Rational. Portfolio Manager

Version 7.0.1.1
Windows, UNIX, Linux

Release Notes

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Before using this information, be sure to read the general information under “Notices,” on page 45.

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About this book

This document outlines Rational Portfolio Manager 7.0.1.1 release notes. It covers migration procedures, new features added in this release, a list of known problems, and problems that have been fixed in this release.

Who should read this book

This document is intended for any Rational Portfolio Manager user and database or system administrators responsible for Rational Portfolio Manager upgrades.

Proprietary notice

Chapter 1. About this release

Documentation updates

There is an updated version of Rational Portfolio Manager Web Services API guide included in this release. The guide is located in the `${MIGRATION_PACKAGE}/Documents` folder.

Updated instructions on metrics enablement installation

Rational Portfolio Manager now supports an integration with Rational ProjectConsole version 7.0. This integration enables metrics capabilities for Rational Portfolio Manager. See Chapter 3, “Installing metrics capabilities for Rational Portfolio Manager,” on page 9 for information about installing and configuring the integration.

The information in this section replaces the chapter, "Installing the Rational Portfolio Manager metrics enablement package," in the book, *IBM Rational Portfolio Manager Metrics Enablement: Installation and Getting Started Guide* included with Rational Portfolio Manager 7.0 release.

Customer change requests implemented in 7.0.1.1

This section describes the customer change requests implemented in version 7.0.1.1 of Rational® Portfolio Manager.

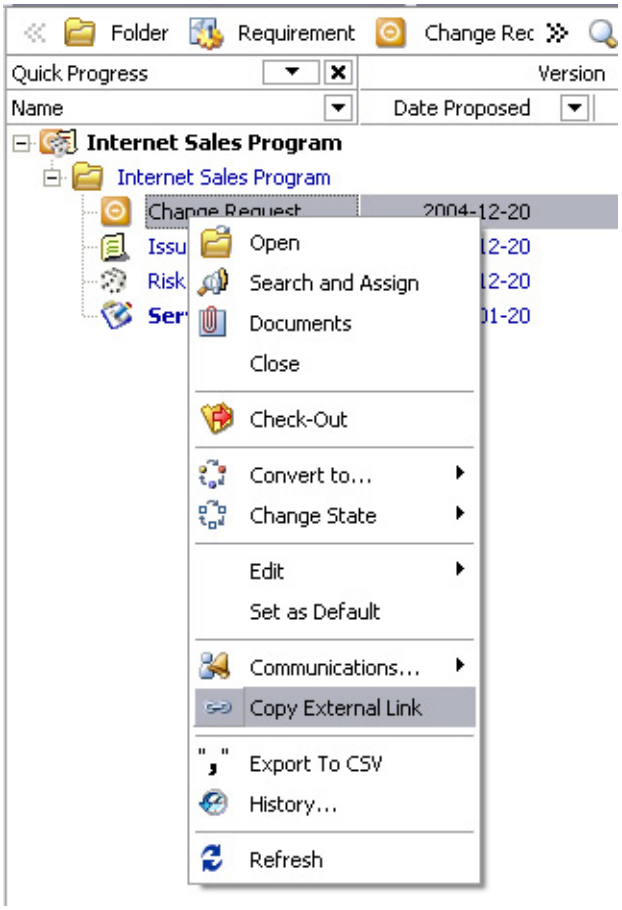
Adding effort hours to the Timephased Budgets pivot

This functionality enables you to track/report hours of work effort assigned to a project on a timephased basis. Users are prompted to select **Cost**, **Hours**, or **Both** data to be displayed in the pivot from the **Select Dates** dialog.

Copy external link

This new feature allows to copy any WBS, scope element, or documents as an external link, then the link can be sent to users for execution. To copy external link:

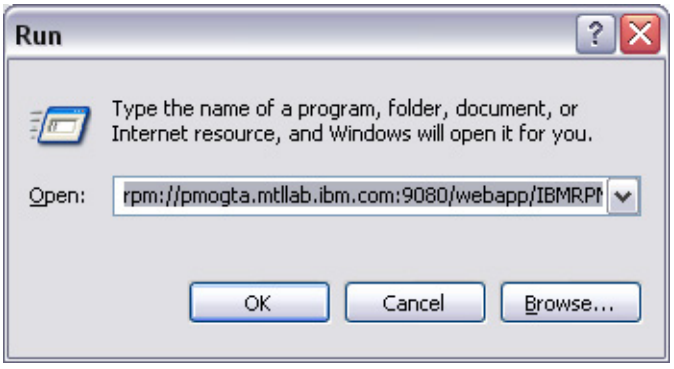
1. While in **Work Management**, **Scope Management**, or **Documents** view right click on any element.
2. Select **Copy External Link** from the context menu. The link of the element is copied into the clipboard.



3. Send the link to the users. (for example by e-mail)

To execute external links:

1. Click on **Start** program in your Windows® application.
2. Select **Run**.
3. Copy and paste the external link in the **Open** field.
4. Click **OK**.

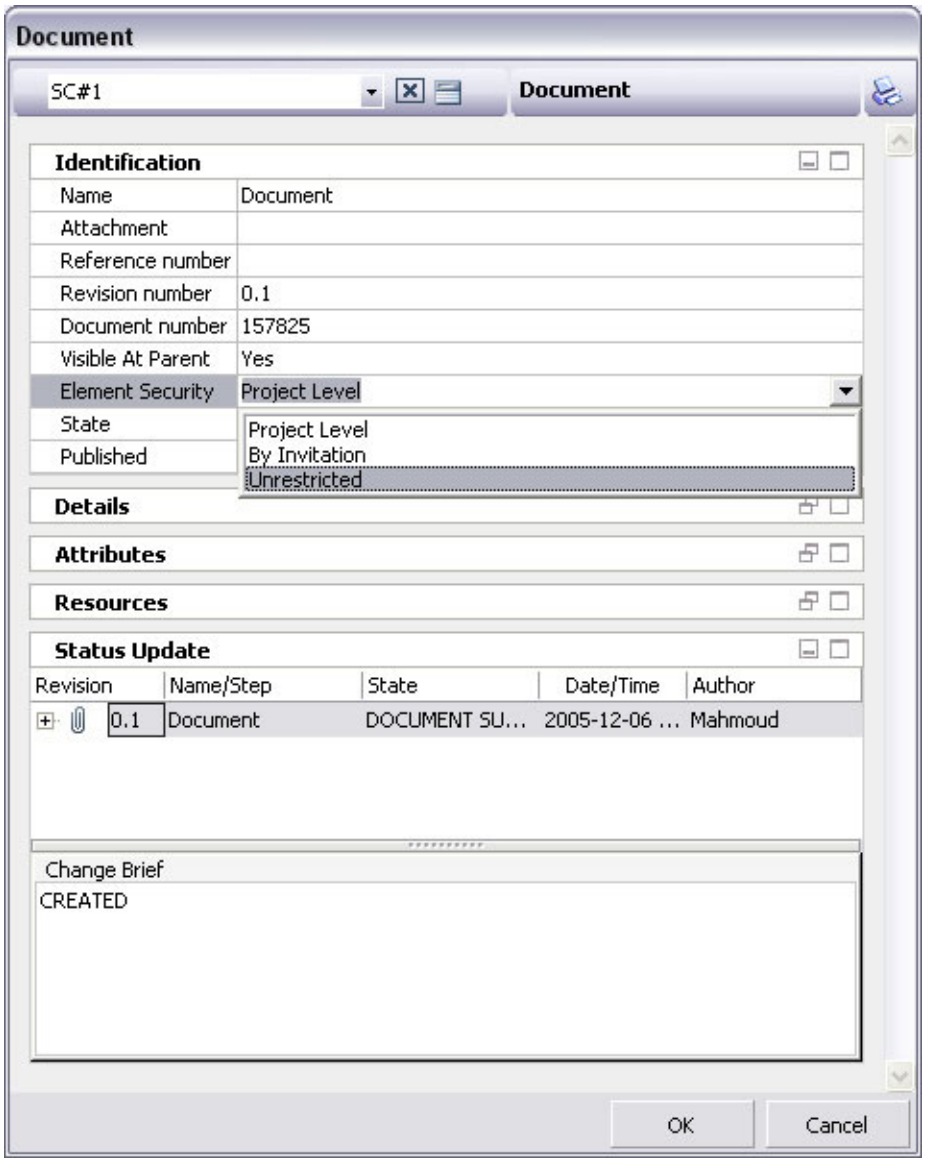


If Rational Portfolio Manager is not running, it will start in the usual way and you must log on to the application. The external link will be opened in the **My Portal** view.

Unrestricted documents

This is the only element type that can be sent as an external link to anyone and opened regardless of their security rights. All other element types must be assigned to users in order to able them to view the external links. To make a document unrestricted:

1. While in the **Documents** view right click on a document and select **Description/Properties** from the context menu.
2. From the **Identification** portlet click once in the **Element Security** field, click the drop down arrow and select **Unrestricted** from the list.



3. Click **OK**.

Copy External Link business rules

- In the **Work Management** view, **Copy External Link** option is only available when any of the **WBS Plans** filters are selected. This option is disabled for **My Work** or **My Teams' Work** filters.
- Users must be assigned to the elements and have assignment security rights to be able to view external links.

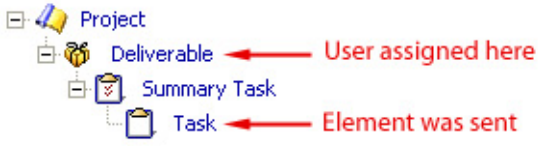
- When copying the external link for any WBS element, the project must be published to the team for users to be able to view those elements.
- Only **Unrestricted** documents will be visible to all users regardless of their assignment security rights.
- If the sent element or its parent was deleted, the **Element not found** error message will be displayed.
- If Rational Portfolio Manager is not running, the application will open when executing an external link but users must log on.
- External links are opened in **My Portal** view. Clicking the **Close** button will close the external link view and **My Portal** view will be displayed.
- External links are expanded to the sent item.
- Sent items or its parent nodes cannot be deleted.
- Parent nodes of the sent items cannot be modified. (renamed, checked out, and so on) These nodes will be disabled and greyed out.
- The description view of the parent nodes can be displayed but not checked out for modifications.
- Only the children nodes of the sent item can be deleted. (security permitting)

Copy External Link security scenarios

Scenario 1:

User opens external link; on the project level he/she will receive project assignment security. On all other levels no extra security will be given to the user except for his/her project assignment security. This security will be inherited by all children elements.

Scenario 2:



User opens external link; on the project level he/she will receive **Project Visitor** security. On deliverable level user gets **Project Visitor** security plus his/her assignment security. On summery task and task levels no extra security will be given to user. These securities will be inherited.

Scenario 3:

User opens external link; on the project level he/she will receive **Project Visitor** security. On deliverable and summery task levels no extra security will be given to user. On the task user will get **Project Visitor** security plus his/her assignment security.

Searching the Work Management view by Project ID and Reference

Now it is possible to search the **Work Management** view by **Project ID** or **Reference #**. To search by **Project ID** or **Reference #**:

1. While in **Work Management** view click the **Find** icon in the secondary toolbar.
2. Type in the project ID or reference number in the **Find** field.
3. Click **OK**.

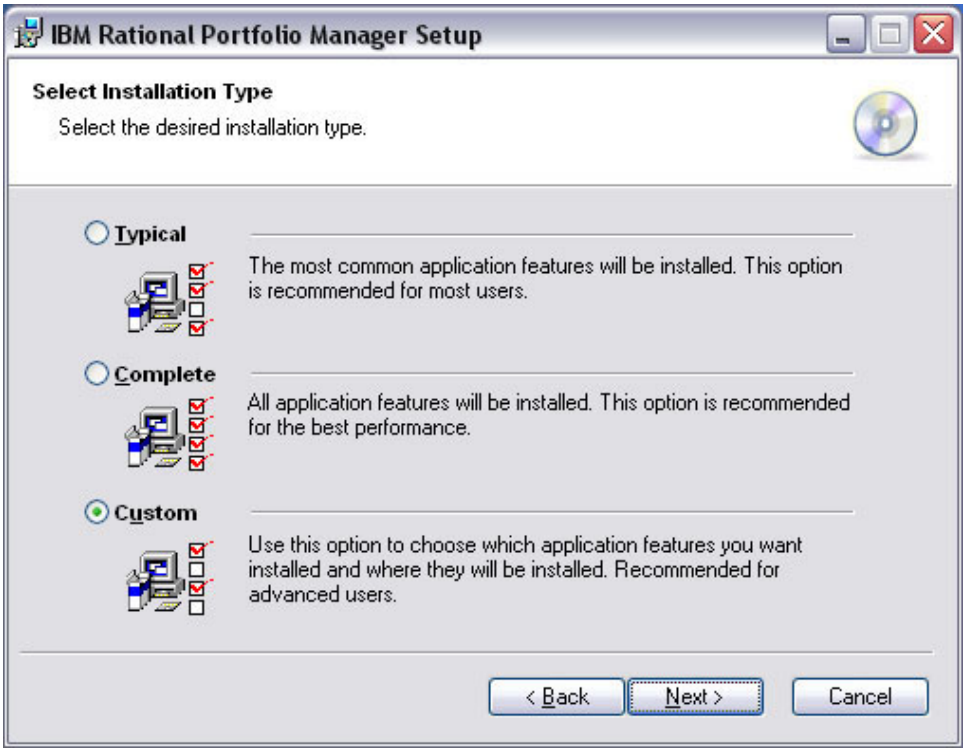
Creating a project using templates via Web Services API

This feature allows you to adopt a project from template using Rational Portfolio Manager Web Services API.

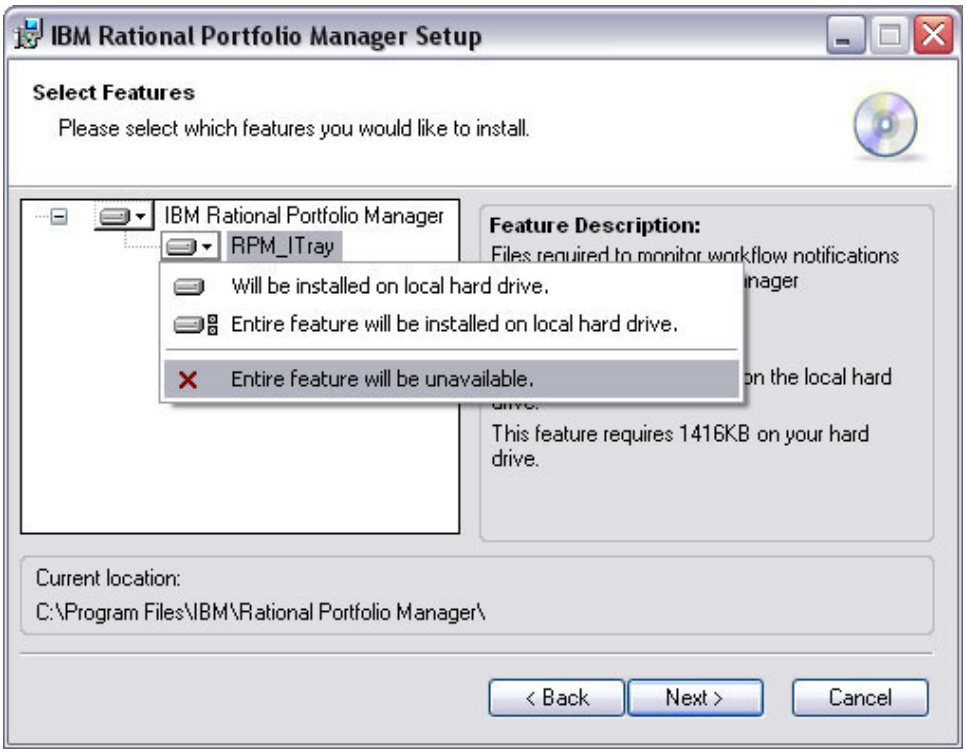
RPMITray installation

The installation of the RPM system tray is optional. To exclude the RPM system tray from the client installation:

1. Select the **Custom** radio button during setup.



2. Click the **RPM_ITray** option and select **Entire feature will be unavailable**.



Chapter 2. Status of change requests

This section explains the status of noteworthy problems in this release.

Known problems

This section describes known problems in this release of Rational Portfolio Manager.

Problem in the response dialog box of document workflows

After a document workflow step with mandatory layout has been sent to a user and the user opens the document description view, the response dialog box does not open. When the description view is closed, the response dialog box is open but it's not possible to submit a response. There is no workaround for this issue and it will be fixed in the future releases of Rational Portfolio Manager.

Publish to templates

Documents and scope elements cannot be published to templates if you filtered the **Work Management** view using the **Portfolio Configuration** dialog. The workaround is to select root node in the **Portfolio Configuration** dialog.

Creating documents and scope elements from the Template view

Documents and scope elements cannot be created from templates if you filtered the **Work Management** view using the **Portfolio Configuration** dialog. The workaround is to select root node in the **Portfolio Configuration** dialog.

Documents transfer in Web Services API

Document transfer in the RPM Web Services API is not functional under WebSphere® version 6.0.x.x. As a workaround, you need to use WebSphere version 6.1.0.0 or later.

Running scope element workflow processes on transferred scope elements

When scope elements are transferred to the Work Management it is still possible to run scope element workflow processes on them. However, this behavior causes some problems in the workflow layouts and state changes.

PMR 75380 999 672; Unable to drag and drop a document to template when a filter is used

You cannot drag and drop a document from the **Documents** view to the **Template** view if any document filter is selected besides the **All Document Types**. The workaround is to select the **All Document Types** from the filter area to be able to publish documents to templates.

Plugin client installer issue

During the Plugin version of the client installation, if you choose **Complete** or **Custom** install, the installer will freeze and the end of the installation. The

workaround is to run the Windows Task Manager, click the Processes tab, find and select `MSIEXEC.EXE` process and click the End Process button. Rerun the installer again and choose **Typical** installation.

Note: There is no issue with the Standalone version of the client installer.

Copy external link; unrestricted document security rights

When opening the **Properties/Description** dialog of an unrestricted document type from an external link, you will get the visitor's security rights and not the unrestricted. If the view is refreshed and you open the **Properties/Description** dialog again, you will get the **Unrestricted** security rights.

Problems fixed in this release

This section lists the problems fixed in this release of Rational Portfolio Manager.

Table 1. Customer originated problems fixed in this release

Problem ID	Description
PMR 20184 999 631	T&E license user can't add a state flow to **My Portal** page.
PMR 44361 122 000; APAR# PK22447	When selecting **Resources Management**, **Work Package by Project** filter, the Resource Manager retrieves incorrect timesheet and resource utilization information in pivot menu.
PMR 44674 122 000; APAR# PK22593	Exception ERowException in module RPMBROKER.DLL error message.
PMR 66806 49R 000	Problem synchronizing tasks in GWA PMOR3.
PMR 69790 999 000; APAR# PK14654	Resource rates in **Monthly Resource Utilization** pivot do not reflect the actual rate in the past.
PMR 70483 999 672	Timesheet default step crash RPM application.
PMR 74441 999 000; APAR# PK22315	Task can have same resource assigned twice.
PMR 78365 49R 000	Some e-mail alerts repeatedly sent to incorrect users.
PMR 85009 49R 000; APAR# PK22798	RPM 6212: Cannot import projects from MSP to RPM.
PMR 85203 49R 000; APAR# PK22980	Unhandled Exception: EAccessViolation when viewing template project portlets.
PMR 86506 422 000; APAR# PK22118	Missing task assignments.
PMR 88266 422 000	Calculate/Copy date error.
PMR 89544 49R 000; APAR# PK25213	Issue converting summary tasks to deliverables.
PMR 89808 49R 000	API web services installation guide is not complete.
PMR 00154 SGC 821	Unhandled exception error in RPM API.

Chapter 3. Installing metrics capabilities for Rational Portfolio Manager

This chapter tells you how to install the Rational Portfolio Manager integration with Rational ProjectConsole. This integration enables metrics capabilities for Rational Portfolio Manager. The following topics are presented:

- Installation overview
- System requirements
- Configuration instructions
- Installation verification

Overview of enabling metrics features

Metrics features are available to users of Rational Portfolio Manager through an integration with Rational ProjectConsole. Before you can begin setting up metrics features and configuring the integration, your site must have existing installations of Rational Portfolio Manager and Rational ProjectConsole. The integration with Rational Portfolio Manager feature must have been installed as part of the Rational ProjectConsole installation.

The overall installation process is outlined in the section "Overview of the installation process" on page 10.

Related documentation

Refer to the following documents for information on installing Rational Portfolio Manager and Rational ProjectConsole. These documents are available as part of product installation media, or from the IBM Publications Center.

To locate the publications center for your area, go to http://www.ibm.com and search on the term **Publications center**. Follow the instructions at your Publications center site to locate individual documents.

Rational Portfolio Manager

Rational Portfolio Manager Installation Guide for Windows, version 7.0

Rational Project Console

- *IBM Rational ProjectConsole Installation and Upgrade Guide*, release 7.0
- *IBM Rational ProjectConsole Release Notes*, release 7.0

Work flow and installation considerations

As a prerequisite to installing the integration, your site must have Rational Portfolio Manager and Rational ProjectConsole installed. For the Rational ProjectConsole installation, the feature**Rational Portfolio Manager Integration** must have been selected to be included in the installation. Each product must be installed on separate machines.

There are two scenarios you might follow:

- For collecting data from Rational Portfolio Manager alone, install Rational ProjectConsole servers (Dashboard RMI Server, Collection RMI server, Dashboard Metrics-Web Service) on a Windows machine. In this case Rational ProjectConsole can collect data solely from Rational Portfolio Manager.

- For collecting data from Rational Portfolio Manager and other products, such as Rational ClearQuest, install Rational ProjectConsole Servers (Dashboard RMI Server, Dashboard Metrics-Web Service) on a Windows machine, and install Rational ProjectConsole collection servers on a second Windows machine. This machine is the same one as the machine that has Rational Suites products installed on it.

After installation, configure and set up Rational ProjectConsole to collect data from Rational products and Rational Portfolio manager.

Note that data can be collected only for Rational Portfolio Manager projects that have been explicitly enabled for metrics capabilities. For information about enabling Rational Portfolio Manager projects for metrics collection, see the help topic, "Publishing Projects for Metrics Collections," in Rational Portfolio Manager help.

Based on your configuration, collections are run periodically to collect data from Rational Portfolio Manager or other products. The data warehouse is populated with the collected information.

Use the Metrics Designer in Rational Portfolio Manager to work with data in the warehouse. The Metrics Designer is the project data analysis component of Rational Portfolio. With administrator privileges, you can use it to create metrics charts and add to them various types of metrics displays that present collected data. The Metrics Designer also provides mechanisms for authorizing specific users (project groups) to access each of the metrics charts.

The Metrics Portal component of Rational Portfolio Manager is used to view metrics charts.

Overview of the installation process

This section provides an overview of the steps to follow to build a Rational Portfolio Manager site that includes metrics features. Metrics features are available only for Windows installations.

Note: You must have Rational Portfolio Manager and Rational ProjectConsole installed and configured before completing the tasks described in this chapter.

These are the general steps of the installation:

1. Install Rational Portfolio Manager 7.0 as described in the *IBM Rational Portfolio Manager Installation Guide* for Windows.
2. Install Rational ProjectConsole on a separate Windows system. Be sure to select **Rational Portfolio Manager Integration** as one of the Rational ProjectConsole Manager features to install.
3. Configure your Rational Portfolio Manager installation for use with the integration. Steps include:
   - Configuring the Rational Portfolio Manager middleware. See "Configuring Rational Portfolio Manager middleware" on page 11 for detailed instructions.
   - Configuring the RPMPJC web service See "Deploying and configuring RPMPJC web services" on page 12 for detailed instructions.
4. Configure security features for Rational ProjectConsole and Rational Portfolio Manager components. See "Configuring security features (HTTPS)" on page 14 for detailed instructions.

5. Verify that your installation has been successful. See "Verifying the installation" on page 27 for detailed instructions.

The next sections describe system requirements for installation, the procedure for installing the metrics enablement package, and post-installation configuration information.

System requirements

This section presents system requirements for installation.

Software requirements

Your system must have the following software installed and configured:

- Release 7.0 of Rational ProjectConsole, including the**Rational Portfolio Manager Integration** feature.
- Version 7.0 of Rational Portfolio Manager.

Configuring Rational Portfolio Manager middleware

Perform the following changes to your Rational Portfolio Manager middleware installation.

- Update the PJCserver.ini file.
- Modify the com.ibm.rpm.SPListener.properties file.

These changes are typically made by a system administrator or a Rational Portfolio Manager administrator with permission to modify Rational Portfolio Manager middleware.

Updating the PJCserver.ini file

The PJCserver.ini file is used to allow Rational Portfolio Manager to automatically log in to the Rational ProjectConsole server. In this step, you will modify the file to include information that identifies the server to log in to.

You must have permission to modify Rational Portfolio middleware for this procedure.

1. Open the PJCserver.ini file in a text editor. The PJCserver.ini file is located in the applications server directory on the machine on which Rational Portfolio Manager is installed. For example, if you are using a Tomcat web application server, the file can be located in the web-inf\classes directory.
2. The file identifies the location of an installed Rational ProjectConsole server so that it is able to log Rational Portfolio Manager automatically in to Rational ProjectConsole. Edit the PJCserver.ini file to contain values for the following:
   - The protocol (default is http)
   - The hostname
   - Port (default is 80)
   - Username and password used to log into Rational ProjectConsole

A typical PJCServer.ini file looks like this, where *myhost* is the name of your Rational ProjectConsole server machine:

```
# PjC Server configuration file
Protocol=http
HostName=myhost or IP_address_of_ProjectConsole_server
Port=80
Username=ratadmin
Password=ratadmin
```

If you are setting up secure HTTP connections, typical values would be:

```
# PjC Server configuration file
Protocol=https
HostName=myhost or IP_address_of_ProjectConsole_server
Port=443
Username=ratadmin
Password=ratadmin
```

For more information about setting HTTP connections, see "Enabling HTTP communication" on page 13. For more information about setting secure connections, see "Configuring security features (HTTPS)" on page 14.

Modifying com.ibm.rpm.SPListener.properties

Follow this procedure if your installation uses the WebSphere application server.

The com.ibm.rpm.pjc.SPListener file is located in *WebSphere-install-path*\InstalledApps\[host]\IBMRPM.ear\ IBMRPM.war\WEB-INF\classes\com.ibm.rpm.SPListener.properties. The file allows the WebSphere application server to connect to the DB2 stored procedures for the purposes of accessing the Rational ProjectConsole charts.

1. Open the file in a text editor and uncomment the last line in the file to appear as follows:

   ```
   #IBMRPM40.SP_LOGON=com.ibm.rpm.auth.AuthListener
   #IBMRPM40.SP_I_POOL=com.ibm.rpm.auth.AuthListener
   PJC=com.ibm.rpm.pjc.PjCListener
   ```

2. Stop and restart the WebSphere Application Server.

Deploying and configuring RPMPJC web services

This section describes installing RPMPJC web services and configuring the connectionpool.ini file.

Installing the RPMPJC web service

Metrics enablement relies on an integration of Rational Portfolio Manager and Rational ProjectConsole. To install web services for the integration:

1. Deploy Rational Portfolio Manager/Rational ProjectConsole web services onto the Rational Portfolio Manager Web Application server using the RPMPJCWebserviceEAR.ear file. Copy the file from the installation sources at PACKAGE_HOME\PJC_METRICS\RPMPJCMETRICS.
2. See further instructions for your web application server at these locations:
   - See http://jakarta.apache.org/tomcat/index.html for information on Tomcat deployment
   - See http://publib.boulder.ibm.com/infocenter/wasinfo/v5r1//index.jsp for information on WebSphere.

You can deploy on a web server using a nonsecure protocol (HTTP) or a secure protocol (HTTPS). For more information, see "Enabling HTTP communication" on page 13 and "Configuring security features (HTTPS)" on page 14.

Updating the ConnectionPool.ini file

The ConnectionPool.ini file contains settings that enable the Rational Portfolio Manager middleware to access the Rational Portfolio Manager database. There is a separate ConnectionPool.ini file for the IBMRPM web application and the RPMPJCWebService web application. These files are located in the WEB-INF/classes folder of each web application. Both files should be identical except for the DataSourceName property.

The following instructions assume that the IBMRPM web application has already been properly configured and that users can successfully log into Rational Portfolio Manager using the Rational Portfolio Manager client.

1. Backup the ConnectionPool.ini file located in the WEB-INF/classes folder of the RPMPJCWebService web application.
2. Copy the ConnectionPool.ini file from the WEB-INF/classes folder of the IBMRPM web application to the WEB-INF/classes folder of the RPMPJCWebService web application.
3. Edit the ConnectionPool.ini file located in the WEB-INF/classes folder of the RPMPJCWebService web application and reset the DataSourceName property to RPMPJCWebService.

   ```
   DataSourceName=RPMPJCWebService
   ```

4. Stop and restart the RPMPJCWebService web application (or restart your Rational Portfolio Manager application server).

Enabling HTTP communication

You can utilize HTTP or HTTPS protocol for communication between the Rational Portfolio Manager and Rational ProjectConsole servers. This section describes how to enable HTTP communication.

Communication is from:

- The Rational ProjectConsole Designer, installed on the Rational ProjectConsole server, to the RPMPjCWebService, installed on the Rational Portfolio Manager application server.
- The middle tier of Rational Portfolio Manager to the PjCMetricsWebService, which is the middle tier of Rational ProjectConsole.

Instructions on configuring the Rational ProjectConsole Designer, the Rational ProjectConsole metrics collection agent, the RPMPJCWebService web application, and the IBMRPM web application are in the following sections.

To enable HTTP communication from the Rational Portfolio Manager server to the Rational ProjectConsole server

To enable HTTP communication from the Rational Portfolio Manager server to the Rational ProjectConsole server, do the following:

1. Open the PJC.properties file on the Rational ProjectConsole server in a text editor. The file is located in:

   ```
   C:\Program Files\Rational\Common\rwp\EmbeddedExpress\profiles\profile1
      \installedApps\DefaultNode\PJCWASAPP.ear\PJCWeb.war\WEB-INF\classes.
   ```

2. Add the pjc.ALLOW_HTTP flag to the file and set it to True. For example:

   ```
   pjc.ALLOW_HTTP=True
   ```

3. Open the PJC.properties.orig file on the Rational ProjectConsole server in a text editor. The file is located in

```
C:\Program Files\Rational\Common\rwp\EmbeddedExpress\profiles\profile1
   \installedApps\DefaultNode\PJCWASAPP.ear\PJCWeb.war\WEB-INF\classes.
```

4. Add the pjc.ALLOW_HTTP flag to the file and set it to True. For example:

   ```
   pjc.ALLOW_HTTP=True
   ```

5. Restart Rational Web Platform using the rwp_restart.bat command located in the C:\Program Files\Rational\Common\rwp\bin folder.:
6. Edit the PjCServer.ini file located in the WEB-INF\classes folder of the IBMRPM application on the Rational Portfolio Manager application server. Set the protocol to HTTP and set the port number to the HTTP port of the ProjectConsole (port 80 by default). For example:

   ```
   # PjC Server configuration file
   Protocol=http
   ...
   Port=80
   ```

7. Restart the IBMRPM web application on the Rational Portfolio Manager application server.
8. Log into the Rational Portfolio Manager client and display the chart templates or display a Rational ProjectConsole chart in My Portal.

To enable HTTP communication from the Rational ProjectConsole Designer to the Rational Portfolio Manager server

To enable HTTP communication from the Rational ProjectConsole Designer to the Rational Portfolio Manager server, do the following:

1. Edit the protocol.ini file located in the WEB-INF\classes folder of the RPMPJCWebService application on the Rational Portfolio Manager application server.
2. Set the ALLOW_HTTP flag to True.
3. Restart the RPMPJCWebService application.
4. Start the Rational ProjectConsole Designer application on the Rational ProjectConsole server.
5. Create a new connection profile, or edit an existing connection profile. Set the protocol to HTTP and set the port number to the HTTP port configured on the Rational Portfolio Manager application server.
6. For any Rational ProjectConsole collection tasks that collect metrics from Rational Portfolio Manager, modify the task's properties to set the protocol to HTTP and to set the port to the HTTP port configured on the Rational Portfolio Manager application server. Typically, this port number is 80.
7. Verify that the Designer can successfully log in.

Disabling HTTP communication

To disable HTTP communication and to enable HTTPS communication between the Rational Portfolio Manager server to the Rational ProjectConsole server, see the section "Configuring security features (HTTPS)."

Configuring security features (HTTPS)

This section tells you how to set up security features for the integration. To do so, you must create and install separate security certificates for the Rational ProjectConsole server and for the Rational Portfolio Manager server. You must also configure the component that uses the services to accept the services' security certificate. This means, for example, that the Rational Portfolio Manager server,

which also acts as a component the uses Rational ProjectConsole server services, must be configured to recognize and accept the security certificate you have set up for the Rational ProjectConsole server.

The steps for configuring security features are:

1. "Create self-signed security certificates" on the Rational Web Platform of your Rational ProjectConsole server.
2. "Configure the Rational Web Platform to accept HTTPS" on page 25.
3. "Restart the Rational Web Platform and Rational ProjectConsole services" on page 25.
4. "Import the Rational ProjectConsole security certificate to the Rational Portfolio Manager server" on page 25.
5. "Configure the Rational Portfolio Manager application server to accept HTTPS" on page 26.
6. "Generate a security certificate on the Rational Portfolio Manager application server" on page 26.
7. "Import the Rational Portfolio Manager security certificate to the Rational ProjectConsole server" on page 26.

Each step is described in more detail in the following sections.

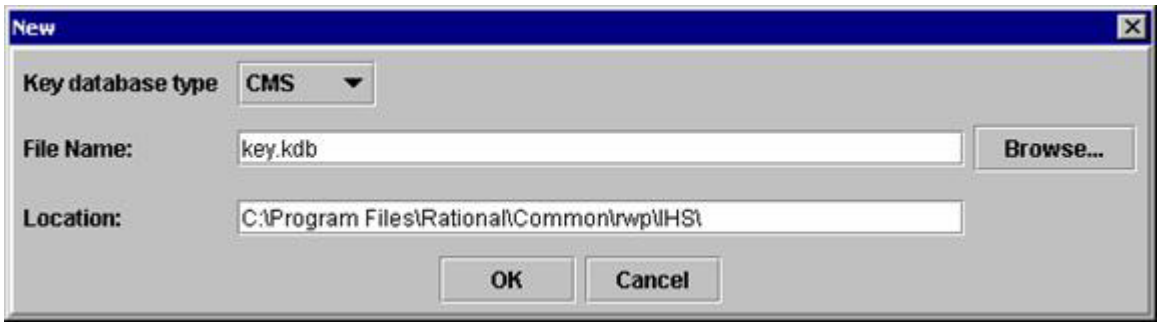
Create self-signed security certificates

Create a self-signed security certificate for the Rational ProjectConsole server

On the Rational ProjectConsole server, using the HTTP Server Key Management Utility tool, create a self-signed certificate to be imported on the Rational Portfolio Manager servers. Access to the Rational ProjectConsole server is limited to those Rational Portfolio Manager servers to which the certificate has been imported.

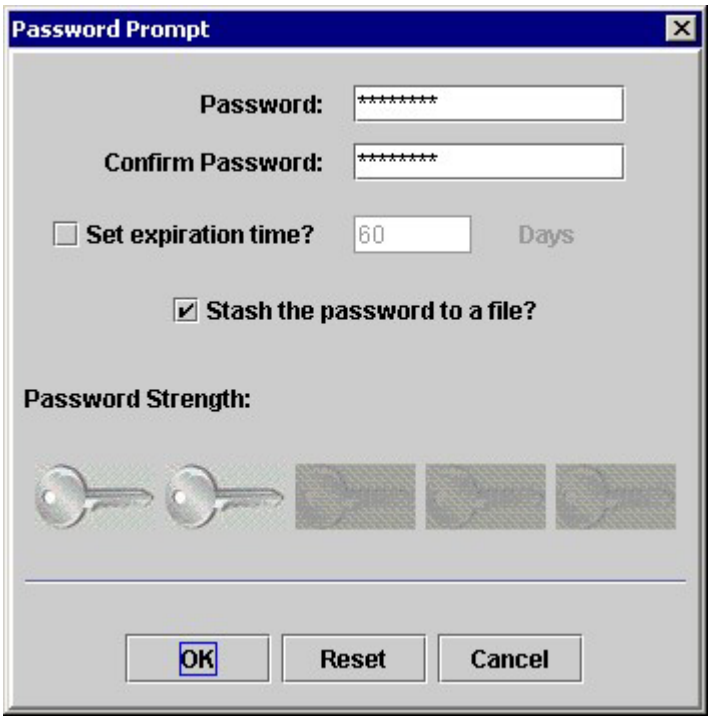
1. Log on to the Rational ProjectConsole server.
2. To launch the HTTP Server Key Management Utility tool, click **Start > Programs > IBM HTTP Server > Start Key Management Utility**
3. Click **Key Database File > New**. Enter the following information:
   - For **Key database** type, select CMS
   - For **File Name**, specify key.kdb
   - For **Location**, specify C:\Program Files\Rational\Common\rwp\IHS, or the appropriate installed location for your site.

   The screen should appear as follows:

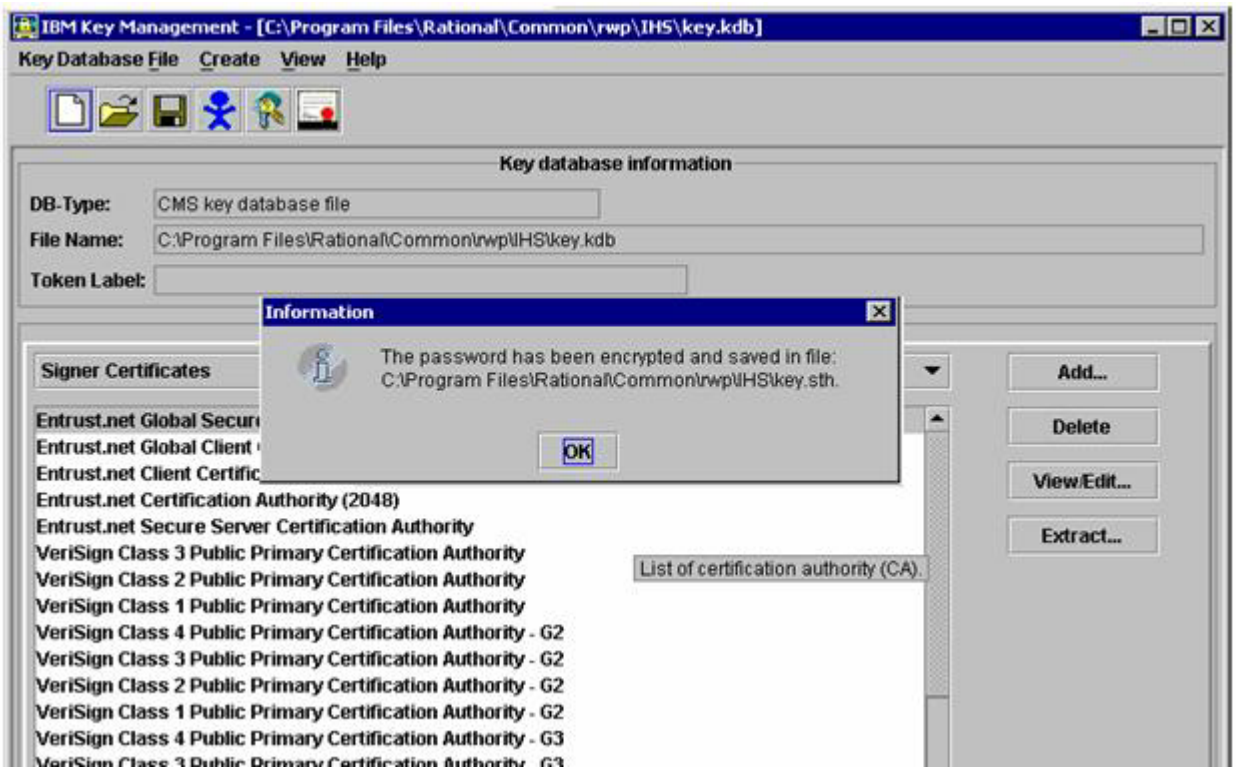


Click **OK**.

4. The Password Prompt window is displayed.
   a. At the password prompt, type the password for Rational ProjectConsole server.
   b. Select **Stash the password to a file**, and then click **OK**.



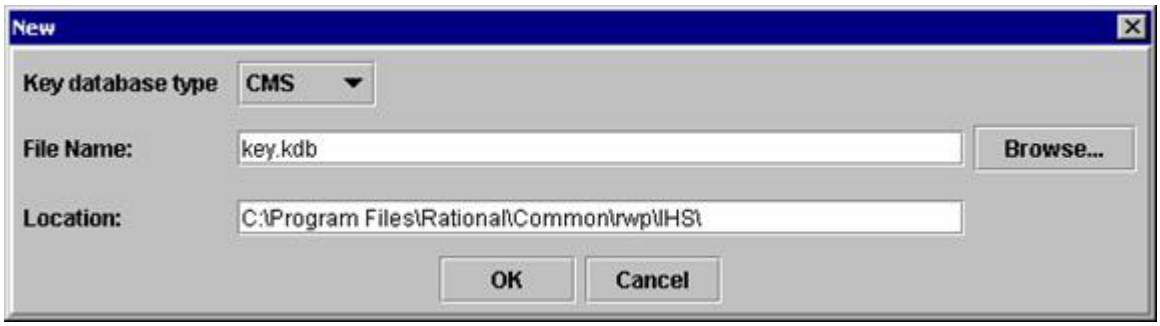
5. Click **OK**, when you see the following screen displayed.



Create a self-signed security certificate for the IBM HTTP server

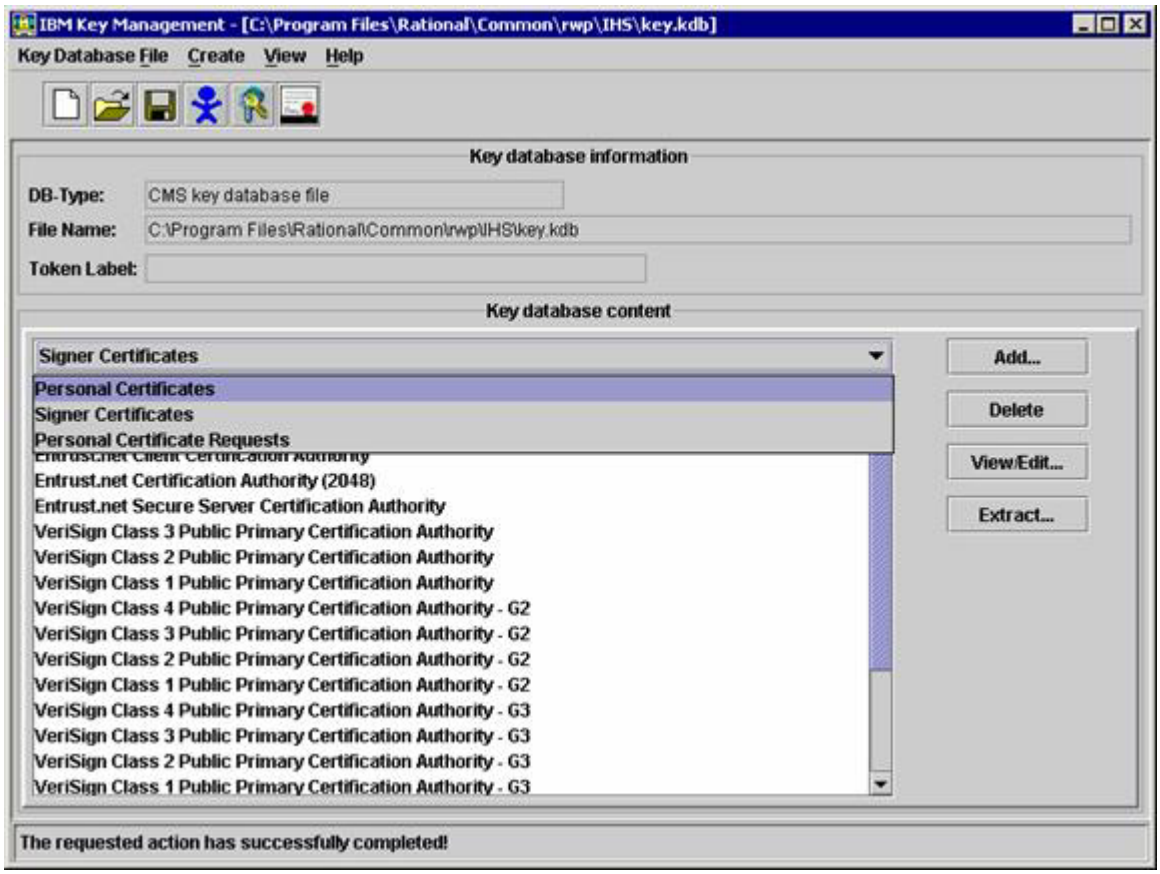
1. Launch the HTTP Server Key Management Utility tool, click **Start > Programs > IBM HTTP Server > Start Key Management Utility**
2. Click **Key Database File > New**. Enter the following information:
   - For **Key database** type, select CMS
   - For **File Name**, specify key.kdb
   - For **Location**, specify C:\Program Files\Rational\Common\rwp\IHS, or the appropriate installed location for your site.

   The screen should appear as follows:



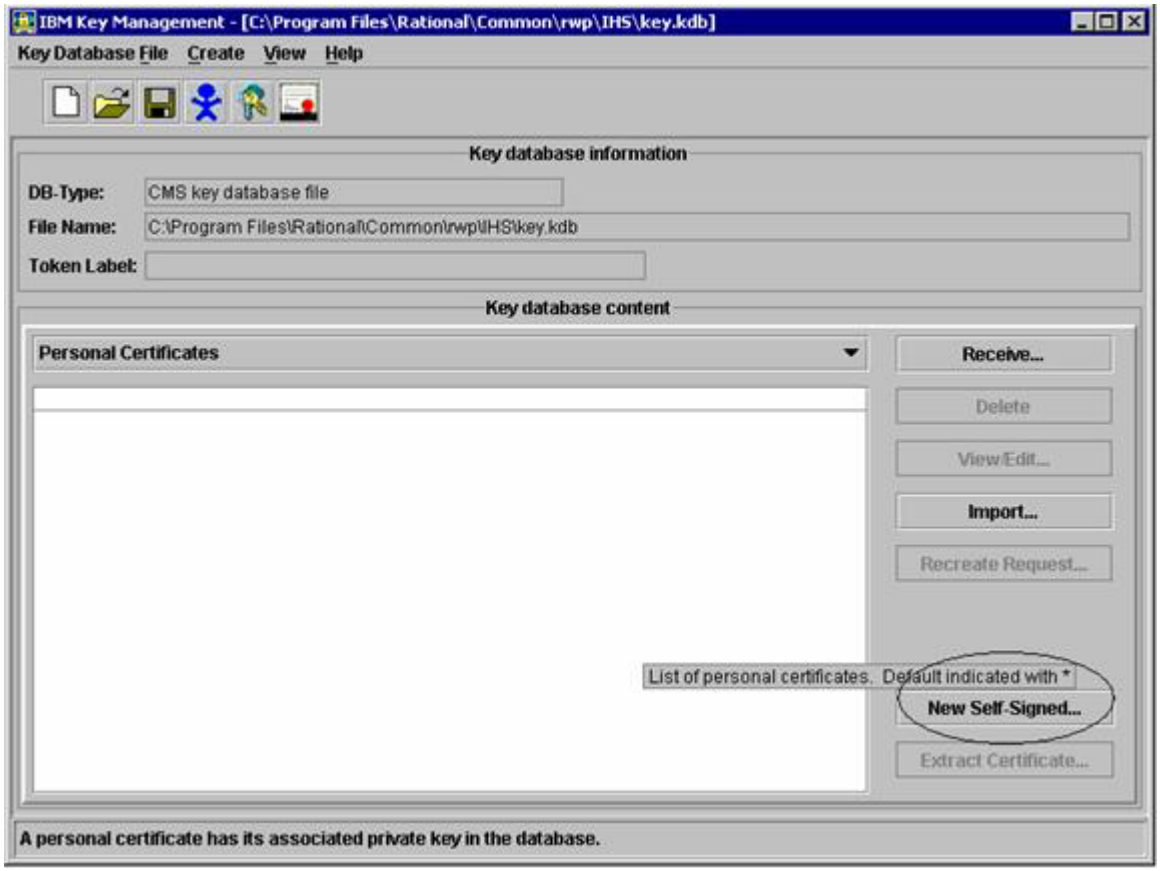
   Click **OK**.
3. The Password Prompt window is displayed. Type the password for the IBM HTTP server and click **OK**.

4. The following screen is displayed:



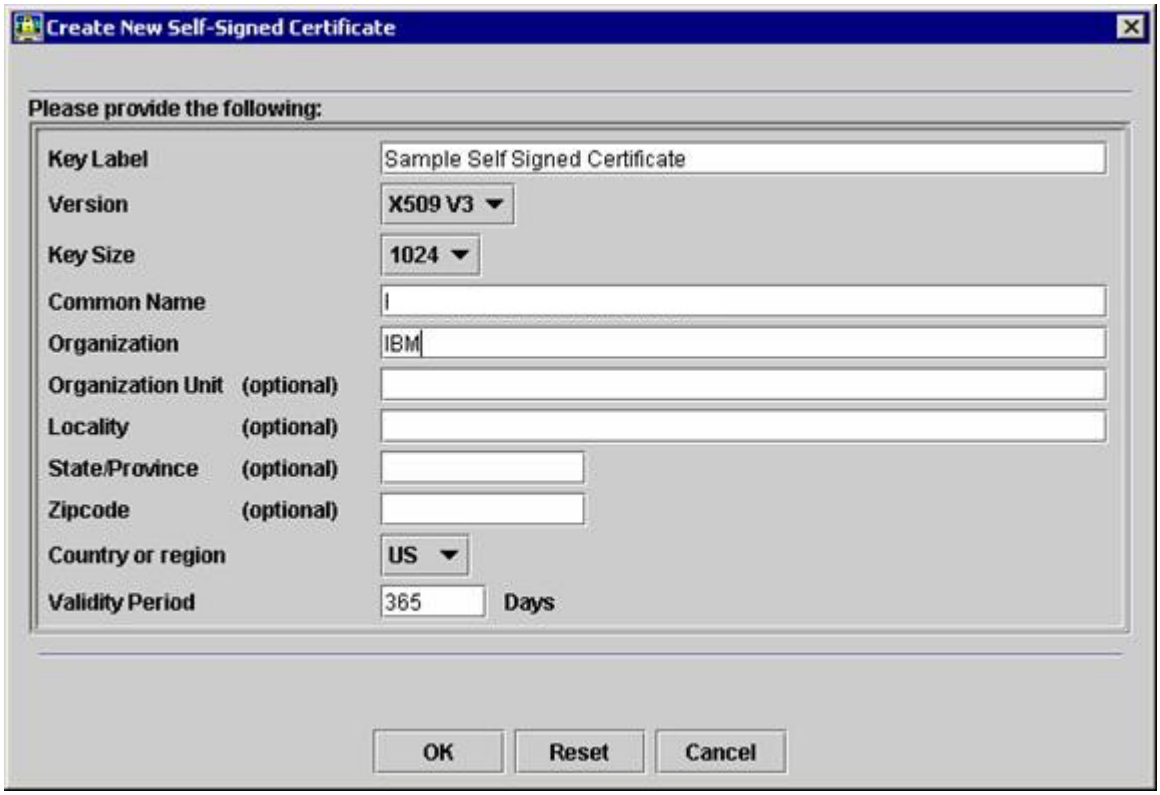
Click **Signer Certificates** from the Key database contents area, and select **Personal Certificates** from the menu.

5. When the following screen is displayed, click **New Self-Signed...**

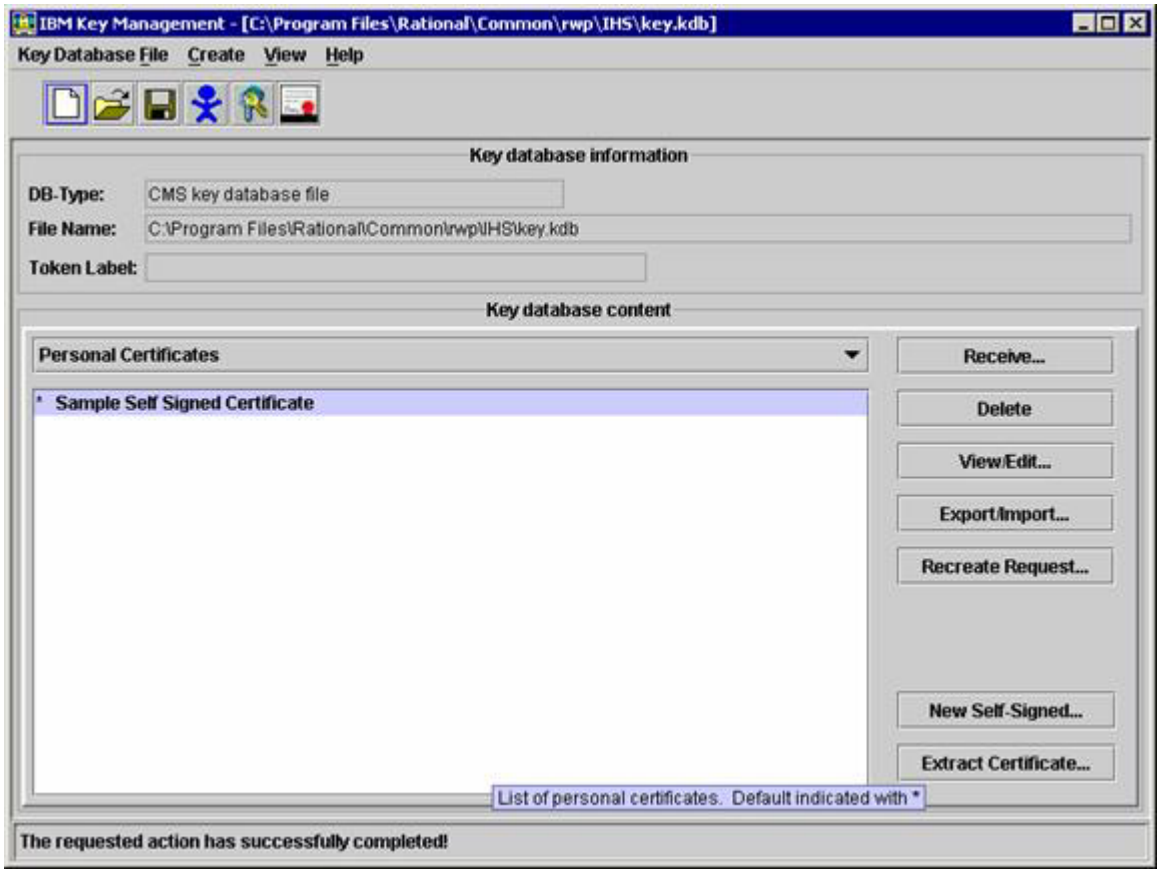


6. At the Create New Self-Signed Certificate screen, supply the following information:
   - A **Key Label** name. The label name is used as an alias while importing and exporting certificates.
   - A **Common Name**. The common name must be unique, either an IP address or a machine name. This field is required.
   - Your organization's name.

   Click **OK**.



7. The following screen is displayed, indicating the requested action completed successfully.



8. Close the IBM Key Management Application.
9. Open the file <*installdir*>:\Program Files\Rational\common\rwp\IHS\conf\ssl.conf. Verify that the path of the kdb file is correct. The contents should look like the following:

   ```
   KeyFile "C:/Program Files/Rational/common/rwp/IHS/key.kdb"
   ```

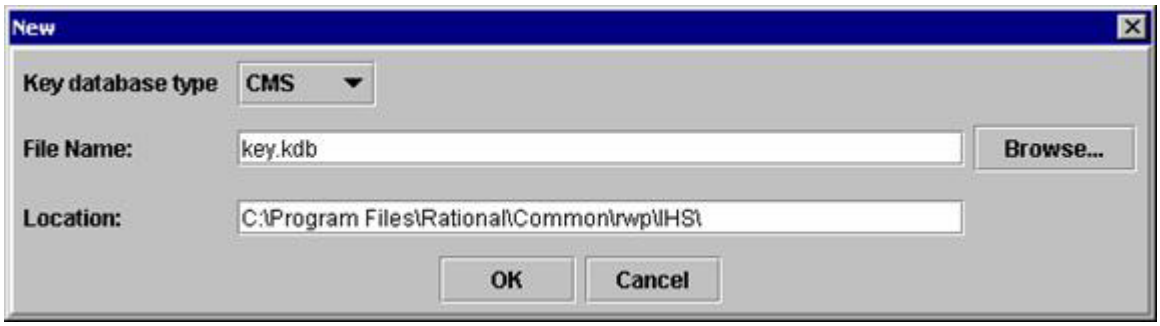
10. Restart Rational Web Platform by running the restart_rwp.bat script located on the Rational ProjectConsole server in the <*installdir*>\Program Files\Rational\Common\rwp\bin.

Create a .crt file for the Rational Portfolio Manager JRE

In order to get the .crt file, which we have to put in the Rational Portfolio Manager middleware's JRE, save the key.kdb as .jks file using the same IBM Key Management utility, using the following steps:

1. Launch the HTTP Server Key Management Utility tool, click **Start > Programs > IBM HTTP Server > Start Key Management Utility**.
2. Click **Key Database File > New**. Enter the following information:
   - For **Key database** type, select CMS
   - For **File Name**, specify key.kdb
   - For **Location**, specify C:\Program Files\Rational\Common\rwp\IHS, or the appropriate installed location for your site.

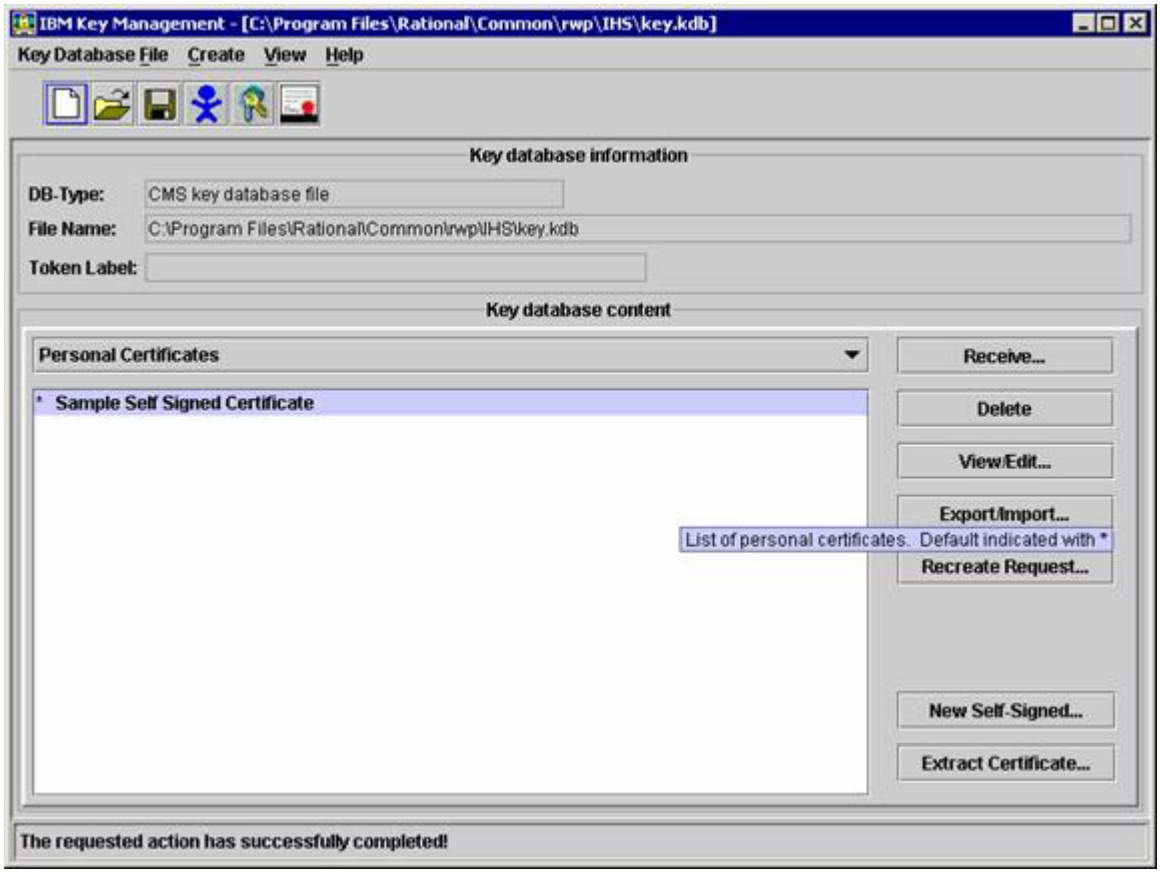
   The screen should appear as follows:



Click **OK**.

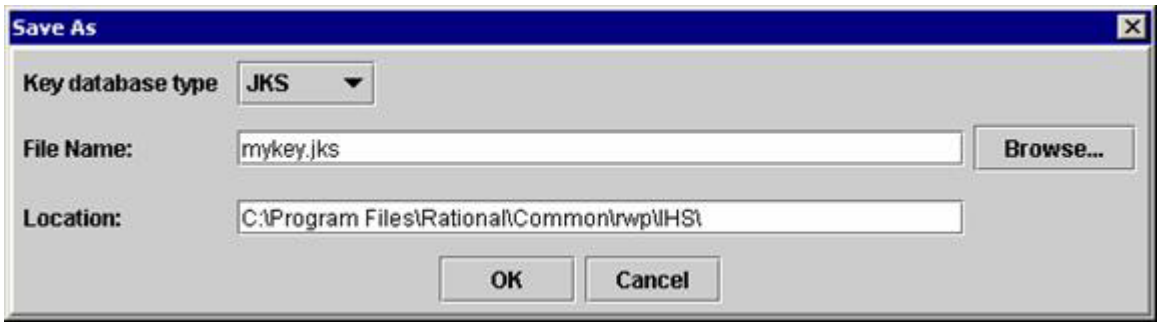
3. The Password Prompt window is displayed. Type the password for the IBM HTTP server and click **OK**.

4. From the Key Database File menu at the top of the following screen, click **Key Database File > Save As**.

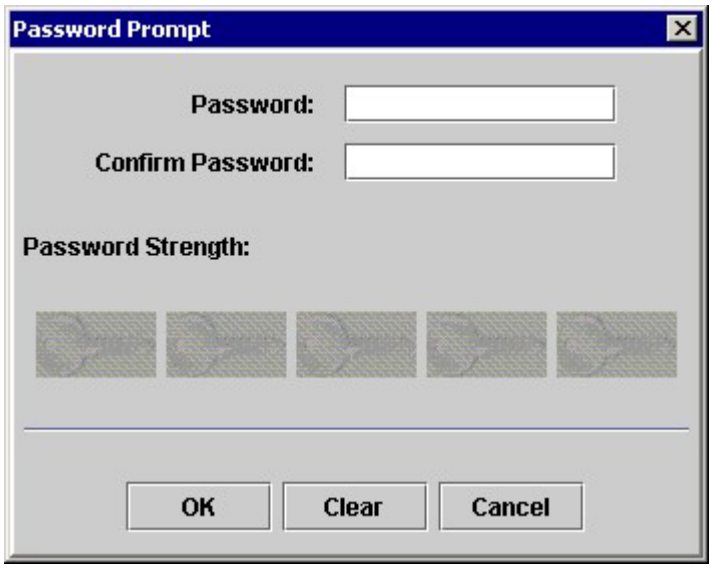


5. At the Save As screen:
   - Select JKS as the **Key database type**.
   - For **File Name**, type in your file name. The sample screen shows `mykey.jks`.
   - Specify a value for **Location** as shown in the sample screen that follows.

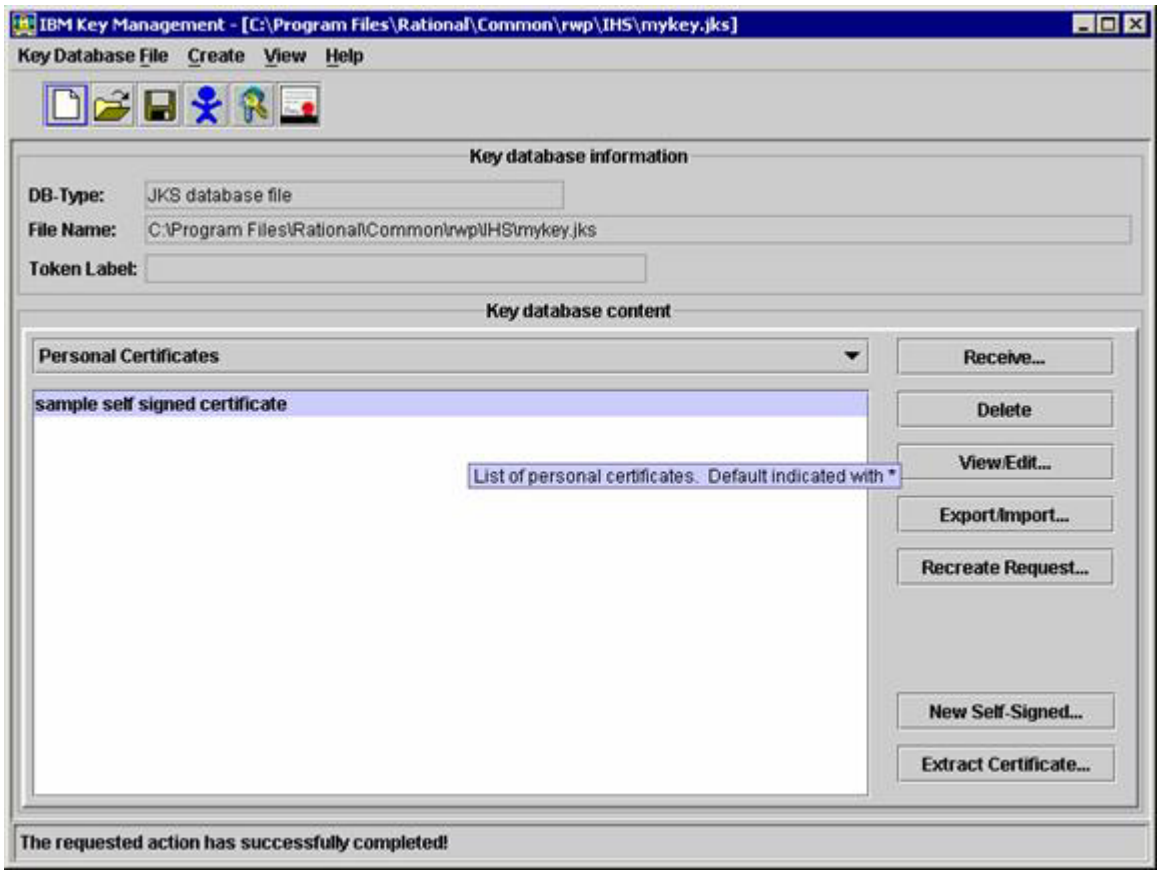
   Click **OK**.



6. A Password Prompt window is displayed. Create and confirm a password. Then click **OK**.



7. The following screen is displayed, indicating that the requested action has completed successfully.



8. Open a Windows Explorer window and verify that mykey.jks has been created in the C:\Program Files\Rational\Common\rwp\IHS directory.
9. Close the IBM Key Management tool.

Configure the Rational Web Platform to accept HTTPS

To configure the Rational Web Platform to accept HTTPS:

1. Navigate to the following folder through Microsoft® Windows Explorer: <*Install Drive*>Program Files\Rational\Common\rwp\ihs\conf.
2. Open the httpd.conf file with Notepad.
3. Locate the line `Include conf/ssl.conf` and uncomment it.
4. Save and close the httpd.conf file.

Note: By default, Rational Web Platform uses port 443 for HTTPS/SSL communication.

Restart the Rational Web Platform and Rational ProjectConsole services

To restart the Rational Web Platform:

- Run the restart_rwp.bat script located on the Rational ProjectConsole server in the <*installdir*>\Program Files\Rational\Common\rwp\bin folder.

Import the Rational ProjectConsole security certificate to the Rational Portfolio Manager server

To install a Rational ProjectConsole security certificate for the IBMRPM web application on the Rational Portfolio Manager application server:

1. Copy the mykey.jks file from the C:\Program Files\Rational\common\rwp\ihs folder on the Rational ProjectConsole web server to the java\jre\lib\security folder of the Java runtime used by the Rational Portfolio Manager application server. (The JRE used by the Rational Portfolio Manager application server is typically located within the Java folder in the application server directory. On IBM WebSphere, it would be located under ...\WebSphere\AppServer\java\jre...).
2. Verify that the cacerts file is not write-protected by right-clicking and selecting **Properties**.
3. Open a windows command prompt.
   a. Click **Start > Run**.
   b. Type `CMD` and click **OK**.
4. At the command prompt, change directories to the security folder for the JVM used for the Rational Portfolio Manager middleware. For example:

```
cd <Install Drive>\Program Files\Rational\Common\Java\JRE\LIB\Security
```

   Your exact directory path depends on the application server software you are using. Press Enter.

5. At the command prompt, type:

```
keytool -export -file mycert.crt  -keystore mykey.jks -alias "Sample Self Signed Certificate"
```

   When prompted, enter the keystore password: changeit. A message of the following form is displayed:

   ```
   Certificate stored in file  <mycert.crt>
   ```

6. Continuing from the command prompt, type:

```
keytool -import -file mycert.crt  -keystore cacerts -alias "Sample Self Signed Certificate'
```

When prompted, enter the keystore password: changeit. A summary message is displayed. Verify that the information is correct, and type yes, when you see the prompt, **Trust this certificate?**. The following informational message is displayed:

```
Certificate was added to keystore
```

Configure the Rational Portfolio Manager application server to accept HTTPS

The exact steps to configure the RPMPJCWebService application on your Rational Portfolio Manager application server vary depending on which application server and version you are running. For WebSphere, here are the basic steps to perform:

1. Create a keystore to contain the Rational Portfolio Manager server security key using the **Key Management Utility**, usually located on the **Start > IBM** HTTP Server menu.
2. Create a self-signed security certificate and import the certificate into the keystore you just created.
3. Create a new SSL alias for the RPMPJCWebService web application and configure the SSL alias to utilize the same keystore.
4. Ensure that the virtual host used by the RPMPJCWebService web application contains your SSL port and ensure that the protocol is set to SSL.
5. Update HTTP transport for the application server and configure the SSL port for the virtual host used by the RPMPJCWebService to use the SSL alias created in step 3.

Consult the documentation for your application server vendor for further instructions on configuring the application server to accept HTTPS.

Generate a security certificate on the Rational Portfolio Manager application server

Consult the documentation for your application server vendor for instructions on configuring the application server to accept HTTPS.

Import the Rational Portfolio Manager security certificate to the Rational ProjectConsole server

To import the certificate on the Rational ProjectConsole server:

1. Get the security certificate file used to configure the Rational Portfolio Manager application server. The specifics of how to do this depend on the application server being used and the way it is configured.

   The certificate can be extracted from a Java™ keystore file by using the **keytool** command. This command creates a file named CertificateFileName containing the security certificate.

   ```
   keytool -export -alias keyAliasName -file CertificateFileName -keystore
    keystorename
   ```

   You may also use the Key Management Utility to extract the certificate from the pjcRpmClientKeystore.jks file on the Rational Portfolio Manager application server.
2. To import the certificate to a Rational ProjectConsole server or report server:
   a. Copy the certificate file to your Program Files\Rational\Rational ProjectConsole\security directory.
   b. Open a command window and go to the security directory.

c. Import the certificate using the following command:

```
..\..\common\java\jre\bin\keytool -import -file CertificateFileName -keystore
       pjcRpmClientKeyStore.jks
```

d. When prompted, use `changeit` as the keystore password. Answer `yes` when prompted with the question **Trust this certificate?**.

Verifying the installation

Follow these procedures to verify that your installation has completed successfully.

Testing the Rational ProjectConsole Web site

Follow this procedure to verify that Rational ProjectConsole is configured correctly.

1. Open a web browser.
2. Enter the following into the Address bar: https://*ServerName*/Rational ProjectConsole. Press Enter.
3. At the login type `Admin` for the User Name and `changeit` for the Password and press Enter.
4. Click through the warning message.
5. Expand and generate some of the nodes in the Node Tree.

If the reports generate, you have configured the Rational ProjectConsole Server to use HTTPS SSL correctly. If the reports display an error 1230, please verify all the steps in this document and then call IBM Customer Support for Rational ProjectConsole. Remember that HTTP is still enabled on the Rational ProjectConsole server, so the http://ServerName/Rational ProjectConsole URL is operational.

Testing the Rational Portfolio Manager client

Log on to the Rational Portfolio Manager client to verify the installation is complete. See your system administrator if you need to obtain a Rational Portfolio Manager username and password. The presence of **Chart Templates** as part of the **Administrator** tabs in the Rational Portfolio Manager client indicates a successful installation.

Chapter 4. Migrating to this version

Before you begin

Note: If you are using DB2 64 bit instance on AIX platform, replace the content of `${MIGRATION_HOME}/Database/DB2/UNIX/csp_Aix` with the contents from `${MIGRATION_HOME}/Database/DB2/UNIX/csp_Aix64` before starting the migration.

Before you proceed with the migration you need to backup the IBM® Rational Portfolio Manager database. Make sure that total recovery of the database is possible from this backup. All database migration instructions listed bellow must be done by the instance owner and the user that connects to the database from the web server.

Note: If you were unsuccessful during migration, you need to restore your old database, check the log files to troubleshoot, and restart the migration steps.

Note: All the migration scripts when transferred to AIX® host should preserve their Type/Mode (ASCII/BIN) and Right (file ownership).

This section outlines the steps to migrate IBM Rational Portfolio Manager Database (DB2® V8.2 and Oracle 9i or 10g) from version 7.0.0.0 to version 7.0.1.1.

Migrating Rational Portfolio Manager on DB2 for UNIX

Note: (for Database Administrators) As a rule of thumb for RPM Database maintenance, schedule a nightly job that will run `REORG` and `RUNSTATS` on RPM database tables and then do a rebind of RPM packages using the following command:

```
db2rbind database /l logfile all /u userid /p password
```

You can use `ReorgStats70.sh` located in the `${MIGRATION_HOME}/Database/DB2/Unix/migration`.

Prerequisites for migration

- A successful Rational Portfolio Manager version 7.0.0.0 installation
- Rational Portfolio Manager version 7.0.1.1 migration package
- DB2 v 8.2
- DB2 migration is performed through a manual process, the migration steps are carried out using UNIX® shell script. RPM migration procedure is using bourne shell interpretor
- Make sure that all `.sh` files located under `${MIGRATION_HOME}/Database/DB2/Unix/migration` , `${MIGRATION_HOME}/Database/DB2/Unix/csp_Aix` and `${MIGRATION_HOME}/Database/DB2/Unix/csp_Linux` have execute rights

Definition of terms used in this section

- **Instance Owner**: is the user owning the DB2 Instance which is defined as logical database server environment.

- **Connected User**: is the user who connects to database from web application and has been granted rights to make update, insert, delete, select on database tables. Connected User can be the instance owner too.

You can migrate the database using the schema of your choice:

- Scenario 1: All tables are created using the user name of the instance owner as schema. The instance owner is the user who connects to database from the web application.
- Scenario 2: All tables are created using the user name of the instance owner as schema. The connected user is the user who will be connecting to the database from the web application. The table aliases are created for the connected user. The alias names are created using the user name of the connected user as alias names.

Note: You should choose the scenario that you are using with your current RPM database.

The migration process is carried out through scripts by supplying all the corresponding values for parameters. A message is displayed for each step and a log file is created for each step that you might need to look at in case of unsuccessful migration. You will be asked a series of questions to provide values for parameters.

The log files are located in `${MIGRATION_HOME}/Database/DB2/Unix/migration/Logs` folder. There is one main script file called `migration7011.sh` which carries out all the steps for migration.

Migration steps

1. Stop the web application and the Alert server associated with the RPM database.
2. Go to `${MIGRATION_HOME}/Database/DB2/Unix/migration` and run:

   ```
   ./migration7011.sh
   ```

Steps used when migrating from version 7.0.0.0

Here are the steps and the names of log files created for each step of migration process:

1. Renames the existing RPM library file located in the `${INSTHOME}/sqllib/function` from ibmrpm.so to ibmrpm_7000.so for backup, where `${INSTHOME}` is the path to DB2 instance directory where DB2 is installed
2. Copies the RPM library file from `${MIGRATION_HOME}/Database/DB2/Unix/csp_Aix` (if using AIX) or `${MIGRATION_HOME}/Database/DB2/Unix/csp_Linux` (if using Linux®) to `${INSTHOME}/sqllib/function/` folder
3. Gets the name of the OS in use
4. Checks for the version number in RPM database table to decide whether to continue or exit. If version is other than 7.0.0.0 then exits
5. Stops and starts RPM database
6. It starts the migration process > `migration7011.out`
7. Runs statistics on tables > `Reorgstats70.out`
8. Creates stored procedures for v 7.0.1.1 > `createsp.out`
9. Binds RPM v 7.0.1.1 code > `bindall.out`

10. Runs stored procedure to fill in default records for RPM database > `custom_pivot_initdb.out`
11. Verifies RPM database objects after migration (table, index, trigger, UDF, and stored procedure counts)
12. The results from step 11 and the required RPM database objects for RPM v 7.0.1.1 are copied in to `${MIGRATION_HOME}/Database/DB2/Unix/migration/Logs/DB_CHECK.out` folder. Please verify the DB_CHECK.out file for differences. In case of having less DB objects than required for RPM v 7.0.1.1 please contact support. See Chapter 5, "Contacting IBM Customer Support for Rational software products," on page 43.
13. Checks for successful RPM database code migration > Output will be displayed on the screen

Note: If the output file contains 7.0.1.1, the migration is successful, if not, then verify all the log files. In any case it is recommended to check all the log files.

Note: During the migration steps you might see the following `SQLSTATE` numbers in your log files. These can be ignored since they are only warnings:

- `SQLSTATE=02000 (...the result set of the query is an empty table)`
- `SQLSTATE=42704 (...is an undefined name)`

Deploying Rational Portfolio Manager Application Server

Modifying the RPMVersion.xml file

To modify the `RPMVersion.xml` file:

1. Go to `${IBMRPM_WAR_HOME}/WEB-INF/classes` directory and open `RPMVersion.xml` for editing.
2. Change the version number from 7.0.0.0 to 7.0.1.1
3. Save and close the file. The new settings will take effect when the web application server is loaded.

Copying the client installer files

To copy the Client installer files:

1. Go to `${MIGRATION_HOME}/Client_Installers` directory and copy all files into `${IBMRPM_WAR_HOME}/client_installer`

Copying the com folder

Note: Make sure you have a backup of your existing com folder.

To copy the com folder:

1. Go to `${MIGRATION_HOME}/WebServer` directory and copy the com folder into `${IBMRPM_WAR_HOME}/WEB-INF/classes` directory

RPM/PjC installation notes

See Chapter 3, "Installing metrics capabilities for Rational Portfolio Manager," on page 9.

Deploying RPM Web Services API ear module

Note: If you have already deployed RPM Web Services API with your RPM 7.0 installation, you need to uninstall the previous API module from your Application Server and deploy the new ear file supplied with this migration package.

The `rpm-web-services-7.0.1.1.ear` and `rpm-web-services-7.0.1.1.war` files are located in the `${MIGRATION_PACKAGE}/WebServicesAPI` folder.

For detail information about RPM Web Services API refer to `RPM7.0.1.1_Web_Services_API_Guide.pdf` located in the `${MIGRATION_PACKAGE}/Documents` folder.

Verifying the installation

This section describes the process of verifying that the installation is completed and correctly configured.

Validating the database connection

Validate that the connection to the database was successful by opening the `${WAS_HOME}/AppServer/logs/server1/SystemOut.log` file. Look for `ConnectionPool Loaded (####ms)` value. This value validates that the application is connected to the database.

Testing the Web browser connection

To test the Web browser connection:

1. Open a browser window.
2. Go to `http://hostname:portnumber/webapp/IBMRPM/PMOServlet.wss`

You should see the welcome screen for IBM Rational Portfolio Manager.

Migrating Rational Portfolio Manager on Oracle for UNIX

This section tells you how to migrate the Rational Portfolio Manager database from version 7.0.0.0 to version 7.0.1.1 on Oracle.

It is also possible to run the migration scripts from a remote machine. In this case, you need to make sure you can connect to the remote database using SQLplus.

Note: Rational Portfolio Manager 7.0.1.1 migration script uses `SQLplus` located under `${ORACLE_HOME}/bin` directory. Therefore you should run the migration scripts on a machine that has this utility.

Prerequisites for migration

- A successful Rational Portfolio Manager version 7.0.0.0 installation
- Rational Portfolio Manager version 7.0.1.1 migration package
- `SQLplus` utility for running Oracle migration scripts
- Oracle migration is carried out through shell script using korn or bash shell environments
- Make sure you have execute rights for `mig_owner.sh`, and `mig_con_user.sh` files

Migration steps

Rational Portfolio Manager migration to version 7.0.1.1 has 2 steps:

1. Migrating RPM schema owner
2. Migrating RPM connected user (if a connected user is used)

Steps to migrate RPM schema owner

1. Tablespaces used in the migration scripts is:
   - `PMO_IDX_64K` for indexes

   Note: If the tablespaces in your RPM database are different from the above mentioned name, you need to change the name of the tablespaces in the migration scripts in the following files:

   `${MIGRATION_HOME}/Database/Oracle/scripts/step1.sql`
2. Stop the application server associated with the RPM database
3. Shutdown the RPM database
4. Startup the RPM database
5. Open a shell window and change the directory to `${MIGRATION_HOME}/Database/Oracle` and run `./mig_owner.sh`

   Migration script will run and ask you a series of questions:
6. Have you performed pre_migration steps? Before migration you need to backup your database, if you have a backup, answer yes to continue. If you answer no, no migration will be performed
7. The script uses your `${ORACLE_HOME}` environment variable. Enter the required information when prompted
8. Is your RPM database installed on this machine? If you answer no, you will be prompted to enter:
   - TNS string
   - IBMRPM schema owner
   - IBMRPM schema owner password

   If you answer yes, you will be prompted to enter:
   - ORACLE_SID value
   - IBMRPM schema owner
   - IBMRPM schema owner password
9. Are you sure you want to migrate your database now? Answer yes to start the migration
10. At the end of migration you will be provided with migration report. Migration report includes the following information:
    - The current version of the database (which at this level must be 7.0.1.1)
    - The number of invalid objects in the database (which we expect to be 0)
    - The number of objects (needed for 7.0.1.1) for each object type and their status in the migrated RPM database

      Note: Comparing the number of objects for each object type in the **YOUR_RPM_DATABASE** and **NUMBER_OF_OBJECTS_MUST_BE** columns helps you to check if the migration has been successful. Obviously we expect these values to be equal.

11. Migration log files will be created under ${MIGRATION_HOME}/Database/Oracle/logs folder. It is always recommended to look at the log files to see if migration was successful

Steps to migrate RPM connected user

1. Open a command prompt window and change the directory to ${MIGRATION_HOME}/Database/Oracle and run ./mig_con_user.sh

   Migration script will run and ask you a series of questions.
2. The script uses your ${ORACLE_HOME} environment variable. Enter the required information when prompted
3. Is your RPM database installed on this machine? If you answer no, you will be prompted to enter:
   - TNS string
   - IBMRPM schema owner
   - IBMRPM schema owner password

   If you answer yes, you will be prompted to enter:
   - Verify the ORACLE_SID value
   - Enter IBMRPM schema owner
   - Enter IBMRPM schema owner password
4. Enter RPM connected user name when prompted
5. Enter RPM connected user password when prompted
6. Enter the password for sys user when prompted
7. Are you sure you want to migrate your connected user now? Answer yes to start the migration
8. Migration log files will be created under ${MIGRATION_HOME}/Database/Oracle/logs folder. It is always recommended to look at the log files to see if migration was successful

Deploying Rational Portfolio Manager Application Server

Modifying the RPMVersion.xml file

To modify the RPMVersion.xml file:

1. Go to ${IBMRPM_WAR_HOME}/WEB-INF/classes directory and open RPMVersion.xml for editing.
2. Change the version number from 7.0.0.0 to 7.0.1.1
3. Save and close the file. The new settings will take effect when the web application server is loaded.

Copying the client installer files

To copy the Client installer files:

1. Go to ${MIGRATION_HOME}/Client_Installers directory and copy all files into ${IBMRPM_WAR_HOME}/client_installer

Copying the com folder

Note: Make sure you have a backup of your existing com folder.

To copy the com folder:

1. Go to ${MIGRATION_HOME}/WebServer directory and copy the com folder into ${IBMRPM_WAR_HOME}/WEB-INF/classes directory

RPM/PjC installation notes

See Chapter 3, "Installing metrics capabilities for Rational Portfolio Manager," on page 9.

Deploying RPM Web Services API ear module

Note: If you have already deployed RPM Web Services API with your RPM 7.0 installation, you need to uninstall the previous API module from your Application Server and deploy the new ear file supplied with this migration package.

The rpm-web-services-7.0.1.1.ear and rpm-web-services-7.0.1.1.warfiles are located in the %MIGRATION_PACKAGE%\WebServicesAPI folder.

For detail information about RPM Web Services API refer to RPM7.0.1.1_Web_Services_API_Guide.pdf located in the ${MIGRATION_PACKAGE}/Documents folder.

Verifying the installation

This section describes the process of verifying that the installation is completed and correctly configured.

Validating the database connection

Validate that the connection to the database was successful by opening the ${WAS_HOME}/AppServer/logs/server1/SystemOut.log file. Look for ConnectionPool Loaded (####ms) value. This value validates that the application is connected to the database.

Testing the Web browser connection

To test the Web browser connection:

1. Open a browser window.
2. Go to http://hostname:portnumber/webapp/IBMRPM/PMOServlet.wss

You should see the welcome screen for IBM Rational Portfolio Manager.

Migrating Rational Portfolio Manager on DB2 for Windows

Note: (for Database Administrators) As a rule of thumb for RPM Database maintenance, schedule a nightly job that will run REORG and RUNSTATS on RPM database tables and then do a rebind of RPM packages using the following command:

```
db2rbind database /l logfile all /u userid /p password
```

You can use ReorgStats70.bat located in the %MIGRATION_HOME%\Database\DB2\Windows\migration.

Prerequisites for migration

- A successful Rational Portfolio Manager version 7.0.0.0 installation
- Rational Portfolio Manager version 7.0.1.1 migration package
- DB2 v 8.2

Definition of terms used in this section

- **Instance Owner**: is the user owning the DB2 Instance which is defined as logical database server environment.
- **Connected User**: is the user who connects to database from web application and has been granted rights to make update, insert, delete, select on database tables. Connected User can be the instance owner too.

You can migrate the database using the schema of your choice:

- Scenario 1: All tables are created using the user name of the instance owner as schema. The instance owner is the user who connects to database from the web application.
- Scenario 2: All tables are created using the user name of the instance owner as schema. The connected user is the user who will be connecting to the database from the web application. The table aliases are created for the connected user. The alias names are created using the user name of the connected user as alias names.

Note: You should choose the scenario that you are using with your current RPM database.

The migration process is carried out through batch process by supplying all the corresponding values for parameters. A message is displayed for each step and a log file is created for each step that you might need to look at in case of unsuccessful migration.

The log files are located in `%MIGRATION_HOME%\Database\DB2\Windows\migration\Logs` folder. There is one main batch process called `migration7011.bat` which carries out all the steps for migration. During migration process you will be asked a series of questions to supply corresponding values for parameters.

Migration steps

1. Stop the web application and the Alert server associated with the RPM database
2. Go to `%MIGRATION_HOME%\Database\DB2\Windows\migration` and run:
   `migration7011`

Batch process steps used when migrating from version 7.0.0.0

Here are the steps and the names of log files created for each step of migration process:

1. Renames the existing RPM library file located in the `%DB2TEMPDIR%function` and `%DB2TEMPDIR%function\Unfenced`from ibmrpm.dll to ibmrpm_7000.dll for backup
2. Copies the RPM library file from `%MIGRATION_HOME%\Database\DB2\Windows\csp` folder into `%DB2TEMPDIR%function` and `%DB2TEMPDIR%function\Unfenced` folders

3. Checks for the version number in RPM database table to decide whether to continue or exit. If version is other than 7.0.0.0 then exits
4. Stops and starts RPM database
5. It starts the migration process > `migration7011.out`
6. Runs statistics on tables > `Reorgstats70.out`
7. Creates stored procedures for v 7.0.1.1 > `createsp.out`
8. Binds RPM v 7.0.1.1 code > `bindall.out`
9. Runs stored procedure to fill in default records for RPM database > `custom_pivot_initdb.out`
10. Verifies RPM database objects after migration (table, index, trigger, UDF, and stored procedure counts)
11. The results from step 11 and the required RPM database objects for RPM v 7.0.1.1 are copied in to `%MIGRATION_HOME%\Database\DB2\Windows\migration\Logs\DB_CHECK.out` folder. Please verify the DB_CHECK.out file for differences. In case of having less DB objects than required for RPM v 7.0.1.1 please contact support. See Chapter 5, "Contacting IBM Customer Support for Rational software products," on page 43.
12. Checks for successful RPM database code migration > Output will be displayed on the screen

Note: If the output contains 7.0.1.1, the migration is successful, if not, then verify all the log files. In any case it is recommended to check all the log files.

Note: During the migration steps you might see the following `SQLSTATE` numbers in your log files. These can be ignored since they are only warnings:

- `SQLSTATE=02000 (...the result set of the query is an empty table)`
- `SQLSTATE=42704 (...is an undefined name)`

Deploying Rational Portfolio Manager Application Server

Modifying the RPMVersion.xml file

To modify the `RPMVersion.xml` file:

1. Go to `%IBMRPM_WAR_HOME%\WEB-INF\classes` directory and open `RPMVersion.xml` for editing.
2. Change the version number from 7.0.0.0 to 7.0.1.1
3. Save and close the file. The new settings will take effect when the web application server is loaded.

Copying the client installer files

To copy the Client installer files:

1. Go to `%MIGRATION_HOME%\Client_Installers` directory and copy all files into `%IBMRPM_WAR_HOME%\client_installer`

Copying the com folder

Note: Make sure you have a backup of your existing com folder.

To copy the com folder:

1. Go to `%MIGRATION_HOME%\WebServer` directory and copy the com folder into `%IBMRPM_WAR_HOME%\WEB-INF\classes` directory

RPM/PjC installation notes

See Chapter 3, “Installing metrics capabilities for Rational Portfolio Manager,” on page 9.

Deploying RPM Web Services API ear module

Note: If you have already deployed RPM Web Services API with your RPM 7.0 installation, you need to uninstall the previous API module from your Application Server and deploy the new ear file supplied with this migration package.

The `rpm-web-services-7.0.1.1.ear` and `rpm-web-services-7.0.1.1.warfiles` are located in the `%MIGRATION_PACKAGE%\WebServicesAPI` folder.

For detail information about RPM Web Services API refer to `RPM7.0.1.1_Web_Services_API_Guide.pdf` located in the `%MIGRATION_PACKAGE%\Documents` folder.

Verifying the installation

This section describes the process of verifying that the installation is completed and correctly configured.

Validating the database connection

Validate that the connection to the database was successful by opening the `%WAS_HOME%\AppServer\logs\server1\SystemOut.log` file. Look for `ConnectionPool Loaded (####ms)` value. This value validates that the application is connected to the database.

Testing the Web browser connection

To test the Web browser connection:

1. Open a browser window.
2. Go to `http://hostname:portnumber/webapp/IBMRPM/PMOServlet.wss`

You should see the welcome screen for IBM Rational Portfolio Manager.

Migrating Rational Portfolio Manager on Oracle for Windows

This section tells you how to migrate the Rational Portfolio Manager database from version 7.0.0.0 to version 7.0.1.1 on Oracle.

It is also possible to run the migration scripts from a remote machine. In this case, you need to make sure you can connect to the remote database using SQLplus.

Note: Rational Portfolio Manager 7.0.1.1 migration script uses `SQLplus.exe` located under `%ORACLE_HOME%\bin` directory. Therefore you should run the migration scripts on a machine that has this utility.

Prerequisites for migration

- A successful Rational Portfolio Manager version 7.0.0.0 installation
- Rational Portfolio Manager version 7.0.1.1 migration package
- `SQLplus.exe` utility for running Oracle migration scripts

Migration steps

Rational Portfolio Manager migration to version 7.0.1.1 has 2 steps:

1. Migrating RPM schema owner
2. Migrating RPM connected user (if a connected user is used)

Steps to migrate RPM schema owner

1. Tablespaces used in the migration scripts is:
   - `PMO_IDX_64K` for indexes

   Note: If the tablespaces in your RPM database are different from the above mentioned name, you need to change the name of the tablespaces in the migration scripts in the following files:

   `%MIGRATION_HOME%\Database\Oracle\scripts\step1.sql`
2. Stop the application server associated with the RPM database
3. Shutdown the RPM database
4. Startup the RPM database
5. Open a command prompt window and change the directory to `%MIGRATION_HOME%\Database\Oracle` and run `mig_owner.bat`

   Migration script will run and ask you a series of questions:
6. Have you performed pre_migration steps? Before migration you need to backup your database, if you have a backup, answer yes to continue. If you answer no, no migration will be performed
7. The script uses your `%ORACLE_HOME%` environment variable. Enter the required information when prompted
8. Is your RPM database installed on this machine? If you answer no, you will be prompted to enter:
   - TNS string
   - IBMRPM schema owner
   - IBMRPM schema owner password

   If you answer yes, you will be prompted to enter:
   - ORACLE_SID value
   - IBMRPM schema owner
   - IBMRPM schema owner password
9. Are you sure you want to migrate your database now? Answer yes to start the migration
10. At the end of migration you will be provided with migration report. Migration report includes the following information:
    - The current version of the database (which at this level must be 7.0.1.1)
    - The number of invalid objects in the database (which we expect to be 0)
    - The number of objects (needed for 7.0.1.1) for each object type and their status in the migrated RPM database

      Note: Comparing the number of objects for each object type in the **YOUR_RPM_DATABASE** and **NUMBER_OF_OBJECTS_MUST_BE** columns helps you to check if the migration has been successful. Obviously we expect these values to be equal.

11. Migration log files will be created under %MIGRATION_HOME%\Database\Oracle\logs folder. It is always recommended to look at the log files to see if migration was successful

Steps to migrate RPM connected user

1. Open a command prompt window and change the directory to %MIGRATION_HOME%\Database\Oracle and run mig_con_user.bat

   Migration script will run and ask you a series of questions.
2. The script uses your %ORACLE_HOME% environment variable. Enter the required information when prompted
3. Is your RPM database installed on this machine? If you answer no, you will be prompted to enter:
   - TNS string
   - IBMRPM schema owner
   - IBMRPM schema owner password

   If you answer yes, you will be prompted to enter:
   - Verify the ORACLE_SID value
   - Enter IBMRPM schema owner
   - Enter IBMRPM schema owner password
4. Enter RPM connected user name when prompted
5. Enter RPM connected user password when prompted
6. Enter the password for sys user when prompted
7. Are you sure you want to migrate your connected user now? Answer yes to start the migration
8. Migration log files will be created under %MIGRATION_HOME%\Database\Oracle\logs folder. It is always recommended to look at the log files to see if migration was successful

Deploying Rational Portfolio Manager Application Server

Modifying the RPMVersion.xml file

To modify the RPMVersion.xml file:

1. Go to %IBMRPM_WAR_HOME%\WEB-INF\classes directory and open RPMVersion.xml for editing.
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Copying the client installer files

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1. Go to %MIGRATION_HOME%\Client_Installers directory and copy all files into %IBMRPM_WAR_HOME%\client_installer

Copying the com folder

Note: Make sure you have a backup of your existing com folder.

To copy the com folder:

1. Go to %MIGRATION_HOME%\WebServer directory and copy the com folder into %IBMRPM_WAR_HOME%\WEB-INF\classes directory

RPM/PjC installation notes

See Chapter 3, “Installing metrics capabilities for Rational Portfolio Manager,” on page 9.

Deploying RPM Web Services API ear module

Note: If you have already deployed RPM Web Services API with your RPM 7.0 installation, you need to uninstall the previous API module from your Application Server and deploy the new ear file supplied with this migration package.

The rpm-web-services-7.0.1.1.ear and rpm-web-services-7.0.1.1.warfiles are located in the %MIGRATION_PACKAGE%\WebServicesAPI folder.

For detail information about RPM Web Services API refer to RPM7.0.1.1_Web_Services_API_Guide.pdf located in the %MIGRATION_PACKAGE%\Documents folder.

Verifying the installation

This section describes the process of verifying that the installation is completed and correctly configured.

Validating the database connection

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Testing the Web browser connection

To test the Web browser connection:

1. Open a browser window.
2. Go to http://hostname:portnumber/webapp/IBMRPM/PMOServlet.wss

You should see the welcome screen for IBM Rational Portfolio Manager.

Chapter 5. Contacting IBM Customer Support for Rational software products

If you have questions about installing, using, or maintaining this product, contact IBM Customer Support as follows:

The IBM Software Support Internet site provides you with self-help resources and electronic problem submission. The IBM Software Support home page for Rational products can be found at http://www.ibm.com/software/rational/support/.

Voice Support is available to all current contract holders by dialing a telephone number in your country (where available). For specific country phone number, go to http://www.ibm.com/planetwide/.

Note: When you contact IBM Customer Support, please be prepared to supply the following information:

- Your name, company name, ICN number, telephone number, and e-mail address
- Your operating system, version number, and any service packs or patches you have applied
- Your database, version number, and any service packs or patches you have applied
- Your application server, version number, and any service packs or patches you have applied
- Product name and release number
- Your PMR number (if you are following up on a previously reported problem)

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