HP Project and Portfolio Management Center

Software Version: 9.12

Release Notes

Document Release Date: July 2011, Second Edition
Software Release Date: July 2011

Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

For information about third-party license agreements, see the *Open Source and Third-Party License Agreements* on the HP Software Manuals Web site at h20230.www2.hp.com/selfsolve/manuals.

To view open source code, see the `<PPM_Home>/integration/freeware/` directory of your PPM Center installation.

Restricted Rights Legend

Copyright Notices

Trademark Notices

Documentation Updates

This manual's title page contains the following identifying information:

- Software version number, which indicates the software version
- Document release date, which changes each time the document is updated
- Software release date, which indicates the release date of this version of the software

To check for recent updates, or to verify that you are using the most recent edition of a document, go to:

h20230.www2.hp.com/selfsolve/manuals

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

The following table indicates changes made to this document.

Publication Date	Summary of Changes
July 27, 2011 (9.12)	• Added warning that, from PPM Center version 8.03, customers must *not* upgrade to and then run at version 9.10 or 9.11. Instead, they must upgrade from version 8.03 to version 9.10 and then *immediately* upgrade to version 9.12. • Added procedure to flush the shared pool after installing version 9.12 if Operational Reporting has been used and before CP1 is installed. • Added certification of Microsoft Hyper-V support running Microsoft Windows 2008 SP2 Enterprise Edition (32-bit) and Red Hat Enterprise Linux AS 4.0 (64-bit) platforms as virtualization server platforms. • Added JDK 64-bit support for Microsoft 2008 R2 Enterprise Edition (64-bit) and Red Hat Enterprise Linux AS 5.0 (64-bit).

The change bars in the left margins reflect the modifications made in the *most recent* version of the guide—these change bars are not cumulative.

Support

You can visit the HP Software Support Web site at:

hp.com/go/hpsoftwaresupport

HP Software Support Online provides an efficient way to access interactive technical support tools. As a valued support customer, you can benefit by using the support site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract.

To find more information about access levels, go to:

h20230.www2.hp.com/new_access_levels.jsp

To register for an HP Passport ID, go to:

h20229.www2.hp.com/passport-registration.html

Contents

1 Overview of PPM Center Version 9.12

This document provides an overview of the changes made to HP Project and Portfolio Management Center (PPM Center) for version 9.12 (Service Pack 2). It contains important information not included in the manuals. The sections *New Features in PPM Center 9.12*, *Enhancements, Integrations, Certifications, and Fixes in PPM Center 9.12*, and *Known Problems and Limitations in PPM Center 9.12* provide information about the changes introduced with the new features, enhancements, certifications, and fixes for PPM Center version 9.12.

Protecting Your Deployment from Security Vulnerabilities

Make sure you take the necessary precautions to protect your PPM Center deployment from general security vulnerabilities, especially those related to Web server and related infrastructure vulnerabilities. Patch and configure your Web server's operating system and DNS servers to prevent malicious attacks that could put your organization and data at risk. You can take such steps as disabling unused ports or enabling SSL in your environment. Consult your Web server vendor for the latest patches to prevent harmful attacks such as cross-site scripting.

In this Version

The following new features are included in PPM Center version 9.12:

- *HP Financial Management*
    - *Expected Start and Expected Finish Shown in Proposal and Project Financial Summaries*
    - *Configurable Range of Fiscal Years for Financial Summaries and Financial Data Tables*
    - *Options to Display Capital or Operating Costs in Financial Summary Graph*
    - *Simplified Presentation of (x $1000) in Financial Summaries and Financial Data Tables*
    - *"Forecast and Actuals" Changed to "Costs," and "Planned" Changed to "Forecast"*
    - *Displaying and Editing Data by Year in Financial Summaries and Financial Data Tables*
    - *Displaying Line Totals in Financial Summaries and Financial Data Tables*
    - *Copying Cost Lines from a PFM Request Financial Summary*
    - *Simpler Procedure to Copy Forecast Data Across a Range of Cells in the Same Row*
    - *Capital Expenses in Approved Budgets*
    - *Confirmation for Updating an Approved Budget*

- *HP Portfolio Management*
    - *Redesigned Configure Portfolio Management Page*
    - *New Columns Available in Subportfolios Tab of Portfolios*
    - *New Columns Available in Programs Tab of Portfolios*
    - *New Columns Available in Proposals/Projects/Assets Tab of Portfolios*
    - *Change to Exporting Portfolios to Microsoft Excel*
    - *New Columns Available in Scenario Content Table*
    - *Ways to Change Appearance of Scenario Content in Scenario Comparisons*
    - *Relocated Add Content Button and New Remove Content Button in Scenario Comparisons*
    - *New Update Scenarios Button*
    - *Exporting Scenario Content to Microsoft Excel*
    - *Filtering by Portfolio in Analyze Current Portfolio Portlet and Page*
    - *"Budget" Changed to "Projected Cost" in Analyze Current Portfolio Portlet and Page*
- *HP Project Management*
    - *Project Tasks Indicate an Exception When User Does Not Specify % Complete If Required*
    - *"Planned" Column Changed to "Forecast" in Project Cost Summary Portlet*
- *HP Program Management*
    - *New Columns Available in Program Overview Page*
    - *"Planned" Column Changed to "Forecast" in Program Cost Summary Portlet*
    - *New Options to Group and Ungroup Programs by Column Values*
    - *Exporting Programs to Microsoft Excel*

- *HP Time Management*
  - *Identification of Out-of-Sync Actuals Data Upon Upgrade*
  - *Automatic Saving of Time Sheets to Prevent Data Inconsistencies*
  - *Administration of Time Sheet Activities at the Request-Type Level*
  - *Highlighting of Non-Working Days and Holidays on Time Sheets*
  - *Renamed Buttons on Line Details Window*
  - *New Time Sheet Notes Show "(Pending Save)" Until Time Sheet Is Saved*
  - *Improved Error Management*
  - *Improvements to My Tasks Portlet and Edit Effort Breakdown Page*
- *HP APM for PPM*
- *Integration with Microsoft Project 2010*
- *Updates to HP Deployment Management Extension for Oracle E-Business Suite and HP GL Migrator to Support Oracle E-Business Suite Release 12*
- *HP Demand Management*
  - *New Table Component*
    - *Supported Validations*
    - *New Table Component Layout*
    - *Switching between Original and New Table Component Layouts*
    - *Editing Table Component Directly on Request Pages*
    - *Showing Total of a Table Component Column in Real-time*
    - *Quick Navigation through Table Rows*
    - *Other Changes*
  - *Considerations for Using Rules in Table Component*

The following enhancements are included in PPM Center version 9.12:

- *Display of Project Number in Project Overview Page*
- *Display of Project Number in Time Sheet Lines*
- *Approval of Submitted Time Sheets for Future Periods*
- *User Control of Vertical Size of Time Breakdown Tables on Time Sheets*
- *New Report: Purge Empty Time Sheet Lines*
- *Configurable Access Grants for Request Creators*
- *New Option for Notifications: Prevent any email notifications regarding this staffing profile*
- *New Rule Event: Apply on Copy*
- *Improved Search Result in Microsoft Project*
- *PPM Center Accessibility Improvements*
- *Special Command ksc_copy_request Enhancement*
- *Detecting Multicast Routing and Configuration Issues for a Server Cluster*
- *Improved Startup Checks*
- *SQL Debugging for All Product Areas*
- *Accessing Services Exceptions Details*
- *Enabling Debugging On a Per-User Basis*
- *Improved Services Audit Results Page*
- *Accessing Application Exception Details*
- *Identifying Connection Issues*
- *Updating a Microsoft Project Work Plan Hierarchy Integrated with HP Project Management*

The following integrations are included in PPM Center version 9.12:

- *Lightweight Single Sign-On Authentication (LW-SSO) Support*
- *SLICK Configuration Tool*
- *CMQC for Quality Center 11.0*
- *Importing New Service Manager Web Service Objects to Enable PPM Center Integration with Service Manager*
- *Administration Tools Enhancements*
- *Importing Requests from XML Files*

The following certifications are included in PPM Center version 9.12:

- Microsoft Windows Server 2008 R1 SP2, Standard and Enterprise Edition (both 32- and 64-bit) as PPM Center server platforms
- Microsoft Windows Server 2008 R2, Standard and Enterprise Edition (64-bit) as PPM Center server platforms
- Oracle 11.2.0.2.0 (RAC and Non-RAC) support for all PPM Server platforms
- HP Service Manager version 9.21 support for PPM Center integrations with HP Service Manager (ALM and SM RFC)
- HP Quality Center version 11.00 and HP Application Lifecycle Management 11.00 support for CMQC solution:
- Support for HP Universal CMDB versions 8.06, 9.02, and 9.03 when used for impact analysis of PPM Center requests (using ALM) and for service portfolio
- Support for use of HP Deployment Management Extension for Oracle E-Business Suite with Oracle E-Business Suite version 12.1.3 (requires patch PPMC_00098 for the Extension)
- Support for Microsoft Office Project 2010

- Support for tightening the access to the following packages for public roles in Oracle:
  - HTTPURITYPE
  - UTL_INADDR
  - ALL_SOURCE
- Microsoft Hyper-V support running Microsoft Windows 2008 SP2 Enterprise Edition (32-bit) and Red Hat Enterprise Linux AS 4.0 (64-bit) as virtualization server platform
- 64-bit JDK support for 64-bit Microsoft 2008 R2 Enterprise Edition and 64-bit Red Hat Enterprise Linux AS 5.0, Updates 1 through 6

Documentation Updates

The first page of this release notes document contains the following identifying information:

- Version number, which indicates the software version.
- Publish date, which changes each time the document is updated.

To check for recent updates or to verify that you are using the most recent edition, visit the following URL:

http://h20230.www2.hp.com/selfsolve/manuals

This site requires that you register for an HP Passport and sign-in. To register for an HP Passport ID, go to:

http://h20229.www2.hp.com/passport-registration.html

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

➤ To view files in PDF format (`*.pdf`), Adobe Reader must be installed on your system. To download Adobe Reader, go to: http://www.adobe.com.

Installation Notes

PPM Center versions 9.10 and 9.11 were released before versions 8.03 and 9.12. Versions 8.03 and 9.12 include improvements to core functionality that are compatible between those versions, but are not supported on the older versions 9.10 and 9.11.

If PPM Center is running at version 8.03, do *not* upgrade to and then run at version 9.10 or 9.11. Instead, upgrade from version 8.03 to version 9.10 temporarily without running PPM Center, and then upgrade *immediately* to version 9.12.

This procedure includes steps that are valid for PPM Center version 9.12. To install version 9.12:

1. Back up your database.

   If you have already deployed the hotfix for QCIM1L39975 (*Combined hotfix for PPM 9.1-SP1 JMS and Quartz issues*), make sure to remove it before you proceed to step 2. The PPM Center 9.12 Service Pack file contains all fixes to the JMS and Quartz issues as well as additional fixes.

2. Stop the PPM Server. The Service Pack cannot be installed on an active server.
3. Copy the Service Pack file `ppm-912-SP2.jar` to the `<PPM_Home>` directory. This is the directory where the PPM Server is installed.
4. Change to the `<PPM_Home>/bin` directory.
5. Start the installation using the following command:

   ```
   sh ./kDeploy.sh -i SP2
   ```

6. Follow the on-screen instructions to complete the Service Pack installation.
7. Compile the new JSP files using the following command:

   ```
   sh ./kJSPCompiler.sh
   ```

8. Start the PPM Server.

The current release of PPM Center does not support table or tablespace compression in Oracle. If you use compressed tables or compressed tablespaces, the upgrade scripts will fail.

Out-of-Sync Actuals Data

The following sections describe what to do if the pre-validation process during installation determines that data is not synchronized between the HP Time Management and HP Project Management modules or between the HP Time Management and HP Demand Management modules.

Data Out of Sync Between HP Time Management and HP Project Management

If, during the installation of PPM Center 9.12, the pre-validation process determines that actuals data in the HP Time Management and HP Project Management modules are out of sync, an error occurs and you cannot continue with the installation.

To resolve the problem:

1. To tag these data for synchronization, navigate to the `<PPM_Home>/deploy/912/SP2/phases/prevalidation` directory and run the `MarkPMTMActualsOutOfSync.sql` script.
2. Re-install Service Pack 2.
3. After you successfully install Service Pack 2, navigate to the `<PPM_Home>/bin` directory and run the `kPMTMSync.sh` script, as follows, and redirect the output to a file:

```
sh ./kPMTMSync.sh -username <username> -password <password>
```

Data Out of Sync Between HP Time Management and HP Demand Management

During installation of PPM Center 9.12, if the pre-validation process determines that actuals data in the HP Time Management and HP Demand Management modules are out of sync, an error occurs and you cannot continue with the installation.

To resolve the problem:

1. Navigate to the `<PPM_Home>/deploy/912/SP2/phases/prevalidation` directory and run the `CorrectDMTMActualsOutOfSync.sql` script.
2. After the `CorrectDMTMActualsOutOfSync.sql` script has run successfully, re-install Service Pack 2.

Post-Installation Preparation to Install Operational Reporting CP1

Operational Reporting functionality was introduced in PPM Center version 9.10. If you have been using or plan to use Operational Reporting, after you upgrade to PPM Center version 9.12 do the following:

1. HP strongly recommends that you log in to the PPM Center database as a DBA and use the following command to flush the shared pool:

   ```
   alter system flush shared_pool;
   ```

2. Install PPM Center 9.12 Operational Reporting CP1.

For information about Operational Reporting, see the *Operational Reporting User's Guide* and the *Operational Reporting Administrator's Guide.*

Post-Installation Command for the Purge Empty Time Sheet Lines Report

PPM Center version 9.12 provides you with a new report to purge empty time sheet lines. To make this new report available, run the following command in the <PPM_Home> directory after the installation:

```
sh bin/kMigratorImport.sh -username "admin" -password '<admin
password>' -action import ¨Cfilename reports/PurgeTSLReport.zip
-i18n charset -flags NNNNYNYNNNNNNNNNNNNN -unescapeUnicode Y
```

For more information, see *New Report: Purge Empty Time Sheet Lines* on page 78.

Software and Hardware Requirements

Before you install PPM Center version 9.12, make sure that your system meets the minimum requirements, as described in the *System Requirements and Compatibility Matrix,* available at the HP Manuals site.

Regenerating Web Service Stubs for Integrating with HP ServiceCenter

If you have integrated your PPM Center deployment with HP ServiceCenter, you can modify which fields are available through Web services, but you must regenerate the Web service stubs for the integration after installing any PPM Center service pack.

After installing the service pack, regenerate the Web service stubs in the PPM Server from the new Web Services Description Language (WSDL) descriptor as follows:

1. Navigate to the `<PPM_Home>/bin/sdi` directory on the PPM Server.
2. Run the script:

   ```
   sh ./kGeneratePeregrineStub.sh <wsdl-url> <PPM_Server_Name>
   ```

   where

   - `<wsdl-url>` represents the ServiceCenter WSDL URL for Change Management.
   - `<PPM_Server_Name>` represents the subdirectory of `<PPM_Home>/server` specified during installation as the value for the `KINTANA_SERVER_NAME` parameter in the `server.conf` file. (It is not necessarily the actual host name of the server.) When generated, the stubs will be placed under this subdirectory.

   For example, run the script:

   ```
   sh ./kGeneratePeregrineStub.sh http://host:12670/
                                   ChangeManagement?wsdl kintana
   ```

   The stub configuration might fail if the host is not resolvable by name. To resolve the host by name, make an entry in the hosts file for the machine you want to connect. See the documentation for your operating system for the location of the hosts file.

PPM Community on HPLN

The HP Project and Portfolio Management Center Community on HP Live Network (http://www.hp.com/go/livenetwork) is now live! The PPM Community on HPLN (http://www.hp.com/go/PPM_HPLN) is a virtual community for HP Experts, Partners and Customers to collaborate and share knowledge, best practices, and add-on content for the PPM product. You can log in to the PPM Community on HPLN to access the latest Content Packs.

Access to HP Live Network is available at no additional cost to all PPM customers. Customers must log in using an HP Passport account. Customers without Passport accounts can register for free on HP Live Network.

2 New Features in PPM Center 9.12

The following new features are included in PPM Center version 9.12:

- *HP Financial Management*
  - *Expected Start and Expected Finish Shown in Proposal and Project Financial Summaries*
  - *Configurable Range of Fiscal Years for Financial Summaries and Financial Data Tables*
  - *Options to Display Capital or Operating Costs in Financial Summary Graph*
  - *Simplified Presentation of (x $1000) in Financial Summaries and Financial Data Tables*
  - *"Forecast and Actuals" Changed to "Costs," and "Planned" Changed to "Forecast"*
  - *Displaying and Editing Data by Year in Financial Summaries and Financial Data Tables*
  - *Displaying Line Totals in Financial Summaries and Financial Data Tables*
  - *Copying Cost Lines from a PFM Request Financial Summary*
  - *Simpler Procedure to Copy Forecast Data Across a Range of Cells in the Same Row*
  - *Capital Expenses in Approved Budgets*
  - *Confirmation for Updating an Approved Budget*

- *HP Portfolio Management*
    - *Redesigned Configure Portfolio Management Page*
    - *New Columns Available in Subportfolios Tab of Portfolios*
    - *New Columns Available in Programs Tab of Portfolios*
    - *New Columns Available in Proposals/Projects/Assets Tab of Portfolios*
    - *Change to Exporting Portfolios to Microsoft Excel*
    - *New Columns Available in Scenario Content Table*
    - *Ways to Change Appearance of Scenario Content in Scenario Comparisons*
    - *Relocated Add Content Button and New Remove Content Button in Scenario Comparisons*
    - *New Update Scenarios Button*
    - *Exporting Scenario Content to Microsoft Excel*
    - *Filtering by Portfolio in Analyze Current Portfolio Portlet and Page*
    - *"Budget" Changed to "Projected Cost" in Analyze Current Portfolio Portlet and Page*
- *HP Project Management*
    - *Project Tasks Indicate an Exception When User Does Not Specify % Complete If Required*
    - *"Planned" Column Changed to "Forecast" in Project Cost Summary Portlet*
- *HP Program Management*
    - *New Columns Available in Program Overview Page*
    - *"Planned" Column Changed to "Forecast" in Program Cost Summary Portlet*
    - *New Options to Group and Ungroup Programs by Column Values*
    - *Exporting Programs to Microsoft Excel*

- *HP Time Management*
    - *Identification of Out-of-Sync Actuals Data Upon Upgrade*
    - *Automatic Saving of Time Sheets to Prevent Data Inconsistencies*
    - *Administration of Time Sheet Activities at the Request-Type Level*
    - *Highlighting of Non-Working Days and Holidays on Time Sheets*
    - *Renamed Buttons on Line Details Window*
    - *New Time Sheet Notes Show "(Pending Save)" Until Time Sheet Is Saved*
    - *Improved Error Management*
    - *Improvements to My Tasks Portlet and Edit Effort Breakdown Page*
- *HP APM for PPM*
- *Integration with Microsoft Project 2010*
- *Updates to HP Deployment Management Extension for Oracle E-Business Suite and HP GL Migrator to Support Oracle E-Business Suite Release 12*
- *HP Demand Management*
    - *New Table Component*
        - *Supported Validations*
        - *New Table Component Layout*
        - *Switching between Original and New Table Component Layouts*
        - *Editing Table Component Directly on Request Pages*
        - *Showing Total of a Table Component Column in Real-time*
        - *Quick Navigation through Table Rows*
        - *Other Changes*
    - *Considerations for Using Rules in Table Component*

HP Financial Management

Refer to *Figure 2-1*, *Figure 2-2*, and *Figure 2-3* to see where the changes in version 9.12, as described in the following sections, were made to financial summaries and to the Edit Costs page (formerly the Edit Forecast & Actuals page) and Edit Benefits page.

Figure 2-1. Top part of example financial summary for a lifecycle entity in version 9.12

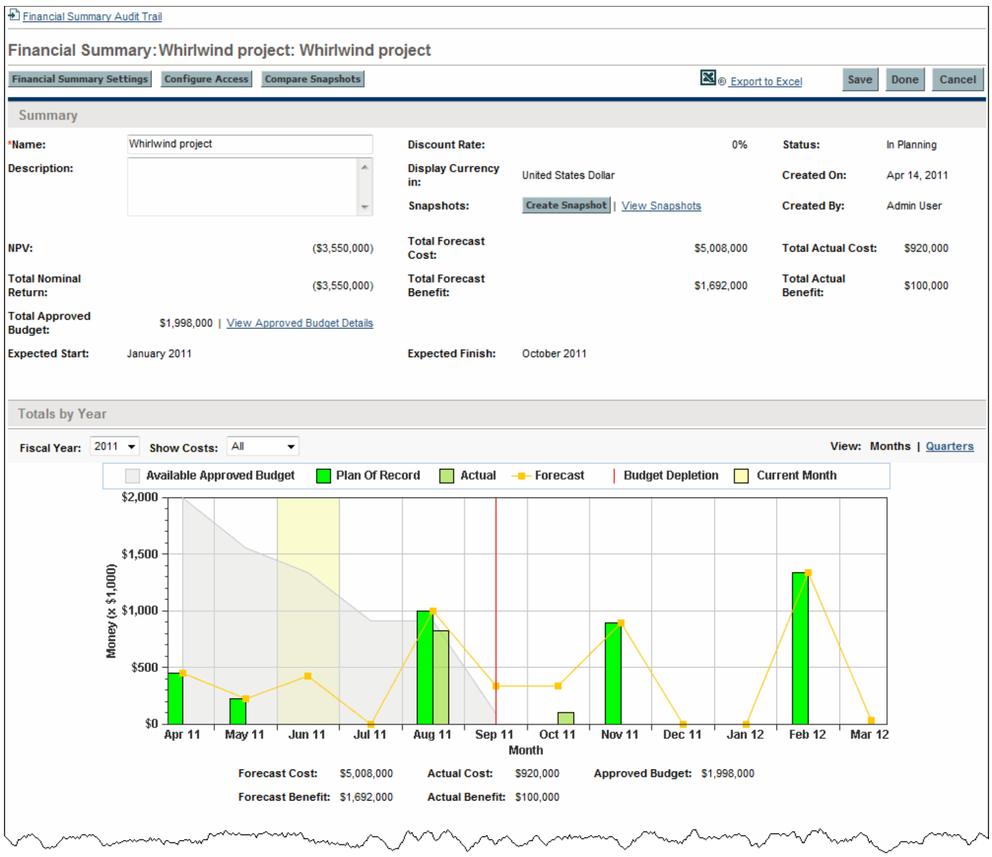
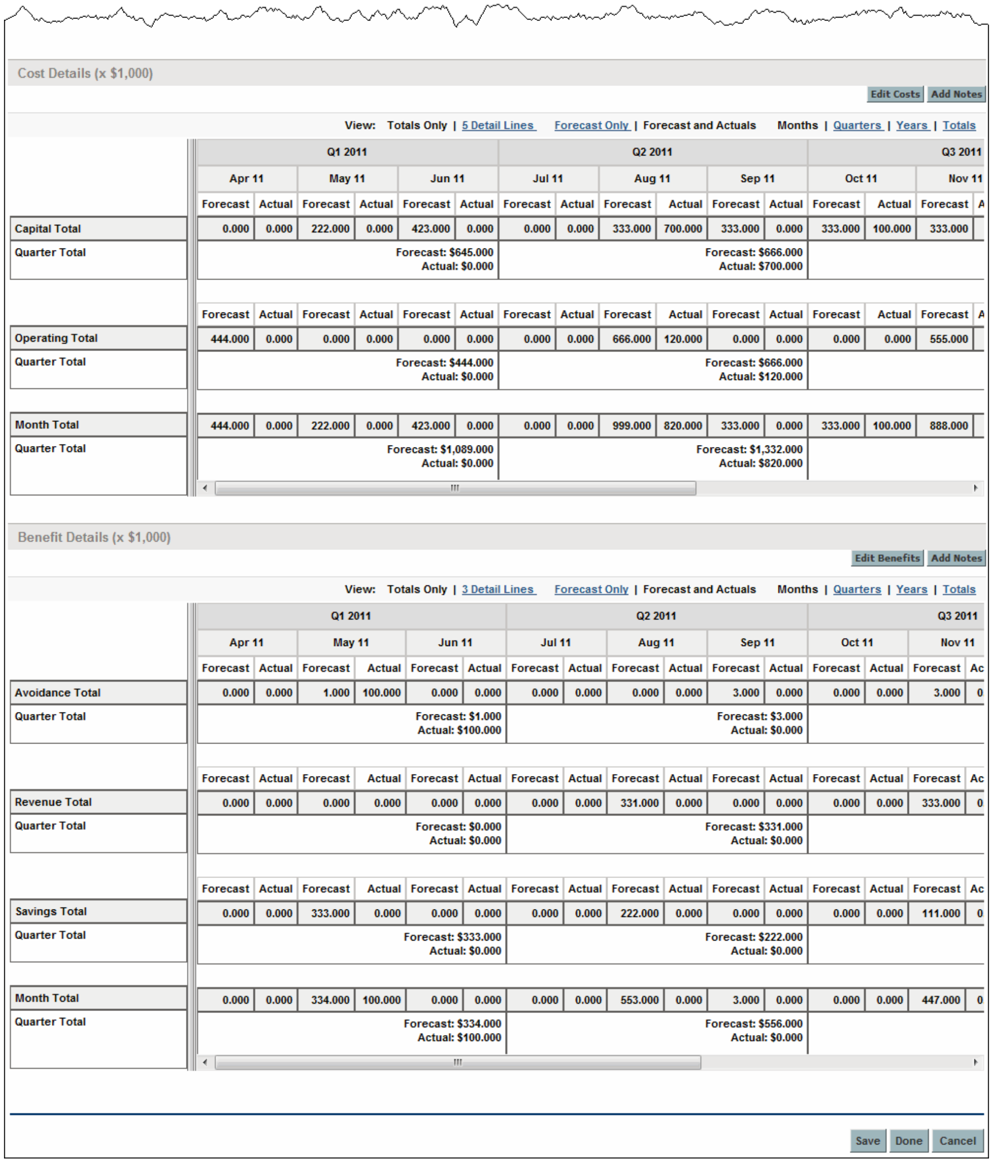


Figure 2-2. Bottom part of example financial summary for a lifecycle entity in version 9.12



Cost Details (x $1,000)

Edit Costs | Add Notes

View: Totals Only | 5 Detail Lines | Forecast Only | Forecast and Actuals | Months | Quarters | Years | Totals

	Q1 2011						Q2 2011						Q3 2011			
	Apr 11		May 11		Jun 11		Jul 11		Aug 11		Sep 11		Oct 11		Nov 11	
	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	A
Capital Total	0.000	0.000	222.000	0.000	423.000	0.000	0.000	0.000	333.000	700.000	333.000	0.000	333.000	100.000	333.000	
Quarter Total	Forecast: $645.000 Actual: $0.000						Forecast: $666.000 Actual: $700.000									
	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	A
Operating Total	444.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	666.000	120.000	0.000	0.000	0.000	0.000	555.000	
Quarter Total	Forecast: $444.000 Actual: $0.000						Forecast: $666.000 Actual: $120.000									
Month Total	444.000	0.000	222.000	0.000	423.000	0.000	0.000	0.000	999.000	820.000	333.000	0.000	333.000	100.000	888.000	
Quarter Total	Forecast: $1,089.000 Actual: $0.000						Forecast: $1,332.000 Actual: $820.000									

Benefit Details (x $1,000)

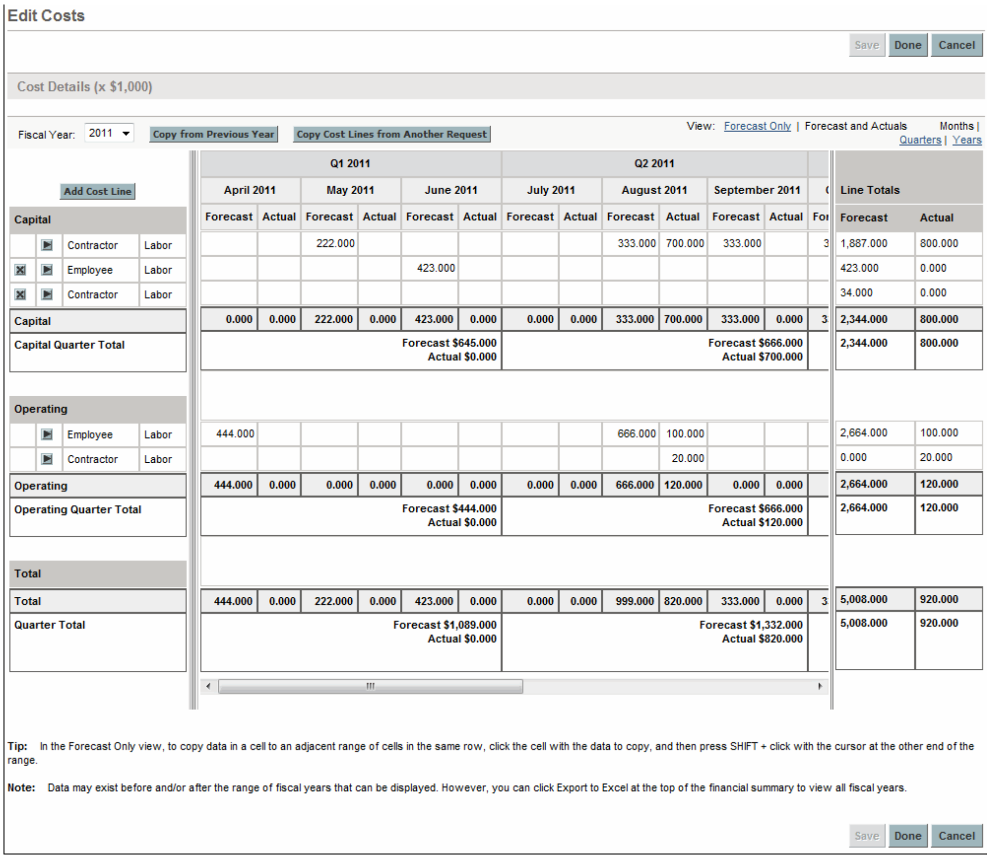
Edit Benefits | Add Notes

View: Totals Only | 3 Detail Lines | Forecast Only | Forecast and Actuals | Months | Quarters | Years | Totals

	Q1 2011						Q2 2011						Q3 2011			
	Apr 11		May 11		Jun 11		Jul 11		Aug 11		Sep 11		Oct 11		Nov 11	
	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Ac
Avoidance Total	0.000	0.000	1.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000	3.000	0.000	0.000	0.000	3.000	0
Quarter Total	Forecast: $1.000 Actual: $100.000						Forecast: $3.000 Actual: $0.000									
	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Ac
Revenue Total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	331.000	0.000	0.000	0.000	0.000	0.000	333.000	0
Quarter Total	Forecast: $0.000 Actual: $0.000						Forecast: $331.000 Actual: $0.000									
	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Ac
Savings Total	0.000	0.000	333.000	0.000	0.000	0.000	0.000	0.000	222.000	0.000	0.000	0.000	0.000	0.000	111.000	0
Quarter Total	Forecast: $333.000 Actual: $0.000						Forecast: $222.000 Actual: $0.000									
Month Total	0.000	0.000	334.000	100.000	0.000	0.000	0.000	0.000	553.000	0.000	3.000	0.000	0.000	0.000	447.000	0
Quarter Total	Forecast: $334.000 Actual: $100.000						Forecast: $556.000 Actual: $0.000									

Save | Done | Cancel

Figure 2-3. Example Edit Costs page in version 9.12



The Edit Benefits page has changes analogous to those in the Edit Costs page.

The following sections are organized in the approximate order that the changes are seen in *Figure 2-1*, *Figure 2-2*, and *Figure 2-3*.

Expected Start and Expected Finish Shown in Proposal and Project Financial Summaries

In version 9.12, the **Expected Start** and **Expected Finish** date fields, if specified, are added at the bottom of the **Summary** section in financial summaries of proposals and projects (but not assets). See *Figure 2-1*. The dates are included when the financial summary is exported to Microsoft Excel®, but are not included in financial summary snapshots.

Configurable Range of Fiscal Years for Financial Summaries and Financial Data Tables

The tables of costs and benefits in financial summaries, financial data tables, and their associated Edit Costs pages and Edit Benefits pages can display forecast values or forecast and actual values. Prior to version 9.12, the data (where present) was displayed over a fixed time range from up to two fiscal years ago to up to five fiscal years in the future. Financial summaries also displayed graphical data for one selected fiscal year in that range.

In version 9.12, administrators can configure the earliest and latest fiscal years of data to display, up to 20 years ago and up to 20 years in the future, by using the Administration Console to specify the new `server.conf` parameters `NUMBER_OF_PAST_YEARS_TO_SHOW_ON_FINANCIAL_SUMMARY` and `NUMBER_OF_FUTURE_YEARS_TO_SHOW_ON_FINANCIAL_SUMMARY`. The valid values range from 0 to 20, and the defaults are 2 and 5 for consistency with the previous design. The tables display data over the range of years calculated from the values specified in the parameters.

In the **Fiscal Year** field, users select one of those years and then graphical data is displayed for that year in the **Totals by Year** section of the financial summary. See *Figure 2-1*.

The same `server.conf` parameters are applied to *snapshots* of financial summaries, but they are applied relative to the fiscal year each snapshot was taken, not relative to the current fiscal year.

Options to Display Capital or Operating Costs in Financial Summary Graph

In version 9.12, the graph in the **Totals by Year** section of a financial summary now includes a new field named **Show Costs**, with the options **All**, **Capital**, and **Operating**. See *Figure 2-1*. The field appears only if cost capitalization is enabled both in the financial summary and by setting the `COST_CAPITALIZATION_ENABLED` `server.conf` parameter to `true`. The default option is **All**, which causes the graph to display the same data as in prior versions. If the user selects **Capital** or **Operating**, the graph and the **Forecast Cost**, **Actual Cost**, and **Approved Budget** fields below the graph display only capital or operating costs accordingly. **Forecast Benefit** and **Actual Benefit** are not affected.

Simplified Presentation of (x $1000) in Financial Summaries and Financial Data Tables

If the `BUDGET_IN_WHOLE_DOLLARS server.conf` parameter is set to `false`, cost and benefit data in financial summaries and financial data tables is shown in thousands of dollars. In other words, the displayed values are to be multiplied by 1000. Prior to version 9.12, **(x1000)** or **(x $1,000)** was shown at the top of the columns for each quarter.

In version 9.12, **(x $1,000)** is shown only once per cost or benefits table in a financial summary or financial data table, as follows:

- After the titles **Cost Details** and **Benefits Details** when viewing the financial summary or financial data table (see *Figure 2-2*)
- After the title **Cost Details** on the Edit Costs page (see *Figure 2-3*)
- After the title **Benefit Details** on the Edit Benefits page (analogous to *Figure 2-3*)

"Forecast and Actuals" Changed to "Costs," and "Planned" Changed to "Forecast"

To improve consistency within and among windows for financial summaries, the term "Forecast and Actual(s)" has been changed to "Cost(s)" as follows:

- In the financial summary, the section formerly titled **Forecast and Actual Details** has been renamed **Cost Details** to more clearly distinguish it from the **Benefit Details** section, which has its own data for forecast and actual benefits.
- The section now named **Cost Details** previously displayed either an **Edit Forecast and Actuals** button or an **Add Forecast and Actuals** button, and these buttons have been renamed **Edit Costs** and **Add Costs.**

To improve consistency within and among windows for financial summaries, the term "Planned" has been changed to "Forecast" as follows:

- The display options (links) formerly labelled **Planned Only** and **Planned and Actuals** in the **Cost Details** and **Benefits Details** sections of the financial summary and on the Edit Costs and Edit Benefits pages have been renamed **Forecast Only** and **Forecast and Actuals**.

- In the financial summary and the Edit Costs and Edit Benefits pages, all column headings and totals formerly labelled **Planned** have been renamed **Forecast.**
- In the Edit Costs and Edit Benefits pages, the tip about copying data to multiple cells began **"In the Planned Only view..."** and now begins with **"In the Forecast Only view..."**
- The column heading **Planned** has also been changed to **Forecast** in the Project Cost Summary portlet and the Program Cost Summary portlet.

Displaying and Editing Data by Year in Financial Summaries and Financial Data Tables

The tables of costs and benefits in financial summaries, in financial data tables, and in their associated Edit Costs pages and Edit Benefits pages can display forecast values or forecast and actual values. Prior to version 9.12, users could choose to display and edit the data (where present) either by quarter or by month.

In version 9.12, users can also display and edit the data by year. The tables have options that appear as links named **Months, Quarters,** and **Years.** See *Figure 2-2* and *Figure 2-3*.

On the Edit Costs page and the Edit Benefits page, when a user selects the new **Years** option, the tables display all the fiscal years in the configured range (see *Configurable Range of Fiscal Years for Financial Summaries and Financial Data Tables*). The **Fiscal Year** field (drop-down list) and the **Copy from Previous Year** button are no longer applicable and are not displayed.

Analogous to editing data by quarter, when costs and benefits are edited by year they are automatically apportioned equally among the months (and therefore among the quarters) in that year, overwriting all prior entries for months in that year.

Displaying Line Totals in Financial Summaries and Financial Data Tables

In financial summaries and financial data tables, version 9.12 adds the **Totals** option to the costs and benefits tables, after the **Years** option. See *Figure 2-2*. Selecting **Totals** displays, line by line, the sum of all data for the entities over the entire range of years for which they have data, regardless of the range of years available to view in the **Fiscal Year** field of the financial summary.

If a user selects the **Forecast Only** view option, the associated costs or benefits table displays only one **Totals** column for total forecast values. If a user selects the **Forecast and Actuals** view option, the associated costs or benefits table displays one column for total forecast values and one column for total actual values.

In version 9.12, line totals are always shown on the Edit Costs page and the Edit Benefits page, regardless of whether the user has chosen to display **Months**, **Quarters**, or **Years.** See *Figure 2-3*. The totals are shown in the rightmost column in the **Forecast Only** view or the rightmost two columns in the **Forecast and Actuals** view. If the user displays months or quarters, the totals reflect the values for only the year selected in the **Fiscal Year** field. If the user displays years, the totals reflect the sum of the values for all the fiscal years in the configured range. The totals are updated dynamically as the user edits the displayed months, quarters, or years.

Copying Cost Lines from a PFM Request Financial Summary

In version 9.12, a new **Copy Cost Lines from Another Request** button appears on the Edit Costs page of financial summaries. See *Figure 2-3*. This option allows users to copy all of the cost lines from the financial summary of one PFM request (PFM - Proposal, PFM - Project, or PFM - Asset request type) to the open PFM request. Search capability is provided to find the PFM request from which lines are to be copied. Cost lines rolled up from a staffing profile to the financial summary of the request selected from the search results are not copied to the financial summary of the open PFM request.

If the requests use different currencies, users can copy the cost lines but not any of their cost *data*. If the requests use the same currency, an option appears that allows users to copy the forecast cost data in the cost lines as well as the lines themselves.

The new button also appears on the Edit Costs page of financial data tables. Users can copy cost lines from the financial summary of a selected PFM request to the financial data table, but they cannot copy cost lines from any other financial data table.

Simpler Procedure to Copy Forecast Data Across a Range of Cells in the Same Row

Prior to version 9.12, when viewing forecast (but not forecast and actuals) data on the Edit Costs page and the Edit Benefits page, you could edit costs or benefits across a range of cells in the same row by:

1. Clicking in the cell with the data value you want to copy.
2. Clicking in the cell at the other end of the range of cells into which the data is to be copied.
3. Pressing **SHIFT** + **click.**

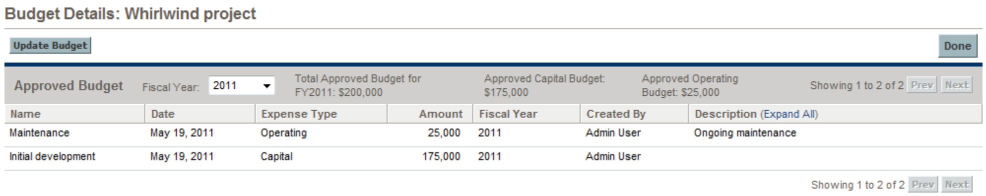
In version 9.12, the procedure is simplified as follows:

1. Click in the cell with the data value you want to copy.
2. With the cursor positioned in the cell at the other end of the range of cells into which the data is to be copied, press **SHIFT** + **click.**

Capital Expenses in Approved Budgets

In version 9.12, a new **Expense Type** field appears on the Update Budget page accessed from the approved budget of the financial summary, with the options **Capital** and **Operating.** See *Figure 2-4*. The field appears only if cost capitalization is enabled both in the financial summary and by setting the `COST_CAPITALIZATION_ENABLED` `server.conf` parameter to `true`.

Figure 2-4. Approved Budget in version 9.12



On the Budget Details page, the **Expense Type** field is added as a new column in the approved budget. Near the top of the page, for the selected **Fiscal Year,** the **Total Capital Approved Budget for FY<*xxxx*>** and the **Total Operating Approved Budget for FY<*xxxx*>** are displayed next to the **Total Approved Budget for FY<*xxxx*>.**

Web services can also specify capital expenses for approved budgets. For more information, see the *Web Services Programmer's Guide.*

For information about data model changes associated with this enhancement, see the *Data Model Guide.*

Upon upgrade to version 9.12, all approved budget entries default to **Operating.**

To change a budget entry for an editable fiscal year from **Operating** to **Capital,** create an offsetting negative budget entry with **Expense Type** set to **Operating** and create a budget entry in the same amount with **Expense Type** set to **Capital.**

Confirmation for Updating an Approved Budget

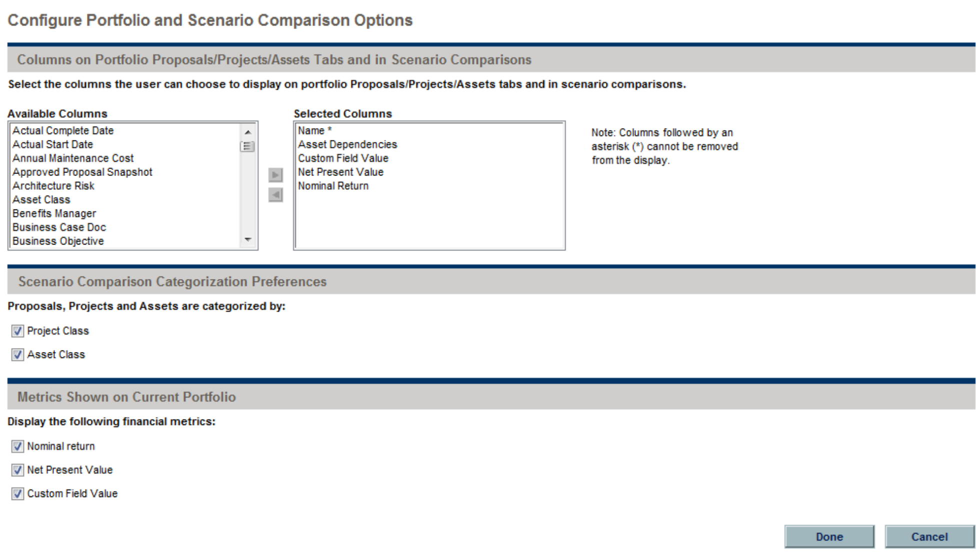
In version 9.12, when updating an approved budget, a confirmation dialog is presented when the user clicks **Done** to allow the user to confirm or cancel the update. After confirmation, an update to an approved budget cannot be modified or deleted. Also, the on-screen text clarifies that the approved budget for the selected year will be increased or decreased by the amount entered.

HP Portfolio Management

Redesigned Configure Portfolio Management Page

The Configure Portfolio Management page has new functionality and it has been renamed as the Configure Portfolio and Scenario Comparison Options page accordingly. In addition, the menu option has been changed from
Open > Administration > Portfolio Management > Configure Portfolio Management to
Open > Administration > Portfolio Management > Configure Portfolio and Scenario Comparison Options.

The middle section of the page, titled **Scenario Comparison Categorization Preferences,** is unchanged in version 9.12, but the other sections of the page are changed as described in the following sections.



Columns on Portfolio Proposals/Projects/Assets Tabs and in Scenario Comparisons

In version 9.12, the section previously titled **Configure Columns for Portfolio Proposals/Projects/Assets Tab** has been renamed **Columns on Portfolio Proposals/Projects/Assets Tabs and in Scenario Comparisons,** and it has been relocated from the bottom of the page to the top.

The functionality of this section of the Configure Portfolio Management page has been extended to apply to scenario comparisons, and it continues to apply to portfolios. Specifically, in version 9.12 when an administrator selects columns from the set of **Available Columns** and moves them to the set of **Selected Columns,** users can add those columns to the **Scenario Content** table of any scenario comparison. (As in prior versions, users can also add the **Selected Columns** to the **Proposals/Projects/Assets** tab of any portfolio.)

As in prior versions of PPM Center, administrators can enable (select) up to 20 of the available columns, which are determined from the combination of all the request fields in the PFM - Proposal, PFM - Project, and PFM - Asset request types.

➤ As in prior versions of PPM Center, if the administrator selects **Nominal Return** and/or **Net Present Value** among the fields users can add to the **Proposals/Projects/Assets** tab of a portfolio and a user does add them, those fields will appear on the **Proposals/Projects/Assets** tab only if the user sets the **Fiscal Year** field on the tab to **Total** to display the sum of all years.

For detailed administrative information about selecting columns that users can then display, see the *HP Portfolio Management Configuration Guide.*

➤ If any of the **Nominal return, Net Present Value,** and **Custom Field Value** options were selected in the **Scenario Comparison Tracking Preferences** section on the Configure Portfolio Management page prior to version 9.12, the administrator must manually select the options as columns in the **Columns on Portfolio Proposals/Projects/Assets Tabs and in Scenario Comparisons** section for them to continue to be displayable in scenario comparisons in version 9.12. Users can then choose to display those columns as desired.

As in prior versions of PPM Center, the set of **Available Columns** includes all of the fields in the PFM - Proposal, PFM - Project, and PFM - Asset request types. PPM Center allows the same field to have different validation types in different request types. In this case, in prior versions, the field was not included among the **Available Columns.**

In version 9.12, the field is included among the **Available Columns.** In a scenario comparison or in the **Proposals/Projects/Assets** tab of a portfolio, data in such a displayed column might not be formatted consistently or as expected.

The validation types for the field used in multiple request types do not have to be identical, but they should be compatible. For example, displaying various types of text fields in a column might be acceptable. However, if the inconsistent formatting of the data is unacceptable, the administrator should check the field definitions in the request types and establish unique fields for them that each use appropriate validations so that they will appear as separate columns.

Metrics Shown on Current Portfolio

The section previously titled **Scenario Comparison Tracking Preferences** has been renamed **Metrics Shown on Current Portfolio,** and it has been relocated from the top of the page to the bottom.

In version 9.12, administrators can select the **Nominal return, Net Present Value,** and **Custom Field Value** options (checkboxes) to make them available as filters with ranges of values and as the horizontal or vertical axis in the bubble charts of the Analyze Current Portfolio portlet (formerly the Current Portfolio Map portlet) and the Analyze Current Portfolio page.

In prior versions of PPM Center, administrators could select the options **Nominal return, Net Present Value,** and **Custom Field Value** for display as scenario comparison "tracking preferences." In version 9.12, the display of these metrics in scenario comparisons is configured as described in *Columns on Portfolio Proposals/Projects/Assets Tabs and in Scenario Comparisons*. See that section for important information about upgrade consequences in regard to displaying these fields.

New Columns Available in Subportfolios Tab of Portfolios

In version 9.12, if the `COST_CAPITALIZATION_ENABLED server.conf` parameter is set to `true` to enable separate tracking of capital and operating costs, the following new columns are available to all users to add to the **Subportfolios** tab of any portfolio:

- **Approved Capital Budget**
- **Approved Operating Budget**
- **Forecast Capital Cost**
- **Forecast Operating Cost**
- **Actual Capital Cost**
- **Actual Operating Cost**

New Columns Available in Programs Tab of Portfolios

In version 9.12, if the `COST_CAPITALIZATION_ENABLED server.conf` parameter is set to `true` to enable separate tracking of capital and operating costs, the following new columns are available to all users to add to the **Programs** tab of any portfolio:

- **Approved Capital Budget**
- **Approved Operating Budget**
- **Forecast Capital Cost**
- **Forecast Operating Cost**
- **Actual Capital Cost**
- **Actual Operating Cost**

If a particular program in a portfolio does not have capitalization enabled in its financial summary settings, its forecast and actual costs are shown entirely as operating costs and its capital costs are shown as 0.

New Columns Available in Proposals/Projects/Assets Tab of Portfolios

In version 9.12, if the `COST_CAPITALIZATION_ENABLED server.conf` parameter is set to `true` to enable separate tracking of capital and operating costs, the following new columns are available to all users to add to the **Proposals/Projects/Assets** tab of any portfolio:

- **Approved Capital Budget**
- **Approved Operating Budget**
- **Forecast Capital Cost**
- **Forecast Operating Cost**
- **Actual Capital Cost**
- **Actual Operating Cost**

If a particular proposal, project, or asset in a portfolio does not have capitalization enabled in its financial summary settings, its forecast and actual costs are shown entirely as operating costs and its capital costs are shown as 0.

In addition, the following column names have been changed:

- **Total Cost** is renamed **Projected Cost.**
- **Total Benefit** is renamed **Projected Benefit.**

As with **Total Cost** and **Total Benefit** in prior versions, **Projected Cost** and **Projected Benefit** are available only if the **Fiscal Year** is set to **Total** so that all years are included. They are calculated as the sum of the following:

- **For each previous month,** actual values where reported (that is, where not blank or zero), otherwise forecast values
- **For the current month,** the *higher* of the forecast value and (if reported) the actual value
- **For each future month,** the forecast values

For information about adding columns to the **Proposals/Projects/Assets** tab of a portfolio, see the *HP Portfolio Management User's Guide* or the analogous capability added for version 9.12 for scenario comparisons, as described in *Ways to Change Appearance of Scenario Content in Scenario Comparisons* on page 41.

Change to Exporting Portfolios to Microsoft Excel

Prior to version 9.12, when a user exported a portfolio to Microsoft Excel, all of the available columns on all of the tabs were exported in a pre-determined order, whether the columns were displayed or not.

In version 9.12, only the columns selected for display are exported to Excel, in the same order as they are displayed. In other words, the Excel file reflects any changes a user has made to the columns selected for display and to the column layout.

New Columns Available in Scenario Content Table

Version 9.12 introduces new columns that all users can add to the scenario content table in any particular scenario comparison. Some of the new columns are available only if the `COST_CAPITALIZATION_ENABLED server.conf` parameter is set to `true` to enable separate tracking of capital and operating costs, as indicated in the following list of the new columns:

- **Approved Budget**
- **Approved Capital Budget** (if cost capitalization is enabled)
- **Approved Operating Budget** (if cost capitalization is enabled)
- **Forecast Cost**
- **Forecast Capital Cost** (if cost capitalization is enabled)
- **Forecast Operating Cost** (if cost capitalization is enabled)
- **Actual Cost**
- **Actual Capital Cost** (if cost capitalization is enabled)
- **Actual Operating Cost** (if cost capitalization is enabled)
- **Forecast Benefit**
- **Actual Benefit**

In addition, the following column names have been changed:

- **NPV** is renamed **Net Present Value.**
- **Custom Value** is renamed **Custom Field Value.**

- **Total Cost** is renamed **Projected Cost.**
- **Total Benefit** is renamed **Projected Benefit.**

Projected Cost and **Projected Benefit** are calculated as the sum of the following:

- **For each previous month,** actual values where reported (that is, where not blank or zero), otherwise forecast values
- **For the current month,** the *higher* of the forecast value and (if reported) the actual value
- **For each future month,** the forecast values

For information about adding columns to the scenario content table, see *Ways to Change Appearance of Scenario Content in Scenario Comparisons*.

Ways to Change Appearance of Scenario Content in Scenario Comparisons

In version 9.12, users can change the Scenario Content table in scenario comparisons in the following ways (similar to existing functionality for portfolios), and the changes are retained after they log out and log back in to PPM Center:

- To rearrange columns, click and drag a column heading to the desired position.
- To resize a column, click and drag the dividing line between its column heading and the adjacent column heading.

➤ For the following options, instead of clicking or right-clicking a column heading as described, users can click the drop-down arrow that appears at the right of any column heading when they move the mouse there.

- To hide a table column, right-click any column heading, select **Columns,** and then click (deselect) the name of the column to be hidden.

  To display a column that is not displayed, right-click any column heading, select **Columns,** and then click (select) the name of the column to be displayed.

- To base the sort order of the rows on the values in a column, click that column heading, or right-click in the column heading and click **Sort Ascending** or **Sort Descending.**
- Right-click a column heading and click **Freeze Column "<*column name*>"** to:
  - Move that column as far to the left as possible but to the right of any other previously frozen columns
  - Prevent that column from being moved by clicking and dragging its heading
  - Freeze the width of that column when horizontal scrolling is used for other columns

  Once a column is frozen, the user can right-click the column heading and click **Unfreeze Column "<*column name*>",** which moves the column to the immediate right of any other frozen columns.

Relocated Add Content Button and New Remove Content Button in Scenario Comparisons

In scenario comparisons, the **Add Content** button has been moved to the banner in the **Scenario Content** section, from its former location at the bottom left of the scenario content list. Also, a **Remove Content** button has been added to the banner, and it becomes available when one or more items in the content list are selected.

New Update Scenarios Button

A new **Update Scenarios** button appears in the banner in the **Scenario Content** section. Clicking this button saves any changes the user has made to the selection of items to include or exclude from any scenarios, and it updates the graphs on all the tabs above the **Scenario Content** section accordingly. Clicking this button does *not* save any changes the user made to the basic information fields above the graphs, such as **Comparison Name** and **Description.**

Exporting Scenario Content to Microsoft Excel

An **Export to Excel** link has been added at the upper left of the **Scenario Content** section. Clicking this link exports to Microsoft Excel the basic information fields (at the top of the scenario comparison) and the displayed columns of the scenario content table (including indication of any dependency violations).

Only the displayed columns are exported to Excel, in the order they are displayed. In other words, the Excel file reflects any changes a user has made to the columns selected for display and to the column layout.

The **View Content List** link at the bottom of the **Scenario Content** section has been removed. The content list that was displayed by clicking this link had an **Export to PDF** link that is superseded by the **Export to Excel** link.

Filtering by Portfolio in Analyze Current Portfolio Portlet and Page

On the Analyze Current Portfolio portlet (formerly the Current Portfolio Map portlet) and the Analyze Current Portfolio page, a new filter has been added to select the portfolios to display in the bubble chart. The new filter field is named **Include items from these portfolios (including subportfolios) in graph.**

Users can select one or more portfolios from the associated **Selected portfolios** auto-complete field. In the auto-complete, portfolio names, parent portfolio names (where applicable), and portfolio managers are displayed to assist the user with selection.

The auto-complete automatically excludes portfolios that already have any of their content (proposals, projects, assets, or subportfolios) in the bubble chart. In addition, if a user tries to simultaneously add both a portfolio and any of that portfolio's content where none had been added to the bubble chart previously, only the portfolio is added as a bubble. In these ways, the bubble chart never represents duplicate content among its bubbles.

“Budget” Changed to “Projected Cost” in Analyze Current Portfolio Portlet and Page

On the Analyze Current Portfolio portlet (formerly the Current Portfolio Map portlet) and the Analyze Current Portfolio page, the options formerly labelled **Budget** have been renamed **Projected Cost** for the following fields:

- **Horizontal Axis**
- **Vertical Axis**
- **Size of bubble indicates**

Also, the field name **Budget total greater than ... and less than ...** has been changed to **Projected Cost total greater than ... and less than ...**

Projected cost is the sum of the following:

- **For prior periods,** actual costs where reported (that is, where not blank or zero), otherwise forecast costs
- **For the current period,** the *higher* of forecast costs and (if reported) actual costs
- **For future periods,** forecast costs

HP Project Management

Project Tasks Indicate an Exception When User Does Not Specify % Complete If Required

In version 9.12, the **Exceptions / Warnings** tab on the Task Details page shows an exception indicating that some resources on a task have not entered **% Complete** if both of the following conditions are met:

- **Require resources to enter % Complete along with actual effort** option is selected on the project's Cost and Effort policy.
- A user logs and saves time on a time sheet (or elsewhere) for the task but leaves **% Complete** as 0.

The exception appears on the Task Details page only after the Exception Rule Service runs. For this type of exception, the service runs according to the setting of the `EXCEPTION_ENGINE_WAKE_UP_TIME` `server.conf` parameter (once a day at 1:00 a.m. by default). For more information, see the *Installation and Administration Guide*.

"Planned" Column Changed to "Forecast" in Project Cost Summary Portlet

For consistency with other changes in PPM Center, the column heading **Planned** has been changed to **Forecast** in the Project Cost Summary portlet.

HP Program Management

New Columns Available in Program Overview Page

In version 9.12, the following new columns are available to all users to add to programs listed on the Program Overview page:

- **Forecast Benefit**
- **Actual Benefit**

In version 9.12, if the `COST_CAPITALIZATION_ENABLED server.conf` parameter is set to `true` and if the financial summary settings for the program also enable separate tracking of capital and operating costs, the following columns are available to all users to add to the Program Overview page:

- **Approved Budget** (subordinate to **Capital Cost** in the list of selectable columns)
- **Approved Budget** (subordinate to **Operating Cost** in the list of selectable columns)

On the other hand, if the `COST_CAPITALIZATION_ENABLED server.conf` parameter is set to `false` or if the financial summary settings for the program disable separate tracking of capital and operating costs, the following column is available to all users to add to the Program Overview page:

- **Approved Budget**

In addition, the following column names have been changed on the Program Overview page:

- In the **Program Costs** section, **Planned** is renamed **Forecast.**
- In the **Content** section:
  - **Planned Labor** is renamed **Forecast Labor.**
  - **Planned Non-Labor** is renamed **Forecast Non-Labor.**
  - **Planned Total** is renamed **Forecast Total.**

“Planned” Column Changed to “Forecast” in Program Cost Summary Portlet

For consistency with other changes in programs, the column heading **Planned** has been changed to **Forecast** in the Program Cost Summary portlet.

New Options to Group and Ungroup Programs by Column Values

In the **Content** section of the Program Overview page, users can organize the rows by grouping them under headings that match the various values in any particular column. To do so, users right-click in the column heading for the column with the values that are to become groupings, and then click **Group by <*column name*>.**

After the groupings (headings) are established, an additional **Ungroup** option appears when users right-click any column. Clicking **Ungroup** removes the headings.

Exporting Programs to Microsoft Excel

Prior to version 9.12, when a user exported a program to Microsoft Excel, all of the available columns in the **Content** section were exported in a pre-determined order, whether they were displayed or not.

In version 9.12, when a user clicks the **Export to Excel** link at the upper right of the Program Overview page, only the displayed columns in the **Content** section are exported to Excel, in the order they are displayed. In other words, the Excel file reflects any changes a user has made to the columns selected for display and to the column layout.

HP Time Management

Identification of Out-of-Sync Actuals Data Upon Upgrade

The pre-validation process for upgrade to version 9.12 determines whether actuals data in HP Time Management and HP Project Management are out of sync and whether actuals data in HP Time Management and HP Demand Management are out of sync. For more information, see *Out-of-Sync Actuals Data* on page 19.

Automatic Saving of Time Sheets to Prevent Data Inconsistencies

Some aspects of time sheet operation have been changed in version 9.12 to improve the user experience and prevent data inconsistencies within PPM Center. Users can save their time sheet data by "explicitly" clicking **Save** or **Save & Submit.** In addition, in version 9.12, time sheets are automatically ("implicitly") saved to the database when users do any of the following:

- Add a new line (work item) to a time sheet
- Remove a line from a time sheet (whether or not the line has data)
- Save any line details
- Group or ungroup the work items on the time sheet

If users take any of these actions, then any valid time entries ("actuals") they have previously typed in a time sheet but not yet explicitly saved are automatically saved to the database.

In addition, when users open the Effort Breakdown window from the My Tasks portlet, enter actuals, and click **Save,** the actuals are saved to the database immediately. Prior to version 9.12, the **Save** button was named **Done** and clicking **Done** did not save the effort breakdown actuals to the database. For more information, see *Improvements to My Tasks Portlet and Edit Effort Breakdown Page* on page 55.

"Automatic Saving of Time Sheets" Dialog for Users (Displayed Once)

In version 9.12, the first time each user opens any time sheet, a message is displayed describing the implicit saving of the time sheet. After the message is displayed to a a user once, it is not displayed to that user again for any time sheet.

However, for instances of PPM Center that support multiple languages, the message is displayed only to users who select English when they log in.

Administrators can prevent this message from ever appearing for any user by using the Administration Console to change the new `TM_ENABLE_SHOW_WHATS_NEW` `server.conf` parameter from `true` to `false`.

Administration of Time Sheet Activities at the Request-Type Level

In version 9.12, as described in the following sections, administrators can control whether users must specify activities for requests of particular request types when they add those requests to their time sheets. Administrators can specify which activities are available to users on a request-type basis, and can specify a default activity. Implications for copying time sheets are also discussed.

Requiring Users to Specify Activities for Requests of Particular Request Types

In time sheet policies, administrators can already require users to specify activities for *all* requests on their time sheets. In version 9.12, administrators can instead require users to specify activities on time sheet lines for requests of *particular request types* if the following prerequisites are met:

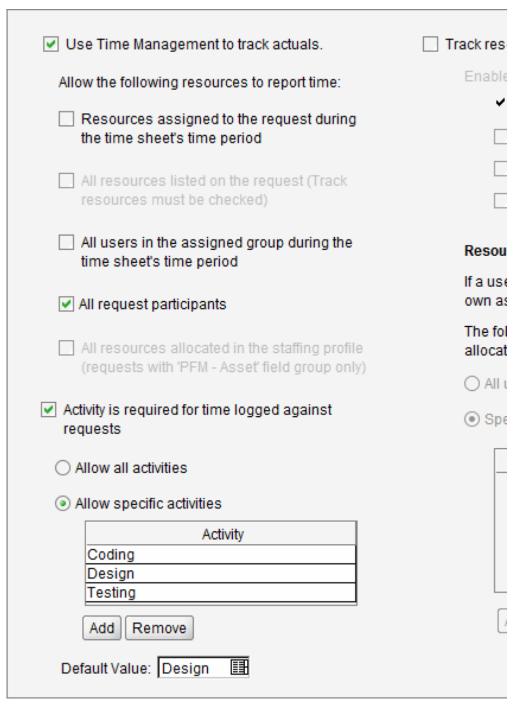
- An administrator has enabled the capability by setting the new `TM_ENABLE_REQ_ACTIVITY_CONTROLS` `server.conf` parameter to `true` (most conveniently set by using the Administration Console). The default setting is `false`.
- In the PPM Workbench, on the **Resources** tab of the request type, the **Use Time Management to track actuals** option is selected.

To enable the ability to require users to specify activities for a particular request type:

1. Log on to PPM Center.
2. From the menu bar, select **Open > Administration > Open Workbench.**

   The PPM Workbench opens.
3. From the shortcut bar, select **Demand Mgmt > Request Types.**
4. Click **List** to list the request types.
5. Select the request type of interest and click **Open.**
6. Click the **Resources** tab.
7. Make sure the **Use Time Management to track actuals** option (checkbox) is selected.

   The bottom left side of the **Resources** tab has the options related to requiring activities. In the following figure, options have been chosen that enable all the buttons and fields described in the following step and the section *Specifying Which Activities Are Available to Users and Defaults at the Request-Type Level* on page 51.



8. Select the **Activity is required for time logged against requests** (checkbox) option.

   Users are then required to specify activities for requests of this type before they can submit their time sheets. An error message is displayed if they do not do so.

On the **Activities** tab of time sheet policies in the PPM Workbench, administrators can require that users specify activities on time sheets for requests of *all* types, and that setting takes precedence. That is, if the time sheet policy requires entry of activities for requests, users must enter activities for all requests in order to submit their time sheets, regardless of the setting of the new **Activity is required for time logged against requests** option in any request type.

On the other hand, if a time sheet policy does not require that users specify activities for requests on their time sheets, selecting the **Activity is required for time logged against requests** option in the request type requires all users to enter activities on time sheets for that request type.

In both cases described above, only activities that are enabled and configured to use for requests (on the Create Activity or Edit Activity page) are available to users to add to requests on their time sheets.

Specifying Which Activities Are Available to Users and Defaults at the Request-Type Level

When users are required to specify activities on time sheet lines for requests of a particular type as described in *Requiring Users to Specify Activities for Requests of Particular Request Types*, administrators can control which activities are available to users.

On the **Resources** tab of a request type in the PPM Workbench, when the **Activity is required for time logged against requests** option (checkbox) is selected, subordinate options become available. By default **Allow all activities** is selected, but administrators can select **Allow specific activities** and use the **Add** and **Remove** buttons to select specific activities. Then, on time sheets users can add only those specific activities to requests of that request type.

Administrators can optionally specify the **Default Value** field for the activity, whether all activities or only specific activities are allowed. If only specific activities are allowed, the values in the auto-complete for the **Default Value** field are limited to those specific activities. If the **Default Value** field is specified, that activity appears as the default for all requests of that request type on all time sheets for all users. Users can still click **Line Details** on time sheets to edit the activities on their time sheet lines as usual.

At the time a user adds an activity to a time sheet line, HP Time Management displays the available activities as they are currently configured on the **Resources** tab of the request type. If that configuration has changed since the user last added activities to any time sheet, the user sees the new set of activities. If an activity a user previously selected for a request on a time sheet has since been removed from the set of allowed specific activities on the **Resources** tab, that activity can no longer be added to any request of that type, but it remains on the time sheet and does not cause an error when the time sheet is saved or submitted.

In any case, only activities that are enabled and configured to use for requests (on the Create Activity or Edit Activity page) are available to configure on the **Resources** tab of request types so that users can then add them to requests on their time sheets.

Copying Requests with Disallowed Activities to New Time Sheets

A user can copy an existing time sheet or, if the `TM_DISABLE_INCLUDING_LAST_TS_ITEMS server.conf` parameter is set to `false`, a user can create a new time sheet that includes items from his or her previous time sheet.

Assuming the `TM_ENABLE_REQ_ACTIVITY_CONTROLS server.conf` parameter is set to `true`, consider the following sequence of events:

1. A time sheet is created with a request line that includes one or more specifically allowed activities. (Multiple activities for a time sheet line appear in separate rows in a time sheet.)
2. Some of those activities are later removed from the set of allowed activities (that is, they are disallowed) on the associated request type.
3. A user copies the time sheet.

In this scenario, depending on the activities, the request line is copied to the new time sheet with or without activities as follows:

- When the existing time sheet includes a request line with *one or more* activities and *all* of those activities were later disallowed, no activity is copied to the request line on the new time sheet, that is, the activity for the copied line is blank.

- When the existing time sheet includes a request line that has *multiple* activities and *some but not all* of those activities were later disallowed, the copied request line on the new time sheet includes separate rows for each of the activities that remain allowed.

If the `TM_ENABLE_REQ_ACTIVITY_CONTROLS server.conf` parameter is set to `false`, all activities are copied to the lines in the new time sheet.

Highlighting of Non-Working Days and Holidays on Time Sheets

For time sheets on which time is logged on a daily basis, the columns for non-working days and holidays can be highlighted in color in version 9.12. Holidays reflect the user's regional calendar. By default, this option is not enabled. To enable it, an administrator must set the new `HIGHLIGHT_NONWORKING_DAYS_IN_TIMESHEET server.conf` parameter to `true` (most conveniently set by using the Administration Console).

Renamed Buttons on Line Details Window

The Line Details window, which has the **Charge Codes/Activities, Approvals/Transactions Details, Notes,** and **User Data** tabs, had **Apply, OK,** and **Cancel** buttons in prior versions of PPM Center. In version 9.12, the window has more appropriately named buttons—**Save** and **Cancel.**

New Time Sheet Notes Show "(Pending Save)" Until Time Sheet Is Saved

In version 9.12, when a user adds a note to a time sheet, the time stamp column for **Notes** shows **(Pending Save)** for that note until the user saves the time sheet, either explicitly by clicking **Save** or **Save & Submit,** or implicitly as described in *Automatic Saving of Time Sheets to Prevent Data Inconsistencies* on page 48. When the user saves the time sheet, the time stamp for the note is updated to that time.

Improved Error Management

As in prior versions of PPM Center, on time sheets users can specify and try to save or submit actuals that cause errors such as:

- Time sheet policy violations
- Invalid data values such as:
  - Values that would result in negative total actual effort for a project, a task, or a request, when summed across the user's time sheets.
  - Values for **% Complete** that are not in the range 0–100.
  - Negative values for **Estimated Remaining Effort.**
  - Actuals for a task for which the user has previously entered time in HP Project Management—any particular user can use only time sheets or only HP Project Management to log time against any particular task.

In these cases, version 9.12 introduces the following changes:

- The time sheet page is not reloaded on the screen when the errors occur, so users see faster presentation of error messages.
- Error messages regarding data values are presented separately from error messages for time sheet policy violations. Users must correct the data value errors before the policy violation messages are displayed. (As in prior versions of PPM Center, policy violations are shown only when users submit their time sheets.)
- If a project requires users to enter **% Complete** and a user has not done so, the requirement is indicated on the time sheet only when users submit the time sheet, not when they just save it.

Improvements to My Tasks Portlet and Edit Effort Breakdown Page

Prior to version 9.12, to log and save time from the My Tasks portlet, users opened the Effort Breakdown window, logged time, clicked **Done** to return to the portlet, and clicked **Save** on the portlet.

In version 9.12, the **Done** button on the Effort Breakdown window has been renamed **Save,** and clicking it saves the updates directly to the database, calculates **% Complete** and **Estimated Remaining Effort** for tasks and projects, and then returns the user to the My Tasks portlet.

In addition, from the My Tasks portlet, if a user selects a new time sheet in the **Use Time Sheet** field and clicks **Edit Effort Breakdown** or any value in the **Actual Effort (hrs)** column, the Effort Breakdown window opens and the time sheet is automatically created for the user. Prior to version 9.12, the time sheet was not automatically created until the user clicked **Done** on the Effort Breakdown window and **Save** on the My Tasks portlet.

HP APM for PPM

HP APM for PPM (HP APM) is a new module that runs on top of PPM Center version 9.12. Two new licenses for HP APM are available with PPM Center version 9.12: Application Portfolio Analyst and Application Portfolio User. However, these HP APM licenses must be purchased separately before they can be assigned to users. For more information, contact your HP sales representative or go to http://www.hp.com/go/appportfoliomgmt.

Integration with Microsoft Project 2010

The Plug-in for PPM is integrated with Microsoft Project 2010. While the functionality of the Plug-in for PPM remains the same, you may need to adapt to some new features in Microsoft Project 2010.

The new features in Microsoft Project 2010 that affect how the Plug-in for PPM integrates with it include: task creation mode and the user interface.

Client-Side Requirements

The following software is required on the client:

- Microsoft Project 2010
- Microsoft .NET Framework version 3.5 or later
- Visual Studio Tools for Office (VSTO) version 3.0 (must be installed by a system administrator)
- Microsoft Office 2010 Primary Interop Assemblies (PIA) for Microsoft Project 2010 (must be installed by a system administrator)

Task Creation Mode

In Microsoft Project 2010, users can create tasks in two different modes: Auto Scheduled or Manually Scheduled. To successfully integrate tasks between Microsoft Project 2010 and PPM Center, all Microsoft Project 2010 tasks must be created in Auto Scheduled mode.

If a task is created in Auto Scheduled mode, data in task date and duration fields are validated by Microsoft Project and all tasks can be successfully integrated with PPM Center.

If a task is created in Manually Scheduled mode, data in task date and duration fields are not validated by Microsoft Project. PPM Center considers this data to be invalid and does not integrate the data. To successfully integrate all task data, the task must be changed to Auto Scheduled mode.

To change a task's mode, update the **Task Mode** field.

To set the default task creation mode for new tasks that are added to an existing project, click on the **New Tasks** menu at the bottom of the work plan window and select **Auto Scheduled.**

To set the default task creation mode for new projects, go to the **File** tab and select **Options.** Select **Schedule** and then set the **New tasks created** field to **Auto Scheduled.**

User Interface

The user interface has been changed in Microsoft Project 2010. Instead of the initial drop-down menus, the interface uses tabbed sections.

The location of the Plug-in for PPM menus has changed and can be found as follows:

- The HP PPM Center menu is located in the **Add-Ins** tabbed area.
- The custom **Changed Actuals** tool can be found in the **View** tab and by selecting the **Tables** drop-down menu.
- The custom filters can be found in the **View** tab and by selecting the **Filter** drop-down menu.

Updates to HP Deployment Management Extension for Oracle E-Business Suite and HP GL Migrator to Support Oracle E-Business Suite Release 12

A patch to the HP Deployment Management Extension for Oracle E-Business Suite and a new version of HP GL Migrator provide support for Oracle E-Business Suite Release 12.

For detailed information about supportability of the new HP GL Migrator version 9.12 with various releases of Oracle E-Business Suite and with various versions of PPM Center and HP Object Migrator, see the latest *System Requirements and Compatibility Matrix* for PPM Center version 9.1x.

For detailed information about HP GL Migrator version 9.12, including installation and upgrade procedures, see the *HP GL Migrator Guide* for version 9.12.

A specific product installation or upgrade sequence must be followed when using PPM Center version 9.1x, as described in *Product Installation Sequence with PPM Center Version 9.1x* on page 59.

FSG Functionality Provided in HP GL Migrator Version 9.12

The Migrate FSG Row/Col Sets program migrates user selected FSG Row/Col Sets from a source database to a destination database. The migration is accompanied by an output file displaying all migrated entities along with the status or error codes associated with each record in migration. This program was previously included with HP Object Migrator version 7.5. For more information, see the *HP GL Migrator Guide* for version 9.12.

New Object Types Provided in Extension Patch

As described in *Product Installation Sequence with PPM Center Version 9.1x*, a patch for the HP Deployment Management Extension for Oracle E-Business Suite must be installed. The patch installs the following new PPM Center object types that must be used to support migrations for Oracle E-Business Suite Release 12:

- GL 912 :Budget Organisation
- GL 912 :Consolidations
- GL 912 :Cross Validation Rules
- GL 912 :FSG Row/Col Sets
- GL 912 :Journal Categories
- GL 912 :Journal Entry Sources
- GL 912 :Mass Allocation/Budget
- GL 912 :Summary Templates

These new object types are analogous to existing object types that do not have the “GL 912 :” prefix, except that the GL 912 :FSG Row/Col Sets object type is provided in HP GL Migrator version 9.12 for the first time (see *FSG Functionality Provided in HP GL Migrator Version 9.12*).

The new object types are backward compatible with Oracle E-Business Suite Release 11i, and installing them does not overwrite any existing object types.

Product Installation Sequence with PPM Center Version 9.1x

To prepare to deploy HP GL Migrator version 9.12 and associated prerequisities, download patch PPMC_00098 for HP Deployment Management Extension for Oracle E-Business Suite, which bundles the following files:

- The following zip files for HP GL Migrator version 9.12:
  - `CLGM_912.zip`
  - `CLGM_UPG_912.zip`
- The following zip files for HP Object Migrator version 7.5:
  - `CLM_75.zip`
  - `CLM_75_tar.gz`
  - `CLM_UPG75.zip`
  - `CLM_UPG75_tar.gz`
- The following jar file for the HP Deployment Management Extension for Oracle E-Business Suite patch:

  `ppm-910-OracleApps912.jar`
- The following jar file for the HP Deployment Management Extension for Oracle Technology version 9.10:

  `ppm-910-OracleTech.jar`

Starting with PPM Center version 9.1x (9.10 with or without an associated service pack) as a basis, the following product installations or upgrades must be performed in the following sequence to support using the HP Deployment Management Extension for Oracle E-Business Suite and HP GL Migrator with Oracle E-Business Suite Release 12:

1. HP Object Migrator version 7.5, if not already installed.

   See the *HP Object Migrator Guide* for version 7.5.
2. HP GL Migrator version 9.12.

   See the *HP GL Migrator Guide* for version 9.12.

3. PPM Center version 9.1x, if not already installed.

   See the *Installation and Administration Guide* for version 9.10 and service pack *Release Notes* as appropriate.

4. HP Deployment Management Extension for Oracle E-Business Suite version 9.10, if not already installed.

   See the *HP Deployment Management Extension for Oracle E-Business Suite Guide* for version 9.10.

5. HP Deployment Management Extension for Oracle E-Business Suite patch PPMC_00098 to allow the HP Deployment Management Extension for Oracle E-Business Suite version 9.10 and HP GL Migrator version 9.12 to support Oracle E-Business Suite Release 12.

   For this patch, you must use the following installation command:

   ```
   sh kDeploy.sh -i OracleApps912
   ```

The HP Deployment Management Extension for Oracle Technology can be installed at any time after PPM Center version 9.1x is installed.

HP Demand Management

New Table Component

In PPM Center version 9.12, table component is implemented using a new way to improve usability.

In addition to seamless support for the existing functionalities, the new table component also offers the following new functionalities:

- *New Table Component Layout*
- *Switching between Original and New Table Component Layouts*
- *Editing Table Component Directly on Request Pages*
    - *Resizing table columns*
    - *In-line row adding* and *In-line row deleting*
    - *Copying and pasting row(s)*
    - *Moving row(s) up or down*
    - *In-line row editing*
    - *Warning prompt when leaving current page without saving the modified table component*
- *Showing Total of a Table Component Column in Real-time*
- *Quick Navigation through Table Rows*

The new table component is supported on the following pages:

- Create New Request page
- Request Details page
- Look-ahead page

Supported Validations

Table component fields support validations of the following component types:

- Text field
- Drop-down list
- Radio buttons (yes/no)
- Auto-complete list
- Text area
- Date field (short, medium, and long)
- Web Address (URL)
- Password field
- Link

For more information about validations, see the *Commands, Tokens, and Validations Guide and Reference*.

Special Note for Link and Web Address (URL) Component Types

When you use `<!--HTML-->` for **Link** and **Web Address (URL)** component types, make sure not to use `<a></a>` tags as they are not allowed. **Link** and **Web Address (URL)** components are `<a></a>` tags in Web UI, you cannot embed `<a></a>` tags within `<a></a>` tags.

`<!--HTML-->` is designed for advanced users and you should use tags that affects font and color only. For example, the script below is valid:

```
<!--HTML--><font color='red'>PPM</font>
<!--HTML--><b>PPM</b>
```

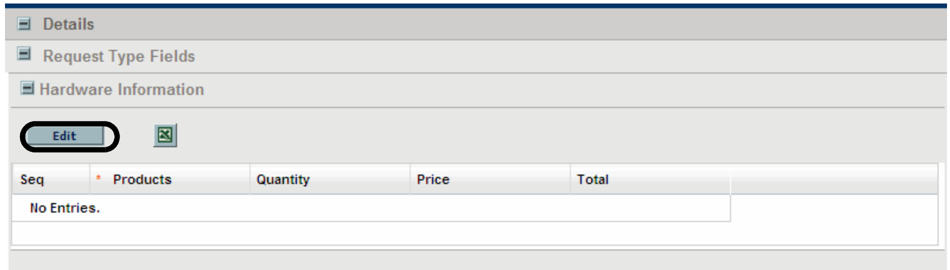
The script below is not allowed for Link and URL:

```
<!--HTML--><a href='http://hp.com'>HP</a>
```

Note that link description is also not allowed.

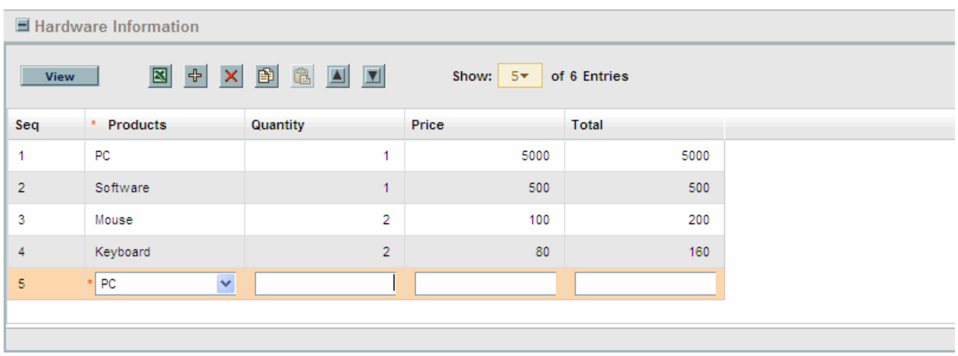
New Table Component Layout

The new table component looks similar to the follows when you have just created a new request:

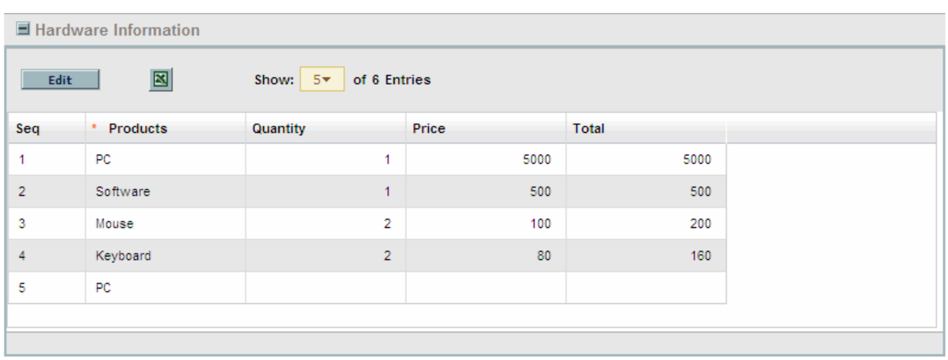


You can click **Edit** to switch to Edit mode directly, and proceed to edit the table by adding rows, filling in data, and performing other operations.

The new table component in Edit mode:



The new table component in View mode:



Switching between Original and New Table Component Layouts

With PPM Center version 9.12, the new table component layout is applied by default. However, you may choose to switch back to the original table component layout by configuring the newly introduced `server.conf` parameter listed in *Table 2-1*.

Table 2-1. New server.conf parameter introduced

Parameter name	Description, Usage	Default and Valid Values
TABLE_COMP_USE_LEGACY	Determines whether the original layout of the table component is used. If set to `true`, the original layout will be applied.	Default: `false` Valid values: `true, false`

Editing Table Component Directly on Request Pages

With the new table component implemented, you can edit the table component directly on the following pages:

- Create New Request page
- Request Details page
- Request look-ahead page

To enter Edit mode, simply click **Edit** in the table component.

Note that the **Edit** button is only available to users with edit access grant to requests or table component.

For detailed information about access grants, see the *Security Model Guide and Reference*.

Resizing table columns

You can resize width of table columns in both View mode and Edit mode by dragging column borders in the table.

When you resize table column width, the table width is also resized automatically.

In-line row adding

Click **Add Row** icon to add or insert new rows directly in the table component.

When you click , a new row is added or inserted to the table immediately below the currently selected row, and the focus shifts to the newly added row with the new row being selected automatically.

In-line row deleting

You can delete rows from the table component directly.

To delete rows from the table component,

1. Select the row to delete, or click additional rows while holding down **Shift** or **Ctrl** key to help select multiple continuous or non-continuous rows.

   When a single row is selected, it is highlighted and becomes editable. When a second row is selected, the editable row becomes non-editable.

2. Click **Delete Selected Rows** icon .

   A warning message pops up asking for your confirmation.

3. Click **OK** if you are sure you want to delete the selected rows.

4. Click **Save Draft** or **Save** on the page. This ensures that the data in the deleted rows are removed.

> **Save Draft** button is available if you set the `server.conf` parameter ALLOW_SAVE_REQUEST_DRAFT to `true`.

Copying and pasting row(s)

The new table component supports copying and pasting of selected row(s).

After clicking **Edit** button in the table component to switch to Edit mode, the **Copy** and **Paste** icons become visible.

Selecting a row in the table component enables the **Copy** icon , then clicking **Copy** icon enables the **Paste** icon .

Copying and pasting row(s) follows the following behaviors:

- By clicking **Copy** icon, the row(s) of your current selection are remembered, including data in the cells and cell styles (such as editable, required, visible, CSS style, and default value as defined by UI rules). You can click **Paste** repeatedly to paste the selected row(s) with their data and cell styles to desired locations in the table component until you select another row or another set of rows to copy.
- When a single row is selected, if you click **Copy** and **Paste** directly, the row is inserted immediately below the currently selected row. If you click **Copy**, then select a second row and click **Paste**, the row is inserted immediately below the second row you selected. In another word, you can select a single row and insert it below any row in the table.
- When multiple rows are selected (you can click additional rows to select them while holding down **Shift** or **Ctrl** key to help select multiple rows), if you click **Copy** and **Paste,** the selected rows are always pasted continuously below the last row in the table component. If you click **Copy**, then select another row in the table component and click **Paste**, the previously selected multiple rows are pasted continuously, immediately below the row of your current selection.

Moving row(s) up or down

The new table component supports moving row(s) up or down in the table. You can select a single row or multiple consecutive rows to move up or down in the table component.

The **Move Up** icon and **Move Down** icon become visible in the table component when you switch to Edit mode by clicking **Edit**.

To move up or move down a single row, select the desired row and click or .

To move up or move down multiple consecutive rows, click additional rows to select them while holding down the **Shift** key, then click or .

After you have finished moving up or down row(s), be sure to click **Save Draft** or **Save** to save the changes.

Note that the **Move Up** icon and **Move Down** icon are disabled in the following situations:

- The **Move Up** icon is disabled when the first row in the table component is selected.
- The **Move Down** icon is disabled when the last row in the table component is selected.
- Both icons are disabled when multiple non-continuous rows are selected.
- There are no entries in the table.

In-line row editing

All validations supported by table component can be set to editable in PPM Workbench. For the list of supported validations, see *Supported Validations* on page 62.

For validations that are set to editable in PPM Workbench, relevant table cells in the table component are editable and you can edit them directly.

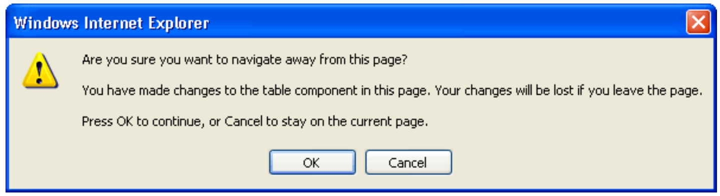
When you click a row in the table component, it becomes highlighted and editable. You can navigate the cells in an editable row by pressing the **Tab** key.

After you have finished editing cells and rows in the table component, click **Save Draft** or **Save** on the page to save the changes.

If any required fields (marked with a red star) are left empty, clicking **Save Draft** or **Save** will prompt a warning similar to the follows, reminding you to provide values for required fields before you can save the table component successfully, and the first required and focusable field will be focused.

Warning prompt when leaving current page without saving the modified table component

If a user is leaving the current page without saving the modified table component, a warning message will pop up asking for confirmation.



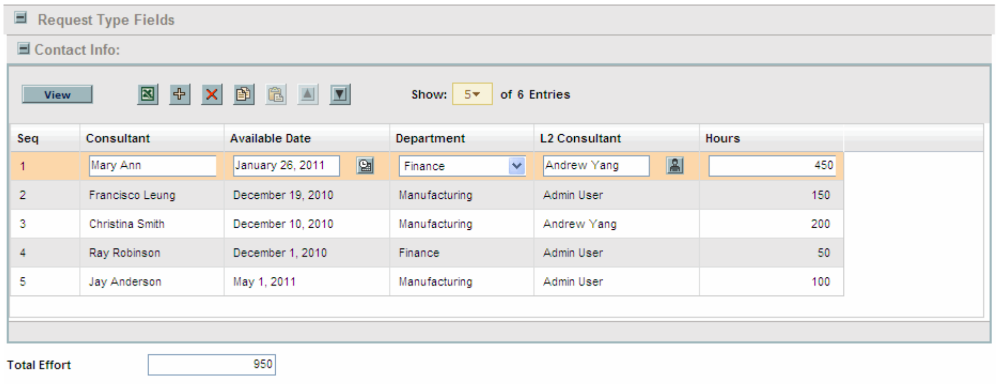
Showing Total of a Table Component Column in Real-time

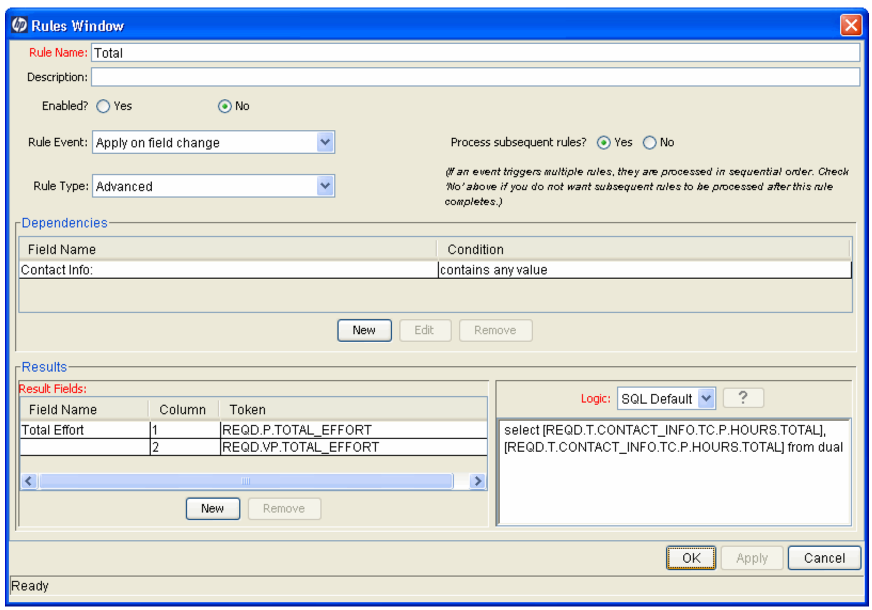
The new table component supports displaying total for a numeric column if you set **Display Total** attribute for the column to **Yes** in PPM Workbench.

- The **Total** field is visible in the table component as the last row when all rows display.
  - The **Total** value is re-calculated and displayed in real-time.
  - Supports showing the **Total** row on Printing Page.
  - Supports showing the **Total** row on exported Excel spreadsheet.
- The **Total** row is invisible in the following situations,
  - When you are not showing all entries in the table.
  - When there are no entries in the table.
  - When there is no column with **Display Total** attribute.

- Supports total token

  For example, the **Total Effort** field in the following screenshot references the total token [REQD.T.CONTACT_INFO.TC.P.HOURS.TOTAL]:

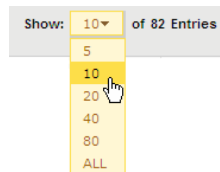




Quick Navigation through Table Rows

The new table component supports displaying current table entries and total row count in real-time. You can choose to show all entries or a certain number of entries in the table component.

When there are more than 5 entries, the **Show: *M* of *N* Entries** field appears to the right of the table component menu icons, where ***M*** is the number of entries currently displayed, ***N*** is the total number of entries in the table. For example,



- Depending on the total row count in the table, options available for ***M*** would be **5, 10, 20, 40, 80, ..., All**.
- When you add, delete, copy and paste, move up or down rows, the table component refreshes **Show: *M* of *N* Entries** status in real-time.
- When you change **Show: *M* of *N* Entries**, you refresh the table component only. The rest of the request page is not refreshed.
- The **Show: *M* of *N* Entries** status is remembered per session.
- When you set ***M*** to **ALL**, ***M*** will always display **ALL**, and the table component automatically expands to show all entries when you add, delete, or copy and paste rows.
- With ***M*** as an integer, when you add, delete, copy and paste, or move up or down rows, it always displays an integer even when ***M*** = ***N***.

Other Changes

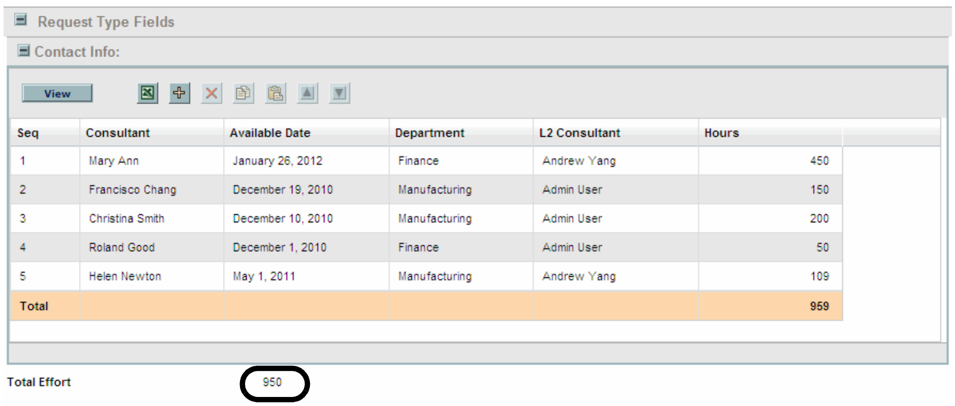
- With the new table component layout, there is no need to configure the **Form Layout** tab anymore, though it is still available.

  Now you can resize column and table width, move table rows up or down directly in the table component on a request page.

- When one field on a request page is dependent on another field in the table component, UI rule(s) are triggered and the focus (indicated with single light blue boarder lines around the table component) is lost if you click outside the table component; While on a request page with the original table component layout, the UI rule(s) are triggered by clicking **Done**.

  In the following example, the **Total Effort** field references the **Total** token [REQD.T.CONTACT_INFO.TC.P.HOURS.TOTAL]:

  - Before you click outside the table component, the **Total Effort** field value is not updated, and the single light blue boarder lines around the table indicate that the focus is on the table component:



Request Type Fields

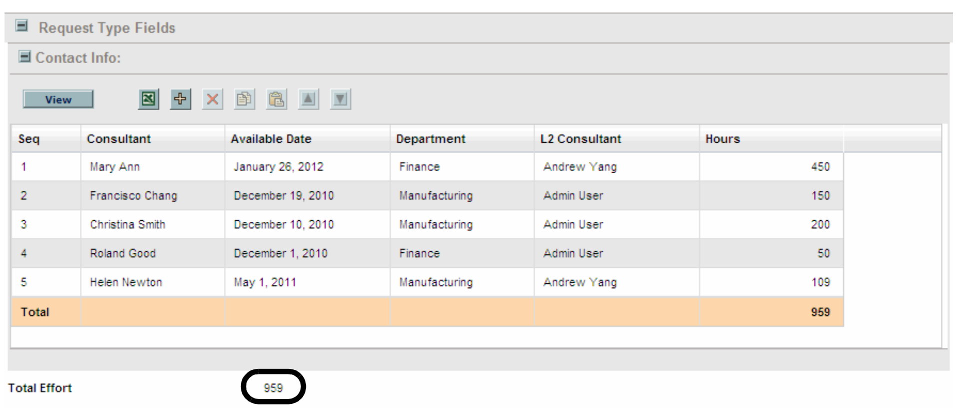
Contact Info:

View

Seq	Consultant	Available Date	Department	L2 Consultant	Hours
1	Mary Ann	January 26, 2012	Finance	Andrew Yang	450
2	Francisco Chang	December 19, 2010	Manufacturing	Admin User	150
3	Christina Smith	December 10, 2010	Manufacturing	Admin User	200
4	Roland Good	December 1, 2010	Finance	Admin User	50
5	Helen Newton	May 1, 2011	Manufacturing	Andrew Yang	109
Total					959

Total Effort 950

  - After you click outside the table component, the **Total Effort** field value is updated as a result of triggered SQL rule, and the table component focus is lost as the light blue boarder line turn gray.



Request Type Fields

Contact Info:

View

Seq	Consultant	Available Date	Department	L2 Consultant	Hours
1	Mary Ann	January 26, 2012	Finance	Andrew Yang	450
2	Francisco Chang	December 19, 2010	Manufacturing	Admin User	150
3	Christina Smith	December 10, 2010	Manufacturing	Admin User	200
4	Roland Good	December 1, 2010	Finance	Admin User	50
5	Helen Newton	May 1, 2011	Manufacturing	Andrew Yang	109
Total					959

Total Effort 959

Considerations for Using Rules in Table Component

The new table component supports using simple and advanced SQL rules and UI rules on the following two rule events:

- **Apply on creation**
- **Apply on field change**

You can use SQL rules and UI rules in the same way you use them on request level. For details about configuring advanced SQL rules and UI rules, see the *HP Demand Management Configuration Guide*.

However, note the following considerations when you configure SQL rules and/or UI rules for table component:

- Set **Process subsequent rules?** option to **`Yes`** or **`No`** for different validations.
- **Dependencies** field is not required for **Apply on creation** rule event, but required for **Apply on field change** rule event.
- **Dependencies** field supports the following validations:
  - Text field
  - Auto-complete list
  - Drop-down list
  - Date field (short, medium, and long)
- **Results** field supports the following validations:
  - Text field
  - Text area
  - Auto-complete list
  - Drop-down list
  - Radio buttons (yes/no)
  - Date field (short, medium, and long)

- Web Address (URL)
- Link

- UI rules support the following JavaScript functions:
  - `setFieldRequired ()`
  - `setFieldEditable ()`
  - `setFieldVisible ()`
  - `showMessage ()`
  - `setFieldStyle ()`

  To modify CSS styles, locate and access the `RequestRulesUserCSS.css` file in the following directory: `/opt/ppm/[`*`instance name`*`]/server/[`*`instance name`*`]/deploy/itg.war/web/knta/crt/css/`.

  For more information about these JavaScript functions, see the *HP Demand Management Configuration Guide* or access the *Request Rules JavaScript Function Help* by clicking the icon next to the **Logic** field in **Rules** window of the Validations Workbench.

- You can set table component as a dependency to trigger request type rules.
- If a field's `Display` attribute is set to **No** or the field is set invisible by its status dependency, you can not make it visible on the Web UI by using UI rules.
- When using SQL rule(s) on text field with **Apply on creation** rule event, make sure not to use strings "`~^~^~`" and/or "`~&~&~`" in any text field as they are reserved.
- When SQL rule(s) with **Apply on creation** rule event are triggered to override default value of a table component column, the default value may still display for a very short period of time (say 0.5 second) due to server speed.
- For any validation (with the exception of Text validation), if you set the **Display Only** attribute to **Yes** for a field, then using UI rule `setFieldEditable(true)` will not make the field editable.

3 Enhancements, Integrations, Certifications, and Fixes in PPM Center 9.12

This section includes information about the enhancements, integrations, certifications, and fixes in PPM Center version 9.12.

Enhancements

The following enhancements are included in PPM Center version 9.12:

- *Display of Project Number in Project Overview Page*
- *Display of Project Number in Time Sheet Lines*
- *Approval of Submitted Time Sheets for Future Periods*
- *User Control of Vertical Size of Time Breakdown Tables on Time Sheets*
- *New Report: Purge Empty Time Sheet Lines*
- *Configurable Access Grants for Request Creators*
- *New Option for Notifications: Prevent any email notifications regarding this staffing profile*
- *New Rule Event: Apply on Copy*
- *Improved Search Result in Microsoft Project*
- *PPM Center Accessibility Improvements*
- *Special Command ksc_copy_request Enhancement*
- *Detecting Multicast Routing and Configuration Issues for a Server Cluster*
- *Improved Startup Checks*

- *SQL Debugging for All Product Areas*
- *Accessing Services Exceptions Details*
- *Enabling Debugging On a Per-User Basis*
- *Improved Services Audit Results Page*
- *Accessing Application Exception Details*
- *Identifying Connection Issues*
- *Updating a Microsoft Project Work Plan Hierarchy Integrated with HP Project Management*

Display of Project Number in Project Overview Page

In version 9.12, to help users distinguish similarly named projects, the project title on the Project Overview page displays the project number (the request ID of the project) as well as the project name, in the format:

Project: <*project number*> <*project name*>

For example: **Project: 12345 Whirlwind**

See also *Display of Project Number in Time Sheet Lines*.

Display of Project Number in Time Sheet Lines

In version 9.12, to help users distinguish similarly named projects, time sheet lines for projects display the project number (the request ID of the project) below the project name, in the format:

<*project name*>
Project: <*project number*>

For example:

Whirlwind
Project: 12345

See also *Display of Project Number in Project Overview Page*.

Approval of Submitted Time Sheets for Future Periods

In version 9.12, submitted time sheets that cover future time periods appear on the Approve Time page and in the Approve Time Sheets portlet.

User Control of Vertical Size of Time Breakdown Tables on Time Sheets

In the Time Breakdown table in time sheets, users specify the amount of time they spent on various work items. The table has one time sheet line for each work item (and the time sheet line uses multiple rows if it has multiple activities). In previous versions of PPM Center (except version 8.03), the vertical size of this table is a fixed number of pixels. As a result, users who have monitors with a vertical resolution of more than 1024 pixels sometimes see considerable white space below the table on the time sheet page. If that white space were available for time sheet lines, users could see more of those lines at one time without scrolling the table.

In version 9.12 (as in version 8.03), each user can control the vertical size of the tables in his or her time sheets. To do so, the administrator must set the new `server.conf` parameter named `TM_ENABLE_GRID_RESIZE_CONTROL` and set it to `true` (it is most conveniently set by using the Administration Console).

When the administrator enables this capability, all users see three new mutually exclusive options on all of their time sheets, as buttons to the right of the **Group | Ungroup Items** options.

From left to right, the buttons have the following appearance and corresponding tooltips (mouseovers):

- One horizontal line, with the tooltip Small
- Two horizontal lines, with the tooltip Medium
- Three horizontal lines, with the tooltip Large

The button (option) the user selects controls the vertical size (number of vertical pixels) available for displaying the Time Breakdown table, for all of that user's time sheets, existing and new. The option affects all of the tabs of the table, and it persists until the user changes it.

The default option for each user is Small, which results in the same vertical table size as previous versions of PPM Center. Users who select Medium or Large might see more time sheet lines as soon as the page is loaded (that is, without scrolling the table), and they might see less white space below the table.

New Report: Purge Empty Time Sheet Lines

The Purge Empty Time Sheet Lines report purges empty time sheet lines from the database.

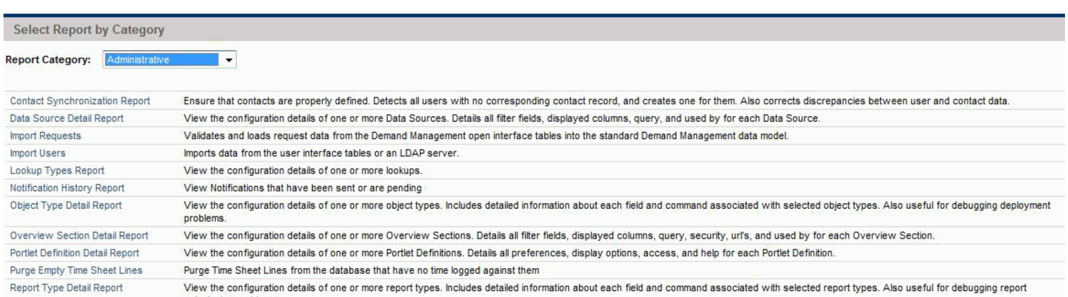
An empty time sheet line is defined as a line in which no actual effort has been entered. This does not mean a time sheet line that has a total effort of 0 because you are allowed to enter negative time as effort.

To keep the data growth under control, HP recommends that you run this report periodically. Optionally, you can prevent resources from submitting empty time sheet lines by using time sheet policies. For more information about how to specify the level of enforcement for empty lines, see the *HP Time Management Configuration Guide*.

- This report only removes empty time sheet lines from times sheets that are in one of the following states:
  - Closed
  - Frozen
  - Canceled
- This report is restricted to users having a User Administration license.

Creating a Purge Empty Time Sheet Lines Report

After you install PPM Center version 9.12, the Purge Empty Time Sheet Lines report is available under the **Administrative** category by clicking **Create > Report** menu.


Select Report by Category

Report Category: Administrative

Contact Synchronization Report	Ensure that contacts are properly defined. Detects all users with no corresponding contact record, and creates one for them. Also corrects discrepancies between user and contact data.
Data Source Detail Report	View the configuration details of one or more Data Sources. Details all filter fields, displayed columns, query, and used by for each Data Source.
Import Requests	Validates and loads request data from the Demand Management open interface tables into the standard Demand Management data model.
Import Users	Imports data from the user interface tables or an LDAP server.
Lookup Types Report	View the configuration details of one or more lookups.
Notification History Report	View Notifications that have been sent or are pending
Object Type Detail Report	View the configuration details of one or more object types. Includes detailed information about each field and command associated with selected object types. Also useful for debugging deployment problems.
Overview Section Detail Report	View the configuration details of one or more Overview Sections. Details all filter fields, displayed columns, query, security, url's, and used by for each Overview Section.
Portlet Definition Detail Report	View the configuration details of one or more Portlet Definitions. Details all preferences, display options, access, and help for each Portlet Definition.
Purge Empty Time Sheet Lines	Purge Time Sheet Lines from the database that have no time logged against them
Report Type Detail Report	View the configuration details of one or more report types. Includes detailed information about each field and command associated with selected report types. Also useful for debugging report submission problems.

To create and submit a Purge Empty Time Sheet Lines report, follow these steps:

1. Log on to PPM Center.
2. From the menu bar, select **Create > Report**.

   The Submit New Report page opens.

3. From the **Select Report by Category** section, select **Administrative** from the **Report Category** drop-down list.

   A list of all administrative reports appears.

4. Click **Purge Empty Time Sheet Lines** in the list.

   The **Submit Report: Purge Empty Time Sheet Lines** window opens.

5. To define the report results you want, type or change information in the fields under the **Report Parameters** section.

   For more information, see the *Report Parameters* section.

6. To run the report at a later time, on a periodic basis, or provide a brief notification once the report is finished, expand the **Scheduling** section, and then type or change the information in this section according to the task you want to accomplish.

   For more information, see the *Reports Guide and Reference*.

7. To add a notification that has more comprehensive features than those available with Send email to, expand the **Advanced Notifications** section, and then configure the advanced notification settings according to your requirement.

   For more information, see the *Reports Guide and Reference*.

8. Click **Submit.**

   The report will run immediately, at a later time, or on a periodic basis. This depends on your settings in the Scheduling section.

Report Parameters

This report has four parameters (as shown in *Figure 3-1*). These parameters are described in *Table 3-1*.

Figure 3-1. Report parameters

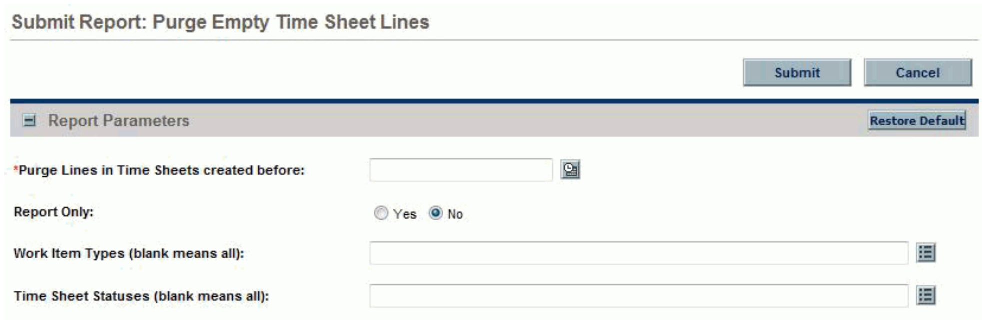


Table 3-1. Purge Empty Time Sheets Lines field descriptions (page 1 of 2)

Field Name (*Required)	Description	Default Value
* Purge Line in Time Sheets created before	Specifies the time threshold of the purge. Only time sheets with period end dates prior to this date will have empty lines deleted.	Blank When you open the calendar, the current date is highlighted.
Report Only	Indicates whether or not to generate a report without deleting the eligible empty time sheet lines. If you set this field to Yes, no lines will be deleted. In this case, only a report of the empty lines that are eligible to delete is generated.	No, which means all eligible empty time sheet lines are deleted after the report completes.

Table 3-1. Purge Empty Time Sheets Lines field descriptions (page 2 of 2)

Field Name (*Required)	Description	Default Value
Work Item Types	Specifies which work item types are eligible to have empty lines deleted.	Blank, which means this report processes time sheet lines of all work item types.
Time Sheet Statuses	Specifies the states of time sheets to process. Only time sheets in the specified states will have empty lines deleted. Choices include: • Closed • Canceled • Frozen	Blank, which means this report processes empty lines for time sheets in all the following states: • Closed • Canceled • Frozen

Report Output

The output of this report includes:

- Report parameters
- The number of time sheet lines that were purged for each period (categorized by period type), work item type, and time sheet status
- The total number of time sheet lines that were purged

Figure 3-2 shows an example of the report output.

Figure 3-2. Report output

Report Parameters

Report Name: Purge Empty Time Sheet Lines

Run Date: September 28, 2010 08:38 AM EEST

Purge Lines in Time Sheets created before: 2010-09-28 00:00:00 | Report Only: Yes

Work Item Types (blank means all): | Time Sheet Statuses (blank means all):

Time Sheet Lines to Purge, by Period

Period Type	Period	Time Sheet Lines to Purge
Semi-Monthly	08/16/10 - 08/31/10	1
	07/16/10 - 07/31/10	4
	Total:	5
Bi-Weekly	08/09/10 - 08/22/10	51
	07/26/10 - 08/08/10	51
	07/12/10 - 07/25/10	51
	Total:	158

Time Sheet Lines to Purge, by Work Item Type

Work Item Type	Total
Package	33
Request	32
Project	31
Misc	32
Task	30
Total:	158

Time Sheet Lines to Purge, by Time Sheet Status

Work Item Type	Total
Frozen	52
Cancelled	51
Closed	55
Total:	158

Configurable Access Grants for Request Creators

In PPM Center version 9.12, the View and Edit access grants for the creator of a request become configurable. Therefore, you can restrict the creator's permissions on a request by configuring these access grants.

This enhancement is typically used in scenarios like the following:

- The request creator is assigned a new role that should not have enough permission to view or edit the requests he or she created.
- You delegate the creation of a request to someone who should not be able to view or edit the request after it is created.

To configure the View and Edit access grants for the creator of a request, follow these steps:

1. Open PPM Workbench, and then select **Demand Mgmt** > **Request Types**.

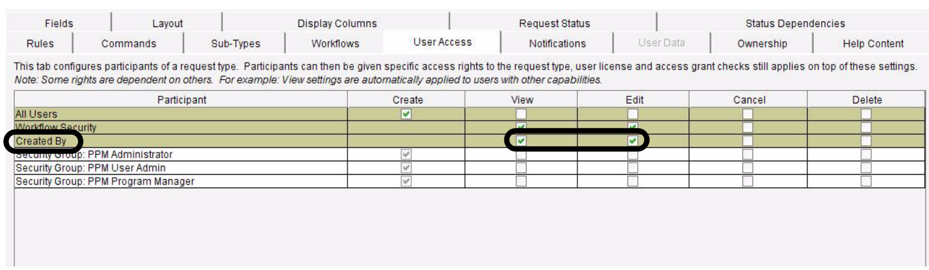
   The Request Type Workbench opens.

2. Open the corresponding request type.

   The Request Type window opens.

3. Click the **User Access** tab. Note that the View and Edit access grants for the Created By participant are configurable.

4. Select or clear the check boxes for these access grants according to your business needs.

   By default, the **View** and **Edit** access grants are selected.

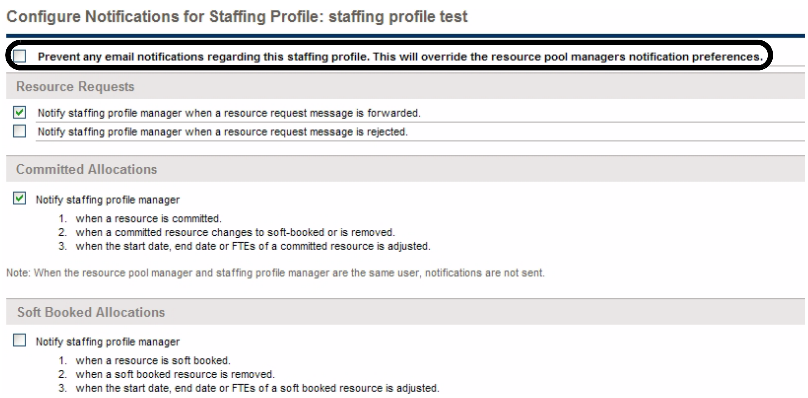
   If you uncheck these two access grants, the request creator cannot view or edit the request unless other security settings provide the creator with the View and Edit access grants to the request.

Limitation

Currently, this enhancement is only available for PPM Center version 9.12 and version 8.03. Request types migrated from other versions do not support this enhancement.

New Option for Notifications: Prevent any email notifications regarding this staffing profile

A new option **Prevent any email notifications regarding this staffing profile** is available on the Configuration Notifications page of a staffing profile.



➤ By default, this option is unchecked. Checking this new option disables all the other options on this page.

This new option is intended for staffing profiles linked to confidential projects. The option enables you to prevent any email notifications about the staffing profile from being sent out. Therefore, checking the option protects the confidential information about the staffing profile and the corresponding project.

For example, by checking this option, you disable the email notifications that the system generates when resource requests are sent to resource pools.

➤ These automatically-generated email notifications cannot be disabled by any original options on the Configuration Notifications page. With the new option checked, only users having the appropriate permissions, such as the staffing profile manager, the resource pool manager, and the project manager can view the resource requests after they log on to the system.

New Rule Event: Apply on Copy

The **Apply on copy** rule event is available in PPM Center version 9.12. When you create a rule by using this rule event for a request type, the rule will be triggered when the requests of that type are copied.

Consider the following scenario for the general usage of the **Apply on copy** rule event:

You create request rules for a request type to achieve dynamic field changes. Requests of this type are frequently copied by multiple PPM users. The rules are expected to be triggered when the users copy the requests.

In this scenario, you can set the rule event of your request rules to **Apply on copy**.

Creating Rules With the "Apply on copy" Rule Event

After you install PPM Center version 9.12, the **Apply on copy** rule event will be available in the Rule Event list of the Rules Window panel in PPM Workbench.

To make the rule be triggered when the corresponding requests are copied, select the Apply on copy rule event in the Rule Event list.

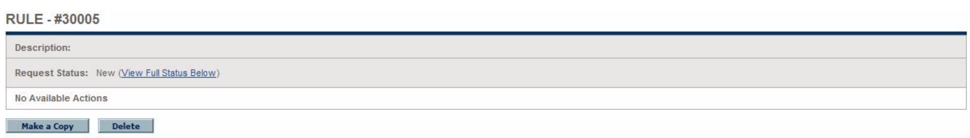
This enhancement only affects the rule event selection step for the request rule creation. The other steps remain the same. For detailed steps about how to create request type rules, see the *Request Type Rules* section of the *HP Demand Management Configuration Guide*.

- The **Apply on copy** rule event is supported in both the simple defaults and the advanced rule types.
- When selecting the **Apply on copy** rule event, you are able to configure field dependencies. This feature is not supported in the **Apply on creation** rule event.
- If a request type contains rules of the **Apply on copy** rule event and rules of the **Apply on creation** rule event, only the **Apply on copy** rules are triggered when users copy the requests of that type.

Triggering "Apply On Copy" Rules

After you create a rule with the **Apply on copy** rule event for a request type, the rule will be triggered when you (or other users) copy the requests of that type.

To copy a request, click **Make a Copy** above the Header section on the detail page for the request.



For detailed steps about how to copy a request, see the *Creating Requests by Copying Requests* section of the *HP Demand Management User's Guide*.

Improved Search Result in Microsoft Project

In Microsoft Project, the project search result is presented in a more user-friendly manner where only projects for which you are the project manager are returned. Therefore, all the projects returned in the search result are accessible, meaning that you can open these projects from PPM Center, and send them to PPM Center.

To search projects in Microsoft Project, you must have the following access grants:

- Project Mgmt: Edit Projects
- Project Mgmt: Synchronize Work Plans

PPM Center Accessibility Improvements

PPM Center version 8.03 introduced several enhancements to improve the accessibility of PPM Center for people with disabilities. The enhancements are primarily in the area of improved navigation for easier use of PPM Center with assistive technologies, such as screen readers.

Now the **Site Map** and **Skip Navigation** links are available on all PPM Center pages, which are configurable through the new `server.conf` parameters listed in *Table 3-2*.

Table 3-2. New `server.conf` parameters introduced

Parameter	Description
ENABLE_SITE_MAP	Enables the **Site Map** link in the header of each page, when set to `true`. Default: `false`
ENABLE_SKIP_NAVIGATION	Enables the **Skip Navigation** link in the header of each page, when set to `true`. Default: `false`

Navigation enhancements introduced to PPM Center pages include:

- **Create Request** page and **View Request** page (including the request look-ahead page)
    - Improved navigation to various sections of the request and workflow section, via headings.
    - Provided meaningful names for links on the page and for frames within autocomplete dialogs.
    - Added titles to fields and buttons, including workflow buttons.
    - Added navigable support to all autocomplete dialogs.
    - Added accessibility support for field-level and section-level help.

- **Search Request** page and **Advanced Search** page
  - Improved navigation to various sections of the page via headings.
  - Provided meaningful names for links on the page and for frames within autocomplete dialogs.
  - Added titles to fields and buttons.
  - Added navigable support to all autocomplete dialogs.
  - Added support to identify rows and columns within table components.
  - Added support for navigation within the **Choose Columns** section.
- **Search Request Results** page
  - Improved navigation to various sections of the page via headings.
  - Provided meaningful names for links on the page.
  - Added support to identify rows and columns within table components.
- **View Reports** page
  - Added support to identify rows and columns within table components.

Special Command ksc_copy_request Enhancement

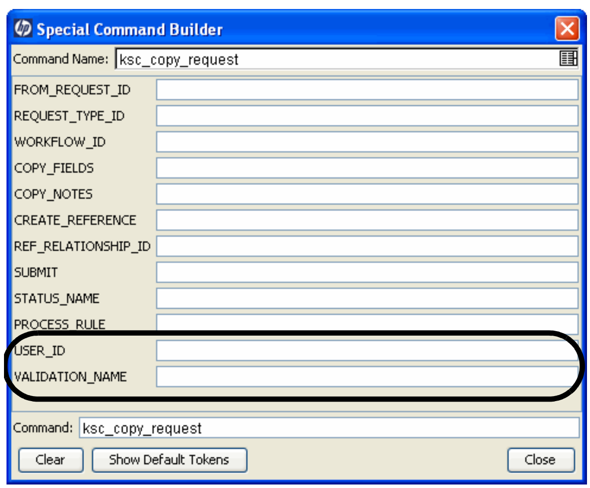
The special command ksc_copy_request is enhanced with two additional parameters introduced in PPM Center version 9.12, so that you can,

- Specify the creator of the copied requests;
- Map fields between source and target requests.

Table 3-3 lists the new parameters introduced.

Table 3-3. New ksc_copy_request parameters introduced

Parameter	Description
USER_ID	Specifies creator user ID of the new request.
VALIDATION_NAME	Specifies a validation to store copied fields with different tokens. The value of the destination token will be replaced by the value of the source token. The source token, source visible token, token type, and destination token are stored in the user data of validation values. You can configure multiple validation values to store multiple pairs of source and target fields. For information about configuring user data for validation values to store field token mappings between source and target requests, see *Enabling User Data Tab for Validations*.



Enabling User Data Tab for Validations

In order to use the enhanced special command ksc_copy_request for the purpose of copying request, you need to create a validation of Auto Complete List component type and validated by List, then enable the User Data tab for the validation value by defining a user data for it.

Create a Validation

To configure a validation,

1. Log on to PPM Center.
2. From the menu bar, select **Open > Administration > Open Workbench**.

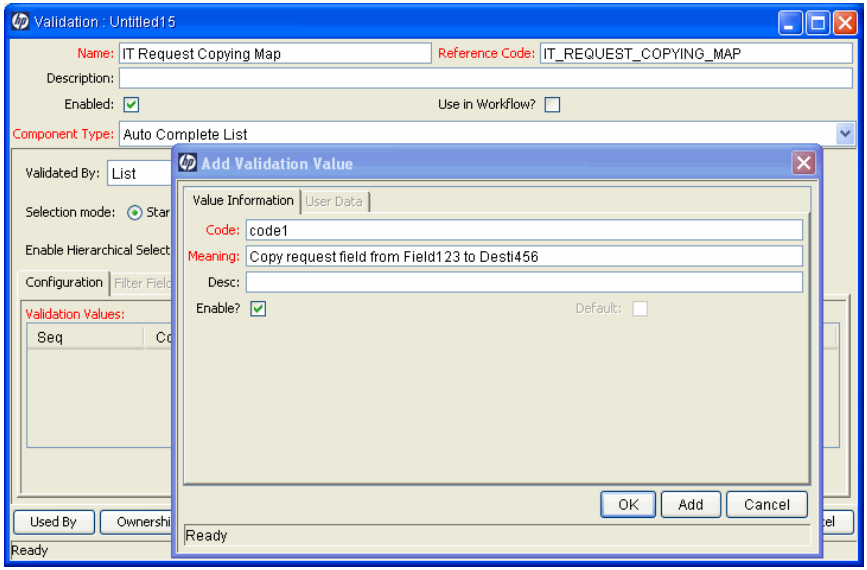
   The PPM Workbench opens.
3. From the shortcut bar, select **Configuration > Validations**.

   The Validation Workbench opens.
4. Click **New Validation**.

   The Validation window opens.
5. Provide the following information:
   - **Name**: Name of the new validation. For example, **`IT Request Copying Map.`**
   - **Reference Code**: Accept the default value.
   - **Enabled**: Select the checkbox.
   - **Component Type:** Auto Complete List.
   - **Validated By**: List

   For more information about configuring validations, see the *Commands, Tokens, and Validations Guide and Reference*.
6. In the Validation Values section, click **New** to add a validation value.

   The Add Validation Value window opens.
7. Provide the information for the validation value.



8. Click **OK**.

Enable User Data Tab for Validations

To define a user data and enable the User Data tab for a validation,

1. From the PPM Workbench shortcut bar, select **Configuration > User Data**.

   The User Data Workbench opens.

2. Click **New**.

   The User Data Context window opens to the Fields tab.

3. Click **User Data Type** auto-complete.

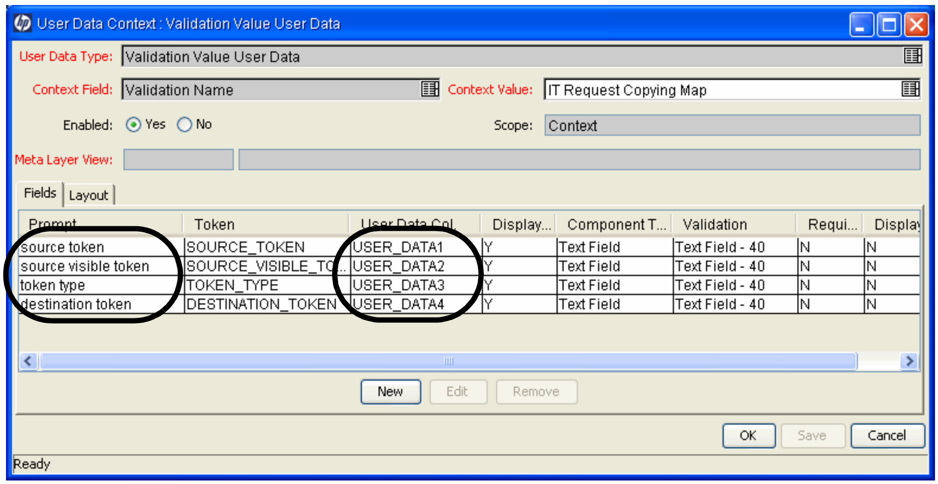
   The **User Data Type** field displays the value **Validation Value User Data**, the **Context Field** field displays the value **Validation Name**, and the **Scope** field displays **Context**.

4. Click the **Context Value** auto-complete, and select the validation you just created in *Create a Validation*. In this example, **IT Request Copying Map**.

5. On the Fields tab, click **New**.

6. Create four fields by strictly following the pairing order below:

Field Prompt	Token	User Data Col.
source token	SOURCE_TOKEN	USER_DATA1
source visible token	SOURCE_VISIBLE_TOKEN	USER_DATA2
token type	TOKEN_TYPE	USER_DATA3
destination token	DESITINATION_TOKEN	USER_DATA4



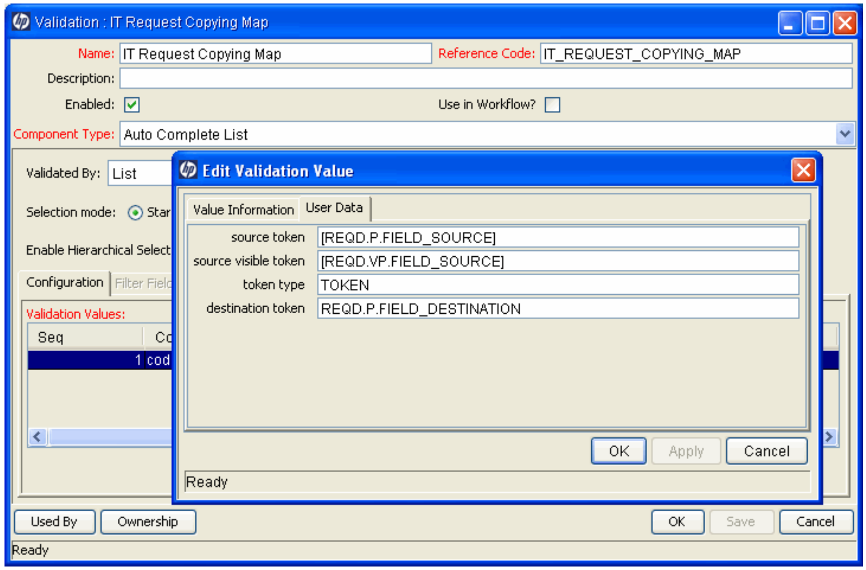
- You can use different names for field prompts, but be sure that USER_DATA1 is paired to source token, USER_DATA2 to source visible token, USER_DATA3 to token type, and USER_DATA4 to destination token.
- For token type, if you want to use both TOKEN and SQL, you may use drop down list as the component type and include TOKEN and SQL options in its validation.

7. Click **OK**.

   The user data is defined for validation **IT Request Copying Map**.

8. (Optional) Go to Validation Workbench and open the validation **IT Request Copying Map**.

   Open the validation value, the User Data tab is now enabled in the Validation Value window.



Creating Multiple Field Pairs

The user data for one validation value stores one pair of source and target fields. If you need to copy multiple request fields, you can add and configure more validations values to specify and store multiple source and target field tokens.

Taking validation **IT Request Copying Map** as an example, to create multiple field pairs,

1. In the Validation Workbench, open the validation **IT Request Copying Map**.

   The Validation: IT Request Copying Map window opens.

2. In the Validation Values section, click **New**.

   The Add Validation Value window opens to Value Information tab.

3. Provide the information for the validation value on the Value Information tab.

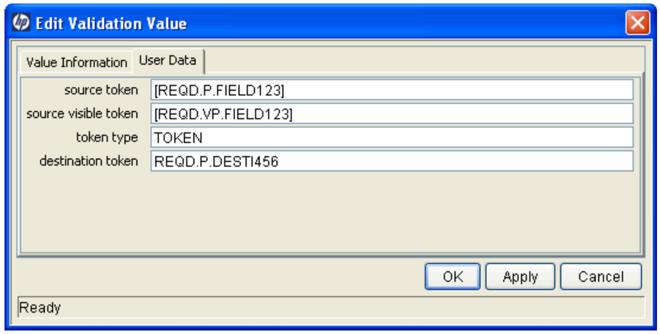
   For more information about Value Information tab, see the *Commands, Tokens, and Validations Guide and Reference*.

4. Click **User Data** tab, provide token values of source and target request fields for the following fields:

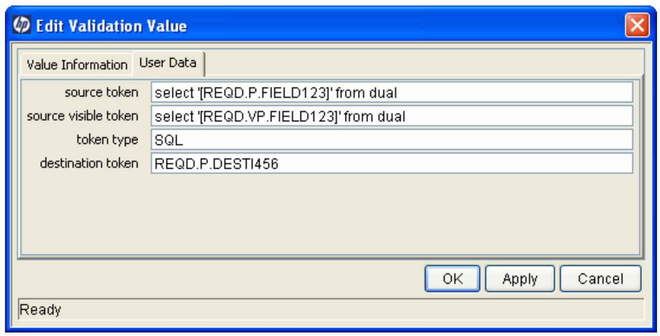
Field Prompt	Description
source token	Invisible token of the source field to be copied from. Value example: • When token type is `TOKEN`: `[REQD.P.FIELD_SOURCE];` • When token type is `SQL`: `select '[REQD.P.FIELD_SOURCE]' from dual`
source visible token	Visible token of the source field to be copied from. Value example: • When token type is `TOKEN`: `[REQD.VP.FIELD_SOURCE];` • When token type is `SQL`: `select '[REQD.VP.FIELD_SOURCE]' from dual`
token type	Specifies supported token type. Valid value: `TOKEN` or `SQL`. **Note:** Only **`TOKEN`** and **`SQL`** are supported.
destination token	Token of the destination field to be copied to. Value example: • When token type is `TOKEN`: `REQD.P.FIELD_DESTINATION;` • When token type is `SQL`: `REQD.P.FIELD_DESTINATION.` **Note:** No square brackets for the destination token value.

For example, if you want to copy the value from field **Field123** to field **Dest456,**

- When token type is `TOKEN`,



- When token type is `SQL`,



5. Click **Add**.

6. Repeat step 2 through step 5 to add more validation values.

Using Special Command ksc_copy_request

When you have configured a validation for the purpose of copying request, you are ready to create a request with the special command ksc_copy_request configured in a workflow to copy any specified request, with the original creator ID and the request fields.

A special command example is as follows:

```
ksc_copy_request FROM_REQUEST_ID="[REQ.REQUEST_ID]"
      USER_ID="[USER_ID]" VALIDATION_NAME="[VALIDATION_NAME]"
```

Detecting Multicast Routing and Configuration Issues for a Server Cluster

In earlier PPM Center versions, if multicast traffic could not pass between two nodes in a server cluster, the nodes ran in isolation and no warning was issued. The only way to determine whether the nodes were communicating was to use the JGroups send and receive test utilities.

Now, PPM Center logs clear warnings in the server logs if multicast traffic has not been detected from a node after a specified time interval has elapsed, even though the node can be reached on its JMS connection factory and the PPM_SERVER_INSTANCE table indicates that the node is running. You can configure the amount of time that must pass before PPM Center logs warnings by setting the new `MULTICAST_WARNING_MINUTES` server configuration parameter.

Node behavior is monitored somewhat differently on the `MULTICAST_PORT` and `APP_SERVER_MULTICAST_PORT` ports. To provide system administrators with better visibility into multicast behavior, server logging was improved as follows:

- The `APP_SERVER_MULTICAST_PORT` port (used to coordinate cluster nodes) logs the following warning if no traffic has been received since either the current node was started, or since other nodes were started:

  ```
  No multicast traffic has been received on the APP_SERVER_
  MULTICAST_PORT port since this node was started, even though
  other nodes in the cluster appear to be active. Please check
  your multicast routing and/or configuration, the APP_SERVER_
  MULTICAST_PORT parameter(in server.conf), or your firewall
  settings.
  ```

  After data first comes in on the port, PPM Center logs the following message just once:

  ```
  First data received on APP_SERVER_MULTICAST_PORT.
  ```

- The `MULTICAST_PORT` (used to monitor the cluster) tracks incoming messages from each node individually. After a given node (X) is first heard from on the port, PPM Center logs the following message to the server log just once:

  ```
  Node X is reachable on MULTICAST_PORT.
  ```

If a node is not heard from on the `MULTICAST_PORT` port, PPM Center logs the following message:

```
No multicast traffic has been heard from node X on the
MULTICAST_PORT port for over 3 minutes, even though the node
appears to be up. Please check your multicast routing and/or
configuration, the APP_SERVER_MULTICAST_PORT parameter(in
server.conf), or your firewall settings.
```

You can disable the multicast monitoring feature by setting the `MULTICAST_WARNING_MINUTES` server configuration parameter to zero or less. HP strongly recommends that you not disable the feature unless HP Software Support specifically requests that you do so.

Improved Startup Checks

To help catch common configuration and deployment issues, PPM Center now performs basic startup checks before starting. These checks include:

- Making sure that essential `server.conf` parameters are present.
- Making sure that none of the ports required by PPM Center are already bound by other processes.
- Making sure that all ports used by the nodes on a given physical server have unique values.

➤ Because of these new startup checks, you may encounter more configuration errors in 9.12 (and beyond) that prevent a PPM Server from starting (whereas a successful start was allowed on a previous version).

A summary of all issues found during the startup checks is traced out into the server log of the node being started. If PPM Center is running as a Windows service, an error is added to the Windows event log asking you to refer to the server log when errors are found. In some rare cases that the server logs could not provide useful details, we recommend that you start PPM Center in the console mode by using the `kstart.sh` script, and then troubleshoot the configuration and deployment issues. After you fix these issues, you can start PPM Center as a Windows service again.

Errors fall into two categories:

- **Critical errors (Error messages)**: These errors relate to the node being started. PPM Center will refuse to start if there are any critical errors.
- **Non-critical errors (Warning messages)**: These errors relate to other nodes in server.conf than the one being started. It is highly recommended to fix such errors, however they will not prevent the startup. All nodes in the `server.conf` file are checked when any one node is started.

Bypassing the Startup Checks

The `com.kintana.core.server.BYPASS_STARTUP_CHECKS` parameter is introduced in version 9.12 in the `server.conf` file. By default, this parameter is set to `false`.

You can bypass the startup checks by setting this parameter to `true`:
`com.kintana.core.server.BYPASS_STARTUP_CHECKS=true`

This parameter should only be used under advisement from PPM customer support engineers, and if there is a clear and well-understood reason for doing so.

Comprehensive Logging During PPM Server Startup

PPM Center version 9.12 includes a significant number of improvements to the application startup process, from both a logging and configuration validation standpoint. One of the goals of the improvements is to provide customers with as much information as possible about the validity of the configuration of their clustered environments.

Displaying Failed Executions at Startup

To enable the display of failed server executions at startup, make sure that the `FAIL_EXECUTIONS_ON_STARTUP` server configuration parameter is set to `true` in the `server.conf` file. All executions that were interrupted during the last PPM Center shut-down are marked as failed.

Displaying Configuration Parameters at Startup

You can now enable the display (and logging) of all PPM Center server configuration parameters used during startup. To enable this feature, set the `SHOW_PARAMETERS_AT_STARTUP` server configuration parameter to `true`.

Adjusting the Server Log Level

Server startup logs indicate what the server is doing at each step of the startup process (including the successful start of each web context). By default, when the startup check catches a configuration or deployment issue, only a error or warning message will be generated in the server logs. You can modify the logging level to get more details by adding the following entries in the logging.conf file.

```
com.kintana.core.logging.SYSTEM_THRESHOLD = INFO
com.kintana.core.logging.PRODUCT_FUNCTION_LOGGING_LEVEL =
com.kintana.core.server.ServerStartupSanity, INFO
```

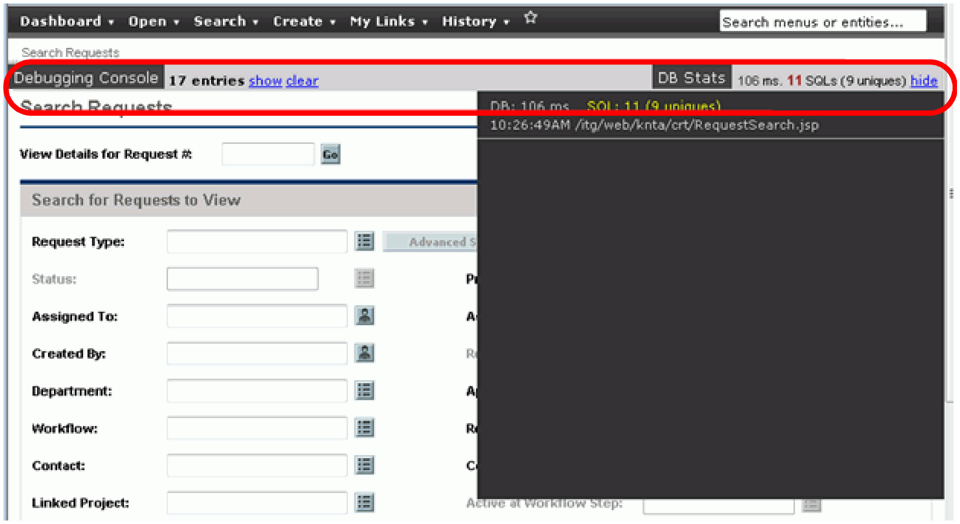
These parameters are designed for advanced troubleshooting. We do not suggest modifying these parameters without advisement from PPM customer support engineers.

SQL Debugging for All Product Areas

If you turn on SQL debugging, PPM Center now collects statistics for the following legacy product areas:

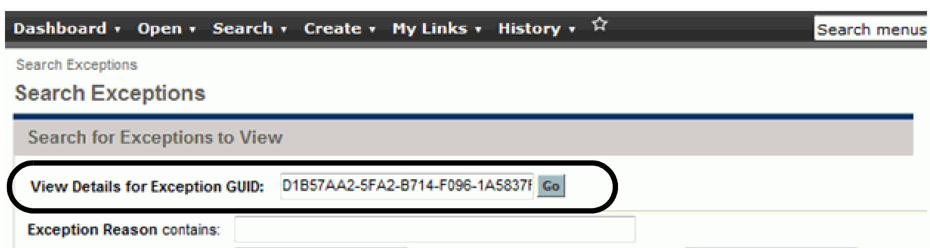
- HP Demand Management web pages
- HP Deployment Management web pages

The debugging console display includes information about the SQL statements executed by the legacy code. The web pages of the legacy areas now display the debugging console.



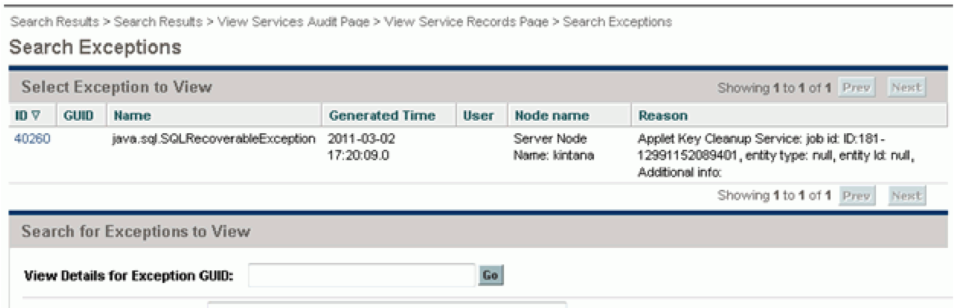
Accessing Services Exceptions Details

In earlier PPM Center versions, exceptions thrown by background services were not immediately visible to users, even though they were recorded in the logs. Now, on the Services Audit Results page, you can see whether any services have thrown exceptions.



If a service has encountered one or more exceptions or errors during its last 50 runs, a red icon (!) is displayed to the left of the service name on the Services Audit Results page. You can change the threshold for displaying the icon by changing the value for the `SERVICE_RECORDS_RETAIN_COUNT` server configuration parameter in the `server.conf` file.

To view details about exceptions a service has encountered, click the service name. The Search Exceptions page opens and displays a list of the exceptions.



The Search Exceptions page provides the following information:

- Presence or absence of exceptions during a particular service run.
- Name of the node on which the service was run
- Time the service run started
- Time the service run finished
- Duration of the run, in seconds
- Any additional information provided by the service. All services by default provide the memory footprint during the start and end of the service. This information is useful to troubleshoot any issues related to memory consumption by a service run.

To enable this functionality, add the `LOG_EXCEPTIONS_TO_DB` server configuration parameter to the `server.conf` file and set its value to `true`.

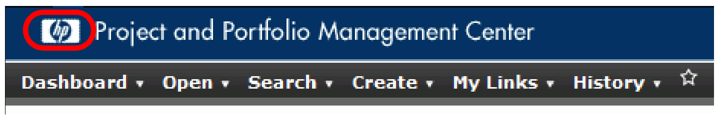
Purging Exceptions Thrown by Services

Whenever a service run is deleted from the system, the exceptions related to that service run are also removed. By default, the system retains the 50 most recent service run records. You can change this by setting a new value for the `SERVICE_RECORDS_RETAIN_COUNT` server configuration parameter in the `server.conf` file.

Enabling Debugging On a Per-User Basis

With PPM Center 8.03, you can turn on the debugging console and set a server logging threshold on a per-user basis.

To enable turning on the debugging console for individual users, add the `SHOW_DEBUGGING_CONSOLE_PER_USER` server configuration parameter to the `server.conf` file, and set it to `true`. After you do, a user logged on to PPM Center can toggle the debugging console by pressing and holding the **ALT** key and clicking the HP logo, which is located above the menu bar.



If you customize the logo using a copy of the `web/knta/global/Header.jsp` file, to use this feature, make sure that you customize the copy of the `Header.jsp` file included in the PPM Center 8.03 bundle.

PPM Center supports the following log levels.

Log Level	Description
DEBUG	Print fatal, status, error, warning information and debug log (used in debugging)
INFO	Print fatal, status, error, warning and information log
WARN	Print fatal, status, error and warning
ERROR	Print fatal, status, and error log (default)
STATUS	Print fatal and status messages (Not recommended)
FATAL	Print only fatal messages (Not recommended)

To enable debug logging to the `serverLog.txt` file for a specific user:

1. Set the `ENABLE_DEBUGGING_PER_USER` server configuration parameter to `true`.
2. Open the `logging.conf` file in a text editor, and then set the `USER_THRESHOLD` parameter as follows:

```
USER_THRESHOLD = <PPM_Username>, <Log_Level>
```

3. To configure finer-grained logging than that specified by the `SYSTEM_THRESHOLD` parameter, add the following to the `logging.conf` file:

```
com.kintana.core.logging.USER_THRESHOLD = <Username>,
<Log_Level>
```

The `logging.conf` file is read periodically, so there is no need to restart the PPM Server(s) to enable debug logging specific to the user.

Logging occurs only for that particular user.

To enable the debug console for multiple users, add `USER_THRESHOLD` values (on separate lines).

Example:

```
USER_THRESHOLD = gchu, DEBUG
USER_THRESHOLD = pchapin, DEBUG
USER_THRESHOLD = bkordon, DEBUG
```

If the log level value meets the threshold criteria of *either* the `USER_THRESHOLD` (set for that user) or the `SYSTEM_THRESHOLD`, then the message is logged.

Example 1

```
SYSTEM_THRESHOLD = ERROR
USER_THRESHOLD = ddalton, DEBUG
```

In Example 1, for a user logged in as ddalton, the system logs all DEBUG and higher (INFO, WARN, ERROR, STATUS and FATAL) messages. For any other user, the system logs only ERROR, STATUS and FATAL messages.

Example 2

```
SYSTEM_THRESHOLD = DEBUG
USER_THRESHOLD = ddalton, ERROR
```

In Example 2, the system logs all messages for all users. In this case, the `USER_THRESHOLD` value (`ERROR`) set for ddalton has no effect.

Improved Services Audit Results Page

PPM Center version 8.03 improves the Services Audit Results page by adding the **Last Run Node** column.

Services Audit Results

Service Name	Status	Is Running?	Run Interval	Last Run Node	Last Completed Run	Next Scheduled Run
ALM Startup	Disabled		Every minute	-	-	-
Applet Key Cleanup Service	Enabled		Every 6 hours	PPM_803	Mar 18, 2011 8:34:38 AM CST	Mar 18, 2011 2:34:37 PM CST
Commands Cleanup Service	Enabled		Every 270 minutes	PPM_803	Mar 18, 2011 9:04:43 AM CST	Mar 18, 2011 1:34:43 PM CST
Concurrent Request Watch Dog	Enabled		Every 30 seconds	-	Mar 18, 2011 10:40:06 AM CST	Mar 18, 2011 10:40:36 AM CST
Cost Rate Rule Update Service	Enabled		Every hour	PPM_803	Mar 18, 2011 9:54:29 AM CST	Mar 18, 2011 10:54:29 AM CST
Cost Rollup Service	Enabled		Every hour	PPM_803	Mar 18, 2011 9:54:30 AM CST	Mar 18, 2011 10:54:29 AM CST
Debug Messages Cleanup Service	Enabled		Every 6 hours	PPM_803	Mar 18, 2011 8:34:38 AM CST	Mar 18, 2011 2:34:38 PM CST
Directory Cleanup Service	Enabled		Every 24 hours	PPM_803	Mar 18, 2011 8:00:00 AM CST	Mar 19, 2011 8:00:00 AM CST
Document Cleanup Service	Disabled		Every 24 hours	-	-	-
Task Actual Rollup Service	Enabled		Every 250 seconds	PPM_803	Mar 18, 2011 10:39:11 AM CST	Mar 18, 2011 10:43:21 AM CST
Task Scheduler Service	Enabled		Every minute	-	Mar 18, 2011 10:39:38 AM CST	Mar 18, 2011 10:40:37 AM CST
Time Sheet Notifications	Enabled		Every 2 hours	PPM_803	Mar 18, 2011 9:54:31 AM CST	Mar 18, 2011 11:54:30 AM CST
TM-PM Sync Service	Enabled		Every 3 hours	-	Mar 18, 2011 10:34:30 AM CST	Mar 18, 2011 1:34:30 PM CST
Work Item Pending Assignment Service	Enabled		Every 30 seconds	PPM_803	Mar 18, 2011 10:40:08 AM CST	Mar 18, 2011 10:40:37 AM CST
Work Item Pending Update Service	Enabled		Every 2 minutes	PPM_803	Mar 18, 2011 10:38:38 AM CST	Mar 18, 2011 10:40:37 AM CST
Workflow Timeout Reaper	Enabled		Every 30 seconds	PPM_803	Mar 18, 2011 10:40:08 AM CST	Mar 18, 2011 10:40:37 AM CST

The value on this column represents the node on which the service ran the last time. If the service is currently running when you access this page, the value indicates the node on which the service is running. A dash (-) character indicates that the corresponding service has been triggered, but the service has not run because it does not have any data to process.

➤ This column is designed for services that are enabled. For services that are disabled, a grayed-out dash (-) character will be noted on this column.

Additionally, the column “Last Run Time” is renamed to “Last Completed Run.” Similarly, “Next Scheduled Run Time” is renamed to “Next Scheduled Run.”

Accessing Application Exception Details

Previously, exceptions thrown by PPM Center background services were not immediately visible to PPM Center users, even though they were recorded in the logs. With this release, if an exception occurs, the user sees an error message that displays a GUID number and advises the user to contact the PPM Center administrator. The PPM Center administrator can then get detailed information about the exception from the new Search Exceptions page.

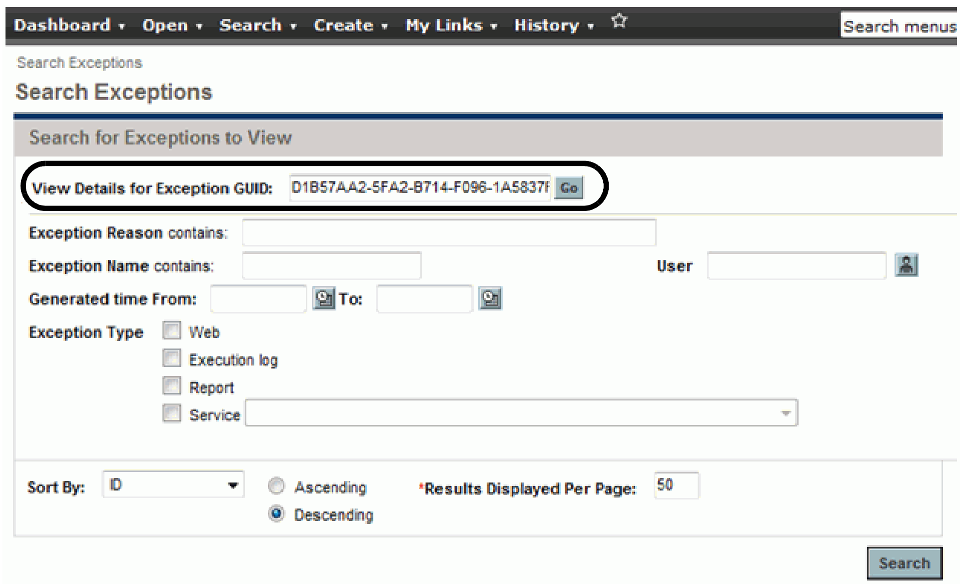
➤ To access the Search Exceptions page, you must have an Administrator license and the “Server Tools: Execute admin tools” access grant.

To enable this functionality, set the `LOG_EXCEPTIONS_TO_DB` server configuration parameter value to `true`.

To access and use the Search Exceptions page:

1. Log on to PPM Center.
2. From the menu bar, select **Search > Administrative > Exceptions.**

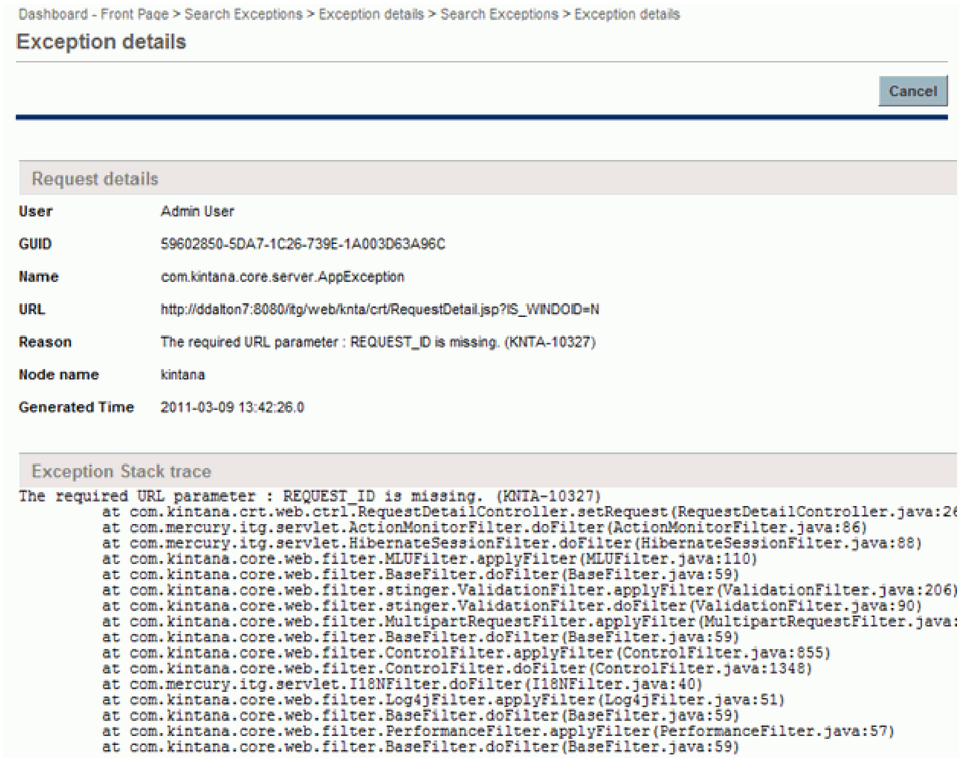
   The Search Exceptions page opens.



3. In the **View Details for Exception GUID** field, enter the GUID provided in the error message.

4. Click **Go.**

The Exception details page opens.



The Exception details page displays the following information:

Field	Description
User	Full name of the logged-in user who encountered this exception. This field is empty if the exception was thrown by a background service.
GUID	GUID identifier for this exception. Most web exceptions are tagged with a GUID. Background service exceptions usually do not have a GUID.
Name	Name of the exception.
URL	URL of the page that encountered this exception.

Field	Description
Reason	Reason the exception occurred. For background service exceptions, this can be an error message.
Node name	Name of the node on which the exception occurred.
Generated Time	Time at which the exception occurred.
Exception Stack trace	Stack trace for the exception.

Purging Exceptions (Other than Services Exceptions)

Exceptions (except for services-related exceptions) older than 14 days are automatically purged by default. You can control the frequency with which exceptions are purged by setting a new value for the `EXCEPTIONS_RETAIN_PERIOD` server configuration parameter in the `server.conf` file.

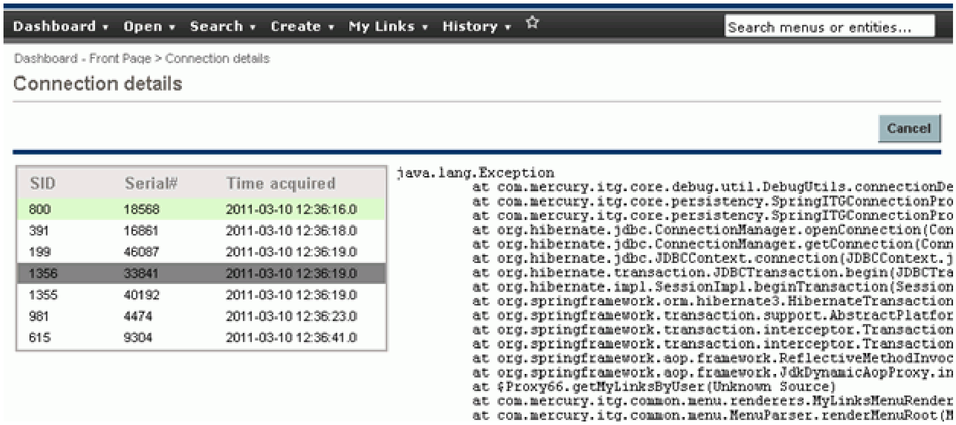
Identifying Connection Issues

The new Connection details page enables you to identify suspect connections that are leaking. To access the Connection details page, you must have an administrator license and the "Server Tools: Execute admin tools" access grant.

To enable this feature, set the `ENABLE_CONNECTION_CORRELATION` server configuration parameter to `true`.

To access the Connection details page:

1. Log on to PPM Center.
2. From the menu bar, select **Open > Administration > View connection correlation.**



The table on the left portion of the page displays the stack trace for each connection recorded when the connection was acquired from the pool.

To display the stack trace associated with the connection at the time it was acquired, click the corresponding connection entry.

➤ Because this feature involves some database overhead, HP recommends that you use it only to troubleshoot connection leak issues.

Updating a Microsoft Project Work Plan Hierarchy Integrated with HP Project Management

If a Microsoft Project work plan is integrated with HP Project Management, in shared control mode, Microsoft Project controls the work plan. However, some changes to the work plan hierarchy that are allowed in a Microsoft Project are not allowed in HP Project Management.

If you convert a leaf task with actuals to a summary task in Microsoft Project, in shared control mode, integration with the HP Project Management work plan fails. Converting a leaf task with actuals to a summary task is not allowed in HP Project Management as it may result in invalid data in HP Time Management.

If you experience an integration error related to the modification of the work plan hierarchy, use an existing backup copy as a starting point from which to reapply your most recent edits. See “Backing Up Microsoft Project Files” in the *HP Project Management User's Guide* for more information about backups.

Integrations

The following integrations are included in PPM Center version 9.12:

- *Lightweight Single Sign-On Authentication (LW-SSO) Support*
- *SLICK Configuration Tool*
- *CMQC for Quality Center 11.0*
- *Importing New Service Manager Web Service Objects to Enable PPM Center Integration with Service Manager*
- *Administration Tools Enhancements*
- *Importing Requests from XML Files*
- *Attaching Impact Analysis Report for CIs to a Request in PDF format*

Lightweight Single Sign-On Authentication (LW-SSO) Support

LW-SSO support is available with PPM Center version 9.12 for PPM Center integrations with other HP software products.

This section includes the following information:

- *LW-SSO Concepts and References*
    - *LW-SSO Concepts and References*
    - *LW-SSO System Requirements*
    - *LW-SSO Security Warnings*
    - *LW-SSO Known Issues*
    - *LW-SSO Limitations*
- *Configuring PPM Center for LW-SSO Support*

LW-SSO Concepts and References

LW-SSO Authentication Overview

LW-SSO is a method of access control that enables a user to log on once and gain access to the resources of multiple software systems without being prompted to log on again. The applications inside the configured group of software systems trust the authentication, and there is no need for further authentication when moving from one application to another.

The information in this section applies to LW-SSO version 2.3.

LW-SSO Token expiration

The LW-SSO Token's expiration value determines the application's session validity. Therefore, its expiration value should be at least the same value as that of the application session expiration value.

Recommended configuration of the LW-SSO Token expiration

Each application using LW-SSO should configure token expiration. The recommended value is 60 minutes. For an application that does not require a high level of security, it is possible to configure a value of 300 minutes.

GMT Time

All applications participate in an LW - SSO integration must use the same GMT time with a maximum difference of 15 minutes.

Multi-domain Functionality

Multi-domain functionality requires that all applications participating in LW-SSO integration configure the `trustedHosts` settings (or the `protectedDomains` settings), if they are required to integrate with applications in different DNS domains. In addition, they must also add the correct domain in the `lwsso` element of the configuration.

Get SecurityToken for URL functionality

To receive information sent as **SecurityToken for URL** from other applications, the host application should configure the correct domain in the `lwsso` element of the configuration.

LW-SSO System Requirements

The following table lists LW-SSO configuration requirements:

Product	Version	Comments
Java	1.5 and higher	
HTTP Servlets API	2.1 and higher	
Internet Explorer	6.0 and higher	Browser should enable HTTP session cookie and HTTP 302 Redirect functionality.
FireFox	2.0 and higher	Browser should enable HTTP session cookie and HTTP 302 Redirect functionality.
JBoss authentications	• JBoss 4.0.3 • JBoss 4.3.0	
Tomcat authentications	• Standalone Tomcat 5.0.28 • Standalone Tomcat 5.5.20	
Acegi authentications	• Acegi 0.9.0 • Acegi 1.0.4	
Spring Security Authentication	Spring Security 2.0.4	
Web Services engines	• Axis 1 - 1.4 • Axis 2 - 1.2 • AX-WS-RI 2.1.1	

LW-SSO Security Warnings

This section describes security warnings that are relevant to the LW-SSO configuration:

- **Confidential `initString` parameter in LW-SSO.** LW-SSO uses Symmetric Encryption to validate and create a LW-SSO token. The `initString` parameter within the configuration is used for initialization of the secret key. An application creates a token, and each application that uses the same `initString` parameter validates the token.
  - It is not possible to use LW-SSO without setting the `initString` parameter.
  - The `initString` parameter is confidential information and should be treated as such in terms of publishing, transporting, and persistency.
  - The `initString` should be shared only between applications integrating with each other using LW-SSO.
  - The `initString` parameter should have a minimum length of 12 characters.
- **Enable LW-SSO only if required.** LW-SSO should be disabled unless it is specifically required.
- **Level of authentication security.** The Application that uses the weakest authentication framework and issues a LW-SSO token that is trusted by other integrated applications, determines the level of authentication security for all the applications.

  It is recommended that only applications using strong and secure authentication frameworks issue an LW-SSO token.
- **Symmetric encryption implications.** LW-SSO uses symmetric cryptography for issuing and validating LW-SSO tokens. Therefore, any application using LW-SSO can issue a token to be trusted by all other applications sharing the same `initString` parameter. This potential risk is relevant when an application sharing the `initString` either resides, or is accessible from, an untrusted location.
- **User mapping (Synchronization).** The LW-SSO framework does not ensure user mapping between the integrated applications. Therefore, the integrated application must monitor user mapping. It is recommended that you share the same user registry (as LDAP/AD) among all integrated applications.

Failure to map users may cause security breaches and negative application behavior. For example, the same user name may be assigned to different real users in the various applications.

In addition, in cases where a user logs onto an application (AppA) and then accesses a second application (AppB) that uses container or application authentication, the failure to map the user will force the user to manually log on to AppB and enter a user name. If the user enters a different user name than was used to log on to AppA, the following behavior can arise: If the user subsequently accesses a third application (AppC) from AppA or AppB, then they will access it using the user names that were used to log on to AppA or AppB respectively.

- **Identity Manager.** Used for authentication purposes, all unprotected resources in the Identity Manager must be configured as `nonsecureURLs` settings in the LW-SSO configuration file.
- **LW-SSO Demo mode**
  - The Demo mode should be used for demonstrative purposes only.
  - The Demo mode should only be used in unsecured networks.
  - The Demo mode must not be used in production. Any combination on the Demo mode with the production mode should not be used.

LW-SSO Known Issues

This section describes known issues for LW-SSO authentication.

- **Security context.** The LW-SSO security context supports only one attribute value per attribute name.

  Therefore, when the SAML2 token sends more than one value for the same attribute name, only one value is accepted by the LW-SSO framework.

  Similarly, if the `IdM` token is configured to send more than one value for the same attribute name, only one value is accepted by the LW-SSO framework.

- **Multi domain logout functionality when using Internet Explorer 7.** Multi domain logout functionality may fail when using Internet Explorer 7 and when the application is invoking more then three consecutive HTTP 302 redirect verbs in the logout procedure.

  In this case, Internet Explorer 7 may mishandle the HTTP 302 redirect response and display an `Internet Explorer cannot display the webpage` error page instead.

  As a workaround, we recommend that, if possible, you reduce the number of application redirect commands in the logout sequence.

LW-SSO Limitations

Note the following limitations when working with LW-SSO authentication:

- **Client Access to the Application**

  If a domain is defined in the LW-SSO configuration:

  - The application's clients must access the application with a Fully Qualified Domain Name (FQDN) in the login URL. For example, http://myserver.**companydomain**.com/WebApp
  - LW-SSO cannot support URLs with an IP address, for example, http://192.168.12.13/WebApp
  - LW-SSO cannot support URLs without a domain, for example, http://myserver/WebApp

  If a domain is not defined in the LW-SSO configuration: The client can access the application without a FQDN in the login URL. Note that in this case a LW-SSO session cookie will be created specifically for a single machine without any domain information, and therefore will not be delegated by the browser to another, and will not pass to other computers located in the same DNS domain. This means that SSO will not work in the same Domain.

- **LW-SSO framework integration.** Applications can leverage and use LW-SSO capabilities only if integrated within the LW-SSO framework in advance.

- **Multi domain support**
  - Multi domain functionality is based on the HTTP referer. Therefore, LW-SSO supports links from one application to another and does not support typing a URL into a browser window, except when both applications are in the same domain.
  - The first cross domain link using **`HTTP POST`** is not supported

    Multi domain functionality does not support the first **`HTTP POST`** request to a second application (only the **`HTTP GET`** request is supported). For example, if your application has an HTTP link to a second application, an **`HTTP GET`** request is supported, but an **`HTTP FORM`** request is not supported. All requests after the first can be either **`HTTP POST`** or **`HTTP GET`**.
  - LW-SSO Token size

    The size of information that LW-SSO can transfer from one application in one domain to another application on another domain is limited to 15 Groups/Roles/Attributes (note that each item may be an average of 15 characters long).
  - Linking from Protected (HTTPS) to non protected (HTTP) in a Multi domain scenario

    Multi domain functionality does not work when linking from a protected (HTTPS) to a non protected (HTTP) page. This is a browser limitation where the referer header is not sent when linking from a protected to a non-protected resource. For an example, see http://support.microsoft.com/support/kb/articles/Q178/0/66.ASP
  - Third-Party cookie behavior in Internet Explorer:

    Microsoft Internet Explorer 6 contains a module that supports the “Platform for Privacy Preferences (P3P) Project”, meaning that cookies coming from a Third Party domain are blocked by default in the Internet security zone. Session cookies are also considered Third Party cookies by Internet Explorer, and therefore are blocked, causing LW-SSO to stop working. For details, see http://support.microsoft.com/kb/323752/en-us.

To solve this issue, add the launched application (or a DNS domain subset as ***.mydomian.com**) to the Intranet/Trusted zone on your computer (in Microsoft Internet Explorer, select **Menu > Tools > Internet Options > Security > Local Intranet > Sites > Advanced**), which causes the cookies to be accepted.

The LW-SSO session cookie is only one of the cookies used by the Third Party applications that are blocked.

- **SAML2 token**
  - Logout functionality is not supported when the SAML2 token is used.

    Therefore, if the SAML2 token is used to access a second application, then a user who logs out in the first application will not be logged out in the second application.
  - The SAML2 token's expiration is not reflected in the application's session management.

    Therefore, if the SAML2 token is used to access a second application, then each application's session management will be handled independently of each other.
- **JAAS Realm.** The JAAS Realm in Tomcat is not supported
- **Using spaces in Tomcat directories.** Using spaces in Tomcat directories is not supported.

  It is not possible to use LW-SSO when a Tomcat installation path (folders) includes spaces (for example, Program Files) and the LW-SSO configuration file is located in the `common\classes` Tomcat folder.
- **Load balancer configuration.** A load balancer deployed with LW-SSO must be configured to use sticky sessions.
- **Demo mode.** In Demo mode, LW-SSO supports links from one application to another but does not support typing a URL into a browser window due to an HTTP **referer** header absence in this case.

Configuring PPM Center for LW-SSO Support

Read *LW-SSO Security Warnings* on page 112 before you configure the LW-SSO UI.

To configure PPM Center support for LW-SSO,

1. Add the parameters described in the following table into the `server.conf` file and configure them.

Parameter	Description
ENABLE_LW_SSO_UI	Enables LW-SSO UI when set to `true`. Default: `false`
LW_SSO_DOMAIN	Specifies LW-SSO domain, for example, `xyz.com`
LW_SSO_INIT_STRING	Specifies the string value for the `initString` parameter. For more information about the `initString` parameter, see *LW-SSO Security Warnings* on page 112.
LW_SSO_EXPIRATION_PERIOD	Specifies LW-SSO token expiration period in minutes. For example, `60`.
LW_SSO_TRUSTED_DOMAIN	Specifies one or more LW-SSO trusted domains. Use semicolon (;) to separate multiple domains. For example, `xyz.come;abc.net`
LW_SSO_CLEAR_COOKIE	When set to `true`, specifies that PPM Center needs to clear LW-SSO token when user logs out of PPM Center. Default: `true` **Note:** It is always recommended to set the parameter to `true` for security purpose.

Parameter	Description
ENABLE_LW_SSO_WEB_ SERVICE	For integration of PPM Center Tasks with Service Manager RFCs only. Specifies that PPM Center always uses current user to call Service Manager Web service when set to `true`. Default: `false`.

2. Run **`kUpdateHtml.sh`**.
3. Stop, and then restart the server.

SLICK Configuration Tool

The SLICK configuration tool is available with PPM Center version 9.12. Running this tool automatically configures PPM Center support for HP Slick 1.6 for you.

To run the SLICK configuration tool,

1. Create a blank `.properties` configuration file.
2. Include the following parameters in the `.properties` configuration file.
   - Special parameters
     - `FIELD_MAPPING_FILE=`<*`SM_RFC_field_mapping_file_path`*>

       For example,

       ```
       FIELD_MAPPING_FILE=C:/temp/slick/
       sm-rfc-mapping.xml.sample
       ```

       The SM RFC field mapping file will be copied to `<PPM_HOME>/conf/smrfc` directory by the Slick configuration tool. If there already exists a mapping file, it will be replaced.
     - `ENCODE_BASE64=false`

       For more information, see

- `server.conf` parameters

  Include the following `server.conf` parameters in the `.properties` file. The values of which will replace the ones in the `server.conf` file:

```
com.kintana.core.server.SM_RFC_INTEGRATION_ENABLED
com.kintana.core.server.SM_USERNAME
com.kintana.core.server.SM_URL
com.kintana.core.server.SM_WEB_URL
com.kintana.core.server.SM_PASSWORD
com.kintana.core.server.ENABLE_WEB_SERVICES
com.kintana.core.server.SERVICE_LIST_SOURCE
com.kintana.core.server.UCMDB_WS_USER
com.kintana.core.server.UCMDB_WS_PASSWORD
com.kintana.core.server.SERVICE_LIST_UCMDB_CI_TYPE
com.kintana.core.server.SERVICE_LIST_UCMDB_CI_MAPPINGS
com.kintana.core.server.SERVICE_LIST_UCMDB_WS_MAX_CI_
NUMBER
com.kintana.core.server.SERVICE_LIST_UCMDB_CACHE_TIMEOUT
com.kintana.core.server.UCMDB_WS_MAX_CONNECTION_NUMBER
com.kintana.core.server.UCMDB_SERVER_URL
com.kintana.core.server.UCMDB_SERVER_VERSION
com.kintana.core.server.UCMDB_SSL_KEYSTORE_PATH
com.kintana.core.server.ENABLE_LW_SSO_UI
com.kintana.core.server.LW_SSO_DOMAIN
com.kintana.core.server.LW_SSO_INIT_STRING
com.kintana.core.server.LW_SSO_EXPIRATION_PERIOD
com.kintana.core.server.LW_SSO_TRUSTED_DOMAIN
com.kintana.core.server.LW_SSO_CLEAR_COOKIE
com.kintana.core.server.ENABLE_LW_SSO_WEB_SERVICE
```

Be sure to encrypt the values for password parameters `SM_PASSWORD` and `UCMDB_WS_PASSWORD` if their values are clear text.

3. Run the following command to run the SLICK tool,

   `sh kSLICKConf.sh c:\temp\slick\test.properties`

   Every time you run this shell command, it creates a backup copy of the `server.conf` file before it modifies the file.

   You can check the log file it generates in `<`*`PPM_HOME`*`>/logs/slick` directory for details. The log file name follows `slick_conf_<`*`YYYYMMDD-HHMMSS.serial_number`*`>.log` pattern, for example, `slick_conf_20110221-162200.420.log`.

4. Stop, then restart the server.

CMQC for Quality Center 11.0

To configure CMQC support for Quality Center version 11.0,

1. Add the two new parameters introduced with PPM Center version 9.12 listed in *Table 3-4* to the `server.conf` file:

Table 3-4. Newly introduced server.conf parameters

Parameter	Description
CMQC_QC_VERSION	Specifies Quality Center version for CMQC solution. In this case, `11`.
CMQC_INIT_STRING	The value for `initString` parameter for CMQC solution, for example, `INI:s4OF+cwwevEkcnJ9zWHwpE8ktxfl1pb5y8QoENFQLs8=` You can get the value from Quality Center server. The `initString` value is stored in a properties file (`ALM\jboss\server\default\deploy\20qcbin.war\WEB-INF\siteadmin.xml`) or an XML configuration file (`ALM\conf\qcConfigFile.properties`) on the server where Quality Center is installed.

2. Obtain the latest CMQC patch installation bundle (`ppm-912-CMQC.jar`), and then deploy it on top of CMQC version 9.10 by following the instructions described in the *HP Center Management for Quality Center Guide*.

➤ Make sure that you have installed the PPM Center 9.12 service pack file before you deploy the CMQC patch bundle.

Importing New Service Manager Web Service Objects to Enable PPM Center Integration with Service Manager

This integration enhancement improves the integration solution by offering new Web services objects with PPM Center for users to import to enable the integration, instead of modifying the existing Service Manager Web service objects.

If you already integrated Service Manager with PPM Center, copy and rename two Web service objects in Service Manager as follows to make sure that the integration will continue to work:

- `Change` -> `ChangePPMIntALM`
- `ChangeTask` -> `ChangeTaskPPMIntALM`

To configure Service Manager for the integration,

1. Follow the instructions in the *Configuring HP Service Manager for Integration with PPM Center* section of the *HP Solution Integrations Guide,* but skip the following **WSDL Configuration**-related steps:
   - step d on page 97
   - step 2 on page 98
   - step d on page 100
2. Then, set up Change Management Web service for the integration with PPM Center by importing the unload file provided with PPM Center.

   The unload file is located at:
   `<`*`PPM_Home`*`>\conf\sdi\serviceManagerFiles\PPMIntALMWebService.unl`

   where, `<`*`PPM_Home`*`>` represents the path where the PPM Center instance is installed. For example: `xyzserver/E/PPMServer`.

Administration Tools Enhancements

The following administration tools enhancements are implemented:

- *Browsing and Downloading <PPM_Home> Directory Files from Administration Console*
- *Administration Console SQL Runner*
- *Gathering Support Information*
- *Running kSupport Tool from Administration Console*
- *Managing Hotfixes*

Browsing and Downloading <PPM_Home> Directory Files from Administration Console

As a PPM Center administrator, you can now browse and download <PPM_Home> directory files from the Administration Console with the new File Browser tool.

The Administration Console File Browser tool is available to any PPM Administrator with the access grants listed in *Table 3-5*.

Table 3-5. Required server tools access grants

Access Grant	Permissions
Sys Admin: Server Tools: Execute Admin Tools	Lets the user access the Administration Console and the server tools.
Sys Admin: Server Tools: Execute File Browser	New server tools access grant, enables the File Browser menu **Browse PPM Server files** in the Administration Console and lets the user browse and download PPM Server files. Without this access grant, the File Browser menu is invisible.

For details about how to configure access grants, see the *Installation and Administration Guide*.

Users can view contents of all the files in <PPM_Home> in read-only mode once they have access to the File Browser, HP recommends that you provide the Server Tools: Execute File Browser access grant only to selected PPM Center administrators.

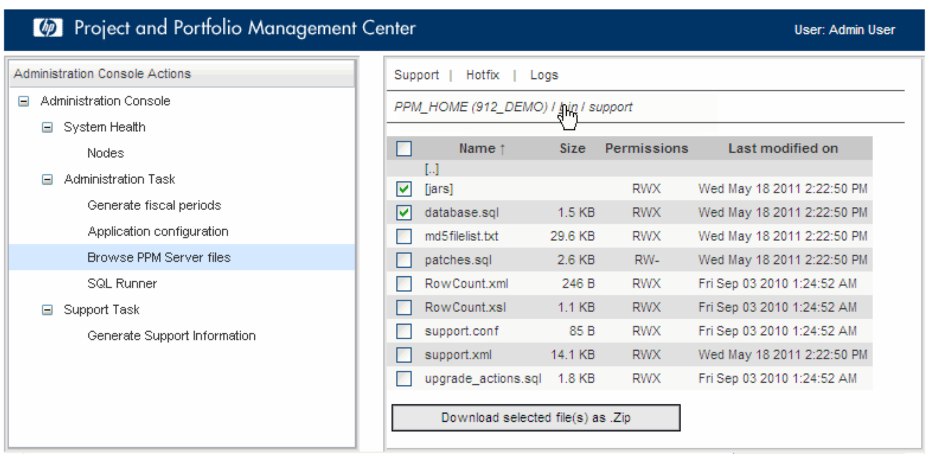
➤ The <*PPM_Home*>/security directory is not accessible through the File Browser and is not listed in the contents of <*PPM_Home*> as it contains the sensitive private key used for SSL encryption. You must connect directly to the PPM Server machine to access this folder.

When initially accessed, the File Browser displays all files and folders located in the <*PPM_Home*> directory:

- You can click on any file to download it, or click on any folder to view its contents.

- When displaying a folder's contents, you can select one or more files or folders and download them as a Zip file by clicking **Download selected file(s) as .Zip** available at the bottom of the pane.

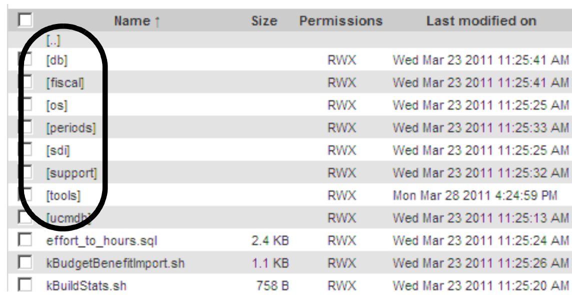
  The folder hierarchy in the zip file will be rebuilt relatively to the <*PPM_Home*> directory. Empty folders in the Zip file will contain an empty file so that empty folders are not removed automatically from the Zip file. These empty files are created dynamically when the Zip file is generated and are not present in the PPM Application Server file system.



  File information displayed includes name, size, permissions (R for read, W for write, X for execute), and last modification date.

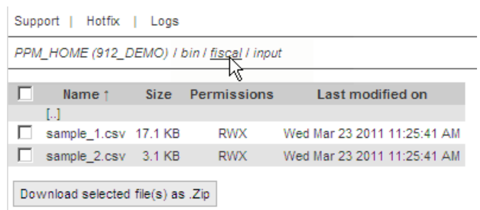
- You can sort the files and folders displayed by clicking a column header. Click twice on the same column header to reverse the sorting order. A small vertical arrow will be displayed in the column header currently used as the sorting criterion.

Note that when sorting files and folders, the folders are always displayed before the files, independently of the sorting criterion.



Also, unless you are viewing the *<PPM_Home>* folder, a `[..]` folder is displayed at the beginning of the list to let the user access the parent folder.

- To navigate to other folders, click one of the three bookmarks on top of the File Browser, or click any element of the breadcrumbs representing the current folder (path is relative to *<PPM_Home>*).



- When PPM Center is configured in cluster mode, the File Browser only displays the files of the *<PPM_Home>* directory that contain the PPM Center instance to which you are currently connected to.
- If you want to access another *<PPM_Home>* of the cluster, you must manually connect to a PPM Center instance hosted in this *<PPM_Home>*> folder.
- When zipping files and folders, you can only select files and folders located in the same folder. If you switch to another folder while some items are selected, the selected items are not included in the generated zip file.

Cluster Configuration Considerations

- When PPM Center is configured as a server cluster and there are multiple PPM Center instances in the same `<PPM_Home>`, you can access all the files of all the PPM Center instances located under the same `<PPM_Home>` folder as the instance you are connected to.
- When selecting **Logs** or **HotFix** links in the bookmarks, you must manually choose the PPM instance you want to access. The folder is automatically displayed when the instance is selected.

Performance Concerns

The files listing can take many seconds if there are many thousands of files to list in the folder which contents are displayed, for example, the `<PPM_Home>/cache` folder, where images of PPM Charts are saved and only deleted after 7 days by default.

Note that there is no significant performance or memory impact on the PPM Server if you decide to download the entire contents of `<PPM_Home>` as a zipped file. This is a safe (though time-consuming) operation, but some temporary files might not be included in the resulting zip file if, for example, they are locked when you try to include them in the Zip file.

Administration Console SQL Runner

In earlier PPM Center versions, you could use the SQL Runner from the PPM Workbench to run queries directly against the PPM Center database schema. In PPM Center version 9.12, you access an enhanced SQL Runner through the Administration Console

To use the Administration Console version SQL Runner, you must have the access grants listed in *Table 3-6*, otherwise the **SQL Runner** menu is not visible to you in the Administration Console.

Table 3-6. Required server tools access grant

Access Grant	Permissions
Sys Admin: Server Tools: Execute Admin Tools	Lets the user access the Administration Console and the server tools.
Sys Admin: Server Tools: Execute SQL Runner	Enables the **SQL Runner** menu in the Administration Console and lets the user run SQL queries from the Administration Console. Without this access grant, the **SQL Runner** menu is invisible.

For information about configuring access grants, see the *Installation and Administration Guide*.

To access the Administration Console version SQL Runner feature:

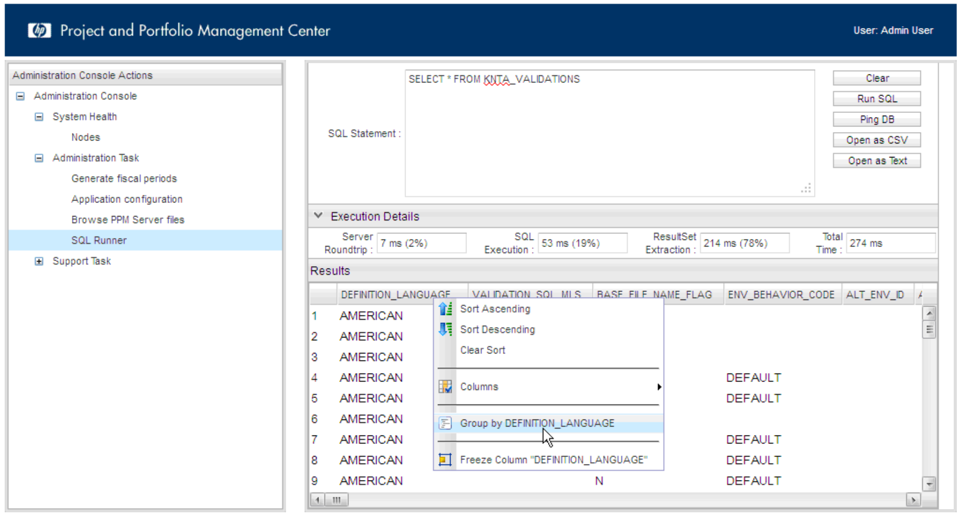
1. Log on to PPM Center as an Administrator.
2. From the **Open** menu, select **Administration > Administration Console.**
3. Under Administration Console actions, expand **Administration Task**, and then click **SQL Runner**.

Notable Enhancements with Administration Console SQL Runner

Though the main functionalities of SQL Runner is identical in the PPM WorkBench and Administration Console versions, there are some notable enhancements in the Administration Console.

SQL Runner enhancements in the Administration Console are as follows:

- You can run SQL Statements that end with a semicolon (`;`).
- Results rows are numbered, and can be sorted and grouped within the results table by right-clicking the column headers.



- The **Server Roundtrip** duration represents the time spent between the PPM Application Server and the PPM Database, whereas in Workbench, it measures time spent between the PPM Workbench client and the PPM Server). However, in both cases, it is a good way to measure network latency.

- For the same reason, the **Ping DB** button in Administration Console tests the speed between only the PPM Server and the database. Since a Web Interface is used here, the time spent between the web client and PPM Server is ignored.

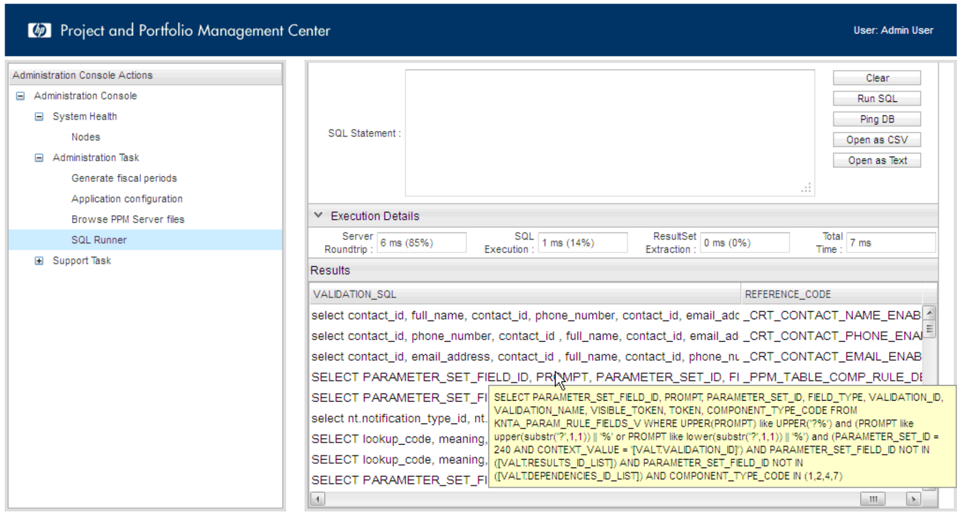
- You can now export the data to CSV format (by clicking the **Open as CSV** button, located to the right of the **SQL Statement** text area).

- You can not ping the server by clicking **Ping Server**. This is not necessary with the Administration Console version SQL Runner since it runs on the PPM Server.

- You can select the text in any cell of the results table and copy it to the clipboard.

- Columns are automatically sized to accommodate their contents (and the column headers).

- If the maximum width of a column is reached but at least one of the records is truncated, the values in this column are shown as tooltip text when hovering.



Limitations

The same limitations with PPM WorkBench version of SQL Runner also apply to the Administration Console version of SQL Runner:

- You can only run `SELECT` SQL Statements.
- You can view a maximum of 1000 records. If more than 1000 records are retrieved, only the first 1000 are displayed.
- The results do not include the contents of the BLOB and CLOB columns.
- If a very large number of columns are retrieved, it may take a few seconds before the results are displayed.
- When exporting the results to text or CSV format, the sorting and grouping of results is discarded, and only the raw results are exported.

Gathering Support Information

As a PPM Center administrator, you can run the `kSupport.sh` script or access Administration Console version of the `kSupport` tool to gather the following information:

- Run SQL scripts provided by the HP Software Support team to gather specific database information for troubleshooting purpose.

  In Custom mode, a new option is now available, you can select it in order to collect specific database information for troubleshooting purpose. Then, you can choose to browse for the source SQL script file or the folder that contains SQL files (with `.sql` extension, case-insensitive) to run, or choose to enter manually or paste SQL script in a text area to run. In the server information collection summary page, you will be notified the number of SQL commands that are prohibited from running.

  All of the SQL scripts you select to run are copied into the `<kSupport_ Zip_ File>/ppmc/data` directory, and the SQL script content you entered or pasted in the text area is concatenated into a CSV-formatted file named `runsqls<Time_Stamp>.sql` in the `<kSupport_Zip_File>/ppmc/data` directory.

  ➤ If the resulting SQL file is larger than 100 MB, a `java.lang.OutOfMemory` error may be logged in the `<PPM_Home>/bin/support/ppmc/ksupport.log` file. To correct the problem, split the source SQL script into multiple files, and then run them again in batches.

  You can run the kSupport tool in silent mode to gather specific database information in addition to the default information set.

  To run SQL scripts in silent mode:

  ```
  sh kSupport.sh -silent [-runsql <SQL_File_Path>]
  ```

- List invalid PPM Center schema objects and invalid database indexes in the kSupport output `database.html` file.

  After you run the kSupport tool, two new sections are added in the `<kSupport_zip_file>/ppmc/database.html` file:

- **Selecting invalid objects in DB** section lists object types and object names of all invalid objects in the database. Objects of the following types are listed:

  - SEQUENCE
  - PROCEDURE
  - PACKAGE
  - PACKAGE BODY
  - TRIGGER
  - TABLE
  - INDEX
  - VIEW
  - FUNCTION

- **Selecting invalid indexes in DB** section lists invalid database indexes. For example, some INDEX objects are of `UNUSABLE` status in `user_indexes` but of `VALID` status in `all_objects`.

- Collect `stinger.xml` file into the `conf` folder of the kSupport output zip file.

- Collect Bill of Materials (BOM) Information by performing BOM check.

  The resulting Bill of Materials Information page contains three sections:

  - **Files missing** - Files that should exist but missing.
  - **Files unwanted** - Files that are not shipped with PPM.
  - **Files changed** - Files that are different from the ones shipped with PPM.

  You can access the Bill of Materials Information page in the following ways:

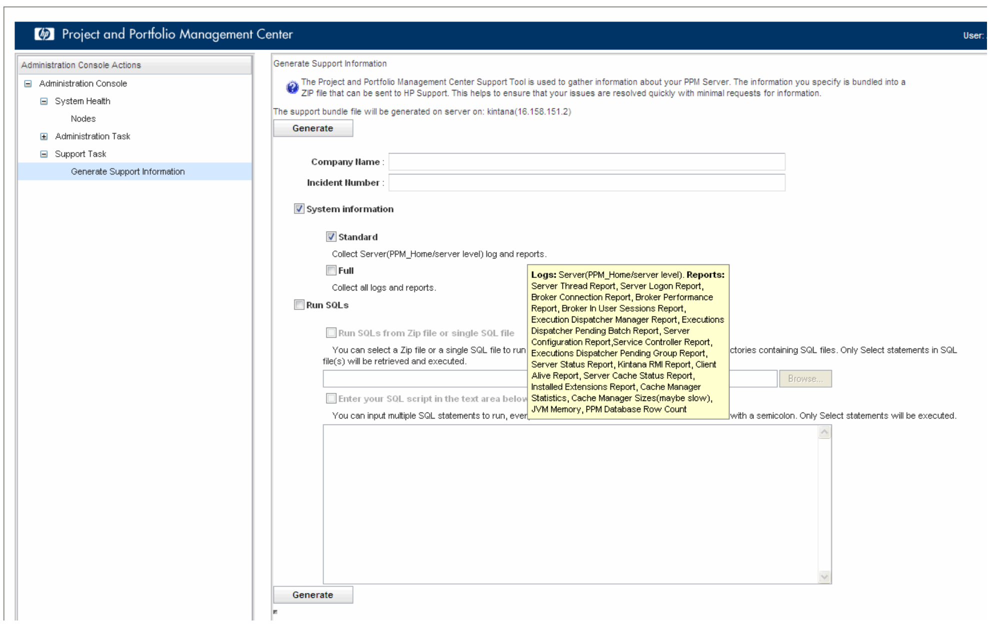
  - Locate and open the `<kSupport_zip_file>/ppmc/index.html` file, and then click **Bill of Materials Information** link.Or,
  - Locate and open the `<kSupport_zip_file>/ppmc/md5filelist.html` file.

Running kSupport Tool from Administration Console

With PPM Center version 9.12, kSupport tool functionality is enhanced. You can now run the kSupport tool from the Administration Console.

To access the Administration Console version kSupport tool,

1. Log on to PPM Center as an Administrator.
2. From the **Open** menu, select **Administration > Administration Console.**
3. Under the Administration Console actions, expand **Support Task**, and then click **Generate Support Information**.



➤ Make sure that the size of SQL commands you enter in the text area does not exceed 1 MB.

Managing Hotfixes

As a PPM Center administrator, you can now use the support tools to deploy hotfixes and view hotfix deployment information.

Deploying hotfixes with kDeploy.sh

To deploy a hotfix, run the following command:

`sh kDeploy.sh -hotfix <Deployment_Hotfix>`

where,

- `-hotfix` is the new parameter added to the `kDeploy.sh` script for deploying hotfixes
- *`<Deployment_Hotfix>`* is the hotfix bundle name.

For example, if the bundle name is

```
912-debug-QCIM1L12345.jar
```

or

```
912-debug-QCIM1L12345-QCCR1L12346.jar
```

Then the corresponding deployment command is

```
sh kDeploy.sh -hotfix 912-debug-QCIM1L12345.jar
```

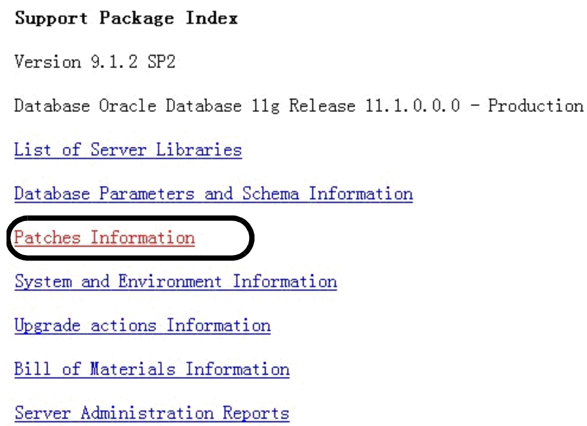
or

```
sh kDeploy.sh -hotfix 912-debug-QCIM1L12345-QCCR1L12346.jar
```

Viewing hotfix deployment information

To view the hotfix deployment information collected,

1. After running the kSupport tool, locate the link **Patches Information** in the resulting `<kSupport_zip_file>/ppm/index.html` file.



2. Click the **Patches Information** link to open the `patches.html` file. The `patches.html` file contains the following sections:
   - Selecting current PPM Center version
   - Selecting patches applied info in current PPM Center version
   - Selecting all the files that exist in the PPM Center file system
   - Selecting all the other files applied in the current PPM Center instance, including SQL files and entities (packages, request types, requests and so on) that have been imported
   - Selecting detailed information of patches that deployed in current PPM Center version
3. Check details under the section(s) you are interested in.

Importing Requests from XML Files

With PPM Center version 9.12, this new feature is implemented for importing requests from XML files as well as exporting requests to XML files. This solution allows you to produce XML files electronically, helping you to complete any processes that may require requests in XML version.

With this feature, you will be able to perform the following tasks:

- *Importing Requests from XML Files*
- *Exporting Requests to XML Files*
- *Exporting Requests by Running the Special Command*

New Settings Introduced

To implement the feature, some new settings are introduced.

Access Grant

A new access grant described below is added to enable users to import requests from XML files.

Table 3-7. New access grant introduced

Access Grant	Permissions
Demand Mgmt: Import Request XML	Enables the user to have the access to import requests from XML files.

Validations

Table 3-8 lists three new validations introduced.

Table 3-8. New validations introduced

Validation Name	Description
XML Exportable Request Template	Returns a list of XSLT templates that can be used for exporting requests to.
XML Exportable Request Template By Request Type	Non-configurable system level validation. Returns a list of XSLT templates based on a specific request type.
XML Importable Request Template	Returns a list of XSLT templates that can be used for importing requests from.

New Special Command

A new special command is introduced to help generate exported file for use by PPM Center report.

Table 3-9. New special command introduced

Special Command	Description
ksc_export_request_as_xml	A system special command, used to export a request in either of the following two modes: • Report mode, exports a request to report when the special command is set to `true`. • Request mode, exports a request and the URL of the exported file is updated to a field for the request when the special command is set to `false`.

For details about how to use the special command, see *Exporting Requests by Running the Special Command* on page 148.

Report Type

A new report type **(REFERENCE) Export Request Report** is added.

Importing Requests from XML Files

A new menu **Import Request from XML** is provided to import XML files as requests in PPM Center. The web page takes a XML file as well as the XSLT template as input, and imports the specified XML file to create a new request or update an existing request.

Only users with the **Demand Mgmt: Import Request XML** access grant can perform the import task.

Configure an XML Importable Request Template

An XSLT template is necessary for importing XML files to create new requests or update existing requests.

XSLT Template is a standard XSL file that is used to convert a XML file of user-defined format to an XML data file of PPM format as PPM Center can accept PPM format XML data file only.

Developing an XSL File

If you want to import a request from an XML file with your own format, you need to develop an XSL file to convert the user-defined format file to a PPM format XML data file.

You may refer to the following XSD file to develop your own XSL file:

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema attributeFormDefault="unqualified" elementFormDefault="qualified"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="requests">
    <xs:complexType>
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="request">
          <xs:complexType>
```

```
            <xs:sequence>
              <xs:element minOccurs="1" maxOccurs="1" name="requestType"
                                                          type="xs:string"/>
              <xs:element minOccurs="0" maxOccurs="unbounded" name="field">
                <xs:complexType>
                  <xs:sequence>
                    <xs:element minOccurs="0" name="token" type="xs:string"/>
                    <xs:element minOccurs="0" name="tableValue">
                      <xs:complexType>
                        <xs:sequence>
                          <xs:element minOccurs="0" maxOccurs="unbounded"
                                                          name="tableColumn">
                            <xs:complexType>
                              <xs:sequence>
                                <xs:element minOccurs="0" name="columnToken"
                                                          type="xs:string"/>
                               <xs:element minOccurs="0" maxOccurs="unbounded"
                                              name="cellValue" type="xs:string"/>
                              </xs:sequence>
                            </xs:complexType>
                          </xs:element>
                        </xs:sequence>
                      </xs:complexType>
                    </xs:element>
                    <xs:element minOccurs="0" name="value" type="xs:string"/>
                  </xs:sequence>
                </xs:complexType>
              </xs:element>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
      <xs:attribute name="date_format" type="xs:string" use="optional"/>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

This XSD file defines the XML format accepted by PPM Center’s generic request import operation. When you develop an XSL template, make ensure that the XML file generated using the XSL template conforms to the format defined by the XSD file. Do not use this file as a template directly.

If you import a request from an XML file without providing any XSL template, you need to ensure that your XML file conform with the format of PPM XML data file.

Configure an XSLT Template

When exporting a request, you can define an XSLT template to convert the raw data XML file to the desired format, such as XML, HTML, Text, and CSV. The XSLT template is a standard XSL file, it can convert the raw XML data file in PPM format.

For more technical details about the format of PPM XML data file, see the XSD file described in *Developing an XSL File* on page 136.

To configure an XSLT template,

1. Log on to PPM Center.
2. On the **Open** menu, click **Administration > Open Workbench**.

   The PPM Workbench opens.
3. On the shortcut bar, click **Configuration > Validations**.

   The Validation Workbench opens.
4. Click **List**, then locate and open the **XML Importable Request Template** validation.

   The Validation: XML Importable Request Template window opens.
5. Click **New**.

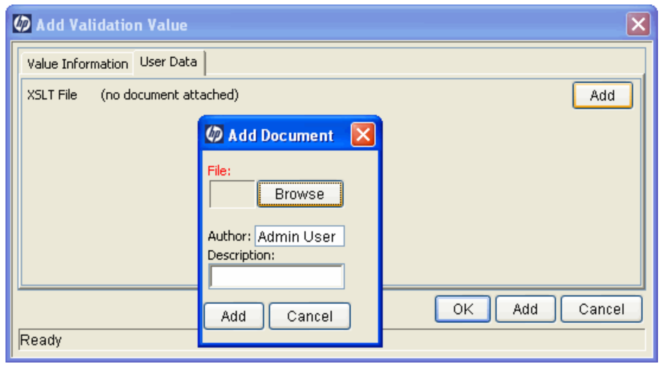
   The Add Validation Value dialogue box opens to Value Information tab.
6. On the Value Information tab, provide values for required **Code** and **Meaning** fields and optional field **Desc** as necessary.

   The value of **Meaning** field will be displayed in the drop-down list for **XSLT Template** field on the Import Request from XML page.
7. To use this new template, for the **Enabled?** field, leave it selected.
8. If you want to set this new template default, select the checkbox for **Default** field. Otherwise, leave it empty.

   For more information about the fields in the Add Validation Value dialogue box, see the *Configuring Static List Validations* section of the *Commands, Tokens, and Validations Guide and Reference*.

9. Click the **User Data** tab.
10. Click **Add**.

    The Add Document dialog box opens.



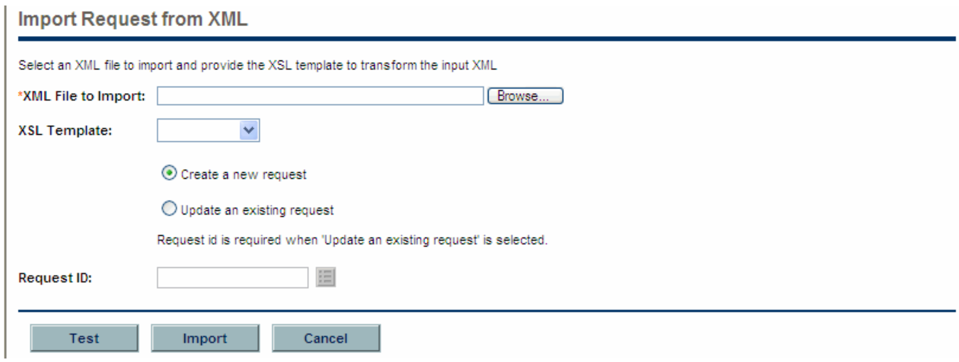
11. Do the following:
    a. Click **Browse** to locate and select the XSLT file you want to add. Normally it is the file you developed in *Developing an XSL File* on page 136.
    b. In the **Description** field, you can type a short description for the XSLT file.
    c. click **Add**.
12. To add more values and keep the Add Validation Value window open, click **Add**.
13. To save your changes and close the window, click **OK**.

Import an XML File to Create a New Request

To import an XML file to create a new request,

1. Log on to PPM Center.
2. On the **Open** menu, click **Demand Management > Import Request From XML.**

   The Import Request from XML page opens.



3. For **XML File to Import** field, click **Browse** to locate and select the XML file you want to import.
4. For **XSLT Template** field, click the drop-down button to select the XSLT template you want to associate with the imported XML file.

   XSLT templates are configured in PPM Workbench by admin user. For information about configuring XSLT templates, see *Configure an XML Importable Request Template* on page 136.
5. Select **Create a new request**.
6. (Optional) If it is the first time for you to import an XML file, you may want to run a test before you perform the formal import. In this case, click **Test** button.

It tests if the XML file can be imported successfully.

- If the test result page shows "`Test completed successfully`", proceed to step 7.
- If "`Error parsing the incoming xml file...`", troubleshoot the cause and make sure the XML is ready for import.

7. Click **Import** button.
8. Check the import result and the ID of the new request created.

   A "`Test/Import completed successfully`" message will be displayed even when the XML imported does not match the XSL template selected, but no corresponding request ID will be generated and the log will show "`pass:0`".

9. Click **Back** to return to the Import Request from XML page.

Import an XML File to Update an Existing Request

To import an XML file to update an existing request,

1. Log on to PPM Center.
2. On the **Open** menu, click **Demand Management > Import Request From XML.**

   The Import Request from XML page opens.

3. For **XML File to Import** field, click **Browse** to locate and select the XML file you want to import.
4. For **XSLT Template** field, click the drop-down button to select the XSLT template you want to associate with the imported XML file.

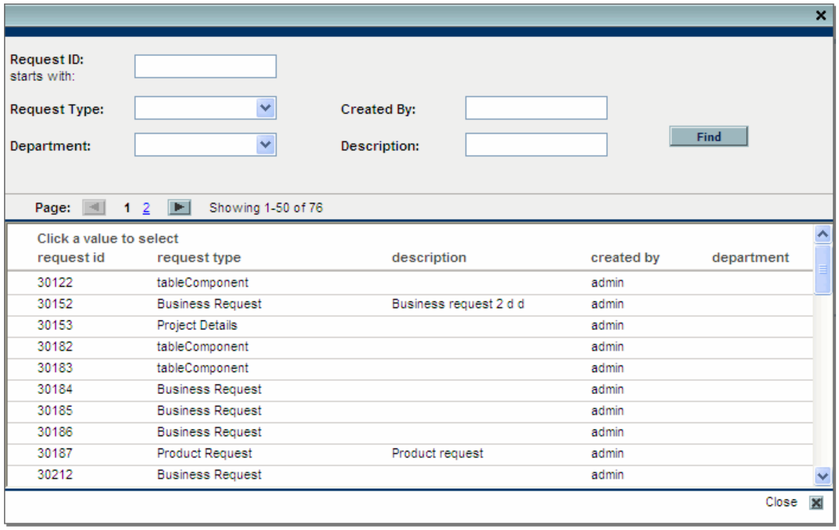
   XSLT templates are configured in PPM Workbench by admin user. For information about configuring XSLT templates, see *Configure an XML Importable Request Template*.

5. Select **Update an existing request.**

   This enables **Request ID** field.

6. For **Request ID** field, click the selector icon.

The popup window lists all available choices. Enter search filter(s) to locate the desired request ID or select a value from the list.



7. (Optional) If it is the first time for you to import an XML file, you may want to run a test before you perform the formal import. In this case, click **Test** button.

   It tests if the XML file can be imported successfully.

   - If the test result page shows "`Test completed successfully`", proceed to step 8.
   - If "`Error parsing the incoming xml file...`", troubleshoot the cause and make sure the XML is ready for import.

8. Click **Import** button.

9. Check the import result and the ID of the new request created.

   A "`Test/Import completed successfully`" message will be displayed even when the XML imported does not match the XSL template selected, but no corresponding request ID will be generated and the log will show "`pass:0`".

10. Click **Back** to return to the Import Request from XML page.

Exporting Requests to XML Files

Exporting a request to an XML file of a specific format involves the following tasks,

1. *Enable Report Type (REFERENCE) Export Request Report*
2. *Configure an XML Exportable Request Template*
3. *Export a Request to an XML File in Specific Format*

Enable Report Type (REFERENCE) Export Request Report

To facilitate exporting a request to XML of a specific format, a new report type **(REFERENCE) Export Request Report** is added. This report type enables you to export a request report to a specific format.

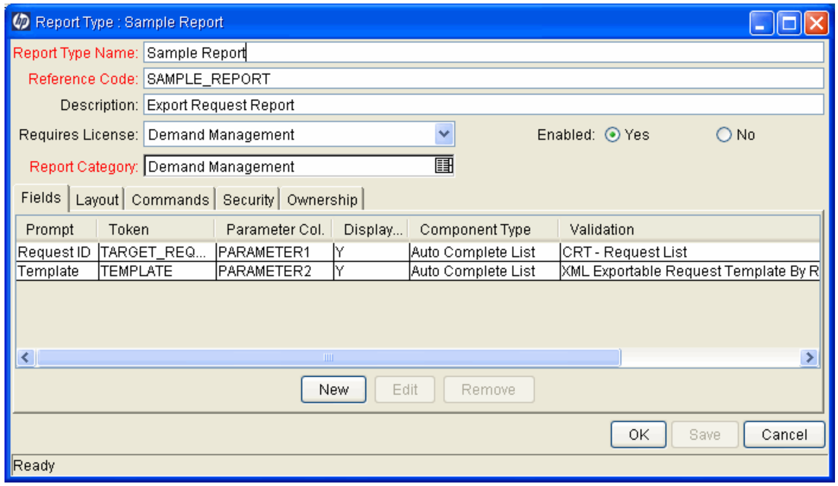
To enable the report type,

1. Log on to PPM Center and launch the PPM Workbench.
2. On the shortcut bar, click **Configuration > Report Types**.

   The Report Type Workbench opens.
3. Click **List**, then locate and select report type **(REFERENCE) Export Request Report**.
4. Click **Copy**.

   The Copy Report Type window opens.
5. Type a **Report Type Name**. For example, `Sample Report`.
6. Click **Copy** to continue.
7. When prompted, click **Yes**.

The Report Type: <*Report Type Name*> window opens.



8. For the **Enabled?** field, select **Yes**.

9. Configure other fields or options as necessary.

10. Click **OK**.

Configure an XML Exportable Request Template

To configure a specific format template for exporting a request to,

1. From the Validations Workbench, select validation **XML Exportable Request Template**.

2. Click **New**.

   The Add Validation Value dialogue box opens to Value Information tab.

3. On the Value Information tab, provide values for required **Code** and **Meaning** fields and optional field **Desc** as necessary.

   The value of **Meaning** field will be displayed in the drop-down list for **XSLT Template** field on the Import Request from XML page.

4. To use this new template, for the **Enabled?** field, leave it selected.

5. If you want to set this new template default, select the checkbox for **Default** field. Otherwise, leave it empty.

For more information about the fields in the Add Validation Value dialogue box, see the *Configuring Static List Validations* section of the *Commands, Tokens, and Validations Guide and Reference*.

6. Click the **User Data** tab.

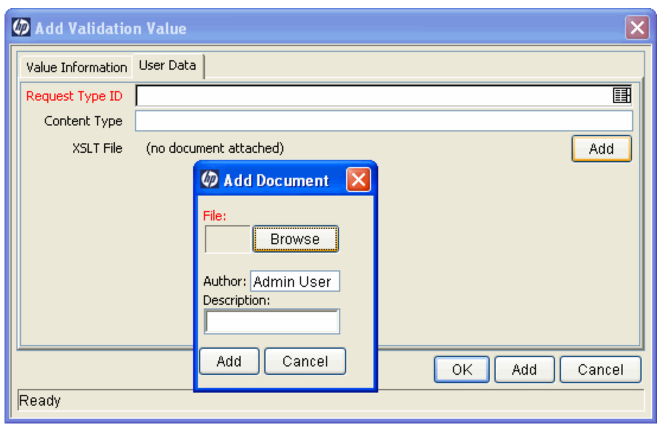
7. Do the following:

   a. In the **Request Type ID** field, select a request type ID using the auto-complete icon.

   b. In the **Content Type** field, you can type a short description of the request type.

   c. For **XSLT File** field, click **Add**.

      The Add Document dialog box opens.



      i. Click **Browse** to locate and select the XSLT file you want to add.

      ii. In the **Description** field, you can type a short description for the XSLT file.

      iii. click **Add**.

8. To add more values and keep the Add Validation Value window open, click **Add**.

9. To save your changes and close the window, click **OK**.

Export a Request to an XML File in Specific Format

To create a report and export a request to XML in specific format,

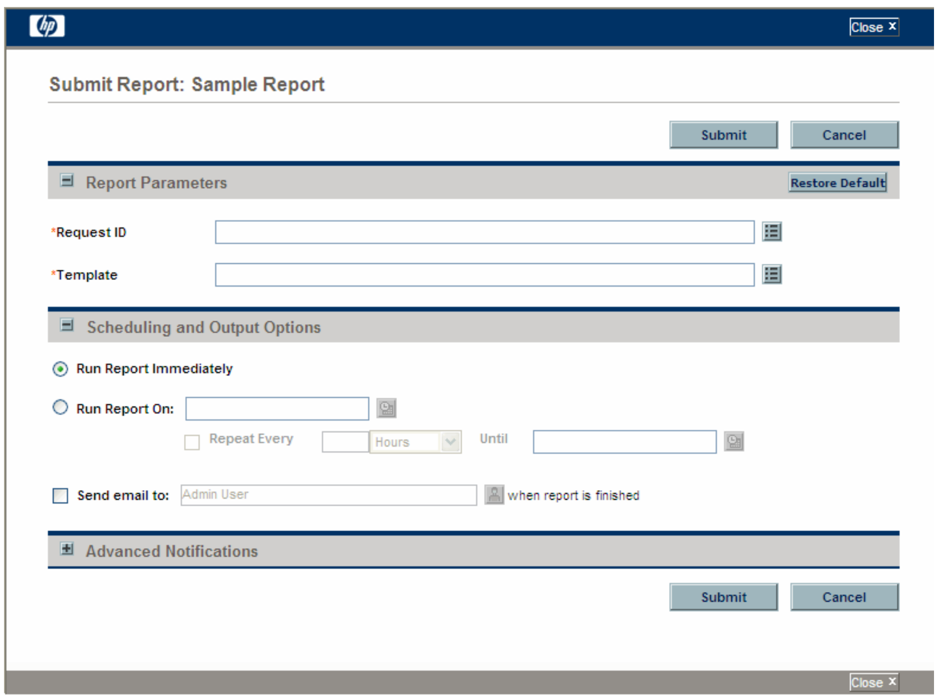
1. Log on to PPM Center.
2. On the **Open** menu, click **Reports > Create Report**.

   The Submit New Report page opens.

3. From the **Select Report by Category** section:

   - For **Report Category**, select the appropriate category.
   - Click the link for the newly created report type.

   The Submit Report: <*Report Name*> window opens.



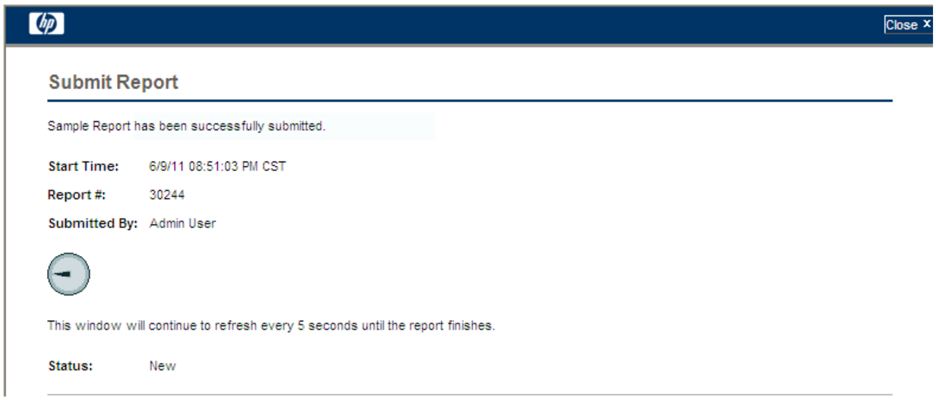
4. Under the **Report Parameters** section,

   a. In the **Request ID** field, specify a request number by using the selector icon.

b. In the **Template** field, select the template you created in *Configure an XML Exportable Request Template* on page 144.

5. Click **Submit**.

   The Submit Report window opens. The status is refreshed until the report is complete.



6. The completed XML report is displayed in a separate window.

```
<?xml version="1.0" encoding="UTF-8" ?>
- <requests xmlns:omb="https://OMB300.gov" date_format="YYYY-MM-DD">
  - <request>
      <requestType>Enhancement</requestType>
    - <field>
        <token>REQ.CREATED_BY_NAME</token>
      - <value>
        - <tr>
          - <table>
            - <tr>
                <td>REQD.FIRST_CONSULTANT_NAME</td>
                <td />
              </tr>
            - <tr>
                <td>REQD.TOTAL_EFFORT</td>
                <td>24852</td>
              </tr>
            - <tr>
                <td>REQD.CONTACT_INFO</td>
                <td />
              </tr>
            - <tr>
                <td>REQD.PRODINFO</td>
                <td />
              </tr>
            - <tr>
```

Exporting Requests by Running the Special Command

In general, a request is exported via the PPM Center report. A new special command (`ksc_export_request_as_xml`) is introduced to generate the exported file for the report. Setting `true` indicates report mode.

Report mode example:

```
ksc_export_request_as_xml [P.TARGET_REQUEST] "[P.TEMPLATE]"
true [RP.REPORT_SUBMISSION_ID]
```

where,

`[P.TARGET_REQUEST]` - ID of the request to be exported.

`[P.TEMPLATE]` - The template code.

`true` - Report mode, indicates that the result is exported to report.

`[RP.REPORT_SUBMISSION_ID]` - Report submission ID.

You can also use this special command in request mode by integrating it into your own workflows. In this case, the special command generates the exported file and pastes the URL of the exported file to a corresponding field on a specified request. A URL field is necessary for this mode because it shows more readable file name while referring to the full address of the exported file.

Request mode example:

```
ksc_export_request_as_xml [P.TARGET_REQUEST] "[P.TEMPLATE]"
false [REQ.REQUEST_ID] [REQD.P.RESULT]
```

where,

`[P.TARGET_REQUEST]` - ID of the request to be exported.

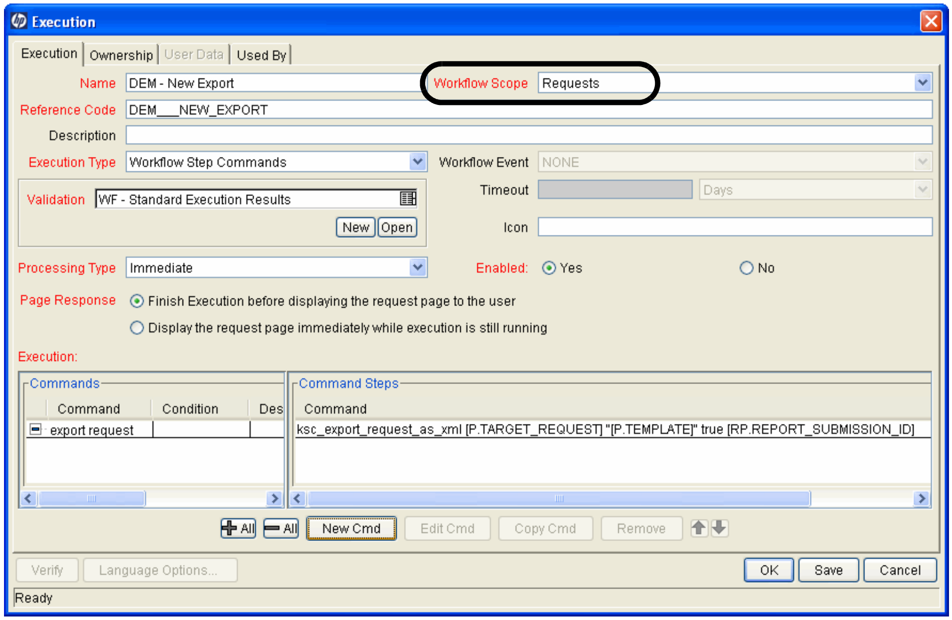
`[P.TEMPLATE]` - The template code.

`false` - Non-report mode, indicates that the URL of the exported file is updated to an appropriate field of the request.

`[REQ.REQUEST_ID]` - ID of the request that contains URL of the exported file.

`[REQD.P.RESULT]` - The field token that contains the URL of the exported file.

When you use the special command in a workflow to export a request, make sure to set **Workflow Scope** to **Requests** in the corresponding execution step. Otherwise you will not get an exported file successfully.



Attaching Impact Analysis Report for CIs to a Request in PDF format

In addition to viewing Universal CMDB Impact Analysis Report online by clicking the **Launch HP Universal CMDB Impact Analysis** button on the request page, you can also attach a Universal CMDB Impact Analysis Report for CIs in PDF format to requests in PPM Center.

This integration solution applies to Universal CMDB version 8.06 only.

New and Modified Settings

To enable this integration, the following settings are modified or introduced:

- **Universal CMDB Impact Analysis** field group: This field group is modified to include a new field **Report**. When the field group is enabled for a request type, an **Impact Analysis Report** field for report attachment will be added to any request you create based on the request type.

- **`ksc_download_ucmdb_impactreport`**: A new system special command added for downloading the Universal CMDB Impact Analysis Report.

  The following three optional values are available for advanced configuration purpose. You can append them to the special command, which will offer you the flexibility of setting filters for the report to be generated on the request page.

  - `-CATEGORY "<value>"`
  - `-SEVERITY "<value>"`
  - `-LANG "<value>"`

  If no values are set for the command, the values in `server.conf` will take effect. If no values are found in the `server.conf` file, the following Universal CMDB built-in default values will take effect:

Parameter	Value
Category	`Change`
Severity	`New`
Lang	`en`

  Examples:

  - To invoke the special command directly without any parameters:

    ```
    ksc_download_ucmdb_impactreport
    ```

  - To invoke the special command with parameters:

    ```
    ksc_download_ucmdb_impactreport -CATEGORY "change" -
    SEVERITY "plan" -LANG "fr"
    ```

- To invoke the special command with token parameters:

```
ksc_download_ucmdb_impactreport -CATEGORY "[REQD.P.<token name>]"
```

- New `server.conf` parameters

  Table 3-10 lists new parameters that are added to the `server.conf` configuration file to enable the integration.

  The parameter names listed in this table are shortened versions of the actual names, all of which start with the string `com.kintana.core.server`. For example, the full name of the `CMQC_SUPPORT_REQUEST_ID` parameter is `com.kintana.core.server.CMQC_SUPPORT_REQUEST_ID`. To add a parameter to the server.conf file, you must use its full name.

Table 3-10. New server.conf parameters

Parameter Name	Brief Description
IMPACT_ANALYSIS_ REPORT_CATEGORY	Sets default category value for the impact analysis report, for example, `change` or `operation`.
IMPACT_ANALYSIS_ REPORT_SEVERITY	Sets default severity value for the impact analysis report, for example, `MINOR(3)`. For available values, see *Table 3-11*.
IMPACT_ANALYSIS_ REPORT_LANGUAGE	Sets default language code, for example, `fr`. For supported languages and codes, see *Table 3-12*.
ONLINE_IMPACT_ ANALYSIS_REPORT	Enable or disable online impact analysis report. By default, it is enabled.

Table 3-11. Universal CMDB category and severity parameters (page 1 of 2)

Category	Severity	
	ID	Code
Change	0	NO CHANGE
	1	PLAN
	2	NEW
	3	CANCEL

Table 3-11. Universal CMDB category and severity parameters (page 2 of 2)

Category	Severity	
	ID	Code
Operation	0	NORMAL
	1	WARNING(1)
	2	WARNING(2)
	3	MINOR(3)
	4	MINOR(4)
	5	MINOR(5)
	6	MINOR(6)
	7	MAJOR(7)
	8	MAJOR(8)
	9	CRITICAL

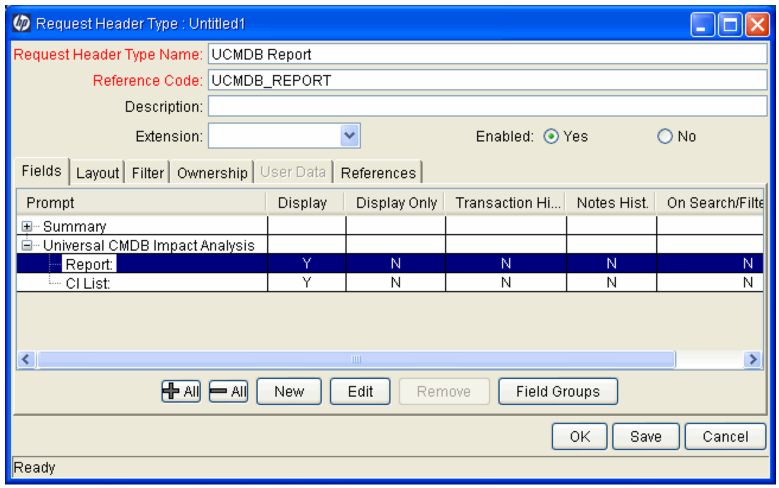
Table 3-12. Languages supported for the Impact Analysis Report

Description	Code
GERMAN	de
ENGLISH	en
SPANISH	es
FRENCH	fr
ITALIAN	it
JAPANESE	ja
KOREAN	ko
BRAZILIAN PORTUGUESE	pt
RUSSIAN	ru
SIMPLIFIED CHINESE	zh

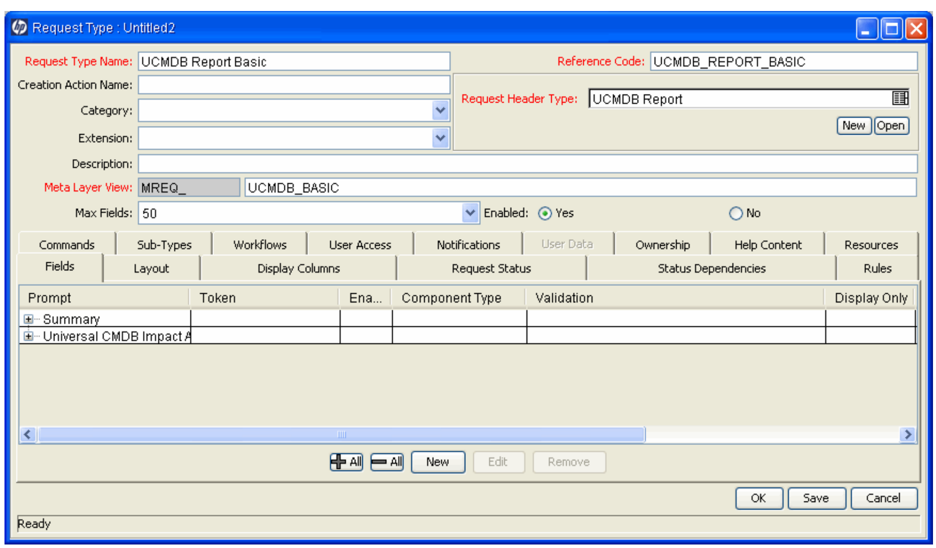
Basic Configuration Example

For a basic configuration, default values will be used.

1. In PPM Workbench, create a new request header type by going to **Demand Mgmt > Request Header Type > New Request Header Type**. Enable **Universal CMDB Impact Analysis** field group, and set **Display** attribute for both **Report** and **CI List** fields to **Yes**.



2. Create a new request type using the request header type you just created.

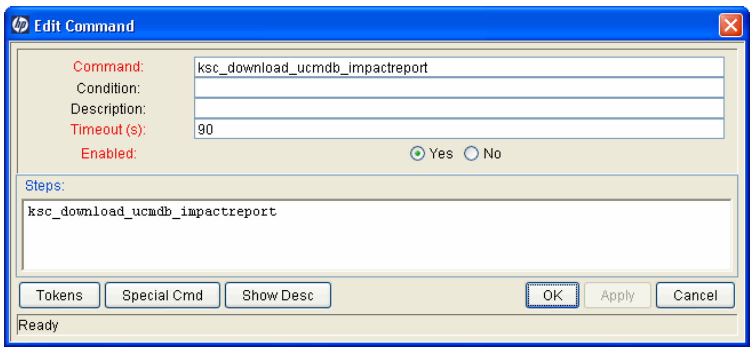


3. Create a workflow execution step that invokes the special command for downloading Universal CMDB Impact Analysis Report: `ksc_download_ucmdb_impactreport`.

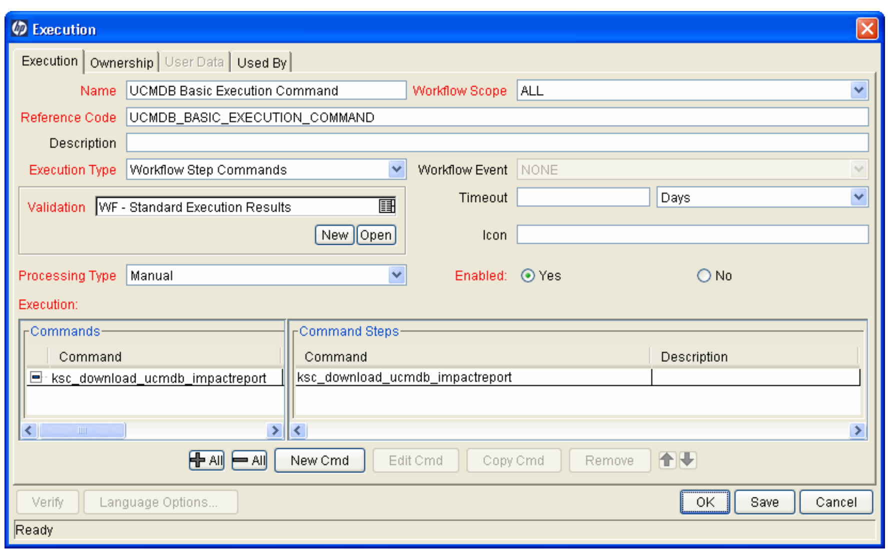
   a. In PPM Workbench, click **Configuration > Workflows**.

   b. In the Workflow Step Sources window, under Workflow Step Sources, select **Executions**, and click **New**. The Execution window opens.

   c. Provide a name for the execution step, select **Workflow Step Commands** for **Execution Type** field, and click **New Cmd**. In the New Command window, enter the new system special command, and click **OK**.



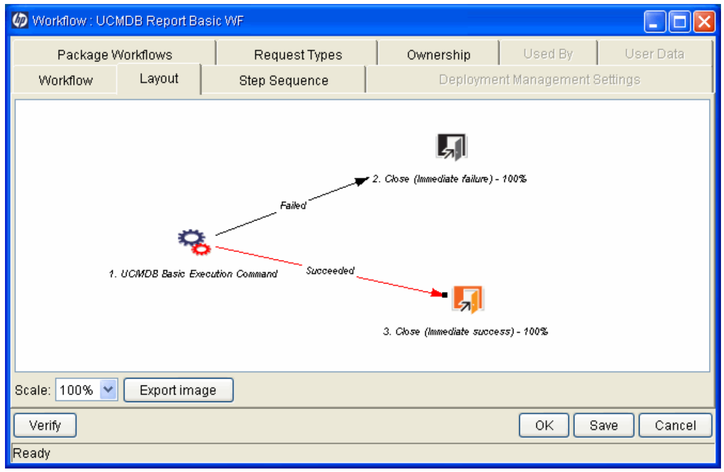
   d. Save the Execution step.



4. Create a new workflow.

    a. In the Workflow Workbench window, click **New Workflow**. In the Workflow window that opens, provide a name, and select **Requests** for the **Workflow Scope** field, and select **Yes** for **Enabled**.

    b. Go to **Layout** tab, drag the workflow execution step you just created to the Layout window, set **Security**, configure the transitions.

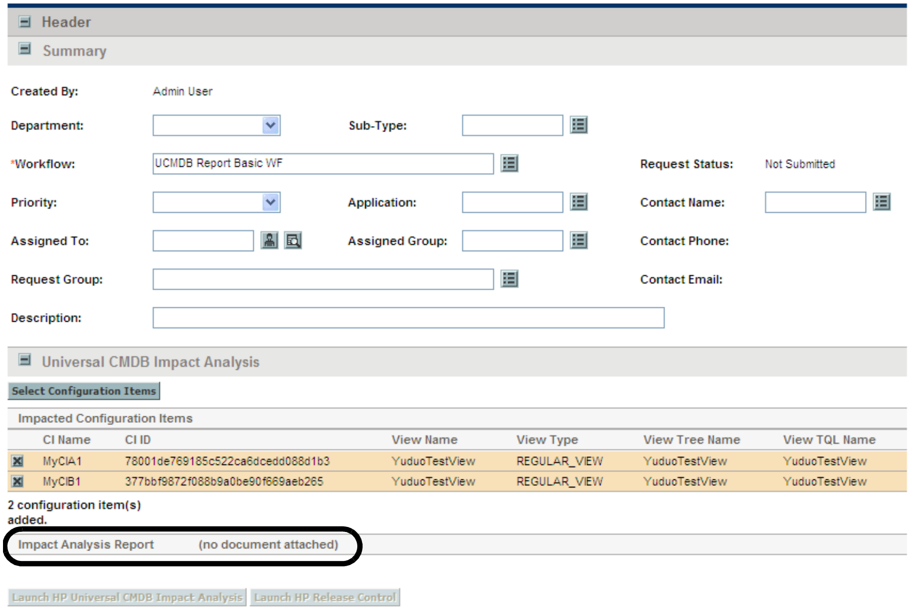


    c. Save the workflow.

5. In PPM Center, create a Universal CMDB request based on the request type you created in step 2 on page 153.

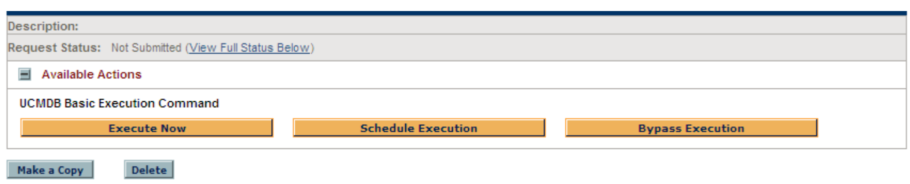
    a. For **Workflow** field, select the workflow you created earlier.

    b. Under Universal CMDB Impact Analysis section, click **Select Configuration Items** and add CIs for which you need to generate a report.

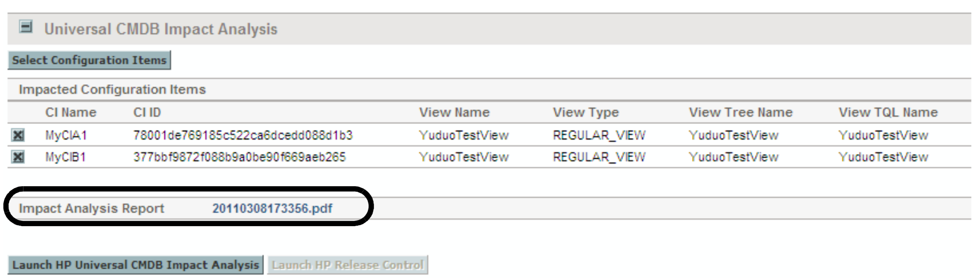


c. Provide values for other fields as necessary and submit the request.

6. Open the request and click **Execute Now** to execute the command.



7. The Impact Analysis Report is attached to the request in PDF format, with automatically generated file name of `<YYYYMMDDHHMMSS>.pdf`.



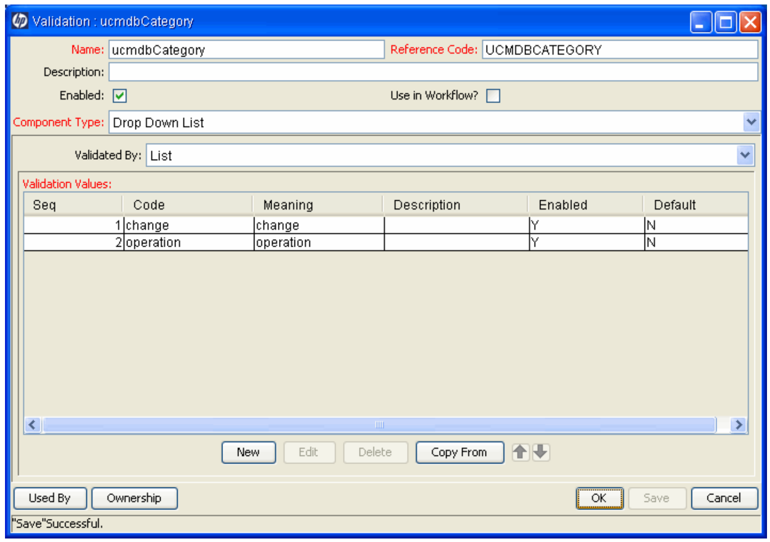
8. You may click the PDF report link to view the report.

Advanced Configuration Example

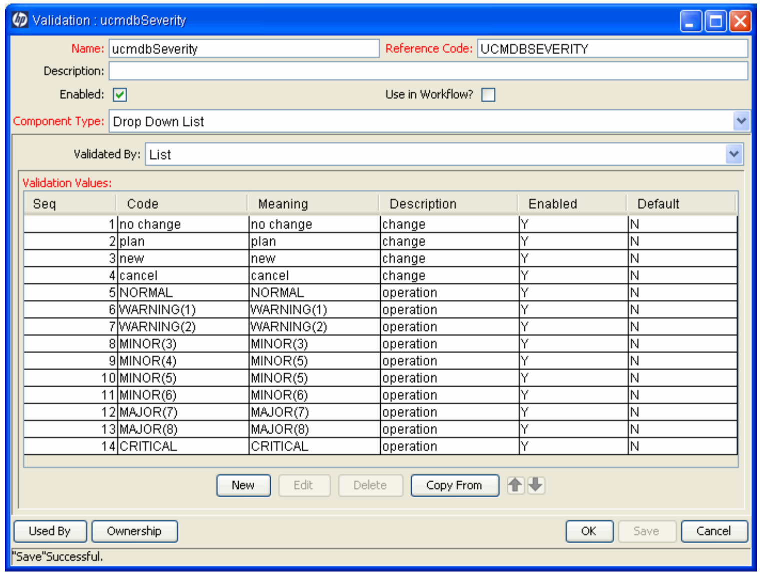
You can choose to pass optional `category`, `severity`, and `language` parameters for Universal CMDB Impact Analysis Report to the system special command. You can also pass them by token.

1. Create new validations for request type field options.

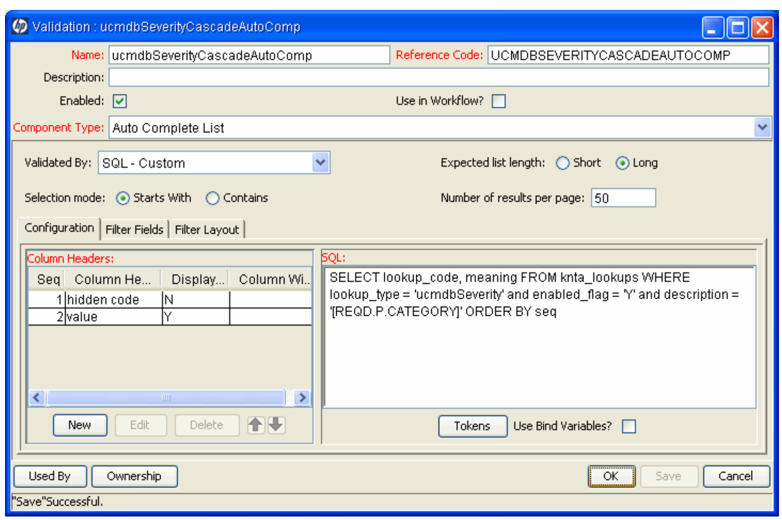
   a. Category



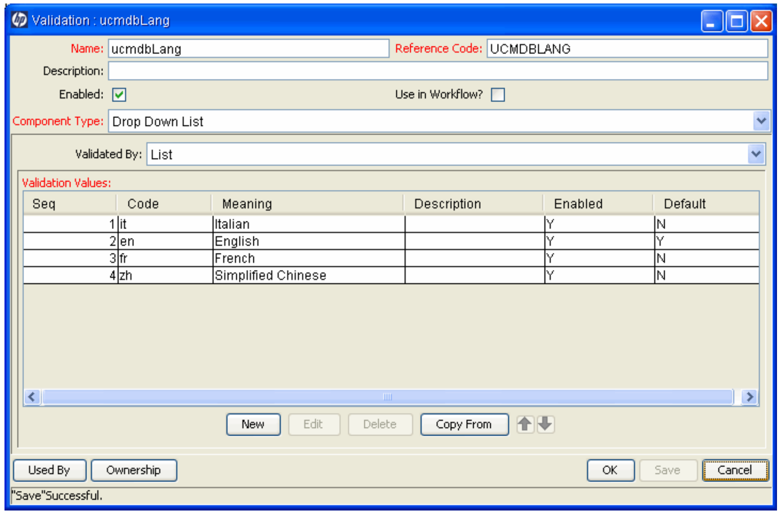
b. Severity



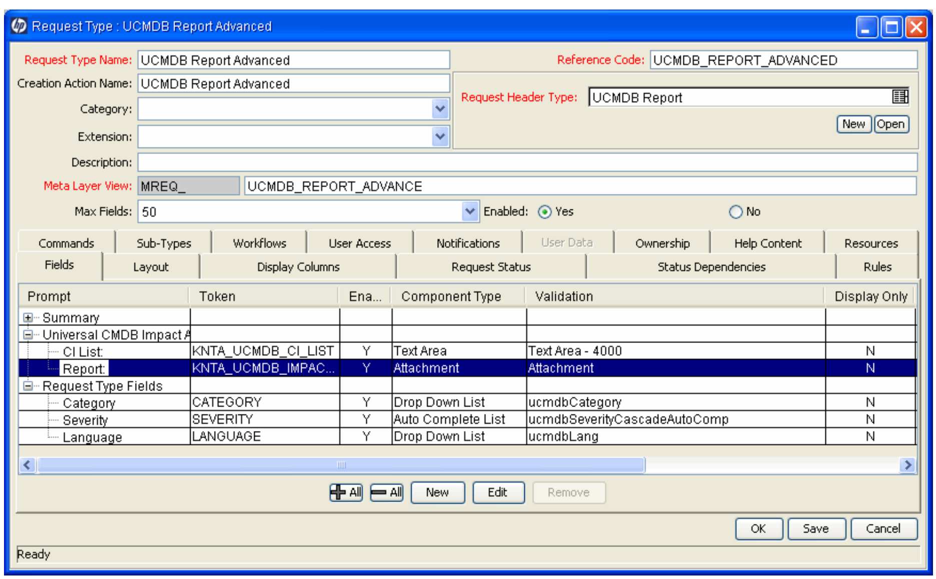
(Optional) You can create an auto-complete list to implement severity cascade on the basis of the above ***ucmdbSeverity*** validation.



c. Language

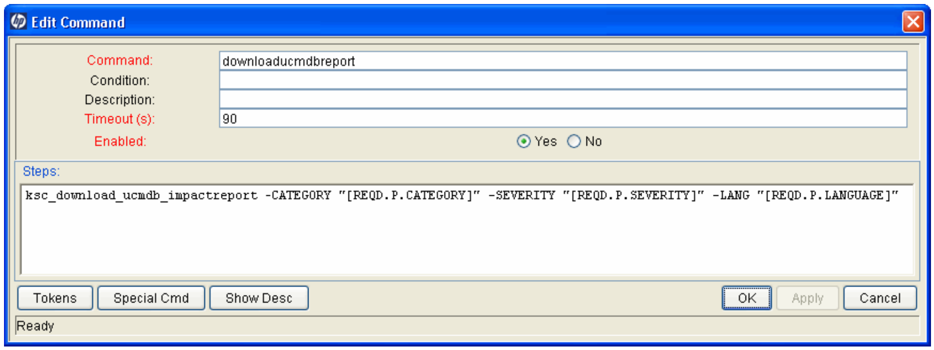


2. Create a Universal CMDB request type, with three request type fields for Category, Severity, and Language.



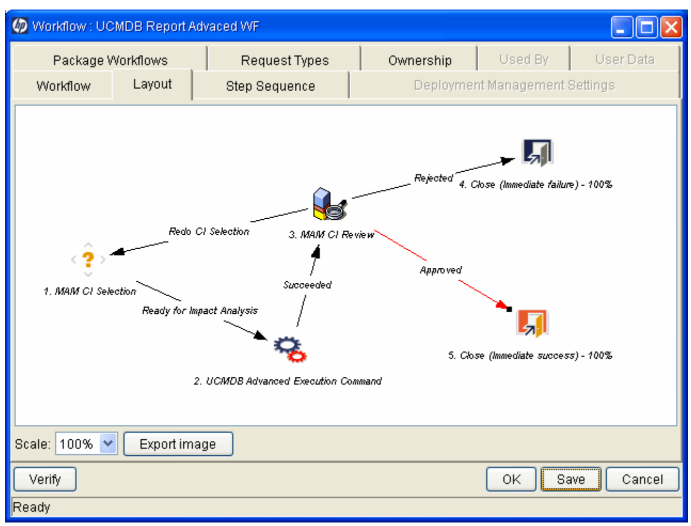
3. Create a workflow execution step that invokes the special command for downloading Universal CMDB Impact Analysis Report with advanced options:

```
ksc_download_ucmdb_impactreport -CATEGORY
"[REQD.P.CATEGORY]" -SEVERITY "[REQD.P.SEVERITY]" -LANG
"[REQD.P.LANGUAGE]"
```

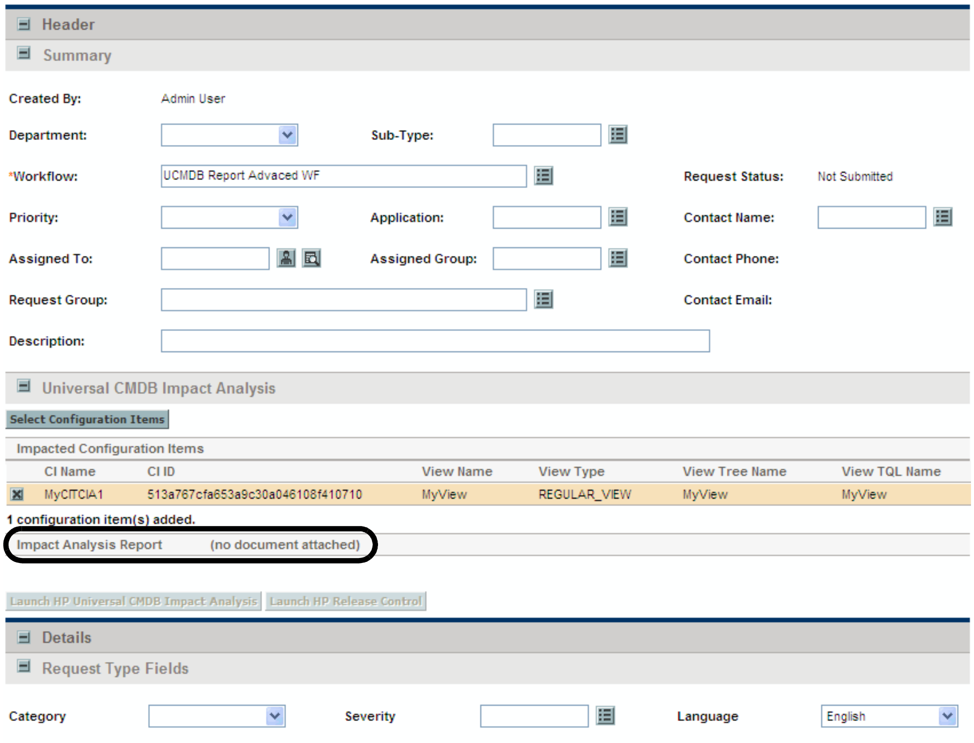


Enter the command manually. Copying and pasting the command may introduce unwanted characters, which may result in potential execution error.

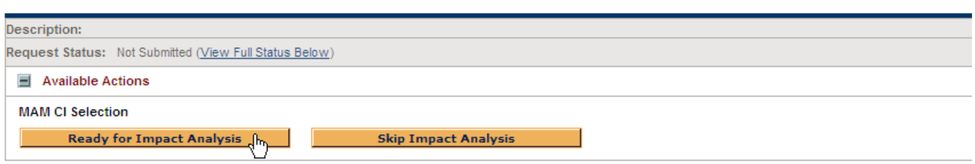
4. Create a workflow with the above workflow execution step, configure the workflow transitions, and save the workflow.



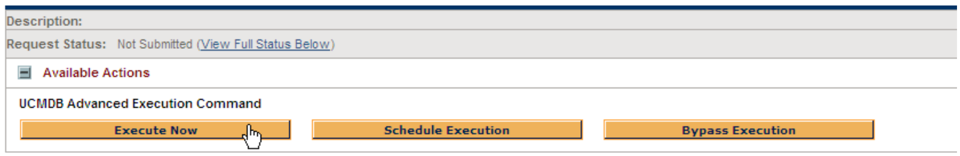
5. In PPM Center, create a Universal CMDB request using the request type you just created. For **Workflow** field, select the one you created earlier. Select configuration items in order to generate an impact analysis report, and submit the request.



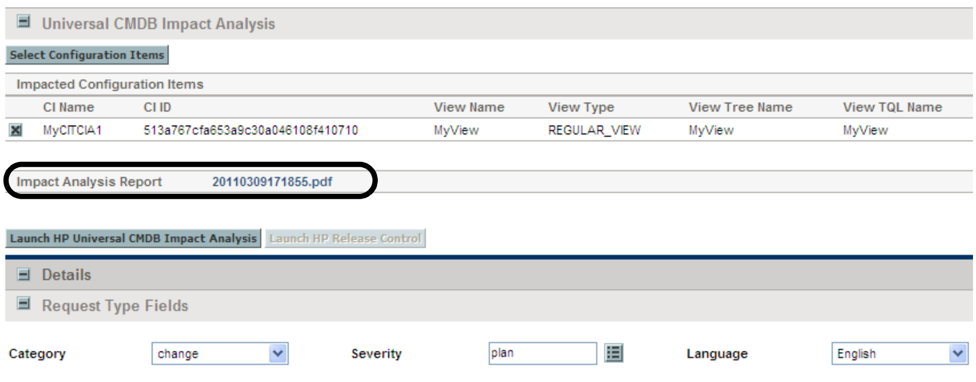
6. Open the request, execute the first workflow execution step.



7. Go to the Request Type Fields section of the request, set desired values for **Category**, **Severity**, and **Language** fields as filters for the report to be generated, then click **Execute Now** to execute the second workflow execution step.

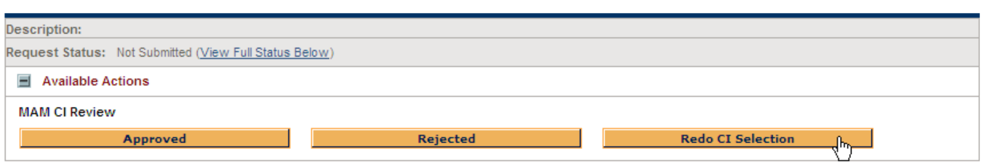


8. The impact analysis report is attached to **Impact Analysis Report** field, with automatically generated file name of <*YYYYMMDDHHMMSS*>.pdf.



9. You may click the PDF file link to view the report.

10. (Optional) To generate a report for more CIs, you can click the **Redo CI Selection** workflow step in the Available Actions section to run the workflow again.



Certifications

The following certifications are included in PPM Center version 9.12:

- Microsoft Windows Server 2008 R1 SP2, Standard and Enterprise Edition (both 32- and 64-bit) as PPM Center server platforms
- Microsoft Windows Server 2008 R2, Standard and Enterprise Edition (64-bit) as PPM Center server platforms
- Microsoft Hyper-V running Microsoft Windows 2008 SP2 Enterprise Edition (32-bit) and Red Hat Enterprise Linux AS 4.0 (64-bit) platforms as a virtualization server platform
- Oracle 11.2.0.2.0 (RAC and Non-RAC) support for all PPM Server platforms
- HP Service Manager version 9.21 support for PPM Center integrations with HP Service Manager (ALM and SM RFC)
- HP Quality Center version 11.00 and HP Application Lifecycle Management 11.00 support for CMQC solution:
- Support for HP Universal CMDB versions 8.06, 9.02, and 9.03 when used for impact analysis of PPM Center requests (using ALM) and for service portfolio
- Support for use of HP Deployment Management Extension for Oracle E-Business Suite with Oracle E-Business Suite version 12.1.3 (requires patch PPMC_00098 for the Extension)
- Support for Microsoft Office Project 2010
- 64-bit JDK support for 64-bit Microsoft 2008 R2 Enterprise Edition and 64-bit Red Hat Enterprise Linux AS 5.0, Updates 1 through 6
- Support for tightening the access to the following packages for public roles in Oracle:
    - HTTPURITYPE
    - UTL_INADDR
    - ALL_SOURCE

For details, see the *System Requirements and Compatibility Matrix.*

Fixes

The following fixes are included in PPM Center version 9.12:

CM Tools

Tracking Number	Problem Description

4621511734	A `NullPointerException` that resembles the following is generated in the server log file when you shut down the PPM Server.
	`server:JBoss Shutdown Hook:com.kintana.core.server:2010/10/25-17:06:59.404 MSD: java.lang.NullPointerException`
	`at`
	`com.kintana.core.server.cluster.MulticastAgent.send(MulticastAgent.java:175)`
	`at`
	`com.kintana.core.server.cluster.MulticastAgent.send(MulticastAgent.java:182)`
	`at`
	`com.kintana.core.server.ISIntegrityServerImpl.cleanupForShutdown(ISIntegrityServerImpl.java:1005)`
	`at`
	`com.kintana.core.web.listener.ServerStartListener.contextDestroyed(ServerStartListener.java:69)`
	(QCCR1L29039)

Costing

Tracking Number	Problem Description
4627341892	You have a proposal or asset that is saved as a draft before being submitted. When you try to defect the proposal or asset, the following error message occurs: `Error 500: Unknown error` (QCCR1L40565)
4628543623	Performance issues occur when you try to delete an entity in the Financial Management module. In PPM Center version 9.12, the corresponding SQL statements are optimized to improve the performance. (QCCR1L41034)

Tracking Number	Problem Description
4625598236	If you open the Project Settings page when the Cost and Effort policy is locked, and click on **Save** or **Done**, the Financial Management settings for the project get reset to default values. (The ACTUAL_ROLLUP_CODE field in the FM_FORECAST_ ACTUALS table is set to MANUAL.) (QCCR1L40549)

4615317678	A program manager receives the following error message when clicking **Add Forecast and Actuals** on an editable financial summary for a program:
	`The following is a stack trace of the exception:`
	`com.kintana.core.server.RuntimeBaseException`
	(QCCR1L39690)

4618543179	If the system has a large number of records in the Pending Cost Rollup table, the Project Planned Values Update service could cause a high memory consumption, resulting in the “Out of Memory” error. (QCCR1L39777)

4615481812	As pending rollups tables keep growing, the notifications cleanup service could cause the “Out of Memory” error on a services node. When this problem occurs, the following error is generated in the server log:
	`spRuntimeContext[/itg.war]:org.jboss.web.localhost.Engine:2010/06/02-`
	`23:18:01.872 BST: StandardContext[/itg]Background compile failed`
	`server:Cost Rollup Service:SystemOut:2010/06/02-23:18:01.875 BST: Exception`
	`in thread "ContainerBackgroundProcessor[StandardEngine[jboss.web]]"`
	`Exception in thread`
	`"ContainerBackgroundProcessor[StandardEngine[jboss.web]]" Exception in`
	`thread "Cost Rollup Service"`
	`server:FX Rate Update Service:com.kintana.services:2010/06/02-23:18:01.875`
	`BST: java.lang.OutOfMemoryError at`
	`oracle.sql.CharacterSetFactoryThin.make(CharacterSetFactoryThin.java:111) at`
	`oracle.sql.CharacterSet.make(CharacterSet.java:441)`
	(QCCR1L39736)

4619456592	In Financial Web services, the result of the `searchCostRules` operation misses one record. This problem occurs if more than 1,000 records are expected to return. (QCCR1L39745)
4620103913	On the Add Cost Line page, if you fill a user data field with any keyword containing the ampersand (&) character, it is converted to “&”. (QCCR1L39749)
4617749271	You enable the tracking of capitalized costs for a project. However, when you try to add a position to the corresponding staffing profile, the Expense Type options are disabled (grayed out). This problem occurs if the Cost and Effort policy is locked. (QCCR1L39750)
4617988793	When you change the Display Only attribute of a Forecast Line text field user data from "Never" to "Always", the text field does not display any value even if there is data in the User Data column in the database. (QCCR1L39757)

Tracking Number	Problem Description
4619493829	You enter forecast values, and then save the change. However, the forecast values displayed in the financial summary could be inconsistent with the values you entered. This problem occurs if you click the **Save** and **Done** buttons multiple times. (QCCR1L39760)
4622039783	If a staffing profile is required during the project creation process, the forecasted labor costs from the staffing profile do not appear in the Financial Summary. This problem occurs even if you enable the “Calculated forecasted labor costs from the staffing profile” option. (QCCR1L39899)
4622238693	After you click **OK** in a cost line, values in the Financial Summary Cost user data fields could be: • Changed to zero. • Displayed in an unexpected format. (QCCR1L39903)
4616924994	If you disable a project resource, his or her actuals submitted and approved through the time sheets will not be rolled up to the corresponding project. Therefore, the system will show less actuals than expected for the project. (QCCR1L39711)
3603716263	If a project has tasks with a deep hierarchy (for example, four or more levels deep), the Cost Rollup Service does not calculate the Cost Performance Index (CPI) and Scheduled Performance Index (SPI) values correctly for the project. (QCCR1L39667)

Tracking Number	Problem Description

4610830017	The following error messages occur on your services node at the beginning of every hour:
	Error Message 1:
	`Cost Rate Rule Update Service:org.hibernate.LazyInitializationException:2010/02/17 -11:00:13.621 CST: failed to lazily initialize a collection of role: com.mercury.itg.core.cost.impl.CostRuleImpl.costRates, no session or session was closed`
	Error Message 2:
	`Cost Rate Rule Update Service:com.mercury.itg.core.cost.util.CostUtils:2010/02/17- 11:00:13.374 CST: Unable to synchronize staffing profile with budget, staffing profile id = 30227`
	(QCCR1L39811)

4622041074	The project labor cost does not calculate on the financial summary. This problem occurs when the project is created from another project. When a project spawns a new project, the synchronization setting between the financial summary and the staffing profile is not carried over to the new project. (QCCR1L39900)

Dashboard

Tracking Number	Problem Description
4626080315	When you import and export dashboard entities between different environments, one or more (OOTB) portlets in the dashboard may lose some settings. (QCCR1L40546)
4628536037	After upgrading to 9.10, the graph type portlets, such as bar charts, bubble charts, do not display dollar amounts correctly. For example, the bubble chart in version 7.5 shows numbers like $5,000,000.00, and $10,000,000.00. However, in version 9.10, the same numbers in a bubble chart are displayed as 5E7, and 1E8. (QCCR1L41195)

4606703773	You receive the following error message when clicking the Back button on a drill-down portlet:
	`Cannot load this portlet's data due to a misconfigured SQL Query. (KNTA-10836) Please contact your administrator with the following information:`
	`--The following error is thrown by the database:`
	`ORA-00907: missing right parenthesis`
	(QCCR1L24482)

Tracking Number	Problem Description
4618644890, 4614316964, 4618427650, 4617151876, 4627312248	In PPM Center 8.00 Service Pack 1, you receive the following error message when trying to open the Project Summary page for a project: `Cannot forward after response has been committed` This problem occurs when PPM Center is integrated with an external Web server and has generic single sign-on enabled. (QCCR1L41048)
4607749400	Health indicators are not correctly displayed when you export a dashboard page to PDF. This problem occurs if HTTPS is used between your browser and the Web server. (QCCR1L29336)
4617973018	You export a portlet to PDF. However, the font size in the exported PDF file gets smaller because long texts are not wrapped. This issue makes the information very hard to read. (QCCR1L39770)

4619019727	The following error occurs when you deploy PPM Center version 8.02:
	`SQLM: ORA-20011: The following error occured -2292 : ORA-02292: integrity constraint (ITGADM.DSH_AUTH_GROUP_FK2) violated - child record found at dsh_portlet_defs_801_SP1_2.sql`
	`ORA-06512: at line 148`
	(QCCR1L39753)

4604650751	After creating a Pivot Table portlet on an instance that has a language pack installed, you find that the numbers in the portlet are still displayed in the US format. (A comma (,) is used as the group separator, and a period (.) is used as the decimal separator.) If you change the display style of the portlet from Pivot Table to List, the numbers use the expected format. (QCCR1L39685)
4609079435	One or more tokens in a validation could be unparseable. This problem make the PPM Module Migrator fails to migrate custom modules. (QCCR1L39697)
4613257346	Your portlet data source has more than one columns with the Currency column type. However, when viewing the portlet, you find only one of the columns has the currency symbol. (QCCR1L39705)
4613768652	You receive the following error message when importing a portlet definition: `Dashboard object import failed: (KNTA-11145)  Message name: MIG_DASHBOARD_IMPORT_FAILED` This problem occurs if the data source of the portlet definition has more than one columns. (QCCR1L39696)
4617758606; 4613768652	You have a portlet definition that contains JavaScript to calculate the column value and the tooltip value. However, when you import the portlet definition, the calculated values for the column and tooltip are missing. (QCCR1L39698)

Tracking Number	Problem Description
4620128479; 4619450282	After PPM Center version 8.02 is deployed on a server with multiple PPM nodes, the dashboard.war file is not exploded on all the nodes in the cluster. (QCCR1L39751)
4611904940	No portlet is displayed in the Choose Portlets section of the PDF Settings page when you try to export a dashboard page to PDF. The generated PDF file is blank. This problem occurs if you select a portlet, instead of the corresponding dashboard page, on the Personalize Dashboard page before the export. (QCCR1L39887)
4603578806	The following error message appears in the server log when users open a bar/pie chart portlet: `cannot deal with property named annotation` (QCCR1L39936)
2605186572	Portlet navigation (the back and forward arrows on the top right corner of the details page) cannot navigate to the items that are not listed on the current page. For example, you create a Request List portlet that contains 10 requests, and you configure the portlet to display 5 requests per page. In this case, by using the portlet navigation, you can only access the first 5 requests. (QCCR1L39668)
4608734916	After you export portlets containing cells that have large data, the data in the exported spreadsheets will be incorrectly displayed as a string of pound signs (#####). (QCCR1L39763)
4615005593	If PPM Center is integrated with EMC Documentum (DCTM), when documents attached to a project, a request or other entities in PPM Center are saved into the DCTM repository, corresponding folders will be created for them in the repository, and the project type name, project name or request type name will become a part of the folder name. However, the slash character ("/") is not allowed in the DCTM repository folder names. So, if the project type name, project name or request type name contains slash character(s), the documents attached to them will fail to be saved into the repository. (QCCR1L39681)

Documentation

Global ID	Problem Description
4623622085	ENABLE_INTERFACE_CLEANUP parameter is deleted from the `server.conf` file, but the *Open Interface Guide and Reference* version 9.10 still refers to it on pages 34, 41, 57, 61, 82, 102, and 129. All occurrences of the ENABLE_INTERFACE_CLEANUP parameter should be removed from the guide. (QCCR1L39575)
4617369649	Reference to the KCRT_FG_PFM_PROJECT_INT table should have been removed from the page 64 and pages 139~141 of the *Open Interface Guide and Reference* version 9.10 since the Open Interface does not support creation of projects starting from PPM version 7.0. (QCCR1L39568)
4612023243	Table description for FM_EXCHANGE_RATES table needs to be updated in version 9.10 of the *Data Model Guide.* (QCCR1L39565)
N/A	Entity Relationship Diagrams in the guide need to be cleaned up. (QCCR1L39114)
4627341495	PM_PROGRAM_PROJECTS table is removed from PPM Center 9.10 schema and PGM_PROGRAM_CONTENT table is used for Program-Project relation, but the HP Program Management interface diagram in the *Data Model Guide* still shows PM_PROGRAM_PROJECTS table. (QCCR1L40543)
4624879873	Issue with maximum length of VARCHAR2 values in Data Type column of PPM Center database data tables, which should be character-length instead of byte-length. (QCCR1L39400)
4624752377	Unused PPM Center table KNTA_APP_SERVER_DETAILS documented in version 9.10 of the Data Model Guide. (QCCR1L37467)
4624586252	Need better documentation on how to customize menu options in version 9.10 of the *Customizing the Standard Interface* guide. For information about adding and changing a menu item, see *New Information for Customizing the Standard Interface* on page 220. (QCCR1L41618)
N/A	Microsoft Windows Server 2008 R2 (both 32- and 64-bit) is not yet certified as PPM Server platform for PPM Center versions 9.10 and 9.11. However, the *System Requirements and Compatibility Matrix* guide of version 9.10 indicates support for it on page 23. (QCCR1L41409)

HP Demand Management

Tracking Number	Problem Description
4624064175	For a date field with the component type Date Field (Long), the selection ranges from January 1970. However, if you manually enter a date, the system does not fire any event to validate the value entered when you tab out from the field. For example, in the date field, you can enter "21 December 0210", which is not a valid value. (QCCR1L29829)
4614999929	On the advanced search page of a request type, the order of fields in the layout differs from the order of fields in the layout created in workbench. (QCCR1L26644)
4622689292	In version 9.11, field-level security does not function at the request header type level. (QCCR1L29693)
4624748715	You use field level security to specify the users that are allowed to view or edit a certain field in a request type. However, if a user has the Edit All Requests access grant, the user will be able to view and edit that field even if the user does not belong to the group of users you specified in field level security. (QCCR1L39388)

4621511247	When you enter values in a text area table component from a request directly, the changes are successfully saved with the following notification message:
	`Changes have been made and will be applied upon save. Total number of rows after save:1 Entry`
	However, if the text area field is required and you enter values on the reconfirming page, the text in the notification message will be displayed incorrectly as the following:
	`Changes have been made and will be applied upon save. Total number of rows after save:1 ???ENTRY_TXT???`
	(QCCR1L28808)

4623436863	The Assignment Queue portlet has no preferences in PPM Center version 9.1x. (QCCR1L29598)
4622452489	The value you entered in the Assigned to field is not added to the Resources section of a request. This problem occurs when the following conditions are true: • The Assign to field is required for a certain status. • You enter value for the Assigned to field via the Reconfirm page. (QCCR1L29317)
4622570183	You add a resource to the Resources section of a request and enter the scheduled effort for the resource. When submitting this request, you receive the `NumberFormatException` error. (QCCR1L29515)

Tracking Number	Problem Description
4000957858	Inconsistent Request Type naming convention, description for Creation Action Name field is not correct on page 159 if version 9.10 of the *HP Demand Management Configuration Guide*. The description is revised to the follows: Optional. You may just leave it empty. You may also provide a value for it, which is displayed under the Create Based On Desired Action section as Most Recently Created on the Create New Request page instead of the request type name itself. (QCCR1L39092)
4619003101	The fact that UI-rule will not be triggered upon field change in an execution step in the Workflow should be documented. The following note is added to the document under the *Important Considerations for Configuring Advanced UI Rules* section: Using special commands, for example, `ksc_store`, in a workflow execution step to change field value will not trigger rules. (QCCR1L39776)
4620003610 4619765121	The *HP Demand Management Configuration Guide* needs an example for using PL/SQL function in a rule. Examples for using PL/SQL function in a rule are added as Appendix B to the document. See details in the updated *HP Demand Management Configuration Guide* of version 9.10. (QCCR1L28369, QCCR1L39740)
4605299889	If you create an advanced rule using **Apply on creation** rule event, you can add a **Dependencies** field, although the field may not work actually. Now the issue is fixed and the **Dependencies** field works properly on **Apply on creation** rule. (QCCR1L39691)
4607698640	ORA-06502: PL/SQL: numeric or value error: character string buffer too small {KCRT_AUDIT-3031} (KNTA-10498) As a result to the fix, the following text on p164 of *HP Demand Management Configuration Guide* can be removed: The total number of fields in a request type cannot exceed 359 if you enabled any one of the following attributes in any field: • Notes History • Transaction History (QCCR1L39874)

Tracking Number	Problem Description
N/A	When applying advanced rules on requests with "Printable Version" and the Print function, the previewed and printed data does not match with what is displayed on the screen. Now rules can be executed on the printable version of Request Details, but with the following limitations: • Only SQL rules and UI Rule `setFieldVisible()` will be executed. • Only **Apply on page load** rule event is supported. • The printable version should be opened from Request Details page instead of by entering the URL address directly. (QCCR1L39873)
4624457868	Two request types or request header types have almost the same field prompt except that one contains a colon (:), but the other does not (such as "Approval:" and "Approval"), or field prompts only have differences in cases (such as "Approval" and "approval"). In this case, you receive the following error message when updating the value of these fields in the corresponding requests: `ORA-01427: single-row subquery returns more than one row ORA-06512: at "KINTANA.KCRT_AUDIT", line 1321 ORA-06512: at "KINTANA.KCRT_REQUEST_DET_AUDIT_34115_1", line 81 ORA-04088: error during execution of trigger` (QCCR1L39993)
4614577718	When a field in the Request List portlet has a token with more than 28 characters, the column for that field does not show any data. (QCCR1L39710)
4616146232	PPM Center does not perform any authorization over the Web service operations to get, update and delete a request. Therefore, by using Web services, users can execute the operations that they are not allowed to perform in user interfaces. (QCCR1L39694)
4616220046	A proposal contains a table component that has a field with the Auto Complete List validation. After you create a project from the proposal, the data in the Auto Complete List field is not copied to the project. (QCCR1L39788)
4614758147	The `ksc_copy_request` special command returns the following error when trying to copy a request that is used in multiple languages: `com.kintana.core.openapi.OpenAPIException: Request with ID 0 was not found in the system.  Import was not performed.` (QCCR1L39764)

Tracking Number	Problem Description

4616011831	If a request that has a financial summary throws the following exception when being saved, some tables in the database will be locked.
	`QuartzScheduler_scheduler-livpswapppm1.r1-`
	`core.r1.aig.net1279415976242_`
	`ClusterManager:org.springframework.scheduling.quartz.LocalDa`
	`taSourceJobStore:2010/07/24-23:18:53.067 EDT: ClusterManager:`
	`Error managing cluster: Failure obtaining db row lock: ORA-`
	`00060: deadlock detected while waiting for resource`
	(QCCR1L39767)

4618092273	You create a workflow by copying the DEM - Database Refresh workflow. However, you receive the following error message when reaching the SLA_CLOSE and SET_REJECTED phases.
	`REQUEST_SATISFIED_ON="<Date> <Time>", "<Date> <Time>"`
	`ERROR while setting Token.`
	`The token attempting to be stored is invalid. Please verify that the token`
	`name is correct. (KNTA - 10234)`
	(QCCR1L39738)

4615712813	For a Decision step with “Decisions Required” field marked as “All,” you will receive a “No Recipients” error in the transaction details of the request. This problem happens if the step is in a sub-workflow. (QCCR1L39739)
4619492465	After you cancel a project by click the **Cancel Request** button at the bottom of the project, the corresponding work plan is still active. And you cannot cancel this active work plan. (QCCR1L39742)
4613270587	After clicking the selector icon for the Request Type field on Search Requests page, the popup window displays all available request types, which need to be restricted to authorized users only. (QCCR1L26752)

4619123939	The following error occurs when you try to exporting requests by using the `ksc_export_request` special command in a workflow step:
	`com.mercury.itg.ws.dm.integration. ksc_export_request`
	`java.lang.ClassNotFoundException:`
	`com.mercury.itg.ws.dm.integration.DMOutboundWSImpl`
	`at`
	`org.apache.catalina.loader.WebappClassLoader.loadClass(WebappClassLoader.jav`
	`a:1355)`
	`at`
	`org.apache.catalina.loader.WebappClassLoader.loadClass(WebappClassLoader.jav`
	`a:1201)`
	`at java.lang.ClassLoader.loadClassInternal(ClassLoader.java:320)`
	`at java.lang.Class.forName0(Native Method)`
	`at java.lang.Class.forName(Class.java:169)`
	(QCCR1L39743)

4614265052	On a request page, field names in different sections, which have the same number of columns, are not vertically aligned. This issue also occurs in the corresponding field values. (QCCR1L39701)

Tracking Number	Problem Description
4605299889	You create a UI rule that is supposed to be triggered when two Date/Time fields are not equal. However this UI rule is also triggered if the two Date/Time fields are empty. (QCCR1L39691)
4618252264	You create a rule that is supposed to be triggered when the Date/Time value in one field is before the Date/Time value in another field. However, the system does not take the Time part into account when comparing the two fields. As a result, if the two fields have the same Date value, the rule is never triggered. (QCCR1L39766)
4608078383	Setting the default Workflow for a request types in the PPM Workbench does not take effect in PPM Center 8.00. After you save the changes, the original default workflow still exists. (QCCR1L39699)
4612731559	You set the Note field as a required field on several transitions. After you enter a value to the Note field, if you go back through that transition, the field is still populated with what you previously entered. In this case, you can continue the transitions without entering any value to the Note field. (QCCR1L39693)
4619456196	You edit the preferences of a Request List portlet by using the Query Builder. However, you receive the following warning message when you try to add a new entry by clicking the auto complete list button on the Query Builder Search Terms - New Entry window: `You must provide a value for the field "" to complete the validation.` (QCCR1L29628)
4610102616	Zero truncation and extra note problems occur in the following scenario: You have a Text Field validation whose data mask is set to Numeric with two decimal places. You create a field by using this validation, and enable Notes History for the field. On a request that contains this field, you change the value of the field to a number with two decimal places, and the last decimal place is zero (For example, you change it to 123.40). After clicking **Save**, you notice that the last zero is truncated (For example, 123.4). In Notes History, an entry that resembles the following appears (The last zero still exists): *<Date>, <Year> <Time> <Time Zone> <Field Name>* changed from 123.33 to 123.40 When you open the request, and save it again without any change, the following entry appears in the Notes History (The last zero is truncated): *<Date>, <Year> <Time> <Time Zone> <Field Name>* changed from 123.40 to 123.4. (QCCR1L39762)

Tracking Number	Problem Description
1604111433; 4616489577	You receive the `java.lang.NumberFormatException.forInputString` error message when trying to delete a saved search that has a single quotation mark (‘) or an ampersand (&) in the name. (QCCR1L39885)
4600168340	In PPM Center 7.5 SP6 or earlier versions, you are not allowed to enter more than 200 characters in the Allowed Request Types field on the **Properties** tab of a workflow step. After you install PPM Center version 9.12, you will be able to enter up to 4,000 characters in the field. (QCCR1L39882)
4607698640	Saving a request type in which auditing is enabled for a large number of fields causes the following error message: `ORA-06502: PL/SQL: numeric or value error: character string buffer too small {KCRT_AUDIT-2061} (KNTA-10498).` (QCCR1L39874)
4611127066	After a new project manager is added to a project, the related tokens for existing project issues or risks are not updated. As a result, the new project manager does not have access to the project issues or risks that are created before he or she is added to the project. (QCCR1L39889)
4601699501	After you upgrade PPM Center to version 7.5 SP4, you may receive an error message when searching for requests. This problem occurs when the search result tries to display the fields that have field-level security configured. (QCCR1L39879)
4618903458	When you receive an email by using the Mobility Access feature, the width of the action buttons stretches across the window, and only the part having texts is clickable. This problem occurs in one of the following conditions. • The email client is Outlook 2007. • The email client is Outlook 2003, and the Internet Explorer version is 7 or higher. (QCCR1L39931)
4607078110	No validation of user access grants is performed when users access the DrillDownPortlet JSP directly. After you install PPM Center version 9.12, PPM Center will validate the access grants when a user tries to access the drill down portlet JSP, and if the user does not have the proper access grant, a message is returned, stating that the requested portlet does not exist. (QCCR1L27579)
4605139123	When trying to add an entry to a table component, if you click **Done** multiple times after clicking **Add**, you will receive a `java.lang.NullPointerException` error. In this case, duplicated rows are added to the table. (QCCR1L39875)

Tracking Number	Problem Description

4602190050	Special characters in the target requests are not displayed correctly if you use the following Web services special command to export requests:
	`ksc_export_request "" RequestTypeName false http://`
	`InstanceIP:Port/itgtrue true true aev-core.xsl`
	This problem still exists after you change the character set in the XML declaration of the XSL stylesheet. (QCCR1L39870)

4615855098	When you try to assign the value of a customized date field from the child request to the parent request by using Web Services, an error that resembles the following occurs in the execution log of the child request:
	`Setting the value of REQ.PLANNED_FINISH_DATE`
	`org.apache.axis2.AxisFault: An error occured when updating request fields at`
	`org.apache.axis2.description.OutInAxisOperationClient.send(OutInAxisOperatio`
	`n.java:271) at`
	`org.apache.axis2.description.OutInAxisOperationClient.execute(OutInAxisOpera`
	`tion.java:202)`
	`at`
	`com.mercury.itg.ws.dm.client.DemandServiceStub.setRequestFields(DemandServic`
	`eStub.java:899)`
	`at`
	`quicksilver.ws.dm.SetRequestSimpleField.setRequestFields(SetRequestSimpleFie`
	`ld.java:118)`
	`at`
	`quicksilver.ws.dm.SetRequestSimpleField.main(SetRequestSimpleField.java:89)`
	The parent request may display the wrong value. (QCCR1L39930

4600388484	The following error message occurs when the total length of a note is greater than or equals to 4,000 characters:
	`ORA-06502: PL/SQL: numeric or value error: character string buffer too small`
	`ORA-06512: at "KINTANA.KNTA_NOTE_UTIL", line 124`
	(QCCR1L39692)

N/A	Extend the size of RULE_SQL from 2000 to 4000 characters. (QCCR1L39792)
N/A	An upgrade script in PPM Center 9.10 sets the DEFAULT_CONST_VALUE column width of table KNTA_PARAM_SET_FIELDS_NLS from 4000 to 200. Consequently, an error occurs when saving default request type with the DEFAULT_CONST_VALUE value greater than 200 characters. (QCCR1L39162)

Deployment Management

Tracking Number	Problem Description
4619161578	You receive the following error message when trying to migrate a request type: `An HP internal error has occurred. Please contact HP Project and Portfolio Management support if the problem persists. (KNTA-10023)` However, this error message does not explain the reason why the migration fails. In PPM Center version 9.12, the system will return a more instructive error message. (QCCR1L28051)
1605000160	The `KDLV_DELETED_PACKAGES` table shows incorrect details for the user who deleted a package. In this table, the `DELETED_BY` entry records the value of the `LAST_UPDATED_BY` entry, which causes the audit trail information to incorrectly show the last person that modified the package as the person who deleted the package. (QCCR1L39669)
4609685757; 4615095375	After a workflow, which is created under a non-English language, is migrated to a new environment, the message body of a step notification does not display the correct content. (QCCR1L39678)
4618312726	Database connections cannot be automatically released, which causes packages to be locked with the following error message: Package <*Package ID*> is being updated by another database session. (KNTA-10026). When this problem occurs, you have to restart PPM Center. (QCCR1L39755)
4612733954; 4612552709; 3605705030	You migrate a workflow which includes one sub workflow to another instance, and set the “Replace existing sub workflow” option to Yes in object type PPM Workflow Migrator. In this case, the migration log shows that the migration completes successfully. However, the sub workflow is not replaced. (QCCR1L39883)

Deployment Management Extension for Oracle E-Business Suite

Tracking Number	Problem Description
4627796820	With PPM Center version 9.10 and Java version 1.6_18 or later, after installing the HP Deployment Management Extension for Oracle E-Business Suite version 9.10, the PPM Workbench could not be opened and a message including “The extension panel failed to load...(KNTA-10392)” was displayed. The issue was fixed in the manifest file in the Oracle E-Business Suite client jar file. To obtain the fix, download and install patch PPMC_00098. (QCCR1L40599)

Integrations

Tracking Number	Problem Description
4622741045	You manually install the PPM Plug-in for Microsoft Project for PPM Center version 9.11. However, upon connection to PPM Center from the plug-in, you receive a message that states a new version (6.0.0002) is available and should be installed. The message doesn't disappear after re-installing the plug-in from PPM Center. (QCCR1L29391)
4629230483	Sending a PPM Center project to Microsoft Project (in PPM Controlled Mode) fails when the following conditions are true: • There are both external predecessors and non external predecessors in the PPM Project Task. • The first predecessor of the task is an external predecessor. (QCCR1L41460)

4626503849	You send a work plan from Microsoft Project to a PPM Center version 9.1x project that does not have a work plan and chooses not to include the actual. In this case, you will receive the following error message when you want to view the task details (double-click a task on the PPM Work Plan view) in PPM Center:
	`An Error has Occurred`
	`An unknown exception has occurred. Please reload the page you were editing and try again.`
	`The following is a stack trace of the exception:`
	`com.kintana.core.server.RuntimeBaseException:`
	`An HP internal error has occurred. Please contact HP Project and Portfolio Management support if the problem persists. (KNTA-10023)`
	(QCCR1L40589)

Tracking Number	Problem Description
4622859069	In Microsoft Project, after you import a work plan from PPM Center, all predecessor and successor relations are missing. This problem can occur when the system is set to use a language that doesn't use commas as standard list separators, such as Russian, and French. (QCCR1L29394)
N/A	When saving a change in Service Manager, the system will perform validation. If it fails, the change in the form will not be saved. However, Service Manager still sends update request to PPM even when the validation fails, and the PPM-SM RFC integration log will override the notification message "`Please provide Closure Comments`" and display "`Update RFC finished`" instead. To address the issue, the javascript to be added in *step 8* (page 258) of the *Configuring the Integration of PPM Center Tasks and Service Manager RFCs* section of the *HP Solution Integrations Guide* is modified from: `system.library.HPPPMSMIntegration.integratePPM();` to the follows: **`if(vars.$L_exit!="bad.val")`** `system.library.HPPPMSMIntegration.integratePPM();` (QCCR1L41320)
4616498330	The `java.lang.NumberFormatException` error occurs when you try to upload work plans from Microsoft Project to PPM Center. This problem occurs when the following conditions are true: • Your system uses a language that uses comma (,) instead of a period (.) as a decimal separator, such as French. • The `hoursPerDay` field in Microsoft Project is a decimal value. When this problem occurs, a comma (,), instead of a period (.), is used as a decimal separator. (QCCR1L28378)
4620514041	After you import a work plan from Microsoft Project into a PPM project work plan, all activities are presented in the PPM work plan. However, after you set the status of the work plan root level task to “Active,” all activities that were previously displayed on the work plan are cleared. Additionally, if you modify the activity of the root level task, all the sub tasks’ activities are changed to the same as the root level task’s activity. (QCCR1L39756)
4614609342	You integrate PPM Center with Microsoft Project 2007. However, the Microsoft Project Plug-in for PPM may fail to load when you launch Microsoft Project 2007, which eventually causes an "Out Of Memory" error. (QCCR1L39960)

Tracking Number	Problem Description
4604114864	You create a proposal that has an attachment stored in the EMC Documentum repository. However, after you promote the proposal to a project, some users could not save the project or continue the workflow. (QCCR1L39686)
4613801498	You integrate PPM Center with EMC Documentum. Sporadically, you may receive the `HTTP 500` error when creating or working through a request. (QCCR1L29331)
4616560386	You integrate PPM Center 8.00 with EMC Documentum. You receive an error message that resembles the following when checking out a document for the second time. `[DM_SYSOBJECT_E_CANT_SAVE_IMMU TABLE]error: "Cannot save <document name>since it is immutable."; ERRORCODE: 100; NEXT: null.` (QCCR1L39895)
4609665268	If the base currency is set to a non-US dollar currency, such as Swedish Krona (SEK), you may receive a `NumberFormatException` error when viewing the Project List portlet. (QCCR1L39688)
4619450405	You group the dashboard pages by setting the `GROUP.PRIVATE.PUBLIC.PAGES` server parameter to `TRUE`. In this case, if you create a module that contains multiple pages, the module does not appear in the dashboard menu. (QCCR1L39737)
4615363665	When you click **Select Configuration Items** from the out-of-the-box Universal CMDB field group, the CI selector applet is launched in a very small window. In PPM Center version 9.12, the window size is increased. (QCCR1L39891)
4609759519	Assigned efforts are not distributed evenly in the Resource Usage view in PPM Center when the work plan is imported from Microsoft Project and the working hours configuration does not use the default settings. (QCCR1L39876)
4606232348	If you send an MSP project to PPM Center, the MSP actuals information is imported to PPM Center. This behavior causes different actuals between the time management report and the Actuals view. PPM Center version 9.12 provides options for you to include or exclude actuals information in an MSP project when sending the project to PPM Center. (QCCR1L39896)
4615238656	If you set the "Transfer actual information" setting to Actual Efforts, PPM Center transfers estimated remaining effort (ERE) to Microsoft Project even when the ERE tracking is turned off in PPM Center. PPM Center version 9.12 transfers ERE to Microsoft Project only when the ERE tracking is turned on. (QCCR1L39901)

Platform

Tracking Number	Problem Description
4624903164	On an AIX server, one slow thread that takes a long time to close the connection may block all the other threads from opening new connections. This problem causes Intermittent failures, such as logon failures, on clustered nodes. (QCCR1L41031)

N/A	PPM installer fails with the following error message when deploying the `KTMG_CONFIGURABLE_FILTERS.zip` package:
	`Install failed with message below, please exit the installation now.`
	`Completing the database creation...`
	(QCCR1L29033)

4624752377	The unused table `KNTA_APP_SERVER_DETAILS` exists in PPM Center, which may cause confusion. Starting with PPM Center version 9.12, this table will be removed. (QCCR1L37467)
4617394723	Server properties collection is not thread safe. You can observe this problem by creating multiple projects simultaneously from different proposals. When you do this, various error messages will occur. (QCCR1L40154)
4617557434	You can use the at character (@) in the search box to search for the following entities: • Projects • Programs • Staffing profiles • Tasks However, to search for a request, you have to use the pound character (#). Starting with PPM Center version 9.12, you can use the at character (@) to define a search for a request. (QCCR1L27407)
4617762640	You logon to PPM Center with the Portuguese language. However, when you switch between the Project Summary tab and the Project Details tab on the Project Overview page, some boilerplate texts may change to English. (QCCR1L29485)
4624752377	The PPM table KNTA_APP_SERVER_DETAILS is included in the Data Model Guide but there are no data in it. The table is dropped from PPM Center schema since it is not used, and also removed from the updated Data Model Guide. (QCCR1L37467)

Tracking Number	Problem Description

4626744911	An exception correlation occurs when you open projects in PPM Center. When this problem occurs, the following message is generated in the server log file:
	`Exception Correlation: GUID=41D899F3-615F-2207-C024-B6FDA6398AFB`
	`at`
	`com.kintana.core.web.filter.ControlFilter.applyFilter(ControlFilter.java:911`
	`)`
	`at`
	`com.kintana.core.web.filter.ControlFilter.doFilter(ControlFilter.java:1334)`
	`at com.mercury.itg.servlet.I18NFilter.doFilter(I18NFilter.java:40)`
	`at com.kintana.core.web.filter.Log4jFilter.applyFilter(Log4jFilter.java:49)`
	`at com.kintana.core.web.filter.BaseFilter.doFilter(BaseFilter.java:59)`
	`Caused by: org.apache.jasper.JasperException: /web/knta/dsh/portlet/`
	`PortletHeader.jsp(61,50) Attribute value localeCtrl.getCSSFileName("/itg/web/`
	`knta/dsh/css/PortletSpacing.css",request) is quoted with " which must be`
	`escaped when used within the value`
	`at`
	`com.mercury.itg.common.web.PortletTilesRequestProcessor.process(PortletTiles`
	`RequestProcessor.java:53)`
	`at`
	`com.mercury.itg.servlet.ActionMonitorFilter.doFilter(ActionMonitorFilter.jav`
	`a:86)`
	`at`
	`com.mercury.itg.servlet.HibernateSessionFilter.doFilter(HibernateSessionFilt`
	`er.java:79)`
	(QCCR1L40115)

4609464207	You set the `JSP_RECOMPILE_ENABLED` to `TRUE` in the server.conf file. However, when the server is running, changes to JSP files are not picked up as expected. You still have to restart the server to make the JSP changes visible. (QCCR1L39709)
4609547007; 4615258145	When the server log rotation size specified by the `ROTATE_LOG_SIZE` parameter is reached, the existing serverLog.txt file is not renamed for archiving, and no new log file is created. Instead, the system clears the original serverLog.txt file. This problem occurs when you start PPM as a service. (QCCR1L39741)
4608655631	A deadlock issue happens when you update tasks while the Cost Rollup service is running. (QCCR1L39752)
4611621428	In a field of the Text Validation 4000, the number of characters that you can enter is less than 4000 if multi-byte characters are used. (QCCR1L39890)

4622527565	You receive the following error message when submitting a copied scheduled report that has notifications:
	`This page had the following error:`
	` An HP internal error has occurred. Please contact HP Project and Portfolio`
	`Management support if the problem persists. (KNTA-10023)`
	`An HP internal error has occurred. Please contact HP Project and Portfolio`
	`Management support if the problem persists. (KNTA-10023)`
	`nested detail:DB Package error:`
	`ORA-01407: cannot update ("MITG"."KNTA_NOTIFICATIONS"."ENABLE_EMAIL_`
	`APPROVALS") to NULL {KNTA_NOTIFICATIONS_TH-400} (KNTA-10498)`
	(QCCR1L39942)

Tracking Number	Problem Description
N/A	A thread synchronization error in the Tomcat class loader may lead to a race condition. This can cause PPM Center version 7.5 SP4 running on AIX 5.3 to crash with the following error: `java.lang.IllegalArgumentException: Package org.apache.axis2.client already defined.  at java.lang.ClassLoader.definePackage` (QCCR1L29321)
4619268125	You experience a delay in the PPM Workbench synchronization between multiple instances. The workbench changes made on one instance are not presented in a timely manner when you view the workbench settings from the second instance. (QCCR1L29146)
4614806479	PPM Center may process scheduled tasks that are not actually due. Therefore, you may notice that reports scheduled to run in future have already been executed. (QCCR1L39758)
N/A	Message IDs in the `JMS_MESSAGES` table always start from zero when the active quartz scheduler switches node in a cluster. This may lead to constraint violations on the unique constraint in the `JMS_MESSAGES` table. (QCCR1L39937)
N/A	Under certain conditions, a non-services-enabled PPM cluster node may insert messages into the `JMS_MESSAGES` table. In this case, subsequent startup of a services-enabled node may then lead to a constraint violation on the `JMS_MESSAGES` table. This problem usually occurs if the quartz scheduler switches to being active on the latter node. (QCCR1L26787)
4610046564	A `java.lang.NullPointerException` error occurs when you try to logon to PPM Center. (QCCR1L39872)
4613946799	The KCRT_PARTICIPANT_CHECK_V view has performance issues. This may affect portlets, reports and some core functionality. (QCCR1L39893)
3605882193	A SQL query consumes 100% of the database CPU usage. This problem usually occurs when PPM Center contains projects with many tasks. (QCCR1L39673)
N/A	On HP-UX cluster, background services getting "`SpyJMSException: Cannot get a client ID`" and "`Unable to create new native thread`" error messages. The following patch packages are required: • PHCO_41946 for HP-UX 11.23 (IA-64) • PHCO_41407 for HP-UX 11.23 (IA-64) (QCCR1L41066)

Portfolio Management

Tracking Number	Problem Description
4628508506	When creating or viewing a portfolio, the forecast actual graph generates a null pointer exception. (QCCR1L41033)
4623199992, 4625240258	When the `LOGON_METHOD` is set to `LOGON_ID`, and the user's `LOGON IDENTIFIER` is different from his or her `USERNAME`, the `ksc_create_project` special command and the underlying com.kintana.core.server.execution.CreateProject Web service operation fail without printing any error message. (QCCR1L39525)
4620967635	In PPM Center version 8.02, creating a project by using the `ksc_create` command in an execution step can fail. However, when the creation fails, no error message is generated in the server log file. Only a "failed" message can be found in the execution log on the request. (QCCR1L39917)
4614939197	You use a custom field as a filter in the advanced search when trying to add new content to a scenario comparison. However, the search result is not affected by the match of this custom filed and all requests that meet the rest of criteria are returned. (QCCR1L39675)
N/A	For consistency with the Analyze Current Portfolio page, the Current Portfolio Map portlet has been renamed the Analyze Current Portfolio portlet. Portlets previously created as Current Portfolio Map portlets do not get renamed. (QCCR1L41659)

Program Management

Tracking Number	Problem Description
N/A	If you receive the "`Program name already exists`" message when creating a program, the values entered in user data fields are removed. Because of this issue, you have to enter the values again after you rename the program. (QCCR1L29255)

Project Management

Tracking Number	Problem Description
4616082690	When you use Project Management Web service operation to update a field, such as a date field, an error that resembles the following is generated in the server side: `org.apache.axis2.AxisFault: An error occurred while updating project <Project Name>.` (QCCR1L39644)
4627921745	The work plan policy on the Project Settings page cannot be updated after a work plan is created on the project. (QCCR1L40938)
4625649283, 4627814399	On the Search Projects page, if you type the number of the project in the “View Details for Project No:” field, and then press ENTER, the search result will display all projects instead of displaying the project you search for only. If you click **Go**, the search result will display the correct project. (QCCR1L40905)
4628545376	Performance issues occur in the work plan task query. PPM Center version 9.12 improves the performance of the query. (QCCR1L41228)

4622855391	After you export a project to PDF, the Project Associations portlet fails with the following error:
	`An Error has Occurred`
	`An unknown exception has occurred. Please reload the page you were editing and try again.`
	`The following is a stack trace of the exception:`
	`com.kintana.core.server.AppException:`
	`An HP internal error has occurred.`
	(QCCR1L39274)

4628736126	In PPM Center 9.1x, when you try to select a project manager to add to a project by clicking the **Add Project Manager** button, the search box displays all users, including non-licensed ones. However, you expect that only licensed users are displayed. (QCCR1L41205)

Tracking Number	Problem Description
4627037721	Performance issues occur when you perform a project search. To resolve this problem, PPM Center version 9.12 introduces the following two server.conf parameters to restrict the number of projects being returned on a project search: • `ENABLE_RESTRICTIONS_ON_PROJ_SEARCH` • `MAX_RESULTS_ALLOWED_ON_PROJ_SEARCH` The ENABLE_RESTRICTIONS_ON_PROJ_SEARCH parameter specifies whether to enable the restriction on a project search. The default value is `false`, meaning that by default there is no restriction on the number of projects being returned on a project search. To enable the restriction, set the value of this parameter to `true`. The `MAX_RESULTS_ALLOWED_ON_PROJ_SEARCH` parameter specifies the maximum number of projects being returned on a project search. The default value is 1,000, meaning that if the parameter is not specified and the `ENABLE_RESTRICTIONS_ON_PROJ_SEARCH` parameter is set to `true`, at most 1,000 projects can be returned on a project search. (QCCR1L40699)

4626005106	The `TSK.MASTER_PROJECT_ID` and `PRJD.PROJECT_DETAIL_ID` tokens have been removed since version 9.11.
	This behavior change could cause an error message that resembles the following when you click an auto-complete list of a Task User data field on the work plan page:
	`Exception Correlation: GUID=FAF6FDF0-F999-5B78-EE33-38CA36C11A0A`
	`Generated Time=2011/02/15-11:10:32.656 MEZ`
	`Server Node Name: HPPPM8`
	
	`message= ORA-00904: "MASTER_PROJECT_ID": invalid identifier {KNTA_`
	`TOKEN_PRIVATE-450}`
	` SELECT MASTER_PROJECT_ID FROM WP_TASKS WHERE  TASK_ID = :TASK_ID`
	`select 1, 1 from dual`
	`where 1 = 1`
	`and 1 = 32002`
	`and 1 = [TSK.MASTER_PROJECT_ID]`
	`and 1 = [TSK.TASK_NAME]`
	`and 1 = [PRJ.PROJECT_ID]`
	`and 1 = [PRJD.PROJECT_DETAIL_ID]`
	`and 1 = [SELECTED_TASK_ID]`
	After you install PPM Center version 9.12, these two tokens will be removed from the `knta_entity_tokens` table. And thus, the token builder does not show these tokens any more. (QCCR1L41092)

4601231666	When accessing a task in the project summary page using the link, you receive an error that reports an invalid token. This problem does not occur when you access the task by clicking the **Edit** button. (QCCR1L29274)

Tracking Number	Problem Description
4619713418; 4618494183	The Task Actuals Rollup service fails if there is a task that has more than 1,000 children tasks. When this problem occurs, an error that resembles the following is generated: `ppmLightServiceListenerContainer-1:com.kintana.services:2010/09/16-21:30:16.644 GMT: Failed to rollup task actuals for some workplan, rolling back transaction com.mercury.itg.exceptions.InfrastructureException: org.hibernate.exception.SQLGrammarException: could not execute query Exception Correlation: GUID=08517E80-6692-5DC2-F2EF-029098A09AF7` (QCCR1L39638)
4620661916	When a user removes a time sheet line that has a total effort of zero from a completed task, the Percent complete is set to 0 and the task is re-opened. (The status of the task is changed back to "In Progress." (QCCR1L39636)
4610263557	Under some circumstances, it is possible to click the **BACK** button in the browser and resubmit the project information, which results in an unreadable error message. In PPM Center version 9.12, this error message has been improved to be understandable by the user. (QCCR1L39643)
4611016471	The Project List portlet shows closed projects even if you clear the **Include Finished Projects** check box when editing the portlet preferences to exclude the closed projects. (QCCR1L39646)
4618967435	When you install PPM Center 8.00 Service Pack 2, the script "upgrades/Production/postupgrade/pm_project_types_800_1.sql" takes a long time to run. (QCCR1L39641)
4613660927	You receive a java error that resembles the following when trying to copy a project type from an existing project type that has been upgraded: `server:http-sms-r73-prod-test2.accenture.com%2F10.3.132.180-80-Processor18:SystemErr:2010/04/26-06:54:12.494 EDT: org.apache.commons.beanutils.ConversionException: Cannot assign value of type 'java.lang.String' to property 'activitySyncEnabled' of type 'java.lang.Boolean'` This problem does not occur if you create a new project type and then copy it. (QCCR1L29257)
4618796807	For proposal, project, and asset requests, you cannot enter more than 200 characters in the Project Manager field. (QCCR1L29258)
2606803977	A seeded query may cause performance issues. Further research on the Automatic Workload Repository (AWR) report indicates that part of the query checks whether all users have the permission to view a project unnecessarily for every task that belongs to the project. (QCCR1L39649)

<table>
<tr><th>Tracking Number</th><th>Problem Description</th></tr>
<tr><td>4617768670</td><td>You cannot export large work plans (for example, work plans that have more than 5,000 entries) to PDF or Excel.

After the export screen appears, it continues to refresh and never completes the export. When this problem occurs, an error that resembles the following is generated in the server log:

<code>Thread-42020:com.mercury.itg.pm.workplan.pdf.LoadingThread:2010/07/30-13:23:15.698 GMT-07:00: Loading Excel Exception org.hibernate.exception.SQLGrammarException: could not execute query.</code>

(QCCR1L29263)</td></tr>
<tr><td>4605373109</td><td>You fail to delete a project that has no references attached with the following error message:

<code>The reference you are trying to add (Project Project ID) is already deleted and cannot be added as a reference. The entity might be deleted right before you try to save it. Please remove this reference and try again. (KNTA-11017)</code>

This problem occurs when an entity that has a project reference pointed to the project is corrupted. (QCCR1L29267)</td></tr>
<tr><td>1600819251</td><td>Standard tokens cannot be resolved for the Project Details tab in the following scenario:
You create a user with the Project Management and Demand Management licenses and give the user the following access grants:
Demand Mgmt: Edit Requests
Demand Mgmt: View Requests
Project Mgmt: Edit Projects
Project Mgmt: View Projects
On the Request Type of a project, you set user access security to a standard token [PRJ.PROJECT_STAKEHOLDER_USERNAME] or [PRJ.PROJECT_MANAGER_USERNAME].
You set that user as a stakeholder or the project manager for the project.
Customers logon to PPM Center as that user and open the project.
In this scenario, the token is not resolve for the Project Details tab. As a result, this user cannot access the tab. (QCCR1L29269)</td></tr>
</table>

Tracking Number	Problem Description

4604050883	If you click **Save Draft** on the Submit Request page of a project request and the project name is duplicated with an existing project, you receive the following error:
	An Error has Occurred
	`An unknown exception has occurred. Please reload the page you were editing and try again.`
	`The following is a stack trace of the exception:`
	`com.mercury.itg.pm.pmo.NameAlreadyExistsException:Project Name Project 1 already exists`
	`com.mercury.itg.pm.dao.ProjectDAO.create(ProjectDAO.java:361)`
	`com.mercury.itg.pm.project.web.CreateProjectHelper.createProject(CreateProjectHelper.java:29)`
	If you search for the request that has been created, and then click the link in the search result, you receive the following error:
	`An Error has Occurred`
	`Cannot load the Project with the specified id: 32003. Project may be deleted by another user.`
	(QCCR1L29270)

4606288867	In a work plan, if you enter the scheduled effort greater than 999 for a task, the value of the **Estimated Remaining Efforts** field will be truncated starting from the comma. For example, if the scheduled effort is 8,000.00, the estimated remaining effort becomes 8.00. (QCCR1L29273)
4609213901	If you click the **Create blank work plan** link multiple times in quick succession, more than one work plans will be created for a project. (QCCR1L29272)
4615367809	Performance issues occur in the Project Management module when you use work plans. (QCCR1L29271)

Resource Management

Tracking Number	Problem Description

4627213561	The system tries to insert a value larger than the database maximum field size (255 characters) to a field on the `PPM_NOTIFICATIN_DETAILS` table. When this problem occurs, the following message is generated in the sever log file:
	`org.hibernate.exception.GenericJDBCException: Could not execute JDBC batch update`
	`JSESSIONID=E079FC449BE14CB72AA43BB45EE90467.ppm1,USERNAME=awarcola server:http-0.0.0.0-80-Processor19:SystemErr:2011/03/12-07:58:30.804 GMT-07:00: at com.mercury.itg.rm.staffing.dao.StaffingProfileDAO.getResourcePoolManagers(StaffingProfileDAO.java:932)`
	`JSESSIONID=E079FC449BE14CB72AA43BB45EE90467.ppm1,USERNAME=awarcola server:http-0.0.0.0-80-Processor19:SystemErr:2011/03/12-07:58:30.804 GMT-07:00: ... 22 more`
	`JSESSIONID=E079FC449BE14CB72AA43BB45EE90467.ppm1,USERNAME=awarcola server:http-0.0.0.0-80-Processor19:SystemErr:2011/03/12-07:58:30.804 GMT-07:00: Caused by: java.sql.BatchUpdateException: ORA-12899: value too large for column "PPMPROD_DB_SCHEMA"."PPM_NOTIFICATION_DETAILS"."DETAILS6" (actual: 302, maximum: 255)`
	After you install PPM Center version 9.12, the maximum field size is extended to 2,000 characters. (QCCR1L40288)

4619752455	When setting the end date for a resource, the database sets the timestamp at the beginning of the day (00:00) instead of the end of that day (23:59). This behavior causes a resource to be invalid at the last day. (QCCR1L28131)
4622515322	In the Assignment Load Details section of an exported Analyze Assignment Load spreadsheet, the Description column always displays the string “Project Summary”, instead of the project names. (QCCR1L29324)
4616323158	When you search for a resource in a staffing profile, the search result shows all the available resource pools in the Resource Pool Name column. However, you expect that only the user's current resource pools and the corresponding parent pools should be returned. (QCCR1L26696)

N/A	The following exception occurs when you use the Comparing to Workplan operation in a staffing profile:
	`An oracle exception is thrown:`
	`ORA-01795: maximum number of expressions in a list is 1000`
	(QCCR1L24493)

Tracking Number	Problem Description
4622504964	The Organization Model portlet does not display correct information in the Manager field. This field displays the manager's username (logon ID) instead of the full name. (QCCR1L29226)
4629234050	You select the option to reject outstanding resource requests when a resource pool is disabled. However, when disabling a resource pool, the outstanding request resources are not removed from the resource pool overall page. Additionally, their status is not updated to “Rejected” in the staffing profiles overall page. (QCCR1L41258)
4626436569	Staffing profiles display unmet demand data even though all the resource requests are fulfilled. (QCCR1L40902)
4620291219	You create a project that has Financial Management for Staffing Profile enabled in the project settings. And then, you create a staffing profile for the project and add many positions and resources. In this case, you may encounter performance issues when you try to do the following: • Adding a position to the staffing profile. • Assigning a resource to a position. (QCCR1L39821)
4611288078	Setting the `RM_OVERRIDE_ASSIGNMENT_CONTROLS` parameter does not affect what resources can be mapped between HP Project Management and Microsoft Project. (QCCR1L39301)
4602335556	In the Assignment Load Details section of an exported Analyze Assignment Load spreadsheet, the Description column does not display the project names. Instead, the column displays the string “Project Summary”, which is the same value with the Type column. (QCCR1L39682)
4619713418; 4618494183	In the <PPM_HOME> directory, huge binary files with the name java_pid*.hprof are created when "Out Of Memory” errors occur. These files consume a lot of disk space, which affects the system performance. (QCCR1L39906)
4620109634	You have an instance that uses a language pack, such as the French language pack. When you try to add a resource to a project, you may receive an error message stating that the cost is invalid. (QCCR1L39746)
4621652875	If you assign a resource to a certain position by using the **Manage Allocation** button on the resource pool page, the system will not send out the notification for this resource assignment. (QCCR1L39761)

Tracking Number	Problem Description

4612790558	When you try to set the end period to an earlier date for a staffing profile that is associated with a lifecycle entity (such as a proposal, a project, or an asset), you receive the following error message:
	`An unknown exception has occurred. Please reload the page you were editing and try again`
	`The following is a stack trace of the exception`
	`com.kintana.core.server.RuntimeBaseException`
	`A HP internal error has occurred. Please contact HP PPM support if the problem persists (KNTA-10023)`
	This problem also occurs if you change the staffing end period to a later date and then try to change it back to the original one.
	This problem occurs when both of the following conditions are true:
	• If the lifecycle entity is a project, the "Calculate the forecasted labor costs from the staffing profile" option must be selected.
	• You have created positions and made assignments for the staffing profile.
	(QCCR1L39683)

4613485146	Users that have the "View all Resource Pools" and "Edit Resource Pools" access grants can disable resource pools for which they are not the pool manager. In PPM Center version 9.12, only the resource pool manager will be able to disable a resource pool unless the user has the "Edit All Resource Pools" access grant. (QCCR1L39700)
4609215161	You track time against a certain request type by using Time Management. Users enter some actuals against a request of that type. However, the Analyze Assignment Load portlet does not show the actuals. (QCCR1L39935)

4617238862	You receive the following error message when clicking **Manage Allocation** on the Resource Pool page:
	`An unknown exception has occurred. Please reload the page you were editing and try again.`
	`java.lang.ArrayIndexOutOfBoundsException:2`
	`com.mercury.itg.rsc.staffing.web.PageMarks.updatePageMarks(ManageAllocationActionHelper.java:1236)`
	`com.mercury.itg.rsc.staffing.web.ManageAllocationAction.doExecute(ManageAllocationAction.java:569)`
	`com.mercury.itg.common.web.BaseAction.execute(BaseAction.java:146)`
	`org.apache.struts.action.RequestProcessor.processActionPerform(RequestProcessor.java:421)`
	(QCCR1L39744)

4614068689	You may see more actual FTEs than expected in the resource plan view of the scenario comparison for a project. (QCCR1L39869)

Tracking Number	Problem Description
4611224778	The Analyze Assignment Load (AAL) portlet shows logged time incorrectly. The total number of hours shown on the AAL portlet is correct. However, the hours are incorrectly distributed across the month contours. (QCCR1L39932)
4605545720	Cost rate rules that contain the Org Units cost factor do not work correctly for Time Management Reports. (QCCR1L39812)
4611421308	Data is truncated in an exported spreadsheet if this spreadsheet includes a staffing profile that contains a single quote mark (‘) in the name. (QCCR1L39934)
4605161025	Compare to Workplan--View by Role does not display any Actual Effort data if there is time logged against the project. (QCCR1L39933)

2607413269	Staffing Profile notifications do not work correctly when using the default notification settings. The recipient can not receive the notifications. When this problem occurs, the following error is generated in the server log:
	`server:RM Notification Service:com.kintana.services:2009/06/05-08:30:03.897`
	`EDT: java.lang.IndexOutOfBoundsException: Index: 0, Size: 0`
	`at java.util.ArrayList.RangeCheck(ArrayList.java:546)`
	`at java.util.ArrayList.get(ArrayList.java:321)`
	`at com.mercury.itg.rm.notification.service.NotificationContent.`
	`<init>(NotificationContent.java:31)`
	`at com.mercury.itg.rm.notification.service.ResReqNotificationCo`
	`ntent.<init>(ResReqNotificationContent.java:23)`
	`at com.mercury.itg.rm.notification.rule.RMNotificationRule.getE`
	`mailMessages(RMNotificationRule.java:236)`
	(QCCR1L39680)

4600458010	You receive the “`Components size is bigger than compressed data`” error message when trying to open a staffing profile. (14816)
4605746526	Previously entered user data values do not appear when you open a staffing profile header. (QCCR1L39689)

Time Management

Tracking Number	Problem Description
4625907931	Negative total effort appears in a task when the project manager rejects invalid time sheets in the Time Approval portlet on the Project Overview page. (QCCR1L40813)
4616643099, 4625477790	Additional database connections are being opened as part of loading a time sheet that contains project or task items. This is unnecessary and causes the connection pool to exhaust its available connections and throw the following error: `: org.hibernate.exception.GenericJDBCException: Cannot open connection` (QCCR1L28613)
4625907931	If you enter actuals in a time sheet and set the % Complete field to zero, a popup message will inform you that % Complete cannot be zero when there is effort in the work item. In this case, if you click **OK** on the popup message, and then refresh the page, the actuals you entered will be reset to zero in the Time Breakdown table. However, on the Other Actuals table, the actuals will still exist in the Actual Effort field. If you click **Save**, the actuals will not be synchronized to the corresponding work units, which results in corrupted data. (QCCR1L40812)
4617145058	Removing actuals from a time sheet by making the cell blank instead of entering zero and then clicking **Save** makes the actuals return to the time sheet but still be deducted from the work item. This behavior makes the actuals and the total actual effort of the work item unsynchronized. (QCCR1L41207)
4626930631	You have tasks with activities in your My Items list. You use the “Include Items from My Items List” option when creating a time sheet. However, the time sheet line only includes the tasks. The activities are not included in the time sheet line. (QCCR1L40319)
4623952277	When you use the Create, Update or Submit operation in Time Management Web services and include the record for the `TM_ACTUALS` totals in the Web service XML, the operation creates a duplicate totals row in the system. (QCCR1L41405)
4615300483	Consider that you have multiple lines in a time sheet, and the vertical scroll bar appears. In the Time Break Down window, if you use the Tab key to move the cursor from the cell displayed at the end of the window to the beginning cell of the next line, the Time Break Down window will moves upwards. However, the corresponding the time sheet details (such as the Item, and Total columns) do not move. This causes mismatches between the time sheet details and the data logged in the Break Down window. (QCCR1L39654)

Tracking Number	Problem Description
4615289730	You use Override Rules to setting Charge Codes for certain time sheets. If there are many charge codes added to a time sheet line, the charging on certain items could be over 100%. (QCCR1L39653)
4621524577	PPM Center reevaluates approvers when loading and saving any time sheet, which affects the performance. PPM Center version 9.12 improves the performance by checking the auto approval flag to decide whether a reevaluation of the approvers is needed or not. (QCCR1L39650)
4600633164	When a time sheet is frozen or closed, the LAST_UPDATE_DATE field and the LAST_UPDATED_BY field in the TM_TIME_SHEETS table are not updated with details of the freeze/close user. (QCCR1L29284)

4000772317	If you use the German (Switzerland) regional settings, you receive the following error message when editing or submitting your time sheets:
	`Error:`
	`Invalid Actual Effort`
	`Details:`
	`Actual Effort has an invalid value, must be a numeric value.`
	This problem usually occurs if you enter numbers greater than 1,000 in the time sheets. (QCCR1L29285)

4610784235	You cannot approve, freeze or close time sheets older than 12 periods when using the following server.conf setting: `com.kintana.core.server.TM_MAX_PREVIOUS_TIME_PERIODS=200` (QCCR1L29294)

4616369512	You receive the following error message when submitting a time sheet:
	`server:Resource Pool Rollup Service:com.kintana.services:2009/10/20-`
	`11:55:00.602 EDT: java.lang.NullPointerException`
	`at com.mercury.itg.core.calendar.impl.CalendarWorkingDayCacheIm`
	`pl.getNumOfWorkDays(CalendarWorkingDayCacheImpl.java:427)`
	`at com.mercury.itg.core.calendar.impl.ITGCalendarImpl.getNumOfW`
	`orkDays(ITGCalendarImpl.java:580)`
	(QCCR1L29297)

4603592385	If you disable one or more MISC items for a submitted time sheet, and then copy that time sheet, the new one will have all the items including the disabled ones. (QCCR1L29293)
3606071468	When searching for time sheets to approve on the Approve Time page, you select **Check all** to select all the time sheets returned in the search result. However, after you click **Approve**, only the first time sheet is approved. (QCCR1L29296)

Tracking Number	Problem Description
4613955180	After you click **Printable Version** on the Edit Time Sheet page, the printable version of the time sheet takes a long time (about 15 seconds) to appear. (QCCR1L29299)
4609850155	A project has more than one task with the same name, and these tasks are added to the same time sheet, with different activities to each of them. In this case, the display of the time sheet is corrupted. There is non-related output between the Line Details window and the time sheet main page. (QCCR1L29295)
3605836805	The default time sheet policy is defined as auto-approve. You set a time sheet override rule to configure the charge code but you do not define the Time Approver and the Billing Approver in the rule. In this case, time sheets cannot be approved automatically. (QCCR1L29303)
4617035816	You enter the request ID of an existing request when trying to add this request to a time sheet. However, after you click **Search**, the following message appears: `No results returned. Please modify your search.` As a result, you cannot add this request to your time sheet. (QCCR1L29287)
3605845930	If you set the **Resource** field to another user when making a copy of a time sheet of a Resource Pool Manager or Direct Manager, that user can log time against the project even though the user is not in the staffing profile. (QCCR1L29290)

4616369512	You receive the following error message when submitting a time sheet:
	`server:Resource Pool Rollup Service:com.kintana.services:2009/10/20-11:55:00.602 EDT: java.lang.NullPointerException`
	`at com.mercury.itg.core.calendar.impl.CalendarWorkingDayCacheIm pl.getNumOfWorkDays(CalendarWorkingDayCacheImpl.java:427)`
	`at com.mercury.itg.core.calendar.impl.ITGCalendarImpl.getNumOfW orkDays(ITGCalendarImpl.java:580)`
	(QCCR1L29297)

4603592385	If you disable one or more MISC items for a submitted time sheet, and then copy that time sheet, the new one will have all the items including the disabled ones. (QCCR1L29293)
3606071468	When searching for time sheets to approve on the Approve Time page, you select **Check all** to select all the time sheets returned in the search result. However, after you click **Approve**, only the first time sheet is approved. (QCCR1L29296)
4613955180	After you click **Printable Version** on the Edit Time Sheet page, the printable version of the time sheet takes a long time (about 15 seconds) to appear. (QCCR1L29299)

Tracking Number	Problem Description
4609850155	A project has more than one task with the same name, and these tasks are added to the same time sheet, with different activities to each of them. In this case, the display of the time sheet is corrupted. There is non-related output between the Line Details window and the time sheet main page. (QCCR1L29295)
3605836805	The default time sheet policy is defined as auto-approve. You set a time sheet override rule to configure the charge code but you do not define the Time Approver and the Billing Approver in the rule. In this case, time sheets cannot be approved automatically. (QCCR1L29303)
4617035816	You enter the request ID of an existing request when trying to add this request to a time sheet. However, after you click **Search**, the following message appears: `No results returned. Please modify your search.` As a result, you cannot add this request to your time sheet. (QCCR1L29287)
3605845930	If you set the **Resource** field to another user when making a copy of a time sheet of a Resource Pool Manager or Direct Manager, that user can log time against the project even though the user is not in the staffing profile. (QCCR1L29290)
N/A	When no periods exist in KTMG_PERIODS table for HP Time Management and there is no time sheet, on the **My Tasks** portlet clicking the **Go To Time Sheet** button or clicking a value (link) in the Actual Effort (hrs) column causes a NumberFormatException. To address this issue, the code was changed so that the button is not shown and the values in the column have no links when there is no time sheet. (QCCR1L41648)
N/A	The value of the **Code** field in the TMG - Misc. Work items validation must be numeric. Since version 9.10, an error message has been presented if an administrator tries to specify a non-numeric value. Prior to version 9.10, the presence of a non-numeric value in the **Code** field caused a stack trace. Customers who established non-numeric values for the **Code** field before version 9.10 must make those values numeric. (QCCR1L42207)

4 Known Problems and Limitations in PPM Center 9.12

The following problems and limitations are known to exist in PPM Center version 9.12 (or other software, as indicated). The problems are categorized by the affected product area. If a problem has an assigned internal tracking number, that tracking number is provided (in parentheses) at the end of the problem description.

➤ New and modified text and field names introduced in version 9.12 are not translated into other languages. As a result, users who log into PPM Center un a non-English language will see some screens in the interface that have some English words. Future releases will provide translated text.

Best Practices - PPM Dashboard

PROBLEM	If you open PPM Center in Internet Explorer 7, and try to open a submenu (for example, **Dashboard > Private > My Reporting Portlets > ...**), the submenu may not open. This can occur if you have a large number of submenus for a given PPM Dashboard menu item. (QCCR1L41326)
WORKAROUND	Maintain the number of submenus at 15 or fewer per PPM Dashboard menu item.

PPM Dashboard

PROBLEM	When the length of a word in a portlet name exceeds 30 characters (without a space), after you click **Find Portlets** in the **Add Portlets** window, the Portlet Name column in the resulting list is resized automatically, other columns are pushed to the right side, and no horizontal scrollbar is available. If the word is really long (say, 100 characters), the buttons in the right side of the window may disappear. (QCCR1L41717)
WORKAROUND	Maximize the **Add Portlets** window.
PROBLEM	When a request contains HTML related characters in its request description, the request is not displayed in the **My Requests** portlet. (QCCR1L42543)
WORKAROUND	Make sure not to include any HTML related characters in the description of a request.

Installation and Administration

LIMITATION	If you open the generated CSV file in `\ppmc\data\` folder after running `kSupport.sh` to generate support information, and make some format changes, such as changing column width, then save the CSV file (with or without warning), many lines of records display error next time you open it as Excel removes comma (,) by default. (QCCR1L41464)
WORKAROUND	Instead of clicking **Save** directly, save the file in CSV file type by following the **Save As** option and selecting **CSV (Comma delimited) (*.csv)** for the **Save as type** field.
LIMITATION	If a data sheet in the PPM Center database contains values starting with a special character, such as `%`, when you open the resulting CSV file in `\ppmc\data\` folder after running `kSupport.sh` to generate support information, and if you have associated the .csv file type with Excel, the CSV file will not display properly for the cells containing special characters. (QCCR1L41463)
WORKAROUND	To display the CSV file properly, 1. Rename the desired CSV file by appending `.txt` file extention to it. 2. Open the renamed file in Excel and select the following options in the Text Import Wizard: - For **Original data type**, select **Delimited**; - For **Delimiters**, select **Comma**; - For **Column data format**, select **Text** for each of the columns.

LIMITATION	Software bundles that require PPM Center version 9.12 to be installed and are installed using `kDeploy.sh` should not set the DEPENDS_ON_VERSION variable in the `deploy.info` file. (QCCR1L41406)
WORKAROUND	If configured, remove the DEPENDS_ON_VERSION variable and its value from the `deploy.info` file.

LIMITATION	PPM Center version 9.1x does not support adding a top level menu. Your new customized menu items may fall under **Open**, **Create**, or **Search** menu.
WORKAROUND	None.

LIMITATION	If you perform BOM check by running the kSupport tool after deploying a service pack bundle file, the **Files changed** section in the resulting Bill of Materials Information page incorrectly lists some system libraries that can be ignored, for example:
	`/deploy/itg.war/WEB-INF/lib/XBeans-packaged.jar`
	`/deploy/itg.war/WEB-INF/lib/knta_classes.jar`
	`/deploy/itg.war/WEB-INF/lib/pm-web.jar`
	`/deploy/itg.war/WEB-INF/lib/webservice.jar`
	`/deploy/itg.war/WEB-INF/lib/webservice_client.jar`
	`/deploy/itg.war/html/client/knta_client.jar`
	`/lib/jboss/boot/knta_logging.jar`
	(QCCR1L41888)

WORKAROUND	None available at this time.

Integrations

PROBLEM	If you are using the Plug-in for PPM, Microsoft Office Primary Interop Assemblies (PIA) for Microsoft Project must be installed. (QCCR1L39188)
WORKAROUND	Install one of the following versions of Microsoft Office Primary Interop Assemblies (PIA) for Microsoft Project: • Version 2003 for Microsoft Project 2003 • Version 2007 for Microsoft Project 2007 • Version 2010 for Microsoft Project 2010

LIMITATION	A “Test/Import completed successfully" message will be displayed even when the XML imported does not match the XSL template selected, but no corresponding request ID will be generated and the log will show “pass:0”. (QCCR1L41359)
WORKAROUND	None.
PROBLEM	If text field(s) of a request contain such special characters as “<“ and “&“, error occurs when you try to export the request to an XML file. (QCCR1L42539)
WORKAROUND	None available at this time.

Integrations - ALM

LIMITATION	When you click drilldown list in the **ALM - Releases By Category** portlet, no result is displayed due to an error in the portlet definition in ALM bundle. (QCCR1L42542)
WORKAROUND	None available at this time.

Integrations - CMQC

PROBLEM	If PPM Center is integrated with Quality Center version 11.00, you create a CMQC - QA Test Status Report request and try to select a priority level from the autocomplete popup window for the field **Define Priority Defect Levels**, the autocomplete popup window shows nothing. This is because Quality Center 11.00 renamed the table that stores all list values from ALL_LISTS in Quality Center 10.00 to LISTS. (QCCR1L42561)
WORKAROUND	To get the values for all priority levels, use a different SQL statement : 1. Launch PPM Workbench. 2. From the shortcut bar, select **Configuration > Validations**. 3. Locate and open validation **CMQC_CMN_QC_PRIORITY**. 4. Replace the existing SQL statement with the following: `ksc_capture_output sh ./ext/qcm/scripts/kqcm_qc_TdsqlQuery.sh TdProject:#@# "[REQD="[REQD.P.QC_INSTANCE_NAME]".VP.QC_ADMIN_DB_JDBC_URL]" "[REQD="[REQD.P.QC_INSTANCE_NAME]".VP.QC_ADMIN_SCHEMA_NAME]" "[REQD="[REQD.P.QC_INSTANCE_NAME]".VP.QC_DBADM_USERNAME]" "[REQD="[REQD.P.QC_INSTANCE_NAME]".VP.QC_DBADM_PASSWORD]" "[REQD.VP.QC_TARGET_DOMAIN]" "[REQD.VP.QC_TARGET_PROJECT]" "SELECT LS_NAME,LS_NAME FROM LISTS WHERE LS_FATHER_ID IN (SELECT SF_ROOT_ID FROM SYSTEM_FIELD WHERE SF_TABLE_NAME = 'BUG' AND SF_COLUMN_NAME = 'BG_PRIORITY')"` 5. Click **OK**.

HP Demand Management

LIMITATION WORKAROUND	If you are setting up multiple rules, note that unsaved token value(s) will not be applied by the subsequent rules in real-time. (QCCR1L29880) None.
LIMITATION WORKAROUND	If a field is set to “Display = No" or invisible by status dependency, you can not make it visible on the web UI by using UI rules. (QCCR1L40010) None.
LIMITATION WORKAROUND	Auto-complete component's valid value list is not in client UI, so when using rule to set values for auto-complete component, the values are not validated and invalid values can be set. As a result, when users create a request, a value that is not in auto-complete list can be inserted and saved in an auto-complete field as triggered by the SQL rule. (QCCR1L41050) PPM administrators who configure SQL rules to set values for auto-complete list should make sure that only valid values are set.
LIMITATION WORKAROUND	When applying advanced rules on requests with "Printable Version" and the Print function, the previewed and printed data does not match with what is displayed on the screen. Now rules can be executed on the printable version of Request Details, but with the following limitations: • Only SQL rules and UI Rule `setFieldVisible()` will be executed. • Only **Apply on page load** rule event is supported. • The printable version should be opened from Request Details page instead of by entering the URL address directly. (QCCR1L39873)
PROBLEM WORKAROUND	After you enable field group **Program Issue: Allows Requests to be considered as Issues In a Program** for a request header type, no Program Issue section is added to the Fields tab of the request header type.(QCCR1L41722) This behavior is by design and it has no functional impact. Request types using this request header type can still be used as program issue type and it works fine for program issue tracking.

LIMITATION	SQL for Hierarchical Display (tree validation) now supports resolving such static tokens as [SYS.USERNAME] and [SYS.USER_ID]. Other types of tokens, such as Request Details or Context related tokens, are not supported. (QCCR1L40379)
WORKAROUND	None available at this time.
LIMITATION	Rule dependency is not supported if the dependency field is using the `()` pattern to present negative numbers. For example, using `(1000)` to represent `-1000`. (QCCR1L42478)
WORKAROUND	None available at this time.
LIMITATION	Long field names in a request are not wrapped over multiple lines, which makes content on the rightmost of the page fail to display. (QCCR1L39695)
WORKAROUND	Scroll the screen sideways to view the content.

HP Deployment Management

PROBLEM	Transfer of bundle to Destination environment fails as the ksc_copy command is not working for the Request Type Migrator. (QCCR1L40858)
WORKAROUND	Set variable `DISABLE_SCP_FILENAME_QUOTE` in the Environment User Data. For details, see *WORKAROUND* on page 248 for QCCR1L24976.

HP Portfolio Management

LIMITATION	The COST_CAPITALIZATION_ENABLED `server.conf` parameter cannot be changed using the Administration Console. (QCCR1L41323)
WORKAROUND	The flag can be changed directly in the `server.conf` parameters as needed. However, HP strongly recommends not disabling cost capitalization if it has been enabled.

HP Project Management

LIMITATION	Work plan workflow special commands might fail intermittently due to concurrency limitations. Processing of the **Create Project** special command must complete before processing of the **Create Work Plan** special command (`ksc_create_workplan`) or the **Update Work Plan Status** special command (`ksc_update_workplan_status`) begins, if the special commands are in the same workflow step or in a subsequently executed workflow. (QCCR1L42591)
WORKAROUND	The following 30-second delay should be executed before the **Create Work Plan** special command or the **Update Work Plan Status** special command if it follows a **Create Project** special command (in the same or subsequent workflow steps): `ksc_local_exec sleep 30`

Platforms

LIMITATION	If you run `kStop.sh` while background services are running, your PPM Center instance (either the nodes in a cluster or a single, stand-alone server) may take a while to shut down. In a cluster setup, service nodes may experience this, while the user node will not. The kStop.sh script waits for services to complete before it brings down the PPM Center instance. (QCCR1L29568)
WORKAROUND	None.
PROBLEM	SOCKS support for the RMI connection made by workbench to the PPM server is not working. Workbench will fail to establish the connection to the SOCKS server. (QCCR1L41991)
WORKAROUND	None available at this time.
PROBLEM	Quartz Scheduler Reassignment and Restart. On a server cluster, after a services node starts the quartz scheduler, the quartz scheduler pauses. Another services node detects the scheduler inactivity and starts the quartz scheduler again. This does not affect functionality. Background services are scheduled normally. (QCCR1L42301)
WORKAROUND	None available at this time.

PROBLEM	Users cannot open the PPM Workbench using the combination of the Mozilla Firefox 3.6 browser and version 1.6.0_07 (6.0 update 7) of the Java plug-in. Mozilla has desupported this combination of browser and plug-in. (QCCR1L42400)
WORKAROUND	Firefox 3.6 users who use the PPM Workbench must download and install version 1.6.0_19 (6.0 update 19) or later of the Java plug-in from the JRE downloads on the following Web page: http://www.oracle.com/technetwork/java/javase/downloads/index.html
PROBLEM	Internet Explorer versions 7 and 8 display a warning if the value set for the server configuration parameter `JAVA_PLUGIN_PATH_IE` contains the protocol identifier "`http:`". (QCCR1L42208)
WORKAROUND	If you override the default setting for the `JAVA_PLUGIN_PATH_IE` parameter (`//java.sun.com/update/1.6.0/jinstall-1_6_0_7-windows-i586.cab`), make sure that you remove the protocol identifier "`http:`"

Report Types

LIMITATION	When configuring an existing field or adding a new field from the **Fields** tab in a report type, if you set the **Validation** field to **Text Area - 4000,** the value of the **Parameter Col.** field does not automatically change to **PARAMETER46** or a higher parameter number, as it should. (QCCR1L41587)
WORKAROUND	After you select **Text Area - 4000** as the **Validation** for the field, manually change the value of the **Parameter Col.** field to **PARAMETER46** or a higher parameter number.

Resource Management

LIMITATION	Data display format inconsistency between the staffing profile page and the Analyze Assignment Load portlet: the staffing profile page displays data by hours in the format of one decimal place, while the Analyze Assignment Load portlet displays data in the format of two decimal places.
WORKAROUND	None.

5 Documentation Errata

The following items are corrections for the version 9.10 documentation.

Changing PPM Center Master Data

LOCATION	*Installation and Administration Guide,* page 282.
ERROR	The *Installation and Administration Guide* needs to include a clear statement advising against changing PPM Center master data directly through the database. (QCCR1L40130)
CORRECTION	A new section titled “Changing PPM Center Data” was added to Chapter 7, “Maintaining the Database” to advise against changing PPM Center master data directly in the database.

APP_SERVER_MULTICAST_PORT and MULTICAST_PORT Parameters

LOCATION	*Installation and Administration Guide,* page 179.
ERROR	The descriptions provided for the `APP_SERVER_MULTICAST_PORT` and `MULTICAST_PORT` parameters in Table 5-2 were inaccurate. (QCCR1L40190)
CORRECTION	The parameter descriptions were modified to reflect their true functionality. A new edition of the 9.12 *Installation and Administration Guide* is available at the HP manuals site.

Required Permissions for PPM Center Database Access

LOCATION	*Installation and Administration Guide,* page 68.
ERROR	PPM Center database users need the Oracle RESOURCE role and CONNECT roles. The access needed is very broad. (QCCR1L40254)
CORRECTION	A new section titled “Default Permissions for PPM Center Schemas” was added to Chapter 3 of the *Installation and Administration Guide* to provide clear details of the access required for the PPM Center application and RML user.

Limits on Physical Memory for 32-bit Windows Operating Systems

LOCATION	*Installation and Administration Guide,* page 53.
ERROR	The guide needs to include information about how to make sure that the physical RAM inside a Windows 2003 (Standard Edition) server machine is actually available.(QCCR1L40159)
CORRECTION	The following note was added to the section “Preparing to Install PPM Center” in Chapter 3: Limits on physical memory for 32-bit Windows operating systems depend in part on whether the Physical Address Extension (PAE) is enabled. The PAE allows some 32-bit Windows systems (Windows Server 2008 Datacenter and Windows Server 2008 Enterprise) to use more than 4 GB of physical memory. (To enable PAE, use the /PAE switch in the Boot.ini file.) However, PAE is not available for Windows Server 2003 Standard Edition, so the total available physical RAM on this system is limited to 4 GB. For detailed information about memory support and memory limitations on Windows operating systems, see Microsoft Support online.

Server Cluster Configuration: Assigning Ports Outside of the Ephemeral Port Range

LOCATION	*Installation and Administration Guide,* page 73.
ERROR	The *Installation and Administration Guide* must advise administrators to avoid conflict between the ports assigned in the `server.conf` file and the ephemeral port range of the operating system. (QCCR1L39996)
CORRECTION	The following section was added to Chapter 3: PPM Center uses many client sockets for its internal communications. These are allocated randomly from the operating system's ephemeral port range. To prevent conflicts between internal client socket use and your PPM Server port settings, you must check to make sure that the ephemeral port range set for your operating system does not conflict with any of the ports assigned in your `server.conf` file. For information about the default ephemeral port range on your operating system and how to adjust it, see the documentation for your specific operating system.

Setting the ulimit Value on UNIX Systems

LOCATION	*Installation and Administration Guide,* page 94.
ERROR	On UNIX systems, PPM Center (through the `kStart.sh` script) uses the ulimit utility to set the maximum number of open file descriptors to 1000. In a server cluster configuration, this setting may be too low, causing nodes to come down. The *Installation and Administration Guide* must include guidelines on how to set the ulimit value.
CORRECTION	(UNIX only) Setting the ulimit Value On UNIX systems, PPM Center (through the `kStart.sh` script) uses the ulimit utility to set the maximum number of open file descriptors to 1000. In a server cluster configuration, this setting may be too low, causing nodes to come down. If the default ulimit setting does not meet your requirements, reset it as follows: 1. Navigate to the <*PPM_Home*>/bin directory and open the kStart.sh file in a text editor. 2. Locate the following text: if [$HOST_TYPE = UNIX]; then ulimit -n 1000 umask 022 3. Change the ulimit value as follows: ulimit -n 1100 4. Repeat step 1 through step 3 for each additional node in the cluster. For example, if your server cluster consists of five nodes, then specifying the ulimit value of 1100 for each allocates 5500 open file descriptors for the PPM Server cluster deployment.

Changing PPM Center Master Data

LOCATION	*Installation and Administration Guide,* page 111.
ERROR	The "Configuring Secure Web Logon" section needs additional information about important issues to consider if your users access PPM Center using Internet Explorer (IE) 6.0 or 7.0, or if you have PPM Servers running on AIX. (QCCR1L27117)
CORRECTION	**Additional Considerations for Configuring Secure Web Logon** This section describes additional steps required to set up secure Web logon if your users access PPM Center using Internet Explorer (IE) 6.0 or 7.0, or if you have PPM Servers running on AIX. **Enabling Transport Layer Security on Internet Explorer 6.0 and 7.0** Make sure that users who access PPM Center using Internet Explorer (IE) 6.0 or 7.0 enable Transport Layer Security (TLS) on their browsers. (On the **Advanced** tab of the Internet Options dialog box, select the **Use TLS 1.0** checkbox.) **Editing the server.xml File (AIX Only)** If you have PPM Servers running on AIX, open the `server.xml` file, and add `algorithm="IbmX509"` to it, as follows: `<Connector clientAuth="false" secure="true" scheme="https" debug="0" acceptCount="10" enableLookups="true" sslProtocol="TLS" address="${jboss.bind.address}" port="22383" minSpareThreads="5" maxSpareThreads="5" maxThreads="75" keystoreFile="/<PPM_Home>/key.store" keystorePass="iamnotroot" algorithm="IbmX509" />`

Upgrading Secondary Physical Servers

LOCATION	*Upgrade Guide,* page 56.
ERROR	Documentation is unclear with regard to upgrading secondary physical servers. (QCCR1L40257)
CORRECTION	Modified the procedure described in the section "Upgrading a PPM Center Server Cluster".

Keeping Request Rules and Customized JavaScript Methods During an Upgrade

LOCATION	*Upgrade Guide,* page 34.
ERROR	The *Upgrade Guide* must let users know that JavaScript files customized in the currently installed PPM Center instance will be overwritten during an upgrade to PPM Center version 9.10. (QCCR1L29817)
CORRECTION	“Task 8, Back Up Customizations” was changed to indicate that JavaScript files that are customized in the currently installed instance will be overwritten during an upgrade to PPM Center version 9.10. The task now reads “Back up any customizations (such as request rules and JavaScript methods, which are overwritten during an upgrade) that you want to continue to use with PPM Center version 9.12.”

Portlets: When this filter has a value, append Where Clause

LOCATION	*Creating Portlets and Modules,* page 35.
ERROR	The **When this filter has a value, append to Where Clause** filter field description is missing information. (QCCR1L39262)
CORRECTION	The following information should be included in the *Creating Portlets and Modules,* in the **When this filter has a value, append to Where Clause** filter field description: Single quotation marks (‘), including those that may be embedded in a variable, cannot be used in the **When this filter has a value, append to Where Clause** filter field.

Edit Security Groups Access Grant

LOCATION	*Security Model Guide and Reference,* Access Grants appendix.
ERROR	The document is missing information about the behavior of the Edit Security Groups access grant. (QCCR1L28519)
CORRECTION	The following information should be included in the *Security Model Guide and Reference,* Access Grants appendix: Any user given the Edit Security Groups access grant can add themselves to the PPM All Access Grants security group. This security group allows complete access to PPM Center. You cannot modify this security group to limit this ability. If this complete access is not desired but you need to assign a user the Edit Security Groups access grant, you can limit this ability by creating a copy of the PPM All Access Grants security group, modifying the copy of the security group to limit access to itself, and disabling the existing PPM All Access Grants security group: 1. Copy the PPM All Access Grants security group. From the Security Group Workbench, select the PPM All Access Grants security group and click **Copy.** 2. Edit the copied security group: In the **Ownership** tab, set the ability to edit the copied security group. In the **Users** tab, assign all users who are part of the PPM All Access Grant security group to the copied security group. Make any additional updates to limit access to the security group. Save your changes. 3. From the PPM All Access Grants security group, remove all users and save your changes. 4. Disable the PPM All Access Grants security group by running the following SQL statements: UPDATE knta_security_groups SET enabled_flag='N' WHERE security_group_id = 3; commit; 5. Restart the PPM Server.

Projected Utilization Calculation

LOCATION	*HP Resource Management User's Guide,* page 172.
ERROR	The document states that "If the resource **is not** overallocated, projected utilization is less than 100%. If the resource **is** overallocated, projected utilization is greater than 100%." (QCCR1L29905)
CORRECTION	The document should state that "If the resource **will not be** overallocated, projected utilization is less than 100%. If the resource **will be** overallocated, projected utilization is greater than 100%."

Preparation to Install Deployment Management Extensions

LOCATION	*HP Deployment Management Extension for Oracle E-Business Suite Guide,* page 39. *HP Deployment Management Extension for Oracle Technology Guide,* page 13. *HP Deployment Management Extension for SAP Solutions Guide,* page 17.
ERROR	Bulleted lists on the indicated pages incorrectly include the item "The username and password you were given at the time you purchased the Extension."
CORRECTION	Delete the item from the bulleted lists on each of the indicated pages.

Tracking of Capitalized Costs When a Proposal Becomes a Project

LOCATION	*HP Financial Management User's Guide*, page 74 *HP Portfolio Management User's Guide*, page 19 *HP Project Management User's Guide*, page 54
ERROR	The documents need to clarify the tracking of capitalized costs when there is a conflict between the settings for a proposal and the project it becomes.
CORRECTION	A proposal may or may not track capitalized costs (in addition to operating costs) based on the setting of the option **The proposal is for a project that tracks capital costs** on the Financial Summary Settings page of the proposal. When the proposal becomes a project, this setting can conflict with the setting of the option **Allow capitalized costs on this project** on the Cost and Effort policy of the project. If the Cost and Effort policy of the project type is *locked* (meaning that no individual project of that type can be made to override any settings of that policy) *and* if the policy setting for tracking of capitalized costs conflicts with the financial summary setting for the proposal, the setting of the Cost and Effort policy prevails. Otherwise, the setting for tracking the project's capitalized costs is consistent with the setting for the proposal.

Availability of Net Present Value and Nominal Return Columns to Display on Proposals/Projects/Assets Tab of Portfolios

LOCATION	*HP Portfolio Management User's Guide,* page 54.
ERROR	The **Net Present Value** and/or **Nominal Return** columns have been configured on the Configure Portfolio Management page to be displayable on the **Proposals/Projects/Assets** tab of portfolios, but the columns are not available to users to display when they right-click a column heading on the tab and select the **Columns** option.
CORRECTION	To add the **Net Present Value** and/or the **Nominal Return** columns, users must first change the **Fiscal Year** field on the tab to **Total.**

Columns Available in Proposals/Projects/Assets Tab of Portfolios

LOCATION	*HP Portfolio Management Configuration Guide,* page 16.
ERROR	On the Configure Portfolio Management page, an administrator can configure which fields users can select in the **Proposals/Projects/Assets** tab of portfolios. As stated in the document, the full set of fields that an administrator can configure is the combination of all the request fields in the PFM - Proposal, PFM - Project, and PFM - Asset request types. However, if a field appears in multiple request types and uses different validation types among any of those request types, HP Portfolio Management does not make that field available to configure, and the document does not explain this.
CORRECTION	If different validation types are used in the request types and the field needs to be an available column, the validation types must be made identical.

Maximum Number of Columns in Proposals/Projects/Assets Tab of Portfolios

LOCATION	*HP Portfolio Management Configuration Guide,* page 17. *HP Portfolio Management User's Guide,* page 53.
ERROR	For display of the **Proposals/Projects/Assets** tab of portfolios, users can select from a set of columns that are always available and selectable (there are 18), and they can also add any subset of columns that administrators have configured to be available to them on the Configure Portfolio Management page. However, the documents state that the maximum number of columns users can select in the **Proposals/Projects/Assets** tab of portfolios is 20.
CORRECTION	The limit of 20 applies to the set of additional columns that administrators can select on the Configure Portfolio Management page. Users can add any subset of these columns to the 18 columns that are always available and selectable on the **Proposals/Projects/Assets** tab. If administrators make 20 columns available to users to add, users can display up to 38 columns on the **Proposals/Projects/ Assets** tab.

In Financial Summaries, Adding Categories and Values to Benefits

LOCATION	*HP Financial Management User's Guide:* • For benefit categories in proposal, project, and asset financial summaries, pages 48 and 59 • For benefit categories in program financial summaries, pages 91 and 99 • For financial data tables, page 124
ERROR	The descriptions of adding new benefit categories in financial summaries are incorrect.
CORRECTION	The notes regarding adding benefit categories and values should state: An administrator can add new categories and values for the benefit Category in the Benefit Details section of a financial summary by creating the following drop-down list validations in the PPM Workbench: • FINANCIAL_BENEFIT_AVOIDANCE_CATEGORY • FINANCIAL_BENEFIT_REVENUE_CATEGORY Administrators can change the values for these two new benefit-related validations and for the existing Financial Benefits Line Category List validation. Also note that the same set of validations and values used for costs and benefits in the financial summaries of proposals, projects, and assets are also used for costs and benefits in program financial summaries and financial data tables. For more information about validations, see the *Commands, Tokens, and Validations Guide and Reference.*

Revised Field Names in Financial Data Tables

LOCATION	*HP Financial Management User's Guide,* pages 122-123.
ERROR	Some field names shown in Figure 4-9 on page 122 and Table 4-16 on page 123 were renamed in version 9.10.
CORRECTION	The corrections are as follows: • The field shown as **Total Forecasts** was renamed **Total Forecast Cost.** • The field shown as **Total Actuals** was renamed **Total Actual Cost.** • The field shown as **Total Benefits Planned** was renamed **Total Forecast Benefits.** • The field shown as **Total Benefits Actuals** was renamed **Total Actual Benefits.**

Time Sheet Override Rules Do Not Apply if Work Item Is Not Specified

LOCATION	*HP Time Management Configuration Guide*, page 85.
ERROR	The document needs to clarify that for a project and its tasks, time sheet override rules for approvers are not applied when a **Work Item** is not specified.
CORRECTION	Note that the time approver and billing approver results of an override rule for a project and its tasks do not take effect if both of the following conditions are met: • The option **Time logged against this project must be approved by a project representative from the following group** in the Cost and Effort policy for the project is selected. • In the **Dependencies** section of the override rule, the **Work Item Type** is **Project** or **Task** (so the **Work Item Set** is the project name) and the **Work Item** is not specified.

Percent Complete and Estimated Remaining Effort Calculations

LOCATION	*HP Project Management Configuration Guide,* page 60.
ERROR	The calculations for percent complete and estimated remaining effort are incomplete or incorrect for the `includePC` option of the `kPMTMSync.sh` synchronization script.
CORRECTION	The following describes the calculations for percent complete (PC) and estimated remaining effort (ERE) for the `includePC` option of the `kPMTMSync.sh` synchronization script. The calculations may use actual effort (AE) or scheduled effort (SE).
	If `includePC` is set to yes and if **Track Estimated Remaining Effort per resource assignment** in the **Cost and Effort** policy is enabled: **ERE Calculations** • ERE = SE – AE • If ERE <= 0, ERE = 0 **PC Calculations** • If ERE > 0, PC = [AE / (AE + ERE)] * 100 • If ERE <= 0, PC = 100
	If `includePC` is set to yes and if **Track Estimated Remaining Effort per resource assignment** in the **Cost and Effort** policy is not enabled: **PC Calculations** • If AE = 0, PC = 0 • If AE > 0, PC is calculated by HP Project Management
	If `includePC` is set to no or is not included (the setting of **Track Estimated Remaining Effort per resource assignment** in the **Cost and Effort** policy is not relevant): **ERE Calculations** • If PC = 0, ERE = SE – AE • If PC = 100, ERE = 0 • If 0 < PC < 100 and AE = 0, ERE = SE • if 0 < PC < 100 and AE > 0, ERE = (AE * 100 / PC) – AE **PC Calculations** • PC is calculated by HP Project Management

New Information for *Customizing the Standard Interface*

This section provides information about customizing menu items.

Adding a Menu Item

Add a new menu item only when it is really necessary to meet your business needs.

➤ Make sure that your new menu item follows the XML schema (`<`*`PPM_Home`*`>/conf/menus/menu.xsd`).

➤ PPM Center version 9.1x does not support adding a top level menu. Your new customized menu items may fall under **Open**, **Create**, or **Search** menu.

To add a new menu item, follow the steps below:

1. Locate the `menu.xml` file that describes content of menu items in the `<`*`PPM_Home`*`>/conf/menus/menu.xml` directory and open it in an XML editor.

2. Locate the line that represents the menu group under which you want to add the new menu item.

   For example, the line for the **Demand Management** menu group under **Open** menu looks like:

   ```
   <menu id="DEMAND_MANAGEMENT_MENU" key="DEMAND_MANAGEMENT_
   MENU_TEXT.TXT" bundle="KNTA_Resources" seq="10">
   ```

   For **Create** menu group, the line looks like:

   ```
   <menu id="MENU_CREATE" key="menu.create"
   bundle="CoreResources" sorting="leaves-top">
   ```

3. Depending on the security level you want to apply to the new menu item, under the desired menu group, locate a code snippet with similar security requirements, copy and paste it into the appropriate location in the `menu.xml` file as a starting point for editing it.

   For example, if your new menu item has security requirements similar to the menu item **Create > Project,** copy and paste the following code section:

```
<menu id="CREATE_PROJECT" key="entity.project"
bundle="CoreResources">
   <url>/itg/project/CreateProjectPage.do</url>
   <security>
      <and>
         <or>
            <license reference-code="6" />
            <license reference-code="8" />
            <license reference-code="3" />
            <license reference-code="2" />
         </or>
         <access-grant reference-code="1316" />
         <or>
            <access-grant reference-code="1095" />
            <access-grant reference-code="1091" />
         </or>
      </and>
   </security>
</menu>
```

If your new menu item has no security requirements, you may simply copy and paste a code snippet with the `<menu id>` element and the `<url>` element, for example:

```
<menu id="IMPORT_CATALOG_DATA_MENU" key="IMPORT_CATALOG_
DATA_MENU_TEXT.TXT" bundle="KNTA_Resources">
   <url>/itg/web/knta/src/SRCXMLImporter.jsp</url>
</menu>
```

For more information about applying security requirements on a menu item, see *Restricting Access to a Menu Item* on page 224.

4. Edit menu item text.

   a. Create a custom resource bundle under `<PPM_Home>\server\<server name>\deploy\itg.war\WEB-INF\resources\web`. For example, `MyResources.properties`.

   b. Add a new resource in this file by adding a line, as follows: `"myCustomLabel"=My Custom Label`

   c. Edit the code section you pasted in the `menu.xml` file by changing the menu ID, key, and bundle values to make them look like the following: `<menu id="MyMenuItem" key="myCustomLabel" bundle="MyResources">`

5. Edit menu item URL.

To provide a URL for your new menu item, make sure that you already have a URL available for use.

After editing, the URL for the new menu item should look similar to URLs for other menu items under the same menu group.

For example,

```
<url>/itg/MyMenuItem/MyMenuItemPage.do</url>
```

Or,

```
<url>/itg/web/knta/dem/MyMenuItemPage.jsp</url>
```

6. Edit security requirements.

See details in *Restricting Access to a Menu Item by Configuring Access Grants and Licenses* on page 224.

7. Save and close the file.

If you are using non-standard (foreign language) characters, such as â, ç, é, ö, or ñ, make sure you encode the file in UTF-8 format.

Microsoft® Notepad supports UTF-8 encoding when using the **Save As** functionality.

8. Stop, and then restart the PPM Server.

9. (Optional, although highly recommended) Verify the changes by logging off, and then logging back onto PPM Center and reviewing the menu item.

Changing a Menu Item

Sometimes you may want to change an existing menu item so that it points to your custom entity. For example, you may want to change the PPM Center default proposal request type to your default request type for creating proposals.

Taking the PPM Center default proposal request type as an example, to change the menu item and make it point to your custom request type, follow the steps below:

1. Locate the code snippet representing **Create > Proposal** menu item in the `menu.xml` file:

```
<menu id="CREATE_PROPOSAL" key="entity.proposal"
bundle="CoreResources">
   <url>/itg/web/knta/crt/
   RequestCreateDispatcher.jsp?BUSINESS_KEY=_PFM_PROPOSAL</
   url>
   <security>
      <and>
         <license reference-code="2" />
         <or>
            <access-grant reference-code="1045" />
            <access-grant reference-code="1041" />
         </or>
      </and>
   </security>
</menu>
```

2. (Optional) Edit menu item text.

   a. Under the `<PPM_Home>\server\<server name>\deploy\itg.war\WEB-INF\resources\web` directory, locate the `CoreResources.properties` resource bundle file and open it.

   b. Locate the line representing the **Proposal** entity:

   ```
   entity.proposal=Proposal
   ```

   Modify the line as necessary, for example:

   ```
   entity.myproposal=MyProposal
   ```

   c. Edit the *`menu.xml`* file by changing the menu ID, key, and bundle values to make them look like the following:

   ```
   <menu id="CREATE_PROPOSAL" key="entity.myproposal"
   bundle="CoreResources">
   ```

3. Edit the menu item URL to make it point to your default proposal request type.

   You should already have a URL for your default proposal request type.

   Replace the URL value in the following line with the URL for your default proposal request type:

```
<url>/itg/web/knta/crt/
RequestCreateDispatcher.jsp?BUSINESS_KEY=_PFM_PROPOSAL</
url>
```

4. Save and close the file.

5. Stop, and then restart the PPM Server.

6. (Optional, although highly recommended) Verify the changes by logging off, and then logging back onto PPM Center and reviewing the menu item.

Restricting Access to a Menu Item

Starting from PPM Center version 9.10, you can restrict access to a menu item by combining any of the following four ways:

- Access grant
- License
- Security group
- Server parameter

Restricting Access to a Menu Item by Configuring Access Grants and Licenses

You may control the security level of the menu item by combining PPM Center product licenses and access grants.

The code line for a product license looks like:

```
<license reference-code="<PRODUCT_KEY>" />
```

where the value for `license reference-code` represents a product key.

The code line for an access grant looks like:

```
<access-grant reference-code="<ACCESS_GRANT_KEY>" />
```

where the value for `access-grant reference-code` represents an access grant.

Edit the following code by adding or removing necessary lines to apply desired security level to your new menu item:

```
<security>
   <and>
      <or>
         <license reference-code="6" />
         <license reference-code="8" />
         <license reference-code="3" />
         <license reference-code="2" />
      </or>
      <access-grant reference-code="1316" />
      <or>
         <access-grant reference-code="1095" />
         <access-grant reference-code="1091" />
      </or>
   </and>
</security>
```

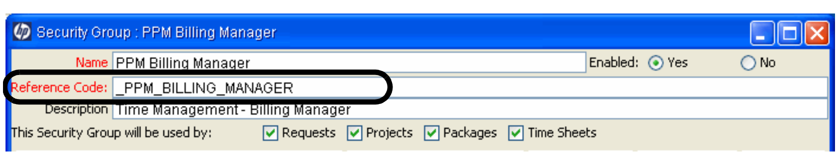
For product names and their corresponding product keys, check the KNTA_ PRODUCTS view for PRODUCT_NAME column and PRODUCT_KEY column in your Oracle database for PPM Center.

For access grant names and their corresponding access grant keys, check the KNTA_ACCESS_GRANTS view for ACCESS_GRANT_NAME column and ACCESS_GRANT_KEY column in your Oracle database for PPM Center.

Restricting Access to a Menu Item by Configuring Security Group Reference Code

To restrict access to a menu item by security group, you need to configure security group reference code in the `menu.xml` file.

For example, if you want to restrict the access to PPM Billing Manager that has Demand Management license,



The `menu.xml` file configuration would looks like the follows:

```
<security>
   <and>
      <security-group reference-code="_PPM_BILLING_MANAGER" />
      <license reference-code="2" />
   </and>
</security>
```

Note that the value of **Reference Code** field from the Security Group: PPM Billing Manager window in the Security Group Workbench is used to refer to access key for restricting access by security group.

Restricting Access to a Menu Item by Configuring server.conf Parameter Value

You can also use server parameters to restrict access to a menu item. This applies to `server.conf` parameters with a `true/false` value only.

Example:

```
<security>
   <and>
      <license reference-code="2" />
      <server-parameter name="COST_CAPITALIZATION_ENABLED" />
   </and>
</security>
```

This means that the menu item affected will be accessible when both of the following conditions are satisfied:

- The user has Demand Management license
- `server.conf` has a setting of `COST_CAPITALIZATION_ENABLED=true`

6 New Features in PPM Center 9.11

PPM Center versions 9.10 and 9.11 were released before versions 8.03 and 9.12. Versions 8.03 and 9.12 include improvements to core functionality that are compatible between those versions, but are not supported on the older versions 9.10 and 9.11.

If PPM Center is running at version 8.03, do *not* upgrade to and then run at version 9.10 or 9.11. Instead, upgrade from version 8.03 to version 9.10 temporarily without running PPM Center, and then upgrade *immediately* to version 9.12.

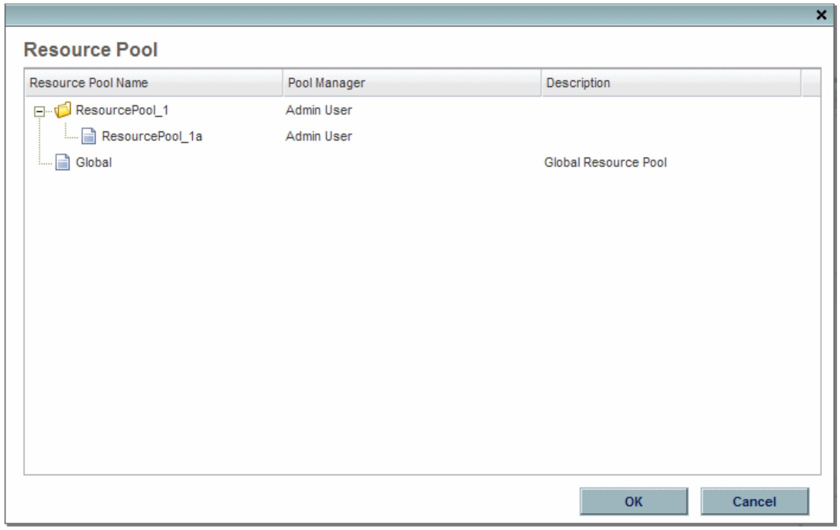
The following new features are included in PPM Center version 9.11:

- *Hierarchical Selection*
- *User Data for Resources*

Hierarchical Selection

Hierarchical selection is the ability to list selectable field values in the form of a hierarchy or tree. If the field values can be defined hierarchically, the selectable field values can be presented to the user in a hierarchical list. For example, when a resource pool (ResourcePool_1a) is created, a parent resource pool can be set. If a parent resource pool (ResourcePool_1) is configured to ResoucePool_1a, in the hierarchical selection, Resource_Pool_1a appears as a child to ResourcePool_1.

Figure 6-1. Hierarchical selection example



Hierarchical selection must be enabled by the system administrator and is only available for the Auto Complete List validation.

Upgrade Considerations

Hierarchical selection can be enabled on upgraded Auto Complete List validations. By default, hierarchical selection is disabled.

Enabling Hierarchical Selection

Hierarchical selection can be enabled for Auto Complete List validations only.

To enable hierarchical selection:

1. Log on to PPM Center.
2. From the menu bar, select **Open > Administration > Open Workbench.**

   The PPM Workbench opens.
3. On the shortcut bar, click **Configuration > Validations.**

4. From the Validations Workbench,

   If you are creating a new validation, click **New Validation.** Enter the required fields (Name and Reference Code). For Component Type, select **Auto Complete List.** For Validation By, select **SQL - Custom.**

   If you are updating a validation, click **List,** and then find and double-click on the validation.

5. Select the **Enable Hierarchical Selection?** checkbox. The Hierarchical Display tab is enabled.

   If you cannot select the **Enable Hierarchical Selection?** checkbox, hierarchical selection cannot be enabled for the validation.

6. From the Hierarchical Display tab, set the following fields:

Field	Description
Is folder selectable?	In a hierarchical selection, a parent node may be a container for selectable values or the parent node may be a selectable value. Enable this checkbox if the parent node is a selectable value. Selecting this checkbox allows the parent node value to be selected as the field value. Disable this checkbox if the parent node is only a container or folder. Disabling this checkbox does not allow the parent node value to be selected as a field value.
SQL	Provide the Select statement that queries the database information. An ending semicolon is not necessary. See *Hierarchical Display Tab Query Example* for more information.

7. Enter any other information for the validation.

8. Select **OK.**

If a field uses this validation, the hierarchical selection icon ( ) appears next to the field.

Hierarchical Display Tab Query Example

A basic SQL query used in the Hierarchical Display tab consists of the following:

```
Select <PrimaryIDColumn> id,
<ParentIDColumn> parentId,
<FolderDefinition> isFolder,
<BusinessKeyColumn> name,
<DisplayInfo_1>, <DisplayInfo_2>, ... , <DisplayInfo_n>
from <Table_1>, <Table_2>, ... , <Table_n>
where <Condition_1> and <Condition_2> and ... and <Condition_n>
and NVL(<ParentIDColumn>,0) = :parentId
```

where

<PrimaryIDColumn>	Required. Column name whose data type is numeric. Identifies the object that is displayed in the hierarchical selection list, such as a resource pool (`rpl.resource_pool_id`) or skill (`sk.skill_id`).
<ParentIDColumn>	Required. Column name whose data type is numeric and is a parent. Identifies the parent of the selected object such as a parent resource pool (`rpl.parent_resource_pool_id`) or parent skill (`sk.parent_skill_id`).

<FolderDefinition>	Required. A column name (such as a flag) or sub-query that determines if the object is a folder. The value or result must be either 'Y' or 'N.' An example of a column name is: `sk.is_skill_folder_flag` An example of a sub-query is: `decode(sign((select count(rpl2.resource_pool_id) from RSC_RESOURCE_POOLS rpl2 where rpl2.enabled_flag='Y' and rpl2.parent_resource_pool_id= rpl.resource_pool_id)),1,'Y','N')`
<BusinessKeyColumn>	Required. The user-defined name of the object that is displayed in the hierarchical selection list.
<DisplayInfo_1>, ... , *<DisplayInfo_n>*	Optional. Additional information about the object to be displayed in the hierarchical selection list.
<Table_1>, ... , *<Table_n>*	Required. The name of the table from which to query. For example, `RSC_RESOURCE_POOLS` or `RSC_SKILLS`.
<Condition_1> and ... and *<Condition_n>*	Conditions to be met in order for the object to be selected to display in the hierarchical selection list. At a minimum, you must include the following condition: **NVL(***<ParentIDColumn>*,0) = :parentId

The following is an example of a hierarchical display query that could be used for a resource pool validation:

```
select rpl.resource_pool_id id,

rpl.parent_resource_pool_id parentId,

decode(sign((select count(rpl2.resource_pool_id) from
RSC_RESOURCE_POOLS rpl2 where rpl2.enabled_flag='Y' and
rpl2.parent_resource_pool_id=rpl.resource_pool_id)),1,'Y','N')
isFolder,

rpl.resource_pool_name name,

krsc_utils.get_pool_managers_list(rpl.resource_pool_id),
rpl.description

from RSC_RESOURCE_POOLS rpl

where rpl.enabled_flag='Y' and
NVL(rpl.parent_resource_pool_id, 0) = :parentId
```

Using Hierarchical Selection

Hierarchical selection is enabled for a field when the hierarchical selection icon ( ) appears next to the field. Clicking the hierarchical selection icon opens a list of selectable field values in the form of a hierarchy or tree.

If the field allows only one value to be entered, you can choose only one value from the hierarchical selection. If a value exists in the field, the selected value replaces the existing value.

If the field allows more than one value to be entered, you can choose one or more values from the hierarchical selection. If a value exists in the field, the selected values are appended to the existing value.

User Data for Resources

Pages in PPM Center display a set of standard fields for collecting and displaying information. User data is the set of custom fields that can be defined by the system administrator.

If you want to include additional fields in a resource's page, you can define them in the User Data Workbench.

Resource user data are customizable resource attributes that are added to the **Details** tab in a resource's page. The system administrator configures the resource attributes that are displayed in a resource's page and the resource can modify the values of these resource attributes from the **Details** tab.

Resource user data is not available in the Search Resources page nor can they be modified for multiple resources simultaneously.

To configure user data:

1. Log on to PPM Center.
2. Select **Open > Administration > Open Workbench.**

   The PPM Workbench opens.
3. From the shortcut bar, select **Configuration > User Data.**

   The User Data Workbench opens.
4. Click **List.**

   The Results tab opens with the available user data types.
5. To configure resource user data, select **Resource User Data** and click **Open.**

   The User Data Context window opens.
6. To add a field, click **New.**

   The Field: New window opens.

7. From the Field: New window, do the following:

   a. Configure up to 100 fields. Enter the following information:

      i. In the **Field Prompt** box, type the label to display for the new field.

      ii. In the **Token** box, type an uppercase text string to use to identify this field.

         The token name must be unique to the specific user data. An example token name is `ASSIGNED_TO_USER_ID`.

      iii. In the **Description** box, you can enter text that describes what the field captures and how it is to be used.

      iv. To enable the new field, leave **Enabled** selected.

      v. In the **Validation** box, enter or select the validation logic to use to determine the valid values for the field.

         This can be a list of user-defined values, a rule that the result must be a number, and so on.

      vi. The **Component Type** field indicates the field type (list, free-form text field, and so on). This read-only field is derived from the validation you selected.

      vii. If the field lists selectable items, and you want users to be able to select more than one of these, select **Multiselect.**

         If you select **Multiselect,** the PPM Workbench displays a dialog box that lists limitations imposed on multiselect user fields.

         If you selected **Multiselect,** make a note of the limitations, and then click **Yes.**

   b. On the **Attributes** tab, enter the following information:

      i. In the **User Data Col** list, select the internal column in which the field value is to be stored.

         You can store information in up to 100 columns, which means that you can create up to 100 custom fields for resources. No two fields in user data can use the same column.

ii. To make the new field read-only at all times, in the **Display Only** list, select **Always.** To make the field editable at all times, select **Never.**

iii. To make the field visible to users, next to **Display,** leave **Yes** selected. To hide the field, select **No.**

iv. To make the field required (the user must specify a value) at all times, in the **Required** list, select **Always.** To make the field optional at all times, select **Never.**

c. To configure a default value for the user data field, open the **Default** tab and enter the following information:

i. To indicate that the field is to have a default value, in the **Default Type** list, do one of the following:

- To specify that the field default is to be a constant value, select **Constant.**

- To specify that the field default is to have no default, select **None.**

ii. If you specified a constant default type, then in the **Visible Value** list, select the constant value.

8. To save your changes and create another field, click **Add.** The Field window clears so that you can create another new field. Repeat step 7, as needed.

   To save your changes and close the Field window, click **OK.**

9. From the User Data Context window, use the **Layout** tab to rearrange the fields as you want the user to view them from the **Details** tab.

10. Click **OK.**

7 Enhancements, Integrations, Certifications, and Fixes in PPM Center 9.11

This section includes information about the enhancements, integrations, certifications, and fixes in PPM Center version 9.11.

Enhancements

The following enhancement is included in PPM Center version 9.11:

- User data for positions

  With this enhancement, users now may add up to 100 fields.

Certifications

The following certifications are included in PPM Center version 9.11:

- *Support for Universal CMDB versions 9.00 and 9.01*
- *Support for CCRM 9.1*

Support for Universal CMDB versions 9.00 and 9.01

This certification provides Universal CMDB versions 9.00 and 9.01 support for the following PPM Center integration solutions:

- PPM Center integration with Universal CMDB for Service Portfolio

  Note the following impact to configuration:

  - Define the UCMDB_SERVER_VERSION parameter in the `server.conf` file with the proper value. For example, `9.00`.

  For more information about this integration solution, see the *HP Solution Integrations Guide.*

- PPM Center integration with Universal CMDB (using ALM)

  Note the following impacts to installation and configuration:

  - PPM Server must have the same domain name as the Universal CMDB server. For example, if the Universal CMDB server domain name is *abc*.chn.hp.com, the PPM Server must be *xyz*.chn.hp.com, such as anbo.chn.hp.com.

  - PPM Server must be running on the save protocol as the Universal CMDB server. For example, if the Universal CMDB server is running on HTTPS, the PPM Server must be running on HTTPS as well.

  - Define the UCMDB_SERVER_VERSION parameter in the `server.conf` file with the proper value. For example, `9.00`.

  - Consult your Universal CMDB server administrator and define the following new parameters in the `server.conf` file for impact analysis report:

Parameter	Description
IMPACT_ANALYSIS_REPORT_ CATEGORY	Impact analysis report category, for example, `UCMDB`
IMPACT_ANALYSIS_REPORT_ SEVERITY	impact analysis report severity, for example, `Warning(1)`
UCMDB_NAME_FIELD	The field that stores the CI name, for example, `name`

- Starting from PPM Center version 9.11, you need to encrypt the Universal CMDB password with PPM's encryption tool `kEncrypt.sh`.

  To encrypt the password,

  i. Navigate to the `<PPM_Home>/bin` directory.

  ii. Run the following:

  ```
  sh kEncrypt.sh -t admin
  ```

  The encrypted text returns.

  iii. Copy and paste the encrypted text as the value for parameter UCMDB_PASSWORD in the `server.conf` file, making sure that you do not copy any carriage returns into the file.

Cookies need to be enabled for the browser you use.

For more information about the integration solution, see the *HP Solution Integrations Guide.*

Support for CCRM 9.1

This certification provides Change Configuration and Release Management (CCRM) 9.1 support for the following PPM Center extensions:

- PPM Project Task to SM RFC Integration
- SM RFC to PPM Project Task Integration

➤ Make sure that these two extensions support Service Manager 9.20, which is required for CCRM 9.1 support.

Fixes

The following fixes are included in PPM Center version 9.11:

Costing - Staffing Profile Budget Sync

Tracking Number	Problem Description
N/A	Exception appears when editing header of any Staffing Profile that was synchronized with Financial Summary (budget) before upgrade. (QCCR1L27897)

Dashboard

Tracking Number	Problem Description
N/A	Discrepancies in indexes between upgrade and fresh. (QCCR1L27989)

Integrations - SM RFC

Tracking Number	Problem Description
N/A	Task finish date is changed after synchronization to SM RFC. (QCCR1L28357)

Platform

Tracking Number	Problem Description
N/A	Discrepancies in indexes between upgrade and fresh. (QCCR1L27408)
N/A	Cannot add security group to users from workbench. (QCCR1L27785)

Resource Management

Tracking Number	Problem Description
4620109634	Error occurs when adding resources to a project or saving tasks in work plan on a PPM Center instance with French (Canada) Formatting Options in User Profile and CAD currency. (QCCR1L28441)
N/A	Discrepancies in indexes between upgrade and fresh. (QCCR1L27990)

Time Management

Tracking Number	Problem Description
N/A	Discrepancies (missing) in indexes from fresh install to upgraded instance for TM_TIME_SHEET_LINES and PM_WORK_PLANS. (QCCR1L27986)

8 Known Problems and Limitations in PPM Center 9.11

The following problems and limitations are known to exist in PPM Center version 9.11 (or other software, as indicated). The problems are categorized by the affected product area. If a problem has an assigned internal tracking number, that tracking number is provided (in parentheses) at the end of the problem description.

Center Management for Quality Center

LIMITATION	CMQC bundle does not support Oracle 11.2.0.1. Deployment of the bundle using that environment will result in an error. (QCCR1L27892)
WORKAROUND	Oracle 11.1.0.7 is supported.

Installation

LIMITATION	Because the PPM Center installation and configuration wizards are not fully localized in Chinese and Portuguese (Brazilian) languages, some of the text in wizard steps are shown in English only during installation or system configuration. (QCCR1L27173)
WORKAROUND	None.
LIMITATION	After you install PPM Center and then install language packs, the Import Notifications section of all of the language pack deployment logs saved to the `<PPM_Home>\logs\Lang_Pack\` directory contain the error “Fail to deploy NotifBody...” These error messages have no functional significance and can be ignored. (QCCR1L27539)
WORKAROUND	None.

Dashboard

PROBLEM	Any PPM Center portlets that contain the word “program” do not display the new Chinese translation for “program” and instead display the old Chinese translation for “program”. (QCCR1L27636)
WORKAROUND	None.

Integrations

PROBLEM	Using Internet Explorer and Microsoft Project 2007, opening a work plan in Microsoft Project from PPM Center generates a lock file for the Microsoft Project file. However, after closing the Microsoft Project file, the lock file is not reset. When opening the same work plan in Microsoft Project from PPM Center (without restarting Internet Explorer), the File in Use message is displayed and the Microsoft Project file can only be opened in read-only mode (you may also choose to be notified when the file is no longer in use). (QCCR1L25812)
WORKAROUND	After closing the Microsoft Project file you can reset the lock file by doing one of the following: • Delete the lock file. From any Internet Explorer window, do the following: 1. Select **Tools > Internet Options.** 2. In the General tabbed area, in the Temporary Internet files section, click **Delete Files.** 3. From the Delete Files dialog, click **OK.** 4. From the Internet Options dialog, click **OK.** • Restart Internet Explorer • Restart the system on which Internet Explorer is running.

Integration with Quality Center (ALM)

LIMITATION	Synchronization of workflows is not supported. PPM Center and Quality Center each has its own workflow to manage the process of defect handling. When driving the workflows from both sides, and moving a defect to another step in PPM Center's workflow, it cannot be reflected in Quality Center’s workflow, and vice versa.
WORKAROUND	None available at this time.
LIMITATION	Bi-directional synchronization of drop-down list values is not supported. (QCCR1L25919)
WORKAROUND	None available at this time.
LIMITATION	Comments and description format tags are displayed in PPM Center directly in normal text. (QCCR1L25815)
WORKAROUND	None available at this time.

LIMITATION	If a date-type field in Quality Center has a special format, the mapping field in PPM Center must have the same format, otherwise the date will not be synchronized to PPM Center correctly. (QCCR1L25917)
WORKAROUND	None available at this time.
LIMITATION	Quality Center support multi-value fields, such as target release and target cycle. However, current design of PPM Center does not support mapping a PPM field to a multi-valued Quality Center field.
WORKAROUND	None available at this time.

Integration with Universal CMDB (ALM)

PROBLEM	If a user selects more CIs than the maximum allowed CI number, an error message will pop up and it returns to the CI selector, but the selected CIs are gone. The user needs to select them again.
WORKAROUND	None available at this time.
PROBLEM	View Type, View Tree Name, and View TQL Name are deprecated in Universal CMDB 9.0, thus their values are not available.
WORKAROUND	None available at this time.
LIMITATION	Due to Universal CMDB 9.0 limitation, PPM Server must have the same domain name as the Universal CMDB server. For example, if the Universal CMDB server domain name is abc.chn.hp.com, the PPM Server must be xyz.chn.hp.com, such as anbo.chn.hp.com.
WORKAROUND	None available at this time.
LIMITATION	Due to Universal CMDB 9.0 limitation, PPM Server must be running on the save protocol as the Universal CMDB server. For example, if the Universal CMDB server is running on HTTPS, the PPM Server need to be running on HTTPS too.
WORKAROUND	None available at this time.

HP Demand Management

PROBLEM	If a request contains a rule that uses `KNTA_MULTI.Find_User_full_names([SYS.USER_ID])` from `sys.dual`, saving the request may fail or removing associated entities from the request may fail. (QCCR1L24349)
WORKAROUND	Use `KNTA_MULTI.Find_UserNames([SYS.USER_ID])` from `sys.dual` instead.
LIMITATION	A token unparseable error occurs when creating a request of a request type, where its validation referenced a non-existing token. (QCCR1L27418)
WORKAROUND	When you specify a validation for your request type, report type, or object type, make sure that the token(s) referenced by the validation already exist.
LIMITATION	When Text Field is set to “is equal to” the value of an Auto Complete List or Drop Down List value in the Dependencies section of the Rules tab in the request type workbench, the dependencies do not work; However, if the Text Field is set to match the code of the Auto Complete List or Drop Down List, the dependencies work well. (QCCR1L27020)
WORKAROUND	Considering the fact that Auto Complete List and/or Drop Down List values can be localized, which will then cause consistency issue for the dependencies, HP recommends you to match Text Field code to the code of Auto Complete List or Drop Down List when you set up request type field dependencies.

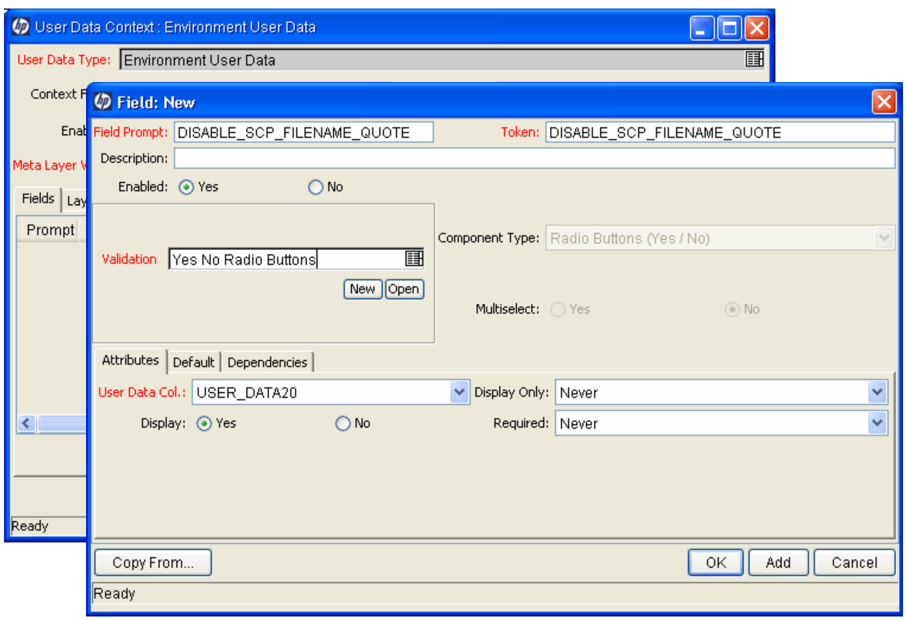
PROBLEM

File transfer from source environment to destination environment using Reflection for Secure IT for Unix (version 7.1) server fails when the environments were configured in a workflow execution step. (QCCR1L24976)

WORKAROUND

To use Reflection for Secure IT for Unix server to transfer files successfully,

1. Create a new Environment User Data using the following values:
    - **Field Prompt:** **`DISABLE_SCP_FILENAME_QUOTE`**
    - **Token:** DISABLE_SCP_FILENAME_QUOTE
    - **Enabled:** Yes
    - **Validation:** Yes No Radio Buttons
    - **User Data Column:** Select a value from the drop down list.
    - **Display:** Yes
    - **Display Only:** Never
    - **Required:** Never

    Then, in the Environment you want to use, enable the newly created user data.

    For more information about creating and enabling user data, see the *HP Deployment Management Configuration Guide.*

2. Note down the Server environment and Client environment values you used in step 1.
3. Configure the workflow execution step and use the Server environment and Client environment values you noted down earlier for **Source Environment** and **Dest Environment** fields.

PROBLEM	If you used environment tokens in Object Type with special command `ksc_copy_server_server` and set the Source and Destination environments as its parameters, file transfer from source environment to destination environment with Reflection for Secure IT for Unix (version 7.1) server fails. (QCCR1L27758)
WORKAROUND	Modify the environment settings by following the instructions described in the *WORKAROUND* for QCCR1L24976.

HP Portfolio Management

PROBLEM	Transaction History and Notes History cannot be enabled in the Associated Programs field of a PFM - Asset, PFM - Project, or PFM - Proposal request header type or a copy of one of these request header types. Selecting **Yes** or **No** does not enable these auditing features. (QCCR1L26865)
WORKAROUND	None available at this time.

HP Program Management

PROBLEM	Program risk request types are not available.
WORKAROUND	Program risk request types are part of the Best Practices content. Best Practices must be installed/re-installed in order to use this content.

Multilingual User Interface (MLU)

PROBLEM	When deploying language packs, the logs will show the following error for all languages, except for the system language: `[java] java.sql.SQLIntegrityConstraintViolationException: ORA-02291: Integrity-Constraint (GEEK_01.KNTA_NOTIFICATIONS_LOC_FK) violated` This error has no functional impact. (QCCR1L27539).
WORKAROUND	None.

HP Project Management

PROBLEM	When using Internet Explorer, using tooltips in the work plan may display a message about the page containing secure and nonsecure items, prompting you to continue. Each time a work plan is redrawn or refreshed, using tooltips in the work plan displays this message. (QCCR1L24383)
WORKAROUND	This message may be disabled from the Security Settings of the browser. From Internet Explorer: 1. Select **Tools > Internet Options.** 2. Select the **Security** tab. 3. Select the **Internet** Web content zone. 4. Click **Custom Level.** 5. Under **Miscellaneous** and **Display mixed content,** select **Enable.** 6. Click **OK.** 7. Click **OK.** 8. Restart Internet Explorer.
PROBLEM	When a user (such as a project manager or summary task owner) edits a task's resources directly from the work plan page, resources who are already assigned to the task are deleted if they do not belong to a resource pool managed by that user. Resources who have entered actual efforts for the task are not deleted. (QCCR1L26798)
WORKAROUND	Assign all users who manage resource assignments for the project as a resource pool manager to all resource pools that are associated with the project.
PROBLEM	If a user edits a task's external predecessor from the work plan page, when the task is saved, the external predecessor is deleted. (QCCR1L27616)
WORKAROUND	Use the Task Details page to edit a task's external predecessors. Do not edit external predecessors from the work plan page.
PROBLEM	When exporting a work plan to both PDF and Excel, if the work plan has a task with a name that contains double-byte numbers, the exported PDF differs from the exported Excel. In the exported PDF, the task name does not contain the doublebyte numbers. (QCCR1L14109)
WORKAROUND	None.

Operational Reporting

PROBLEM	Opening a linked report from the parent WEB Intelligence report results in the removal of data from the parent report results. This happens only if you open a linked report after you export the parent report to Excel and save it. Thereafter, if you click the refresh button on the parent report prompt, saved filter values are lost. (QCCR1L16514)
WORKAROUND	After you export a parent report to Excel, re-run the report with new prompt values, and then open the linked report without exporting it to Excel.
PROBLEM	Although you can run the operational reports that HP supplies, you cannot create or edit reports in InfoView without security risk. If you attempt to create or edit a Web Intelligence document in InfoView, a dialog box displays the message, “The application’s digital signal has an error. Do you want to run the application?” (QCCR1L25229)
WORKAROUND	Do not attempt to create or edit a Web Intelligence document in InfoView. If you do, then after the message, “The application's digital signal has an error. Do you want to run the application?” is displayed, click **Cancel.**
PROBLEM	A database error occurs if you provide a query prompt value that contains a backslash (\) character. (QCCR1L16066)
WORKAROUND	If you provide the prompt value manually, type two backslash characters instead of just one.
PROBLEM	If you export a Web Intelligence document that contains Asian characters to PDF format, the Asian characters are not exported. (QCCR1L25538)
WORKAROUND	None.
PROBLEM	In order to display a long text string so that it wraps to fit the width of a cell, InfoView adds a hyphen to the string in Web Intelligence documents. If a text string such as this contains Asian or particular European (Russian, Turkish) characters, InfoView places the hyphen(s) incorrectly so that some characters are not displayed in report results. This can occur in the Time Sheet Compliance report if the resource pool names are long and contain Asian characters. (QCCR1L25537)
WORKAROUND	Increase the width of cells in the report.
PROBLEM	If you modify the fiscal period definition in PPM Center after you set up the Operational Reporting schema and load PPM Center data, the changes to the fiscal period definition are not brought into in the Operational Reporting schema during subsequent incremental ETL operations. (QCCR1L27596)

WORKAROUND	Re-run the setup and load scripts to bring your changes to the fiscal period definition into the Operational Reporting schema.
PROBLEM	HP-supplied operational reports can sometimes omit result rows or incorrectly total row values if the results require a large number of rows to display. If you run an HP-supplied operational report and you specify query filter options that include a wide range of data that generate a large number of result rows, the last few rows and totals may be hidden by the Query Filter options text in the report results displayed. (QCCR1L26958)
WORKAROUND	Run the report from a new Web browser session.
PROBLEM	If the PPM Center database schema is restored from a data dump in which BusinessObjects was already configured, and the BusinessObjects scripts are re-run on the restored dump, the setup script cannot automatically drop the Oracle Change Data Capture (CDC) tables.
WORKAROUND	If the PPM Center database schema is restored from a data dump in which BusinessObjects was already configured, and you must re-run the BusinessObjects scripts on the restored dump, make sure that you manually drop all of the CDC tables before you re-run the BusinessObjects setup script.
PROBLEM	HP has noticed Oracle Internal Errors (Ora 600) for certain test data sets when accessing the HP PPM Operational Reports or during the process of ETL in the HP PPM Operational Reports.
WORKAROUND	If you encounter such errors, upgrade your Oracle Database software to version 11.2.0.1 or later to fix the problem.

➤ After you install PPM Center version 9.11, you can locate the packages `rpt_sync_objects.plb` and `rpt_request_update_dimension.plb` under the `OpsReporting` folder, and then deploy these two packages on your Reporting DB schema to replace the previous version.

Other

LIMITATION	Because Oracle Enterprise DB Server is not supported on VMware, PPM Center (including the Operational Reporting solution) does not work with Oracle Enterprise DB Server on VMware.
WORKAROUND	None.