P6 Professional Manual Upgrade Guide (Oracle Database) for On-Premises
Version 18

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About This Guide

Scope
This guide describes how to manually upgrade your P6 Professional database to Version 18 from release 7.0 or later.

Complete these processes in the following order:

- Back up the existing P6 Professional database.
- If you are upgrading from P6 Professional 7.0, migrate all your methodologies. Use Project Architect in the Project Management module (R7.0) to convert the data from a methodology to a project. See Convert Methodologies to Projects (on page 5).
- Run the appropriate scripts to upgrade the P6 Professional database structure. Oracle recommends that you use SQL Plus to run scripts in this guide.
- To configure an Oracle database server for SSL, see the Advanced Security Administrator’s Guide included with the Oracle Database Server Documentation for configuring the Oracle Server and Oracle Client(s) for SSL.

Audience
Database administrators should use this guide.

Using This Guide
This guide assumes you can perform common database administration procedures and have experience using the command line.

Convert Methodologies to Projects

If you are upgrading from P6 Professional 7.0, you must migrate Methodology Management 7.0 data to P6 Professional Version 18 projects. Use Project Architect in the Project Management module (in P6 Professional 7.0) to convert the data from a methodology to a project.

Note: You can create only one project at a time. If you want all of your Methodology Management data moved to projects, contact Oracle Consulting to automate the process.

To convert Methodology Management data to a project:

1) Create a new EPS node in Project Management where you can store all your Methodology Management projects.
2) Use Project Architect in Project Management to create projects from Methodology Management data. For more information on using Project Architect, see the Oracle Primavera P6 Project Management Reference Manual for release 7.0

After you have converted all your Methodology Management data to projects, you can upgrade P6 Professional.
If you are upgrading from P6 Professional 7.0, all risk data fields are migrated. The following table illustrates the risks data field mapping when upgrading from P6 Professional database (7.0 SP3) to the current version.

**Note:** Some fields migrate to text fields instead new fields because certain fields no longer correspond. The new text fields are noted below.

### Risks Fields Migration Table

<table>
<thead>
<tr>
<th>Name</th>
<th>P6 Professional 7.0 SP3 Risks Field</th>
<th>P6 Professional Version 18 Risks Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk ID</td>
<td>risk_id</td>
<td>risk_id</td>
</tr>
<tr>
<td></td>
<td>risk_id</td>
<td>risk_code (PROJRISK appended with risk_id)</td>
</tr>
<tr>
<td>Risk Name</td>
<td>risk_name</td>
<td>risk_name</td>
</tr>
<tr>
<td>Risk Description</td>
<td>risk_descr</td>
<td>risk_desc</td>
</tr>
<tr>
<td>Risk Status</td>
<td>status_code</td>
<td>status_code Open= Open; Closed=Managed (closed)</td>
</tr>
<tr>
<td>Risk Category ID</td>
<td>risk_type_id</td>
<td>risk_type_id</td>
</tr>
<tr>
<td>Risk Control</td>
<td>risk_control</td>
<td>cause (with 'Risk Control' heading)</td>
</tr>
<tr>
<td>Risk UDFs</td>
<td>table_name</td>
<td>table_name</td>
</tr>
<tr>
<td>Applies to WBS</td>
<td>wbs_id</td>
<td>cause (with 'Applies to WBS' &lt;WBS name&gt; heading)</td>
</tr>
<tr>
<td>Applies to Resource</td>
<td>rsrc_id</td>
<td>rsrc_id</td>
</tr>
<tr>
<td>Responsible Manager</td>
<td>obs_id</td>
<td>cause (with 'Responsible Manager' &lt;OBS name&gt; heading)</td>
</tr>
<tr>
<td>Priority</td>
<td>priority_type</td>
<td>cause (with 'Priority' &lt;priority_type&gt; heading)</td>
</tr>
<tr>
<td>Project ID</td>
<td>proj_id</td>
<td>proj_id</td>
</tr>
<tr>
<td>Date Identified</td>
<td>add_date</td>
<td>add_date</td>
</tr>
<tr>
<td>Impact Date</td>
<td>impact_date</td>
<td>cause (with 'Impact Date' &lt;add_date in mmm-dd-yyyy format &gt; heading)</td>
</tr>
<tr>
<td>Name</td>
<td>P6 Professional 7.0 SP3 Risks Field</td>
<td>P6 Professional Version 18 Risks Field</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Probability</td>
<td>prbly_pct</td>
<td>cause (with 'Probability' &lt;prbly_pct&gt; heading)</td>
</tr>
<tr>
<td>Impact - Labor Units</td>
<td>impact_work_qty</td>
<td>cause (with 'Impact - Labor Units' &lt;impact_work_qty&gt; - 2 decimals heading)</td>
</tr>
<tr>
<td>Impact - Nonlabor Units</td>
<td>impact_equip_qty</td>
<td>cause (with 'Impact - Nonlabor Units' &lt;impact_equip_qty&gt; - 2 decimals heading)</td>
</tr>
<tr>
<td>Impact - Material Units</td>
<td>impact_mat_qty</td>
<td>cause (with 'Impact - Material Units' &lt;impact_mat_qty&gt; - 2 decimals heading)</td>
</tr>
<tr>
<td>Impact - Expenses</td>
<td>Impact_expense_cost</td>
<td>cause (with 'Impact - Expenses' &lt;Impact_expense_cost&gt; - 2 decimals heading)</td>
</tr>
<tr>
<td>Risk Control</td>
<td>risk_control</td>
<td>cause (with 'Risk Control'&lt;risk_control&gt; heading)</td>
</tr>
<tr>
<td>Risk Category</td>
<td>risk_type</td>
<td>risk_type</td>
</tr>
<tr>
<td>Risk Category Sequence ID</td>
<td>seq_num</td>
<td>seq_num</td>
</tr>
</tbody>
</table>

Running the Oracle Database Upgrade Scripts for the P6 Professional Database

To upgrade your database:

1) Go to `\database\scripts\install\PPM_<release level>` and update the following scripts in a text editor:

   - **manual_script_before_install.sql**
     By default, grant options are being made to the SYSTEM schema user. The upgrade requires entry of a DBA user account, so if you use SYSTEM, no update is needed. However, if you use another DBA account for the upgrade, update the references to SYSTEM with the actual DBA account.

   - **manual_script_before_upgrade.sql**
     If you are not using the schema names admuser, privuser, or pxrptuser, update the references with your actual admuser, privuser, and pxrptuser names.

   - **orppm_grant_privileges.sql**
If you are not using the schema names admuser, privuser, pubuser, pxrptuser, or bgjobuser, update the references with your actual admuser, privuser, pubuser, pxrptuser, and bgjobuser names.

2) If you are upgrading from P6 Professional 7.0, go to \\database\scripts\install\PPM_<release level> and update the orppm_create_bguser_upgrade.sql script in a text editor. If you changed the default tablespace name (PMDB_DAT1) or the default bgjobuser name, modify the tablespace or bgjobuser name in this script.

3) From the command line, execute sqlplus sys/@<DBNAME> as sysdba and enter the password when prompted.

   where <DBNAME> is the Net Service Name for your database, which can be found in your $ORACLE_HOME\NETWORK\ADMIN\TNSNAMES.ORA file.

4) Go to \\database\scripts\install\PPM_<release level> and run the following scripts:
   - manual_script_before_install.sql
   - manual_script_before_upgrade.sql
   - orppm_grant_privileges.sql

5) If you are upgrading from P6 Professional 7.0, go to \\database\scripts\install\PPM_<release level> and run the following scripts:
   - orppm_create_bguser_upgrade.sql

6) Log into the database as the admuser (or use your custom administrative user name if you created one).

7) Go to \\database\scripts\common and run the or_disable_triggers.sql script.

8) Go to \\database\scripts\upgrade\PPM_<release level> and run one of the following scripts:
   - ORPPM_p70sp1.sql, if upgrading from P6 Professional 7.0 or 7.0 Service Pack 1
   - ORPPM_p70sp3.sql, if upgrading from P6 Professional 7.0 Service Pack 3
   - ORPPM_p70sp5.sql, if upgrading from P6 Professional 7.0 Service Pack 5
   - ORPPM_p81.sql, if upgrading from P6 Professional 8.1
   - ORPPM_p81sp1.sql, if upgrading from P6 Professional 8.1 Patch Set 1
   - ORPPM_p82.sql, if upgrading from P6 Professional 8.2
   - ORPPM_p82sp1.sql, if upgrading from P6 Professional 8.2 Patch Set 1
   - ORPPM_p82sp3.sql, if upgrading from P6 Professional 8.2 Patch Set 3
   - ORPPM_p82sp5.sql, if upgrading from P6 Professional 8.2 Patch Set 5
   - ORPPM_p83.sql, if upgrading from P6 Professional 8.3
   - ORPPM_p83sp2.sql, if upgrading from P6 Professional 8.3 Patch Set 2
   - ORPPM_p83sp3.sql, if upgrading from P6 Professional 8.3 Patch Set 3
   - ORPPM_p83sp4.sql, if upgrading from P6 Professional 8.3 Patch Set 4
   - ORPPM_p84.sql, if upgrading from P6 Professional 8.4
   - ORPPM_p841.sql, if upgrading from P6 Professional 8.4 Patch Set 1
   - ORPPM_p843.sql, if upgrading from P6 Professional 8.4 Patch Set 3
   - ORPPM_P151.sql, if upgrading from P6 Professional 15 R1
ORPPM_P152.sql, if upgrading from P6 Professional 15 R2
ORPPM_P161.sql, if upgrading from P6 Professional 16 R1
ORPPM_P162.sql if upgrading from P6 Professional 16 R2

9) Go to \database\scripts\source and run the orppm_admuser_upgrade.sql script.

   Note: If you changed the default user names, you must update the privuser and pubuser names in this script with your custom user names.

10) Log into the database as a privuser.
11) Go to \database\scripts\source\PPM_<release_level> and run the orppm_privuser.sql script.

   Caution: The orppm_privuser.sql script contains a table called PUBUSER. Do not replace it if you have to change the pubuser user name.

   Note: If you changed the default user names, you must update the admuser, privuser, and pubuser names in this script with your custom user names.

12) Go to \database and run databaselogins.bat (with Windows) or databaselogins.sh (with UNIX or Linux) to upgrade the encryption of privilege user passwords. See Private Database Credentials for P6 Professional (on page 9) for more information.
13) Log into the database as background job user.
14) Go to \database\source\install\PPM_<release_level> and run the orppm_bguser.sql script.
15) Log into the database as a system user.
16) Go to \database\scripts\source\PPM_<release_level> and run the orppm_reset_priv.sql script.

Private Database Credentials for P6 Professional

The P6 server and P6 Professional components obtain their run-time database connection credentials from a credential configuration table in the P6 Professional database. The P6 run-time database credentials (known as privuser or P6 private database login) are stored in an encrypted format in this special P6 configuration table. Any time that you change or rotate the privuser password credentials in your Oracle or MS SQL Server database, you must re-synchronize the stored credentials in the P6 credential table by using the Database Login tool.

Because encryption algorithms are often enhanced in newer releases, Oracle highly recommends that you reset these stored privuser credentials when you perform a major version upgrade of P6 Professional. By resetting the stored credentials, the new encryption algorithm can be applied to other stored credentials (for example, pubuser) in the P6 Professional credential table. For information about resetting private database passwords, see Resetting Private Database Passwords (on page 10).
Note: This tool does not reset database user logins or passwords. Administrators should use SQL Developer or other DBA consoles to set or reset database user passwords.

Resetting Private Database Passwords

Password encryption algorithms are frequently improved in new releases of P6 Professional and P6 Professional. You should reset private database passwords in order to use improved password encryption algorithms.

To reset private database passwords to use the new encryption algorithm:

1) Go to P6 Professional <release_level>\database or P6 Professional <release_level>\database.
2) Run databaselogins.bat (with Windows) databaselogins.sh (with UNIX or Linux).
3) In the Database Connection dialog box:
   a. Select the database.
   b. Type the user name and password of a privileged database user (for example, privuser). This login should have administrative rights on the database.
   c. Enter the host address, host port, and database/instance name specific to your installation. The Port field displays the default port for the database type you selected.
   d. Click Next.
4) In the Private Database Logins dialog box:
   a. Select the private database user name that you wish to reset.
   b. Highlight the password and change it (or re-enter the existing password).
   c. Click Update Password.
   d. Click Save.
   e. Click OK.
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