mySAP^{TM} Project and Portfolio Management powered by SAP NetWeaver^{TM}

Using SAP cProject Suite 4.00 and SAP xRPM 4.00

Document Version 2.0 – May 2006

Material Number 50075486

Typographic Conventions

Type Style	Represents
Example Text	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options.
	Cross-references to other documentation.
Example text	Emphasized words or phrases in body text, graphic titles, and table titles.
EXAMPLE TEXT	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 text	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 text	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Contents

mySAP™ Project and Portfolio Management

mySAP™ Project and Portfolio Management powered by SAP NetWeaver™

1 Getting Started

This document provides a central starting point for the technical implementation of *Project and Portfolio Management*, and contains all activities for installation and configuration.

Project and Portfolio Management consists of the following applications and business processes:

Application	Business Process
Collaboration Folders (cFolders)	Development Collaboration
Collaboration Projects (cProjects)	Project Planning with cProjects
	Project Execution with cProjects
	Project Accounting with cProjects
	Resource and Time Management with cProjects
SAP xApp Resource and Portfolio Management (SAP xRPM)	Strategic Portfolio Management

To facilitate the implementation and upgrade process, all information in this document is ordered by application. You can find all the information that is relevant for the technical implementation of a specific application in the respective section. Upgrade information for these applications is available in the *Upgrade Master Guide* for this application (available on *SAP Service Marketplace* at `service.sap.com/instguides`).

This Master Guide provides information about which components and guides are required during this process.

- *Getting Started* [page 6] contains valuable information about using this document and related information (documentation and SAP Notes) crucial to the installation and upgrade.

- *Project and Portfolio Management Overview* [page 17] contains the following information:

    ○ A short introduction to *Project Portfolio Management*

    ○ The software component matrix that provides information about which application uses which component and whether the corresponding component is mandatory or optional.

    ○ Minimal system landscape

- *Applications of Project and Portfolio Management* [page 23] contains the following information for every application of *Project and Portfolio Management*:

    ○ An overview of the application

    ○ Examples of how the different components interact, and what protocols and interfaces are used, including technical infrastructure examples. Depending on

the actual business processes that have to be implemented and other aspects (such as security or performance), the real infrastructure might be different.

- ○ Information about the overall installation sequence and the subsequent steps

- ○ References to related installation and configuration guides

- ○ Information about mutual dependencies that affect two or more components

- *Software Component Overview* [page 38] contains a short description of every software component that is part of *Project Portfolio Management*.

- Depending on the specific application and the number of processes to be implemented, many different sources for installation and configuration information are required during the implementation process. In *References* [page 44], you can find an overview of all required documentation referenced in this Master Guide.

  You can find the most current information about the technical implementation of *Project and Portfolio Management* and the latest installation guides on SAP Service Marketplace at `service.sap.com/instguides`.

  SAP strongly recommends that you use the documents available here. The guides are regularly updated.

1.1   The Main SAP Documentation Types

The following is an overview of the most important documentation types that you need in the various phases in the lifecycle of an SAP solution.

Documentation Types in the Software Lifecycle
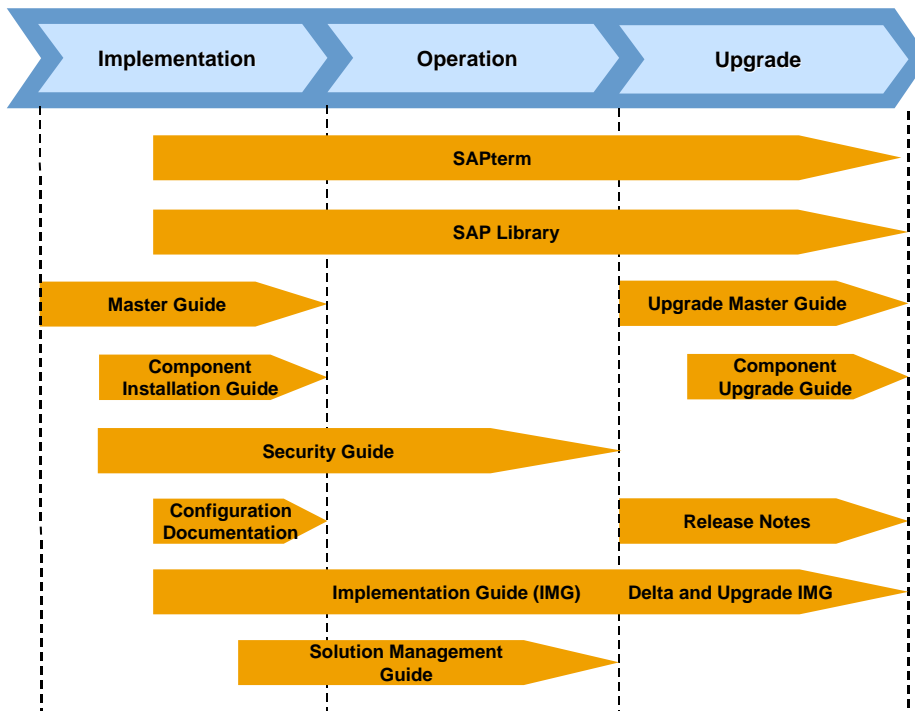
1.1.1 Cross-Phase Documentation

SAPterm

SAPterm is SAP's terminology database. It contains SAP-specific vocabulary in over 30 languages, as well as many definitions and glossary entries in English and German.

- Target group:

  Relevant for all target groups

- Current version:

  Located on the SAP Service Marketplace at `service.sap.com/sapterm`

SAP Library

The SAP Library is a collection of function- and process-oriented documentation for SAP components. The SAP Library also contains the Business Process Descriptions.

- Target group:

  - Consultants

  - System administrators

  - Project teams for implementations or upgrades

- Current version:

  Located on the SAP Help Portal at `help.sap.com`

Implementation Guide (IMG)

The Implementation Guide is a tool for configuring the SAP system to meet customer requirements. Its structure and documentation are component-oriented.

- Target group:

  - Solution consultants

  - Project teams for implementations or upgrades

- Current version:

  In the SAP menu of the SAP system under *Tools → Customizing → IMG*

Security Guide

The Security Guide describes the settings for a medium security level and offers suggestions for raising security levels. A collective Security Guide is available for the SAP NetWeaver technologies like SAP Web Application Server (SAP Web AS). This document contains general guidelines and suggestions about system security. Other technologies and individual applications have a Security Guide of their own.

- Target group:

  - Technology consultants

  - Solution consultants

  - Project teams for implementations or upgrades

- Current version:

    Located on the SAP Service Marketplace at `service.sap.com/securityguide`

1.1.2   Implementation

Master Guide

The Master Guide is the starting point for implementing an SAP solution. It lists the required SAP components and third party applications that are required for each application. It provides application-specific descriptions of preparation, execution, and follow-up of an implementation. It also offers references to other documents, such as Component Installation Guides and SAP Notes.

- Target group:
    - Technology consultants
    - System administrators
    - Project teams for implementations
- Current version:

    Located on the SAP Service Marketplace at `service.sap.com/instguides`

Component Installation Guide

The Component Installation Guide describes the technical implementation of an SAP component, taking into account the combinations of operating systems and databases. It does not describe any business-related configuration.

- Target group:
    - Technology consultants
    - Project teams for implementations
- Current version:

    Located on the SAP Service Marketplace at `service.sap.com/instguides`

Configuration Documentation in SAP Solution Manager

SAP Solution Manager is a tool with various functions. One of its main functions is the configuration of SAP solutions and Business Scenarios. It contains IMG activities, transactions, and so on, as well as documentation. Instead of the configuration documentation in SAP Solution Manager, there may be separate Business Scenario Configuration Guides on the SAP Service Marketplace for earlier shipments.

- Target group:
    - Solution consultants
    - Project teams for implementations
- Current version:
    - In SAP Solution Manager
    - Located on the SAP Service Marketplace at `service.sap.com/ibc`

1.1.3   Production Operation

Solution Operations Guide

The Solution Operations Guide is the starting point for operating an SAP solution. The guide refers users to the tools and documentation that they need to carry out various tasks, such as monitoring, backup/restore, master data maintenance, transports, and tests. It also refers users to other documents, for example the SAP Library, the Master Guide, and the Component Management Guides.

- Target group:
    - System administrators
    - Technology consultants
    - Solution consultants
    - Project teams for implementations or upgrades
- Current version:

    Located on the SAP Service Marketplace at `service.sap.com/instguides`

1.1.4   Upgrade

Upgrade Master Guide

The Upgrade Master Guide is the starting point for upgrading the Business Scenarios of an SAP solution. It provides scenario-specific descriptions of preparation, execution, and follow-up of an upgrade. It also refers to other documents, such as the Component Upgrade Guides and SAP Notes. Instead of an Upgrade Master Guide, there may be several Business Scenario Upgrade Guides or a Solution Upgrade Guide for earlier shipments of the Business Scenarios of an SAP solution.

- Target group:
    - Technology consultants
    - Project teams for upgrades
- Current version:

    Located on the SAP Service Marketplace at `service.sap.com/instguides`

Component Upgrade Guide

The Component Upgrade Guide describes the technical upgrade of an SAP component, taking into account the combinations of operating systems and databases. It does not describe any business-related configuration.

- Target group:
    - Technology consultants
    - Project teams for upgrades
- Current version:

    Located on the SAP Service Marketplace at `service.sap.com/instguides`

Release Notes

Release Notes are documents that contain short descriptions of new features or changes in an SAP component since the previous release. Release Notes about ABAP developments enable the SAP system to generate delta and upgrade IMGs.

- Target group:
    - Consultants
    - Project teams for upgrades
- Current version:
    - Located on the SAP Service Marketplace at **service.sap.com/releasenotes**
    - In the SAP menu of the SAP system under *Help → Release information*

1.2   Related Information

1.2.1   SAP Service Marketplace Links

The following list contains links to crucial information on the *SAP Service Marketplace* for implementing *Project and Portfolio Management*.

Description	Quick Link
Product availability matrix	`pam`
Released platforms	`platforms`
System sizing	`sizing`
Installation documentation	`instguides`
Security information for SAP applications	`security`
Security Guide	`securityguide`
SAP Notes	`notes`
Technical system infrastructure	`ti`
Network integration	`network`

List of Related Documentation

Content	Location
Security Guide	SAP Service Marketplace at **service.sap.com/securityguide**
Component Installation Note: cProject Suite	SAP Note 853692
Java Component Installation Guide (xRPM)	SAP Service Marketplace at **service.sap.com/instguides** → *SAP xApps → SAP xApp Resource and Portfolio Management 4.0*
Component Upgrade Note: cProject Suite	SAP Note 853694
Upgrade Master Guide: cProject Suite	**SAP Service Marketplace** at **service.sap.com/instguides**

ERP Master Guide	**SAP Service Marketplace** at `service.sap.com/instguides`
ERP Solution Operations Guide	**SAP Service Marketplace** at `service.sap.com/instguides`

To create customer messages in OSS, use the following support components:

Components

Software Component	Support Component
SAP Web Application Server	BC-JAS
SAP Internet Transaction Server (ITS)	BC-FES-ITS
SAP Business Connector	BC-MID-BUS
SAP Content Server	BC-SRV-KPR-CMS
cProject Suite – Collaboration Projects	PLM-CPR
cProject Suite – Design Collaboration with cFolders	PLM-CFO
SAP xApp Resource and Portfolio Management	XAP-RPM BW-BCT-XAP-RPM (SAP Business Intelligence problems)
Business Package for Projects, Portfolio Management, and Design Collaboration (PPMDC)	EP-PCT-PLM-DCC (cFolders) EP-PCT-CP (cProjects) EP-PCT-RPM (SAP xRPM)

Integrated Business Content (IBC)

The Integrated Business Content knowledge portal offers scenario-based access to generic descriptions, collaborative business maps, and best practices for *mySAP Product Lifecycle Management and mySAP Enterprise Resource Planning*.

> You can find comprehensive information about Integrated Business Content *for mySAP Product Lifecycle Management* on *SAP Service Marketplace* at `service.sap.com/ibc`

1.2.2   SAP Solution Manager

SAP Solution Manager efficiently supports the implementation of your solution. Using SAP Solution Manager significantly accelerates the implementation process and helps you to achieve your business goals. At the same time, SAP can deliver support services based on the business scenarios designed and documented in SAP Solution Manager. Implementation content for your solution may further accelerate the implementation process. For information about availability of content specifically tailored to your solution, see SAP Service Marketplace at `service.sap.com/solutionmanager`.

1.2.3   Checking Integration Features and Restrictions

Integration Features & Restrictions is a central tool which provides you with information on available features and restrictions in cross-combination of software releases or software components.

Checking planned combinations of software releases or components beforehand makes upgrade projects easier and more effective.

In addition, the information may also affect your decisions or plans for special combinations of "older" SAP R/3 releases with "newer" SAP products.

You can access the tool on the SAP Service Marketplace at `service.sap.com/ifr`.

1.3   Important SAP Notes

Read the SAP Installation Notes before you start the installation. These SAP notes contain the most recent information on the installation, as well as corrections to the installation documentation.

Make sure that you have the up-to-date version of each SAP note, which you can find on the SAP Service Marketplace at `service.sap.com/notes`.

List of Related SAP Notes for cProject Suite

SAP Note Number	Title	Description
`853692`	Installation of CPRXRPM 400 on Basis Release 700	This note describes how to install the ABAP add-on component CPRXRPM 400 on SAP NetWeaver 2004s.
`853694`	Upgrade of SAP Basis Release 700 with CPRXRPM 400	This note describes how to upgrade the ABAP add-on component CPRXRPM 400 to run on SAP NetWeaver 2004s.
`667313`	Adobe Document Service Installation on SAP Web AS	This note contains remarks, annotations, and corrections to the *Installation Guide - Adobe Document Services*
`858718`	CPRXRPM: Support Packages	This note contains information about support packages for the component CPRRPM.
`427215`	Overview: Notes on cFolders and cProjects	This note contains an overview of all SAP notes for cProject Suite.

List of Related SAP Notes for SAP xRPM

SAP Note Number	Title	Description
`869091`	xRPM 4.0 Master Note	This note serves as a central note for SAP xRPM 4.0. Several other important notes are attached to this note, including those listed below.

853692	Installing CPRXRPM 400 on Basis Release 700	This note describes how to install the ABAP add-on component CPRXRPM 400 on SAP NetWeaver 2004s.
853694	Upgrading to SAP Basis Release 700 with CPRXRPM 400	This note describes how to upgrade the ABAP add-on component CPRXRPM 400 to run on SAP NetWeaver 2004s.
817189	Additional info	This note describes how to upgrade SAP xRPM 4.0 to run on SAP Web Application Server 6.40 (SAP NetWeaver 04).
858718	CPRXRPM: Support Packages	This note contains information about support packages for the ABAP add-on component CPRXRPM.

1.4   History of Changes

The Master Guide is regularly updated on SAP Service Marketplace at
`service.sap.com/instguides`.

⚠️

Make sure you have the latest version of the Master Guide by checking SAP Service Marketplace immediately before starting the installation.

The following table provides an overview on the most important changes that were made in the latest versions.

Master Guide Version	Important Changes
1.00 (October 24, 2005)	Initial Version
1.01 (April 24, 2006)	Minor changes to SAP xRPM and cProjects
2.00 (May 2006)	Update component information (cFolders)

2   Project and Portfolio Management Overview

SAP Project and Portfolio Management consists of the following applications:

- Collaboration Projects (cProjects)

- Design Collaboration with cFolders (cFolders)

- SAP xApp Resource and Portfolio Management (SAP xRPM)

> There is no SAP xRPM 3.0. When cProjects (previous release 3.1) and SAP xRPM (previous release 2.0) were synchronized, the resulting common release was 4.0.

The technical implementation depends on the system landscape and in particular on the security policy of your enterprise.

For cProject Suite, SAP supports the following installation variants:

- Installation of cFolders and cProjects on the intranet

  Choose this installation if you want to use cProjects and cFolders applications for internal collaboration only. All participants in the collaboration must have access to the company's internal network within the firewall.

- Installation of cFolders and cProjects outside the intranet

  Choose this scenario if you want cProjects and cFolders applications to be primarily accessible to external collaboration partners.

  For security reasons, SAP does not recommend this installation.

- Installation of cFolders outside the intranet and cProjects on the intranet

  Choose this installation if you want to use cProjects for internal project management and cFolders for secure collaboration with external partners.

  SAP highly recommends this scenario.

> In addition to a stand-alone installation on SAP NetWeaver, the following installation variants are possible:
>
> - cProjects 4.00 is released for installation on ECC 6.0 and CRM 5.0.
>
> - cFolders 4.00 can be installed on SRM Server 5.5. and SAP SCM Server 5.0.
>   In this case, cFolders should be called from outside the intranet via the SAP Web dispatcher installed in the demilitarized zone (DMZ).
>
> - cFolders 4.00 is also released for installation on ECC 6.0.
>
> For more information, see the Master Guide for mySAP ERP 2005 on SAP Service Marketplace at `service.sap.com/erp-inst` → *mySAP Business Suite Solutions* → *mySAP ERP* → *mySAP ERP 2005*.

2.1   Software Component Matrix

This section provides information about which application of Project and Portfolio Management uses which component and specifies the minimum release of each component.

Software Component	Project Portfolio Management: Applications		
	Key: X = mandatory (X) = optional - =not part of the application		
	SAP xApp Resource and Portfolio Management (SAP xRPM)	**Collaboration Projects (cProjects)**	**Design Collaboration with Folders (cFolders)**
CPRXRPM (ABAP component for cProjects, cFolders, and SAP xRPM)	X	X	X
CPRXRPM_UI (Java component for SAP xRPM)	X	-	-
SAP NetWeaver 2004s SP04	X SAP NetWeaver with usage types AS-ABAP and AS-Java	X SAP NetWeaver with usage types AS-ABAP and AS-Java	X SAP NetWeaver with usage types AS-ABAP
SAP GUI	X 6.40	X 6.40	X 6.40
Adobe® Document Server (ADS)	-	X	-
Adobe® Reader®	-	(X) 7.0.3 (optional, but required if using interactive forms)	-
SAP Content Server	-	(X) Must correspond to interface version 0045 or 0046	(X) Must correspond to interface version 0045 or 0046
SAP Business Information Warehouse (BW)	-	(X) 7.02	-
SAP Business Information (BI) Content	(X) SAP NW 2004s BI Content Add-On 2+	(X) SAP NW 2004s BI Content Add-On 2 (optional, but required if using SAP BI)	
SAP R/3 or ECC	(X)	(X)	(X)

	4.6C SP47, 4.70 SP20, ECC 5.00 SP00, ECC 6.00 SP00, if using integration to SAP FI, SAP HR, or SAP PS or SAP cProjects	4.6C SP47, 4.70 SP20, ECC 5.00 SP00, ECC 6.00 SP00	4.6B or higher */**
SRM Server	-	(X) 5.5	(X) 5.5
SCM Server	-	-	(X) 5.0
SAP Exchange Infrastructure (XI) For integration with SRM	-	(X) 7.0	(X) 7.0
SAP Internet Transaction Server (ITS)	X 6.20	(X) 6.20	-
ECL Viewer (For more information, see page 31.)	-	-	(X) 5.1.2 (To be installed on each front end, if required)
Text Retrieval and Information Extraction (TREX)	-	(X) 5.0	(X) 5.0
SAP NetWeaver Portal Drive (for integration with WebDAV)	-	(x) 4.4	(x) 4.4
SAP Workforce Deployment (WFD) Server	-	(X) 1.0	-
Microsoft Internet Explorer	X	X 6.0	X 6.0
Easy Document Management 3.0	-	X 3.0	-
Business Package for Projects, Portfolio Management, and Design Collaboration (PPMDC)	X 4.0	(X) 4.0	(X) 4.0
SAP Enterprise Portal 7.0	X	(X)	(X)
SAP IGS	X		

System Requirements for Transactions CFI01 and CFE01 (Documents Only):

- SAP R/3 4.6C or a higher back-end system

System Requirements for Transactions CFI02 and CFE02 (Documents, Materials, and Bills of Material):

- SAP R/3 Release 4.6C SP33 or a higher back-end system and SAP Note 546617

- SAP R/3 Plug-In 2002.2

System Requirements for Transactions CFI03 and CFE03 (Documents, Materials, Bills of Material, and IPPE Objects):

- SAP IS-ERP 2005

> Some functions, such as the Reference Designator or BAdI CFX_BI_EXPORT, are only available as of PI 2004.1.
>
> For more information about the Reference Designator, see SAP Notes 844461 and 817588, which are available as of 4.70.
>
> SAP recommends that you use transactions `CFI01` and `CFE01` only if your system does not fulfill the requirements for transactions `CFI02` and `CFE02`.

> If you use a popup blocker, make sure that it is configured to allow popups from your cProjects system, for example **<server>.<your company>.com**. Otherwise, the system cannot close your session automatically when you leave the application visiting another site or closing your browser. As a result, you may lock projects, even though you have already left the application.

2.2   Solution-Wide Topics

2.2.1   Minimal System Landscape

> SAP strongly recommends that you use a minimal system landscape for test and demo purposes only. For performance, scalability, high availability, and security reasons, do not use a minimal system landscape as your productive landscape. For information about creating productive system landscapes, see SAP Service Marketplace at **service.sap.com/ti**.

Professional Services Scenarios and Workforce Deployment (only relevant for cProjects)

In extended scenarios (for example, scenarios of SAP for Professional Services), you can use additional components and products such as *Workforce Deployment (WFD)*. If you want to use this scenario, SAP strongly recommends that you use SAP Enterprise Portal and the portal role *Service Resource Planner*, which you can download from SAP Service Marketplace. The scenario can run in both installation variants (ECC 6.0 and CRM 5.0). However, if cProjects is not installed on a CRM system, you cannot use the bi-directional integration to CRM Opportunity Management. Also, you can only use groupware integration if your system landscape incorporates a CRM middleware.

If you use *Workforce Deployment (WFD)* for resource management in cProjects, you must make some additional settings to enable business partner maintenance. You can access these settings using the portal role *Service Resource Planner*.

In addition, make sure that you have activated LiveCache. For performance reasons, WFD and Live Cache should be installed on separate machines.

For more information, see section *Post-Installation Steps for WFD* in the Installation Guide for CRM 5.0 on SAP Service Marketplace at `service.sap.com/crm-inst` → *mySAP Business Suite Solutions* → *mySAP CRM* → *SAP CRM 5.0* → *CRM Core*.

2.2.2   Additional Technology

WebDAV Interface

cProject Suite 4.00 offers a Web-Based Distributed Authoring and Versioning interface (WebDAV interface) that enables you to connect to different document management repositories, such as SAP Knowledge Management. SAP NetWeaver provides a standard WebDAV client (SAP NetWeaver Portal Drive), which emulates a new hard drive mapped to the cProjects and cFolders structures. This technology replaces the existing Microsoft Windows File Explorer integration.

SRM Integration

The SRM integration for external service procurement requires the installation of SAP Exchange Infrastructure (XI) to enable communication between cProjects and the corresponding SRM component.

Adobe Printing

The approval documents and the project status reports in cProjects 4.00 only run using Adobe Document Services (ADS). This requires the installation of the latest Java J2EE engine delivered with SAP NetWeaver 2004s. Also, for the interactive forms, you need the Adobe® Reader® 7.0.3.

Java Gantt Chart

cProjects 4.00 uses a newly developed Gantt Chart. Therefore, when calling the Gantt Chart for the first time, a Java Applet has to be signed and installed on the local computer.

Microsoft® Project (Client and Server)

If you want to import or export data from or to Microsoft® Project Client, you must install a new Active X control, which is automatically downloaded and installed the first time you use this function.

3   Applications of Project and Portfolio Management

3.1   Collaboration Projects

For this business application, the following topics are covered:

- Overview

- Technical system landscape

- Implementation sequence

3.1.1   Overview

cProjects enables you to realize innovative ideas in all kinds of projects (for example, Development projects or projects to simplify internal processes) to implement recognized quality standards, and to reduce costs incurred by errors.

cProjects is a cross-industry application that supports the entire process of your project, from conception to planning and quality checks, through to the completion of the project. It also allows you to communicate with external partners or lead customers.

cProjects incorporates internationally recognized standards (QS-9000) and is based on methods like Advanced Product Quality Planning (APQP) developed in the automobile industry. Furthermore, cProjects supports several business scenarios such as New Product Development and Introduction (NPDI), Professional Service Delivery (consulting projects), internal IT projects, and Six Sigma improvement projects.

cProjects 4.00 also provides tight integration with *SAP xApp Resource and Portfolio Management* (xRPM) 4.0 in order to support project data synchronization and resource management. For this reason, *cProjects 4.00* and the ABAP part of *SAP xRPM* are included in one software component (`CPRXRPM`).

3.1.2   Technical System Landscape

The following graphic provides an overview of the recommended technical infrastructure of *Collaboration Projects*:
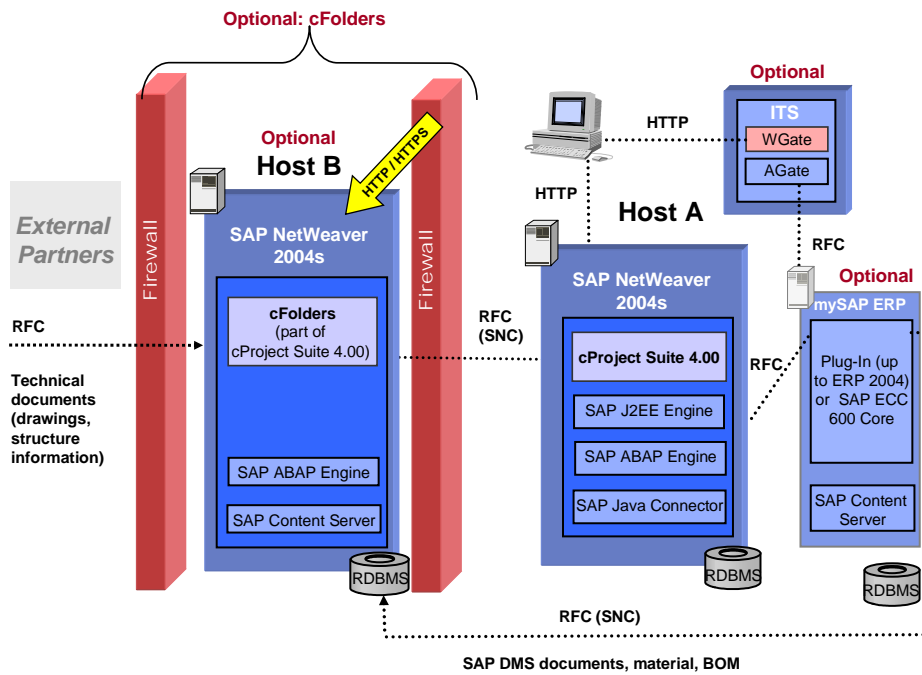
3.1.3   Implementation Sequence

This section contains the sequence of steps (installation, technical configuration, and application configuration) required to implement the business application.

3.1.3.1   Installation

3.1.3.1.1   Mandatory Components

SAP NetWeaver 2004s

cProject Suite is installed as an add-on on SAP NetWeaver 2004s.

cProject Suite 4.00

cProject Suite 4.00 includes two applications:

- cProjects – a project management application

- cFolders – a collaboration platform

> For more information about the installation of cProject Suite 4.00, see SAP Note `853692`.

3.1.3.1.2   Optional Components

SAP Business Information Warehouse (BW)

You can use SAP BW 7.02 with the BI Content 7.0.2 Add-On for additional evaluations. BI Content 7.0.2 contains predefined evaluations and reports.

mySAP ERP 2005 SP47, 4.70 SP20, or 5.00 SP00 or 6.00 SP00

The ERP system contains additional PLM functions, financial data in case financials integration is used, and other ERP functions, including HR (business partner, time recording, and so on).

You can use mySAP ERP to create object links to business objects, such as documents, material masters, or purchase order items.

SAP Content Server

You can use the SAP Content Server for storing documents. It must correspond to interface version 0045 or 0046. SAP recommends that you use version 0046.

If no SAP Content Server is available, documents are stored on SAP NetWeaver 2004s.

SAP Internet Transaction Server (ITS)

You can use an Internet Transaction Server (ITS) to call SAP transactions directly using the HTML GUI.

TREX 5.0

You can use TREX 5.0 for full text search functions.

> Search functions for Knowledge Provider documents are currently not supported in Unicode environments.

Workforce Deployment Server (WFD Server) 1.0

You must install WFD 1.0 on the cProjects system. In addition, you must install the Live Cache on a separate system.

> For more information about the WFD Server installation, see SAP Notes `830595` and `565437`.

For restrictions of installation of WFD together with mySAP ERP, see SAP Note `852235`.

Business Package for PPMDC 4.0

You can use cProjects within the *Business Package for Projects, Portfolio Management, and Design Collaboration (PPMDC)*.

3.1.3.1.3   Installation Steps

Host A

No	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Install SAP NetWeaver 2004s. (Guide: *Installation Guide* on the SAP Service Marketplace at `service.sap.com/instguides` → *SAP NetWeaver* → *Release 04s*	Installing the required languages Guide: *Language Transport*, (BC-CTS-LAN)
2	Install cProject Suite 4.00.	For using cProjects

Optional: SAP Internet Transaction Server (ITS)

No	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Install ITS 6.10	

Optional: Host B

No	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Install SAP NetWeaver 2004s (Guide: *Installation Guide* on the SAP Service Marketplace at `service.sap.com/instguides` → *SAP NetWeaver* → *Release 04s*	Installing the required languages Guide: *Language Transport*, (BC-CTS-LAN)
2	Install cProject Suite 4.00	For using cFolders
3	Optional: Install SAP Content Server for cFolders on Host B.	

Back-End Systems:

Optional: SAP Business Information Warehouse

No	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Install SAP BW 7.0.2	
2	Install BI Content 7.0.2 Add-On	
3	Install SAP ECC 6.0	Only relevant for reports about mySAP ERP data

Optional: mySAP ERP

No	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Install ECC 6.0	
2	Install SAP Content Server on ERP System Host	

3.1.3.2   Configuration

For information on how to configure cProjects, see the corresponding business processes in *SAP Solution Manager*.

3.1.3.3   Upgrade

For upgrade information, see the Upgrade Master Guide on SAP Service Marketplace at `service.sap.com/instguides`.

3.2   Collaboration Folders

For this business application, the following topics are covered:

- Overview

- Technical system landscape

- Implementation sequence

3.2.1   Overview

Design Collaboration with cFolders (cFolders) is an Internet-based collaboration application in *mySAP PLM*. This new collaboration platform enables you to collaborate with external business partners in virtual teams to optimize cross-enterprise processes. It allows you to efficiently share and exchange structured and unstructured information, such as bills of material and other kinds of documents with internal team members, external partners, and suppliers.

cFolders supports two different scenarios for this purpose:

- Collaborative scenario – for example, for internal team members and external partners

- Competitive scenario – for example, for use as a supplier's bidding room

In addition, the tight integration of cFolders in *Collaboration Projects (cProjects)* in *mySAP PLM* connects in-house project management capabilities to secure external collaboration.

3.2.2   Technical System Landscape

The following graphics provide an overview of the technical infrastructure of *Design Collaboration (cFolders).*

For more information about the use of cFolders in an extranet scenario, see the *PPM Security Guide*.

Variant A
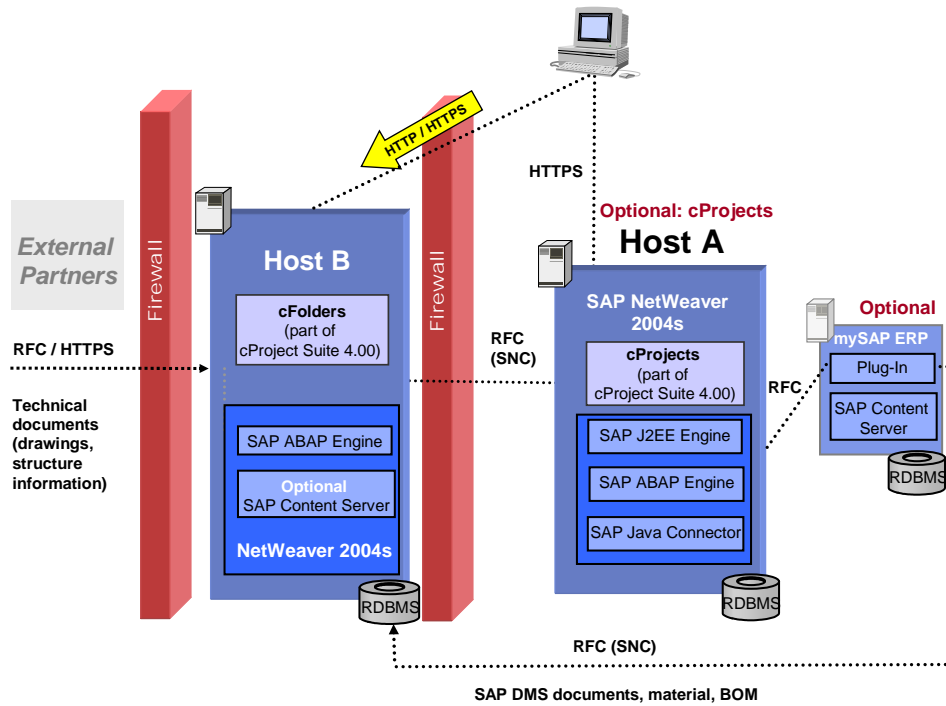
Variant B

In addition, you can run cFolders 4.00 on SAP ECC 6.00 (mySAP ERP 2005).

For more information about the use of cFolders in an extranet scenario, see the *PPM Security Guide.*

SAP recommends to use this scenario for internal collaboration only*
(* for further details, please read PPM Security Guide)
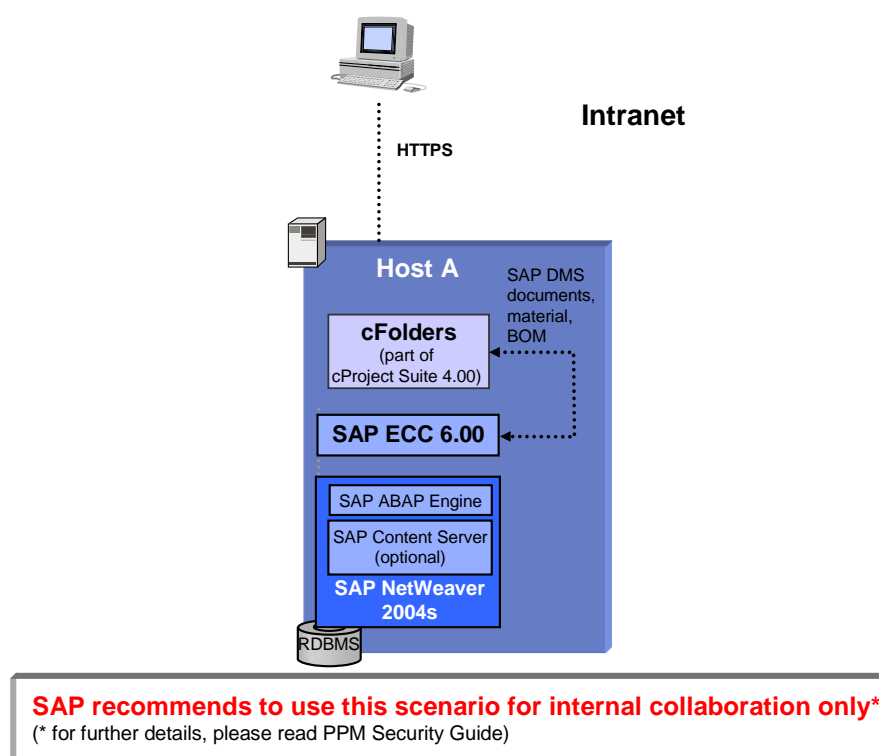
3.2.3   Implementation Sequence

This section lists the sequence of steps (installation, technical configuration, and application configuration) required to implement the business application.

3.2.3.1   Installation Variant A

3.2.3.1.1   Mandatory Components

SAP NetWeaver 2004s

cProject Suite is installed as an add-on on SAP NetWeaver 2004s.

> ⚠
>
> Do not install SAP NetWeaver 2004s on Windows NT 4.0. For more information about the released platforms, see *SAP Service Marketplace* at **service.sap.com/platforms**.

cProject Suite 4.00

You must install cProject Suite 4.00 as an add-on on the SAP Web Application Server. cProject Suite 4.00 includes two applications:

- cProjects – a project management application

- cFolders – a collaboration platform

For more information about the installation of cProject Suite 4.00, see SAP Note `853692`.

3.2.3.1.2   Optional Components

SAP R/3 4.6C or Higher

You can use SAP R/3 to create object links to business objects, such as documents, material masters, or purchase order items.

System Requirements for Transactions CFI01 and CFE01

(Documents Only):

- SAP R/3 4.6C or higher (back-end system)

System Requirements for Transactions CFI02 and CFE02

(Documents, Materials, and Bills of Material):

- SAP R/3 Release 4.6C SP33 or a higher back-end system. See SAP Note 546617.
- SAP R/3 Plug-In 2002.2

SAP recommends that you use transactions CFI01 and CFE01 only if your system does not fulfill the requirements for transactions CFI02 and CFE02.

System Requirements for Transactions CFI03 and CFE03

(Documents, Materials, Bills of Material, and IPPE Objects):

- SAP IS-ERP 2005

Some functions such as the Reference Designator or BAdI CFX_BI_EXPORT are only available as of PI 2004.1.

For the Reference Designator, see SAP Notes 844461 and 817588, which are available as of 4.70.

SAP recommends using transactions CFI01 and CFE01 only if your system does not fulfill the requirements for transactions CFI02 and CFE02.

R/3 Plug-In 2004.1 SP01

You must install an R/3 plug-in on the R/3 system. If the SAP system is older than ERP 2005, this is mandatory.

SAP Content Server

You can use the SAP Content Server for storing documents. It must correspond to interface version 0045 or 0046; SAP recommends that you use version 0046.

If no SAP Content Server is available, documents are stored on SAP Web AS 6.40.

ECL Viewer 5.1.2

You can use ECL Viewer 5.1.2 for visualizing documents within cFolders.

⚠️

Version 3.11 and older versions are not supported.

To download the new ECL Viewer 5.1.2 from the SAP Service Marketplace, perform the following steps:

1. Go to **service.sap.com/plm**.

2. Choose *Life Cycle Data Management → Integration → Visualization of Product Knowledge → Media Center*.

3. Download the ECL Viewer zip file to your local hard drive (click on the *document download* icon with the secondary mouse button).

4. Open the zip file and run the Setup.exe file. Close all other applications before starting the application.

TREX 5.0

You can use TREX 5.0 for full text search functions.

💡

Search functions for Knowledge Provider documents are currently not supported in Unicode environments.

Business Package for PPMDC 4.0

You can use cFolders within the *Business Package for Projects, Portfolio Management, and Design Collaboration (PPMDC)*.

3.2.3.1.3   Installation Steps

Host B

No	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Install SAP NetWeaver 2004s Guide: *Installation Guide on SAP Service Marketplace at* **service.sap.com/instguides** *→ SAP NetWeaver → Release 04s*	Installing the required languages Guide: *Language Transport,* (BC-CTS-LAN)
2	Install cProject Suite 4.00	For using cFolders only
3	Optional: Install SAP Content Server for cFolders on host B	

Back-End Systems:

Optional: SAP Business Information Warehouse

No	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Install SAP BW 7.0.2	/
2	Install BI Content 7.0.2 Add-On	/
3	Install SAP ECC 6.0	Only relevant for reports about mySAP ERP data

Optional: mySAP ERP

No	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Install ECC 6.0	/
2	Optional: Install SAP Content Server on ERP System Host	/

Optional: SAP Internet Transaction Server (ITS)

No	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Install ITS 6.10	/

Optional: Host A

No	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Install SAP NetWeaver 2004s Guide: *Installation Guide* on SAP Service Marketplace at `service.sap.com/instguides` $\rightarrow$ *SAP NetWeaver* $\rightarrow$ *Release 04s*	Installing the required languages Guide: *Language Transport*, (BC-CTS-LAN)

2	Install cProject Suite 4.00	For using cProjects only

3.2.3.2 Installation Variant B

3.2.3.2.1 Mandatory Components

SAP NetWeaver 2004s

> Do not install SAP NetWeaver 2004s on Windows NT 4.0. For more information about the released platforms, see SAP Service Marketplace at **service.sap.com/platforms**.

SAP ECC 6.00

ECC 6.00 is installed as an add-on on SAP NetWeaver 2004s.

cProject Suite 4.00

cProject Suite 4.00 is an add-on that can be installed on SAP ECC 6.00.

cProject Suite 4.00 includes two applications:

- cFolders – a collaboration platform

- cProjects – a project management application

> For more information about the installation of cProject Suite 4.00, see SAP Note **853692**.

3.2.3.2.2 Optional Components

System Requirements for Transactions CFI03 and CFE03

(Documents, Materials, Bills of Material, and IPPE Objects):

- SAP IS-ERP 2005

> Some functions such as the Reference Designator or BAdI CFX_BI_EXPORT are only available as of PI 2004.1.
>
> For the Reference Designator, see SAP Notes **844461** and **817588**, which are available as of 4.70.

R/3 Plug-In 2004.1 SP01

You must install an R/3 plug-in on the R/3 system. If the SAP system is older than ERP 2005, this is mandatory.

SAP Content Server

You can use the SAP Content Server for storing documents. It must correspond to interface version 0045 or 0046; SAP recommends that you use version 0046.

If no SAP Content Server is available, documents are stored on SAP Web AS 6.40.

ECL Viewer 5.1.2

You can use ECL Viewer 5.1.2 for visualizing documents within cFolders.

> Version 3.11 and older versions are not supported.

To download the new ECL Viewer 5.1.2 from the SAP Service Marketplace, perform the following steps:

1. Go to `service.sap.com/plm`.

2. Choose *Life Cycle Data Management → Integration → Visualization of Product Knowledge → Media Center*.

3. Download the ECL Viewer zip file to your local hard drive (click on the *document download* icon with the secondary mouse button).

4. Open the zip file and run the Setup.exe file. Close all other applications before starting the application.

TREX 5.0

You can use TREX 5.0 for full text search functions.

> Search functions for Knowledge Provider documents are currently not supported in Unicode environments.

Business Package for PPMDC 4.0

You can use cFolders within the *Business Package for Projects, Portfolio Management, and Design Collaboration (PPMDC).*

3.2.3.2.3 Installation Steps

Optional: Host A

No	Action [Corresponding Documentation]	Remarks and Subsequent Steps [Corresponding Documentation]
1	Install SAP NetWeaver 2004s. Guide: *Installation Guide* on SAP Service Marketplace at `service.sap.com/instguides` *→ SAP NetWeaver → Release 04s*	Installing the required languages Guide: *Language Transport*, (BC-CTS-LAN)
2	Install SAP ECC 6.0.	/
3	Install cProject Suite 4.00 Add-On.	For using cFolders
4	Optional: Install SAP Content Server for cFolders.	/

3.2.3.3   Configuration

For information on how to configure cFolders, see the *SAP Solution Manager*.

Process name:

Organizational Area → Product Development and Introduction → Development Collaboration

Configuration element:

mySAP PLM → SAP cProject Suite 4.00 → Basic Settings for cFolders

3.2.3.4   Upgrade

For upgrade information, see the Upgrade Master Guide on *SAP Service Marketplace* at
`service.sap.com/instguides`.

3.3   SAP xApp Resource and Portfolio Management

For this business application, the following topics are covered:

- Overview

- Technical system landscape

- Implementation sequence

3.3.1   Overview

SAP xApp Resource and Portfolio Management (SAP xRPM) is designed to manage the capacity and deployment of human capital assets across multiple projects. SAP xRPM integrates information from existing project management, human resources, and financial systems to provide a complete overview of an organization's project portfolio with easy drilldown to details for portfolio managers, project managers, and resource managers.

3.3.2   Technical System Landscape

The following graphic shows the main components of SAP xRPM and the communication paths between them.
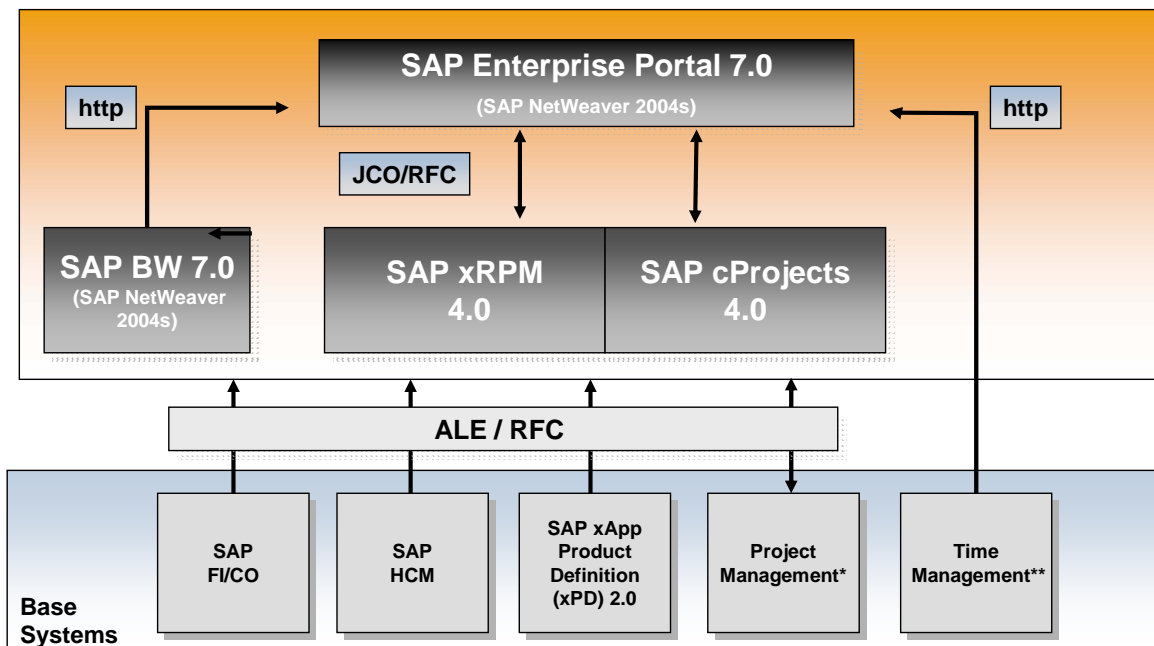
*SAP Project System (PLM PS); SAP cProjects; Microsoft Project; Microsoft Project Server
** SAP CATS; Available through usage of standard SAP Employee Self Service (ESS) in SAP Enterprise Portal

SAP xRPM consists of three main components:

- SAP xRPM core (SAP Web Application Server and SAP xRPM add-on)

- SAP Business Information Warehouse (BW)

- SAP Enterprise Portal (EP)

Other components include:

- Backend systems

3.3.3   Implementation Sequence

This section contains the sequence of steps (installation, technical configuration, and application configuration) required to implement the application.

3.3.3.1   Installation

3.3.3.1.1   Mandatory Components

SAP xRPM Core

The SAP xRPM core comprises an SAP Web Application Server and the SAP xRPM add-on component.

You can use all databases and operating systems supported by SAP Web Application Server.

For more information about supported platforms, see SAP Service Marketplace at `service.sap.com/platforms`.

The SAP xRPM add-on component contains the application logic and interfaces to communicate with several back-end systems. Communication takes place via Remote Function Call (RFC) and Application Link Enabling (ALE).

SAP Business Information Warehouse (BW)

SAP BW is used for reporting tasks.

SAP BW functions are enhanced by SAP xRPM Business Information (BI) Content, which is a set of pre-built InfoCubes and ODS Objects containing customized InfoObjects and queries.

For more information, see SAP Service Marketplace at `service.sap.com/bw`.

SAP Enterprise Portal

SAP Enterprise Portal is a Java-based user interface, which drives the SAP xRPM front-end application, otherwise known as the *Business Package for Projects, Portfolio Management, and Design Collaboration (PPMDC)*.

The *Business Package for PPMDC* is a role-based set of Java iViews used by project executives, project managers, resource managers, and project members.

SAP Enterprise Portal has certain restrictions on the server side.

For more information, see the Platform Availability Matrix on *SAP Service Marketplace* at `service.sap.com/nw-ep` → *Portal in Detail* → *Product Availability Matrix* → *SAP NetWeaver* → *SAP NetWeaver components* → *SAP Enterprise Portal.*

3.3.3.1.2   Optional Components

You can integrate the following back-end systems:

- SAP systems:

  - SAP Product Lifecycle Management - Project System (PLM PS)

- ○ SAP cProjects

- ○ SAP xApp Product Definition (xPD)

- ○ SAP Human Capital Management (HCM)

- ○ SAP Financial and Controlling (FI-CO)

- Non-SAP systems:

  - ○ Microsoft Project

Front-end Requirements

SAP GUI

SAP GUI front-end requirements depend on the operating system you are running, as shown in the following table:

	Windows 95	**Windows NT 4.0 SP04 / 98**	**Windows 2000**	**Windows XP**
SAP GUI Release	4.6 light / EnjoySAP	4.6 light / EnjoySAP	4.6 light / EnjoySAP	6.10 light / EnjoySAP
Colors	256	256	256	256
Resolution	800x600 or 1024x768	800x600 or 1024x768	800x600 or 1024x768	800x600 or 1024x768
Monitor	17"	17"	17"	17"
Processor	P60, P133 or P200+	P90, P133, or P200+	P200+	233+ MHz or 300+ MHz
RAM	32 MB or 48 MB	48 MB 64 MB	64 MB or 96 MB	64 MB or 128 MB
Hard Disk:				
Server-based installation (R/3 functions)	50 MB If operating system files (MFC, IE, and Office) do not have to be updated, then 15 MB is sufficient.			
Local installation (R/3 functions)	100-280 MB (minimum packet SAP GUI + SAP LOGON). If operating system files (MFC, IE, and Office) do not have to be updated, then 65 - 245 MB is sufficient.			

Project managers who need to upload project data from Microsoft Project to SAP xRPM require the latest version of SAP GUI.

For more information, see SAP Service Marketplace at **service.sap.com/sapgui**.

If you install SAP GUI, you must have Microsoft Internet Explorer 5.01 or higher.

For more information about SAP GUI, see:

- SAP Note 26417

- SAP Service Marketplace at `service.sap.com/sapgui`

SAP Enterprise Portal Client

SAP Enterprise Portal has the following hardware requirements:

Component	Minimum Requirement	Recommended Configuration
Processor	Pentium II 233 MHz	Pentium II 450 MHz CPU
RAM	64 MB	>/= 128 MB
Screen settings	256 colors • For users: 800x600 pixel resolution • For administrators: 1024x768 pixel resolution	Thousands of colors 1024 x 768 pixel resolution

The following operating systems support logon as portal client:

- Windows 2000 (for portal administrators and users)

- Windows NT 4.0 with Service Pack 5 or 6a (for portal administrators and users)

- Windows ME (for portal users only)

- Windows 98 (for portal users only)

- Windows 95 (for portal users only)

For more information, see the Platform Availability Matrix on SAP Service Marketplace at `service.sap.com/nw-ep` → *Portal in Detail* → *Product Availability Matrix* → *SAP NetWeaver* → *SAP NetWeaver components* → *SAP Enterprise Portal.*

3.3.3.1.3   Installation Steps

No	Action	Remarks and Subsequent Steps
1	Install SAP Web Application Server 7.00 and apply the required support packages.	Install the following plug-ins: • SAP Basis Component 7.00 (`SAP_BASIS_700`) • Cross-Application Component 7.00 (`SAP_ABA_700`) • SAP R/3 Plug-In 7.00 (PI_BASIS – 2005_1_700) • SAP NetWeaver BI 7.00 (SAP_BW – 700)

2	Install the SAP cProjects / cFolders / SAP xRPM add-on component **CPRXRPM** on SAP Web Application Server.	
3	Install SAP Business Information Warehouse.	1. Install SAP GUI with Business Information Warehouse Extensions. 2. Activate the Business Information (BI) Content for SAP xRPM (Info Cubes and ODS objects). For more information, see the documentation BI Content for SAP xRPM. 3. Install the following plug-ins: • Basis Plug-In • Enterprise Portal Plug-In
4	Install SAP Internet Graphics Server.	
5	Install SAP Enterprise Portal.	• The Unification Server is optional. • You must install Microsoft Internet Explorer.
6	Download, import, and deploy the *Business Package for Projects, Portfolio Management, and Design Collaboration (PPMDC)*.	Download Business Packages from the Portal Content Portfolio at **http://www.sdn.sap.com/sdn/ contentportfolio.sdn**
7	Install Microsoft Project. This is an optional step. See Microsoft Project documentation.	If you intend to upload project plans (`*.mpp` files) from Microsoft Project Client, you must install the Microsoft Project Client software on your PC. If you install Microsoft Project Server 2003, you must also install the PDS (Project Data Services) Extender. You can find the PDS Extender on SAP Service Marketplace at **service.sap.com/xapps** → *SAP xRPM* → *Product Details* → *Interfaces*.

3.3.3.2　　　Configuration

For information on how to configure SAP xRPM, see the corresponding business process in *SAP Solution Manager*.

3.3.3.3   Upgrade

For upgrade information, see the *SAP xRPM Upgrade Master Guide* on SAP Service Marketplace at `service.sap.com/instguides` → *SAP xApps* → *SAP xApp Resource and Portfolio Management* → *SAP xRPM 4.0* → *SAP xRPM Master Guide.*

4   Software Components Overview

This section provides additional information about the most important software components of *Project and Portfolio Management*.

Only a subset of these components is required for the installation of a specific application. For an application-specific overview of components, see the section *Project and Portfolio Management Overview* [page 17].

4.1   SAP Components

4.1.1   Application Components

4.1.1.1   SAP Enterprise Portal

SAP Enterprise Portal enables users to collaborate effectively over the Internet on any given task at any time and from anywhere by integrating information, applications, and services.

SAP Enterprise Portal integrates portal platform technology and portal content in a single product. It also provides employees and external stakeholders – such as customers, suppliers, business partners, and investors – with central, secure, and role-based access to personalized information, applications, and services through a single point of entry.

SAP Enterprise Portal reflects the different requirements of various target communities that a company wants to address and allows each company to implement its own portal at its own pace.

SAP Enterprise Portal comprises the following key functional areas:

Functional Area	Description
Unification	Unification uses SAP-patented unification technology that enables users to Drag&Relate™ information from disparate sources to help them solve business problems. Unification offers end-to-end operational transparency and decision-making support – from being alerted, to getting the right information to make appropriate decisions, to having access to the applications and acting accordingly.
iViews	iViews are predefined portal components that provide access to enterprise applications, structured databases, knowledge management systems, and Web content. Developers can customize and create portal components using both Java and Microsoft .Net technology.

Business packages	Business packages are pre-configured collections of portal content, designed to serve specific roles within the enterprise.
	They deliver ready-to-use solutions that minimize time to deployment, streamline common processes, and return immediate productivity gains.
Integrated knowledge management	Integrated knowledge management turns unstructured information into accessible and usable organizational knowledge.
	It also provides advanced categorization and search capabilities, collaborative functionality, alerting and notification, and an open framework for accessing existing enterprise repositories.
One-step business intelligence integration	One-step integration with mySAP Business Intelligence combines data warehousing, reporting and analysis, business performance management, and predefined business content to help companies make more knowledgeable business decisions.

4.1.1.2   Knowledge Management

Knowledge Management (KM) supports content management and collaboration in the SAP Enterprise Portal environment.

Knowledge Management comprises the following main components:

Component	Description
Content Management (CM)	CM provides functions and services to manage content by offering users a central point of entry to access and manipulate content stored in distributed and heterogeneous repositories.
	CM functions enable users to perform basic operations on documents like navigation, editing, property assignment, versioning, and access control.
	CM services provide features such as subscriptions, approval workflow and XML or time-dependent publishing.
Collaboration	Collaboration provides additional tools to access data.
	Features like feedback, rating, and discussions allow cooperation between persons working at different times and in different locations.

4.1.1.3   SAP Business Information Warehouse (BW)

SAP BW is an analysis tool that gathers and refines information from internal and external sources containing:

- Customizable reporting tools from any perspective

- Predefined information models, reports, analyses, and key performance indicators

You can use SAP BW as an optional software component for all SAP PLM key capabilities to:

- Create reports and replicate them to the different users working offline using the middleware mechanisms.

  The SAP analysis is replicated as Microsoft Excel spreadsheets and is available in the Mobile Client in the Reports component.

- Evaluate the sales and distribution data from PLM Marketing (E-Selling scenario)

- Perform effective telemarketing campaign analysis *(Interaction Center)*

4.1.1.4   SAP ECC Instance

The product SAP ERP 2005 – SAP ECC instance (SAP ERP Central Component) consists of the product version SAP ECC 6.0. This is the central component of mySAP ERP 2005 and is the successor component of SAP ECC 5.0, and thus the successor of the former SAP R/3 releases.

The SAP ECC instance consists of the following technical components:

- Core components:

    - SAP HR 6.00

    - SAP APPL 6.00

    - SAP AP 7.00

    - SAP AP IPC JAVA 7.00

- Enterprise extensions:

    - EA-APPL 600

    - EA-HR 600

    - EA-FINSERV 600

    - EA-PS 600

    - EA-RETAIL 600

    - EA-GLTRADE 600

    - EA-DFPS 600

    - EA-IPPE 400

- Industry extensions

    - IS-PS-CA 600

    - FI-CAX 600

- ○ IS-M 600

- ○ INSURANCE 600

- ○ IS-UT 600

- ○ IS-H 600

- ○ FI-CA 600

- ○ ECC-DIMP 600

- ○ IS-OIL 600

- ○ IS-CWM 600

- Additional components of SAP ERP include:

    - ○ FINBASIS 600

    - ○ ERECRUIT 600

    - ○ LSOFE 600 (front-end)

    - ○ SEM-BW 600

The SAP ERP 2005 – SAP ECC instance and the installed SAP ECC 6.0 system are based on usage type SAP NetWeaver 2004s - AS ABAP, which includes the technical component SAP Web Application Server ABAP 7.00.

> Former Industry Solutions add-ons are integrated into SAP ERP 2005 – SAP ECC instance. For more information, see SAP Note 838002 (Add-ons (non-IS) integrated into SAP ECC 600) or SAP Note 838003 (Industry Add-Ons integrated into SAP ECC 600).

4.1.1.5   SAP Internet Graphics Server

SAP Internet Graphics Server (IGS) is a front-end-independent server-based engine for generating graphical content. You can access data via HTTP or remote function call (RFC) using data from SAP or non-SAP components.

SAP IGS enables you to:

- Display graphics in SAP GUI for Windows, SAP GUI for HTML, and SAP GUI for Java

- Display graphics in MiniApps (mySAP.com Workplace) and iViews (SAP Enterprise Portal)

- Generate graphics based on a set of data without displaying the graphics in the front-end

At present, SAP IGS supports the following graphic types:

- Business graphics

- Networks

- Bar charts

To generate graphics, the application server sends data to SAP IGS via RFC. SAP IGS then generates a graphics control and a bitmap, which is sent back to the application server (in

GIF, JPEG, BMP, PNG, VML, or SVG format). The bitmap on the application server can then be displayed in an HTML front-end through the SAP Internet Transaction Server (ITS).

4.1.1.6   SAP xRPM Add-On

SAP xRPM integrates information from existing project management, human resources, and financial systems to provide an overview of the project portfolio with easy drilldown to details for portfolio managers, project managers, and resource managers. This enables innovative and collaborative, cross-functional business processes.

The SAP xRPM Add-On component is installed on top of existing SAP and non-SAP back-end application systems such as:

- SAP Product Lifecycle Management - Project System (PLM PS)

- SAP cProjects

- SAP xApp Product Definition (xPD)

- Microsoft Project

- SAP Human Capital Management (HCM)

- SAP Financial and Controlling (FI-CO)

4.1.2   Technology Components

4.1.2.1   SAP Web Application Server 7.00

cProject Suite 4.00 is installed on SAP Web Application Server (SAP NetWeaver 2004s) as an add-on. SAP Web Application Server (SAP Web AS) is the application platform of SAP NetWeaver and mySAP Business Suite. It provides the technological foundation for all other SAP components.

SAP Web AS also provides a platform for developing and deploying dynamic and collaborative Web applications or other thin-client applications (WAP, PDA, and so on) and includes all proven SAP programming models and technologies. With SAP Web AS, SAP supports open Internet standards, including protocols such as HTTP, HTTPS, and SMTP, as well as Internet document standards, such as HTML and XML.

Open integration capabilities provide access to existing SAP and non-SAP applications. All integration facilities supported by SAP are available with SAP Web AS. The Java Connector or the .NET Connector give ABAP applications access to Java or .NET components and vice versa. In addition, the Internet Communication Framework (ICF) of SAP Web AS enables ABAP programs to process and distribute HTTP requests directly. Consequently, SAP Web AS can serve both as an HTTP server and an HTTP client.

- As an HTTP server, it brings applications to the user through a Web browser either directly or using a standard Web server.

- As an HTTP client, it accesses other Web applications to collect information and data.

To complete Web connectivity, SAP Web AS provides full support for sending and receiving e-mails using SMTP.

4.1.2.2   OLTP SAP System

OLTP system stands for Online Transaction Processing System (SAP System). It is connected to the PLM Server as a back-end system and provides additional business functionalities, such as Materials Management and Financials.

4.1.2.3 Instance SAP NW-KW Content Server

SAP Content Server is a separate server instance that is used to store documents or other types of content related to SAP applications. With the accompanying cache server, content can be cached if your company operates on several locations. This reduces the load of the wide area network when working with documents.

> For more information, see SAP Service Marketplace at
> **service.sap.com/contentserver**.

4.1.2.4 SAP Internet Transaction Server (ITS)

SAP Internet Transaction Server (ITS) links the SAP system to the Internet.

SAP ITS is a gateway between one or more Web servers and one or more SAP application servers. Typically, the Web server is an HTTP server, but other protocols such as FTP or Gopher are also supported.

Internet Application Components (IAC) require an ITS to make the functionality available for Internet users using a Web server.

Product catalogs are exported from the CRM system to an external index server for faster access to product data. Multimedia data attached to products or product catalogs is stored in the SAP Knowledge Provider (KPRO) component. When a catalog is published, the appropriate multimedia data is copied to the Web server.

SAP ITS provides a user interface for the IPC. It also provides communication between IPC and the CRM scenarios for configurable products. Within the Internet sales scenario, it also provides communication for price calculations.

4.2 Non-SAP Components

Adobe Document Services

Adobe Document Services are a set of Web services that run on the Java engine of SAP Web Application Server. The document services are the run-time component of Interactive Forms and have two fundamental tasks:

- Creating a PDF file (and other output formats in print scenarios) by merging an XML form template with current system data for output

- Extracting user-entered data (stored in XML format inside the PDF) from interactive forms and returning the data to the system

5 References

List of referenced documentation for Project and Portfolio Management and its applications.

Title	Location	Application		
		cProjects	**cFolders**	**SAP xRPM**
Several network and infrastructure documents	**SAP Service Marketplace at** `service.sap.com/instguides/ti`	**X**	**X**	**X**
SAP NetWeaver 2004s	**SAP Service Marketplace at** `service.sap.com/instguides` → *SAP NetWeaver*	**X**	**X**	**X**
Language Transport (BC-CTS-LAN) 6.40 **(Installing the required languages***)*	**SAP Service Marketplace at** `service.sap.com/instguides` → *SAP NetWeaver → Release 04s → Installation → Cross-NW*	**X**	**X**	
mySAP ERP	**SAP Service Marketplace at** `service.sap.com/instguides` → *mySAP Business Suite Solutions → mySAP ERP*	**(X)**	**(X)**	
SAP NetWeaver Technical Operations Manual	**SAP Service Marketplace at** `service.sap.com/instguides` → *SAP NetWeaver → Release 04s → Operations*	**X**	**X**	
SAP J2EE Engine Installation/Dialog Instance Installation/Standalone Gateway Instance Installation on <operating system>	**SAP Presentation CD**	**X**		
Installation Guide – SAP Business Intelligence 7.02	**SAP Service Marketplace at** `service.sap.com/instguides` → *SAP NetWeaver → Release 04s → SAP BW*	**(X)**		**(X)**
SAP Content Server Installation Guide	**SAP Service Marketplace at** `service.sap.com/instguides` → *SAP NetWeaver → Release 04s → Installation → SAP KW*	**(X)**	**(X)**	
Installation Guide EP 7.0	**SAP Service Marketplace at** `service.sap.com/instguides` → *SAP NetWeaver → Release 04s → SAP EP*	**(X)**	**(X)**	
Business Package for PPMDC 4.0	**SAP Help Portal at** `help.sap.com`	**(X)**	**(X)**	
SAP@Web Guide 6.20	**SAP Service Marketplace at**	**X**	**(X)**	

(SAP ITS)	service.sap.com/instguides → *SAP Components → SAP Web Application Server → Release 6.20*			42
Installation Guide – SAP Exchange Infrastructure 7.0	**SAP Service Marketplace at** service.sap.com/instguides → *SAP NetWeaver → Release 04s → Installation → SAP XI*	**(X)**		