

**Version 6.1.2.6**  
UNIX, Linux



## Migration Guide





## Migration Guide



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## Preface

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### About this book

This document outlines the steps to migrate IBM® Rational® Portfolio Manager Database (DB2® V8.1 and Oracle 9i or 10g) from version 6.1.1.5 to version 6.1.2.6

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### Audience

This document is intended for database administrators, system administrators, and network administrators responsible for the installation and configuration of the Rational Portfolio Manager server environment.

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

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# Chapter 1. Migrating Rational Portfolio Manager on DB2

This chapter tells you how to migrate the Rational Portfolio Manager database from version 6.1.1.5 to version 6.1.2.6 on DB2.

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## Prerequisites for migration

- A successful Rational Portfolio Manager version 6.1.1.5 installation
- Rational Portfolio Manager version 6.1.2.6 migration package
- DB2 v 8.1 FP 7 & 9 (Rational Portfolio Manager 6.1.2.6 for UNIX does not support DB2 v 7.2)
- 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 interpreter
- Make sure that all .sh files located under  
\${MIGRATION\_HOME}/Database/DB2/[OS]/migration and  
\${MIGRATION\_HOME}/Database/DB2/[OS]/csp have execute rights

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## 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 web application and has been granted rights to make update, insert, delete, select on database tables. Connected User can be the instance owner too.
- **DBNAME:** is the name of RPM database being migrated to version 6.1.2.6.
- **USERNAME:** is the user name of the instance owner.
- **PASSWORD:** is the password for the instance owner user name.
- **CONUSERNAME:** is the user name of the connected user who connects to RPM database from the web application.
- **CONPASSWORD:** is the password for the CONUSERNAME.

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 `${MIGRATION_HOME}/Database/DB2/[OS]/migration`, and `${MIGRATION_HOME}/Database/DB2/[OS]/csp` folders. There is one main script file called `migration6126.sh` which carries out all the steps for migration.

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## Migration steps

1. Copy `pmoffice.a` from `${MIGRATION_HOME}/Database/DB2/[OS]/csp` to `${INSTHOME}/sql1lib/function/` directory prior to migration, where `${INSTHOME}` is the path to DB2 instance directory where DB2 is installed.

**Note:** Make sure you have a backup of your current library files before copying these files.

2. Stop the web application and the Alert server associated with the RPM database.
3. Go to `${MIGRATION_HOME}/Database/DB2/[OS]/migration` and run:  
`./migration6126.sh`

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## Steps used when migrating from version 6.1.1.5

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

1. Checks for the version number in RPM database table to decide whether to continue or exit. If version is other than 6.1.1.5 then exits
2. Stops and starts RPM database
3. It starts the migration process: `migration6126.out`
4. Creates stored procedures for v 6.1.2.6 > `createsp.out`  
`${MIGRATION_HOME}/Database/DB2/[OS]/csp`
5. Binds RPM v 6.1.2.6 code > `bindall.out`  
`${MIGRATION_HOME}/Database/DB2/[OS]/csp`
6. Runs statistics on tables > `Reorgstats61.out`
7. Checks for successful migration > Output will be displayed on the screen

**Note:** If the output file contains 6.1.2.6, 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)

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## 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 6.1.1.5 to 6.1.2.6
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

To copy the com folder:

1. Back up the existing com folder located under `${IBMRPM_WAR_HOME}/WEB-INF/classes` folder
2. Go to `${MIGRATION_HOME}/Webserver` directory and copy the com folder into `${IBMRPM_WAR_HOME}/WEB-INF/classes`

## Copying the bin folder

To copy the bin folder:

1. Go to `${MIGRATION_HOME}/Webserver` directory and copy the bin folder into `${IBMRPM_WAR_HOME}`

## Copying the SPListener Properties file

For transactions that might take more than 2 minutes, Rational Portfolio Manager will keep the channel alive by transmitting keep-alive messages until all the data is ready. To enable this capability of RPM web application, you need to set the following parameters to greater than 0 in `com.ibm.rpm.SPListener.properties` file.

`KeepAliveCount = 0` (Maximun number of keep-alive packets)

`KeepAliveInterval = 0` (Interval in secs)

To copy the SPListener Properties file:

1. Go to `${MIGRATION_HOME}/Webserver` directory and copy the `com.ibm.rpm.SPListener.properties` file into `${IBMRPM_WAR_HOME}/WEB-INF/classes`

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## 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.

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## Post install activities

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

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## Chapter 2. Migrating Rational Portfolio Manager on Oracle

This chapter tells you how to migrate the Rational Portfolio Manager database from version 6.1.1.5 to version 6.1.2.6 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 6.1.2.6 migration script uses SQLplus located under `${ORACLE_HOME}/bin` directory. Therefore you should run the migration scripts on a machine that has this utility.

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### Prerequisites for migration

- A successful Rational Portfolio Manager version 6.1.1.5 installation
- Rational Portfolio Manager version 6.1.2.6 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

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### Migration steps

Rational Portfolio Manager migration to version 6.1.2.6 has 2 steps:

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

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### Steps to migrate RPM schema owner

1. Stop the application server associated with the RPM database
2. Shutdown the RPM database
3. Startup the RPM database
4. Open a shell window and change the directory to `${MIGRATION_HOME}/Database/Oracle` and run `./mig_owner.sh`  
Migration script will run and ask you a series of questions:
5. Have you performed pre\_migration steps? Before migration you need to backup your database, if you have a backup, answer yes to continue. If you answer no, no migration will be performed
6. The script uses your `${ORACLE_HOME}` environment variable. Enter the required information when prompted
7. 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
8. Are you sure you want to migrate your database now? Answer yes to start the migration
  9. 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 6.1.2.6)
    - The number of invalid objects in the database (which we expect to be 0)
    - The number of objects (needed for 6.1.2.6) 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.
  10. Migration log files will be created under `${MIGRATION_HOME}/Database/Oracle/logs` folder. It is always recommended to look at the log files to see if migration was successful
  11. Stop Oracle listener  
`${ORACLE_HOME}/bin/lsnrctl stop`
  12. Copy the leveling library to the proper directory where you have set the path for the `LEVELING_LIB` library object in the database  
For example:  
on Solaris:  
`cp ${MIGRATION_HOME}/Database/Oracle/leveling/SUN/pmoffice.so ${ORACLE_HOME}/bin`  
on HP-UX:  
`cp ${MIGRATION_HOME}/Database/Oracle/leveling/HP/pmoffice.sl ${ORACLE_HOME}/bin`
  13. Start Oracle listener  
`${ORACLE_HOME}/bin/lsnrctl start`

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## 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

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## 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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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.

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## Post install activities

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

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## Appendix. Terms and Glossary

Table 1. Terms and glossary used in this document

Variable	Description	Example
<code>\${DB2TEMPDIR}</code>	Your DB2 home directory	home/IBM/SQLLIB
<code>\${ORACLE_HOME}</code>	Your Oracle home directory	home/Oracle/ora92
RPM	Rational Portfolio Manager	
<code>\${MIGRATION_HOME}</code>	Path to RPM 6.1.2.6 migration package	home/software/RPM6126MigPack
<code>\$WAS_HOME]</code>	Path to WebSphere® home directory	home/IBM/WebSphere/AppServer
<code>\${IBMRPM_EAR_HOME}</code>	Path to IBMRPM Enterprise Application	<code>\${WAS_HOME}/Installed Apps/[user]/IBMRPM.ear</code>
<code>\$IBMRPM_WAR_HOME}</code>	Path to IBMRPM WEB Application	<code>\${IBMRPM_EAR_HOME}/IBMRPM.war</code>







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