Administrator’s Guide
Document Version: 1.0 – November 2018

PUBLIC

Administrator’s Guide: SAP Commercial Project Management 2.0, SP09

Typographic Conventions

Type Style	Description
Example	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
Example	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE	Keys on the keyboard, for example, F2 or ENTER.

Document History

The following table provides an overview of the most important document changes:

Version	Date	Change
1.0	2018-11-29	First published version

Table of Contents

1 Getting Started

1.1 About this Guide

Since SAP Commercial Project Management 2.0, SP09 is an add-on on SAP ERP, EhP 7, this guide must be implemented after you have implemented the guides of SAP ERP 6.0, EhP7 (see https://help.sap.com/viewer/product/SAP_ERP/6.0.7/en-US).

This guide provides you with the following information about SAP Commercial Project Management 2.0:

- Technical components of the product
- A list of the tools and documentation you need for the installation
- Some important follow-up activities you need to consider after the installation
- Operation-related information
- Security-related information

Constraints

The scenarios that are presented here serve as examples of how you can use SAP software in your company. The scenarios are only intended as models and do not necessarily run the way they are described here in your customer-specific system landscape. Ensure to check your requirements and systems to determine whether these scenarios can be used productively at your site. Furthermore, we recommend that you test these scenarios thoroughly in your test systems to ensure they are complete and free of errors before going live.

1.2 Related Guides

You can find more information about the relevant applications in the following documents:

Title	Location
SAP NetWeaver 7.4	http://help.sap.com/nw74
Planning (SAP ERP 6.0)	http://service.sap.com/erp-inst à *SAP ERP 6.0* à *Planning*
SAP Enhancement Packages for SAP ERP 6.0	http://help.sap.com/erp à *SAP Enhancement Package 7 for SAP ERP 6.0*

SAP BusinessObjects Analysis, edition for Microsoft Office	http://help.sap.com/boaa à *SAP BusinessObjects Analysis, edition for Microsoft Office*

2 Important Notes

Note Number	Description
2129693	Release Strategy for SAP Commercial Project Management 2.0
2126075	Release Information Note (RIN) (this note includes information about the equivalence levels of support pack stacks)
1800539	FAQ Note

3 System Landscape

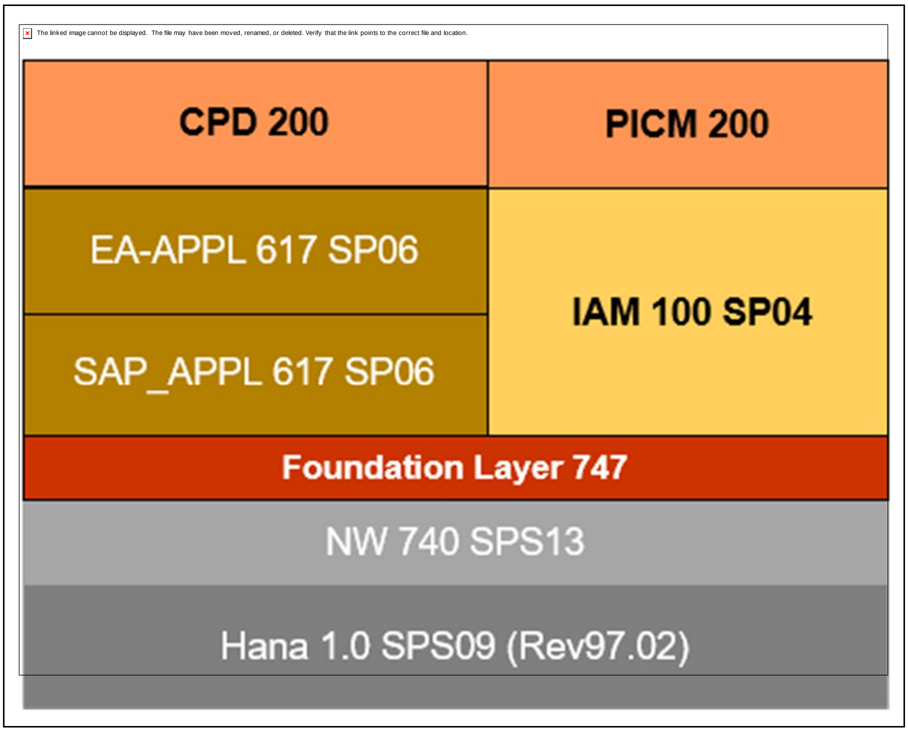
3.1 Introduction

SAP Commercial Project Management 2.0 consists of the following functional areas:

- Project Workspace
- Project Cost and Revenue Planning
- Project Issue and Change Management

3.2 Technical System Landscape

SAP Commercial Project Management add-on for SAP Business Suite is a standard product developed on the basis of SAP NetWeaver and SAP ERP. The following figure shows an overview of the minimal system landscape for the add-on.



Innovations within SAP Commercial Project Management are delivered through software components CPD 200 (Project Workspace and Project Cost and Revenue Planning) based on SAP enhancement package 7 for

SAP ERP, IAM 100 and SAP NetWeaver 7.4 and PICM 200 (Project Issue and Change Management) based on IAM 100 and SAP NetWeaver 7.4.

As of SAP Commercial Project Management 2.0 SP04, transactional and analytical Fiori apps have been delivered. Transactional Fiori apps are delivered through software component UICPD001 100. Analytical Fiori apps are based on SAP Smart Business framework and work only with ERP on HANA deployment scenario. HANA content for the analytical apps are delivered through the following HANA delivery units:

- HCO_HBA_CPM
- HCO_HBA_A_CPM_S
- HCO_HBA_R_CPM

There are multiple scenarios for *SAP Commercial Project Management*. Your installation depends on which scenario you choose. The following scenarios are possible:

- Project Workspace (CPD 200) installed for generating analytical reports from SAP ERP
- Project Workspace (CPD 200) and Project Cost and Revenue Planning (CPD 200)
- Project Workspace (CPD 200) and Project Issue and Change Management (PICM 200)
- Project Workspace (CPD 200), Project Cost and Revenue Planning (CPD 200) and Project Issue and Change Management (PICM 200)

Key:
x = mandatory
(x) = optional
- = not relevant

Scenario	Project Workspace	Project Cost and Revenue Planning	Project Issue and Change Management	Adobe Document Server (ADS)	Analysis Office *	SAP BS FND 747	SAP NetWeaver 7.4	SAP ERP 6 including EhP7	IAM 100
Project Workspace (CPD 200) installed for generating analytical reports from SAP ERP	x	-	-	x	x	x	x	x	x
Project Workspace (CPD 200) and *Project Cost and Revenue Planning* (CPD 200)	x	x	-	x	x	x	x	x	x
Project Workspace (CPD 200) and Project Issue and Change Management (PICM 200)	x	-	x	x	x	x	x	x	x
Project Workspace (CPD 200), *Project Cost and Revenue Planning* (CPD 200) and *Project Issue and Change Management* (PICM 200)	x	x	x	x	x	x	x	x	x

* *SAP Commercial Project Management* only delivers reference workbooks using Analysis Office and BI-IP content. Although you can use SAP Lumira as a frontend, no sample application is delivered.

Communication Between Back and Front Ends

The *SAP Commercial Project Management* applications use ABAP Web Dynpro and Analysis Office for Microsoft Excel as the main UI technologies. Fiori technology is used for transactional and analytical Fiori applications. You can use any end user client that is supported by these UI technologies.

Specific features of *Project Cost and Revenue Planning* are accessed from the front end by using SAP BusinessObjects Analysis, edition for Microsoft Office (latest SP).

The communication between the backend and the frontend is based on RFCs here.

SAP Fiori and SAP Smart Business

Dedicated SAP Fiori and SAP Smart Business bundles of apps are available for the SAP Commercial Project Management add-on for SAP business suite.

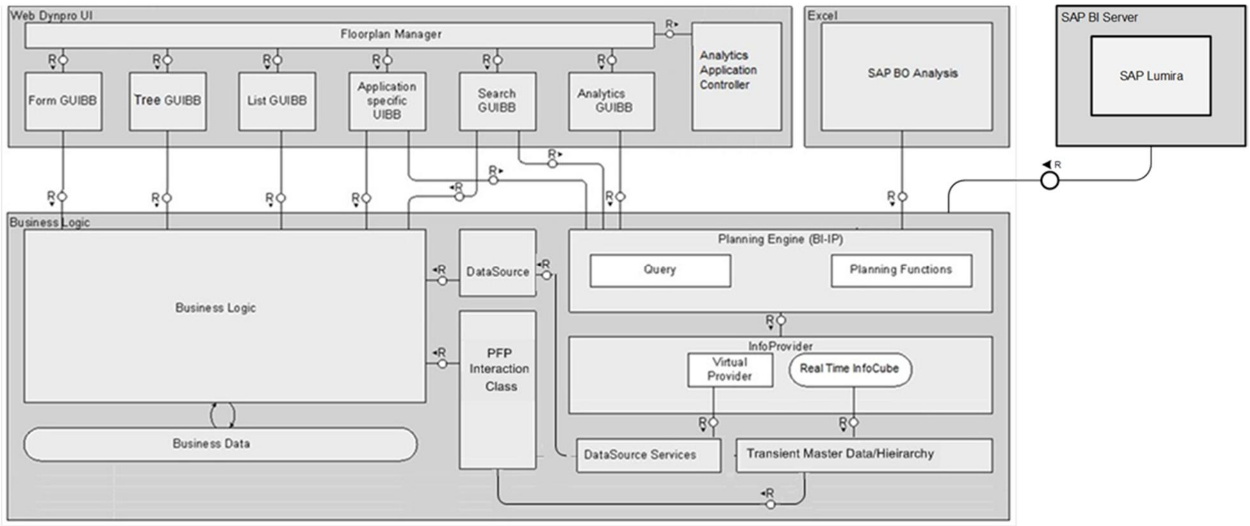
SAP Lumira Designer

SAP BusinessObjects Lumira can be used as an alternate planning frontend for SAP Commercial Project Management. Planning objects delivered as part of SAP Commercial Project Management can be used to develop planning applications.

For more information about SAP BusinessObjects Lumira, see the following:

- SAP Help Portal
- Application Designer Guide: Designing Analysis Applications
- Creating Planning Applications

The following figure illustrates the system architecture required for a SAP Lumira Designer application:



More information about setting up your SAP BusinessObjects Lumira application for SAP Commercial Project Management is available in section Configuring SAP BusinessObjects Lumira as an Alternate Planning Application.

Communication with Other SAP Systems

You can communicate with other Suite systems using remote function calls (RFCs).

4 Installation Information

4.1 Sizing and Performance

Before you prepare for the installation of SAP Commercial Project Management, it is recommended to evaluate the system resources necessary to efficiently operate various applications.

For more information, see the following:

- Sizing recommendations
- Tips to manage performance and data volume (SAP Note 1980948)

4.2 Overall Implementation Sequence

This section describes the implementation sequence for SAP Commercial Project Management. These steps must be performed once per system.

NOTE

- For the latest component version and patch level requirements, as well as more detailed information about the installation process SAP Commercial Project Management, see the release strategy note: 2129693.
- If you choose to install the analytical Fiori apps or the VDM content of SAP Commercial Project Management 2.0 (delivered with the following product versions: SAP SMART BUSINESS FOR CPM 1.0 and SAP HANA ANALY. FOR CPM 1.0), you must install SAP Commercial Project Management 2.0 add-ons on Suite on HANA. This is because the use of HANA as a side car is not supported by these product versions. For more information, see help.sap.com à SAP Business Suite à SAP HANA Innovations for SAP Business Suite à SAP Smart Business à Installation, Security, Configuration, and Operations Information à SAP Smart Business Products Administrator's Guide.

4.2.1 Project Workspace and Project Cost and Revenue Planning (CPD 200) with Analysis Office (AO)

1. Install (or update) SAP ERP EhP7
2. Install (or update) the IAM 100 (see Release Strategy Note 1640939)
3. Install CPD 200 (see Release Strategy Note 2129693)
4. Activate the /CPD/CA_CPD_PWS_1 business function (see transaction *SFW5 à Enterprise Business Functions à /CPD/CA_CPD_PWS_1*)

   NOTE

The activation of the business function OPS_PS_CI_1 is a prerequisite for working with *Project System* (PS) projects. Being an add-on, SAP Commercial Project Management uses several APIs from Project System (PS), especially APIs belonging to Handling Large Projects functional area.

5. Activate the /CPD/CA_CPD_PFP_1 business function (see transaction *SFW5 à Enterprise Business Functions à /CPD/CA_CPD_PFP_1*)
6. If you want to use NWBC for Desktop (instead of or in addition to NWBC for HMTL), a client set-up is necessary. You must uninstall the old version before installing the new version. For more information about NWBC for Desktop, see the SAP NetWeaver Business Client documentation at: https://help.sap.com/viewer/DRAFT/9737050ef01843f19572591b42128f1b/7.4.17/en-US.
7. Install AO (see note 2188859)
8. *SAP Commercial Project Management* uses the BW layer that is available in each NetWeaver stack. *Project Cost and Revenue Planning* uses *BW Integrated Planning* (BW-IP), which uses real-time InfoCubes to capture data generated through input-ready queries and planning functions. Therefore, only a configuration of the local BI client is required (and not an additional BI system).

   For setting up *Project Cost and Revenue Planning*, implement SAP note 1806291.
9. You must activate the Analytics content under the InfoAreas /CPD/AVR and /PICM/AVR (if *Project Issue and Change Management* is installed). For more information about setting up *Analytics*, see SAP Note 1999149.
10. Delivery customizing is available in reference client (000). You must follow these steps to enable delivery customizing in other relevant clients:
    a. Go to transaction SFW_BROWSER
    b. Expand the business function /CPD/CA_CPD_PWS_1
    c. Double click on switch: /CPD/CA_CPD_SFWS_PWS_1 to implement BC set activation.
    d. Choose the Activate Dependent BC Sets Button.
    e. In the next dialog box, select Activate Switch BC Sets and choose Continue
    f. In the next dialog box, select the following:
        i. Only Logon client for Cascading BC Sets
        ii. Activate in logon client for Non-cascading BC sets
        iii. Activate for Cross-client BC set
        iv. Mark on the checkboxes to Ignore Previous Activations and Ignore Table Delivery Class
    g. Expand the business function /CPD/CA_CPD_PFP_1
    h. Repeat the BC set activation steps for the switch /CPD/CA_CPD_SFWS_PFP_1

11. Check and activate SICF services as follows:
    a. Go to transaction SICF
    b. Choose Execute
    c. Go to default host à sap à bc à webdynpro
    d. Ensure that all services under the cpd node are active
12. SAP Commercial Project Management uses the BRFplus framework in Project Workspace (in Analytics) and Project Issue and Change Management (in the approval process).

    Client 000:

    1. Run the report FDT_TRANS.
    2. Provide the relevant customizing request.
    3. Enter the object ID as 7C63E6507DA2A220E10000000A428544.
    4. Enter the object ID as 005056AB30BA1EE3A7A3563E59FB5513
    5. Select the *Transport Whole Application(s)* radio button.

Productive Client:

1. Launch the transaction **SCC1**.
2. Enter the source client as **000**.
3. Provide the transport request in which you have transported the application (from client 000).
4. Mark the checkbox *Include Request Subtasks*.
5. Execute the transaction.

13. SAP Commercial Project Management uses Analytical Graphical User Interface Building Blocks (UIBBs) for reports that use IGS technology. You must create an RFC destination in the SAP system to connect the IGS to the SAP system. Implement the solution provided in SAP Note 454042.

4.2.2 Project Workspace and Project Cost and Revenue Planning (CPD 200) with Analysis Office and Project Issue and Change Management (PICM 200)

1. Install (or update) SAP NW 7.4including SAP BW 7.4
2. Install (or update) SAP ERP EhP7
3. Install (or update) the IAM 100 (see Release Strategy Note 1640939)
4. Install CPD 200 (see Release Strategy Note 2129693)
5. Install PICM 200 (see Release Strategy Note 2129693)
6. Activate the /CPD/CA_CPD_PWS_1 business function (see transaction *SFW5 à Enterprise Business Functions à /CPD/CA_CPD_PWS_1*)

   NOTE
   The activation of the business function OPS_PS_CI_1 is a prerequisite for working with *Project System* (PS) projects. Being an add-on, SAP Commercial Project Management uses several APIs from Project System (PS), especially APIs belonging to *Handling Large Projects*.

7. Activate the /CPD/CA_CPD_PFP_1 business function (see transaction *SFW5 à Enterprise Business Functions à /CPD/CA_CPD_PFP_1*)
8. Activate the /PICM/CA_CPD_PICM_1 business function (see transaction *SFW5 à Enterprise Business Functions à /PICM/CA_CPD_PICM_1*)
9. If you want to use NWBC for Desktop (instead of or in addition to) NWBC for HMTL, a client set-up is necessary. You should download the latest version of NWBC for desktop, and then uninstall the old version before installing the new version. For more information about NWBC for Desktop, see the SAP NetWeaver Business Client documentation at: https://help.sap.com/viewer/DRAFT/9737050ef01843f19572591b42128f1b/7.4.17/en-US.
10. Install AO (see note 2188859)
11. *SAP Commercial Project Management* uses the BW layer that is available in each NetWeaver stack. *Project Cost and Revenue Planning* uses *BW Integrated Planning* (BW-IP), which uses real-time InfoCubes to capture data generated through input-ready queries and planning functions. Therefore, only a configuration of the local BI client is required (and not an additional BI system).

    For setting up *Project Cost and Revenue Planning*, implement SAP note 1806291.

12. You must activate the Analytics content under the InfoAreas /CPD/AVR and /PICM/AVR (if *Project Issue and Change Management* is installed). For more information about setting up *Analytics*, see SAP Note 1999149.
13. Delivery Customizing is available in reference client (000). You must follow these steps to enable delivery Customizing in other relevant clients:
    a. Go to transaction SFW_BROWSER
    b. Expand the business function /CPD/CA_CPD_PWS_1
    c. Double-click on switch /CPD/CA_CPD_SFWS_PWS_1 to implement BC set activation
    d. Choose the Activate Dependent BC Sets Button
    e. In the next dialog box, select Activate Switch BC Sets and choose Continue
    f. In the next dialog box, select the following:
        i. Only Logon client for Cascading BC Sets
        ii. Activate in logon client for Non-Cascading BC sets
        iii. Activate for Cross-client BC sets
        iv. Mark the checkboxes to ignore previous activations and ignore table delivery class
    g. Expand the business function /CPD/CA_CPD_PFP_1
    h. Repeat the BC set activation steps for the switch /CPD/CA_CPD_SFWS_PFP_1
    i. Expand the business function /PICM/CA_CPD_PICM_1
    j. Repeat the BC set activation steps for the switch /PICM/CA_CPD_SFWS_PICM_1

14. Check and activate SICF services as follows:
    a. Go to transaction SICF
    b. Choose Execute
    c. Go to default host à sap à bc à webdynpro
    d. Ensure that all services under the cpd node are active
    e. Ensure that all services under the picm node are active
15. SAP Commercial Project Management uses the BRFplus framework in Project Workspace (in Analytics) and Project Issue and Change Management (in the approval process).

    Client 000:

    1. Run the report FDT_TRANS.
    2. Provide the relevant customizing request.
    3. Enter the following object IDs as multiple entries:
        · 7C63E6507DA2A220E10000000A428544.
        · 005056AB30BA1EE3A7A3563E59FB5513
        · F0D5105146757029E10000000A42852B
    4. Select the *Transport Whole Application(s)* radio button.

    Productive Client:

    1. Launch the transaction **SCC1**.
    2. Enter the source client as **000**.
    3. Provide the transport request in which you have transported the application (from client 000).
    4. Mark the checkbox *Include Request Subtasks*.
    5. Execute the transaction.
16. SAP Commercial Project Management uses Analytical Graphical User Interface Building Blocks (UIBBs) for reports that use IGS technology. You must create an RFC destination in the SAP system to connect the IGS to the SAP system. Implement the solution provided in SAP Note 454042.

4.2.3Project Workspace (CPD 200) with Analysis Office (AO)

1. Install (or update) SAP ERP EhP7
2. Install (or update) the IAM 100 (see Release Strategy Note 1640939)
3. Install CPD 200 (see Release Strategy Note 2129693)
4. Activate the /CPD/CA_CPD_PWS_1 business function (see transaction *SFW5 à Enterprise Business Functions à /CPD/CA_CPD_PWS_1*)

   NOTE
   The activation of the business function OPS_PS_CI_1 is a prerequisite for working with *Project System* (PS) projects. Being an add-on, SAP Commercial Project Management uses several APIs from Project System (PS), especially APIs belonging to Handling Large Projects.

5. If you want to use NWBC for Desktop (instead of or in addition to) NWBC for HMTL, a client set-up is necessary. You should download the latest version of NWBC for desktop, and then uninstall the old version before installing the new version.

   For more information about NWBC for Desktop, see the SAP NetWeaver Business Client documentation at: https://help.sap.com/viewer/DRAFT/9737050ef01843f19572591b42128f1b/7.4.17/en-US.
6. Install AO (see note 2188859)
7. You must activate the Analytics content under the InfoAreas /CPD/AVR. For more information about setting up *Analytics*, see SAP Note 1999149. Additionally, implement SAP Note: 2205102 to activate /CPD/FPID InfoObject.
8. Delivery Customizing is available in reference client (000). You must follow these steps to enable delivery Customizing in other relevant clients:
   a. Go to transaction SFW_BROWSER
   b. Expand the business function /CPD/CA_CPD_PWS_1
   c. Double-click on switch: /CPD/CA_CPD_SFWS_PWS_1 to implement BC set activation
   d. Choose the Activate Dependent BC Sets button
   e. In the next dialog box, select Activate Switch BC Sets and choose Continue
   f. In the next dialog box, select the following:
      i. Only Logon client for Cascading BC Sets
      ii. Activate in logon client for Non-Cascading BC sets
      iii. Activate for Cross-client BC sets
      iv. Mark the checkboxes to ignore previous activations and ignore table delivery class

9. Check and activate SICF services as follows:
   a. Go to transaction SICF
   b. Choose Execute
   c. Go to default host à sap à bc à webdynpro
   d. Ensure that all services under the cpd node are active
10. SAP Commercial Project Management uses the BRFplus framework in Project Workspace (in Analytics).

    Client 000:

    1. Run the report FDT_TRANS.
    2. Provide the relevant customizing request.
    3. Enter the following object IDs as multiple entries:

- 7C63E6507DA2A220E10000000A428544.
- 005056AB30BA1EE3A7A3563E59FB5513

4. Select the *Transport Whole Application(s)* radio button.

Productive Client:

1. Launch the transaction **SCC1**.
2. Enter the source client as **000**.
3. Provide the transport request in which you have transported the application (from client 000).
4. Mark the checkbox *Include Request Subtasks*.
5. Execute the transaction.

12. SAP Commercial Project Management uses Analytical Graphical User Interface Building Blocks (UIBBs) for reports that use IGS technology. You must create an RFC destination in the SAP system to connect the IGS to the SAP system. Implement the solution provided in SAP Note 454042.

4.2.4 Project Workspace (CPD 200) and Project Issue and Change Management (PICM 200) with Analysis Office (AO)

1. Install (or update) SAP ERP EhP7
2. Install (or update) the IAM 100 (see Release Strategy Note 1640939)
3. Install CPD 200 (see Release Strategy Note 2129693)
4. Install PICM 200
5. Activate the /CPD/CA_CPD_PWS_1 business function (see transaction *SFW5 à Enterprise Business Functions à /CPD/CA_CPD_PWS_1*)

   NOTE

   The activation of the business function OPS_PS_CI_1 is a prerequisite for working with *Project System* (PS) projects. Being an add-on, SAP CPM uses several APIs from Project System (PS) especially APIs belonging to Handling Large Projects.
6. If you want to use NWBC for Desktop (instead of or in addition to) NWBC for HMTL, a client set-up is necessary. You should download the latest version of NWBC for desktop, and then uninstall the old version before installing the new version. For more information about NWBC for Desktop, see the SAP NetWeaver Business Client documentation at: https://help.sap.com/viewer/DRAFT/9737050ef01843f19572591b42128f1b/7.4.17/en-US.
7. Install AO (see note 2188859)
8. You must activate the Analytics content under the InfoAreas /CPD/AVR. For more information about setting up *Analytics*, see SAP Note 1999149. Additionally, implement SAP Note: 2205102 to activate /CPD/FPID InfoObject.
9. Delivery customizing is available in reference client (000). You must follow these steps to enable delivery customizing in other relevant clients
   a. Go to transaction SFW_BROWSER
   b. Expand the business function /CPD/CA_CPD_PWS_1
   c. Double-click on switch: /CPD/CA_CPD_SFWS_PWS_1 to implement BC set activation
   d. Choose the Activate Dependent BC Sets button
   e. In the next dialog box, select Activate Switch BC Sets and choose Continue
   f. In the next dialog box, select the following:
      i. Only Logon client for Cascading BC Sets

    ii. Activate in Logon client for Non-Cascading BC sets
    iii. Activate for Cross-client BC sets
    iv. Mark the checkboxes to ignore previous activations and ignore table delivery class
  g. Expand the business function /PICM/CA_CPD_PICM_1
  h. Repeat the BC set activation steps for the switch /PICM/CA_CPD_SFWS_PICM_1

10. Check and activate SICF services as follows:
    a. Go to transaction SICF
    b. Choose Execute
    c. Go to default host à sap à bc à webdynpro
    d. Ensure that all services under the cpd node are active
    e. Ensure that all services under the picm node are active
11. SAP Commercial Project Management uses the BRFplus framework in Project Workspace (in Analytics) and Project Issue and Change Management (in the approval process).

    Client 000:

    1. Run the report FDT_TRANS.
    2. Provide the relevant customizing request.
    3. Enter the object ID as 7C63E6507DA2A220E10000000A428544.
    4. Enter the object ID as 005056AB30BA1EE3A7A3563E59FB5513
    5. Enter the object ID as F0D5105146757029E10000000A42852B
    6. Select the *Transport Whole Application(s)* radio button.

    Productive Client:

    1. Launch the transaction **SCC1**.
    2. Enter the source client as **000**.
    3. Provide the transport request in which you have transported the application (from client 000).
    4. Mark the checkbox *Include Request Subtasks*.
    5. Execute the transaction.
12. SAP Commercial Project Management uses Analytical Graphical User Interface Building Blocks (UIBBs) for reports that use IGS technology. You must create an RFC destination in the SAP system to connect the IGS to the SAP system. Implement the solution provided in SAP Note 454042.

4.3 Post-Installation Activities

Note Number	Description
2129693	Release Strategy for SAP Commercial Project Management 2.0
2126075	Release Information Note (RIN) (this note includes information about the equivalence levels of support pack stacks)

4.3.1 Configuration of Display Options for Analytical Reports

Analytical UIBBs are used in *Project Workspace* to display reports such as *Progress Analysis*, *Work in Progress*, and *Project Cost Status*. By default, these reports are displayed in a *SAP List Viewer* (ALV) table. However, you can also choose to view these reports as a graphic, or a table and graphic, or using Crystal Reports. To enable additional options for displaying reports, it is necessary to make the following Customizing settings:

To configure options for *Graphic* and *Table and Graphic* displays, follow these steps:

1. In Customizing for *SAP NetWeaver*, choose *UI Technologies* à *SAP List Viewer (ALV)* à *Maintain Web Dynpro ABAP-Specific Settings*.
2. Mark the *Java Server Available* checkbox.

Note that the display options are available in the frontend only if you also have enabled a Java server.

To configure options for Crystal Reports, follow these steps:

1. In Customizing for *SAP NetWeaver*, choose *UI Technologies* à *SAP List Viewer (ALV)* à *Maintain SAP GUI-Specific Settings*.
2. Mark the *Allow Crystal Reports* checkbox.

NOTE

- *SAP Commercial Project Management* does not deliver any Crystal Report template for viewing reports.
- Crystal reporting requires a special viewer in the frontend. This setting is only meaningful if this viewer has been installed. For more information, see SAP note 1353044.

4.3.2 Set-Up of Logical Systems

Project Workspace uses the RFC communication protocol to integrate external system objects such as SAP CRM opportunities and SAP Portfolio and Project Management projects.

Follow these steps to set up logical systems:

1. Create an RFC destination, of type 3, to connect to a logical system (in transaction SM59).
2. Go to Customizing for SAP NetWeaver à Application Server à IDoc Interface / Application Link Enabling (ALE) à Basic Settings à Logical Systems à Define Logical System.
3. Choose New Entries.
4. Enter a logical system (this is identical to the RFC destination name).
5. Enter a description to identify the logical system.
6. Save your entries.

Note: This setup must be done in all systems.

You can map logical systems to object links in Customizing for SAP Commercial Project Management à Master Data à Master Project à Define Object Links and Logical Systems.

4.3.3 Set-Up for Launching Native Transactions in Project Workspace

To launch native SAP transactions using the launchpad in *Project Workspace*, you must activate the MIME Repository service in the following way:

1. On the SAP Easy Access screen, choose Tools à Administration à Administration à Network à HTTP Service Hierarchy Maintenance.
2. On the Maintain Services screen, select the hierarchy type Service and choose Execute.
3. In the Virtual Hosts / Services hierarchy, navigate to the MIME Repository service by choosing **default_host** à **sap** à **public** à **bc** à **its** à **mimes**.
4. Right-click and choose Activate Service.

4.3.4 Set-Up of the Planning Group

After installing the latest SP of SAP BusinessObjects Analysis, edition for Microsoft Office, follow these steps to activate the default planning options in planning workbooks:

Up to Analysis Office 2.3:

1. Launch a workbook and navigate to the File menu à Analysis à Settings.
2. In the User Settings tab, select the option to Show Planning Group in the ribbon toolbar.
3. Close and relaunch the planning workbook.

Analysis Office 2.4 onwards:

1. Implement note 2325423

4.3.5 Enabling of Microsoft Excel Macro

The planning workbooks for Project Cost and Revenue Planning contain macros. To allow proper functioning of planning workbooks, you must allow the execution of all macros in the Trust Center Settings of Microsoft Excel.

4.3.6 Enhancing Planning Workbooks for SAP BusinessObjects Analysis, edition for Microsoft Office (Latest SP)

The delivered planning workbooks contain input-ready queries and planning objects, and launch a Microsoft Excel-based frontend for planning. We recommend that you use the delivered workbooks as templates and create your own workbooks to suit individual requirements. To know more about creating planning workbooks, see the User Guide in the SAP Help Portal under Analytics à Business Intelligence à Analysis à SAP BusinessObjects Analysis, edition for Microsoft Office à End-User Information.

4.3.7 Enhancing Input-Ready Queries for Planning

We recommend that you use the delivered input-ready queries as templates and create your own queries to suit your requirements. For more information about input-ready queries, see *Input-Ready Query* (http://help.sap.com/saphelp_nw70/helpdata/EN/43/1d023a41130bd5e10000000a422035/content.htm).

4.3.8 Disabling the Intelligent Double-Click Function in SAP BusinessObjects Analysis, edition for Microsoft Office (Latest SP)

NOTE

- This setting is available only in SAP BusinessObjects Analysis, edition for Microsoft Office (Analysis Office) 1.4 SP02 and above.
- For Analysis Office 1.X versions, implement SAP note 1884112.
- For 2.X versions, implement the steps listed in this chapter of the administrator's guide of SAP BusinessObjects Analysis, edition for Microsoft Office: To Maintain Settings in the File System

When you double-click a cell, the intelligent double-click function (if enabled) automatically executes the first command in the context menu of the cell.

To disable the intelligent, double-click function, do the following:

1. Launch the Registry Editor. To know more about maintaining registry settings for SAP BusinessObjects Analysis, edition for Microsoft Office, see the Administrator's Guide in the SAP Help Portal under *Analytics* à *Business Intelligence* à *Analysis* à *SAP BusinessObjects Analysis, edition for Microsoft Office.*
2. Depending on your local operating system, do one of the following:
   - If you are using a 32-bit operating system, locate the *AdvancedAnalysis* folder either under HKEY_CURRENT_USER\Software\SAP or HKEY_LOCAL_MACHINE\Software\SAP.
   - If you are using a 64-bit operating system, locate the Wow6432Node either under HKEY_CURRENT_USER\Software\SAP or HKEY_LOCAL_MACHINE\Software\SAP.
3. In the identified path, create nested keys to form the path *\Software\SAP\AdvancedAnalysis\Settings\ExcelGrid.
4. Under *ExcelGrid*, create the string *EnableDoubleClick*, and enter the value *False*.

4.3.9 Copying of Standard Workbooks

You must implement the steps detailed in the following notes to copy the standard workbooks delivered in SAP Commercial Project Management:

- 2300689: Maintenance of Query Key Figure GUIDs for Custom Workbook
- 2301024: Double Clicking on Structure Element Always Displays Quantity Related Key Figures in Forecast With Quantity and Cost Workbook

4.3.10 Integration of SAP Commercial Project Management with Other Functional Areas

Area	Description
SAP CRM	To be able to link master projects to CRM opportunities, you must provide the HTTP connection to the CRM system (by defining the RFC destination (**CPD_CRM**) (connection type **H**)).
SAP Multiresource Scheduling (MRS)	*Project Cost and Revenue Planning* allows you to update staffing information in *SAP Multiresource Scheduling*. For more information about the compatibility of *SAP Commercial Project Management* with *SAP Multiresource Scheduling*, see SAP Note 1806291.
SAP Portfolio and Project Management	To be able to link master projects to SAP Portfolio and Project Management, you must provide the HTTP connection to the Portfolio and Project Management system by defining an RFC destination.
SAP Hybris Cloud for Customer	To learn more about integrating with SAP Hybris Cloud for Customer, see: · https://help.sap.com/saphelp_sapcloudforcustomer/en/SAP_ERP/index.html · http://service.sap.com/cloud4customer · http://help.sap.com/cloud4customer

4.3.11 Configuring SAP BusinessObjects Lumira as an Alternate Planning Application

Do the following if you choose to use SAP BusinessObjects Lumira as the alternate frontend application:

- Create an implementation of *BAdI: Launch of Alternative Planning Applications*, under Customizing for *SAP Commercial Project Management > Project Cost and Revenue Planning > Business Add-Ins*. During this activity, you may use the example implementation /CPD/PFP_LAUNCH_PLAN_APPL as a reference.
- Use transaction LPD_CUST and update the URL of the SAP BusinessObjects Lumira application for the launchpad role CPD_PFP and instance FP_NAVIGATION. The URL must be maintained for the field *Launch Design Studio Application*.
- In the Customizing activity *Define Plan Types*, under Customizing for *SAP Commercial Project Management > Project Cost and Revenue Planning*, maintain an entry for the SAP BusinessObjects Lumira application corresponding to a desired plan type and business purpose.

4.4 Installation FAQ and Troubleshooting

Note Number	Title
1800539	FAQ Note
2011052	Predefine Project Workspace Views for End Users
2395763	Update of Progress Analysis Version
2043483	Team Graph Not Displayed
2169484	Authorization for Analytics Not Included in Relevant Roles
2074801	Dumps and Issues with Special InfoObjects
2209808	Attribute Planning Throws Error in Case Planning on Not Existing Member is Allowed
2303556	Workbook Launch Issue
1909425	SFW- Activation Error in Dictionary

5 Upgrade Information

5.1 Important Information for Upgrades

This section provides information that is relevant if you plan to upgrade Project Cost and Revenue Planning from SAP Commercial Project Management 1.0 to a higher release or support pack release.

Item	Description	Relevant for Upgrades From
Readjustment of ETC Forecast Figures	The report *Adjust Forecast Values (EAC, ETC, POC)* (/CPD/PFP_ADJUST_FORECAST) is required to readjust the ETC forecast figures from the plan currency to the transaction currency, in existing financial plans.	Release 1.0 SP00, SP01, SP02, or SP03 to Release 1.0 SP04 or Release 2.0 SPXX
Redesign of the Real-Time Planning InfoCube, for Performance Improvements	Implement SAP Note 2153478 to obtain performance improvements for operations on the planning InfoCube.	Release 1.0 SP07 and higher or Release 2.0 SPXX
New/Changed BW Objects: SAP Commercial Project Management, 2.0 SP07	SAP note 2455292 lists the new changed BW objects delivered in Project Cost and Revenue Planning	Release 2.0, SP07 onwards
New/Changed BW Objects in Analytics: SAP Commercial Project Management, 2.0 SP07	SAP note 2455203 lists the new changed BW objects delivered in Analytics	Release 2.0, SP07 onwards
New line item dimension for planning cube	Implement SAP Note 2138030	Release 1.0 SP06 or lower
Analytics Based on Historical Actuals Cube, COSS, and COVP tables	SAP Note 2644548 describes how you can improve the performance of analytical reports for master projects, using a combination of actuals from stored and real-time InfoProviders.	Release 2.0 SP08 onwards
Extensibility of BI-IP Objects	SAP Note 2645195 describes how you can extend BI-IP objects if you wish to enhance them for your business needs.	Release 2.0 SP08 onwards

Addition of Navigational Attributes	SAP Note 2644394 explains how you can enhance InfoProviders with navigational attributes.	Release 2.0 SP08 onwards
Setting up the Mass Forecasting Process	SAP Note 2644231 provides information about setting up an efficient forecasting process using the mass forecast program.	Release 2.0 SP08 onwards

6 Operation Information

6.1 Monitoring

Within the management of SAP technology, monitoring is an essential task. A section has therefore been devoted solely to this subject. You can find more information about the underlying technology in the SAP NetWeaver Administrator's Guide – Technical Operations Manual in:

SAP NetWeaver 7.4	http://help.sap.com/nw74 à *System Administration and Maintenance Information* à *Technical Operations for SAP NetWeaver*

6.1.1 Alert Monitoring

Proactive, automated monitoring is the basis for ensuring reliable operations for your SAP system environment. SAP provides you with the infrastructure and recommendations needed to set up your alert monitoring to recognize critical situations for *SAP Commercial Project Management* as quickly as possible. CPD 2.0 does not offer specific data in the Computer Center Management System (CCMS) for alert monitoring. Nevertheless, general monitoring options can be used.

For information and detailed procedures related to the alert monitoring in SAP NetWeaver 7.4, see the Monitoring Setup Guide for SAP NetWeaver at:

Depending on the version of SAP NetWeaver installed:	
SAP NetWeaver 7.4	http://help.sap.com/nw74 à *System Administration and Maintenance Information* à *Technical Operations for SAP NetWeaver* à *Administration of SAP NetWeaver systems and components* à *Administration of Application Server ABAP* à *Monitoring and Administration Tools for Application Server ABAP*

6.1.2 Monitoring Installation and Setup

In order to enable the auto-alert mechanism of CCMS, see SAP Note 617547.

6.1.3 Detailed Monitoring and Tools for Problem and Performance Analysis

CPD 200 is based on WebAS 7.40, part of SAP NetWeaver.

Project Workspace supports the use of *SAP Business Rules Framework plus (BRFplus)* to determine resource and resource type for cost elements and activity types.

It is not recommended to activate these BRFplus traces for long periods of time as they are performance critical.

6.1.3.1 Trace and Log Files

Trace files and log files are essential for analyzing problems. The standard SAP NetWeaver tools such as transactions ST22 (Run Time Errors) and SM21 (System Log) can be used to monitor trace and log files.

For more information, see:

Depending on the version of SAP NetWeaver installed:	
SAP NetWeaver 7.4	http://help.sap.com/nw74 à *System Administration and Maintenance Information à Technical Operations for SAP NetWeaver à Administration of SAP NetWeaver systems and components à Administration of Application Server ABAP à Monitoring and Administration Tools for Application Server ABAP*

· *The* Project Cost and Revenue Planning *application uses the tracing functions of* Analysis Office *to trace actions performed in the planning workbook (*Analysis Office*).*

· *You can also activate a trace file for* Project Cost and Revenue Planning *using the* Activate Tracing *button on the* Financial Planning *ribbon. Details of the items are recorded in the trace file (CACPDFP_TRACE_LOG.log).*

Important Log Files for Project Cost and Revenue Planning:

The following log objects are created in **SLG0**:

- Log Object ID: /CPD/PFP
- Subobject ID: /CPD/ERP_TRANSFER
- Subobject ID: /CPD/IMPORT_DATA
- Subobject ID: /CPD/PFP_VALUATE
- Subobject ID: /CPD/CPY_VERSION

Subobject ID: /CPD/PFP_R_FORECAST

All the logs created during the transfer uses the log object and the subobject to identify the logs efficiently.

External ID: A unique external ID of the log is created whenever a new version is created. The external ID is used at the time of the creation of the log. The log database contains an index in the fields OBJECT/SUBOBJECT/LOG and EXTENAL ID. If these fields are specified, the system reads the log from the database, efficiently (without a full table scan).

The application logging infrastructure supports a hierarchical display of logs. The log is shown in a hierarchical format with two levels. To achieve this, all generic messages are added at level 1; and the granular and object-type-specific messages are added at level 2.

Important Trace Files for Project Cost and Revenue Planning:

Component	Content	File	Path
CA-CPD-FP	- Queries - Planning functions - Errors - Flow of subroutines and functions	CACPDFP_TRACE_LOG.log	Example: \sapdb\data\wrk\db

Activating Trace Files

When you launch the *Analysis Office* 1.3, choose *Activate Tracing* in the *Financial Planning* ribbon. A dialog box prompts you to choose a location to save the trace files (on the local disk). This activates the tracing in the *Project Cost and Revenue Planning* application. For information about tracing related to *Analysis Office*, see http://help.sap.com/boaa à

- *System Administration and Maintenance Information à Administrator's Guide*
- *End-User Information à User Guide*

Displaying Trace Files

To display the trace files, you must go to the location specified by you when you had activated the trace file using the *Activate Tracing* button in the *Financial Planning* ribbon.

Deleting Trace Files

You can use the *Delete Trace Log* pushbutton to delete an existing trace file. Note that if you change the name of the trace file from CACPDFP_TRACE_LOG.log to something else, you cannot delete the trace log. To create a new trace file, you can choose *Activate Tracing* again.

6.1.4 Workload Monitors

SAP Commercial Project Management uses the standard NetWeaver workload monitor.
For more information, see:

Depending on the version of SAP NetWeaver installed:	
SAP NetWeaver 7.4	http://help.sap.com/nw74 à *System Administration and Maintenance Information à Technical Operations for SAP NetWeaver à Administration of SAP NetWeaver systems and components à Administration of Application Server ABAP à Monitoring and Administration Tools for Application Server ABAP à Statistics*

6.1.5 Data Consistency

If related or identical data is stored in multiple places there may be the possibility of inconsistencies (e.g. after a restore of a single component). The following table describes how consistency can be verified and how inconsistencies may be repaired.

Component / data store	**Check tool / method**	**Detailed Description**	**Prerequisites**
CA-CPD-FP	Transaction code: **RSRT** à execute query /CPD/PFP_MP01_Q0001	This report shows the consistency of plan data and the *Controlling* posting data (if it had been changed) after the transfer to SAP ERP. This report only shows the data consistency of work breakdown structure elements.	The transfer to SAP ERP is complete
CA-CPD-FP	/CPD/PFP_MAINTAIN_CONSISTENCY	If there is any change (deletion of nodes) in the project structure on which the planning has already been done, this report deletes the planned line items against the deleted node, from the BW InfoCube of Project Cost and Revenue Planning. This removes the inconsistencies caused by changes in the project structure.	
CA-CPD-FP	/CPD/PFP_EMP_DATA_CONSISTENCY	You can use this report to delete plan data for an employee who no longer has an active HR master record. The report deletes plan data from the InfoCube /CPD/PFP_R01.	

6.2 Management of SAP Commercial Project Management

SAP provides you with an infrastructure to help your technical support consultants and system administrators effectively manage all SAP components and complete all tasks related to technical administration and operation.

Additional information can be found in SAP Solution Manager documentation on SAP Help Portal at http://help.sap.com à SAP Solution Manager.

You can find more information about the underlying technology in the Technical Operations Manual in SAP Library under SAP NetWeaver.

6.2.1 Starting and Stopping

The Stop Sequence is in reverse order to the Start Sequence.

Start and Stop Sequences and Tools

Software Component	Sequence	Tool	Comments
SAP NW (7.4)	1	STARTSAP / STOPSAP (Unix) SAPMMC (Windows)	-
SAP BS_FND	2	STARTSAP / STOPSAP (Unix) SAPMMC (Windows)	-
SAP ERP 6.0 EHP7	3	STARTSAP / STOPSAP (Unix) SAPMMC (Windows)	-
CPD ABAP Server	4	STARTSAP / STOPSAP (Unix) SAPMMC (Windows)	

For more information about STARTSAP/ STOPSAP and SAPMMC, see the Technical Operations Manual for SAP NetWeaver in:

Depending on the version of SAP NetWeaver installed:	
SAP NetWeaver 7.4	http://help.sap.com/nw74 à *System Administration and Maintenance Information* à *Technical Operations for SAP NetWeaver*

6.2.2 Management of BW

The planning cube of *Project Cost and Revenue Planning* does not depend on data extraction from OLTP tables. It is a real-time cube into which data is directly written into and read from during planning activities. Using real-time data acquisition, new or changes to master data is constantly updated from source master data tables, into the InfoCube. Therefore, physical management of a data warehouse is not a mandatory activity. If required, you may need to monitor the InfoObjects that are updated by the real-time data acquisition. However, if you have a central BW installation and a local BW client for *SAP Commercial Project Management*, then it is necessary to monitor both BW systems.

6.2.3 Software Configuration

This chapter explains which components or scenarios used by this application are configurable and which tools are available for adjusting.

The Implementation Guide (IMG) is the standard SAP tool for component Customizing.

Customizing settings for *SAP Commercial Project Management* can be found under *Cross-Application Components* à *SAP Commercial Project Management*.

The configuration guide can be found at http://help.sap.com/ca-cpd à *Configuration and Deployment Information* à *Configuration Information*.

6.2.4 Backup and Restore

You need to back up your system landscape regularly to ensure that you can restore and recover it in case of failure.

EHP7 for SAP ERP 6.0 is based on SAP NetWeaver technology. All related SAP NetWeaver backup procedures also work for EHP7 for SAP ERP 6.0. Therefore, there is no special procedure for EHP7 for SAP ERP 6.0.

For more information, see the best practices document at http://service.sap.com/bp-roadmap à *Backup and Restore for SAP System Landscapes*.

6.3 Periodic Tasks

6.3.1 Scheduled Periodic Tasks

This chapter describes all automatable tasks required to run periodically in order to keep the application running smoothly over time. Such tasks may be required on component level and are therefore relevant in each scenario that uses the component. Other tasks may be relevant for certain scenarios only. It is important that you monitor the successful execution of these tasks on a regular basis.

Scenario-specific scheduled periodic tasks in Project Workspace:

Required for scenario	Program Name/Task	Task scheduling tool	Recommended Frequency	Detailed Description
To load *Cross-Project View* faster, when large master projects are involved	/CPD/R_MPROJ_BUFFRNG_FOR_USERS	Transaction SM36	Daily	This program is used to calculate the data related to Analytics, KPIs, and alerts; and then to buffer this data. With this, when a user opens the *Cross-Project View*, the system loads data from the buffer (there is no calculation at the time of loading), and therefore, the *Cross-Project View* is loaded relatively fast.

Scenario-specific scheduled periodic tasks in Project Cost and Revenue Planning:

Required for scenario	Program Name/Task	Task scheduling tool	Recommended Frequency	Detailed Description
To create Business Intelligence (BI) master data for resources	/CPD/PFP_CREATE_RES_MSTER_DATA	Transaction SM36	Daily	This is used for ERP resources like materials and activity types configured in Customizing for *Project Cost and Revenue Planning* à *Define Resource Types*. This report needs to be executed to create the corresponding master data in BI, so that the resource is available in the planning workbook (*Analysis Office*).
To create BI master data for the financial planning node	Daemons created on InfoPackages and the Data Transfer Process	Transaction RSRDA	Every Minute	This job is executed to create the corresponding master data of the financial planning nodes, for example, the WBS elements and sales orders in BI, so that they are available in the planning workbook.
Removes inconsistencies from the BW InfoCube; these may be caused by	/CPD/PFP_MAINTAIN_CONSISTENCY	Transaction SM36	Weekly	If there is any change (deletion of nodes) in the project

Required for scenario	Program Name / Task	Task scheduling tool	Recommended Frequency	Detailed Description
changes in the project structure				structure on which the planning has already been done, this report deletes the planned line items against the deleted node, from the BW InfoCube of *Project Cost and Revenue Planning*. This removes the inconsistencies caused by changes in the project structure.
Saves cost elements and activity types for a line item	/CPD/PFP_CREATE_COSTELM_ACTTYP	Transaction SM36	Weekly	When a user creates a new plan record in the planning workbook (*Analysis Office*), this report determines the cost elements and activity types defined in Customizing, and saves this into the BW InfoCube of *Project Cost and Revenue Planning*.
Updates staffed quantities for a request number from the MRS system to the BW InfoCube	/CPD/PFP_SET_MRS_STAFFED_QTY	Transaction SM36	Weekly	For each plan record, a document number is generated. The user enters the staffed quantity in the MRS

Required for scenario	Program Name / Task	Task scheduling tool	Recommended Frequency	Detailed Description
				system for a request. This quantity gets reflected in the MRS planning workbook after running this report.
Process chain to compress data of the BW InfoCube (/CPD/PFP_R01)	/CPD/PFP_PC01	Transaction RSPC	Weekly	This process chain is used to compress the data of the BW InfoCube before data compression. The process chain closes the open data request and drops and recreates the cube index.
To create BI master data for statistical key figures (SKF)	/CPD/PFP_CREATE_SKF_MSTR_DATA	Transaction SM36	Weekly	This report is used to create corresponding master data in BI, so that SKF information is available in quantity-based planning and the forecasting workbooks.
To delete plan data for employees who no longer have an active HR master record	/CPD/PFP_EMP_DATA_CONSISTENCY	Transaction SM36	Monthly	You can use this report to delete plan data for an employee who no longer has an active HR master record. The report deletes plan data from the InfoCube /CPD/PFP_R01.

Required for scenario	Program Name/Task	Task scheduling tool	Recommended Frequency	Detailed Description
To create master data in BI	/CPD/PFP_CREATE_SKF_MSTR_DATA	Transaction SM36	Every time SKF data is changed in the backend	You use the /CPD/PFP_CREATE_SKF_MSTR_DATA report to create corresponding master data in BI, so that SKF information is available in quantity-based planning and the forecasting workbooks.
To run background forecasting for multiple projects	/CPD/PFP_MASS_FORCAST_TRANSFER	Transaction SM36	On a need basis	You can run a background forecasting job for multiple projects using the /CPD/PFP_MASS_FORCAST_TRANSFER program. With this program, you can forecast on projects without launching the workbook and transfer data to Controlling (CO).

6.4 Software Change Management

Software Change Management standardizes and automates software distribution, maintenance, and testing procedures for complex software landscapes and multiple software development platforms. These functions support your project teams, development teams, and application support teams.

The goal of Software Change Management is to establish consistent, solution-wide change management that allows for specific maintenance procedures, global rollouts (including localizations), and open integration with third-party products.

This section provides additional information about the most important software components.

The following topics are covered:

- Transport and Change Management – Enables and secures the distribution of software changes from the development environment to the quality assurance and production environment.
- Development Request and Development Release Management – Enables customer-specific maintenance procedures and open integration with third-party products.
- Template Management – Enables and secures the rollout of global templates, including localizations.
- Quality Management and Test Management – Reduces the time, cost, and risk associated with software changes.
- Support Packages and SAP Notes Implementation – Provides standardized software distribution and maintenance procedures.
- Release and Upgrade Management – Reduces the time, cost, and risk associated with upgrades.

6.4.1 Transport and Change Management

All components of *SAP Commercial Project Management* are client-enabled.

For transport and change management issues, the procedures of SAP NetWeaver apply. For more information, see SAP NetWeaver documentation.

6.4.2 Development Requests and Development Release Management

The standard procedures of SAP NetWeaver apply. See the Technical Operations Manual for SAP NetWeaver on SAP Help Portal under SAP NetWeaver.

6.4.3 Support Packages and Patch Implementation

We recommend that you implement Support Package Stacks (SP Stacks), which are sets of support packages and patches for the respective product version that must be used in the given combination. The technology for applying support packages and patches will not change. You can find detailed information about the availability of SP-Stacks for EHP7 for SAP ERP 6.0 on the SAP Service Marketplace at service.sap.com/sp-stacks.

Read the corresponding Release and Information Notes before you apply any support packages or patches of the selected SP Stack. Use Maintenance Planner of the *SAP Solution Manager* to select, download, and install the needed usages, or software components and required support packages. For more information, see http://help.sap.com/maintenanceplanner.

6.5 Troubleshooting

6.5.1 Support Desk Management

Support Desk Management enables you to set up an efficient internal support desk for your support organization that seamlessly integrates your end users, internal support employees, partners, and SAP Active Global Support specialists with an efficient problem resolution procedure.
For support desk management, you need the methodology, management procedures, and tools infrastructure to run your internal support organization efficiently.
The following topics are covered:

- Remote Support
- Component hierarchy relevant for this application

6.5.2 Remote Support Setup

SAP support needs to be able to work remotely for highest efficiency and availability. Therefore, all required support tools must be remotely accessible for SAP support. For SAP SNC, the standard SAP procedures for setting up remote support setup apply.
For information about Remote Support Setup, see SAP Service Marketplace at service.sap.com / access-support.
All support tools are accessible by SAP GUI or the web browser using a support role. This role does not allow you to perform any changes to the component.
For ABAP based components, for example, the role SAP_RCA_SAT_DISP is shipped with the ABAP add-on component ST-PI.

7 Security

7.1 Security Information

Since SAP Commercial Project Management 2.0, SP09 is an add-on on SAP ERP, EhP 7, this section must be implemented after you have implemented the security guide of SAP ERP 6.0, EhP7 (see https://help.sap.com/viewer/product/SAP_ERP/6.17.14/en-US).

7.1.1 Before You Start

Pay particular attention to the most relevant sections or specific restrictions as indicated in the following table.

Fundamental Security Guides

Type of Component	**Scenario, Application or Component Security Guide**
SAP NW 7.4 SAP NetWeaver	http://help.sap.com/nw74 *à Security Information*
SAP ERP 6.0 EHP7 SAP Enterprise Resource Planning 6.0 Enhancement Pack 7	https://help.sap.com/viewer/product/SAP_ERP/6.17.14/en-US
Analysis Office	https://help.sap.com/viewer/p/SAP_BUSINESSOBJECTS_ANALYSIS_OFFICE *à System Administration and Maintenance Information à Administrator's Guide*

7.1.2 User Administration and Authentication

SAP Commercial Project Management uses the user management and authentication mechanisms provided with the SAP NetWeaver platform, in particular the SAP NetWeaver Application Server ABAP. Therefore, the security recommendations and guidelines for user administration and authentication as described in the SAP NetWeaver Application Server ABAP Security Guide [SAP Library] also apply to *SAP Commercial Project Management*.

In addition to these guidelines, we include information about user administration and authentication that specifically applies to the *SAP Commercial Project Management* applications in the following topics:

- User Management

  This topic lists the tools to use for user management, the types of users required, and the standard users that are delivered with *SAP Commercial Project Management*.

- User Data Synchronization

  SAP Commercial Project Management shares user data with other sources. This topic describes how the user data is synchronized with these other sources.

- Integration into Single Sign-On Environments

  This topic describes how *SAP Commercial Project Management* supports Single Sign-On mechanisms.

7.1.2.1.1 User Management

User management *SAP Commercial Project Management* uses the mechanisms provided with the SAP NetWeaver Application Server (ABAP), for example, tools, user types, and password policies. For an overview of how these mechanisms apply for *SAP Commercial Project Management*, see the sections below. In addition, we provide a list of the standard users required for operating *SAP Commercial Project Management*.

User Administration Tools

The table below shows the tools to use for user management and user administration with *Project Workspace*.

User Management Tools

Tool	Description
User maintenance for ABAP-based systems (transaction SU01)	For more information about the authorization objects provided by *SAP Commercial Project Management*, see the relevant component in the section *Authorizations*.
Role maintenance with the profile generator for ABAP-based systems (PFCG)	For more information about the roles provided by *SAP Commercial Project Management*, see the relevant component in the section *Authorizations*.
Central User Administration (CUA) for the maintenance of multiple ABAP-based systems	Use the CUA to centrally maintain users for multiple ABAP-based systems. Synchronization with a directory server is also supported.

7.1.2.1.2 User Data Synchronization

By synchronizing user data, you can reduce effort and expense in the user management of your system landscape. Since *SAP Commercial Project Management* is based on SAP NetWeaver, you can use all of the mechanisms for user synchronization in SAP NetWeaver here. For more information, see the SAP NetWeaver Security Guide on SAP Service Marketplace at service.sap.com / securityguide à SAP NetWeaver.

7.1.2.1.3 Integration into Single Sign-On Environments

SAP Commercial Project Management supports the Single Sign-On (SSO) mechanisms provided by SAP NetWeaver. Therefore, the security recommendations and guidelines for user administration and authentication as described in the SAP NetWeaver Security Guide [SAP Library] also apply.

The most widely-used supported mechanisms are listed below.

- *Secure Network Communications (SNC)*

SNC is available for user authentication and provides for an SSO environment when using the SAP GUI for Windows or Remote Function Calls.

- *SAP logon tickets*

SAP Commercial Project Management supports the use of logon tickets for SSO when using a Web browser as the frontend client. In this case, users can be issued a logon ticket after they have authenticated themselves with the initial SAP system. The ticket can then be submitted to other systems (SAP or external systems) as an authentication token. The user does not need to enter a user ID or password for authentication but can access the system directly after the system has checked the logon ticket.

- *Client certificates*

As an alternative to user authentication using a user ID and passwords, users using a Web browser as a frontend client can also provide X.509 client certificates to use for authentication. In this case, user authentication is performed on the Web server using the Secure Sockets Layer Protocol (SSL Protocol) and no passwords have to be transferred. User authorizations are valid in accordance with the authorization concept in the SAP system.

For more information, about the available authentication mechanisms, see User Authentication and Single Sign-On in the *SAP NetWeaver Library*.

7.1.2.2 Authorizations

SAP Commercial Project Management uses the authorization concept provided by the SAP NetWeaver AS ABAP. Therefore, the recommendations and guidelines for authorizations as described in the SAP NetWeaver AS Security Guide ABAP also apply to *SAP Commercial Project Management*.

The SAP NetWeaver authorization concept is based on assigning authorizations to users based on roles. For role maintenance, use the profile generator (transaction PFCG) on the AS ABAP.

Standard Roles

The tables below show the standard roles that are used by *SAP Commercial Project Management*. The authorization objects for these roles are supplied by SAP in the profiles.

Project Workspace

Role	Description
SAP_SR_CPD_PWS_USER_1	Display authorizations for the master project object
SAP_SR_CPD_PM_1	This sample role allows the creation, change, and display of master project and financial plans and provides authorizations to users working as project managers.
SAP_SR_CPD_PICM_PM_1	This role provides create authorization, change authorization, and display authorization for objects in Project Issue and Change Management.

The delivered roles must be adjusted in the following way, for the creation and changing of master projects:

Role Adjustment

1. In the *Role Maintenance* screen (transaction PFCG), launch the role *Project Workspace User* (SAP_SR_CPD_PWS_USER_1) for editing.
2. In the *Authorizations* tab, choose *Change Authorization Data*.
3. Under the authorization hierarchy for *Commercial Project Management*, navigate to *Authorization Object for Project Workspace* à *Activity*.
4. Choose *Change* to set the attributes for this authorization field.
5. To allow master project creation, select the change authorization.
6. Save the role authorization.

URL Parameter Entry

1. In the *Role Maintenance* screen (transaction PFCG), open the role Project Workspace User (SAP_SR_CPD_PWS_USER_1) for editing.
2. In the *Menu* tab, navigate through the role hierarchy by choosing *Role Menu* à *Commercial Project Overview* à *Create* à *Master Project*.
3. Right-click and choose *Details*.
4. In the *Web Dynpro Application* dialog box, add the parameter **change_mode** with the value **C**.

5. Save the role.

Project Cost and Revenue Planning

Role	Description
SAP_SR_CPD_PFP_USER_1	Display authorizations for objects relevant to *Project Cost and Revenue Planning*. However according to the business needs of the customer, you can create roles specific to your enterprise. For example, an admin user can be provided with display, change, create, and delete authorizations for the financial plan object.
SAP_SR_CPD_PM_1	This sample role allows the creation, change, and display of master project and financial plans and provides authorizations to users working as project managers.
SAP_SR_CPD_PICM_PM_1	This role provides create authorization, change authorization, and display authorization for objects in Project Issue and Change Management.

The delivered roles must be adjusted in the following way, for the creation and changing of financial plans:

Role Adjustment

1. In the *Role Maintenance* screen (transaction PFCG), launch the role *Project Cost and Revenue Planning User* (SAP_SR_CPD_PFP_USER_1) for editing.
2. In the *Authorizations* tab, choose *Change Authorization Data*.
3. Under the authorization hierarchy for *Commercial Project Management*, navigate to the corresponding authorization object of the business object à *Activity*.
4. Choose *Change* to set the attributes for this authorization field.
5. To allow the creation of the business object, select the change authorization.
6. Save the role authorization.

Authorization Objects

The tables below show the authorization objects that are used by *Project Workspace and Project Cost and Revenue Planning*.

Project Workspace

Authorization Object	Description
/CPD/MP	Authorization object to determine the kind of activity that a user can perform on a master project (including the specific areas of a master project). The fields are: · ACTVT: Activity · /CPD/MP_TY: Master Project Type · /CPD/MP_ID: Master Project ID

Authorization Object	Description
	· /CPD/MP_OR: Organization · /CPD/MP_IN: Involvement in Master Project · SUB_ACTVT: Subactivity for Master Project Authorization · /CPD/ASPCT: Aspect ID · /CPD/MP_CF: Confidential Indicator for Master Project
/CPD/ANLY	Authorization object for Analytics; the fields are: · BUKRS: Company Code · GSBER: Business Area · KOKRS: Controlling Area · ACTVT: Activity
/CPD/MC	Authorization object for milestone checklists; the field is: · /CPD/MC_AC: Milestone Checklist: Authorization Values
/CPD/OAUTH	Authorization object to override access control; the field is: · /CPD/MP_TY: Master Project Type

Project Cost and Revenue Planning

Authorization Object	Description
/CPD/FPH	Authorization object for the financial plan
S_TCODE	Authorization object that performs a transaction code check at the start of a transaction.
S_RS_AO	Authorization object for *Analysis Office*
S_RS_AUTH	Authorization object for BI Analysis (Authorizations in Role)
S_RS_COMP	Authorization object for Business Explorer – Components
S_RS_COMP1	Authorization object for Business Explorer - Components: Enhancements to the Owner

Project Issue and Change Management (PICM)

Standard Roles

Role	Description
SAP_SR_CPD_PICM_USER_1	This role provides display authorizations for objects in Project Issue and Change Management.
SAP_SR_CPD_PICM_PM_1	This role provides create authorization, change authorization, and display authorization for objects in Project Issue and Change Management.

Authorization Objects

Authorization Object	Description
PICM_STAT	Authorization object to check if the user has the authority to change lifecycle status of the activity
PICM_ISTAT	Authorization object to check if the user has the authority to change lifecycle status of the issue or change request
/IAM/OREF	Authorization object for Reference Objects for Issue, Change Request, and Activity
IAM_CAT_AC	Authorization to Restrict Access to *Project Issue and Change Management* Worklist Object
/IAM/AAUTH	Authorization Object for Activity
/IAM/ATTMT	Authorization Object for Attachments for Issue and Activity
/IAM/A_ATTR	Authorization Object for Attribute Maintenance for Activity
IAM_CODEGR	Authorization Object for Code Groups
/IAM/TXTTY	Authorization Object for Descriptions
/IAM/IAUTH	Authorization Object for Issue Requests
IAM/A_STAT	Authorization Object for Lifecycle Status (Activity)
IAM/I_STAT	Authorization Object for Lifecycle Status (Issue)
IAM/A_RLCD	Authorization Object for Role Codes in Activity
IAM/I_RLCD	Authorization Object for Role Codes in Issue
/IAM/CODGR	Authorization Object for Selection of Code Groups, Codes

7.1.2.3 Session Security Protection

To increase security and prevent access to the SAP logon ticket and security session cookies, it is recommended that you activate secure session management. We also highly recommend using SSL to protect the network communications where these security-relevant cookies are transferred.

Session Security Protection on the AS ABAP

The following section is relevant for *Project Workspace and Project Cost and Revenue Planning* in SAP NetWeaver Business Client: To prevent access in javascript or plug-ins to the SAP logon ticket and security session cookies (SAP_SESSIONID_<sid>_<client>). You can activate secure session management. With an existing security session, users can then start applications that require a user logon without logging on again. When a security session is ended, the system also ends all applications that are linked to this security session.

Use the transaction **SICF_SESSIONS** to specify the following parameter values shown in the table below in your AS ABAP system:

Session Security Protection Profile Parameters		
Profile Parameter	*Recommended Value*	*Comment*
icf/set_HTTPonly_flag_on_cookies	0	Client-dependent
login/ticket_only_by_https	1	Not client-dependent

7.1.2.4 Network and Communication Security

Your network infrastructure is extremely important in protecting your system. Your network needs to support the communication necessary for your business needs without allowing unauthorized access.

A well-defined network topology can eliminate many security threats based on software flaws (at both the operating system and application level) or network attacks such as eavesdropping. If users cannot log on to your application or database servers at the operating system or database layer, then there is no way for intruders to compromise the machines and gain access to the backend system's database or files. Additionally, if users are not able to connect to the server LAN (local area network), they cannot exploit well-known bugs and security holes in network services on the server machines.

The network topology for *Project Workspace and Project Cost and Revenue Planning* is based on the topology used by the SAP NetWeaver platform. Therefore, the security guidelines and recommendations described in the SAP NetWeaver Security Guide also apply to *Project Workspace and Project Cost and Revenue Planning*. Details that specifically apply are described in the following topics:

- Communication Channel Security

This topic describes the communication paths and protocols used by *Project Workspace and Project Cost and Revenue Planning*.

- Network Security

This topic describes the recommended network topology for *Project Workspace and Project Cost and Revenue Planning*. It shows the appropriate network segments for the various client and server components and where to use firewalls for access protection. It also includes a list of the ports needed to operate *Project Workspace and Project Cost and Revenue Planning*.

- Communication Destinations

This topic describes the information needed for the various communication paths, for example, which users are used for which communications.

For more information, see the following sections in the SAP NetWeaver Security Guide:

- *Network and Communication Security* [SAP Library]
- *Security Aspects for Connectivity and Interoperability* [SAP Library]

7.1.2.5 Communication Channel Security

The table below shows the communication channels used by *SAP Commercial Project Management*, the protocol used for the connection, and the type of data transferred.

Communication Path	Protocol Used	Type of Data Transferred	Data Requiring Special Protection
Frontend client using SAP GUI for Windows to application server	RFC, HTTP(S)	Integration data	Passwords
Frontend client using a Web browser to application server	HTTPS	All application data	Passwords
Application server to third-party application	HTTPS	System ID, client, and host name	System information (that is, host name)
Application server to application server	RFC	Application data (equipment, functional locations) integration objects	System information

DIAG and RFC connections can be protected using Secure Network Communications (SNC). HTTP connections are protected using the Secure Sockets Layer (SSL) protocol.

For more information, see *Transport Layer Security* in the SAP NetWeaver Security Guide.

7.1.2.6 Network Security

Your network infrastructure plays a key role in protecting your system. A well-defined network topology can eliminate many security threats based on software flaws (at the operating system and application level) or network attacks such as eavesdropping. We offer general recommendations to protect your system landscape, based on SAP NetWeaver.

NOTE
For information about network security for SAP NetWeaver, see the SAP NetWeaver Security Guide on SAP Service Marketplace at http://service.sap.com/securityguide. A minimum security demand for your network infrastructure is the use of a firewall for all your services that are provided over the Internet. A more secure variant is to protect your systems (or groups of systems) by locating the system groups in different network segments. Each system group has a firewall that protects it from unauthorized access. External security attacks can also come from the inside, if the intruder has already taken control of one of your systems.

NOTE
For information about access control using firewalls, see the SAP NetWeaver Security Guide on SAP Help Portal at:

SAP NW 7.4 SAP NetWeaver	http://help.sap.com/nw74 à *Security Information à Security Guide à Network and Communication Security à Using Firewall Systems for Access Control*

7.1.2.7 Communications Destinations

The use of users and authorizations in an irresponsible manner can pose security risks. You should therefore follow the security rules below when communicating with other systems:

- Employ the user types system and communication.
- Grant a user only the minimum authorizations.
- Choose a secure password and do not divulge it to anyone else.
- Only store user-specific logon data for users of type system and communication.
- Wherever possible, use trusted system functions instead of user-specific logon data.

For navigation with NWBC for Desktop, it is necessary to make entries in table HTTP_WHITELIST. For details about this, refer to the NWBC documentation for the related release – https://help.sap.com/viewer/DRAFT/9737050ef01843f19572591b42128f1b/7.4.17/en-US.

7.1.3 Data Storage Security

Project Cost and Revenue Planning

- The header data of the financial plan is stored in the database tables of *Project Cost and Revenue Planning*. The notes and attachments feature uses the Business Objects Processing Framework (BOPF).
- Data is saved in the database tables of *Project Cost and Revenue Planning* when the user explicitly chooses the *Save* pushbutton on the financial planning screen.
- The planning data is stored in the BW InfoCube and can be transferred to the SAP ERP database tables by the user.
- Data is saved in the BW InfoCube when the user explicitly chooses the *Save Data* pushbutton in the *Analysis Office* workbook.
- Data is saved in SAP ERP database tables when the user explicitly chooses the *Transfer Data* pushbutton on the financial planning screen.

Using Logical Paths and File Names to Protect Access to the File System

The *Project Workspace* component saves data in files in the file system. Therefore, it is important to explicitly provide access to the corresponding files in the file system without allowing access to other directories or files (also known as directory traversal). This is achieved by specifying logical paths and file names in the system that map to the physical paths and file names. This mapping is validated at runtime and if access is requested to a directory that does not match a stored mapping, then an error occurs.

Activating the Validation of Logical Paths and File Names

The logical paths and file names are entered in the system for the corresponding programs. For downward compatibility, the validation at runtime is deactivated by default. To activate the validation at runtime, maintain the physical path using the transactions **FILE** (client-independent) and **SF01** (client-dependent). To determine which paths are used by your system, you can activate the appropriate settings in the Security Audit Log.

For information about data storage security, see:

SAP NW 7.4 SAP NetWeaver	http://help.sap.com/nw74 à *Security Information* à *Security Guide* à *Security Guides for the Operating System and Database Platforms*

7.1.4 Data Protection and Privacy

7.1.4.1 Introduction

Data protection is associated with numerous legal requirements and privacy concerns. In addition to compliance with general data protection and privacy acts, it is necessary to consider compliance with industry-specific legislation in different countries. SAP provides specific features and functions to support compliance with regard to relevant legal requirements, including data protection. SAP does not give any advice on whether these features and functions are the best method to support company, industry, regional, or country-specific requirements. Furthermore, this information should not be taken as advice or a recommendation regarding additional features that would be required in specific IT environments. Decisions related to data protection must be made on a case-by-case basis, taking into consideration the given system landscape and the applicable legal requirements.

7.1.4.1.1 Notification

Note:

SAP does not provide legal advice in any form. SAP software supports data protection compliance by providing security features and specific data protection relevant functions, such as simplified blocking and deletion of personal data. In many cases, compliance with applicable data protection and privacy laws will not be covered by a product feature. Definitions and other terms used in this document are not taken from a particular legal source.

Caution:

The extent to which data protection is supported by technical means depends on secure system operation. Network security, security note implementation, adequate logging of system changes, and appropriate usage of the system are the basic technical requirements for compliance with data privacy legislation and other legislation.

Generic Fields

You also need to make sure that no personal data enters the system in an uncontrolled or non-purpose related way, for example, in free-text fields, through APIs, or customer extensions. Note that these are also not subject to the RAL example configuration.

7.1.4.1.2 Glossary

The following terms are general to SAP products. Not all terms may be relevant for this SAP product.

Term	Definition
Blocking	A method of restricting access to data for which the primary business purpose has ended.
Consent	The action of the data subject confirming that the usage of his or her personal data shall be allowed for a given purpose. A consent functionality allows the storage of a consent record in relation to a specific purpose and shows if a data subject has granted, withdrawn, or denied consent.
Data Subject	An identified or identifiable natural person. An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural, or social identity of that natural person.
Deletion	Deletion of personal data so that the data is no longer available.
End of business	Date where the business with a data subject ends, for example, the order is completed, the subscription is canceled, or the last bill is settled.
End of purpose (EoP)	End of purpose and start of blocking period. The point in time when the primary processing purpose ends, for example, a contract is fulfilled.
End of purpose (EoP) Check	A method of identifying the point in time for a data set when the processing of personal data is no longer required for the primary business purpose. After the EoP has been reached, the data is blocked and can only be accessed by users with special authorization, for example, tax auditors.
Personal Data	Any information relating to a data subject.

Term	Definition
Purpose	The information that specifies the reason and the goal for the processing of a specific set of personal data. As a rule, the purpose references the relevant legal basis for the processing of personal data.
Residence period	The period of time between the end of business and the end of purpose (EoP) for a data set during which the data remains in the database and can be used in case of subsequent processes related to the original purpose. At the end of the longest configured residence period, the data is blocked or deleted. The residence period is part of the overall retention period.
Retention Period	The period of time between the end of the last business activity involving a specific object (for example, a business partner) and the deletion of the corresponding data, subject to applicable laws. The retention period is a combination of the residence period and the blocking period.
Sensitive personal data	A category of personal data that usually includes the following type of information: · Special categories of personal data such as data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership and the processing of genetic data, biometric data, data concerning health, sex life or sexual orientation or personal data concerning bank and credit accounts · Personal data subject to professional secrecy · Personal data relating to criminal or administrative offenses · Personal data concerning insurances and bank or credit card accounts
Where-used check (WUC)	A process designed to ensure data integrity in the case of potential blocking of business partner data. An application's where-used check (WUC) determines if there is any dependent data for a certain business partner in the database. If dependent data exists, this means the data is still required for business activities. Therefore, the blocking of business partners referenced in the data is prevented.

7.1.4.2 Information Retrieval

Data subjects have the right to get information regarding their personal data undergoing processing. The information retrieval feature supports you to comply with the relevant legal requirements for data protection by allowing you to search for and retrieve all personal data for a specified data subject. The search results are displayed in a comprehensive and structured list containing all personal data of the data subject specified, subdivided according to the purpose for which the data was collected and processed.

Project Workspace stores personal information of individuals who are manually added as contact persons for master projects. When a contact person leaves a company, to comply with data privacy and protection rules, you can use the program /CPD/R_DPP_CONTACT_PERSON to identify all the projects that a person is assigned to.

In Project Cost and Revenue Planning, you can use the report /CPD/PFP_PERSONAL_PROJECT_LIST to display to logged-in users the business objects (master projects and financial plans) where their individual personal data is used. The report allows employees to check usage of their own personal data across master projects.

7.1.4.3 Deletion

Simplified Blocking and Deletion

When considering compliance with data protection regulations, it is also necessary to consider compliance with industry-specific legislation in different countries. A typical potential scenario in certain countries is that personal data shall be deleted after the specified, explicit, and legitimate purpose for the processing of personal data has ended, but only as long as no other retention periods are defined in legislation, for example, retention periods for financial documents. Legal requirements in certain scenarios or countries also often require blocking of data in cases where the specified, explicit, and legitimate purposes for the processing of this data have ended, however, the data still has to be retained in the database due to other legally mandated retention periods. In some scenarios, personal data also includes referenced data. Therefore, the challenge for deletion and blocking is first to handle referenced data and finally other data, such as business partner data.

For more information on simplified blocking and deletion in *SAP Commercial Project Management*, see SAP Note 2549222.

Deletion of Personal Data

The processing of personal data is subject to applicable laws related to the deletion of this data when the specified, explicit, and legitimate purpose for processing this personal data has expired. If there is no longer a legitimate purpose that requires the retention and use of personal data, it must be deleted. When deleting data in a data set, all referenced objects related to that data set must be deleted as well. Industry-specific legislation in different countries also needs to be taken into consideration in addition to general data protection laws. After the expiration of the longest retention period, the data must be deleted.

SAP Commercial Project Management might process data (personal data) that is subject to the data protection laws applicable in specific countries as described in SAP Note 1825544.

To enable even complex scenarios, SAP simplifies existing deletion functionalities to cover data objects that are personal data by default. For this purpose, SAP uses SAP Information Lifecycle Management (ILM) to help you set up a compliant information lifecycle management process in an efficient and flexible manner. The functions that support the simplified blocking and deletion of personal data are not delivered in one large implementation, but in several waves. Scenarios or products that are not specified SAP Note 2007926 (ERP Customer and Vendor) are not yet subject to simplified blocking and deletion. Nevertheless, it is also possible to destroy personal data for these scenarios or products. In these cases, you have to use an existing archival or deletion functionality or implement individual retention management of relevant business data throughout its entire lifecycle. The ILM component supports the entire software lifecycle including the storage, retention, blocking, and deletion of data. This product uses SAP ILM to support the deletion of personal data as described in the following sections:

SAP delivers an end of purpose check (EoP check) for the product.

All applications register either an EoP check in the Customizing settings for the blocking and deletion of application data (for example, the customer and vendor master or the business partner) or a WUC.

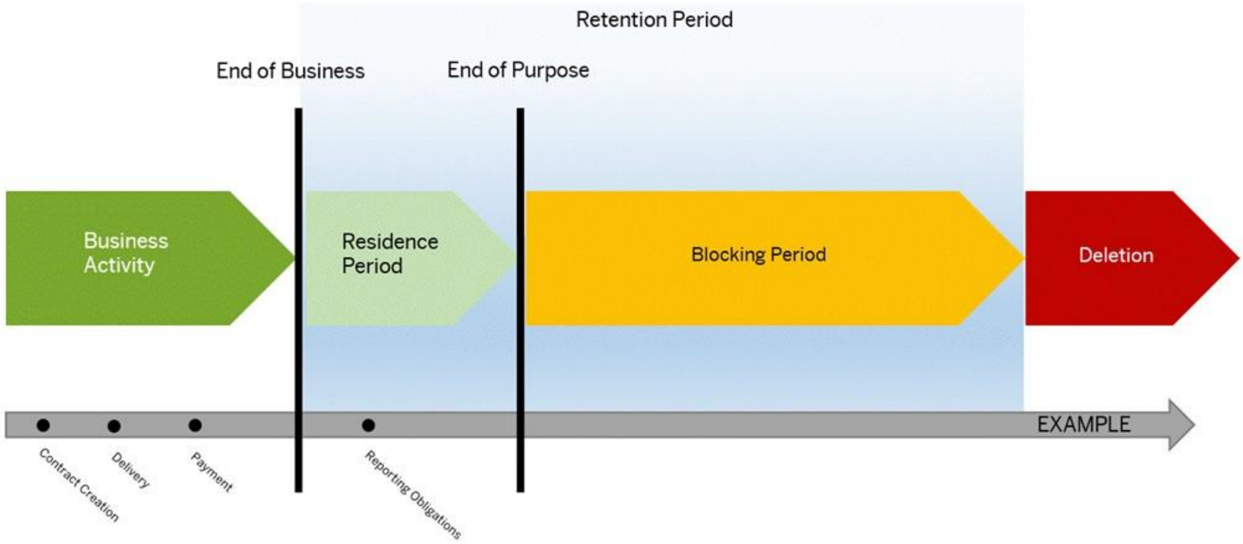
Application	*Detailed Description*	*Provided Deletion Function*
Project Workspace	Project Workspace stores personal information of individuals who are manually added as	The program /CPD/R_DPP_CONTACT_PERSON is relevant for contact persons who have been added using the *Create Contact* feature in the *Define Master Project Types* view in Customizing for *SAP Commercial Project Management > Master Data >*

Application	Detailed Description	Provided Deletion Function
	contact persons for master projects.	*Master Project > Make Settings for Master Projects*. When a contact person leaves a company, to comply with data privacy and protection rules, you can use this program to identify all the projects that this person is assigned to; and then proceed to delete the contact from all projects in one go.
Project Cost and Revenue Planning Example 1: User and role maintenance with SAP NetWeaver AS ABAP (Transactions SU01, PFCG)	Project Cost and Revenue Planning stores personal information of business partners only when resources are planned together with SAP Multiresource Scheduling (MRS). This information is then stored in a BW InfoCube, for real-time planning.	The deletion program /CPD/PFP_EMP_DATA_CONSISTENCY checks the HR master and deletes information from the InfoCube, for employee records that are not found in the HR master.
Project Issue and Change Management	Project Issue and Change Management stores personal information of business partners assigned to issues and change request.	For more information, see the EoP Check.

End of Purpose Check (EoP check)

An end of purpose check determines whether data is still relevant for business activities based on the retention period defined for the data. The retention period is part of the overall lifecycle of personal data which consists of the following phases:

- Business activity: The relevant data is used in ongoing business, for example contract creation, delivery or payment.
- Residence period: The relevant data remains in the database and can be used in case of subsequent processes related to the original purpose, for example reporting obligations.
- Blocking period: The relevant data needs to be retained for legal reasons. During the blocking period, business users of SAP applications are prevented from displaying and using this data; it can only be processed in case of mandatory legal provisions.
- Deletion: The data is deleted and no longer exists in the database.



Blocking of data can impact system behavior in the following ways:

- Display: The system does not display blocked data.
- Change: It is not possible to change a business object that contains blocked data.
- Create: It is not possible to create a business object that contains blocked data.
- Copy/Follow-Up: It is not possible to copy a business object or perform follow-up activities for a business object that contains blocked data.
- Search: It is not possible to search for blocked data or to search for a business object using blocked data in the search criteria.

It is possible to display blocked data if a user has special authorization; however, it is still not possible to create, change, copy, or perform follow-up activities on blocked data.

SAP delivers the following end of purpose checks for *SAP Commercial Project Management:*

- o *Project Workspace*: The delivered end of purpose function module is /CPD/PWS_WS_BUPA_EOP_CHECK.
- o *Project Issue and Change Management*: The delivered end of purpose function module is /PICM/BUPA_EOP_CHECK.

NOTE

The EoP check for *SAP Commercial Project Management* does not support the use of application rule variants.

Relevant Application Objects and Available Deletion Function

Application	*Detailed Description*	*Provided Deletion Function*
Project Workspace	Project Workspace stores personal information of business partners for the *Team* function.	The ILM-enabled deletion program for master projects: /CPD/PWS_ARCH_MP_DELETE
Project Issue and Change Management Example 1: User and role maintenance with SAP NetWeaver AS ABAP (Transactions SU01, PFCG)	Project Issue and Change Management stores personal information of business partners for the Partner function.	· The ILM-enabled deletion program for issues and change requests: /PICM/ARCH_ISSUE_CR_ROOT_DEL · The ILM-enabled deletion program for activities: /PICM/ARCH_ACTIVITY_ROOT_DEL

Relevant Function Modules

Application	*Function Module*	*Description*
Project Workspace -> Risk Management	/CPD/BUPA_EOP_CHECK	You can use this API to check the retention period of business partners.
Project Workspace -> Risk Management	/CPD/RM_BUPA_EVENT_ARCH1	You can use this API to archive business partners.
Project Workspace -> Risk Management	/CPD/RM_BUPA_EVENT_DELE1	You can use this API to delete business partners.

7.1.4.3.1 Protection of Personal Data Stored in BW InfoCube

Project Cost and Revenue Planning uses embedded BW technology and the BW InfoCube stores personal data of customers and employees.

The customer InfoObject (/CPD/CUSTOMER) is an attribute of the master project InfoObject (/CPD/MPID); and the master project is an attribute of the financial plan InfoObject (/CPD/FPOID). The master data of the customer InfoObject is updated from the transactional screens of SAP Commercial Project Management. To address the exclusion of customers' personal data, which has been marked for End of Purpose (EoP), the `/CPD/PFP_VALIDATE_CUSTOMER` program is relevant. This program updates the customer personal data that is shown in the financial plan header and workbooks, by replicating data from customer master tables to BW master data tables. During the replication, the program checks for the EoP flag in the customer master table. If a customer is marked for end of purpose, then such a customer is not replicated. If the customer data was already replicated to BW and if it was found to be marked for end of purpose during the program run, then the master records of the customer's personal data, in BW, are masked. In such a situation, users can only see masked data in the financial plan header and workbooks.

Similarly, you can use the report /CPD/PFP_CREATE_RES_MSTER_DATA for the replication of the employee master data from the HR system to the BW master data used in financial plans. The master data of employees is replicated from SAP ERP HCM and stored within the BW InfoObject /CPD/FPERID. The HCM authorizations serve as the basis for masking the personal data of employees.

With SAP Commercial Project Management 2.0, SP08, a new Data Store Object (/CPD/PFP_D04) is available to store a history of comments entered during forecasting, and information about the user who entered a comment. Report /CPD/PFP_CREATE_USER_MD is used create master data for users in the systems, so that transactional data related to comments can be stored with reference to a user.

> Recommendation: You must run this report as a batch job to enable the masking of personal information in the BW master data, when a user's master data is marked for end of purpose.

You can use the report /CPD/PFP_PERSONAL_PROJECT_LIST to display to logged-in users the business objects (master projects and financial plans) where their individual personal data is used. For more information, see Information Retrieval.

For more information of the archiving concept and the objects that cover the erasure requirements of personal data, see the relevant chapters in Data Archiving.

> Recommendation: You must configure the archiving concept and objects according to regional laws.

For more information, see Customizing for SAP Commercial Project Management:

- --> Master Data --> Define End of Purpose for Personal Data
- --> Project Cost and Revenue Planning --> Information on Personal Data Protection
- --> Project Issue and Change Management --> Define End of Purpose for Personal Data

7.1.4.4 Change Log

Personal data is subject to frequent changes. Therefore, for review purposes or as a result of legal regulations, it may be necessary to track the changes made to this data. When these changes are logged, you should be able to check which employee made which change, the date and time, the previous value, and the current value, depending on the configuration. It is also possible to analyze errors in this way.

SAP Commercial Project Management provides change logging to audit changes to key fields in the projects:

In Project Workspace, the system logs changes to certain information in master projects. Each log contains information such as the fields that were changed, the old and new values of the field, the user who changed the information, the type of change, and the time and date when the change was made.

You can now view change logs for the following:

- Master project header
- Contact person
- Risk
- Checklist activity

You can also control change logging using the Business Add-In *BAdI: Control of Change Log Output*. For more information, see Customizing for *SAP Commercial Project Management --> Project Workspace --> Business Add-Ins*.

Project Cost and Revenue Planning allows you to view the changes made in a financial plan. You can choose the Document History pushbutton, on the Financial Plan screen, to view this change log.

You can also control change logging using the Business Add-In *BAdI: Control of Change Log Output*. For more information, see Customizing for *SAP Commercial Project Management --> Project Cost and Revenue Planning --> Business Add-Ins*.

Project Issue and Change Management allows you to view the changes made in an issue or change request. You can choose the Document History pushbutton, on the Issue or Change Request screens, to view this change log.

You can also control change logging using the Business Add-In *BAdI: Control of Change Log Output*. For more information, see Customizing for *SAP Commercial Project Management --> Project Issue and Change Management --> Business Add-Ins*.

See Also

For more information on change documents see the documentation at https://help.sap.com/netweaver. Choose the relevant SAP NetWeaver version and open the following documentation:

- Under Application Help, go to SAP NetWeaver Library: Function-Oriented View à Application Server ABAP à Other Services à Services for Application Developers à Change Documents.
- Open the SAP NetWeaver Security Guide and go to Security Aspects for Lifecycle Management à Auditing and Logging.

7.1.5 Data Archiving

7.1.5.1Archiving Master Projects with /CPD/PWS_M

You can use *Archiving Object for Master Projects* (/CPD/PWS_M) to archive master projects that are no longer needed. Archiving allows you to reduce the load on your database.

7.1.5.1.1 Structure

7.1.5.1.1.1 Tables

Table	Description
/CPD/S_MP_HDR_K	Master Project Header
/CPD/D_MP_HDR_S	Master Project Header Short Text
/CPD/D_MP_ITEM	Master Project Structure Elements
/CPD/D_MP_MEMBE	Project Member
/CPD/D_MP_REP_AT	Reporting Attribute Node
/CPD/D_MP_RESP	Responsibility Node
/CPD/D_MP_STATUS	Status Header
/CPD/D_MP_ST_ARV	Table for Status Area Version
/CPD/D_MP_ST_HRA	Status Header Area
/CPD/D_MP_ST_VHR	Status Versions
/CPD/D_MP_TEAM	Team
/CPD/D_MP_TEAM_M	Team Member Subnode
/CPD/D_MP_TEAM_R	Team Role Subnodes

7.1.5.1.1.2 Programs

The following programs are available for /CPD/PWS_M:

- Preprocessing Program: /CPD/PWS_ARCH_MP_PRE

  This program makes the following checks for master projects:

  - Whether the master project (CA-CPD) meets the residence period. The residence period check is first made against the *End Date* of the master project; if the end date is not available, then the program checks for the *Last Changed On* date.
  - Whether the master project stage indicates completion and all related financial plans, issues, and activities have been archived.

If both these conditions are satisfied, the program sets the archiving status of the master project to *Archiving in Process* (*02*).

NOTE

After the preprocessing program has run, the objects marked for archiving are no longer made available on the UI.

- Write Program: /CPD/PWS_ARCH_MP_WRITE

  This program checks if an object has the status *Archiving in Process* (*02*). If the status is *02*, the program archives the object to the archive file.

- Delete Program: /CPD/PWS_ARCH_MP_DELETE

  This program verifies archived files against the data in the database, and deletes all objects in the database that have been successfully archived.

7.1.5.1.2 More Information

To change the residence time, you can make settings in Customizing for *Cross-Application Components* under *Processes and Tools for Enterprise Applications* à *Reusable Objects and Functions for BOPF Environment* à *Archiving Adapter* à *Maintain BO-Specific Residence Periods*.

7.1.5.1.3 Information Lifecycle Management (ILM)

Information Lifecycle Management (ILM) allows you to define rules for storing archived business data, set legal holds on stored data, and destroy the data in adherence to legal requirements.

The ILM object CPD_PWS_M is available for master projects and this ILM object allows you to model retention rules based on the following fields:

- Condition Fields
  - *Archiving Status*
  - *Master Project Type*
  - *Organization*
- Time Reference Fields
  - *End Date*

You can use the transaction *IRMPOL* to define policies and rules for ILM.

Prerequisites

The prerequisites for *Retention Management* are:

- You have activated the business function ILM
- You have assigned the following objects to an audit area:
  - CPD_PWS_M

7.1.5.2 Archiving Milestone Checklists with /CPD/MC_H (Header) and /CPD/MC_I (Item)

You can use the archiving objects *Milestone Checklist Header* (/CPD/MC_H) and *Milestone Checklist Items* (/CPD/MC_I) to archive the milestone checklist headers and milestone checklist items that are no longer needed. Archiving allows you to reduce the load on your database.

7.1.5.2.1 Structure

7.1.5.2.1.1 Tables for Milestone Checklist Headers and Items

The system archives data from the following tables for the milestone checklist header:

Table	Description
/BOBF/D_ATF_DO	Document node of attachment folder
/BOBF/D_ATF_RT	Root nodes of attachment folder
/BOBF/D_TXCCON	Text content
/BOBF/D_TXCROOT	Root node of text collection
/BOBF/D_TXCTXT	Text
/IAM/D_I_ATT	Attachment
/IAM/D_I_DATE	Date
/IAM/D_I_DESC	Description node
/IAM/D_I_DESC_TX	Language-dependent description text node
/IAM/D_I_OBJ_REF	Issue reference node
/IAM/D_I_OREF_DT	Language-dependent, reference, description text node
/IAM/D_I_PARTY	Party node
/IAM/D_I_QTY	Quantity
/IAM/D_I_ROOT	Root node

The system archives data from the following tables for the milestone checklist item:

Table	Description
/BOBF/D_ATF_DO	Document node of attachment folder
/BOBF/D_ATF_RT	Root nodes of attachment folder
/BOBF/D_TXCCON	Text content
/BOBF/D_TXCROOT	Root node of text collection
/BOBF/D_TXCTXT	Text
/IAM/D_ACT_ROOT	Root
/IAM/D_ACT_ATT	Attachment
/IAM/D_ACT_DATE	Date
/IAM/D_ACT_DESC	Description
/IAM/D_ACT_DTXT	Description text
/IAM/D_ACT_FOA	Follow-up action

/IAM/D_ACT_FOA_P	Follow-up action parameter
/IAM/D_ACT_OBJ_RF	Object reference
/IAM/D_ACT_OREF_DT	Language-dependent description texts
/IAM/D_ACT_PARTY	Party
/IAM/D_ACT_QTY	Activity quantity

7.1.5.2.1.2 Programs

The following programs are available for /CPD/MC_H:

- Preprocessing: /CPD/ARCH_MC_HEADER_PRE

  This program checks if an object is ready for archiving by verifying the following conditions:

  - The adherence to the specified residence time
  - The availability of milestone checklist items for the object

  If the object is ready, this program sets the status as *Archiving in Process (02)* in the database. After the preprocessing program has run, the objects marked for archiving are no longer made available on the UI.

- Writing: /CPD/ARCH_MC_HEADER_WRITE

  This program checks if an object has the status *Archiving in Process (02)*. If the status is *02*, the program archives the object to the archive file.

- Deletion: /CPD/ARCH_MC_HEADER_DELETE

  This program verifies archived files against the data in the database; and deletes all objects in the database that have been successfully archived.

The following programs are available for /CPD/MC_I:

- Preprocessing: /CPD/ARCH_MC_ITEM_PRE

  This program checks if an object is ready for archiving by verifying the adherence to the specified residence time. If the object is ready, this program sets the status as *Archiving in Process (02)* in the database. After the preprocessing program has run, the objects marked for archiving are no longer made available on the UI.

- Writing: /CPD/ARCH_MC_ITEM_WRITE

  This program checks if an object has the status *Archiving in Process (02)*. If the status is *02*, the program archives the object to the archive file.

- Deletion: /CPD/ARCH_MC_IEM_DELETE

  This program verifies archived files against the data in the database; and deletes all objects in the database that have been successfully archived.

7.1.5.2.2 More Information

To change the residence time, make settings in Customizing for *Cross-Application Components* under *Processes and Tools for Enterprise Applications* à *Reusable Objects and Functions for BOPF Environment* à *Archiving Adapter* à *Maintain BO-Specific Residence Periods*.

7.1.5.2.3 Information Lifecycle Management (ILM)

Information Lifecycle Management (ILM) allows you to define rules for storing archived business data, set legal holds on stored data, and destroy the data in adherence to legal requirements.

The following ILM objects are available for milestone checklist headers and items:

- Milestone checklist headers: CPD_MC_H
- Milestone checklist items: CPD_MC_I

These ILM objects allow you to model retention rules based on the following fields:

- Condition Field:

  APPLICATION

- Time Reference Fields:

  Last Changed On

NOTE

The date of the last change of the milestone checklist headers and items is considered in the time reference field.

CAUTION

When you create retention rules for a milestone checklist item, ensure that the retention time specified does not exceed the retention time specified for the parent (milestone checklist header).

You can use *ILM Policies* (transaction **IRMPOL**) to define policies and rules for ILM.

EXAMPLE

You want to specify that the data of milestone checklists must be retained for a period of 2 years from the date when the last change was made. You specify this as a rule by using the **IRMPOL** transaction.

Prerequisites

The prerequisites for *Retention Management* are:

- You have activated the business function ILM
- You have assigned the following objects to an audit area:
  - CPD_MC_H

- CPD_MC_I

7.1.5.3 Archiving Financial Plans with /CPD/PFP_P

You can use *Archiving Object for Financial Plans* (/CPD/PFP_P) to archive financial plans that are no longer needed. Archiving allows you to reduce the load on your database.

7.1.5.3.1 Structure

7.1.5.3.1.1 Tables

Table	Description
/CPD/D_PFP_PH	Plan Header
/CPD/D_PFP_PV	Plan Version
/CPD/D_PFP_PS	Plan Structure
/CPD/D_PFP_PER	Plan Exchange Rate
/CPD/D_PFP_PHTXT	Plan Header Text
/BOBF/D_ATF_RT	Attachment Root
/BOBF/D_ATF_DO	Attachment Document
/BOBF/D_TXCROOT	Text Collection Root
/BOBF/D_TXCTXT	Text Collection Text
/BOBF/D_TXCCON	Text Collection Text Content

7.1.5.3.1.2 Programs

The following programs are available for /CPD/PFP_P:

- Preprocessing Program: /CPD/PFP_ARCH_PH_PRE

  This program checks whether a financial plan is ready for archiving. A financial plan is ready for archiving when:

  - Related financial plan versions have a status that indicates completion.
  - All related change requests and change request alternatives are ready for archiving, with the status as Archiving in Process (02). This is only applicable if you are also using Project Issue and Change Management.
  - The financial plan has a status that indicates completion.

  If the object is ready, this program sets the status as *Archiving in Process* (*02*) in the database.

NOTE

After the preprocessing program has run, the objects marked for archiving are no longer made available on the UI. The program also deletes the following data from their corresponding application object and moves data to an archiving object:

Type of Information	Application Object	Archiving Object
Financial plan information	/CPD/PFP_R01	/CPD/PFP_C01
Comments in planning workbooks	/CPD/PFP_D01	/CPD/PFP_D02
Comments entered during forecasting	/CPD/PFP_D03	/CPD/PFP_D06
Log of comments entered during forecasting	/CPD/PFP_D04	/CPD/PFP_D07
Information about structure elements and whether their EAC values have been blocked from being overwritten by system forecast values	/CPD/PFP_D05	/CPD/PFP_D08

- Write Program: /CPD/PFP_ARCH_PH_WRITE

  This program checks if an object has the status *Archiving in Process* (*02*). If the status is *02*, the program archives the object to the archive file.

- Delete Program: /CPD/PFP_ARCH_PH_DELETE

  This program verifies archived files against the data in the database; and deletes all objects in the database that have been successfully archived.

7.1.5.3.2 More Information

To change the residence time, you can make settings in customizing for *Cross-Application Components* under *Processes and Tools for Enterprise Applications* à *Reusable Objects and Functions for BOPF Environment* à *Archiving Adapter* à *Maintain BO-Specific Residence Periods*.

7.1.5.4 Archiving of Issues and Change Requests with /PICM/BO_I

You can use the archiving object *Issues and Change Requests* (/PICM/BO_I) to archive issues and change requests that are no longer needed. Archiving allows you to reduce the load on your database.

7.1.5.4.1 Structure

7.1.5.4.1.1 Tables

The system archives data from the following tables:

Table	Description
/BOBF/D_ATF_DO	Document node of attachment folder
/BOBF/D_ATF_RT	Root nodes of attachment folder
/BOBF/D_TXCCON	Text content
/BOBF/D_TXCROOT	Root node of text collection
/BOBF/D_TXCTXT	Text
/IAM/D_I_ATT	Attachment
/IAM/D_I_DATE	Date
/IAM/D_I_DESC	Description node
/IAM/D_I_DESC_TX	Language-dependent description text node
/IAM/D_I_OBJ_REF	Issue reference node
/IAM/D_I_OREF_DT	Language-dependent, reference, description text node
/IAM/D_I_PARTY	Party node
/IAM/D_I_QTY	Quantity
/IAM/D_I_ROOT	Root node

7.1.5.4.1.2 Programs

The following programs are available for /PICM/BO_I:

- Preprocessing Program: /PICM/ARCH_ISSUE_CR_ROOT_PRE

  This program checks if an object is ready for archiving by verifying the following conditions:

  - The adherence to the specified residence time
  - The availability of activities for the object

  If the object is ready, this program sets the status as *Archiving in Process* (*02*) in the database. After the preprocessing program has run, the objects marked for archiving are no longer made available on the UI.

- Write Program: /PICM/ARCH_ISSUE_CR_ROOT_WRITE

  This program checks if an object has the status *Archiving in Process* (*02*). If the status is *02*, the program archives the object to the archive file.

- Delete Program: /PICM/ARCH_ISSUE_CR_ROOT_DEL

  This program verifies archived files against the data in the database; and deletes all objects in the database that have been successfully archived.

7.1.5.4.2 More Information

To change the residence time, make settings in Customizing for *Cross-Application Components* under *Processes and Tools for Enterprise Applications* à *Reusable Objects and Functions for BOPF Environment* à *Archiving Adapter* à *Maintain BO-Specific Residence Periods*.

7.1.5.5 Archiving Activities with /PICM/BO_A

You can use the archiving object *Activities* (/PICM/BO_A) to archive activities that are no longer needed. Archiving allows you to reduce the load on your database.

7.1.5.5.1 Structure

7.1.5.5.1.1 Tables

The system archives data from the following tables:

Table	Description
/BOBF/D_ATF_DO	Document node of attachment folder
BOBF/D_ATF_RT	Root nodes of attachment folder
/BOBF/D_TXCCON	Text content
/BOBF/D_TXCROOT	Root node of text collection
/BOBF/D_TXCTXT	Text
/IAM/D_ACT_ROOT	Root
/IAM/D_ACT_ATT	Attachment
/IAM/D_ACT_DATE	Date
/IAM/D_ACT_DESC	Description
/IAM/D_ACT_DTXT	Description text
/IAM/D_ACT_FOA	Follow-up action
/IAM/D_ACT_FOA_P	Follow-up action parameter
/IAM/D_ACT_OBJ_RF	Object reference
/IAM/D_ACT_OREF_DT	Language-dependent description texts
/IAM/D_ACT_PARTY	Party
/IAM/D_ACT_QTY	Activity quantity

7.1.5.5.1.2 Programs

The following programs are available for /PICM/BO_A:

- Preprocessing Program: /PICM/ARCH_ACTIVITY_ROOT_PPROC

  This program checks if an object is ready for archiving by verifying the adherence to the specified residence time. If the object is ready, this program sets the status as *Archiving in Process* (*02*) in the database. After the preprocessing program has run, the objects marked for archiving are no longer made available on the UI.

- Write Program: /PICM/ARCH_ACTIVITY_ROOT_WRITE

  This program checks if an object has the status *Archiving in Process* (*02*). If the status is *02*, the program archives the object to the archive file.

- Delete Program: /PICM/ARCH_ACTIVITY_ROOT_DEL

  This program verifies archived files against the data in the database; and deletes all objects in the database that have been successfully archived.

7.1.5.5.2 Information Lifecycle Management (ILM)

Information Lifecycle Management (ILM) allows you to define rules for storing archived business data, set legal holds on stored data, and destroy the data in adherence to legal requirements.

The ILM object for financial plans is CPD_PFP_P and this ILM object allows you to model retention rules based on the following fields:

- Condition Fields
  - *Plan Scenario ID*
  - *Plan Type ID*
  - *Archiving Status*
- Time Reference Fields
  - *End Date*

    The end date of the financial plan is considered.

You can use the transaction *IRMPOL* to define policies and rules for ILM.

7.1.5.5.2.1 Prerequisites

The prerequisites for *Retention Management* are:

- You have activated the business function ILM
- You have assigned the following object to an audit area:
  - CPD_PFP_P

7.1.6 Other Security-Relevant Information

Before you use the digitally-signed Analysis Office (AO) workbooks delivered by SAP Commercial Project Management, you must follow these steps:

> Caution:
>
> These settings are valid if you want to use the workbooks in a secure way by only enabling digitally-signed macros. However, if you use custom workbooks or make any changes and save it back to the standard, you must enable all macros.

1. Launch Microsoft Excel.
   a. File -> Options -> Trust Center -> Trust Center Settings -> Macro Settings
   b. Choose -> Disable all macros except digitally signed macros
   c. Mark the Trust access to the VBA project object model checkbox
2. Launch the digitally-signed workbook and implement the following steps to add the certificate as a trusted publisher:
   a. File -> Info tab -> Enable Control- Security Warning is shown
   b. Select Advanced Options.
   c. A Security Warning dialog-box is shown with options
   d. Select Trust all documents from this publisher
      Note: This is a one-time activity to add the certificate
3. Follow these steps to change the default system in the workbook:
   a. File -> Commercial Project tab -> Settings
   b. In the dialog box, choose Platform
   c. Choose Replace System
   d. Choose your relevant system in the Replace by System column
   e. Save the workbook (with the correct standard workbook name) in your required system.

7.1.7 Security-Relevant Logging and Tracing

The trace and log files of *Project Workspace and Project Cost and Revenue Planning* use the standard mechanisms of SAP NetWeaver.
For more information, see the following sections in the SAP NetWeaver Security Guide at:

SAP NW 7.4 SAP NetWeaver	http://help.sap.com/nw74 à *Security Information* à *Security Guide* à *Security Aspects for System Management* à *Auditing and Logging*

If there is no information about trace and log files in the sections for the individual components of *Project Workspace and Project Cost and Revenue Planning*, you can assume that no sensitive data is updated in these files.

Project Cost and Revenue Planning

- *The* Project Cost and Revenue Planning *application uses the tracing functions of* Analysis Office *to trace actions performed in the planning workbook (*Analysis Office*).*
- *You can also activate a trace file for* Project Cost and Revenue Planning *using the* Activate Tracing *button on the* Financial Planning *ribbon. Details of the items are recorded in the trace file (CACPDFP_TRACE_LOG.log).*
- *Note that the file does not record user-specific personal information such as user name or IP address.*

For information about tracing related to *Analysis Office*, see http://help.sap.com/boaa à *System Administration and Maintenance Information* à *Administrator's Guide*.

8 Solution-Wide Topics

8.1 List of References

The following table lists references to technologies used for *Project Issue and Change Management*:

Web Dynpro ABAP	http://help.sap.com/nw74 à *Application Help* à *Function-Oriented View* à *SAP NetWeaver by Key Capability* à *Application Platform by Key Capability* à *ABAP Technology* à *UI Technologies in ABAP* à *Web Dynpro ABAP*
Floorplan Manager	http://help.sap.com/nw74 à *Application Help* à *Function-Oriented View* à *SAP NetWeaver by Key Capability* à *Application Platform by Key Capability* à *ABAP Technology* à *UI Technologies in ABAP* à *Floorplan Manager for Web Dynpro ABAP*

8.2 Application Program Interfaces (APIs)

8.2.1 APIs for Project Workspace

The following table lists APIs that can be used as alternatives to the application:

Technical Name	Description
/CPD/CREATE_MP_HEADER	You can use this API to create a new master project.
/CPD/UPDATE_MP_HEADER	You can use this API to update a master project.
/CPD/DELETE_MP_HEADER	You can use this API to delete a master project.
/CPD/ADD_MP_ITEM	You can use this API to add a related business object to a master project.
/CPD/DELETE_MP_ITEM	You can use this API to delete a related business object from a master project.
/CPD/CREATE_MP_ITEM_REP_ATTR	You can use this API to create reporting attributes and values.
/CPD/UPDATE_MP_ITEM_REP_ATTR	You can use this API to update reporting attribute values.

Technical Name	Description
/CPD/DELETE_MP_ITEM_REP_ATTR	You can use this API to delete reporting attributes and values.
/CPD/RM_RISK_CREATE	You can use this API to create system entries for risks.
/CPD/RM_RISK_UPDATE	You can use this API to change the system entries of risks.
/CPD/BUPA_EOP_CHECK	You can use this API to check the retention period of business partners.
/CPD/RM_BUPA_EVENT_ARCH1	You can use this API to archive business partners.
/CPD/RM_BUPA_EVENT_DELE1	You can use this API to delete business partners.
/CPD/CUD_MULTIPLE_MP_SERVICE	You can use this API to create/Update/Delete multiple master projects with header reporting attributes, Contact Details, related business object with item reporting attributes, Status & Trends details.
/CPD/CREATE_MULTI_MP_REP_ATTR	You can use this API to create multiple master projects with header reporting attributes.
/CPD/UPDATE_MULTI_MP_REP_ATTR	You can use this API to update multiple master projects with header reporting attributes.
/CPD/DELETE_MULTI_MP_REP_ATTR	You can use this API to delete multiple master projects with header reporting attributes.
/CPD/CREATE_MULTI_MP_ITEM_RP_A	You can use this API to assign multiple related business objects to multiple master projects with item reporting attributes.
/CPD/UPDATE_MULTI_MP_ITEM_RP_A	You can use this API to update multiple related business objects data of multiple master projects with item reporting attributes.
/CPD/DELETE_MULTI_MP_ITEM_RP_A	You can use this API to delete multiple related business objects to multiple master projects with item reporting attributes.
/CPD/UPDATE_MULTIPLE_MP_CONTCT	You can use this API to Create/Update/Delete multiple contact details of multiple master projects.
/CPD/UPDATE_MULTI_MP_HDR_ST	You can use this API to Create/Update/Delete multiple Status & Trends details of multiple master projects.
/CPD/PWS_WS_GET_REP_ATTRIBUTES	You can use this API to get reporting attributes.

8.2.2 APIs for Project Cost and Revenue Planning

The following table lists APIs that can be used as alternatives to the application, for example, to create master data such as financial plans, versions, and plan line items:

Technical Name	Description
/CPD/PFP_RFC_CREATE_PLAN	You can use this remote-enabled function module (RFC) to create a financial plan for a master project. Note that this RFC simultaneously creates the BOPF object and updates the real-time InfoCube.
/CPD/PFP_RFC_UPDATE_PLAN	You can use this RFC to update details for a financial plan, a plan version, or create a new plan version.
/CPD/PFP_RFC_DELETE_PLAN	You can use this RFC to delete a financial plan.
/CPD/PFP_UPLOAD_PLAN_LINEITEMS	You can use this RFC to upload and save plan line items into the real-time planning InfoCube.
/CPD/PFP_RFC_TRANSFER_CO_MRS	You can use this RFC to transfer plan data from the real-time InfoCube to a backend system such as ERP or *SAP Multiresource Scheduling* (MRS).
/CPD/PFP_RFC_CREATE_PLAN_MASS	You can use this RFC to create financial plans for master projects, for example, to create financial plans in batch processing. Note that in this RFC, the BOPF objects are created first, followed by updates to the real-time InfoCube. Hence, this also provides optimized performance.
/CPD/PFP_RFC_UPDATE_PLAN_MASS	You can use this RFC to update details in financial plans and plan versions, as a batch process. You can also use this RFC to create new plan versions for financial plans.
/CPD/AUTH_CHECK_MP_ACCESS	You can use this function module to establish if a user has access to a master project. This function module can be used when the access control check does not depend on the user's responsibility in the master project.
/CPD/AUTH_CHECK_MP_ITEM_HIER	You can use this function module to establish if a user has access control to an element in the master project structure.
/CPD/AUTH_CHECK_OBJECT_ACCESS	You can use this function module to determine the list of objects a user can access, based on the user's responsibility in a master project.
/CPD/FP_RFC_GET_PLN_VER_DETAIL	You can use this RFC to get details of all the financial plans along with the version details, under a master project.

Technical Name	Description
/CPD/PFP_CRA_MSTER_DATA_CREATE	You can use this RFC to create master data for change request alternatives of a financial plan.
/CPD/PFP_CRA_MSTER_DATA_DELETE	You can use this RFC to delete the master data of change request alternatives of a financial plan, from the InfoCube.
/CPD/PFP_CRA_STATUS_UPDATE	You can use this RFC to update statuses of change request alternatives in the real-time InfoCube.
/CPD/PFP_CRA_TEXT_UPDATE	You can use this RFC to update the texts of change request alternatives in the real-time InfoCube
/CPD/PFP_CR_MASTER_DATA_CREATE	You can use this RFC to create master data for change requests.
/CPD/PFP_CR_TEXT_UPDATE	You can use this RFC to update the texts of change requests, in the real-time InfoCube.
/CPD/PFP_GET_CRA_VALUES	You can use this RFC to get key figure values of change requests or change request alternatives, at a summary level.
/CPD/PFP_GET_PLAN_ACT_VER_VAL	You can use this RFC to get summary records of each key figure (such cost, quantity, revenue) for each version of a financial plan.
/CPD/PFP_REASSIGN_OBJ_AT_MP_LV	You can use this RFC to check whether a business object can be reassigned from the source master project to a target master project.
/CPD/PFP_RFC_COPY_LINE_ITEM	You can use this RFC to copy line items from the source change request or change request alternative to the target change request alternative of the active plan version.
/CPD/PFP_RFC_CR_WORKBOOKS	You can use this RFC to get the list of workbooks maintained in the Customizing activity for planning for change requests.
/CPD/PFP_RFC_DELETE_LINE_ITEM	You can use this RFC to delete line items for a given change request or change request alternative of the active plan version.
/CPD/PFP_RFC_IMPORT_FR_CO	You can use this RFC to initiate the *Import* function to import the quantity from a *PS* project to *SAP Commercial Project Management*.
/CPD/PFP_RFC_LAUNCH_AO	You can use this RFC to launch the planning and forecasting workbooks in *Analysis Office*, for a specified financial plan and plan version.
/CPD/PFP_RFC_GET_PH_DETAILS	You can use this RFC to get header details of the financial plan.

Technical Name	Description
/CPD/PFP_RFC_GET_VER_DETAILS	You can use this RFC to get plan version details.
/CPD/PFP_RFC_GET_PLAN_ID_DESC	You can use this RFC to get the financial plan IDs (and their descriptions) of a given master project.
/CPD/PFP_REALTIME_FORECAST	You can use this batch report to execute forecasting (in-period and period-end) for multiple projects using the parallel processing approach.
/CPD/PFP_INITIATE_VALUATION	You can use this report to execute mass valuation of the entire project planning data (of a version) using the parallel processing approach.
/CPD/PFP_INITIATE_IMPORT	You can use this report to execute the import of a given plan and version.

8.2.3 APIs for Project Issue and Change Management

Technical Name	Description
/PICM/FM_ISSUE_CR_CREATE_NEW	You can use this API to create issues with all nodes.
/PICM/FM_ISSUE_CR_UPDATE_API	You can use this API to update issues and change requests.

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www.sap.com/contactsap