IBM Rational Portfolio Manager
Version 6.1.0.0 for DB2
Migration Guide

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SCOPE

This document outlines the steps to migrate IBM Rational Portfolio Manager Database (DB2 for AIX) from Version 6.0.0.0 or 6.0.0.1 to version 6.1.0.0

AUDIENCE

This document is intended for Database Administrators, Application Servers administrators and/or responsible for the installation and configuration of IBM Rational Portfolio Manager server environment.

PRE-MIGRATION STEPS

Before you proceed 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 used to connect to the database from the web server.

Note:
1- If the user used to connect from the web application is different from the instance owner then you should set the database schema to the name of the connected user and you don't have aliases. Therefore omit the following files and the steps that refer to these scripts from the migration:

-drop_alias.sql
-alias.sql
-step 4, 7, 16, 19

PRE-REQUISITES

- A successful RPM Version 6.0.0.0 or 6.0.0.1 or 6.0.0.2 installation;
- IBM Rational Portfolio Manager Version 6.1.0.0 Release Package;

INSTRUCTIONS

Migration Procedure

Scope:

- Migration of the database schema.
- Rebuild and bind the database server code
- Copy Rational Portfolio Manager client installers to the Webserver.
- Update Middleware settings.

Steps:

1. Stop the web application, the Alert server associated with the RPM database.
2. Open a shell window under RPM Database instance owner and perform the following:

   Stop and start the DB2 instance in which the RPM database is created in. Run:
   db2 force applications all
   db2stop force
   db2start

3. Go to ${MIGPACKAGE_HOME}/Database/DB2/ddl, open drop_triggers.sql for editing, replace DBNAME with the name of RPM Database Name, userName with the instance owner's userName, PASSWORD with it its password and DBSCHEMA to the schema under which triggers were created.
   Then run:
   db2 –tvf `drop_triggers.sql –z drop_triggers.out`

   Check for SQLSTATE, if no error move to next step

4. Open drop_alias.sql for editing, replace DBNAME with the name of RPM database Name, userName with the username that is used to connect to database from web application, PASSWORD with it its password. Replace TABALIAS by the schema under which the aliases were created. Then run:

   db2 –tvf `drop_alias.sql -z drop_alias.out`

   Check for SQLSTATE, if no error move to next step

5. Go to ${MIGPACKAGE_HOME}/Database/DB2/migration, open Migration_FROM_6000_TO_6100.sql for editing, replace DBNAME with the

name of RPM Database Name, USERNAME with the instance owner's userName, USERPSSWD with its password and DBSCHEMA to the schema under which tables were created.

Then run:

db2 –tvf Migration_FROM_6000_TO_6100.sql –z Migration_FROM_6000_TO_6100.out

Check for SQLSTATE, if no error move to next step

6. Open DROP_TMPTABLES_6000_TO_6100.sql for editing, replace DBNAME with the name of RPM Database Name, USERNAME with the instance owner's userName, USERPSSWD with its password and DBSCHEMA to the schema under which tables were created.

   Then Run:

   db2 –tvf DROP_TMPTABLES_6000_TO_6100.sql –z DROP_TMPTABLES_6000_TO_6100.out

   Check for SQLSTATE, if no error move to next step

7. Go to ${MIGPACKAGE_HOME}/Database/DB2/ddl , open alias.sql for editing, replace DBNAME with the name of RPM Database Name, USERNAME with the username of the user that is used to connect to the database from the web application, USERPSSWD with its password. Replace TABALIAS by the schema under which the aliases were created. Replace TABSCHEMA by the schema under which the tables were created. Run:

   db2 -tvf alias.sql -z alias.out

Check for SQLSTATE, if no error move to next step

8. Open grants.sql for editing, replace DBNAME with the name of RPM Database Name, USERNAME with the username of the instance owner, USERPSSWD with its password. Replace TABSCHEMA by the schema under which the tables were created. Replace DBUSER by the user name that is used to connect to the database from the web application. Then run:

   db2 -tvf grants.sql -z grants.out

Check for SQLSTATE, if no error move to next step

9. Run the following query to get max reference number from table TMT_WBS and copy this number as that will be used in the last query of this step to update the identity column in table TMT_WBS. Run the following queries one after the other:

db2 connect to DBNAME user USERNAME using USERPSSWD

-replace DBNAME with the name of RPM Database Name, USERNAME with the username of the instance owner, USERPSSWD with its password

db2 SET CURRENT SCHEMA `DBSCHEMA`

```
-replace DBSCHEMA by the schema under which tables were created
```

db2 “SELECT CHAR(MAX(REFERENCE_NUMBER)+1) FROM TMT_WBS”

-remember the number returned from this query

db2 “ALTER TABLE TMT_WBS ALTER COLUMN REFERENCE_NUMBER RESTART WITH (the number returned from the previous query)”

10. Run the following query to get max reference number from table TMT_CRI and copy this number as that will be used in the last query of this step to update the identity column in table TMT_CRI. Run the following queries one after the other:

    db2 connect to DBNAME user USERNAME using USERPSSWD

    -replace DBNAME with the name of RPM Database Name, USERNAME with username of the instance owner, USERPSSWD with its password

    db2 SET CURRENT SCHEMA `DBSCHEMA`

    ```
    -replace DBSCHEMA by the schema under which tables were created
    ```

    db2 “SELECT CHAR(MAX(REFERENCE_NUMBER)+1) FROM TMT_CRI”

    -remember the number returned from this query

    db2 “ALTER TABLE TMT_CRI ALTER COLUMN REFERENCE_NUMBER RESTART WITH (the number returned from the previous query)”

11. Go to ${MIGPACKAGE_HOME}/Database/DB2/ddl , open triggers.sql for editing, replace DBNAME with the name of RPM Database Name, USERNAME with the username of the instance owner, USERPSSWD with its password and DBSCHEMA to the schema under which triggers were created.

    Then run:
    db2 –tvf `triggers.sql -z triggers.out`

12. Go to ${MIGPACKAGE_HOME}/Database/DB2/csp, open createsp_mig.sql for editing, replace DBNAME with the name of RPM Database Name, USERNAME

with the username that is used to connect to database from web application, USERPSSWD with its password.

Then run:
db2 –tvf createsp_mig.sql -z createsp_mig.out

Check for SQLSTATE, if no error move to next step (there may be errors for dropping new Sp that don't exist in DB: this is ok,continue to next step)

13. Open bnd_mig.sql for editing replace DBNAME with the name of RPM Database Name, USERNAME with the username that is used to connect to database from web application, USERPSSWD with its password and DBSCHEMA to the db schema you are running against.
    Build RPM database by following the steps below:
    i. Execute initialize:
        1. You have to be root user and you have to create pmoffice directory at the root and copy initialize from MIGPACKAGE_HOME}/Database/DB2/CSP directory into that directory
        2. You have to give execute rights to the file before you can execute.Run:

        chmod 775 initialize

    ii. Run:
    db2 force applications all
    db2stop force
    db2start

    db2 –tvf bnd_mig.sql –z bnd_mig.out

    Check for SQLSTATE, if no error move to step iii

    iii. RUN:
    chmod 775 $INSTHOME/sqllib/function
    chmod 775 $INSTHOME/sqllib/function/unfenced

    Copy pmoffice.a into $INSTHOME/sqllib/function directory and into $INSTHOME/sqllib/function/unfenced/ directory.

14. Go back to ${MIGPACKAGE_HOME}/Database/DB2/migration, open Migration_SP_6000_TO_6100.sql for editing, replace DBNAME with the name of RPM Database Name, USERNAME with the username that is used to connect to database from web application, USERPSSWD with its password and DBSCHEMA with the schema name under which stored procedures were created.

Then run:

db2 –tvf `Migration_SP_6000_TO_6100.sql –z Migration_SP_6000_TO_6100.out`

Check for SQLSTATE, if no error move to next step (if there may be -407 error, then you can continue to the nest step. It's data related and can be fixed later time with the copy of dB)

15. Go back to ${MIGPACKAGE_HOME}/Database/DB2/ddl.
    Then run:
    db2 –tvf `drop_triggers.sql –z drop_triggers.out`

    Check for SQLSTATE, if no error move to next step

16. Open drop_budget_alias for editing, replace DBNAME with the name of RPM database Name, userName with the user name used to connect to the database from the web application, PASSWORD with it its password. Replace TABALIAS by the schema under which the aliases were created.
    Then run:
    db2 –tvf `drop_budget_alias.sql –z drop_budget_alias.out`

    Check for SQLSTATE, if no error move to next step

17. Go back to ${MIGPACKAGE_HOME}/Database/DB2/migration, open REMOVE_COL_6000_TO_6100.sql for editing, replace DBNAME with the name of RPM Database Name, USERNAME with the instance owner's userName, USERPSSWD with its password and DBSCHEMA with the schema under which the tables were created.
    Then run:
    db2 –tvf `REMOVE_COL_6000_TO_6100.sql –z REMOVE_COL_6000_TO_6100.out`

    Check for SQLSTATE, if no error move to next step

18. Open DROP_TB_BUDGETS1.sql for editing, replace DBNAME with the name of RPM Database Name, USERNAME with the instance owner's userName, USERPSSWD with its password and DBSCHEMA with the schema under which the tables were created.
    Then run:

    Db2 –tvf DROP_TB_BUDGETS1.sql –z DROP_TB_BUDGETS1.out
    Check for SQLSTATE, if no error move to next step

19. Go to ${MIGPACKAGE_HOME}/Database/DB2/ddl , open budget_alias.sql for editing, replace DBNAME with the name of RPM Database Name, USERNAME with the username that is used to connect to the database from the web application., USERPSSWD with its password. Replace TABALIAS by the schema under which the aliases were created. Replace TABSCHEMA by the schema under which the tables were created. Run:

db2 -tvf budget_alias.sql -z budget_alias.out

Check for SQLSTATE, if no error move to next step

20. Open budget_grants.sql for editing, replace DBNAME with the name of RPM Database Name, USERNAME with the username of the instance owner, USERPSSWD with its password. Replace TABSCHEMA by the schema under which the aliases were created. Replace DBUSER by the user name that is used to connect to the database from the web application. Then run:

    db2 -tvf budget_grants.sql -z budget_grants.out

Check for SQLSTATE, if no error move to next step

21. Run:
    db2 –tvf `triggers.sql –z triggers.out`

Check for SQLSTATE, if no error move to next step

22. Go back to ${MIGPACKAGE_HOME}/Database/DB2/CSP, open createsp.sql for editing, , replace DBNAME with the name of RPM Database Name, USERNAME with the username that is used to connect to database from web application, USERPSSWD with its password.

    Then run:
    db2 –tvf `createsp.sql –z createsp.out`

23. Open bnd_lst.sql for editing replace DBNAME with the name of RPM Database Name, USERNAME with the username that is used to connect to database from web application, USERPSSWD with its password and DBSCHEMA to the schema of the db you are running against.
    Build RPM database by following the steps below:
    i. Run:
    db2 force applications all
    db2stop force
    db2start
    db2 –tvf bnd_lst.sql –z bnd_lst.out

    Check for SQLSTATE, if no error move to step ii

    ii. Copy pmoffice.a into $INSTHOME/sqllib/function directory and into $INSTHOME/sqllib/function/unfenced/ directory.

Loading the RUP Templates:

STEPS TO FOLLOW TO load the RUP Contents:

After finishing successfully step 1 to 23, you need to:

24. Go to ${MIGPACKAGE_HOME}/Database/DB2/ddl.
    Then run:
    db2 –tvf `drop_triggers.sql –z drop_triggers.out`

25. Go to ${MIGPACKAGE_HOME}/Database/DB2/migration. Gunzip and untar move1.tar.gz and move2.tar.gz. This will respectively create 2 folders **move1** and **move2**.
    a. Change to move1 directory and run the following:

    `db2move DBNAME import -l ./lob -u USERNAME -p USERPSSWD`
    Replace DBNAME with the name of the RPM database, USERNAME with instance owner's userName, USERPSSWD with its password:

    b. Change to move2 directory and run the following:

    `db2move DBNAME import -l ./lob -u USERNAME -p USERPSSWD`
    Replace DBNAME with the name of the RPM database, USERNAME with instance owner's userName, USERPSSWD with it its password:

26. Go back to ${MIGPACKAGE_HOME}/Database/DB2/migration, open RUP_MIGRATION_FROM_60_TO_61.sql for editing, replace DBNAME with the name of RPM Database Name, USERNAME with the instance owner's userName, USERPSSWD with its password and DBSCHEMA with the schema of db under which the tables were created.
    Then run:
    db2 –tvf `RUP_MIGRATION_FROM_60_TO_61.sql –z RUP_MIGRATION_FROM_60_TO_61.out`

    `Check for SQLSTATE, if no error move to next step`

27. Open DROP_RUP_TMP_TABLES.sql for editing, replace DBNAME with the name of RPM Database Name, USERNAME with the instance owner's userName, USERPSSWD with its password and DBSCHEMA with the schema of db under which the tables were created.

    Then run:
    db2 –tvf DROP_RUP_TMP_TABLES.sql –z DROP_RUP_TMP_TABLES.out

    Check for SQLSTATE, if no error move to next step

28. Go back to ${MIGPACKAGE_HOME}/Database/DB2/ddl.Then run:
    db2 –tvf `triggers.sql –z triggers.out`

    Check for SQLSTATE, if no error move to next step

29. Open Reorgstats.sql for editing, replace DBNAME with the name of RPM Database Name, USERNAME with the instance owner's userName, USERPSSWD with its password and DBSCHEMA to the schema of db under which the tables where created.

Then run:

db2 -tvf Reorgstats.sql -z Reorgstats.out

If migration was successful then you can move to step 29.

Copying RPM Client installers to the WebServer:

30. Replace your existing 6.0 RPM client installers from the webserver with the one provided in the full RPM 6.1 package.
    Example:
    rm *.* ${IBMRPM_WAR_HOME}/client_installer/
    cd ${FULL_6.1_PACKAGE_HOME}/Clients
    cp *.* ${IBMRPM_WAR_HOME}/client_installer/

Refreshing RPM 6.1 help content:

31. Replace your 6.0 RPM online help content from the webserver with the one provided in the full RPM 6.1 package.
    Example:
    rm –r ${IBMRPM_WAR_HOME}/PMO_WebHelp/
    cd ${FULL_6.1_PACKAGE_HOME}/Webserver/war
    cp –r PMO_WebHelp ${IBMRPM_WAR_HOME}/

Update PMOVersion.xml of the RPM Application Server:

32. Replace PMOVERSION.xml located under ${IBMRPM_WAR_PATH}/WEB-INF/classes with the one provided in the migration package
    Example:
    rm ${IBMRPM_WAR_HOME}/WEB-INF/classes/PMOVersion.xml
    cd ${MIGPACKAGE_HOME}/WebServer
    cp PMOVersion.xml ${IBMRPM_WAR_HOME}/WEB-INF/classes/

Replace the com folder of RPM Application Server:

33. For migrations coming from 6.0.0.0, it is mandatory to replace the com folder located under ${IBMRPM_WAR_HOME}/WEB-INF/classes with the one provided in the migration package.
    Example:
    cd ${MIGPACKAGE_HOME}/WebServer
    cp –rf **com ${IBMRPM_WAR_HOME}/WEB-INF/classes/**

TERMS & GLOSSARY

Variables	Description	Example
DB2HOME	Your DB2 home directory	/export/home/dbuser/sqllib
DB2TEMPDIR	Your DB2 home directory	/export/home/dbuser/sqllib
D2FENCEDHOME	Your DB2 functions Home Directory	/export/home/dbuser/sqllib/function
D2UNFENCEDHOME	Your DB2 unfenced functions Home Directory	/export/home/dbuser/sqllib/function/unfenced
FULL_6.1_PACKAGE_HOME	Path to RPM 6.1 full installation package	/export/home/software/RPM6100InstPack
MIGPACKAGE_HOME	Path to the migration directory	/export/home/software/RPM6100MigPack
WAS_HOME	Path to Websphere Home	/export/home/wasuser/websphere
IBMRPM_EAR_HOME	Path to IBMRPM Enterprise Application	${WAS_HOME}/InstalledApps/IBMRPM61.ear
IBMRPM_WAR_HOME	Path to IBMRPM WEB Application	${IBMRPM_EAR_HOME}/IBMRPM61.war