Stefan Glatzmaier, Michael Sokollek

Project Portfolio Management with SAP® RPM and cProjects

Teaches how to design and customize SAP RPM and cProjects to gain visibility over the entire project portfolio
Provides details of SAP RPM and cProjects, and explains how to integrate with SAP Project System, Controlling, and CATS
Includes real-world examples of customer requirements and solutions
Up-to-date for SAP RPM 4.5 and cProjects 4.5

Stefan Glatzmaier
Michael Sokollek

Galileo Press
Bonn • Boston
Contents

Acknowledgements ................................................................. 9
Introduction ............................................................................. 11

1 Overview of Project Portfolio Management with SAP .......... 15
  1.1 Requirements Scenario for Project Portfolio Management .... 15
  1.2 SAP Resource and Portfolio Management (SAP RPM) ........ 22
  1.3 Collaboration Projects (cProjects) ................................. 40
  1.4 SAP Project System (SAP PS) ........................................ 53
  1.5 Summary ................................................................. 57

2 Portfolio Management with SAP RPM ............................... 59
  2.1 Basic Configuration and Master Data Maintenance .......... 59
  2.2 Detailed Settings for the Portfolio Item ......................... 71
  2.3 Additional Master Data Objects in Portfolio Management ...... 74
  2.4 General Functions of All Portfolio Objects .................... 78
  2.5 Field Control and User Interface Customizing ................ 84
  2.6 Functions Depending on the Field Values ...................... 89
  2.7 Financial and Capacity Planning .................................. 99
  2.8 Metrics Management ................................................ 106
  2.9 Key Figure Definition .............................................. 113
  2.10 Summary ............................................................... 119

3 Project and Resource Management with cProjects ............. 121
  3.1 Basic Settings .......................................................... 121
  3.2 Project Types for Project Structuring ............................ 126
  3.3 Additional Options for Project Structuring .................... 136
  3.4 Document Management with cProjects ......................... 141
  3.5 Project Roles for Resource Management ....................... 150
  3.6 Business Partners and Organizational Management .......... 158
  3.7 Evaluations ............................................................. 162
  3.8 Customizing the User Interface .................................. 169
  3.9 Summary ............................................................... 174
Contents

4 Integration Aspects of Project Portfolio Management .......... 175
4.1 Overview of the Standard Interfaces ................................. 175
4.2 Portal Integration ............................................................ 178
4.3 Object Links ................................................................. 186
4.4 Decision Flow Management ............................................. 193
4.5 Integration with Microsoft Project ..................................... 203
4.6 Integrated Portfolio Planning with SAP ERP and cProjects .... 210
4.7 Accounting Integration with SAP ERP .............................. 218
4.8 Time Recording in SAP ERP ............................................ 226
4.9 Financial Data Transfer from SAP ERP ............................. 236
4.10 Reporting ...................................................................... 246
4.11 Authorizations ............................................................... 253
4.12 Development Environment ............................................ 263
4.13 Summary ....................................................................... 266

5 Sample Enhancements for Customer-Specific Requirements .. 267
5.1 Overview of Enhancement Options .................................. 267
5.2 Numbering Objects ......................................................... 271
5.3 Defining Custom Fields .................................................... 273
5.4 Adjusting the User Interface ............................................. 277
5.5 Enhancing User Interface Semantics ................................. 281
5.6 Automating the Object Creation in SAP ERP ..................... 284
5.7 Adapting Financial and Capacity Planning ....................... 287
5.8 Transferring RPM Financial Planning to PS Detail Planning ... 291
5.9 Configuring the Project Structure ..................................... 293
5.10 Assigning and Importing Document Fields ....................... 295
5.11 Sending Notifications ..................................................... 298
5.12 Calculating Threshold Values and Key Success Factors ....... 300
5.13 Using Project Staffing for Time Recording ....................... 303
5.14 Creating Cross-System Versions ..................................... 307
5.15 Implementing the Subsystem .......................................... 314
5.16 Summary ...................................................................... 315

6 Definition of the Solution Architecture .............................. 317
6.1 Elements of a Solution Architecture ................................. 317
6.2 Goals and Requirements ................................................ 319
## Contents

6.3  Scenarios, Processes, and Responsibilities ........................................... 321  
6.4  Technical Conditions ............................................................................. 323  
6.5  Effort Estimate ......................................................................................... 325  
6.6  Summary ................................................................................................ 327  

### Appendices......................................................................................... 329  
A  SAP Notes .................................................................................................... 331  
B  Technical Object IDs ..................................................................................... 333  
C  The Authors ................................................................................................ 339  

Index............................................................................................................... 341
Before dealing with customizing for SAP Resource and Portfolio Management (RPM) and Collaboration Projects (cProjects) in detail in Chapter 2, Portfolio Management with SAP RPM, and Chapter 3, Project and Resource Management with cProjects, we start by outlining a typical requirements scenario for project portfolio management. This should make it easier to apply the standard functions of SAP RPM and cProjects that are introduced subsequently. We are also going to indicate the functions of the SAP Enterprise Resource Planning (ERP) system relevant to interaction among all three SAP products for project and portfolio management.

1.1 Requirements Scenario for Project Portfolio Management

This section outlines a project portfolio management scenario, in the form of a short description and a list of the required functions, that includes the processes usually requested by customers. This scenario comprises the processes displayed in Figure 1.1 and their interactions. The subprocesses serve as the basis for the representation of standard functionalities and the customizing of SAP RPM and cProjects throughout the rest of this book.

The following sections, from Project Initialization to Administration, describe the individual phases and steps in greater detail. In each case, we begin by describing the process and then derive the functions that a software solution should provide.

Project Initialization

Project initialization is performed by a portfolio manager or a product manager. It involves entering a project request or idea into the system and then describing it in detail. Subsequently, the individual project requests are prioritized. Decisions made at regular intervals (monthly, quarterly) determine whether or not the newly placed requests are approved and if detailed planning can be performed. Otherwise, requests are deferred or rejected outright.
Processes in a Typical Project Portfolio Management Scenario

You can derive the following software requirements from this process:

- Entry of project requests or project ideas and assignment to a specific portfolio bucket
- Automatic assignment of a unique project number upon creation
- Differentiation between various project types
- The option to define individual fields as mandatory entry fields
- Classification of the request by selecting predefined values
- User-defined text entry (for example, to describe the project objective)
- Scoring of the project request using predefined questionnaires, for example, probability of success or accordance with company strategy
- Prioritization of projects and project requests using scoring models
- Year-related planning of required funds according to cost categories
- Period-precise resource demands planning and calculation of the resulting costs
- Combination of individual project requests into programs
- Rough schedule planning for the project using a phase model
Requirements Scenario for Project Portfolio Management

- Assignment of read and change authorizations to individual employees or employee groups

Chapter 2, Portfolio Management with SAP RPM, describes in detail the configuration steps to implement these requirements using the SAP software.

**Project Planning**

Project planning is performed by a project manager. After the project request has been approved, the project manager is determined by the portfolio manager and assigned to the project. He structures the project on a phase-oriented basis and determines the scheduling situation for individual tasks. The project manager also describes resource demands in terms of both quality and quantity and sends resource requests to the resource manager.

He assigns authorizations flexibly to individual project team members in the individual project areas. The project manager can use different versions to historicize different planning statuses. In the event of changes to the operational project, he can track what was changed, by whom, and when.

You can derive the following software requirements from this process:

- Detailing of the project plan using phases, work packages, tasks, subtasks, and milestones, with the option to store a detailed description
- Maintenance of relationships between individual tasks and subtasks and of periods and scheduling restrictions in tabular and graphical form
- Bottom-up and top-down scheduling of the project plan
- Ongoing calculation of general and personnel-specific project costs, based on resource planning
- Representation of the project plan in tabular and graphical view (Gantt chart)
- Description of resources in terms of quantity (hours per week) and quality (user-defined text, selection of predefined qualifications)
- Assignment of resources to individual work packages and planning of the corresponding workload
- Saving of documents at all levels of the project
- Use of project templates
- Planning of checklists and to-do lists
- Updating of change documents within the project with the option for a direct evaluation

Chapter 3, Project and Resource Management with cProjects, describes in detail the configuration steps to implement these requirements using the SAP software.
Resource Management

The resource manager controls resource requests and assigns resources to project requests. To do this, he uses dashboards that provide an overview of the employees and a list of the requests received. The resource manager can make a direct assignment or perform a resource search according to different criteria, but only if master data (resources, qualifications, etc.) is maintained in a central database.

You can derive the following software requirements from this process:

- Central maintenance of internal and external project resources
- Maintenance of the availability of project resources, and if necessary, integration with existing personnel systems
- Setup of a qualifications catalog for a later development phase
- Maintenance of qualifications for individual employee groups
- Assignment of resources to individual departments
- Clear and easy-to-understand display of assignments of employees to projects
- Overview of free employee availability
- Staffing of resource requirements from projects by the cost center manager or resource manager
- Differentiation between various status values for a resource request
- Resource search, taking into account employee availability and qualifications

Chapter 3, Project and Resource Management with cProjects, describes in detail the configuration steps to implement these requirements using the SAP software.

Project Implementation and Time Confirmation

During project implementation, the project manager releases the individual phases together with their activities one after the other. During this process, he triggers the automatic creation of cost objects in the SAP ERP system. The employees assigned to the tasks receive an overview of the tasks they need to complete. They can maintain the current processing status and enter results in the form of documents. The employees can also use a worklist to provide a time confirmation, which makes it possible to compare planned and actual hours and costs.

You can derive the following software requirements from this process:

- Automatic creation of cost object (Project System [PS] project or internal order) in the SAP ERP system
- Linking to cost objects and purchase orders in purchase order processing
- Approval of individual phases (optional) including an approval workflow
Requirements Scenario for Project Portfolio Management

- Employee access to their tasks and delivery objects with the option to store work results
- Maintenance of percent of completion and actual start and end times
- Time recording by the project team member based on a predefined worklist
- Approval of the project time efforts recorded by the team member

Chapter 3, Project and Resource Management with cProjects, and Chapter 4, Integration Aspects of Project Portfolio Management, describe in detail the configuration steps to implement these requirements using the SAP software.

Portfolio Monitoring

Representatives responsible for all or part of the portfolio or the individual portfolio managers monitor the portfolio. This monitoring involves continuous comparison of the approved planned project values and the actual values and includes both financial planning and resource demand planning. The data from the cost objects or project plans also flows into this process.

You can derive the following software requirements from this process:

- Clear and easy-to-understand view of current projects for the entire portfolio or individual subareas in the form of dashboards
- The option to print out or download the dashboard as an Excel file for further analysis
- Definition and constant monitoring of key success factors in the areas of budget, employee workload, and project progress
- Comparison of financial planning and resources demand planning with the actual information from the cost objects in the ERP system and the current resource requirements

Chapter 2, Portfolio Management with SAP RPM, and Chapter 4, Integration Aspects of Project Portfolio Management, describe in detail the configuration steps to implement these requirements using the SAP software.

Project Monitoring

The project manager uses a dashboard to see an overview of the current status of the corresponding projects. This overview provides all the important information the project manager needs, and he can also use it to perform his own evaluations. Delays within the project are displayed using a traffic light color-coded system. Alternatively, email notifications can also be sent.

You can derive the following software requirements from this process:
Overview of Project Portfolio Management with SAP

- Clear and easy-to-understand presentation of the project manager’s current projects in the form of a dashboard
- The option to print out or download the dashboard as a Microsoft Excel file for further analysis
- The option to compare in tabular form planned and actual deadlines for individual projects
- Automatic notification in the event of missed deadlines or when certain limits are exceeded (for example, budget utilization)
- Graphic display of the scheduling situation for any number of projects in a multi-project Gantt chart
- Creation of a project status report

Chapter 3, Project and Resource Management with cProjects, and Chapter 4, Integration Aspects of Project Portfolio Management, describe in detail the configuration steps to implement these requirements using the SAP software.

Evaluations and Analyses

Along with portfolio and project monitoring, it is also necessary to run analyses on the data in the form of reports. It must be possible to call these reports both in real time and on predefined dates. The reports include evaluations of portfolio, project, and resource data. In addition to the option to personalize data, it can also be downloaded in Excel format.

You can derive the following software requirements from this process:

- Evaluations on all projects in a portfolio or subarea with regard to current status, number of active phases, and their percentage of completion
- Ratio of the number of active and inactive projects
- Financial and capacity analysis of the entire portfolio or of individual subareas with the option to compare different versions
- Analysis of the work packages of a project with regard to the scheduling situation (planned versus actual deadlines), the status (being processed versus completed), and the percentage of completion.
- Consumption of all resources or workload of employees in a resource pool
- Comparison of the planned times with the times entered by the employees
- Monitoring of key success factors

Chapter 4, Integration Aspects of Project Portfolio Management, describes in detail the configuration steps to implement these requirements using the SAP software.
**Administration**

A person who is responsible for the entire portfolio and an employee from the *Project Management Office* (PMO) perform the administration of the project portfolio management solution. In portfolio management, you can create portfolios and subareas and assign access rights. The structuring can be organizational unit–oriented or product group–oriented. Figure 1.2 compares these two portfolio structures.

You use resource management to coordinate employees by defining resource pools and assigning resource managers to them.

The following software requirements can be derived from this process:

- Definition of portfolios and portfolio buckets
- Definition of year-related settings (for example, for financial planning)
- Assignment of authorizations for individual users or specific user roles
- Creation of resource pools and assignment of resource managers
- Definition of any number of project templates with different structures
- Periodic activities such as transfer of time confirmation data or checking of resource availability

Chapter 2, *Portfolio Management with SAP RPM*, and Chapter 3, *Project and Resource Management with cProjects*, describe in detail the configuration steps to implement these requirements using the SAP software.

Now that we have outlined a typical requirements scenario for project portfolio management and used it to derive general requirements for SAP software, the following sec-
Overview of Project Portfolio Management with SAP

tions deal with the functions of SAP RPM and cProjects. They also describe the extent to which you can integrate the SAP ERP system with the modeling of your Project Portfolio Management (PPM) process.

1.2 SAP Resource and Portfolio Management (SAP RPM)

The following section outlines the RPM product history, reflects the necessary technical requirements for use, and describes in detail which processes RPM supports. The goal of the section is to familiarize you with the objects and functions.

Development History

The SAP RPM software solution has been available since 2002. It came onto the market as part of the xApp (Cross Applications) product offensive and has had several release cycles and name changes. With the current Release 4.5, the abbreviation SAP RPM stands for Resource and Portfolio Management.

The following sections outline the development of the individual releases up to the current Release 4.5 so that you can understand aspects such as functional dependencies with cProjects. Figure 1.3 demonstrates the timeline of the individual releases.

Release 1.0 included basic functions for portfolio management: project registration, resource planning, integration with Accounting and HR in the ERP system, and the option of simple reporting in the SAP data warehouse solution.

<table>
<thead>
<tr>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>♦ 1.0</td>
<td>♦ 2.0</td>
<td>♦ 4.0</td>
<td>♦ 4.5</td>
<td>♦ 5.0*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Publication Date According to Current Schedule

Figure 1.3 Timeline of SAP RPM Releases

Release 2.0 in 2004 saw an increase in the number of installations. The solution was characterized by greater integration with the SAP project management solutions, SAP Project System and cProjects, and the inclusion of idea management processes (PD = Product Definition, previously xPD). cProjects Release 3.1 arrived on the market at nearly the same time. The interaction between both products with SAP Project System provided customers with a consistent portfolio and project management solution with SAP products for the first time.

Release 4.0 (Fall 2005) harmonized the functions of SAP RPM and cProjects and eliminated redundant functions (for example, within resource management). Another focus
of this release was the layout of a standardized user interface using the Web Dynpro framework as the basis for both products. With flexible portfolio structures, finance and capacity planning, and the scoring concept for prioritizing the portfolio, it laid the functional foundations for the current solution. These changes meant a significant amount of reorientation for users, because the changes were not only superficial but also at the core of the solution. Therefore, an upgrade from RPM 2.0 to RPM 4.5 requires a migration of master and transaction data.

Release 4.5 has been available in ramp-up since December 2007. It expands the functional scope of the previous version, for example, with improved resource management, the option to generate a portfolio item overview sheet for printing, and the display of change documents. This release continued with the harmonization of the RPM and cProjects user interfaces (e.g., for dashboards). In addition to these functional enhancements and interface harmonizations, the current release also provides enhanced process integration with cProjects to enable consistent flow of data and information. This was achieved by implementing Decision Flow Management (DFM), through specific developments such as the creation of project roles in cProjects directly from RPM and by supporting an integrated version concept that provides for the creation of cProjects versions from RPM.

**Target Group**

The target group for RPM comprises those who are fully or partially responsible for project portfolios and resource managers. RPM supports the functional requirements of those responsible for the entire project portfolio or individual areas with specific views of the corresponding areas of responsibility. The monitoring and prioritization of the portfolio is enabled based on a large number of independent objects and functions. The resource manager’s needs are supported in collaboration with cProjects. The resource manager can assign employees to the individual projects while simultaneously having an overview of the employee availability.

**Technical Requirements**

SAP NetWeaver Portal 7.0 is required for the implementation of RPM. For SAP NetWeaver 7.0, you must install add-on CPRXRPM first. Installation of this add-on (for example, to an ERP or customer relationship management [CRM] system) is currently not supported. The user interacts with RPM via the portal. This requires the installation of the business package Projects, Portfolio Management and Design Collaboration and the UI component CPRXRPM_UI. By means of portal roles provided by the package and component, the user gains a user interface in the form of iViews and portal pages. The connection between the portal and the backend–installed add-on is established via a Java Connector (JCo) connection, because the RPM user interface on the Web Dynpro framework is based on Java.
Basic Concepts

Following the principles of a web application, RPM implicitly requires you to save data in nearly all user interactions. The system does not usually issue a warning message to prevent loss of data, though some exceptions exist (for example, in financial and capacity planning). Exiting the input interface triggers an explicit confirmation query.

RPM is divided into the following main areas:

- Portfolio management
- My portfolio objects
- Resource management
- Reports and analytics
- Substitute
- Administration
- User settings

To use the RPM functions, you must first log on to the SAP NetWeaver Portal. After you enter your user name and password, the system displays the main RPM areas accordingly, to the roles assigned to your user at the first, second, or third navigation level, depending on how the portal is configured. The individual functions of the RPM main areas are provided in the Views and Actions areas. Assignment of functions to the two areas is freely configurable but is based on the following principles:

- Views is used to display information on existing objects.
- Actions is used to create new objects or perform activities, for example, creating a version.

Work in RPM is always carried out within the context of a portfolio. This is represented in the Object Information area and must be selected when RPM is first called. When you navigate within a portfolio to a subarea or an individual portfolio item, this area is also displayed, making it easy for you to navigate directly to every hierarchy level within the portfolio.

You can explicitly navigate forward and backward with the arrow keys. You also have the option to view the last processing steps in the View History area.

Figure 1.4 displays processing of the existing PLM portfolio bucket. In this case, you have first selected Portfolio management at the upper navigation level and then Administration. After selecting the SAP PRESS Example IT Portfolio Mgt portfolio and an area in Object Information, you can choose the Bucket Overview view from the menu on the left of the screen. You also find different possible actions listed in the Actions area.
Dashboard

Dashboards (see Figure 1.5) provide all process stakeholders with a central point for the controlling and monitoring of all available RPM objects, including portfolio items, initiatives, collections, and reviews. The objects displayed can refer to the entire portfolio and also to subareas. They provide an overview of the most important attributes of the corresponding object and allow you to go directly to that object. To do this you need at least read-only authorization for the object.

Figure 1.5  Dashboard

Depending on the type of the object, the dashboards provide delimiting selection criteria. Among other things, these selection criteria cover the possible object attributes, ACTIVE, INACTIVE, and ESCALATED. A dashboard configuration also allows you to define the number of columns, the sorting and filter criteria, and the general display settings. You can also set print parameters. Additionally, you can save all these dashboard settings in different views, making them available immediately whenever that view is called. You can also export the data displayed in the dashboards to Excel for further processing.
The *My portfolio objects* area uses special dashboards to display only those objects for which you have sufficient authorizations (see also SAP Note 1039139).

**Overview of RPM Master Data Objects**

Before SAP RPM is described in detail, this section provides an overview of the most important components of the software in the form of its master data. RPM uses the *portfolio item*, a generic object that can take different values, as a tool when collecting and managing ideas, concepts, proposals, and projects. You can use it to collect very different information in a structured form. In addition to descriptions of scheduling, financial, and capacity data, this also means storing documents and questionnaires and metrics that can be used to score an individual item.

You can use the *initiative* object to manage several items together (for example, ideas on a new product). The ability to combine several individual projects in a single program achieves greater transparency and enables holistic management. Decision flow management also enables the collection of specific information, both individual attributes and status information, on individual items in the initiative.

To enable general viewing of the current status of individual items without providing management functions, you are provided with two further objects: *collection* and *review*. You can assign individual items and initiatives to both. Unlike a collection, which does not provide any additional functions, a review has a *scoreboard* that enables you to view the results of a questionnaire across all the relevant items. If you have limited financial and personnel resources, you can then decide what action to take based on calculated key figures.

To create items, collections, reviews, and initiatives, you must define *portfolios* and corresponding *portfolio buckets*. This is done in the *Administration* navigation area where other settings (for example, template definition) are also made. Whereas review and collection are objects that can be created and changed at any time as required, the *portfolio structures* are different. They are not intended to be changed as often and as comprehensively because they form the basis for portfolio management. Changes to the portfolio structures affect areas such as the collection of information in reporting and must be agreed to by the affected departments or portfolio managers.

You manage resource requests created in cProjects in the *Resource management* area. You do this using the *Resources view*, which displays staffing already made, and the *Staffing view*, which displays current requests from ongoing projects.

Portfolio reporting is enabled by reporting cockpits in RPM. This feature provides you with simple ad hoc reporting. For more complex evaluations, we recommend using the SAP NetWeaver BI component. Based on a data model that provides most of the data from RPM, it already includes a lot of predefined reports. On this basis, you can develop
further analyses that meet your individual requirements and that also enable you to integrate and represent information from RPM, cProjects, and ERP.

In the User settings, you can maintain a standard portfolio and define whether you want the system to display change documents. Finally, in the Substitute area, you have the option to transfer access rights for your own objects to a colleague during your absence.

Portfolio Item

RPM's portfolio item is a flexible object you can use to describe and classify ideas, concepts, and project requests. In the standard delivery, it offers many different fields (for example, for describing the scheduling situation). If necessary, you can define further fields to store customer-specific information. These fields are either provided in the special Additional Information area or included in all the other tabs, depending on the settings made. The assignment of object services to individual fields enables you to call additional functions, for example, a possible entries field for a cost center in a linked ERP system or the option to store questionnaires with item attributes. Section 5.3, Defining Custom Fields, describes in detail the steps required to do this. You can display all the master data for a portfolio item in the area of the Print Fact sheet. This area allows you to display the data for the different subareas of the item (general overview, schedule, etc.) in a PDF template and to save or print this document.

You can use the field configuration together with the field properties (mandatory or optional) to influence the number of fields that are visible to the user. Field configuration is available for every single RPM object. You can also configure the system so that it responds differently to different users, types of item, or at different points of the project cycle. Section 5.5, Enhancing User Interface Semantics, describes in detail the steps required to do this.

When you are creating an item, you can simultaneously create a cProjects project. When doing so, you can select a cProjects project template if you have already assigned the templates to the item type. Alternatively, you can create the project and make the assignment later. Linking items with the cProjects project ensures seamless transition from the portfolio view of a project to the level of operational project management and is also the requirement for later integration of the cProjects project with RPM based on decision flow management. Figure 1.6 shows a project plan being called from the portfolio management area. You can call a project plan via dynamic navigation Tasks, or you can also go directly to the roles and versions of the project assigned to the item.

You can also maintain dependencies between items. After creating a dependency, you can define a dependency type (finish to finish, start to finish, etc.) and select another item. So, dependencies to and from other items are visible for every item. Comparing planned dates also allows you to calculate the dependency risk.
You can describe an item in detail using a great deal of additional information. The points displayed in Figure 1.7 represent maximum values that you can restrict as needed and for which you can define a sequence that meets your requirements. In the standard delivery, you can define this individually for every portfolio type. If this is not sufficient, you can manage which functions are available in even greater detail. As a result, you can ensure that different roles or users have access to different functions.
Decision Points

When you are creating an item, you need to select an item type. You use the item type to determine the status at item level and the available decision points for the item. These points describe the lifecycle of an item (for example, ranging from a project idea to its implementation to its approval). Status networks are assigned to each of the decision points. You can enter planned, actual, and forecast dates for each decision point and determine durations based on this information. Comparing the individual values enables you to calculate possible delays. You can save comments on the current situation in the NOTES area. As for items, you can also add additional fields to decision points as required. You can display the timing for decision points in the phases/EP dashboard or the timeline monitor.

Figure 1.8 shows the print preview for the timeline monitor. In this example, it displays the duration of the individual decision point. It can also be called for an initiative.

You can assign cProjects phases manually to the individual decision points at portfolio level. However, it is easier if phases are linked to decision points when item types are assigned to cProjects project templates. In addition to this loose linking that enables improved transparency of the project status from the portfolio perspective, decision flow management also allows you to exchange deadline or status information in both directions. This ensures that progress at project level is transparent at portfolio level or that decisions at portfolio level are transferred to the project. Figure 1.9 shows the interaction between decision points and phases of a cProjects project.
A status change for a decision point can trigger notification of the person assigned to the project via several workflows and can also cause the automatic creation of versions. Section 5.14, Creating Cross-System Versions, describes in detail the steps required.

**Portfolios and Portfolio Buckets**

RPM provides the option to define any number of portfolios and lower-level portfolio buckets (see Figure 1.10). The structure can be geared towards the company organization, for example, or reflect sales markets or product categories. You should remember that items must generally be assigned to the lowest portfolio level and can only be moved within a portfolio. Upon creation, the system checks whether the user has the ADMIN authorization at portfolio bucket level.

**Portfolio Structure of Buckets**

Below is the structure for managing your portfolio items. Each portfolio level can contain either sub-buckets or items. You can view the structure as a hierarchy or as a list.

<table>
<thead>
<tr>
<th>Structure</th>
<th>Bucket Name</th>
<th>External ID</th>
<th>Status</th>
<th>Date Created</th>
<th>Last Update</th>
<th>Updated by</th>
<th>Parent Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SAP Press Example IT Portfolio</td>
<td>SPM001</td>
<td>Active</td>
<td>20080520</td>
<td>7/16/2008</td>
<td>GLATZKEMER</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAP Solutions</td>
<td>SPM001_01</td>
<td>Active</td>
<td>20080820</td>
<td>7/15/2008</td>
<td>GLATZKEMER</td>
<td>SAP Press Example IT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPM001_01_01</td>
<td>Active</td>
<td>200809</td>
<td>7/16/2008</td>
<td>GLATZKEMER</td>
<td>SAP Solutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPM001_01_01_01</td>
<td>Active</td>
<td>200809</td>
<td>7/15/2008</td>
<td>GLATZKEMER</td>
<td>SAP Solutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPM001_01_02</td>
<td>Active</td>
<td>200809</td>
<td>7/15/2008</td>
<td>GLATZKEMER</td>
<td>SAP Solutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPM001_01_02_01</td>
<td>Active</td>
<td>200809</td>
<td>7/16/2008</td>
<td>GLATZKEMER</td>
<td>SAP Solutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPM001_02</td>
<td>Active</td>
<td>200809</td>
<td>7/16/2008</td>
<td>GLATZKEMER</td>
<td>SAP Solutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPM001_02_02</td>
<td>Active</td>
<td>200809</td>
<td>7/16/2008</td>
<td>GLATZKEMER</td>
<td>SAP Solutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPM001_03</td>
<td>Active</td>
<td>200809</td>
<td>7/16/2008</td>
<td>GLATZKEMER</td>
<td>SAP Solutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPM001_01_03_01</td>
<td>Active</td>
<td>200809</td>
<td>7/16/2008</td>
<td>GLATZKEMER</td>
<td>SAP Solutions</td>
</tr>
</tbody>
</table>

**Figure 1.10 Portfolio Structure in SAP RPM**

Unlike the portfolio item and the portfolio bucket, the portfolio object itself does not provide separate financial and capacity planning. Therefore, you should define at least one portfolio per portfolio bucket at the highest level. You can perform budgeting for the individual portfolio buckets by configuring the different planning views. When doing this, you can use the planning data from the portfolio items or the initiatives that have been aggregated in another view as the basis for portfolio bucket planning.

**Initiative, Collection, and Review**

In addition to the defined portfolio structures, RPM also provides the initiative, collection, and review objects, which you can use to gain an overview of several items. These objects support you when you are researching various issues. This section describes the corresponding usage scenarios and the functions provided.

Unlike collection and review objects, the initiative object is used not only to group individual items, but also to manage them. You either assign existing items to it, or you link new items to it when you create them. In terms of the type and scope of the available fields and functions, you find no significant differences compared to the portfolio item.
You can additionally store a description and maintain participants in the Stakeholder area. You map the identified stakeholders using roles to which you assign users and the relevant start and end deadlines. This is not the place to maintain capacity requirements, although these requirements can be reflected using roles in cProjects. This is described in detail in Section 1.3, Collaboration Projects (cProjects).

The additional benefit of the initiative is that it can be used as a further planning and aggregation level. In the Financial and capacity planning area, at initiative level you can accumulate the values maintained at item level. The initiative cannot be used to accumulate information. However, for the item you can perform separate planning and then compare it with the values of the assigned items.

Figure 1.11 shows the assignment of portfolio items to an initiative.

In addition to the initiative, RPM provides two other objects for flexible grouping of items: the collection and the review. Like items, collections can be assigned only to the lowest portfolio level. In contrast, reviews and initiatives can be assigned to any area. After any of these three objects is called, you are provided with an item dashboard that gives an overview of the current status of the individual projects.

**Example of Integrated Financial and Capacity Planning**

After you create an initiative, financial and capacity planning is performed. After an initial authorization level, the individual items are created. After separate planning, the values are aggregated and compared with the planned values for the initiative. In a subsequent step, you can perform project planning for the individual items in the corresponding projects in cProjects. This data is used to calculate planned costs that are transferred to a linked PS project. This data can be displayed again at item level and at initiative level after aggregation. By using different views, you can differentiate between the following values at initiative level: directly planned values, values that have been accumulated from items, or information that has been integrated from ERP.
You can compare the total score for the individual items using the scoreboard provided for the review. After the individual scoring models have been selected, they are sorted according to the overall result. The attributes assigned to the scoring model are also displayed. When you have finished analyzing the objects that are assigned to the review, you complete the review itself by changing the status. Figure 1.12 shows the scoreboard.

**Figure 1.12  Scoreboard**

### Questionnaires, Scoring Models, and Metrics

You valuate an item using questionnaires and scoring models. You can include these together with search help functions via object services that you assigned to default and customer-specific fields in the configuration.

When configuring the questionnaires, you need to define questions, weight them, and provide the possible answer options for each question with a scoring value. The results for the different questionnaires can then be summarized using scoring models. The results of a questionnaire are then converted back to a scoring value and weighted to provide an overall result. Table 1.1 displays an example of this scoring.

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Weight</th>
<th>Weighted value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic benefit</td>
<td>8</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>Strategic orientation</td>
<td>7</td>
<td>30</td>
<td>21</td>
</tr>
<tr>
<td>Probability of success</td>
<td>5</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total weighting</strong></td>
<td></td>
<td></td>
<td><strong>71</strong></td>
</tr>
</tbody>
</table>

*Table 1.1  Example of a Scoring Model*

Defining metrics enables you to perform flexible querying of information, such as planned revenues or expected savings, and to calculate the corresponding key figures. You can also define different views, for example, to compare planned, actual, and forecast values. In addition to the manual entry of metrics, you can also fill metrics automatically with information from other sources. You can compare different data sources to make trend forecasts. Because metrics provide for entry of customer-specific informa-
tion without the need for additional development work, you should make use of them. They are not restricted to RPM only; you can include them in cProjects, too.

Financial and Capacity Planning

For each item, you can perform financial and capacity planning and compare it with resource information from cProjects and financial data from the ERP system. Both types of planning are performed within the categories and groups defined in the context of the system configuration. This provides you with a two-level hierarchy. Different views also enable you to compare different planning types. You have the option to plan manually, and you can also perform a comparison with data from the ERP cost object or cProjects resource information. For example, in the area of financial planning, you can display planned and actual costs, commitment values, budgets, and revenues from projects and internal orders. To perform this sort of comparison you need to have created an external object link to the portfolio item. When a report is executed on the ERP side, the system first copies the information from the cost object to the RPM system and then transfers it automatically to financial planning. Within resource planning, resource demands and staffing for the cProjects project assigned to the item are included in the resource planning views when another report is executed.

Financial and capacity planning give you the option to retain an overview of the detailed data of the cost object and the cProjects project and also enable you to compare the data with planning statuses at the portfolio level. Figure 1.13 uses an example to demonstrate how several views provide analysis options at all levels (portfolio bucket, initiative, and item).

After you have created links to cost objects in the SAP ERP system, you can not only transfer the data to financial planning, but also display it in the Financial reporting cockpit. You can choose what cost information available for the item, such as planned or actual costs, is displayed. You can also run the evaluation in tabular and graphical form.

![Table: Financial Planning](image)

### Example of Financial Planning

![Figure 1.13](image)
Authorizations

Authorizations are issued for objects in RPM via access control lists (ACLs). This function is supported for the following objects:

- Portfolios
- Portfolio buckets
- Portfolio items
- Decision points for a portfolio item
- Initiatives
- Collections
- Reviews

ACLs provide for an assignment of individual users or user roles and a classification of the corresponding user rights. The possible options are Administrator, Person responsible, Write, Read, or None. Inheritance of authorizations is transferred from hierarchically higher objects down — for example, from an item to the decision point(s). You can override these inherited authorizations at any time. If there are hierarchically lower objects, the adjusted values are also taken into account upon subsequent inheritance. Figure 1.14 shows how you can maintain authorizations directly in an item and overwrite hierarchically inherited authorizations.

![Access Control List](image)

**Figure 1.14** Access Control List

In addition to these authorization settings made directly in the application, you also have the option to assign read or write authorizations, for example, to individual users at the portfolio or item level using a special RPM authorization object. The assignment is made directly in the user master.
**Document Storage**

RPM provides two different options for storing documents: the **Attachments and links area** or the creation of a **collaboration room**.

In the **Attachments and links area**, RPM enables you to link to the knowledge management area of SAP NetWeaver Portal. This is where you can freely define storage structures, assign authorizations, and use other settings such as personal notes or scores.

Alternatively, you can create a collaboration room for an item. You can use this space to store documents, but you can also use functions specific to the virtual spaces, including the option to create tasks and assign them to other colleagues. The collaboration room can be accessed via the item itself or via a separate start page (**My collaborations**).

**Versioning**

You can create an edit-proof **version** of the item (including its most important information) at any time. This procedure copies the master data together with decision points, questionnaires, and financial and capacity planning. This form of versioning is called a **snapshot version**.

Alternatively, you can also create a **what-if version**. This type of versioning is called a **simulation**. In contrast to snapshots, you can make changes in these kinds of versions. That means that you can perform alternative scorings of questionnaires or adjust financial and capacity planning. This ability is relevant if you want to perform an alternative scoring of the project portfolio because of changed outline conditions.

When creating a snapshot or a what-if version, you can also create a cProjects version directly for the cProjects project assigned to the item. The system supports creation of both snapshots and simulations in cProjects.

**Resource Management and Capacity Planning in cProjects**

In a cProjects project that you have assigned to an item either manually or automatically, you perform project planning and, therefore, describe the required resources, via project roles. These roles describe the requirements from both a quality-based and a quantity-based perspective. You plan capacities in cProjects in weeks, months, or generic intervals in the form of freely definable time units. So, the use of generally applicable qualifications catalogs enables you to proceed in a structured manner when specifying required employee skills and knowledge. You can define them directly in cProjects or transfer them from an ERP system.

You can create the project roles manually in cProjects. However, optionally, the cProjects project template used when creating items can include predefined roles. You have already created project templates, and therefore template project roles, in advance during your general administration activities.
If you want the capacity requirements estimated during capacity planning to serve as the basis for your resource planning in cProjects, you can perform a one-time transfer of the RPM planned values to the cProjects project. To do this, you select the category, the category group, and a capacity view and then determine whether you want to add roles that already exist in the cProjects project or add new roles. This form of integration makes sense if you want to use capacity planning to specify a binding upper limit for your operational resource planning. At the same time, automatic creation also ensures data integrity.

As the person responsible for the project, you can implement the staffing of the project roles in cProjects yourself. If you do not want to do so, you have the option to trigger an extended staffing process, which can be mapped by a dedicated resource manager, such as a cost center manager. The assignment of the resource manager is carried out per project role or, alternatively, on a cross-role basis at the cProjects project definition level. RPM supports this extended staffing process by providing the staffing dashboard, in which the resource queries are shown per project and role. You can use the resources dashboard to view the workload on employees who are working on projects directly or who are assigned via the extended staffing process.

**Staffing Dashboards**

You manage resources with the help of *staffing dashboards*, into which (unlike other dashboards) you can also enter data directly. You have two different options for drilling down through the resources staffing dashboard and the resource view. Both views have the same settings options. For each of them, you can choose the display period (*Start Date/End Date*), the *Allocation unit* (hour, day, week), and the *Period Breakdown* (month/week). Remember that you can plan directly in the dashboard only if the period drilldown is identical with that for the corresponding project roles as specified at the cProjects project definition level. You can delimit the selected data using filters. Depending on the view, you can do this for the projects or employees to be assigned. You can store the determined filter criteria and define a standard value that is used when calling the corresponding dashboard.

The resources staffing dashboard shows the resource manager all the projects to be staffed. It displays the project roles and if applicable also employees who have already been assigned. When selecting a project or a role, you switch to cProjects, where you can perform staffing. Alternatively, you can select a role within the dashboard and assign a person to it, if necessary as a candidate. When a resource manager is staffing, only employees that are assigned to the resource manager are available. Also, a distinction is made between a fixed booking (*hard booking*) and a reservation (*soft booking*). Employees who have only been reserved can be hard booked in the resource dashboard with the *hard booking* function.

Within the dashboard, you can directly enter the capacity assigned to the role for every employee. Alternatively, you can use an automatic distribution function to distribute a...
total amount over a freely definable period. The total demand, remaining demand, and the total assignment of employees are displayed per period for the whole schedule. Icons also indicate whether individual periods or entire periods are assigned fully, too much, too little, or not at all. The system summarizes the information from the roles and projects to one single total line in the dashboard. The top level indicates immediately the extent to which the employees can meet the requirements sent to the resource manager and whether or not bottlenecks are going to occur in staffing project roles (see Figure 1.15).

Figure 1.15 Resources Dashboard – Role View

The resource view enables you to perform a workload analysis for individual employees that are assigned to individual projects or roles. For the individual assignments, you can maintain a capacity to be provided per selected period and unit. A net availability is calculated based on the total availability of the individual employees. Icons and a totals line are provided just as they were in the resource staffing dashboard. You can see the workload situation immediately for individual employees and for all employees (see Figure 1.16).

Figure 1.16 Resources Dashboard – Person View
Prerequisites for Using the Staffing Dashboard

In general, resource planning in RPM and cProjects requires the existence of resources in the form of business partners. You create these either in the Administration navigation area of RPM or manually in the RPM/cProjects backend. In contrast to qualification information, you can maintain availability data in the portal. Alternatively, you can create it automatically using an ALE (Application Link Enabling) interface. This procedure ensures that the master data for the HCM (Human capital Management) components of the ERP system and the RPM/cProjects solution is identical, significantly reducing the workload for manual data entry.

To use the resources dashboard, you must meet two further requirements. First, you must define resource pools. Then in the Employee or Resource Manager characteristics, you assign business partners to them. You can make these settings either in the portal or, alternatively, in the backend using the organization model. The resource managers also receive authorizations regarding displaying employees and their qualifications. This is done with structural authorizations, which we explain in Section 3.6, Business Partners and Organizational Management.

Reporting in SAP RPM and SAP NetWeaver Business Intelligence (BI)

The reporting cockpit is integrated directly with RPM. You can call reports in interaction with different objects in the solution, for example, for the entire portfolio, individual portfolio buckets, collections, reviews, or initiatives. In administration, you have the option to configure both the form of the graphic evaluation and the structure of the table overview. The reporting cockpit provides you with a real-time overview of the items and initiatives existing in the portfolio in the form of an integrated reporting system. For more complex evaluations and analyses of larger data quantities, we recommend using SAP NetWeaver Business Intelligence (BI).

SAP NetWeaver Business Intelligence is part of the SAP NetWeaver application and integration platform. RPM and cProjects both provide BI with their data in the form of business content. Multidimensional InfoCubes are filled using a data extraction process. In RPM, this process can be repeated several times a day and enables you to analyze constantly updated data. Based on many predefined reports, you can evaluate the data in very different ways. The reporting environment of SAP NetWeaver Business Intelligence enables you to expand these reports or define new ones. Figure 1.17 shows the standard evaluations included in the Reports & Analytics RPM navigation.
Administration, Substitute, and User Settings

In addition to the functions for resources and resource pools already described, the administration area enables you to create teams that you can use when setting up resource pools. You can also define your portfolios, the area structure within the portfolios, and templates for items and initiatives. Remember that you must invalidate the RPM cache when changing RPM-relevant Customizing settings. You can find the relevant function in the dynamic Cache Administration navigation area. This is also where you can enable logging for communication between the portal and the backend and can activate debugging, which can be useful if you want to carry out error analyses in individual cases.

**Figure 1.17** Reports and Analytical Functions in RPM

In the Substitute navigation area, you can define a substitute for objects for which you have administration authorizations. This function is supported for portfolios, portfolio buckets, portfolio items, collections, and reviews. Currently, the initiative object is not taken into account.

To display change documents, you must define in the configuration which objects you want to include in logging. The following objects are supported:
Overview of Project Portfolio Management with SAP

- Portfolios
- Portfolio buckets
- Items
- Decision points
- Reviews
- Collections
- What-if scenarios
- Relationships between the different xRPM objects
- Available financial and capacity categories for portfolio buckets and items

In the user settings area, you must also confirm in parallel that you want the system to display the updated change documents. You also configure the standard portfolio that you want to be used when RPM is called.

1.3 Collaboration Projects (cProjects)

cProjects and cFolders form the cProjects Suite solution, although both products can also be used independently. The following sections describe the functions and options of cProjects in detail and deal with cFolders only in passing when it is included in integrated scenarios.

Development History

The development of cProjects must be viewed against the background of SAP Project System. By Release 4.6c, SAP PS already had wide-ranging functionality and was closely integrated with other ERP components. This made sense and was a requirement for mapping complex projects that required integration with neighboring components. The variety of functionality became an obstacle, however, when running projects that required fewer functions and placed greater importance on ease of use. This obstacle was the genesis of the cProjects solution: A product was needed that would complement PS and make SAP more attractive to an extended user group.

The first product version of cProjects 1.0 was developed in 2001. A completely new solution was created based on the CGPL Engine, which was already being used in marketing planning (Campaign Planning) in CRM. To ensure ease of use, a web interface was developed based on the Business Server Pages (BSP) technology. This represented a fundamental paradigm shift in terms of the technology used because SAP Project System was designed as a classic, transaction-oriented SAP GUI application. cProjects 2.0 first made cProjects available to customers in September 2002. Phase-based project planning with role-based resource planning created the foundations for later product versions.
The next release, cProjects 3.0 (June 2003), was the first to provide the option to create an internal order as a cost object from cProjects. Replication of the cProjects project in PS was possible only with the installation of the cProjects add-on in a CRM system. This form of integration is no longer supported by SAP and is mentioned here only for the purpose of completeness. The release of cProjects 3.1 (June 2004) saw the creation of external interfaces for all cProjects objects. An upload option was added to the download interface for MS Project Client. Creation of project versions and a project status report and the inclusion of SAP Document Management System (DMS) also represented the most important functional additions.

cProjects 4.0 (October 2005) came onto the market at the same time as RPM 4.0. From a technical perspective, the conversion of the user interface to Web Dynpro for ABAP was the highlight of this release. The most important functional enhancement was the implementation of new and significantly improved accounting integration. This offered automatic creation of or linking to internal orders and projects without the use of CRM middleware. Another important development point was the implementation of a new Java Gantt chart, including a print function.

cProjects 4.5 was added to the ramp-up at the same time as RPM 4.5 in December 2007. In addition to various functional improvements, the options for the Gantt chart were significantly improved. The implementation of a multiproject monitor gave users the opportunity to perform graphical analyses of several projects or programs and their various dependencies. Other additions were conversion of evaluations to the Web Dynpro technology, graphical display of availabilities for individual employees, and capacity requirements in the resource area. Improvements were also made to the integration with Microsoft Project. Figure 1.18 provides an overview of the individual release times.

<table>
<thead>
<tr>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>2.0</td>
<td>3.0</td>
<td>3.1</td>
<td>4.0</td>
<td>4.5</td>
<td>5.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Publication Date According to Current Schedule

**Figure 1.18** Timeline for cProjects Releases

**Target Group**

cProjects is a solution for collaborative project management. Therefore, it is geared towards project participants rather than project managers. These participants include the resource manager and other project stakeholders who require access to the current project status, managers who make resources available, and the employees involved in the project. The objective of cProjects is to provide a standard platform that meets the planning and information needs of all project participants. This explicitly includes external partners who are also working on the project.
Technical Requirements

Unlike RPM, cProjects requires only a browser. Currently, only Internet Explorer is supported. You can also find further information (including supported browser versions) in the product availability matrix.

When using the application in the browser, you can provide the functions listed in the last section by assigning them to SAP authorization roles. An authorization role is used for every required combination of the cProjects functions. If cProjects is used in the portal, this task is taken on by portal roles and assignment to the corresponding portal pages (referring to the cProjects functions). To enable this, however, you need the business package described in Section 1.2, SAP Resource and Portfolio Management (SAP RPM), Projects, Portfolio Management, and Design Collaboration, as a technical requirement.

Because cProjects can link to ERP objects, for example, internal orders or WBS elements, the SAP GUI for HTML (ITS) is used for calling transactions in these cases. Object links can be maintained in parallel in any number of ERP systems. The installation of a complete SAP GUI is necessary only to enable an application consultant to configure the system or to maintain or check master data. All the other process participants work in the Web-based browser.

Basic Concepts

Like SAP RPM, cProjects is a Web-based solution. You are expected to explicitly save your data. Every time you leave a page without saving, the system asks you if you want to save your data. Unlike SAP Project System, which is based on traditional SAP GUI technology, cProjects is based on the Web Dynpro framework for ABAP.

cProjects significantly expands the user group addressed by SAP solutions in the project management environment because it focuses on supporting both business-oriented project activities and operational project and resource management. This support was achieved by creating a completely new application that was integrated with an existing ERP landscape wherever practical, meaning that functions that already existed did not need to be developed again. One example of this sort of function is time recording with Cross Application Timesheet (CATS), which has been available for many years but which is also possible via cProjects.

cProjects is divided into the following functional areas:

- Projects
- Tasks
- Checklist items
- Approval
Control plans
Evaluations
User groups
Templates
Substitution
Versions

When you select a functional area, the system displays the corresponding dashboard (except SUBSTITUTION). Depending on the selected view, the dashboard displays your assigned objects, favorites, or objects that you are processing as a substitute for colleagues. You can personalize every dashboard in various ways, including for the following aspects (see Figure 1.19):

- Select columns, filters, and sort criteria
- Restrict the number of displayed lines and columns
- Influence the graphical display of the dashboard (the way in which the columns and lines are displayed)
- Print parameters

![Personalization Options](image)

**Figure 1.19** Personalization Options

cProjects provides three different display types depending on the object:

- The **Detail view** groups all the information available per object onto tabs.
- The **Tabular view** displays different information for several objects simultaneously.
Overview of Project Portfolio Management with SAP

- The **Graphical view** displays the scheduling situation in a Gantt chart together with the most important detailed information in table form.

**Structuring Options for a Project in cProjects**

Unlike hierarchical structuring in the form of project structure planning, cProjects is based on the principle of **phase-based project management** (see Figure 1.20). A project is initially structured beneath the project definition using phases. Work packages are assigned to these phases in the form of tasks. These tasks can be described in further detail by subtasks, and there are no restrictions on the maximum depth of the structure and the number of objects it contains. **Mirrored tasks** are a special type of task that represents a link to a task in another project. **Milestones** are tasks that are highlighted in the Gantt chart.

![Structure of a Project Hierarchy in cProjects](image)

**Figure 1.20** Structure of a Project Hierarchy in cProjects

Additionally, **checklists** provide the option of checking the results of individual project phases using checklist items. They can be assigned with tasks that describe the activities required to satisfy the checklist item. Tasks without subtasks and checklists can be assigned to the project definition. This is useful if they are both phase-independent and cover the entire project duration.

You create project roles so that you can assign employees to individual objects. These provide an abstract description of the resource demand and can also be used to define which individuals are included in a project and to what extent.
Project Definition and Phases

The project definition is the highest-level object in the project structure. When creating a project, you must select a project type defined in the configuration. Among other things, this type controls which functions are available to the user within the project, and the behavior of individual fields. Mandatory entry of a restriction to the project start or end calculates a possible start or end date if bottom-up scheduling has been selected. Alternatively, you can also perform top-down scheduling. You make this setting in the project type.

In addition to helping you to structure a project, phases also enable you to carry out an explicit approval process. Therefore, for each phase, you must select a phase type that defines if approval is required or if you can end the phase by changing the status. It also regulates in detail if a phase is approved despite individual rejections. To perform an approval, you must assign decision makers. These must be assigned to a project role that you use to define the decision maker. When this work step is finished, you start the approval process. This creates an approval document that contains information for the processed phase and can be used as the basis for a decision.

The decision maker can make a selection in the approval dashboard and then either grant or reject an individual approval. In addition to the approval document the decision maker can branch to the structure of the phase to be authorized. He can add comments to the decision, but must enter the respective password to sign the comments. The decision is automatically visible in the phase.

Tasks, Milestones, and Checklists

Tasks describe work packages. You define their planned duration and scheduling restrictions using start and end deadlines. You model dependencies between tasks or subtasks using relationships. These exist in the form of "start-start", "start-end", "end-start", and "end-end" relationships and can be maintained in the detail screen for the individual tasks or graphically in the Gantt chart.

Taking into account planned task durations, relationships, and restrictions, scheduling determines the scheduling situation for the individual tasks. If you have selected bottom-up scheduling, deadlines for the tasks are summarized by phase level in the project definition. In a top-down variant, the start and end deadlines of a phase apply as restrictions that tasks assigned to a phase cannot exceed. Figure 1.21 shows the Gantt chart for a project and the relationships of the individual tasks.

In addition to the duration, you also maintain the planned work in the task. When you are assigning roles and possibly their employees, you define the scope in which the planned work is taken on by the assigned roles or employees. Only after release can you maintain actual work, actual deadlines, percentage of completion, and remaining work.
In addition to manual maintenance, you can also transfer this information automatically from time recording in the ERP system.

Tasks can function as milestones. For them to do so, you must indicate them as milestones in additional data. This affects how they are displayed in the project hierarchy and the Gantt chart. You also have the option to indicate tasks as mandatory. If these tasks have not been processed at the beginning of phase approval, you cannot start approval. To process tasks, you can access them either via the project or — where the tasks are assigned to individuals — via the Tasks view. This gives every employee an overview of all the activities assigned to them.

Checklists and checklist items display open item lists for a project either generally or for specific phases. After selecting a project role, you can assign employees to it as persons responsible. They can then access their objects via the Checklist Items view.

Project Roles

Project roles describe the resource demands in a project. A role can be based on a project team member’s required experience and qualifications or on the organizational units that need to collaborate in the project. You can either perform full planning for a specific period or plan capacities for individual intervals. Alternatively, you can perform planning based on the tasks assigned to the project roles. For this link you also have the option to maintain start and end deadlines and the required capacity. The system then calculates a workload per interval and transfers it to capacity planning. Another option is the use of a distribution function, which enables you to distribute total requirements over a time interval. To determine the planned costs based on the planned requirements, you must select a predefined cost rate per role. Alternatively, you can enter different cost information.

Along with the quantity description of resource demands and the assignment of roles to tasks, you have the option to select qualifications and define their characteristics. You can maintain the qualifications catalog and the profiles of individual employees in
cProjects or adopted from the HCM component of the ERP system. To describe the role in further detail, you can enter notes or add documents. You perform role staffing in an extended staffing process as described in the previous section or directly to the role. You can assign several employees to a role in parallel and define what capacity the individual resources provide. Depending on the requirements planning, this is done either as a total or by period. You can view availability for each person and workloads from other projects. You can also mark an assignment as a reservation (soft booking). Figure 1.22 shows the assignment details for a person in graphical and tabular form.

If it is not immediately clear which employee should be assigned to the role, you can also create a list of possible candidates and contact those candidates (for example, via email). After receiving a positive response, you can hard book the corresponding candidate. If you also want to consider account availability, comparisons of employee qualifications with requirements, or organizational assignment during resource assignment, you can make use of a comprehensive resource search. You can use the results list for the search to assign employees to the role or to include them in the candidate list.

**Threshold Values and Status Maintenance**

You can assign threshold values to the individual objects manually or have them calculated based on formulas. Threshold values represent limits. If values exceed or fall below these limits, you must check to determine whether subsequent actions are required.
One example of a threshold value is 90% consumption of a project budget. Threshold values can be summarized using the project hierarchy and based on the severity. In this way, discrepancies for individual tasks can be viewed directly in the project definition. Checking can be performed manually when the project is saved or at regular intervals with the scheduling of a report. Threshold violations can optionally trigger an alert that notifies you in the form of an email.

Many predefined project status values are provided for every object in the project hierarchy. In addition to these system status values, you can also define your own user status values. You use these to control which activities are permitted. You can release tasks, for example, to trigger their processing.

**Document Management with cProjects**

cProjects provides two options for managing your project documents. You can do this within your project structure by storing documents in any required cProjects object. This is a simple form of document storage through which you can create document versions and assign individual authorizations for every document. When creating documents, you can access document templates that are managed centrally in the Templates area. This supports standardized project processing. From a technical perspective, the documents are stored in SAP NetWeaver via the Knowledge Provider Interface (KPRO). Alternatively, you can also use this interface to connect a separate content server. On the other hand, virtual spaces and cFolders are two solutions for collaborative document management.

To use collaboration rooms, you must run cProjects in the portal because virtual spaces are a functional component of the portal. cProjects enables the creation and deletion of virtual spaces, but not their assignment. If you also want to work together with external partners on documents created over the course of the project, we recommend cFolders. These provide you with the option to create collaborations and assign them to cProjects objects. Alternatively, you can use existing collaborations. In both variants, documents can be exchanged in either direction without any requirement to run cProjects and cFolders on the same technical platform. This has a double benefit because you can make documents available to an external user group while simultaneously avoiding the security risk of direct access to your cProjects system. External partners using cFolders also have no need to access your project plan directly. You can issue authorizations for document access exclusively within cFolders.

**Object Links**

To enable integration with linked ERP systems, you can create object links for many objects in cProjects. In addition to the assignment via direct entry of the object ID, you also have the option to search for ERP objects, including the following:
Collaboration Projects (cProjects)

Project definition
- WBS element
- Network
- Network activity
- Activity element
- Material
- Maintenance order
- Customer quotation
- Sales order
- Internal order
- Cost center

In addition to the listed objects, you can define additional links to objects in very different systems. Object links can be created simultaneously in several ERP systems. The requirement for this capability is that you identify every ERP uniquely within configuration. You can display detailed information directly for every object and also display additional information by calling a transaction. This way you determine which transactions are available for each object.

Authorization Assignment

Just as with RPM, cProjects supports access control lists (ACLs) for the following objects:
- Project definition
- Phase
- Task and subtask
- Checklist and checklist item
- Document

You can assign appropriate authorizations to users, user groups, SAP authorization roles, and organizational units. If you are repeatedly assigning the same access rights to the same users, we recommend that you make use of user groups as long as authorizations are being assigned within cProjects. You have the option to create and change these at any time in the User groups area. User groups can cover any number of users, user groups, SAP authorization roles, or users assigned to an organizational unit.

Authorizations are inherited in the same way as in SAP RPM. You can overwrite the inherited authorizations in lower level objects at any time. Alternatively, assigning users to a project role in the Resources tab also enters them automatically into the ACL for the project definition.
Integration with Accounting

The integration with the accounting of your ERP system is carried out with the automatic or manual creation of cost objects and the creation of cost planning based on planned resource demands. This integration is called *multilevel controlling*. Figure 1.23 shows an example where the multiple roles are linked to individual WBS-elements of a product. According to the role or task structure, internal orders and projects are created with your WBS elements in your ERP system or assigned manually to a cProjects project. The calculation considers the following:

- Planned work for the tasks
- Work for the assigned roles
- Planned workload for the employees assigned to the roles

![Figure 1.23 Assignment of a cProjects Role Structure to an ERP PS Project](image)

The valid cost rates for the objects listed previously (task, role, employee) are taken into account during the calculation. You can view these rates within cProjects, and they are transferred to the cost objects as an *easy cost planning*. Because the calculation contains only personnel costs, you can plan other cost elements in the Accounting area by calling the calculation assigned to your cost object and supplementing the planning. Even if you have not created or assigned a cost object, you can analyze the costs of the project with an ad-hoc calculation. Because a revenue rate is also assigned to every cost rate, you can also estimate expected revenues for revenue-generating projects.

Status Reports

*Status reports* are used for document-based display of the current project situation (see Figure 1.24). The technical basis is Adobe Interactive Forms. These forms are used to define a layout that is filled with data from the cProjects project when a report is created. You can also amend this data manually. You can save the document and, if required, send it as an email attachment in the same step. Further, you can view all the created status reports at any time in the Status reports area.
Versioning

You create versions within the cProjects project or, alternatively, in the Versions area. cProjects differentiates between two different types of versions: snapshot versions and simulations. Snapshots fix project statuses at a certain point in time and cannot be changed. In contrast, simulation versions can be created based on operational projects, but can then change the project plan within the simulation. When you are creating a version, you must generally select a predefined version header. Because version headers are valid only for a defined period, you can ensure that project versions for different projects are always created for a specified period, which makes sense if you want to create monthly project reporting, for example. In this case, you can also use a report that enables automatic creation.

cProjects provides you with the option to compare operational projects, snapshots, and simulations. The emphasis here is on comparing structures, not on analyzing changes in the resource area. Therefore, only structural changes are considered when you are transferring a simulation to an ongoing project.

Project Templates, Checklist Templates, and Document Templates

You can create a cProjects project with reference to a project template, ensuring a standardized project procedure. You also have this option available if the project is created manually or automatically from a portfolio item. You can create project templates with reference to existing templates, based on previous projects, or without any reference at all. The structure is comparable to that of operational projects, but it does not contain checklists because these have a separate template type. You can include checklists by creating a reference to a checklist template.

Like operational checklists, checklist templates comprise individual checklist items and, possibly, assigned tasks. You integrate checklists with the project templates via a reference. In this way, you change checklists only directly in the checklist template, not in the project templates that link to the checklist.
You can save documents in a project template in the Documents area. However, to do this, you must change the documents manually in all project templates. Therefore, we recommend that you use document templates. In this case, you first define a folder hierarchy to make the templates more manageable. Documents are stored within this hierarchy. The system supports managing several content versions. Within an operational project, you can access document templates in the Documents area. After selecting a document, you copy it to the operational project and continue to edit it. Figure 1.25 displays a folder structure with assigned templates.

**Figure 1.25  Folder Structure for Templates**

**Evaluations**

With its evaluation cProjects provides independent reporting (see Figure 1.26). It enables the analysis of data for an individual project or a version (snapshot or simulation) in tabular form. Evaluation layouts provide you the option to define the objects to be evaluated, and they are also used to define the columns in the report. If you know the project to be evaluated, you can enter it directly. If you do not know it, you can use comprehensive search functions that support searches according to various different criteria. After selecting the report, you can start an analysis based on the current data. In addition to displaying the project hierarchy and a corresponding selection of fields, the system determines whether threshold violations have occurred.

**Figure 1.26  Project Evaluation with cProjects**
Evaluations allow you to go directly to cProjects and to export all data or just the currently displayed data to Microsoft Excel. A graphical display of the information or comparison of different versions is supported only by SAP NetWeaver BI.

**Change Documents and Notes**

cProjects documents changes to the project structure and the project roles by creating change documents. The system also updates the change time, the user who performed the changes, and the old and new value of the changed field. When you display the change documents, you can define a period within which the changes have been performed. For example, you can display changes made over the last two weeks and trigger subsequent activities outside of cProjects, if necessary. Every user can activate the display of change documents in their user settings.

However, if you want to maintain just a manual change history, you have the option to store notes for all cProjects objects. After you save the data, it is stored with the user ID, date, and time and can no longer be changed. Notes document decisions within the project and improve traceability for all project participants. You can print or save them as a PDF document at all times.

**1.4 SAP Project System (SAP PS)**

If you use RPM and cProjects to reflect a wide and varied range of requirements, then you must continue to use the ERP system for many different processes. You can create them from cProjects. This section provides a brief overview of the most important objects (cost objects) and functions that can help you understand the integration of RPM and cProjects with accounting.

**Introduction**

Cost objects are used to control costs and manage plans within the ERP system. These are needed during cost planning, budgeting, time confirmation, and the entry of actual costs. Simple plans that do not need to be subdivided for cost controlling can be controlled using internal orders. For more complex activities that need to be divided into different work packages, SAP Project System and its work breakdown structure (WBS) enable a hierarchical structuring. You can also use networks with their activities and activity elements as cost objects. Figure 1.27 shows a WBS structure that uses hierarchical controlling to reflect the roles of a cProjects project.
If you use RPM for portfolio management and cProjects for project management, then you must use cost objects in ERP to enter actual costs and implement time confirmations. Cost objects are also required if you want to perform cost planning and budgeting in addition to your financial planning in RPM. The financial data for the cost object is transferred to financial planning in interaction with RPM. The system supports internal orders and projects with their WBS elements and networks.

cProjects allow the automatic creation of internal orders and projects with WBS elements. Networks are not created, because time-based process planning is performed solely in the cProjects project. The following section describes the most important subfunctions to better explain the integrative aspects of RPM and cProjects with cost objects in the ERP system.

**Technical Requirements**

The functions described in the following sections are based on SAP ERP Release 6.0. These functions were already available in almost exactly the same form in previous versions. The cost objects and RPM are integrated in the area of financial planning. Uploading of planned and actual costs, commitments, budgets, and revenues is performed via the `RPM_FIN02` report. This report is provided via a plug-in from R/3 Release 4.6c to ERP Release 5.0. It is provided directly from ERP Release 6.0 onward.

In cProjects, multilevel controlling enables you to create cost objects and fill the worklist in the timesheet. On the ERP side, Release 6.0 is a minimum requirement for this capability. Sections 5.6, Automating the Object Creation in SAP ERP, and 5.13, Using Project Staffing for Time Recording, describe alternative solutions for creating projects and filling the worklist in CATS.
Cost Planning

Cost planning can be performed in different ways in the ERP system. A prerequisite for this is that you indicate the cost object as planning relevant and that it can be planned based on its status. If you do not intend to perform period-based or cost-based planning, you can use overall planning. After selecting an internal order, project, or an individual WBS element, you can enter planned costs per cost object. You can do this on a year-related basis or as an overall value.

Cost element/activity input planning enables you to perform cost planning per period and cost element. You can also perform a unit costing. For example, you can calculate the material costs for a material cost element using the material prices stored in the system. You can calculate work costs by selecting the cost center and activity types. To combine both pieces of master data, you must first plan fixed and variable cost components per period so that they can be used during calculation.

Easy cost planning uses a template-based planning approach (see Figure 1.28). Predefined costing models enable you to enter specific values and answer individual questions based on templates. Derivation rules use this information to calculate planned costs and determine the cost elements to be used. You can display the result of the calculation and, if necessary, add further planning lines manually.

For all cost planning, you can create different planning statuses using CO (Controlling) versions. You are also provided with functions for copying these versions.

![Figure 1.28 Easy Cost Planning](image-url)
Financial planning in RPM is not the same as other forms of cost planning in ERP. Whereas planning in RPM is performed in an early phase of the project lifecycle, detailed cost planning in ERP is usually performed only after approval of the plan and the associated creation of one or more cost objects. In this context, cProjects provides you the option to create cost planning automatically as easy cost planning and fill it simultaneously with personnel costs based on resource planning. Through later integration in RPM of the ERP planning data created in this way, you can compare different cost planning results, thus enabling you to compare your initial rough cost estimates with later, more detailed planning results.

**Budgeting**

In addition to cost planning, you also have the option to perform budget planning, during which you specify the budget per cost object either completely or per year on a cost element–independent basis. You can use availability checks for different business processes to issue warnings or error messages when postings are made to the cost objects.

Budgeting supports many different detailed functions, such as budget supplements, returns, releases, and the option to display individual documents. You therefore have a range of effective tools at your disposal. Even if financial planning in RPM can also be called a sort of budget planning, these two types of planning differ significantly. In RPM you can compare the planned budget with the actual costs and the commitments. If, however, you require active availability checking and partial releasing of budgets, then you need budget planning in the ERP system.

**Actual Costs and Commitments**

Actual costs and commitments (expected actual costs from purchase orders) can arise from many different business processes. They could arise from the payment of an invoice in accounting where a WBS element is specified as the account assignment object or from the creation of a purchase order for which entering an internal order creates a commitment. Along with these primary actual costs and commitments, you can generate secondary actual costs because of postings within Controlling, for example, all the activities of a cost center that a WBS element provides.

**Time Confirmation**

Time confirmation for projects is performed in the timesheet (CATS, Cross Application Timesheet). This feature enables you to post to many different objects in the ERP system, including internal orders and projects. You use a data entry profile to manage the input interface. When using CATS in the portal, you can use the record work time Employee Self-Service (ESS) scenario. It uses the Web Dynpro frameworks for Java and integrates
seamlessly with the RPM and cProjects interfaces. The requirement for this is that your
users work with a single data entry profile, because assignment of the data entry profile
is made to the user master record and cannot be changed by the user.

**Reporting**

Comprehensive reporting is provided in the ERP system for the evaluation of projects
and internal orders. This enables you evaluate master data and perform detailed analysis
of costs, budget, commitments, and actual values. You have the option to analyze data
on a cost-element basis or a period-specific basis. When you compare this functional-
ity to the reporting cockpit in the RPM system and evaluations in cProjects, you find a
difference, because here you can display master data or individual posting documents
depending on the report type. You also need authorizations to display the cost object
in the ERP system, and you might need to define a separate authorization logic in SAP
NetWeaver BI.

**Special Functions of Project Controlling**

As mentioned previously, SAP Project System provides many special functions for
controlling and checking plans. These are required in particular for running complex
projects, partly because they need deep integration with the rest of the ERP envi-
ronment, partly because business reasons make them indispensable. These functions
include the progress analysis and the milestone trend analysis (MTA). In the SAP stan-
ard system these functions are initially available only for projects that are processed
with SAP PS.

You can also conceivably use the ERP progress analysis in projects that are reflected in
both cProjects and ERP. The progress analysis determines the percentage of comple-
tion using measurement methods. You can use a measurement method exit in the ERP
system to determine the percentage of completion from the work progress within a
cProjects project. Subsequent calculation of the completion values involves multiplying
the percentage value by the planned costs that are planned in the ERP cost object. The
milestone trend analysis can be displayed in SAP NetWeaver BI as a graphic based on
versioned milestone data from cProjects.

**1.5 Summary**

This chapter provided an initial overview of a typical requirements scenario in the
environment of portfolio management. In the subsequent sections, you learned about
the core functions of the RPM and cProjects solution and the relevant ERP subareas for
a holistic scenario. Now that you are conversant with the basic scope of functions, the
following chapters provide you with the opportunity to customize RPM and cProjects to meet your individual requirements.

We recommend that you carry out the configuration steps described here in your own system, if possible. Depending on your process preferences, you can continue reading about portfolio management (Chapter 2, Portfolio Management with SAP RPM) and project and resource management (Chapter 3, Project and Resource Management with cProjects). When you have finished with Chapters 2 and 3, Chapter 4, Integration Aspects of Project Portfolio Management, provides an overview of standard integration of both components with your solution environment.

Chapter 5, Sample Enhancements for Customer-Specific Requirements, provides you with ideas on how to round off the standard functions described. Chapter 6, Definition of the Solution Architecture, describes the aspects that you must consider when determining the solution architecture and that serve as the basis for estimating workloads.
Index

A

Access control lists (ACLs), 34, 49, 65, 278, 306
Account assignment determination, 230, 305
Account assignment manager, 218
Account assignment object, 133, 285, 304
Accounting, 50, 53, 176
Accounting integration, 133, 220
Activation, 276
ActiveX plug-in, 204
Activity input planning, 55, 216, 241
Activity type, 55, 216, 241
Actual costs, 54, 56
Actual Costs YTD, 73
Additional authorization, 153
Ad-hoc calculation, 225
Ad-hoc version, 313
Administrator workbench, 249
Adobe Document Services (ADS), 137
Adobe Interactive Forms, 50
Aggregation, 167
ALE distribution model, 228
ALE interface, 38, 159
Answering option, 92
API function module, 269
Append structure, 274
Application component hierarchy, 249
Approach, 317
  hierarchy explosion, 243
  hierarchy level, 219
  hierarchy tree, 302, 307
  multilevel controlling, 218, 225, 236, 285, 304
Approach to run a project, 293
Approval, 136, 137
Approval document, 45, 125, 136
Approval process, 45, 137, 235, 303
Area, 71
ASAP model, 325
Assignment of authorizations, 255
Attribute, 162
Attribute change, 294
Attribute of the scoring model, 96
Attribute synchronization, 199
Authorization, 57, 278
  structural, 161
Authorization activity, 84, 283
Authorization analysis, 161
Authorization check, 262, 286, 313
Authorization concept, 253, 256, 281
Authorization list, 255, 261
Authorization object, 34, 126, 255, 279
Authorization profile, 161, 254, 256
Authorization roles, 42, 49
Authorization synchronization, 200
Availability, 157
Availability check, 56

B

BAdI, 264, 267, 271
BAdI definition, 265
BAdI method, 264
BAPI, 228
Baseline version, 287
Base project system, 206
BEx Analyzer, 253
BEx Query Designer, 252
BI component, 26
BOR object, 270
Bottom-up, 131, 305
Bottom-up planning, 76
Browser, 42
Browser language, 185
Bucket rollup source, 103
Budget planning, 56
Budget status, 73
Buffer table, 232
Business Add-In, 114, 264
  DPR_ATTRIBUTES, 294
  DPR_EVE_ATTRIBUTES, 302
  DPR_EVENTS, 299
IAOM_DET_CO_SCENARIO, 224
HRBAS00_GET_PROFL, 161
HRBAS00_STRUAUTH, 161
PRP_BUPA_CUST_FIELD, 160
PRP_STAFF_ORG_UNITS, 161
/RPM/DECISION_POINT, 309
/RPM/FIN_CAP_PLAN, 291
RPM_FIN_IF_IN, 241, 290
RPM_FIN_INTF, 217, 241, 290
/RPM/ITEM_API, 277
/RPM/OBJECT_SERVICES, 184, 283
RPM_OBJECT_SERVICES, 271
Business partner, 38, 125, 158, 304
number, 306
role, 158
Business process scenario, 317
Business requirement, 267
Business transaction, 201

C

Calculation, 50, 151, 221
Call sequence, 310
Candidate, 36
Candidate list, 47
Candidate Manager, 153
Capacity category, 100, 105
Capacity distribution, 151, 155
Capacity group, 100, 155
Capacity planning, 33, 46, 99, 176, 216, 287
Capacity view, 101, 105
Category, 33
CATS, 56, 132, 233
Classic, 233
component, 226
for Service Providers, 234
Regular, 234
Regular (ITS), 234
cFolders, 48, 148
cFolders interface, 149
CGPL engine, 71
Change document, 39, 53, 83, 124
Change history, 298
Change management, 298
Charting group, 105
Checklist, 46, 128, 208
Checklist item, 46, 208
Checklist template, 51
Checklist type, 138
Check on threshold values, 167
CI structure, 170, 274, 276
Class
CL_CGPL_VERSION_HEADERS, 312
CL_DPR_DEMO_SUBSYSTEM, 315
CL_DPR_PHASE_O, 301
CL_DPR_PROJECT_O, 295
CL_DPR_TASK_O, 295
CL_PRP_RESOURCES, 304
IF_DPR_APPL_BOOTSTRAP_MEMBER, 314
IF_DPR_APPL_PLUGIN_IN_SUBSYSTEM, 314
/RPM/CL_PORTAL_CONTEXT, 283
Classification, 138
Client adjustment, 59
Client-independent, 86
CO account assignment object, 230
Collaboration, 41, 48, 130, 149
Collection, 26, 31
Column heading, 163
Commitment, 56
Communication language, 185
Comparability, 90
Composite role, 256
Configuration activity, 317
Confirmation objects, 229
Confirmation process, 229
Confirmation worklist, 228
Consistency check, 68
Controlling area, 292
Controlling method, 224, 230
Controlling scenario, 219, 223
Control plan, 130
Control profile, 70
Cost category, 100, 213
Cost center, 55
Cost distribution, 151
Cost element, 55
Cost element independent, 56
Costing model, 55
Cost object, 33, 50, 53, 212, 219, 238, 240, 304
Cost planning, 55
Cost rate, 50, 138, 151, 213
CO version, 55, 213
cProjects development history, 40
cProjects Suite, 40
cProjects version, 35
Criteria value range, 96
Currency key, 61, 108
Currency translation, 240
Custom field, 173, 274, 277, 289, 312
Custom field grouping, 277
Custom tab, 87, 172

D
Dashboard, 25, 281, 302
Dashboard configuration, 25
Dashboard field, 88
Data analysis, 20
Data control, 292
Data distribution, 187
Data element, 276
Data entry period, 306
Data entry profile, 57, 231
Data extraction, 251, 297
Data extraction process, 38
Data input frequency, 303
Data origin
metric, 113
Data quality, 302, 303
Data retrieval, 290
DataSource, 246
Data Storage Objects, 249
Data type
metrics group, 111
Data volume, 104, 248
Decimal figure, 276
Decimal number, 61
Decimal place, 276
Decision Flow Management, 26, 27, 70, 176, 193, 303
Decision maker, 45, 137
Decision point, 29, 69, 303, 309
Default authorization, 152
Default time unit, 128
Define data flow, 317
Define information flow, 317
Delta Link, 181
Delta update, 292
Dependency, 292
Dependency status, 74
Dependent field attributes, 71
Detail planning, 292
Dimension, 61
Display layout, 279
Display property, 277
Display sequence, 173
Distribution function, 36, 46, 157
DMS, 141, 143
Document, 130, 141, 295
document header, 296
document management system, 141, 142
document storage, 48, 130, 141
document template, 52, 296
document type, 141
document version, 297
download, 296
Domain, 272, 276
Download, 204
Dropdown list, 62
Dynamic navigation, 61, 181, 282

E
Easy cost planning, 55
Effort estimate, 317
Effort factors, 325
Enhancement, 169
Enhancement concept, 248
Enhancement framework, 264
Enhancement spot, 264
Enterprise logo, 122
ESS scenario, 236
Evaluation, 52, 162, 283
Evaluation attribute, 162
Evaluation engine, 162
Evaluation hierarchy, 166
Evaluation layout, 168
Evaluation object type, 165
Extended staffing process, 36, 154
External alias, 146
Index

Extract, 167
Extraction logic, 241
Extract layout, 166
Extractor, 247

F
Factory calendar, 101
Field configuration, 27, 85
Field control, 84, 85, 169, 276
Field enhancement, 276
Field group, 172
Field label, 276
Field property, 84
Field service, 81
Field service configuration, 66, 90
Field setting, 85, 169
Filtering, 294
Final Value Indicator, 110
Financial category, 100, 105, 288
Financial data transfer, 177, 237, 291
Financial group, 100, 288
Financial planning, 33, 56, 99, 176, 287
Financial reporting cockpit, 33
Financial view, 101, 105
Fiscal year variant, 292
Flexible assignment, 152
Flow control, 303
Function module, 228, 247, 264

ACL_MODIFY, 284
BAPI_BUS2001_CREATE, 286
BAPI_BUS2001_GETDATA, 292
BAPI_BUS2172_SNAPSHOT_CREATE, 312
BAPI_BUS2175_GET_DETAIL, 305
BAPI_CONTROLLING_AREA_GETDETAIL, 292
BAPI_COSTACTPLN_POSTPRIMCOST, 292
BAPI_INTERNALORDER_CREATE, 286
BAPI_PROJECT_GETINFO, 286
BAPI_PROJECT_MAINTAIN, 286
BAPI_TRANSACTION_COMMIT, 292
CATS_FILL_INTERFACE_CPR, 236
IDOC_INPUT_RPMFIDATA, 290
KAUF_ORDER_CHANGE_BAPIFIELDS, 286
NUMBER_GET_NEXT, 272
READ_TEXT, 299

/RPM/DECISION_POINT_DISPLAY, 303
/RPM/DECISION_POINT_MODIFY, 303
/RPM/FIN_CATEGORY_GETLIST, 289, 292
/RPM/FIN_GROUP_GETLIST, 289, 292
/RPM/FIN_GROUP_MODIFY, 289
RPM_GET_FICO-details, 238
RPM_GET_FIRPM_LINK_PARAMS, 238
/RPM/ITEM_DISPLAY, 303
/RPM/ITEM_GETLIST, 281, 282
/RPM/ITEM_MODIFY, 303
/RPM/ITEM_VERSION_CREATE, 312
/RPM/ITEM_VERSION_HDR_DISPLAY, 312
/RPM/ITEM_VERSION_HDR_GETLIST, 281
/RPM/ITEM_VERSION_HDR_MODIFY, 312, 313
/RPM/OBJECT_LINK_MODIFY, 287
/RPM/PORTFOLIO_GETLIST, 281
/RPM/SAVE_CHANGES, 289
SAVE_TEXT, 299
SO_NEW_DOCUMENT_ATT_SEND_API1, 298

G
Global setting, 62, 101
Group, 33

H
Hardware requirement, 318
HCM integration, 227
Header line, 122
HTML-encoded, 299

I
Icon, 168
IDoc, 242
IMG, 60
IMG activity, 60
IMG Activity cProjects
Activate Change Documents, 124
Activate Forms per Project Type, 125
Activate Integration, 220
Assign Authorization profiles to Users, 161
Assign Extract Layouts to Project Types, 167
Assign Forms for E-mail and Groupware Communication, 158
BAdI PDF-based Forms, 126
BAdI Deactive Object Types, 127
BAdI Hide Tab Pages, 130
Create Authorization Profile, 161
Create/change Status Profile for User status, 124
Create Status Profile, 141
Define Absolute URL for calling cProjects, 121
Define Attributes and Object Types for Evaluation, 162
Define Checklist Types, 138
Define Cost/Revenue Rates, 221
Define Display Details for Business Partner, 159, 160
Define Evaluations, 168
Define Extract Layouts, 166
Define Field Groups for Customer Fields, 173, 277
Define Initial Views for cProjects, 123
Define Locations, 125
Define Number Ranges (Business Partner), 158
Define Object Links for Accounting Integration, 220
Define Object Links for Documents in DMS, 142
Define Object Links for Object Status Reports in DMS, 143
Define Permitted Version Numbers, 139
Define Phase Types, 136
Define Priorities, 139
Define Process, 139
Define Project Reason, 139
Define Project Role Functions, 155
Define Project Role Types, 150
Define Project Types, 126
Define Severity, 168
Define Staffing Actions, 158
Define Task Types, 138
Define Threshold Values, 168
Define Time Units, 124
Edit External IDs for the WebDAV Entry Objects, 144
Edit Scales, 162
Make General Interface Settings, 122
Make General Settings, 221
Make General Settings for Distribution, 155
Make Settings for Calling an SAP Transaction, 193
Make Settings for the Linked SAP Objects, 190
Make Settings for the WebDAV Interface, 145
Make Settings in ERP System, 223
Project Role Type for Project Type, 136
Replicate Accounting- Relevant Characteristics, 223
Replicate Cost/Revenue Rates, 222
Save User Data in SAP Memory, 161
Service for an Object Type, 190
Set Up Field Control, 169
Set Up Integration of HR, 159
Show Additional Tab Page in cProjects, 172, 280
Specify Text Languages, 124
Stipulate RFC Destination for Collaboration, 149
Synchronize Project Roles to Staffing Type, 155
IMG Activity SAP ERP
Assign Cost Elements and Activity Types, 225
Create and Change Controlling Scenario, 223
Define Controlling Scenario, 223
Settings for Easy Cost Planning, 225
Set Up Data Entry Profiles, 231
IMG Activity SAP RPM
Activate Change Document, 83
Assign Fields to Tab Pages, 87
Assign Item Type to a cProjects Project Type, 70
Assign Key Figure to Metrics and Metrics Value Types, 113
Assign Metrics Value Type to Metrics Groups, 112
Assign Status Icons to Customer Fields, 98
Check Global Settings, 63
Index

Check Object Types and Supported Structures, 85
Common System Configuration and SAP FI-CO ALE Setup, 242
Configure cProjects Object Link Type for Portfolio Processes, 189
Create PDF-Based Print Forms, 83
Customize Organization Type, 243
Customize Value Types, 243
Define Area, 72
Define Capacity Units, 62
Define Currencies, 108
Define Customer-Specific Execution Mode for Synchronization, 198
Define Custom Field Configuration, 85, 89, 99
Define DFM Object Link Types, 196
Define Financial and Capacity Categories, 100
Define Financial and Capacity View for Front-End Configuration, 104
Define Financial and Capacity Views, 101
Define Financial Capacity Settings for Portfolio Types, 104
Define Financial Planning Settings, 212
Define Initiative Types, 76
Define Item Dependency Status, 74
Define Key Figure Groups, 116
Define Key Figures, 114
Define Location, 72
Define Metrics, 111
Define Metrics Groups, 110
Define Metrics Value Types, 112
Define Navigation, 182, 280
Define Object Field Icons, 97
Define Object Header, 88
Define Object Link Type Groupings, 189
Define Object Search, 80
Define Object Status Values, 67
Define Object Types, 107
Define Period Types, 62
Define Portfolio Item Alerts, 72
Define Portfolio Item Categories, 71
Define Portfolio Item Types, 68
Define Portfolio Types, 64, 77, 78, 86
Define Print Forms per Object Type, 84
Define Quantities, 108
Define Questionnaires, 89
Define Scenario Classification for What-If, 78
Define Scenario ID, 199
Define Scenario Types for What-If, 78
Define Scoring Models, 95
Define Services, 81
Define Units of Measurement, 61
Edit Objects for Substitution, 79
Execution Mode for Synchronization of Objects, 198
Financial Object Link Types for Hierarchical Processing, 243
Maintain Asynchronous Options, 198
Maintain Attributes for Synchronization Scenarios, 199
Maintain DFM Activities, 200
Maintain DFM Business Transactions, 201
Maintain Field Mappings, 199
Maintain Objects for Synchronization, 197
Maintain Object Synchronization Structure for Object Link Type, 199
Maintain Object Synchronization Structures for Object, 199
Map Business Transactions for Synchronization, 201
Map DFM Activity to xRPM/cProjects Activity, 200
Map DFM Business Transaction to xRPM Status, 202
Map Item Template to cProjects Template, 70
Map Item Type to cProjects Project Type or Project Template, 70
Map xRPM/cProjects Activity to DFM Activity, 200
Map xRPM Status to DFM Business Transaction, 202
Override Default Global Settings, 63
Portfolio-Independent Settings, 62
SAP FI-CO System ALE Setup, 242
IMG Node, 60
Basic Settings for Project Roles, 150
Forms for Printing and for Project Status Reports, 125
Structural Authorization, 161
IMG Node cProjects
Accounting Integration, 220
Assign Fields for Export from cProjects, 209
Basic settings, 121
Basic Settings for Resource management, 158
Documents, 141
Global Enhancements to Project Elements, 169
Metrics Management, 108
Settings for the WebDAV Interface, 143
IMG Node SAP ERP
Approval Procedure, 235
Controlling, 223
IMG Node SAP RPM
Application Object Settings, 186
Currencies, 61
Customizing for SAP FI-CO, 243
Decision Flow Management Settings, 194, 198
Forms for Printing, 83
Global Customizing, 61
Global Field Settings, 85, 87
Key Figure Monitor, 113
Map SAP cProjects Fields to Base System Fields, 209
Metrics management, 106
SAP Financial and Controlling Integration, 242
Status Synchronization, 201
IMG sub-activity, 60
IMG Sub-Activity cProjects
Assign Fields to Field Groups, 172
Authorization Profile Maintenance, 161
Conditions That Influence Field Control, 171
Customer Fields for Field Group, 173
Customer-Specific Display Elements, 160
Default Authorizations For Project Role Type, 152
Field Control According to Additional Conditions (per Field), 172
Field Groups Per Project Type, 173
Fields per Frame, 192
Fields per Object Type, 192
Frames per Object Type, 192
Group in Accordance with Authorization, 171
Mapping of Attribute Value to Icon, 165
Name of Class in SAP System per Object Type, 191
Object Category in Field Control, 171
Objects for Attributes, 166
Project Role Types Per Project Type, 152
Restrict Project Element Types, 191
Secondary Object Categories, 165
Service for an Object Type, 192
Subattributes, 164
Table/View in the SAP System per Object Type and Meth, 191
Validity/Details, 221
IMG Sub-Activity SAP RPM
Assign Fields to Groups, 87
Assign Financial Capacity Entities to cProjects Rate, 213
Budget Groups, 73
Capacity Charting Groups, 105
Capacity Groups, 101
Customer Capacity Fields Override, 105
Customer Financial Fields Override, 105
Decision Point Status, 69, 76
Decision Point Status & Next Statuses, 69, 76
Decision Points to cProjects Phases, 70
Field Configuration, 89, 99
Field Mapping to a cProjects Object, 210
Financial Charting Groups, 105
Financial Groups, 101
Item Status and Next Item Status, 70
Item Type to cProjects Templates, 70
Item Type to Project Type, 70
Link Definition, 182
Link Group Elements, 183
Link Groups Definition, 182, 183
Linking Item Type and Decision Points, 69
Link Initiative Type and Decision Points, 76
Link Portfolio Type to Capacity Category, 105
Link Portfolio Type to Capacity View, 105
Link Portfolio Type to Financial Category, 105
Link Portfolio Type to Financial View, 105
Map Authorizations for Synchronization, 200
Map Decision Points, 76
Map Financial Views to Cost Elements, 212
Map Financial Views to cProjects Role
Index

Function, 215
Map Link Groups to Object Context, 183
Options, 92
Portfolio Add-On to Object Link Types, 188, 189
Portfolio Fields Override, 86
Portfolio Item Decision Point Override, 86
Priority Groups, 72
Question Groups, 91
Questionnaire, 90
Questions, 91
Ranges – Currency, 96
Ranges – Numeric, 96
Ranges – Text, 96
Replace Portfolio Fields, 86
Review Status, 77
Review Status – Next Statuses, 77
Risk Groups, 73
Schedule Groups, 73
Scoring Model, 95
Scoring Model Attributes, 96
Select Item of Initiative Type, 76
Settings for Integration Processes, 188, 189
Sponsor Field Portfolio Type Override, 105
Staffing Groups, 73
UI Configuration, 85
What-If Status, 78
Implementation
approach, 319
effort, 317
partner, 320
Implementation guide, 60
Implicit enhancement, 264
Inbound processing, 290
Individual approval, 45, 137
Individual object authorization, 261
Influencing value, 232
InfoCube, 250
InfoPackage, 251
InfoProvider, 249
Inheritance, 34
authorization, 49, 65
Initial view, 123
Initiative, 26, 30, 75
Initiative type, 76
Integrated portfolio planning, 211
Integrated version creation, 309
Integration option, 175
Integration scenario, 317
Interface table, 238
Internal order, 53, 219, 224, 286
Invalidate cache, 61
Item dependencies, 27
Item template, 196
Item type, 29
Iterator, 166
iView, 180

K

Key figure, 32, 106, 114, 116
Key figure definition, 114, 116
Key figure monitor, 108, 117
Key figure report, 116, 117
Key success factors, 300

L

Leading system, 285
Lifecycle, 29
Line item, 291
Link group, 183
Link ID, 183
Link Type, 182
Location, 71, 125
Logical system, 187
Logon language, 61, 68, 185, 283

M

Main authorization, 153, 200
Maintenance effort, 256
Maximum structure, 256
Measurement methods, 57
Menu path, 60
Message type, 242
Metadata replication, 249
Method, 270
ADD, 312
AFTER MODIFY, 310
ATTRIBUTE MODIFY, 310
BAPI_<BOROBJ>_OBLINK_ADD, 287
BEFORE MODIFY, 310
CHECK, 294
DELETE TASK, 295
FREE, 314
GENERATE EXTERNAL ID, 272
GET ALL TASK, 295
GET ATTRIBUTES, 302
GET DATA EXT, 295
GET_FILE, 296
GET_FILE_IN_TABLEVIEW, 296
GET INSTANCE, 314
GET NAVIGATION_GROUPS, 184, 283
GET PERMITTED_USER_STATUS, 295
GET_SEQUENCE_PLACE, 315
GET_USER_OBJECT_ID, 283
GET_WORK_LIST, 304
ITEM_UI_CONFIG_MODIFY, 278
NEW_DOC_CREATE, 297
NEW_VER_CREATE, 297
ON_COMMIT_CHANGES, 311
ON_EVENT, 300
PREPARE_TO_SAVE, 301, 302, 311, 314
SAVE, 314
SEARCH_OBJECTS, 190
SET_DATA_EXT, 295, 301
SET_USER_STATUS, 295
TRANSFERCPR, 228
Metric, 32, 111
Metrics calculation, 113
Metrics group, 110
Metrics management, 106
Metrics recalculation, 113
Metrics Unit, 111
Metrics value type, 112
Milestone, 46, 303
Milestone trend analysis, 57
Mirrored task, 128
MS Project, 176, 203, 208
information, 207
integration, 129
MS Project file, 205
MS Project resource, 209
personnel number, 208
phase, 208
project role assignment, 209
resource assignment, 209
team member, 208
upload, 204
Multiclient concept, 187
Multiple configuration, 295
Multiproject management, 302
Multi-project monitor, 129

N
Naming convention, 86, 260
Navigation group, 283
Navigation level, 24
Next status, 68
Note, 53
Notification, 298
Number format, 186
Numbering, 271
Number range buffer, 272
Number range interval, 272
business partner, 158
WebDAV, 144
Number range object, 145, 272

O
Object authorization, 255, 283
Object context, 281
Object creation, 285
Object field icon, 97
Object field symbol, 98
Object for time recording, 307
Object header, 87
Object lifecycle, 67, 76
Object link, 33, 48, 130, 176, 186, 284, 285, 305
Object link type, 191, 277
Object Manager, 107
Object model, 269
Object navigation, 280
Object reference, 295, 300
Object search, 79
Index

Object service, 192
Object status, 67
Object type, 71, 107, 165
Optimization potential, 320
Organizational assignment, 72
Organizational structure, 160
Organizational unit, 49, 154, 221
Organization type, 243
Overall planning, 55

P

Parameter ID, 236
PDF form, 83
PDF template, 27
Percentage of completion, 45, 57, 73
Percent of completion, 298, 301
Period breakdown, 66
Period drilldown, 36
Period schema, 291
Period type, 62
Personalization, 184
Person days, 61, 318
Personnel number, 227, 304, 306
Person view, 26
Phase, 45, 126, 128
Phase approval, 132
Phase type, 45, 136, 207
Pilot phase, 318, 321
Planned Costs YTD, 73
Planned work, 45
Planning
portfolio type-dependent, 104
Planning combination, 104
Planning cycle, 291
Planning period, 66
Planning process, 101
Planning restriction, 78
Plan view, 101, 287, 288
Portal component, 276
Portal Drive, 147
Portal navigation, 61, 255, 257
Portal page, 180
Portal Page ID, 183
Portal role, 179, 255, 257
Portfolio, 26, 30, 64
Portfolio bucket, 26, 30
Portfolio bucket structure, 65
Portfolio control, 72
Portfolio item, 26, 27
Portfolio item alert, 72
Portfolio item grouping, 75
Portfolio item status, 86
Portfolio item type, 68
Portfolio manager, 19
Portfolio monitoring, 19
Portfolio prioritization, 307
Portfolio reporting, 26
Portfolio structure, 26
Portfolio subset, 77
Portfolio type, 64
Post exit, 296
Post processing logic, 309
Prefix, 273
Primary cost planning, 244, 292
Print fact sheet, 27
Print form, 83
Print template, 136
Prioritizing, 77
Priority, 139
Procedure
  hierarchy level, 24
  multi-level controlling, 50
  multilevel controlling, 54
Process, 139, 321
Process analysis, 323
Process chain, 251
Process stakeholder, 317
Process step, 321
Product availability matrix, 324
Product development process, 193, 294
Product family, 72
Program flow logic, 267
Progress analysis, 57
Project assignment, 231
Project category, 128
Project charter, 130
Project creation, 27
Project dashboard, 135, 168
Project definition, 45
Project execution, 298
Project hierarchy, 46
Project idea, 29, 317
Project implementation, 18, 303  
Project initialization, 15, 59  
Project initiation, 285  
Project list, 306  
Project management, 21, 44, 121  
Project manager, 19  
Project planning, 17  
Project planning process, 293  
Project proposal, 69  
Project proposal process, 69  
Project reason, 139  
Project role, 35, 46, 150  
  function, 155  
  type, 150  
Project scope, 319  
Project staffing, 304  
Project staffing process, 135  
Project status, 48  
Project structure, 126, 293  
  configuration, 294  
Project team member, 160  
Project template, 51, 70, 196, 286, 293  
Project text, 124  
Project time, 305  
  approval, 306  
  recording, 150, 226  
Project time effort, 19, 132, 226  
Project type, 45, 69, 70, 126, 196  
Proposal flag, 69  
Prototype, 317  
Prototyping, 320

Q

Qualification, 46, 135, 150, 160, 162  
Qualification group, 162  
Qualifications catalog, 46, 162  
Quantity structure, 317, 318, 324  
Quantity units, 108  
Query, 249, 252  
Question, 91  
Question group, 91  
Questionnaire, 32, 89  
Questionnaire score, 90  
Questionnaire template, 90

R

Range of score, 320  
Rate, 230  
Rate determination, 222  
Receiver account assignment, 305  
Reference attribute, 164  
Refresh time, 145  
Region, 125  
Relationship, 45  
  MS Project, 208  
Release, 138  
Release status, 304  
Release version, 140  
Relevant for approval, 138  
Remaining work, 45  
Replication, 219, 222, 249  
Report, 20, 33, 48, 51, 52, 60, 117, 155, 289  
  DPR_CATS_CPR_TRANSF, 236  
  DPR_CUST_FLD_MAP, 170, 276  
  DPR_EVE_BATCH_DPO, 167  
  RCNSAVVS, 312  
  RHACENI, 159  
  /RPM/BUCKET_ROLLUP, 211  
  /RPM/CAP_PLAN_INT, 211, 238  
  RPM_FIN02, 54, 237, 239, 240, 243, 244, 290  
  RPM_FIN02_PERFORMANCE, 239  
  /RPM/PLAN_INT, 211, 238, 291  
  RPM_ITEM_CONsolidate, 245  
  /RPM/MIGRATION_CATEGORIES, 65  
  /RPM/PLAN_INT_PREP, 211, 241, 245  
  RPM_UPDFI01, 238  
  RSEOUT00, 244  
Reporting, 57, 246  
Reporting cockpit, 26, 38  
Requirements, 17  
Requirements catalog, 319  
Requirements scenario, 15  
Rescheduling, 77  
Reservation, 47  
Resolve summarization, 164  
Resource availability, 160  
Resource demand, 33, 46  
Resource management, 18, 121, 158  
Resource manager, 17, 160  
Resource planning, 318
Index

Resource pool, 38, 154
Resource search, 135
Resources staffing dashboard, 36
Responsibilities, 255
Responsibility matrix, 322, 323
Revenue rate, 138, 151
Review, 26, 31, 77
RFC connection, 187
Risk status, 72
Role function, 214
Role view, 304
Rough planning, 291
Rounding error, 96
RPM cache, 39, 61
RPM role, 183
RPM time units, 243
RPM value type, 217, 243

S

SAP field configuration, 85
SAP GUI, 42
SAP menu, 60
SAP Note, 26, 93, 138, 142, 168, 201, 204, 220, 263, 265, 283
SAP PD, 178
SAP Project System, 53
SAP status management, 67
SAP user role, 254, 256
Scale, 162
Scenario, 321
Schedule, 301
Scheduled dates, 73
Schedule status, 73
Scheduling, 45, 131
Scheduling result, 295
Scheduling sequence, 74
Scheduling Type, 131
Scoreboard, 26, 77, 78
Scoring model, 32, 93, 95
   example, 94
   usage, 93
Scoring scale, 92, 96
Screen design, 279
Screen element, 277
Search help, 79, 174, 277
   custom specific, 98
Secondary cost element, 216, 243
Secondary object type, 165
Sending cost center, 230
Service, 27, 277
Severity, 134, 167, 168
Simulation, 77, 308
Single role, 256
Snapshot, 35, 51, 140
Soft booking, 47
Solution architecture, 315, 317
Sort sequence, 278
   financial category, 101
   status, 67
Source Grouping, 198
Source/Target of the Data, 103
Sponsor field, 105
Staffing action, 158
Staffing dashboard, 36
Staffing manager, 153
Staffing process, 152
Staffing status, 73, 154
Staffing view, 26
Stakeholder, 31, 318
Standard Customizing, 59
Standard portfolio, 27, 65
Start status, 68
Status
   change, 67, 309
   group, 69
   icon, 69
   ID, 67
   management, 124
   numbering, 67
   profile, 125
   synchronization, 201
Status report, 50, 125, 131
Status sequence, 69
Subattribute, 164
Subproject, 128
Substitute, 27, 39, 79
Subsystem, 300, 301, 314
Summarization, 163, 211
Summary task, 129
Synchronization, 273, 303
  horizontal, 195
  vertical, 195
Synchronization cycle, 205
Synchronization direction, 198
Synchronization type, 195
System coupling, 284
System landscape, 317, 325
System performance, 276

T
Table inconsistency, 276
Table maintenance, 272
Table view, 280
Target application, 235
Target group, 23, 41
Target Grouping, 198
Targets, 317, 319
Task, 45, 128
  authorization, 258
  hierarchy, 128, 301, 305
  role, 256
  type, 138, 207
Technical knowledge, 318
Template object, 286
Text language, 124
Text object, 299
Text template, 299
Threshold value, 47, 301
Threshold value determination, 114
Threshold values, 168
Threshold value violation, 134
Threshold violation, 48, 52, 166, 300
Time approval, 235
Time confirmation, 18, 56, 226, 304
Timeline monitor, 29
Time recording, 303
Timesheet, 56
Top-down, 76, 131
Total availability, 37
Total score, 32
Traffic light display, 97, 135
Transaction, 60
  BAPI (BAPI Explorer), 270
BD64 (Maintenance of Distribution Model), 228, 242, 245
BP (Maintain Business Partner), 158
BS33 (Display Processes), 201
CAT2 (Time Sheet Maintain Times), 233
CAT7 (Time Sheet Transfer Data to CO), 236
CATS_APPR_LITE (Approve Working Times), 235
CATSXT (CATS for Service Provider), 234
CJ20N (Project Builder), 192
CMOD (SAP Enhancement Management), 265
CN72 (Create Project Version), 312
CUNI (Maintain Units of Measurement), 61
DPR_FIN_GECCO_R3_CUS (Cost Collector Customizing in R/3), 223
DPR_FIN_GECCO_RATES (Replicate Cost/Revenue Rates), 222
FINR3_CPROJECTS_CUST (cProjects IMG in Plug-In for ERP), 223
OOQA (Change Qualifications Catalog), 162
PFCG (Role Maintenance), 123, 126, 256
PPOME (Change Organization and Staffing), 160
PPPM (Change User Profile), 162
RKACSHOW (Display CO Cost Segments), 244
RPM_EMPPDATA (Resource and Users of RPM), 160
RSA1 (Modeling - DW Workbench), 249
RSA2 (OLTP Metadata Repository), 246
RSA3 (Extractor Checker), 248
RSA5 (Install Business Content), 246
RSA6 (Maintain DataSources), 248
SA38 (ABAP Reporting), 60, 211
SALE (IDoc Interface / Application Link Enabling), 187
SCOT (SAPconnect Administration), 298
SE11 (ABAP Dictionary), 275
SE16 (Data Browser), 86, 209
SE18 (Business Add-Ins Definitions), 264
SE19 (Business Add-Ins Implementations), 265
SE24 (Class Builder), 265
SE38 (ABAP Editor), 60, 118
Index

SE54 (Generate Table View), 272
SE75 (SAPscript Settings), 299
SE80 (Object Navigator), 121, 263, 269
SICF (Maintain Services), 145, 146
SM30 (Call View Maintenance), 243
SM59 (RFC Destinations (Display/ Maintain)), 123
SMRFORMS (SAP Smart Forms), 158
SMOD (SAP Enhancement Management), 265
SNOTE (Note Assistant), 263
SNUM (Number Range Object Maintenance), 272
SPRO (Customizing Execute Project), 60
ST01 (System Trace), 262
SU01 (User Maintenance), 185
SU03 (Maintain Authorizations and Profiles), 259
SU03 (Maintain Own Profile), 185
SU53 (Display Authorization Data), 262
SW01 (Business Object Builder), 270
WE02 (IDoc List), 244
WE20 (Partner Profiles), 242
Transaction authorization, 256
Transformation, 250
Translation, 68
Transmission error, 296
Trend, 32
Trend icon, 112
Trusted/trusting relationship, 286
Type name, 163
Type of staffing, 153
User interface customization, 169
User role, 281, 283
User status, 48, 124, 301, 305

V

Validation flag, 112
Value authorization, 258
Value list, 276, 277
Value role, 259
Value type, 243
Version, 51, 130, 139, 307, 308, 309
simulation, 51, 77, 139, 308
what-if, 35
Version dashboard, 312
Version header, 309, 312
Version history, 312, 313
Versioning, 35, 303
Version number, 139
Version template, 312
Version type, 140
Virtual room, 131
Virtual space, 35, 48

W

WBS, 219
WBS element, 225
WBS structure, 292
Web-based solution, 42
WebDAV interface, 143
Web Dynpro, 41
application, 114, 180, 283, 306
configuration, 278, 279
framework, 23, 24, 42, 98, 180, 184, 264, 265, 279, 280, 306
personalization, 278
technology, 41, 172, 236, 277
Web Dynpro component, 121, 172, 280
DPR_CUST_EXT_INTF_DEMO, 172
DPR_DOCUMENT, 296, 297
DPR_SINGLE_SERVICES, 283
DPR_TABLE, 280

U

Unit costing, 55
Unit of measurement, 61
URL, 121, 144, 299
User, 49
User acceptance, 79
User exit, 265
User group, 49, 255, 257
User ID, 145, 255, 286, 306
User interaction, 24
User interface, 277
Weighting, 300  
questionnaire, 91  
scoring model, 96  
WFD server, 151  
What-if scenario, 77  
Work breakdown structure, 219  
Working client, 59  
Worklist, 54, 229, 304  
Workload situation, 37  
Work package, 45, 302, 318  
Workset, 180