

Version 7.0.4.4
Windows, UNIX



Release Notes

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Windows, UNIX



Release Notes

Before using this information, be sure to read the general information under "Notices," on page 27.

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About this book

This document outlines IBM Rational Portfolio Manager 7.0.4.4 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 IBM Rational Portfolio Manager user and database or system administrators responsible for IBM Rational Portfolio Manager upgrades.

Proprietary notice

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Chapter 1. About this release

Documentation updates

The following documents were updated in this release:

- IBM Rational Portfolio Manager Web Services API guide
- IBM Rational Portfolio Manager/IBM Rational ClearQuest Integration guide

Note: New install procedure and troubleshooting section are added.

- IBM Rational Portfolio Manager Metrics Enablement: Installation and Getting Started

All updated 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.

Security settings changes

This section describes the new or modified security settings in version 7.0.4.4 of IBM Rational Portfolio Manager. For more information on security settings refer to the security section of the online help.

New security right for accessing the Pivot/Report Design view

A new security right has been added to the security section of the Application Administration that controls the access to the new Pivot/Report Design view. By default, this security right is granted to Portfolio Manager, Workflow Designer, and Workflow Designer with Administration groups. To grant this security right:

1. Log in to Rational Portfolio Manager as an Administrator.
2. Select Application Administration from the navigation bar.
3. Select the Security tab.
4. Select the Default Security/Settings sub-tab.
5. In the right top frame scroll down and mark the check box for **Access Pivot/Report Design**.

Latest supported operating environments

The following tables list the latest Rational® Portfolio Manager supported operating environments:

Table 1. Rational Portfolio Manager supported databases

Database	Version	OS	Hardware architecture
DB2®	8.2*	Windows® 2000 FP 4	Xeon™, Itanium® 2
DB2	8.2	Windows 2003	Xeon, Itanium 2
DB2	8.2	AIX® 5.3	P5
DB2	8.2	AIX 5.3 (64 Bit)	P5

Table 1. Rational Portfolio Manager supported databases (continued)

Database	Version	OS	Hardware architecture
DB2	8.2	Red Hat Linux® AS Version 3	Xeon
DB2	8.2	SuSE Linux 9.2	Xeon
DB2	8.2	Solaris 8	SPARC
Oracle	9.2.0.1	Windows 2000	Xeon, Itanium 2
Oracle	9.2.0.1	Windows 2003	Xeon, Itanium 2
Oracle	9.2.0.1	AIX 5.3	P5
Oracle	9.2.0.1	Windows 2003	Xeon, Itanium 2
Oracle	9.2.0.1	HP-UX B.11	HP PA-RISC
Oracle	9.2.0.7	Red Hat Linux AS Version 3	Xeon
Oracle	9.2.0.7	SuSE Linux v9.2	Xeon
Oracle	9.2.0.7	Solaris 8 and 9 (64 Bit)	SPARC
Oracle	10.2.0.1	Windows 2000 FP 4	Xeon, Itanium 2
Oracle	10.2.0.1	Windows 2003	Xeon, Itanium 2
Oracle	10.1.0.5	AIX 5.3	P5
Oracle	10.1.0.5	AIX 5.3 (64 Bit)	P5
Oracle	10.2.0.1	Red Hat Linux AS Version 3	Xeon
Oracle	10.2.0.1	Red Hat Linux AS Version 3 (64 Bit)	Xeon
Oracle	10.2.0.1	SuSE Linux v9.2	Xeon
Oracle	10.2.0.1	Red Hat Enterprise Linux Version 4 (64 Bit)	Xeon

* Latest DB2 Fix Pack certified is 12.

Table 2. IBM Rational Portfolio Manager supported application servers

Application Server	Version
WebSphere®	5.1 and 6.0
Apache Tomcat	5.5
WebLogic	8.1
Oracle Application Server	9i

Table 3. IBM Rational Portfolio Manager supported application servers for Web Services API

Application server	Version
WebSphere	5.1, 6.0, 6.1
Apache Tomcat	5.0, 5.5
WebLogic	8.1.5
Oracle Application Server	9.0.4 and 10.1.0.2

Language support

IBM Rational Portfolio Manager 7.0.4.4 supports the Russian language in addition to those languages supported in the previous release. Only the user interface is translated to Russian. Online help and documentation will be available in Russian in the future releases of Rational Portfolio Manager.

Enabling RPM General Scope Elements (RGSE) ProjectConsole metrics collections

A new stored procedure was introduced in the 7.0.4.4 release that is utilized by the PjC/RPM integration. In order to enable RGSE ProjectConsole metrics collections to function properly, you must perform the following steps:

1. Stop the IBM Rational ProjectConsole Collection Server service on your PjC 7.0.0.x server.
2. Backup the following .jar files:
 - ...\\Program Files\\Rational\\Common\\CDA\\CDAUtilities.jar
 - ...\\Program Files\\Rational\\ProjectConsole\\CDA\\adapters\\RPMProtocol\\RPMAdapter.jar
3. Copy the supplied CDAUtilities.jar file located under %MIGRATION_HOME%\\PjC_Integration to ...\\Program Files\\Rational\\Common\\CDA on your PjC 7.0.0.x server
4. Copy the supplied RPMAdapter.jar file located under %MIGRATION_HOME%\\PjC_Integration to ...\\Program Files\\Rational\\ProjectConsole\\CDA\\adapters\\RPMProtocol on your PjC 7.0.0.x server
5. Start the IBM Rational ProjectConsole Collection Server service on your PjC 7.0.0.x server

Customer change requests implemented in 7.0.4.4

This section describes the customer change requests implemented in version 7.0.4.4 of IBM Rational Portfolio Manager.

Designing pivots and reports with custom fields

Using this feature you can design new pivots and reports based on the existing ones, add your custom fields, and then publish them to other users in the system. This model, however, applies only to those pivots and reports which currently rely on a single master data set.

There are some reports which allow several master data sets to be combined; these reports will not be included as master data sets for later customization. These reports are:

- General Health / Scope Management
- General Health / Timesheet
- General Health / Scope Management / WBS Elements with Attributes
- General Health / Resource Supply and Demand / Resource Utilization / WBS Elements with Attributes
- General Health / Timephased Budgets / Resource Utilization / WBS Elements with Attributes
- General Health / Timephased Budgets / WBS Elements with Attributes / Scope Management

- General Health / Timephased Budgets / WBS Elements with Attributes / Scope Management / Resource Utilization
- Timephased Budgets / Resource Supply and Demand
- Timephased Budgets / Resource Utilization

Creating a new custom pivot

To create a new custom pivot:

1. Select Pivot/Report Design from the navigation bar (security permitting).
2. Drag and drop a Folder icon in the workspace and name the folder.
3. Drag and drop a Pivot icon under the newly created folder and name the pivot.

Note: This name will be displayed as a pivot name under the OLAP Pivots menu in Portfolio Viewer.

4. Press Enter on your keyboard to display the Select Master Dataset window.
5. Expand the Pivots Category.
6. Expand the required pivot grouping.
7. Select a master data set from which your pivot will be based on and click OK.

Designing and publishing your new custom pivot

The description view of a custom pivot consists of three portlets.

- Identification: mainly used to change the pivot name and to set the publish status.
- Custom Fields: used to add or remove custom fields to and from the pivot.
- Pivot Designer: used to design a pivot with your custom fields and save the layout.

To design your new pivot with required custom fields:

1. Double-click the pivot or select the pivot and click the Description icon to open its description view.
2. In the Custom Fields portlet click the Add icon to open the Select Custom Fields window.
3. The Select Custom Fields window is displayed with all custom fields available in the system under Project and Resource categories.

Note: These custom fields are preconfigured in the Custom Fields tab of Application Administration.

4. Expand the required Project or Resource node.
5. Expand the required category.
6. Select the required custom fields and click OK.

Note: You can also multi-select the custom fields, if they are under the same category.

To add custom fields to your pivot layouts:

1. From the Pivot Designer portlet click the **Customize Layout** button to open the Customize window.
2. Under Bands tab drag the **Custom Fields** band and drop it into position in the pivot window between the two adjacent bands.
3. Click the **Save Layout** button to save the layout and overwrite the existing layout name, or type a new name in the Name field and click the **Save Layout** button.

4. Switch to the Graphs tab. Here you can add and remove pivot charts or edit the existing ones. For detailed instructions about how to create pivot charts see *"Creating and Modifying Pivot Charts"* section of the online help.
5. Mark the check box of **Start with Graph**, if you want your pivot to be displayed in graph mode by default.
6. From the Identification portlet, click the down arrow in the **Publish** field and select **Yes** to publish your new pivot to other users in the system.

Accessing custom pivots

To access custom pivots:

1. In the Work Management view select the projects or portfolio of projects that you run the pivot for.
2. Select the **Portfolio** icon from the toolbar.
3. Hover over the **OLAP Pivots** icon and select **Custom** from the menu, then select the required custom pivot from the sub-menu.

Note: Security is inherited from the original pivot on which the custom is based, for example, a custom pivot based on Resource Utilization will be displayed only if the user has rights to run the standard Resource Utilization pivot.

Creating a new custom report

To create a new custom report:

1. Select Pivot/Report Design from the navigation bar. (security permitting)
2. Drag and drop a Folder icon in the workspace and name the folder.
3. Drag and drop a Report icon under the newly created folder and name the report.

Note: This name will be displayed as a report name under the Reports menu in Portfolio Viewer.

4. Press Enter on your keyboard to display the Select Master Dataset window.
5. Expand the Report Category.
6. Expand the required report grouping.
7. Select a master data set from which your report will be based on and click OK.

Designing and publishing your new custom report

The description view of a custom report consists of two portlets.

- Identification: mainly used to change the report name and to set the publish status.
- Custom Fields: used to add or remove custom fields to and from the report.

To design your new report with required custom fields:

1. Double-click the report or select the report and click the Description icon to open its description view.
2. In the Custom Fields portlet click the Add icon to open the Select Custom Fields window.
3. The Select Custom Fields window is displayed with all custom fields available in the system under Project, Resource, and Asset categories. (The parent Project, Resource, or Asset will be displayed depending on what type of master data set was selected for the report.)

Note: These custom fields are preconfigured in the Custom Fields tab of Application Administration.

4. Expand the required Project, Resource, or Asset node.
5. Expand the required category.
6. Select the required custom fields and click OK.

Note: You can also multi-select the custom fields, if they are under the same category.

To add custom fields to your reports:

1. From the Custom Fields portlet, click the **Design Report** button to open the report designer window.
2. From the left toolbar select the Text Object icon and click anywhere in the report.
3. The Text Editor window is displayed.
4. Select the Insert Expression icon in the toolbar to open the Expression builder window.
5. Click the DB field button to open the DB fields window.
6. From the right window scroll down and select the required custom field from the list and click OK.
7. Click OK to close the Expression builder window.
8. Click the check mark in the Text editor window to accept the change.
9. Insert the newly created header by moving it into the required position.
10. Save your report and exit the report designer.

Note: To understand more about designing reports, see the *"Designing Reports"* section of the online help.

11. From the Identification portlet, click the down arrow in the **Publish** field and select **Yes** to publish your new report to other users in the system.

Accessing custom reports

To access custom reports:

1. In the Work Management view, select the projects or portfolio of projects that you run the report for.
2. Select the **Portfolio** icon from the toolbar.
3. Hover over the **Reports** icon and select **Custom** from the menu, then select the required report category from the sub-menu.
4. The category page will be displayed with the list of all reports created under that category.
5. Double-click the report icon or right-click and select **Run** from the pop-up menu to open the report.

Note: Security is inherited from the original report on which the custom is based, for example, a custom report based on Missing Timesheet will be displayed only if the user has rights to run the standard Missing Timesheet report.

Copying workflow processes

This new feature allows you to duplicate existing workflow processes which will improve performance by saving time in the creation of a new workflow process. To duplicate existing processes:

1. Select Workflow Design from the navigation bar (security permitting).
2. Expand the required element.
3. Right-click on a process and select Edit -> Copy from the pop-up menu.
4. Select the root element again.
5. Right-click and select Edit -> Paste from the pop-up menu.
6. The duplicate workflow process will be placed under the root element, with the word (copy) added to the original name.

Using asterisk in logon passwords

IBM Rational Portfolio Manager now supports using an asterisk (*) in logon passwords to support organizations corporate security standards.

Running pivots and reports by selecting any specific dates

It is now possible to run some pivots and reports for a specific date range. These pivots and reports are:

- Resource Supply and Demand pivot
- Resource Utilization pivot
- Weekly Resource Utilization pivot
- Monthly Resource Utilization pivot
- Timesheets pivot
- Timesheets Step pivot
- Utilization – Template report
- Supply Demand – Template report
- Project Monthly Resource Allocation report

To use this feature:

1. Select the projects that you want to run the report or pivot from the work Management view.
2. Select the **Portfolio** icon from the toolbar.
3. Select the pivot or report you want to run.
4. In the Select date window mark the check box for **Select specific dates**.
5. Select the date range that you want from the calendars.

New Monthly Resource Utilization – Template report

There is a new Monthly Resource Utilization – Template report which includes the following features:

- Pool ID
- Pool Name
- Resource ID
- Resource Name
- Assignments Labor Code (Financial Category)
- Project Type (User-created or Admin/Personal)
- Resource Calendar Hours
- Resource Actual Hours

Scope elements overdue

There are two new columns added under the Indicators band in the Scope Management view to display the scope elements overdue days:

- Days overdue: displays the overdue elements in days. The formula used is the scope element target date minus the current date.
- Overdue: displays a check mark if the element is overdue.

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.

PMR 18177 999 000; Applying iFix001 for ProjectConsole breaks the integration between Rational Portfolio Manager and ProjectConsole

In order to configure the RPM/ProjectConsole integration to communicate using HTTP, users are required to modify the PJC.Properties and PJC.Properties.orig configuration files on the ProjectConsole™ server, setting the flag ALLOW_HTTP=true. Currently, when you install an update to the ProjectConsole server (iFix, FixPack, etc.), that configuration file is getting overwritten with a new version.

After installing any upgrades to the ProjectConsole server, you need to update the PJC.Properties and PJC.Properties.orig files and add the ALLOW_HTTP=true flag back in. This issue will be addressed in a future release of ProjectConsole.

Microsoft .NET version 1.1 limitations

Due to the limitation that in Microsoft® .NET 1.1 C# is unable to send null values, customers should be aware that integrations built, using the Rational Portfolio Manager Web services API, might experience problems when default object property values are set to null. There is no workaround for this issue in this release.

Microsoft .NET version 2.0 limitations

Integrations built using the Rational Portfolio Manager Web services API with Microsoft .NET 2.0 framework will result in experiencing problems due to the following limitations in Microsoft .NET 2.0.

- C# is unable to decode enumeration values from the SOAP messages RPC encoded mode.
- C# has problems decoding arrays from the SOAP messages in RPC encoded mode.

The workaround is to use the Microsoft .NET version 1.1 framework when developing integrations with the Rational Portfolio Manager Web Services API.

Web Service API field in the WorkElement container

All Xpath queries with the WorkElement.lastModifiedDate field must include the timestamp portion of the date because this field is stored as a TIMESTAMP in the database. If the time portion is not included, you will receive a database error.

Web Services API actual finish date remains null when actual start date and an actual duration is saved in minutes

When you save a WorkElement's actual start date and an actual duration in minutes, the actual finish date should be populated on reload, however, the actual finish date remains null. There is no workaround for this issue in this release.

Weekly Timesheet pivot

The Timesheet pivot displays two rows for some weeks when the Weekly option is selected. There is no workaround for this issue in this release.

Long file names in Microsoft Project

Microsoft Project files in Simplified Chinese that have a file name of more than 133 Chinese characters will fail when importing to Rational Portfolio Manager. The workaround is to rename the file to use less than 133 characters.

PMR 71380 999 672; Workflow conditions with Chinese characters

Rational Portfolio Manager crashes when trying to modify the workflow conditions with Chinese characters. There is no workaround for this issue in this release.

Problems fixed in this release

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

Table 4. Customer originated problems fixed in this release

PMR ID	APAR ID	Description
01004 999 655	PK28995	Attributes are not shown in project OLAP Finance/Timephased Budget pivot.
01118 SGC 848		Rational Portfolio Manager server shuts down due to enormous CPU utilization.
08278 122 000		Cannot apply the Rational Portfolio Manager/Rational ClearQuest integration package 1.0 for all record types.
14527 999 000		Cannot use an upgraded client to access Rational Portfolio Manager/Rational ClearQuest 7022 integration.
26050 49R 000	PK31958	Attributes cannot be edited in PMOR2 or PMOR9.
28703 344 000	PK33508	-9999 db error with workflows.
28748 49R 000	PK32229	Delete Project does not remove historical documents.
28882 49R 000	PK32292	Document security broken.
31404 550 000		The report does not show in the resource report view.
31797 999 000		Scorecard category and questions remain grey.
31799 999 000		The first value in "Required Fields" cannot be accepted as a valid field.
31806 999 000		State Notification: loss of configuration.
31809 999 000		Convert scope element via actions does not execute default workflow.
31810 999 000		Cannot create scope elements from my portal view.

Table 4. Customer originated problems fixed in this release (continued)

PMR ID	APAR ID	Description
31812 999 000		Automated transfer to WBS generates error message.
31813 999 000		Cannot create scope element after logoff and log back on.
32092 999 744	PK27585	EV graph starts dipping if there are two tasks with same name in a project.
33367 550 000; 01832 49R 000	PK28988	Duplicate Timesheet records in Resource Management - Timesheet pivot
34395 999 744	PK35656	RPM Plugin Client cannot register dll for users under Windows Users Group.
35768 49R 000	PK33028	Error -803 when changing a resource's effective date.
39553 49R 000	PK35163	Attributes numerical values do not display in pivot.
44148 211 788		Time Phased Budget displays wrong data after 7.0.2.2 migration.
53568 999 616	PK35661	Unable to show some time entered in the Timesheet pivot by specific dates.
57694 999 724	PK28011	Monthly Timesheets Pivot: Total MM (Sum) is not calculated correctly.
79312 422 000	PK35189	Cost rate incorrectly set to zero.
79508 999 000	PK19311	MM calculation is wrong in General Health, Weekly Resource Utilization, and Project Deliverables pivots.
81476 999 672	PK29438	Workflow baseline action clears all schedule data.
88721 999 672	PK34340	EAccessViolation error on right-clicking summary task occurs when a resource doesn't have "View Full Project WBS" security right.
88809 999 672	PK34520	A user can modify WBS security in Resource portlet without permission.
93810 999 000	PK24722	BCWP > BCWS when actual hours > baseline schedule hours.
34392 999 744		Global Unique Identifier (GUID) generating duplicate IDs in UNIX environment.

Chapter 3. Migrating to this version

Before you begin

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 below 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 migration scripts, when transferred to the AIX host, should preserve their Type/Mode (ASCII/BIN) and Right (file ownership).

Migrating IBM Rational Portfolio Manager on DB2 for the UNIX system

This section describes how to migrate the Rational Portfolio Manager database from version 7.0.3.3 to version 7.0.4.4 on DB2 for the UNIX[®] system.

Note: (for Database Administrators) For RPM Database maintenance, it is good practice to 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 7.0.3.3 installation
- Rational Portfolio Manager version 7.0.4.4 migration package
- DB2 v 8.2
- DB2 migration is performed through a manual process, and the migration steps use a UNIX shell script. The RPM migration procedure uses a bourne shell interpreter
- Make sure that all .sh files located under `${MIGRATION_HOME}/Database/DB2/Unix/migration`, `${MIGRATION_HOME}/Database/DB2/Unix/migration_SunOS`, `${MIGRATION_HOME}/Database/DB2/Unix/csp_Aix`, (if using 32 bit DB2 instance) `${MIGRATION_HOME}/Database/DB2/Unix/csp_Aix64` (if using 64 bit DB2 instance), `${MIGRATION_HOME}/Database/DB2/Unix/csp_Linux`, and `${MIGRATION_HOME}/Database/DB2/Unix/csp_SunOS` have execute rights.

Definition of terms used in this section

- **Instance Owner:** is the user who owns the DB2 Instance which is defined as logical database server environment.
- **Connected User:** is the user who connects to database from the 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 the schema name. 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 the schema name. 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: Choose the scenario that you are using with your current RPM database.

The migration process uses scripts to supply all corresponding values for the 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 for AIX and Linux are located in `${MIGRATION_HOME}/Database/DB2/Unix/migration/Logs` and the log files for Sun OS are located in `${MIGRATION_HOME}/Database/DB2/Unix/migration_SunOS/Logs` folders. The one main script `migration7044.sh` performs all of the steps for the migration.

Migration steps

1. Stop the web application and the Alert server associated with the RPM database.
2. If you are migrating on AIX or Linux OS, go to `${MIGRATION_HOME}/Database/DB2/Unix/migration` and run:
`./migration7044.sh`
3. If you are migrating on Sun OS, go to `${MIGRATION_HOME}/Database/DB2/Unix/migration_SunOS` and run:
`./migration7044.sh`

Steps used when migrating from version 7.0.3.3

Although the steps in this section describe what is happening during migration, you need to be prepared to check the log files, especially in steps 14 and 16.

1. Renames the existing RPM library file located in the `${INSTHOME}/sql/lib/function` from `ibmrpm.so` to `ibmrpm_7033.so` for backup, where `${INSTHOME}` is the path to DB2 instance directory where DB2 is installed.
2. Copies the RPM library file from `${MIGRATION_HOME}/Database/DB2/Unix/csp_Aix` (if using AIX 32 bit DB2 instance), `${MIGRATION_HOME}/Database/DB2/Unix/csp_Aix64` (if using AIX 64 bit DB2 instance), `${MIGRATION_HOME}/Database/DB2/Unix/csp_Linux` (if using Linux) or `${MIGRATION_HOME}/Database/DB2/Unix/csp_SunOS` (if using Sun OS) to `${INSTHOME}/sql/lib/function/` folder.
3. Gets the name of the OS in use (if the OS is AIX then will ask for 32 or 64 bit DB2 instance).
4. Checks for the version number in RPM database table to decide whether to continue or exit. If the version is not 7.0.3.3, the process exits.
5. Stops and starts RPM database.
6. Drops triggers > `drop_triggers70.out`.
7. It starts the migration process > `migration7044.out`.

8. If using scenario 2 creates alias and grants rights for new tables added in migration to the connected user.
9. Creates triggers > triggers70.out.
10. Runs statistics on tables > Reorgstats70.out.
11. Creates stored procedures for v 7.0.4.4 > createsp.out.
12. Binds RPM v 7.0.4.4 code > bindall.out.
13. Verifies the count of RPM database objects after migration (table, index, trigger, UDF, and stored procedure counts).
14. The results from step 13 and the required RPM database objects for RPM v 7.0.4.4 are copied into `${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 7.0.4.4 please contact support. See Chapter 4, "Contacting IBM Customer Support for Rational software products," on page 25
15. Verifies if DDL changes during migration were successful and displays the corresponding success/failure message on the screen and prints out the report into the `DB_CHECK.out` file.
16. Checks for successful RPM database code migration > Output will be displayed on the screen and the report will be printed into the `DB_CHECK.out` file.

Note: If the output file contains 7.0.4.4, the migration is successful, if not, then verify all of 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 because they are only warnings:

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

Earned Value enablement

If you are using the Earned Value functionality of IBM Rational Portfolio Manager and you want the values to be updated on regular basis for all projects, then you can schedule a job that will execute the stored procedure call to update these values. You can use the `rollup_ev.sql` file located in the `${MIGRATION_HOME}/Database/DB2/Unix/migration` directory by editing the file and adding the right parameters for the database name, username, and password. Username and password can be the username and password of the instance owner or the connected user depending on the database scenario you are using. This file connects to the Rational Portfolio Manager database specified and calls the earned value stored procedure to update Earned Value for all projects.

Note: It is a good practice to run the scheduled job during off hours when system usage is minimal.

Migrating IBM Rational Portfolio Manager on Oracle for the UNIX system

This section describes how to migrate the IBM Rational Portfolio Manager database from version 7.0.3.3 to version 7.0.4.4 on Oracle for the UNIX system.

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: IBM Rational Portfolio Manager 7.0.4.4 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 7.0.3.3 installation
- Rational Portfolio Manager version 7.0.4.4 migration package
- SQLplus utility for running Oracle migration scripts
- Oracle migration uses shell scripting in bourne shell environments (sh shell)
- Make sure that you have execute rights for `mig_owner.sh` and `mig_con_user.sh` files

Migration steps

Rational Portfolio Manager migration to version 7.0.4.4 has two 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 are:
 - `PMO_IDX_64K` for indexes
 - `PMO_DATA_64K` for tables

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

```
${MIGRATION_HOME}/Database/Oracle/scripts/step1.sql
```

2. Stop the application server associated with the RPM database.
3. Shut down the RPM database.
4. Start the RPM database.
5. Open a shell window and change the directory to `${MIGRATION_HOME}/Database/Oracle` and run `./mig_owner.sh`.
6. Have you performed pre_migration steps? Before migrating you need to back up your database, if you have a back up, answer yes to continue. If you answer no, no migration will be performed.
7. The script uses the `${ORACLE_HOME}` environment variable of the machine which you are running the script from. 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 passwordIf 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. The migration report includes the following information:
 - The current version of the database (which at this level must be 7.0.4.4)
 - The number of invalid objects in the database (which should be 0)
 - The number of objects (needed for 7.0.3.3) 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. These values should be equal.

 - The name and type of the missing objects in your database
 - The list of error messages generated during DDL migration (if any)
 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.
 - 12.

Note: The LevleingLib library must only be copied if your operating system is Red Hat Enterprise Linux ES release 4. Otherwise, skip these steps.

Stop the Oracle listener:

```
${ORACLE_HOME}/bin/lsnrctl stop
```

13. LevelingLib.so located under `${MIGRATION_HOME}/Database/Oracle/leveling/redhat-v4/10g-64bit` folder must be manually copied to the right location on the database server.
14. Start the Oracle listener:


```
${ORACLE_HOME}/bin/lsnrctl start
```

Steps to migrate RPM connected user

1. Open a shell window and change the directory to `${MIGRATION_HOME}/Database/Oracle` and run `./mig_con_user.sh`.
2. The script uses the `${ORACLE_HOME}` environment variable of the machine from which you are running the script. 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 the RPM connected user name when prompted.
5. Enter the 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 the migration was successful.

Migrating Rational Portfolio Manager on DB2 for Windows

This section describes how to migrate the Rational Portfolio Manager database from version 7.0.3.3 to version 7.0.4.4 on DB2 for Windows.

Note: (for Database Administrators) It is a good practice 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 IBM Rational Portfolio Manager version 7.0.3.3 installation
- IBM Rational Portfolio Manager version 7.0.4.4 migration package
- DB2 v 8.2

Definition of terms used in this chapter

- **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 the 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 the schema name. 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 the schema name. 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: Choose the scenario that you are using with your current RPM database.

The migration process uses a batch process to supply all 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 `migration7044.bat` which performs all steps in the 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:
migration7044

Batch process steps used when migrating from version 7.0.3.3

Although the steps in this section describe what is happening during migration, you need to be prepared to check the log files, especially in step12.

1. Renames the existing RPM library file located in the %DB2TEMPDIR%function and %DB2TEMPDIR%function\Unfenced from ibmrpm.dll to ibmrpm_7033.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 the version is not 7.0.3.3, the process exits.
4. Stops and starts RPM database.
5. Drops triggers > drop_triggers70.out.
6. It starts the migration process > migration7044.out.
7. If using scenario 2 creates alias and grants rights for new tables added in migration to the connected user.
8. Runs statistics on tables > Reorgstats70.out.
9. Creates stored procedures for v 7.0.4.4 > createsp.out.
10. Binds RPM v 7.0.4.4 code > bindall.out.
11. Verifies the count of 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 7.0.4.4 are copied into %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 7.0.4.4 please contact support. See Chapter 4, "Contacting IBM Customer Support for Rational software products," on page 25
13. Verifies if DDL changes during migration were successful and displays the corresponding success/failure message on the screen and prints out the report into the DB_CHECK.out file.
14. Checks for successful RPM database code migration > Output will be displayed on the screen and the report will be printed into the DB_CHECK.out file.

Note: If the output contains 7.0.4.4, the migration is successful, if not, then verify all the log files. In any case it is recommended to check all log files.

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

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

Earned Value enablement

If you are using the Earned Value functionality of Rational Portfolio Manager and you want the values to be updated on a regular basis for all projects, then you can schedule a job that will execute the stored procedure call to update these values. You can use the `rollup_ev.sql` file located in the `%MIGRATION_HOME%\Database\DB2\Windows\migration` directory by editing the file and adding the right parameters for the database name, username, and password. Username and password can be the username and password of the instance owner or the connected user depending on the database scenario you are using. This file connects to the Rational Portfolio Manager database specified and calls the earned value stored procedure to update Earned Value for all projects.

Note: It is a good practice to run the scheduled job during off hours when system usage is minimal.

Migrating Rational Portfolio Manager on Oracle for Windows

This section describes how to migrate the Rational Portfolio Manager database from version 7.0.3.3 to version 7.0.4.4 on Oracle for Windows.

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 7.0.4.4 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 7.0.3.3 installation
- Rational Portfolio Manager version 7.0.4.4 migration package
- `SQLplus.exe` utility for running Oracle migration scripts

Migration steps

Rational Portfolio Manager migration to version 7.0.4.4 has two steps:

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

Steps to migrate RPM schema owner

1. Tablespace used in the migration scripts are:
 - `PMO_IDX_64K` for indexes
 - `PMO_DATA_64K` for tables

Note: If the tablespace in your RPM database is different from the above mentioned names, you need to change the name of the tablespace in the migration scripts in the following file:

`%MIGRATION_HOME%\Database\Oracle\scripts\step1.sql`

2. Stop the application server associated with the RPM database.
3. Shut down the RPM database.
4. Start the RPM database.

5. Open a command prompt window and change the directory to %MIGRATION_HOME%\Database\Oracle and run mig_owner.bat.
6. Have you performed pre_migration steps? Before migrating you need to back up your database, if you have a back up, answer yes to continue. If you answer no, no migration will be performed.
7. The script uses the %ORACLE_HOME% environment variable of the machine from which you are running the script. 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. The migration report includes the following information:
 - The current version of the database (which at this level must be 7.0.4.4)
 - The number of invalid objects in the database (which should be 0)
 - The number of objects (needed for 7.0.4.4) 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. These values should be equal.

 - The name and type of the missing objects in your database
 - The list of error messages generated during DDL migration (if any)
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 the 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.
2. The script uses your %ORACLE_HOME% environment variable of the machine from which you are running the script. 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 the RPM connected user name when prompted.
 5. Enter the 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 on the UNIX system

Copying the RPMVersion.xml file

To copy the RPMVersion.xml file:

1. Go to \${MIGRATION_HOME}/Webserver directory and copy RPMVersion.xml file into the \${IBMRPM_WAR_HOME}/WEB-INF/classes/conf directory.

Copying the com directory

Note: Make sure you have a back up of your existing com directory before copying.

To copy the com directory:

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

Copying the help directory

To copy the help directory:

1. Go to \${MIGRATION_HOME}/Webserver directory and copy RPM_WebHelp directory into the \${IBMRPM_WAR_HOME}.

Copying the jar files for ProjectConsole integration

To copy the ProjectConsole jar files see *Enabling RPM General Scope Elements (RGSE) ProjectConsole metrics collections* section of this release notes.

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

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-7.0.4.4.ear and rpm-web-services-7.0.4.4.war files are located in the `${MIGRATION_PACKAGE}/WebServicesAPI` folder.

For detail information about RPM Web Services API, refer to Web Services API guide located in the `${MIGRATION_PACKAGE}/Documents` folder.

Installing the IBM Rational ClearQuest integration

For detail information about installing and working with the IBM Rational ClearQuest® integration, refer to RPM-CQ-Integration.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.

Post-installation activities

For post-installation steps, refer to Administration_Guide.pdf document. The post-installation files are located under `${MIGRATION_HOME}/Post-Install` directory.

Deploying Rational Portfolio Manager Application Server on Windows

Copying the RPMVersion.xml file

To copy the RPMVersion.xml file:

1. Go to `%MIGRATION_HOME%\Webserver` directory and copy RPMVersion.xml file into the `%IBMRPM_WAR_HOME%\WEB-INF\classes\conf` directory.

Copying the com directory

Note: Make sure that you have a backup of your existing com directory before copying.

To copy the com directory:

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

Copying the help directory

To copy the help directory:

1. Go to %MIGRATION_HOME%\Webserver directory and copy RPM_WebHelp directory into the %IBMRPM_WAR_HOME%.

Copying the jar files for ProjectConsole integration

To copy the ProjectConsole jar files see *Enabling RPM General Scope Elements (RGSE) ProjectConsole metrics collections* section of this release notes.

Copying the client installer files

To copy the client installer files:

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

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-7.0.4.4.ear and rpm-web-services-7.0.4.4.war files are located in the %MIGRATION_PACKAGE%\WebServicesAPI folder.

For detail information about RPM Web Services API refer to Web Services API guide located in the %MIGRATION_PACKAGE%\Documents folder.

Installing the IBM Rational ClearQuest integration

For detail information about installing and working with the IBM Rational ClearQuest integration, refer to RPM-CQ-Integration.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.

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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.

Post-installation activities

For post-installation steps, refer to the Administration_Guide.pdf document. The post-installation files are located under the %MIGRATION_HOME%\Post-Install directory.

Chapter 4. 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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