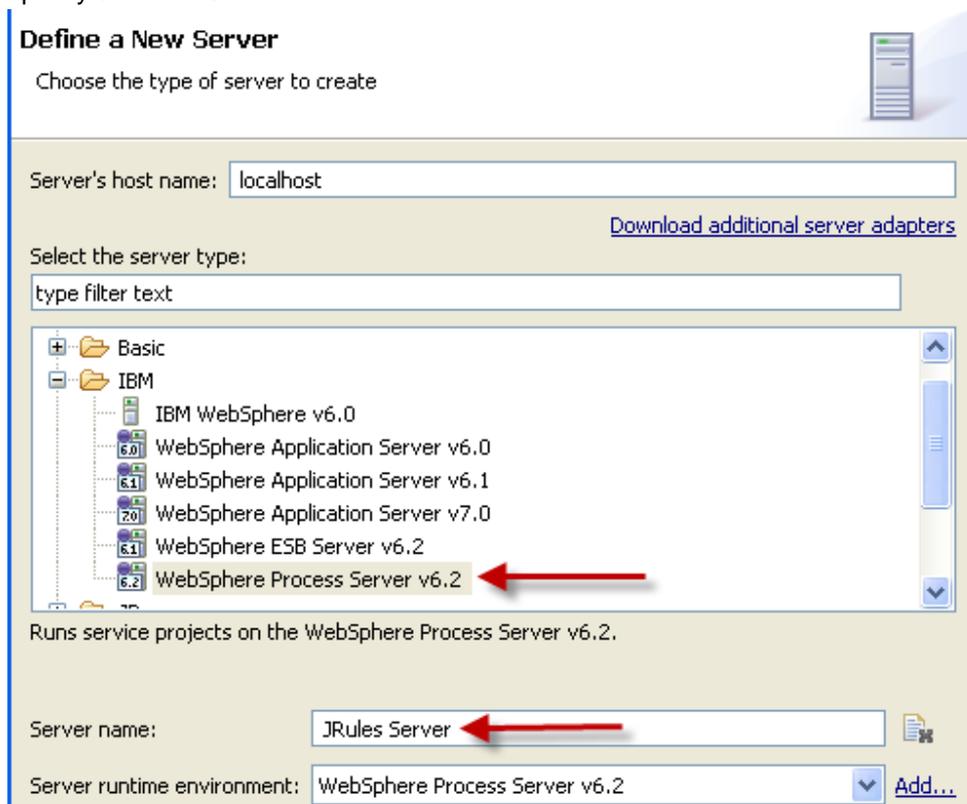
Installing the ILOG JRules server profile as a test environment in WebSphere Integration Developer

When you install WebSphere Integration Developer with WebSphere Process Server, you will already have a default test environment server. We will now add the ILOGSampleServer profile as a test environment server. This server will be required when we want to test modules that call JRules business rules.

1. In the Business Integration perspective (default), click the **Servers** tab to open the Servers view.

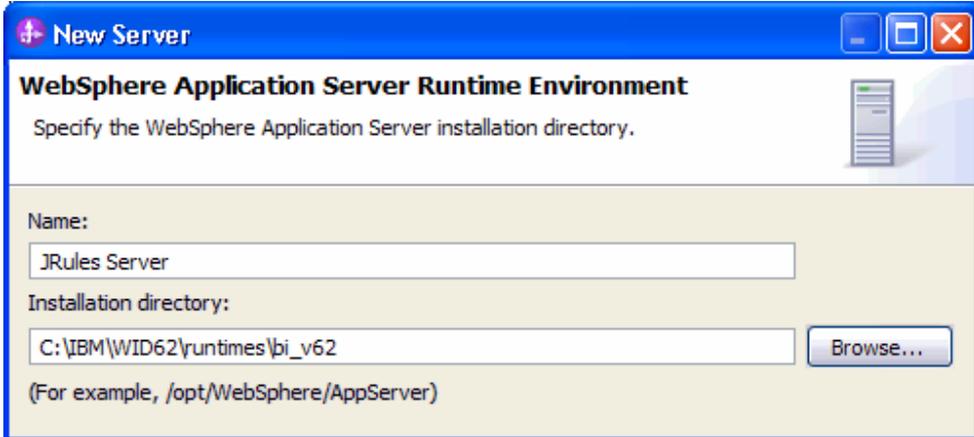


2. In the Servers view, right-click anywhere in the view and select **New > Server**. The New Server wizard opens.
3. In the Server's host name field, accept the default host name of localhost.
4. In the Select the server type list box, select **WebSphere Process Server v6.2**. For the server name, specify **JRules Server**.



Click **Next**.

5. If prompted for the WebSphere Application Server Runtime Directory, enter the bi_v62 directory. The default location is C:\IBM\WID62\runtimes\bi_v62.



New Server

WebSphere Application Server Runtime Environment

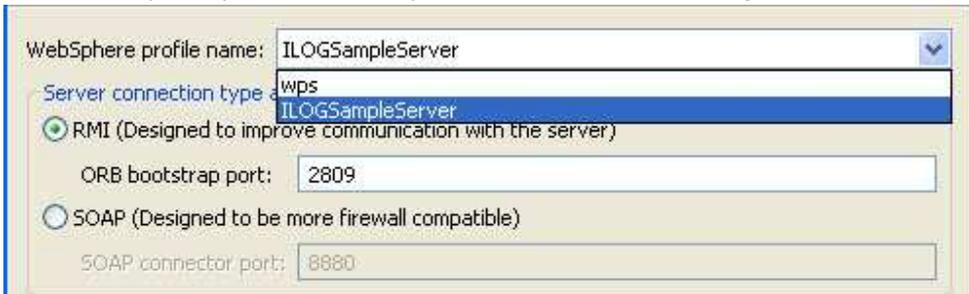
Specify the WebSphere Application Server installation directory.

Name: JRules Server

Installation directory: C:\IBM\WID62\runtimes\bi_v62 Browse...

(For example, /opt/WebSphere/AppServer)

6. In the WebSphere profile name drop-down list, select **ILOGSampleServer**.



WebSphere profile name: ILOGSampleServer

Server connection type: wps

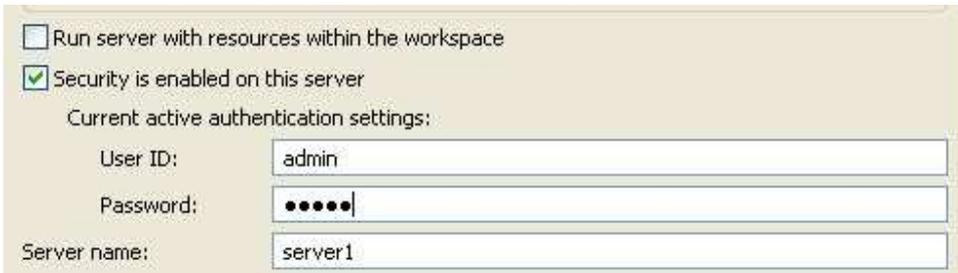
RMI (Designed to improve communication with the server)

ORB bootstrap port: 2809

SOAP (Designed to be more firewall compatible)

SOAP connector port: 8880

7. For the security settings, specify the user ID and password both as admin.



Run server with resources within the workspace

Security is enabled on this server

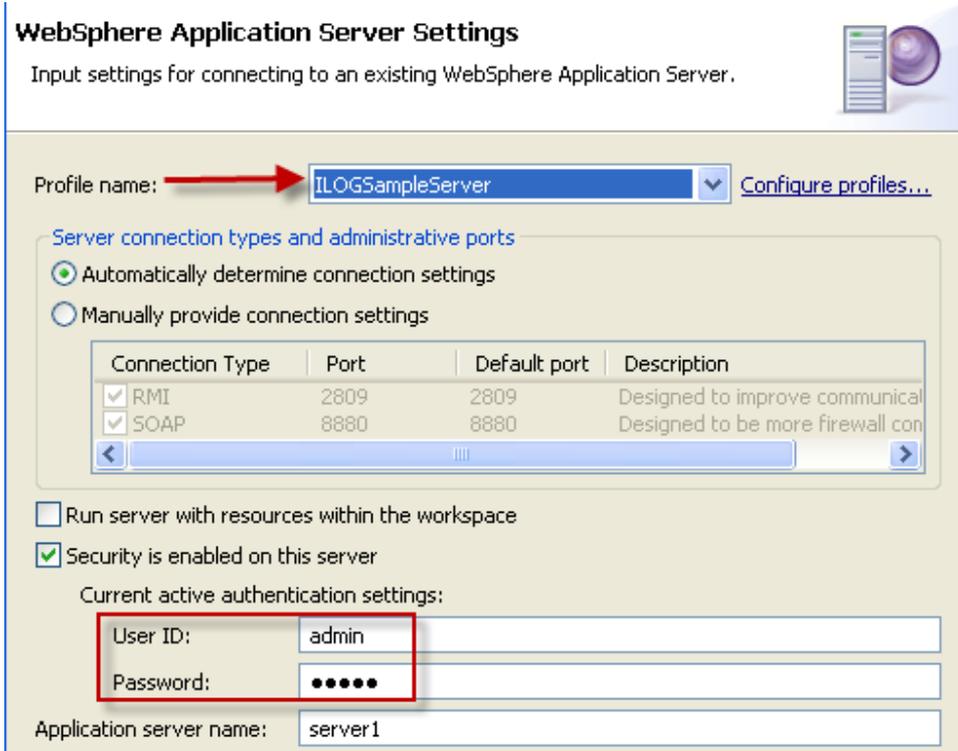
Current active authentication settings:

User ID: admin

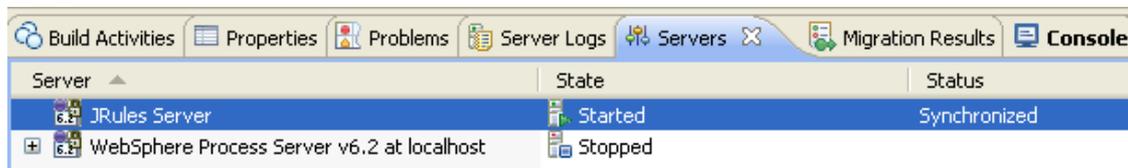
Password:

Server name: server1

- Verify your settings and click **Finish**.



The new server is now displayed in the Servers view. It is in the started state because it was started earlier.



- In the Servers view, right-click your server and select **Stop**.
- Close WebSphere Integration Developer.
- Close the command window.

You have installed all the components that are required to develop and test solutions using both WebSphere and JRules.