

**WebSphere** Adapters  
Version 7 Release 0 Feature Pack 1

*WebSphere Adapter for IBM i User  
Guide  
Version 7 Release 0 Feature Pack 1*

**IBM**



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**Note**

Before using this information and the product it supports, read the information in "Notices" on page 9.

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This edition applies to version 7, release 0, modification 1 of IBM WebSphere Adapter for IBM i and to all subsequent releases and modifications until otherwise indicated in new editions.

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## WebSphere Adapter for IBM i documentation

With WebSphere® Adapter for IBM® i, you can create integrated processes that can exchange of information with an IBM i system, without special coding.

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### What is new in this release

This version includes the following new feature to enhance business flexibility, user experience, and reusability.

Complete information about other supported features is available at the WebSphere Adapter for IBM i information center, [http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r0mx/topic/com.ibm.wsadapters.jca.iseries.doc/doc/stbp\\_isa\\_welcome.html](http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r0mx/topic/com.ibm.wsadapters.jca.iseries.doc/doc/stbp_isa_welcome.html), which is periodically updated with the latest information.

WebSphere Adapter for IBM i supports the following feature:

- Compiling RPG programs and COBOL programs and generating PCML documents.

**Note:** In WebSphere Integration Developer, ensure that you have only one version of the adapter imported into your workspace. You can either have the adapter Fix Pack version 7.0.0.1 or Feature Pack version 7.0.1.0.

In the runtime environment, the application (EAR) should contain only one version of the embedded RAR file, either the adapter Fix Pack version 7.0.0.1 or Feature Pack version 7.0.1.0. The node level deployed adapter should also have only any one version of the adapter.

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### Compiling RPG and COBOL programs and generating PCML documents

You can now view and select the list of RPG and COBOL programs for execution when you want to discover objects. You can also compile and generate the PCML files for the selected program files automatically, without a manual compilation and generating PCML files.

**Note:** Option to work directly with RPG Program and COBOL Program is not available during iterative discovery.

Refer to these topics for setting the connection properties and configuring the adapter for pre and post command execution.

### Setting connection properties for the external service wizard

You must specify the connection properties to enable the external service wizard to discover business objects on the IBM i system.

#### About this task

The external service wizard requires these properties to connect to the IBM i system to discover and create a service description.

## Procedure

1. Start the external service wizard and enter the appropriate information in the Select the Processing Direction window, as explained in the [http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r0mx/topic/com.ibm.wsadapters.jca.iseries.doc/shared/tsha\\_procdirection.html](http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r0mx/topic/com.ibm.wsadapters.jca.iseries.doc/shared/tsha_procdirection.html) topic.
2. In the Specify the Discovery Properties window, specify the connection properties for the wizard to use to connect to the IBM i system.
  - a. In the **Host name** field, specify the host name or IP address of the IBM i system.
  - b. In the **User name** field, enter the user name used to connect to the server from the wizard.
  - c. In the **Password** field, enter the password used to connect to the server from the wizard.
  - d. Select any one of the following options from the **Object type to discover** list:
    - Data queue (default option)
    - RPG via PCML
    - COBOL via PCML
    - SRVPGM via PCML
    - RPG Program
    - COBOL Program

**Note:** Option to work directly with RPG Program and COBOL Program is not available during iterative discovery.

**Note:** For more details regarding the supported object types for IBM i adapter, refer to section [http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r0mx/topic/com.ibm.wsadapters.jca.iseries.doc/doc/cisa\\_suppobjtypes.html](http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r0mx/topic/com.ibm.wsadapters.jca.iseries.doc/doc/cisa_suppobjtypes.html).

- e. The **Path to library on IBM i for object discovery** field is populated with values based on the object type selected in the previous step. If you select Data queue, or RPG Program, or COBOL Program as the object type, the library path on the IBM i system is populated with /QSYS.LIB/. If you select any of the Call IBM i programs, for example RPG via PCML, COBOL via PCML, SRVPGM via PCML, as one of the object type; the library path on the IBM i system is populated with /home/.
- f. In the **Prefix for business object names** list, type a string to be placed at the beginning of business object names. For example, if you select a business object called FIFOQ and you type Test for **Prefix for business object names**, the business object created by the wizard is TestFIFOQ.

The following figure shows the connection properties with the **Object type to discover** list.



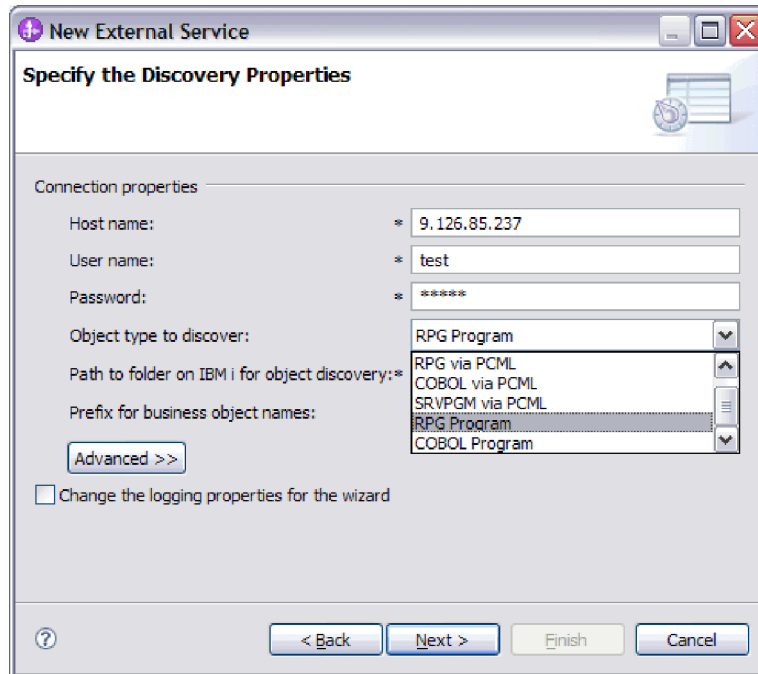


Figure 1. Specify the Discovery Properties window

Connection information from this window is used by the adapter to connect to the IBM i system and discover business objects. In this same wizard at a later time, you can also change the connection information or an authentication alias to be used at run time.

3. Optional: To enable bidirectional support for the adapter at run time:
  - a. Click **Advanced**.
  - b. In the **Bidi properties** list, select **Bidi transformation**.
  - c. Set the ordering schema, text direction, symmetric swapping, character shaping, and numeric shaping properties to control how bidirectional transformation is performed.
4. Optional: To change the location of the logging files for the wizard or the amount of information included in the logs, click **Change logging properties for wizard**, and then provide the following information:
  - In **Log file output location**, specify the location of the log file for the wizard.
  - In **Logging level**, specify the severity of errors that you want logged.

The log information is for the wizard only; at run time, the adapter writes messages and trace information into the standard log and trace files for the server.

5. After you have provided the required connection information for the wizard, click **Next**. The **Path to folder at IBM i for object discovery** field is validated. If the path is invalid, the message 'The referred folder path /QSYS.LIB/rajan.lib11/ is not valid. Enter a valid path.' is displayed. In addition, you can also check the logs, which are located in the directory specified in the **Log file output location**. Ensure that the connection information is correct.

## Results

The external service wizard connects to the IBM i server using the information you provided and the Find Objects in the Enterprise System window is displayed.

## What to do next

Continue working in the wizard. Locate the objects on the IBM i system for which you want the wizard to create business objects.

## Configuring pre and post commands for program execution

You can specify pre and post commands for program execution such as RPG via PCML, COBOL via PCML, SRVPGM via PCML, RPG Program, and COBOL Program for use in your module. Specify the configuration properties for the selected business object in the Configuration Properties window.

## Procedure

1. If you have selected the RPG Program or COBOL Program from the Object type to discover list, then continue with the following steps and skip step 2.
  - a. When you have selected the RPG Program or COBOL Program in the metadata object in the metadata tree, the corresponding MBR files of the program file is listed. You have an option to select either the RPG or COBOL metadata object and move to right pane. A new window with the path to the newly compiled PCML file displays.

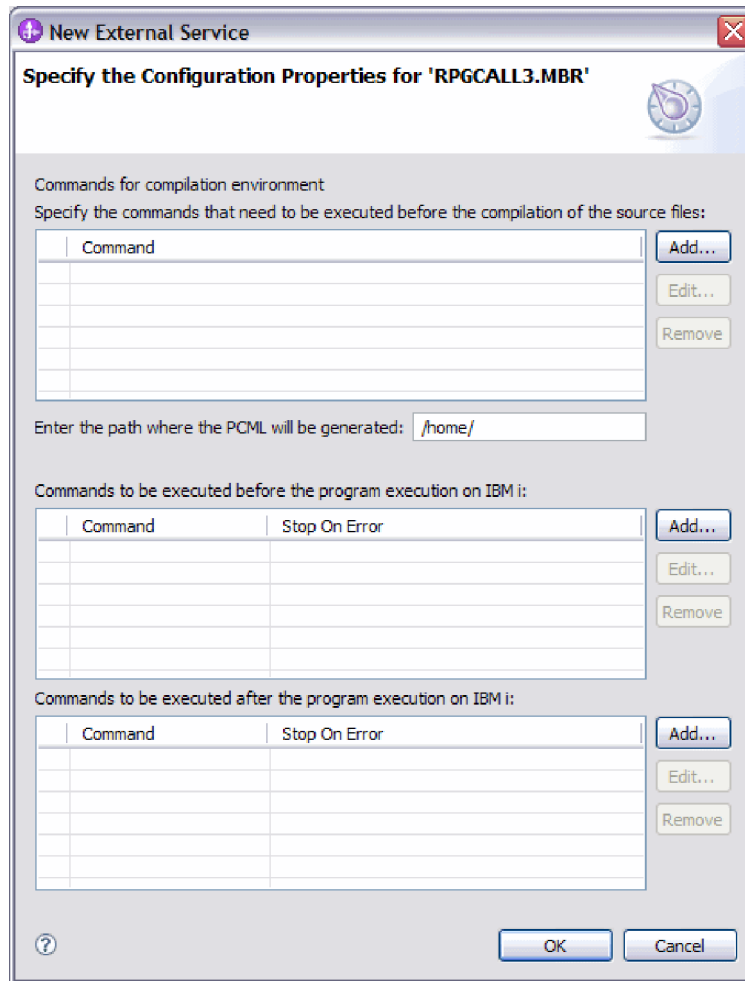


Figure 2. Specify the Configuration Properties window

- Note:** No window with an exception displays when there is a pre-compilation command failure. See the log files for troubleshooting.
- b. Enter the Commands for compilation environment. These commands runs even before the adapter compiles the RPG or COBOL programs as PCMLs.
2. When you have selected the RPG via PCML or COBOL via PCML or SRVPGM via PCML from the Object type to discover list then continue with the following steps and proceed.
    - a. If you have selected the object type as RPG via PCML, COBOL via PCML, SRVPGM via PCML, you can specify the path to have the generated PCMLs stored in the IBM i system. You have an option to change the default folder path.

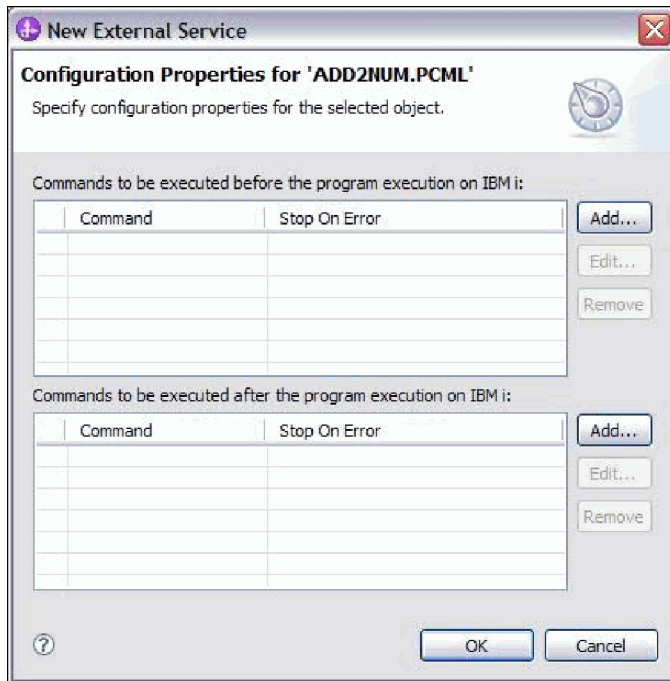


Figure 3. Specify the configuration properties window

3. Enter the pre and post commands to be executed before the program execution on IBM i system. Pre commands are commands to be executed before the program execution on IBM i. Post commands are commands to be executed after the program execution on IBM i. You can add any number of pre commands and post commands. Stop On Error indicates whether the execution must stop or continue in case of any error during the command execution. If Stop On Error for a command is set to true and error occurs during execution of the command, then `ErrorCompletingRequestFault` is generated and execution stops. If Stop On Error for a particular command is set to false and if an error occurs during command execution, then the command execution continues to execute the next commands and program irrespective of the error.
4. Click **Add** to add Commands to be executed before the program execution on IBM i or Commands to be executed after the program execution on IBM i. The following figure shows a typical Add/Edit window to add a new command.

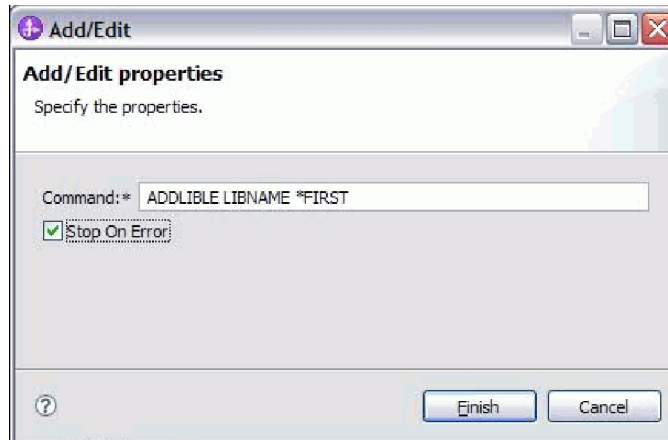


Figure 4. Add Edit Properties window

5. In the **Command** field, enter the command name.
6. Select the Stop On Error check box to stop the execution of the command if there are errors during the execution.
7. Click **Finish** to add the specified properties. A new row is appended to the table, as shown in the following figure.

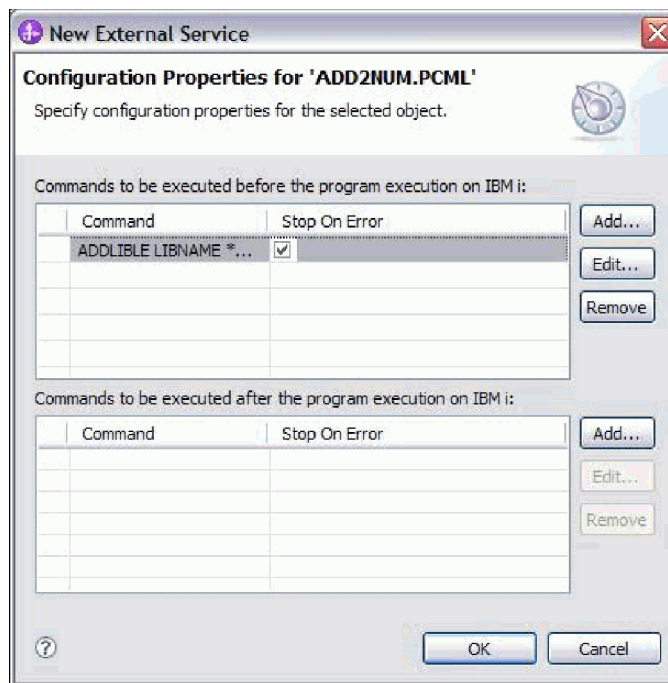


Figure 5. Configuration Properties for program window

8. When you finish adding all the required commands, click **OK**. The object is added to the list of selected objects in the Find Objects in the Enterprise System window.
9. You can also select multiple objects in Find Objects in the Enterprise System window.
10. After you have selected the business objects you want to add to the module, click **Next**. The Specify Composite Properties window is displayed.

## **Results**

The business objects you configured are listed in the Find Objects in the Enterprise System window.

## **What to do next**

From the Specify Composite Properties window, add or remove associated operations.

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General-use programming interfaces allow you to write application software that obtain the services of this program's tools.

However, this information may also contain diagnosis, modification, and tuning information. Diagnosis, modification and tuning information is provided to help you debug your application software.

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