

# Methodology Management

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Reference Manual

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# Preface

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## *In this preface*

**Primavera Products**

**Using Documentation and Help**

**Where to Get Support**

The Methodology Management module enables organizations to improve project management processes by learning from their experiences and applying the resulting insight to new projects. Use the module to establish methodologies as the basis for project plans and help your organization continually refine the project planning and management process throughout the entire project life cycle.

The Methodology Management module seamlessly integrates with the Project Management module to author, manage, and deliver uniform project practices to the entire enterprise.

## Primavera Products

Primavera provides an integrated project management solution consisting of role-specific tools to satisfy each team member's needs, responsibilities, and skills. This solution uses standard Windows interfaces, client/server architecture, Web-enabled technology, and stand-alone (MSDE) or network-based (Oracle and Microsoft SQL Server) databases. The product suite consists of the following components:

**Project Management** The Project Management module enables users to track and analyze performance. It is a multiuser, multiproject system with scheduling and resource control capabilities supporting multitiered project hierarchies, resource scheduling with a focus on roles and skills, recording of actual data, customizable views, and user-definable data.

The Project Management module is ideal for organizations that need to simultaneously manage multiple projects and support multiuser access across a department or the entire enterprise. It supports an enterprise project structure (EPS) with an unlimited number of projects, activities, baselines, resources, work breakdown structures (WBS), organizational breakdown structures (OBS), user-defined codes, and critical-path-method (CPM) scheduling and resource leveling. Large-scale implementations of the Project Management module for enterprise project management use it with Oracle or SQL Server as the project database. For smaller implementations, you can use Microsoft SQL Server Desktop Engine (MSDE).

The module also provides centralized resource management. This includes resource timesheet approval and the ability to communicate with project resources who use Primavera Timesheets. In addition, the Project Management module provides integrated risk management, issue tracking, and management by threshold. The tracking feature enables users to perform dynamic cross-project rollups of cost, schedule, and earned value. Project work products and documents can be assigned to activities and managed centrally. The Report Wizard creates customized reports that extract specific data from its database.

**Methodology Management** The Methodology Management module is a system for authoring and storing methodologies, or project plan templates, in a central location. Project managers can select, combine, and tailor methodologies to create custom project plans. These customized methodologies can be imported into the Project Management module using Project Architect and used as templates for new projects. In this way, your organization can continually improve and refine methodology activities, estimates, and other information with each new project.

**Portfolio Analysis** The Portfolio Analysis module is a reporting tool, providing senior managers with the summary view of project data that their roles require. The Portfolio Analysis module imports live or summary data from the Project Management module database, enabling project controls coordinators, project managers, and program managers to quickly group projects into portfolios for comparisons and analysis. Users can open the lowest work breakdown structure (WBS) level of detail and customize an extensive set of graphics, spreadsheets, and reports.

**Primavera Timesheets** Primavera Timesheets a Web-based interproject communication and timekeeping system. As a team-level tool for project participants, it helps team members focus on the work at hand with a simple cross-project to-do list of their upcoming assignments. It also provides views of project changes and timecards for manager approval. Because team members use this module to enter up-to-the-minute information about their assignments and record time against their workloads, project leaders can make crucial project decisions with the confidence that they have the most current information possible.

**myPrimavera** myPrimavera is a Web application that provides browser-based access to project, portfolio, and resource data across the enterprise. Every myPrimavera user can customize a Personal Workspace page to create an individualized and focused view of the specific projects and categories of project data that are most relevant to their role in managing projects and resources. Project Workspaces and Workgroups extend the model of customizable, focused data views by enabling designated project team members to create a uniform team view of data that relates to one specific project or to a subset of activities within a project. Navigation and Related Actions menus provide access to a wide range of data views and features that enable myPrimavera users to manage their projects from initial concept review and approval through to completion.

**Primavera Software Development Kit** The Primavera Software Development Kit (SDK) enables users to integrate the data in the project management database with external databases and modules. It provides access to the schema and to stored procedures that encapsulate business logic. The SDK supports the Open Database Connectivity (ODBC) standard and ODBC-compliant interfaces, such as OLE-DB and JDBC, for connecting to the project management database. The SDK must be installed on any computer that needs to integrate with the database.

**Schedule Comparison** Schedule Comparison provides the capability to compare two projects, or a project and an associated baseline, to determine what data has been added, deleted, or modified from the schedules. Based on the data fields you select for comparison, this feature creates a project plan comparison report in one of three file formats. Schedule Comparison is automatically installed with the Project Management module. You can access it from the Tools menu.

**Primavera ProjectLink** Primavera ProjectLink is a plug-in that enables Microsoft Project (MSP) users to work in the MSP environment while being connected to Primavera's enterprise features. The functionality enables MSP users to open/save projects from/to the Project Management module database from within the MSP application. Moreover, MSP users have the ability to invoke Primavera's resource management within the MSP environment. ProjectLink benefits organizations that have a substantial amount of project data stored in MSP but require some users to have the additional functionality and optimized data organization available within Primavera applications.

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## Using Documentation and Help

For a list of new features included in this version of the Methodology Management module, refer to the *What's New in Methodology Management* topic of the online help.

This book guides you through the process of establishing methodologies, or project templates, using the Methodology Management module. Read the first chapter to become familiar with methodologies and how they are used in the process of project management with the Project Management module, then follow the steps in each successive chapter to build and manage your methodologies. This manual is organized as follows:

**Part 1: Overview and Configuration** Provides an overview of project methodologies using the Methodology Management module, simple steps for getting started quickly, and information about the standard layouts you can use to view project data. This part also provides a quick tour of the module, including information on using wizards to perform many of the Methodology Management processes, and instructions for configuring administrative (module-wide) and user workstation preferences.

**Part 2: Structuring Methodologies** Includes the basics for creating new methodologies, opening existing methodologies, and defining methodology properties. This chapter also introduces Project Architect, which enables you to import cost and time estimation values (methodologies) from the Methodology Management module to the Project Management module. In addition, *Part 2* describes how to

- Establish and use a work breakdown structure (WBS) as the basis for itemizing the work within the methodologies
- Use an organizational breakdown structure (OBS) in conjunction with methodologies to ensure that each project is effectively managed
- Establish the personnel and equipment required to perform the work, define unlimited hierarchical resource codes for grouping and rollups, and create a standard set of roles based on skill requirements that you can assign to resources and activities in all methodologies

**Part 3: Implementing Methodologies** Describes how to define a set of codes you can use to categorize methodology activities for organizing, grouping, selecting, and summarizing. *Part 3* also explains how to

- Establish the activities that compose methodologies and apply durations, dates, resource information, activity types, activity relationships, and other activity details
- Set up the expenses, or nonresource costs, associated with a methodology, and create global expense categories to track activity costs

- Calculate the effect that a project risk—a concern or uncertainty about a project or one of its components—will have on a methodology’s schedule, costs, and durations
- Catalog and track all methodology-related documents and deliverables
- Check projects in and out of the module to maintain the most up-to-date methodology data possible

**Part 4: Customizing Methodologies** Describes how to customize layouts for analysis and easier data entry, and to display specific information about methodologies in the module. *Part 4* also explains how to produce reports that detail or summarize information stored in the Methodology Management module database.

**Methodology Management Help** Provides an extensive online help system to supplement the printed documentation. Use the Help to access general information about Methodology Management options, detailed descriptions of windows and dialog boxes, and step-by-step instructions for specific tasks. The Help also includes Hint Help for column values in various windows. Access Hint Help by clicking the Layout or Display Options bar, choosing Hint Help, and then clicking a value in a column.

## Where to Get Support

If you have a question about using Primavera products that you or your network administrator cannot resolve with information in the documentation or Help, call Primavera Customer Support at the times and locations listed below.

Please have your Primavera product serial number ready when you call. Each call is logged to help Primavera resolve your questions quickly.

Office	Time Zone	Hours	Telephone	FAX	Internet Address*
Bala Cynwyd, Pennsylvania, USA	ET	8:00–8:00 (Mon–Fri) 9:00–2:00 (Sat)	+1-610-668-3030	+1-610-667-0652	usatech@primavera.com
London, England, UK	GMT	8:30–6:30 (Mon–Thur) 8:30–5:30 (Fri)	+44-20-8563-5555	+44-20-8563-5543	uktech@primavera.com
Hong Kong	GMT +8	8:00–5:00 (Mon–Fri)	+852-2111-8299	+852-2111-9477	hktech@primavera.com

\*For 24-hour support, visit Primavera's online Knowledgebase at:  
<http://www.primavera.com/support/knowledgebase.html>



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# Overview and Configuration

In this part

**Quick Tour**

**Defining Administrative Preferences and Categories**

**Setting User Preferences**

**R**ead this part to learn more about methodologies and how they are used to build project plan templates that incorporate “best practices” in an enterprise. This part also describes how to define global and methodology parameters and user-specified preferences to customize your use of the module.

*Quick Tour* provides an overview of methodology types and describes how to perform basic tasks, such as opening a new methodology and using wizards.

Read the *Defining Administrative Preferences and Categories* chapter to learn how to apply a series of parameters and values that apply to all methodologies.

The *Setting User Preferences* chapter explains how to customize the module to fit your special needs.

# Quick Tour

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## *In this chapter*

**Overview of Methodologies**

**Getting Started**

**Selecting a Language**

**The Workspace**

**Layouts**

**Customizing Displays**

**Using Wizards**

The Methodology Management module is a system for authoring and storing methodologies, or project plan templates. By using the module, your organization can gather its “best practices” and store them in a central location. These best practices, or methodologies, can then be used to create custom project plans, rather than creating project plans from scratch for each new project.

This chapter provides an overview of methodologies and then introduces you to the workspace. It discusses the layout approach to viewing data and includes information about customizing displays to help you start creating your own layouts. You will also learn the basic steps for starting the module, opening a methodology, and using wizards to speed up your work.

# Overview of Methodologies

A methodology is a set of activities and associated information that serves as a template for a project plan or part of a project plan. Methodologies can have one or more activities; the module does not limit the number of activities you can include in a methodology. In addition to activities, a methodology can also include a work breakdown structure (WBS), organizational breakdown structure (OBS), activity relationships, activity role and resource assignments, expenses, work products and documents, activity codes, and estimation data.

To help you organize your methodologies, the module supports three types of methodologies: base methodologies, plug-in methodologies, and activity libraries.

**Base methodologies** provide the basic infrastructure of activities performed during a project. Base methodologies can include a WBS, OBS, and work product and document assignments. A project plan uses one base methodology.

**Plug-in methodologies** solve specific development needs and can be “plugged in” or linked to base methodologies as needed. Plug-in methodologies are specialized topics that may or may not be required by a project. Examples of plug-in methodologies are quality assurance, independent auditing, and extra security. A project plan can combine zero, one, or more plug-in methodologies with a base methodology.

**Activity libraries** provide a convenient way to store and edit commonly used activities and their related information. An activity library is a set of reusable tasks or activities that can be defined once and reused in any number of methodologies as needed. Project plan development does not directly use activity libraries.

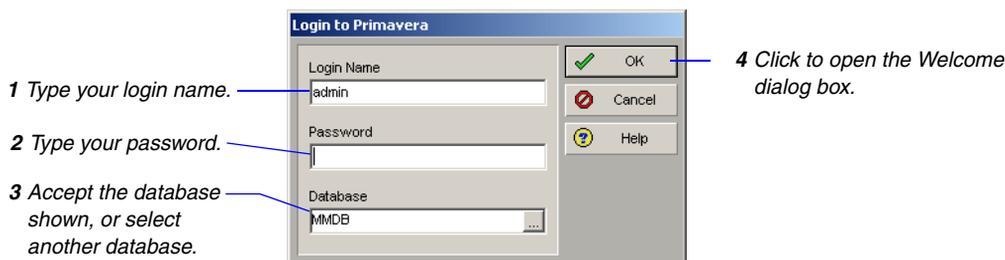
Once you build a library of methodologies and estimation factors, you can import them to the Project Management module as a basis for new projects. The import process enables you to specify the data and factors to be added to the Project Management module via Project Architect, which interprets the cost and time estimation values from the Methodology Management module to establish more realistic projects.

## Getting Started

The installation process guides you through setting up the module on your computer. Refer to the *Administrator's Guide* for detailed instructions.

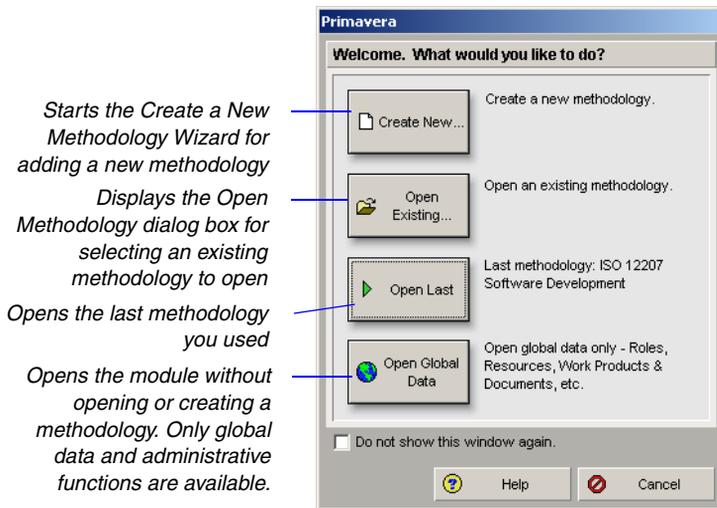
**Start the Methodology Management module** Click Start, then choose Programs, Primavera, Methodology Management.

**Log in** Before using the module, you must enter a valid login name and password. If you do not know your login name and/or password, see your system administrator.



*Login names and passwords are case-sensitive. Your login name and password can be up to 20 characters in length.*

Use the Welcome dialog box to create a methodology, open an existing methodology or the last open methodology, or open global data only.



Mark the Do Not Show This Window Again checkbox if you do not want the Welcome dialog box to appear each time you open the module. The module automatically opens the last methodology you used at startup. To turn this option back on, choose Edit, User Preferences, then click the Application tab and mark the Show the Welcome Dialog at Startup checkbox.

## Selecting a Language

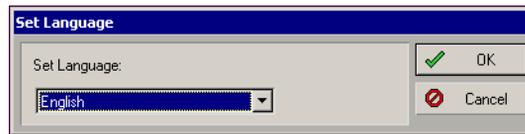
Use the Set Language dialog box to select the language in which to display the information in menus, dialog boxes, and messages.



*This option does not affect the data you enter; this information appears exactly as typed.*

---

**Select a language** Choose Tools, Set Language.



## The Workspace

When you first open a methodology, the Home workspace displays the main functions available in the module. For example, click Activities to focus on activity data and customize layouts. The workspace for each main window consists of a menu bar, navigation bar, directory, toolbar, and command bar.

*Use the toolbar to quickly access options that pertain to the window displayed and to change the look of your layout.*

*Use the navigation bar to move between open windows, display and hide the directory, and open help quickly for a specific window.*

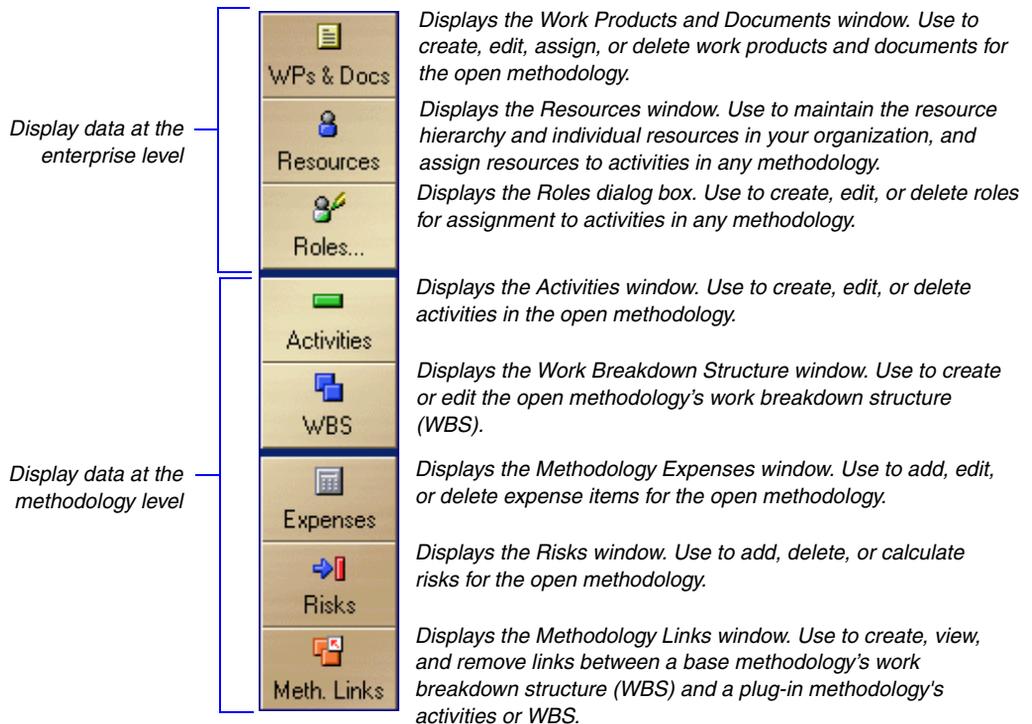
*Choose a menu to open a list of commands.*

*Use the directory to switch your focus.*

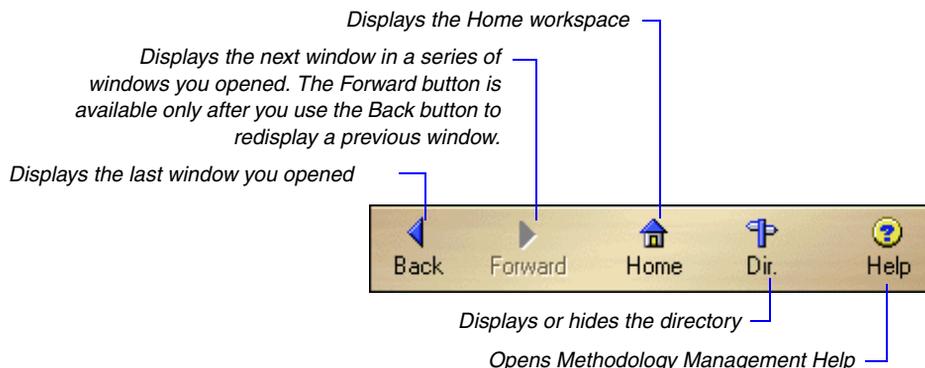
Activity ID	Activity Name	Low Duration	High Duration	Roles
S2360	Install the software products	0.3w	0.6w	Database Administrator
S2370	Support software acceptance testing	1.6w	2.0w	
S2380	Provide user training and software sup...	1.3w	3.3w	

*Click the buttons in the Command bar to perform various functions specific to the open window.*

**Display the directory bar** Use the directory to display windows quickly. Choose View, Toolbars, Directory, to display or hide the directory bar. To display or hide directory bar button text, choose View, Toolbars, Directory Button Text.



**Display the navigation bar** Use the navigation bar to move between open windows. You can also use the navigation bar to display and hide the directory, and to open help for the current window or dialog box. The navigation bar is displayed or hidden when you choose View, Toolbars, Navigation Bar. To display or hide navigation bar button text, choose View, Toolbars, Navigation Bar Button Text.



**Use shortcut menus** Instead of using standard menus and buttons, you can also use the right mouse button to access frequently used commands. To use shortcut menus, right-click an element or the white space in any window, then choose the appropriate command.

**Select multiple items** To select a group of items that are next to each other in the display, hold down the Shift key, click the first item in the group, then click the last item in the group. To select multiple items that are not next to each other in the display, hold down the Ctrl key, then click each item you want to select.

---

## Layouts

A layout is a customizable view of a methodology's activities and activity information. To customize a layout to meet specific needs, you can choose from a wide range of methodology information, columns, colors, fonts, and activity groupings, and you can display these data in the top and/or bottom layouts. For example, show an Activity Table in the top layout and Trace Logic in the bottom layout. Each time you change the way data are presented in the top and bottom layouts, you create a unique layout. The module automatically prompts you to save a layout when you close it, allowing you to define a unique name for it so you can use the layout again with the current methodology or a different methodology.

**Activity Table** displays activity information in spreadsheet format. Use this type of layout to quickly update a methodology. You can use filters and group data to see only those activities with a specific activity type. You can customize Activity Table columns. You can also sort, filter, and group activities in the Activity Table, as well as change the font of the activity information and the color of the table background. The Activity Table can be displayed in the top and bottom layouts.

**Activity Network** provides a graphical display of activities, including logical relationships. You can specify which information you want to display, and you can change Activity Network colors and fonts. You can also group and filter activities in the Activity Network. The Activity Network can be displayed in the top layout only.

**Trace Logic** provides a graphical display of dependency relationships for an activity you select in either the Activity Table or the Activity Network. Trace Logic can be displayed in the bottom layout only.

**Activity Details** display detailed information for an activity you select in either the Activity Table or the Activity Network. You can also use Activity Details to enter and edit an activity's information, such as codes, resource assignments, and predecessor and successor relationships. Activity Details can be displayed in the bottom layout only.

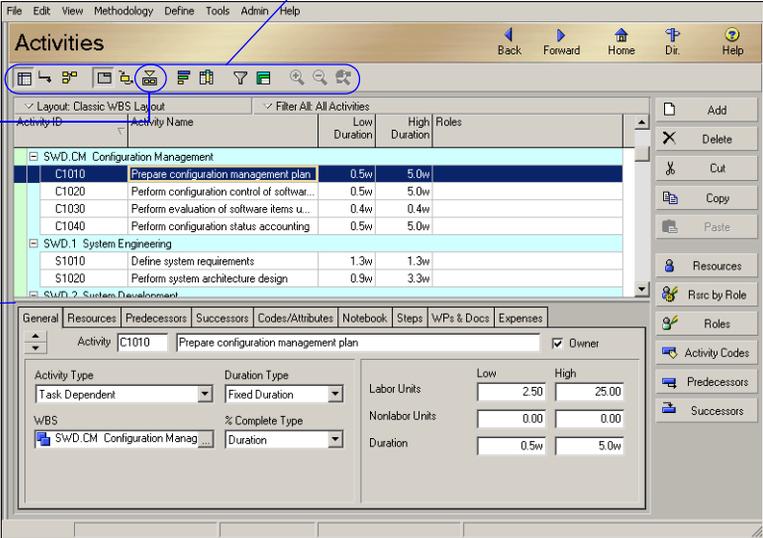
You can display any of these layout types in the Activities window. Additional layouts are available in other windows, such as Work Breakdown Structure and Resources.

## 12 Part 1: Overview and Configuration

Use toolbar buttons to customize the layout.

To completely close the lower layout and view only the data in the top layout, click the Show/Hide Bottom Window button.

To hide or show more of the information in each pane, drag the horizontal split bar between the two layouts.



Activity ID	Activity Name	Low Duration	High Duration	Roles
SWD.CM Configuration Management				
C1010	Prepare configuration management plan	0.5w	5.0w	
C1020	Perform configuration control of softwar...	0.5w	5.0w	
C1030	Perform evaluation of software items u...	0.4w	0.4w	
C1040	Perform configuration status accounting	0.5w	5.0w	
SWD.1 System Engineering				
S1010	Define system requirements	1.3w	1.3w	
S1020	Perform system architecture design	0.9w	3.3w	
SWD.2 System Development				

Activity	Activity Name	Owner
C1010	Prepare configuration management plan	<input checked="" type="checkbox"/>

Activity Type	Duration Type	Labor Units	Low	High
Task Dependent	Fixed Duration		2.50	25.00
WBS	% Complete Type	Nonlabor Units	0.00	0.00
SWD.CM Configuration Manag...	Duration	Duration	0.5w	5.0w

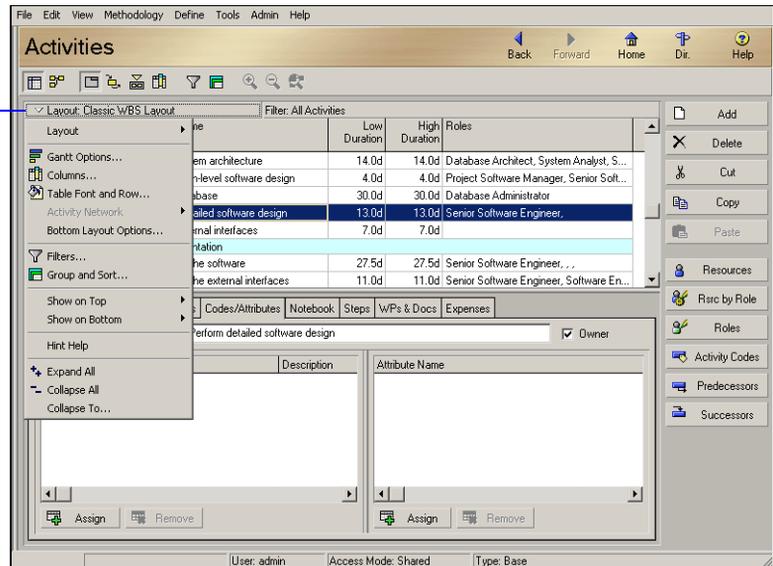
In this sample layout, the top part of the window shows activity data in an Activity Table, and the lower part of the window displays Activity Details.

## Customizing Displays

*For main windows, you can also choose View, Display Options, to access a menu of available commands.*

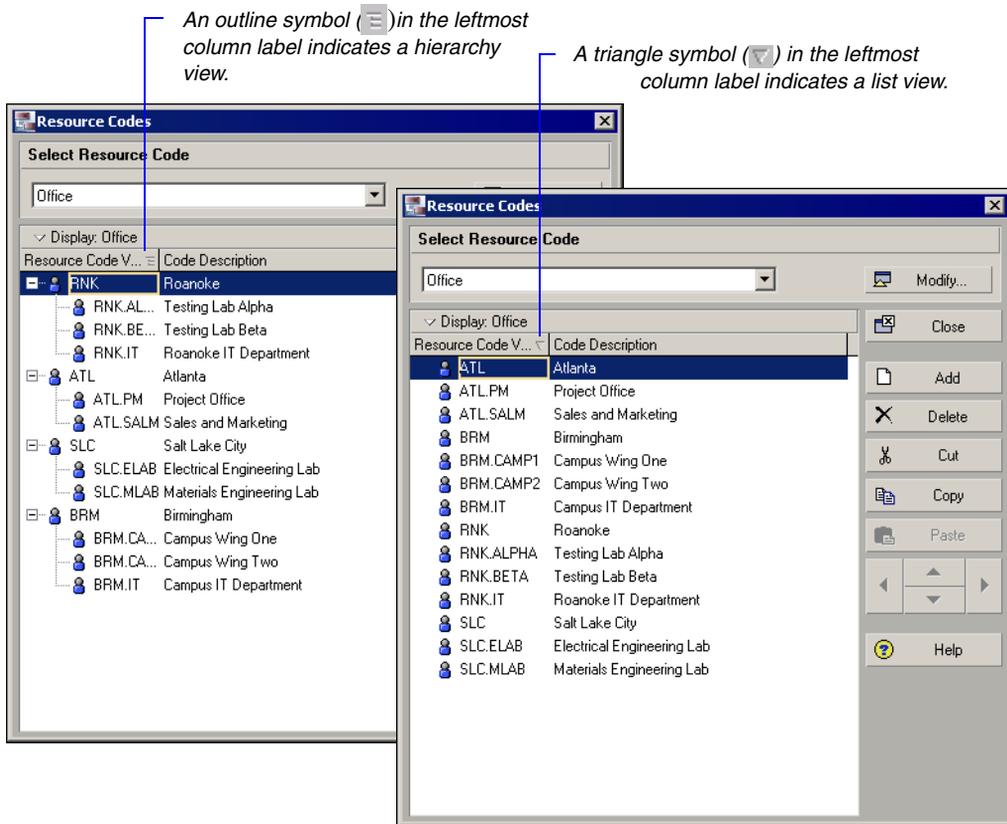
Most windows and dialog boxes include a Display or Layout Options bar at the top of the screen that contains commands that enable you to customize the current display. Click this bar to display a menu of the commands available for that window or dialog box. You can also access many of these commands from the View menu.

*Click the Layout Options bar to display a menu of the options available for the Activities window.*



*For details about customizing and printing layouts, see the Customizing Layouts chapter.*

The module also enables you to switch your display from a hierarchical view to a list view when displaying information that is arranged in different levels, such as resources and the work breakdown structure. To switch a display from hierarchy to list view, click the leftmost column label that appears in the display.



After you change a display to list view, you can also sort the displayed information by clicking any column label.

## Using Wizards

Wizards are a great way to speed up your work. They quickly guide you through repetitive steps, doing most of the work for you.

The module contains wizards for creating new methodologies, adding activities, creating resources, and building reports.

*If you prefer to work without wizards, mark this checkbox on the first dialog box of each wizard, or choose Edit, User Preferences, Assistance, and set your choices in the Wizards section.*

Resource ID and Name

Enter a Resource ID and a Resource Name. The Resource ID uniquely identifies this resource.

Resource ID  
R

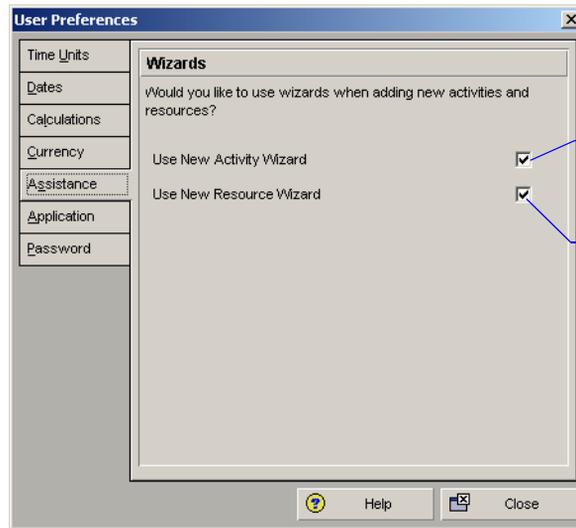
Resource Name  
(New Resource)

Do not show this wizard again.

Cancel Prev Next Finish

You can specify whether you want wizards to help you add activities and resources. Other wizards are also available to export and import methodology data, and define administrative preferences. Wizards are discussed in more detail in the appropriate chapters of this manual or in the online help.

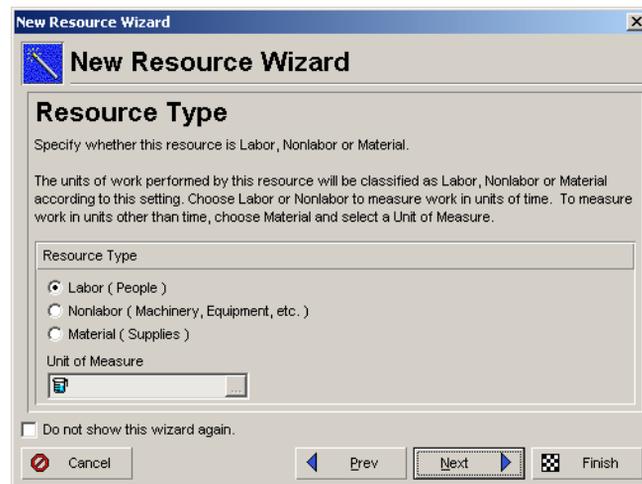
**Set wizard options** Choose Edit, User Preferences. Click the Assistance tab.



*Mark to use the New Activity Wizard.*

*Mark to use the New Resource Wizard.*

**Navigate wizards** To move between different wizard windows, click Prev or Next. To save your changes and close the wizard at any time, click Finish. To close the wizard without saving your changes, click Cancel.



# Defining Administrative Preferences and Categories

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## *In this chapter*

**Defining Default Settings**

**Defining Standard Categories and Values**

**Defining Currencies**

The Methodology Management module enables your organization to define a series of module-wide parameters and values that apply to all methodologies. Use these settings to customize the module to meet specific project management requirements and standards. While all users can view these settings, a user must have special security privileges to edit them.

This chapter discusses the types of settings you can specify: Administrative Preferences, which are default settings used in the module; Administrative Categories, which are standard values that apply to all methodologies in the module; and Currencies, which consist of a base currency used to store cost data in the database and a view currency used to display cost data in windows and dialog boxes.

## Defining Default Settings

Use the Admin Preferences dialog box to specify default settings established by the project controls coordinator. Choose Admin, Admin Preferences.

**General information** Use the General tab to specify general default options for new activities, such as the duration type, percent complete type, and activity type. You can also change the character used to separate hierarchy levels in resource, methodology, and activity codes; roles; and work breakdown structure (WBS) elements.

*The character that separates hierarchy levels in roles, resource codes, methodology codes, and activity codes; it is also the default separator for WBS codes in all new methodologies.*

**Code Separator**  
Specify the character for separating code fields for WBS, Activity Code, Resource Code and Methodology Code trees.

Code Separator

**Defaults for New Activities**  
Specify the default settings for new activities.

Duration Type

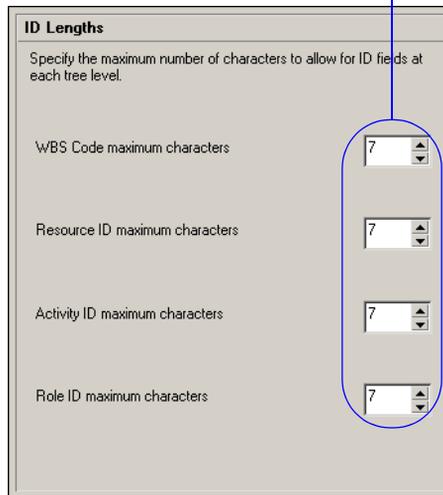
Percent Complete Type

Activity Type

*These default types are used only for new activities. Changing these settings does not affect existing activities.*

**ID lengths** Use the ID Lengths tab to specify the maximum number of characters for IDs and codes.

*The maximum number of characters in these IDs and codes: 1 is the lowest, and 20 is the highest.*



**ID Lengths**

Specify the maximum number of characters to allow for ID fields at each tree level.

WBS Code maximum characters	7
Resource ID maximum characters	7
Activity ID maximum characters	7
Role ID maximum characters	7



*If you change the maximum number of characters in an ID or code, the new number applies only when you add new IDs/codes or edit existing IDs/codes.*

**Data limits** Use the Data Limits tab to specify the maximum number of levels for hierarchical structures.

Code Type	Maximum Levels
WBS tree	10
OBS tree	10
Resource tree	10
Role tree	20
Activity Code tree	10
Resource Code tree	20
Methodology Code tree	20

*The maximum number of hierarchy levels in these code types: 1 is the lowest, and 25 is the highest.*

*The maximum number of hierarchy levels in these structures: 1 is the lowest, and 25 is the highest.*



*If you change maximum hierarchy level settings, the new settings apply only when you add new elements or edit existing elements.*

---

**Timeperiods** Use the Time Periods tab to define the default number of hours in a workday, workweek, workmonth, and workyear. The module uses these values as conversion factors when displaying the time units and duration display formats you select. You can also specify abbreviations for displaying minutes, hours, days, weeks, months, and years.

*Valid entries range from 1.0 to 168.0.*

*Valid entries range from 1.0 to 744.0.*

*Valid entries range from 1.0 to 24.0.*

*Valid entries range from 1.0 to 8784.0.*

**Hours per Time Period**

Specify the number of work hours for each time period.

Hrs/Day	Hrs/Week	Hrs/Month	Hrs/Year
8.0	40.0	172.0	2000.0

**Time Period Abbreviations**

Specify the abbreviation for each time period.

Minutes	Hours	Days
n	h	d
Weeks	Months	Years
w	m	y

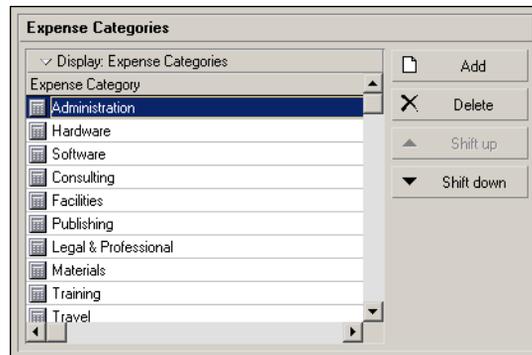
*The module uses these abbreviations when displaying the time units and duration display formats you select. You can type a new one-character abbreviation.*

## Defining Standard Categories and Values

Use the Admin Categories dialog box to define standard categories and values that you can apply to all methodologies. Choose Admin, Admin Categories.

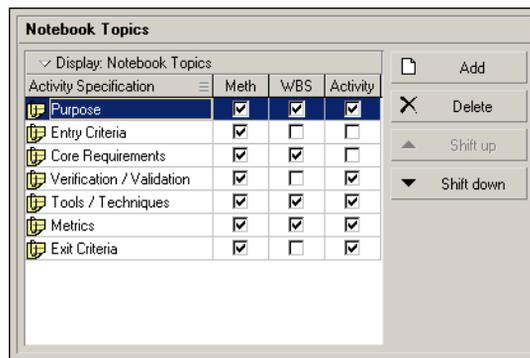
For more information about expenses, see the *Working with Methodology Expenses* chapter.

**Expense categories** Use the Expense Categories tab to create, edit, and delete expense categories. Expense categories can be used to categorize and standardize methodology expenses, and organize and maintain your expense information. To change an expense category, double-click it, then type a new name. The module applies the change to all activities to which the expense item is assigned.



For more information about activity notes, see the *Working with Activities* chapter.

**Notebook topics** Use the Notebook Topics tab to create, edit, and delete notebook topics. A notebook typically consists of instructions or descriptions for performing an activity. You can also assign notebooks to categorize notes about methodologies and WBS elements. Mark the appropriate Methodology, WBS, and Activity checkboxes to activate the availability of a selected notebook topic in the Notebook Topics tab. Examples of topics include Purpose, Entry Criteria, Tools and Techniques, and Exit Criteria. To change a notebook topic, double-click it, then type a new name. The module applies your change to all methodologies, WBS elements, and activities to which the notebook topic is assigned.

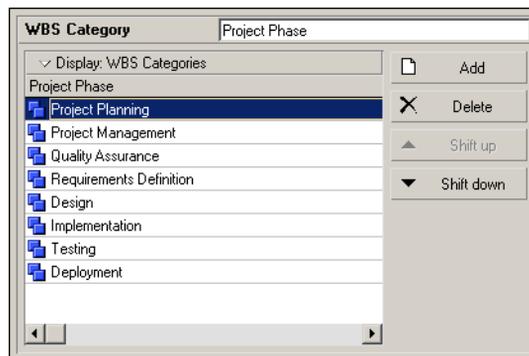


For more information about the WBS, see the *Establishing a Work Breakdown Structure* chapter.

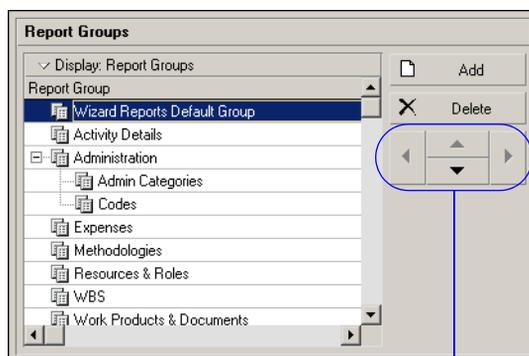
**WBS custom category** Use the third tab on the Admin Categories dialog box to define a custom WBS category and category values. To change the category name, click in the field in the top right, then type a new name. Use this category to organize, filter, and report WBS information in an open methodology. To change a category value, double-click it, then type a new name. The module applies the change to all methodologies to which the WBS item is assigned.



*If you change the WBS category, the module does not change any of the category's values or value assignments.*

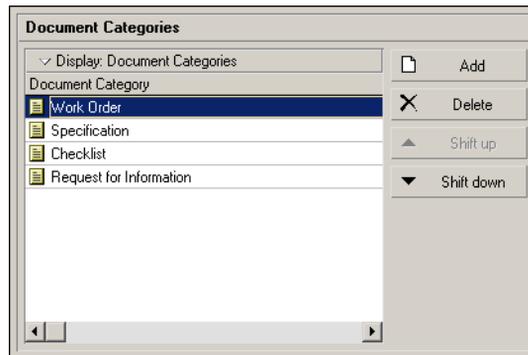


**Report groups** Use the Report Groups tab to create, edit, and delete report groups, which help you organize reports.



*Click the left/right arrows to indent or outdent a selected report category to further categorize it in the hierarchy. Click the up/down arrows to move a selected report category up or down in the hierarchy.*

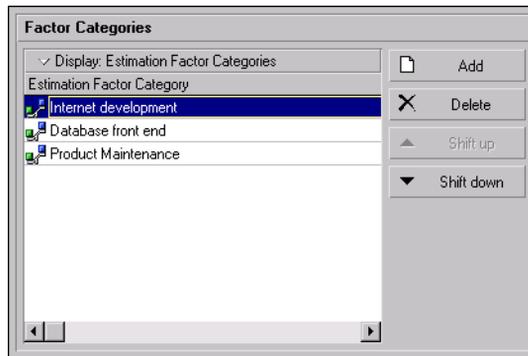
**Document categories** Work products typically refer to activity output, such as blueprints or testing plans, and documents refer to items such as standards and guidelines. Use the Document Categories tab to set up categories for work products and documents, then assign these categories to work products and documents in the Work Products and Documents window, and to WBS elements and activities in the WPs & Docs tab of Work Breakdown Structure Details and Activity Details, respectively. To change a document category, double-click it, then type a new name. The module applies the change to all WBS elements and activities to which the document category is assigned.



For more information about establishing estimation data, see the *Creating and Linking Methodologies*, *Establishing a Work Breakdown Structure*, and the *Working with Activities* chapters.

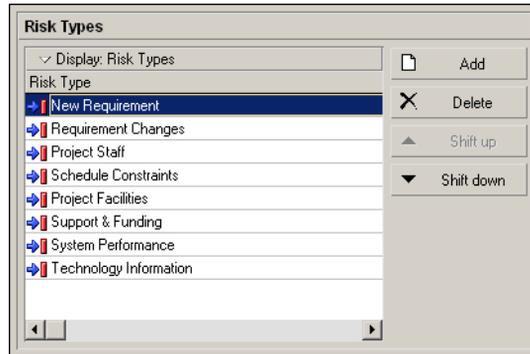
**Factor categories** Use the Factor Categories tab to set up categories for organizing estimation factors in methodologies. These factors are used in Project Architect to calculate a project size and complexity value for performing bottom-up estimating in the Project Management module.

Estimation factor categories are beneficial when you want to assign sets of factors to each methodology and categorize them according to a specific area or phase, such as Internet development and product maintenance. To change an estimation factor category, double-click it, then type a new name. The Methodology Management module applies the change to all methodologies to which the estimation factor category is assigned.

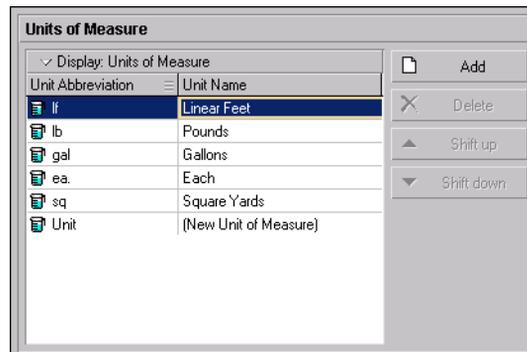


Once you establish estimation factor categories, you can assign one or more estimation factors to them in the Estimation Factors dialog box (choose Define, Estimation Factors).

**Risk types** Use the Risk Types tab to identify, categorize, and prioritize potential risks associated with specific WBS elements. To change a risk type, double-click it, then type a new name. The module applies the change to all WBS elements to which the associated risk type is assigned.



**Units of measure** Use the Units of Measure tab to set up units of measure labels that you can assign to material resources. To change a unit of measure label, double-click it, then type a new name. The change applies to all unit of measure assignments.



## Defining Currencies

You can specify the monetary unit or *base currency* used to store cost data for all methodologies in the database, as well as the monetary unit or *view currency* used to display cost data in windows and dialog boxes.



*Only a user with Admin Superuser privileges can change the base currency and define additional view currency types.*

The exchange rate for the base currency is always 1.0. If you select a different currency than the base currency to view cost data, the base currency value is multiplied times the current exchange rate for the view currency to calculate the values displayed in cost and price fields.

For example, if the base currency is U.S. Dollars, the view currency is Francs, and the exchange rate for Francs is 1.3, a value of \$10 stored in the database is displayed as 13 Francs in cost and price fields in windows and dialog boxes. Similarly, if you enter 13 Francs in a cost or price field, it is stored in the database as \$10.



*When you enter values in cost and price fields, they are always displayed in the view currency.*

Indicates the currency is the base used to store cost data

Base	Currency ID	Currency Name	Currency Symbol	Exchange Rate
<input checked="" type="checkbox"/>	USD	Dollar	\$	1.000000
<input type="checkbox"/>	ARS	Argentine Peso	\$	3.569740
<input type="checkbox"/>	AUST	Australian Dollar	A\$	1.796400
<input type="checkbox"/>	BRL	Brazilian Real	R\$	2.481000
<input type="checkbox"/>	U.K.£	British Sterling Pound	£	0.685097
<input type="checkbox"/>	CAD	Canadian Dollar	CA\$	1.538180
<input type="checkbox"/>	CNY	Chinese Yuan	Y	8.276900

General | Appearance

Currency ID:  Currency name:

Currency symbol:  Exchange rate:

Use the Currencies dialog box to set up the base and view currencies.



If you are upgrading from a previous version of the module to version 5.0, you should set up the base currency in the new version before you start adding and changing methodologies.

**Define a base currency** The base currency, by default, is U.S. dollars. To define a different currency as the base, choose Admin, Currencies. Select the base currency, then, in the General tab, type the currency's ID, name, and symbol. The exchange rate for the base currency is always 1.0. Click the Appearance tab to further define how the currency is displayed.

*Separates whole values from decimal values in the currency display, for example, 500.5 or 500,5*

*Separates groups of digits in the currency display, for example, 300,000 or 300-000*

*Indicates how many decimal places to display, for example, none (70), one (70.1), or two (70.14)*



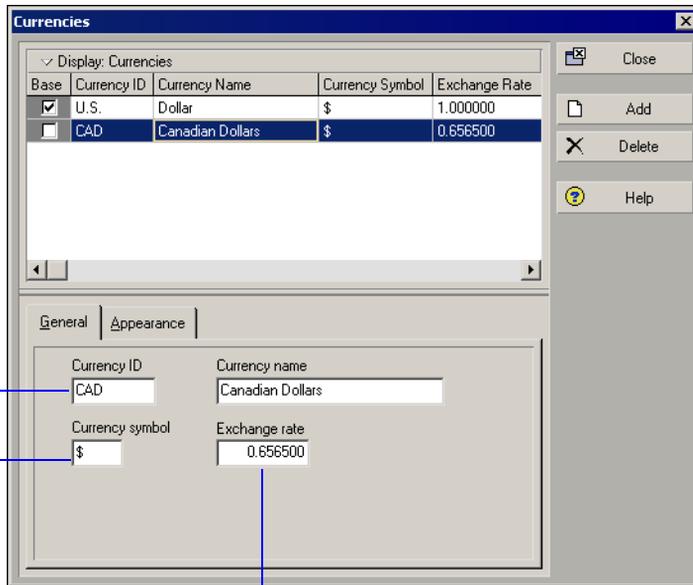
If you want to view costs in the old base currency, you will need to add it to the list of available currencies.

**Add a view currency** Choose Admin, Currencies. Click Add. Specify the currency's ID, name, symbol, and exchange rate, and indicate how the currency should be displayed.

Choose *Edit, User Preferences*, then click the *Currency* tab to select the currency used to view costs.

Type an ID that clearly defines the currency type.

Enter the universal symbol used to identify the currency.



Enter the current global exchange rate for the currency.

# Setting User Preferences

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## *In this chapter*

**Formatting Time Units**

**Formatting Dates**

**Setting Resource Calculations**

**Setting View Currency and Symbols**

**Implementing Wizards**

**Setting Startup Options, Creating a Log of Tasks, and Setting Group and Sort Options**

**Changing Your Password**

In the Methodology Management module, you can tailor certain options to fit your specific needs. For example, indicate the format for displaying time units and dates, specify the currency to use for viewing costs, and set startup display preferences.

This chapter describes how to set these options in the User Preferences dialog box.

## Formatting Time Units

Time unit settings affect how the module displays time unit values in layouts, activity durations, resource prices, availability, and work efforts. Choose Edit, User Preferences, then click the Time Units tab.

**Units Format**

Unit of Time: Day | Sub-unit:  Hours | Decimals: 0

Show Unit label | Example: 5d

**Durations Format**

Unit of Time: Day | Sub-unit:  Hours | Decimals: 1

Show Duration label | Example: 10.1d

**Units/Time Format**

Resource Units/Time can be shown as a percentage or as units per duration

Show as a percentage (50%)

Show as units/duration (4h/d)

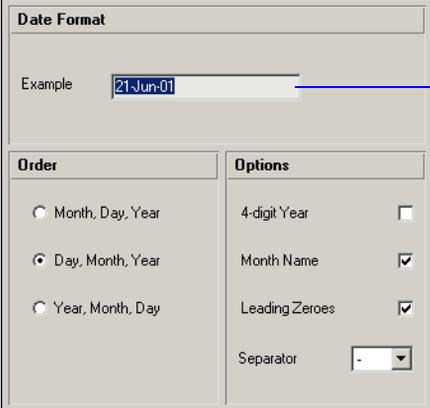
**Set time unit options** In the Units Format section, select the time unit used to display work efforts, and resource prices and availability. In the Durations Format section, select the time unit used to display activity duration values.

Mark the Sub-Unit checkbox to include the next smallest time interval for the Unit of Time selected; the field name changes accordingly. For example, if you select Day in the Units field, the Sub-Units field displays Hours. You can also select the number of decimal places you want to include in time unit displays throughout the module.

In the Units/Time Format section, choose to show resource units per time as percentages or as units per duration. Your choice determines how rates are displayed. For example, 4h/d is the same as 50 percent of an eight-hour day.

## Formatting Dates

Choose Edit, User Preferences, then click the Dates tab to specify how the module displays dates.



The screenshot shows a dialog box titled "Date Format". At the top, there is a label "Date Format" and an "Example" field containing the text "21-Jun-01". Below this are two columns: "Order" and "Options". The "Order" column has three radio button options: "Month, Day, Year", "Day, Month, Year" (which is selected), and "Year, Month, Day". The "Options" column has four settings: "4-digit Year" (unchecked), "Month Name" (checked), "Leading Zeroes" (checked), and "Separator" (a dropdown menu showing a hyphen "-").

*Displays an example of your format preferences*

**Specify date format** Choose the date order format you want to use in the Order area, then mark the applicable checkboxes in the Options area to indicate how the selected date format should appear. In the Separator field, select the character the module uses to separate days, months, and years.

## Setting Resource Calculations

Choose Edit, User Preferences, then click the Calculations tab to specify how cost and units are allocated when you add or delete multiple resource assignments. You can also choose the default behavior when replacing a resource/role on an existing activity assignment with a different resource/role.

Resource Assignments
When adding or removing multiple resource assignments on activities
<input type="radio"/> Preserve the Units, Duration, and Units/Time for existing assignments
<input checked="" type="radio"/> Recalculate the Units, Duration, and Units/Time for existing assignments based on the activity Duration Type
Assignment Staffing
When assigning a resource to an existing activity assignment:
<input type="radio"/> Always use the new resource's Units per Time
<input type="radio"/> Always use current assignment's Units per Time
<input checked="" type="radio"/> Ask me to select each time I assign

**Choose resource assignment defaults** You can specify how to calculate remaining values when new resource assignments are added to or removed from activities. Remaining duration, remaining units, and remaining units/time will not change for existing assignments, regardless of the duration type.



*When the first assignment is added, units/costs are calculated based on the activity's duration type.*

- **Preserve the units, duration, and units/time for existing assignments**

When adding or removing multiple resource assignments on activities, choose this option for units, durations, and units/time to remain constant when additional resources are assigned to any activity. Regardless of the duration type of an activity, this equation is always true:

$$\text{Remaining Units} = \text{Remaining Duration} \times \text{Remaining Units/Time}$$

- **Recalculate the units, duration, and units/time for existing assignments based on the activity duration type**

When adding or removing multiple resource assignments on activities, choose this option to calculate a resource assignment's remaining values based on the activity's duration type, specified in the Activity Details General tab.

**Choose assignment staffing defaults** In the Assignment Staffing section, you can choose the module's default behavior when you replace a resource on an existing activity assignment with a different resource.

When assigning a resource to an existing activity assignment, you can choose to always use the units/time of the new resource or of the current assignment (i.e., the resource you are replacing) on the existing assignment; or, you can choose to be prompted to select which units/time you want to use each time you replace a resource on an existing activity assignment.

## Setting View Currency and Symbols

Choose Edit, User Preferences, then click the Currency tab to specify the currency used to view cost data, and whether to show or hide the currency symbol and/or decimal values in cost and price fields.



*You must enter all cost data in the view currency selected in User Preferences.*

---

*Mark to include the symbol used for the currency.*



*Click to select the currency for viewing costs; this may differ from the base currency used to store monetary values.*

*Mark to show decimal values for costs.*



*The currencies available for viewing monetary units are defined by your Methodology Management module administrator in the Currencies dialog box.*

---

## Implementing Wizards

Choose Edit, User Preferences, then click the Assistance tab to enable the use of wizards when adding resources and activities.



**Wizards**

Would you like to use wizards when adding new activities and resources?

Use New Activity Wizard

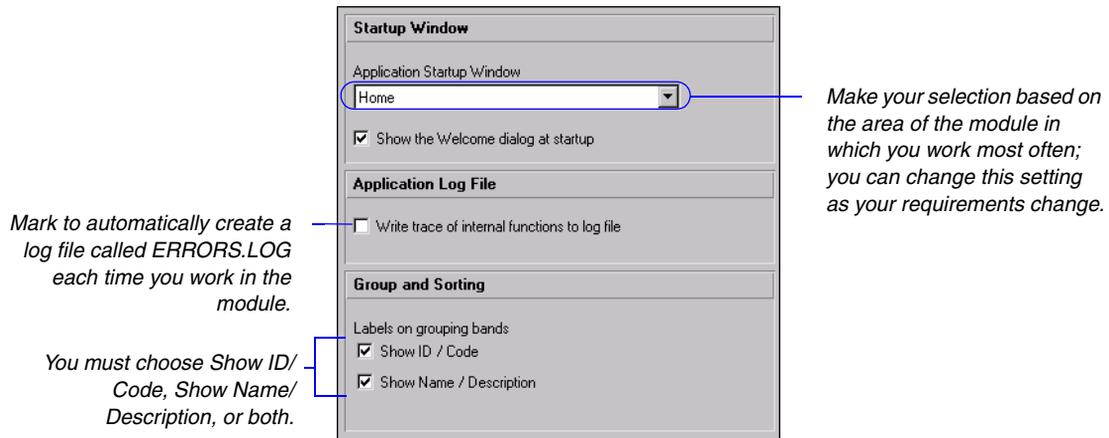
Use New Resource Wizard

*If you clear one or both checkboxes and add a new resource or activity, you will need to use the current layout to add the information.*

**Set assistance options** Wizards guide you through the steps necessary to complete a function. Once you feel comfortable adding resources and activities, you may not need to use them. Mark the checkboxes in the Wizards section to instruct the module to automatically display the New Resource Wizard when you add a new resource, and the New Activity Wizard when you add a new activity.

## Setting Startup Options, Creating a Log of Tasks, and Setting Group and Sort Options

Choose Edit, User Preferences, then click the Application tab to establish the default window or dialog box displayed when you start the module and to record the actions you perform in the module to a log file. You can also set options for grouping and sorting.



**Set startup and log file options** Select the window to display each time you start the module. Select Home if your work varies each day; the Home workspace enables you to select the applicable window or layout for each session.

You can also indicate whether to display the Welcome dialog box, from which you can create a new project, open an existing project, open the last project viewed in your previous session, or display global /enterprise data only.

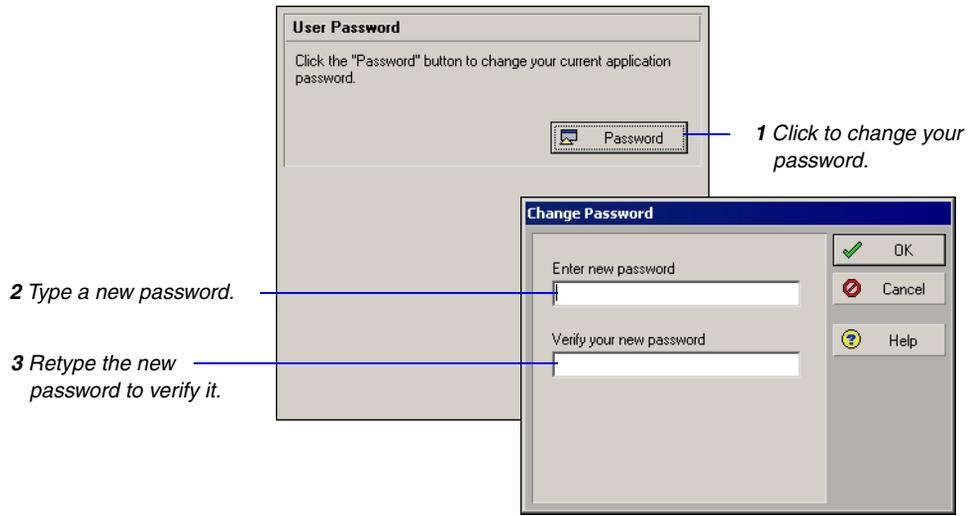


*Primavera recommends that you use the log file only with the assistance of Primavera Customer Support staff.*

**Display a label on grouping bands** You can show or hide the ID/ Code or Name/Description fields as labels in the group-by bands when grouping by hierarchies that include both an ID/code and a name description. This user preference setting affects windows/dialog boxes where you cannot access a Group and Sort dialog box.

## Changing Your Password

Choose Edit, User Preferences, then click the Password tab to change your current password for starting the module.





# Structuring Methodologies

## In this part

**Creating and Linking Methodologies**

**Establishing a Work Breakdown Structure**

**Setting Up the Organizational Breakdown Structure**

**Defining Resources and Roles**

**Working With Custom User Fields**

**T**his part describes how to start creating methodologies. *Creating and Linking Methodologies* explains how to add methodologies and link them to other methodologies; for example, link a base methodology to a plug-in methodology.

*Establishing a Work Breakdown Structure* describes how to use the work breakdown structure (WBS) to plan and manage methodology information, while *Setting Up the Organizational Breakdown Structure* shows you how to establish the managers directly responsible for maintaining methodologies.

*Defining Resources and Roles*, explains how to set up resources and roles. The last chapter in this part, *Working With Custom User Fields*, describes how to configure user-defined fields.

# Creating and Linking Methodologies

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## *In this chapter*

**Working with Methodologies**

**Defining Methodology Properties**

**Linking Methodologies**

**Defining Estimation Factors**

**Using Bottom-Up Estimation Data**

**Using Project Architect**

**Defining Methodology Codes**

Methodologies consist of activities but can also include work breakdown structure (WBS) and organizational breakdown structure (OBS) definitions, activity relationships, role and resource assignments, expenses, work products and documents, codes, and estimation data.

You can create and assign attributes to methodologies, and define size and complexity factors for users of the Project Management module. Once you establish two or more methodologies, you can create relationships between base and plug-in methodologies.

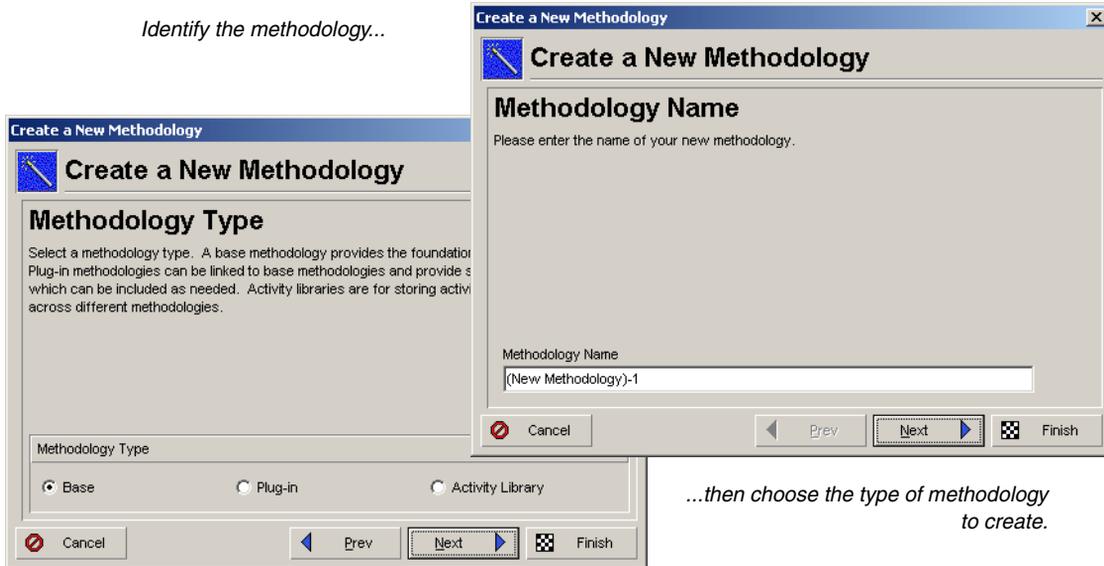
This chapter describes how to create methodologies and their attributes, link methodologies, add size and complexity factors, define values for calculating bottom-up estimation data, and use Project Architect to import methodologies to the Project Management module as prebuilt project plans from the Methodology Management module.

## Working with Methodologies

The Create a New Methodology Wizard helps you quickly create a new methodology by defining general information and default settings such as the methodology's type, default activity cost, and auto-numbering values.

**Create a methodology** Choose File, New.

*Identify the methodology...*



*...then choose the type of methodology to create.*

Enter the price that will be used for activities that have units but no assigned resources. Next specify the activity ID prefix, suffix, and increment that is automatically assigned to new activities as they are added to the methodology. Click Finish to create the new methodology.



*To save your changes and close the Create a New Methodology Wizard at any time, click Finish. The module creates the methodology according to the information you provided.*

To define additional methodology information, display Methodology Properties (choose Methodology, Methodology Properties), then refer to the *Defining Methodology Properties* section of this chapter.

**Use projects to create methodologies** You can use a successful project from the Project Management module as a template for future projects that are similar in scope. The Import Wizard prompts you to specify the information to be imported and to identify the type of methodology in which it should reside.

## Use Status to Categorize Methodologies

You can identify methodologies as available or unavailable when creating projects in the Project Management module. Change the default status of Available to Unavailable when the methodology is not complete, is undergoing changes, or is simply not applicable for use in establishing current projects. Choose Methodology, Methodology Properties, click the General tab, then select Unavailable in the Methodology Status field. Methodologies with a status of Unavailable cannot be imported in the Project Management module and are not listed in Project Architect.

**Open methodologies** Choose File, Open. Select the methodology you want to open.

Click to view a list of users who are currently using the selected methodology.

Click to open the selected methodology.

Choose how you want to open the methodology. Depending on your security profile, some of these options may not be available.

Methodology Name	Methodology Type
CMM Level 2	Plug-in
CMM Level 3	Plug-in
ISO 12207 Project Management	Plug-in
ISO 12207 Quality Management	Plug-in
ISO 12207 Software Acquisition	Plug-in
ISO 12207 Software Development	Base
ISO 12207 Software Maintenance	Plug-in
MIL-STD-498 Software Development	Base
PMI Project Management	Plug-in
Reusable Task Library	Activity Library
Sample Methodology / ISO 12207 - ...	Base
Sample Plug-in / PMI Project Mana...	Plug-in

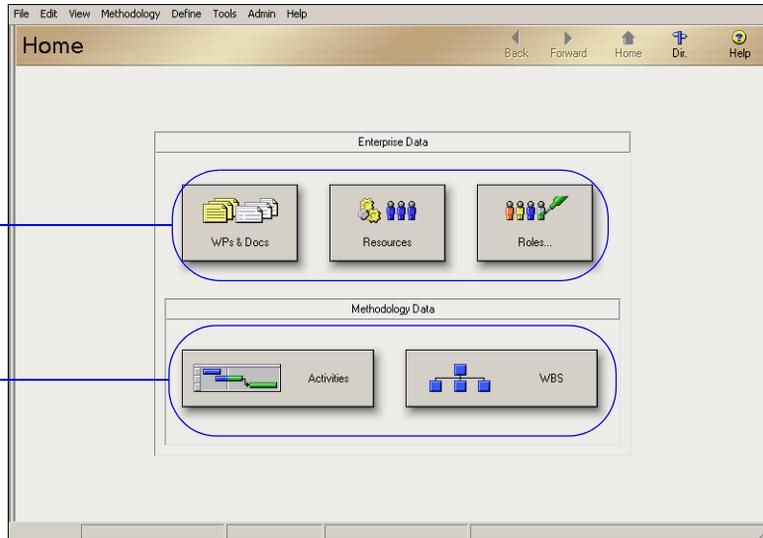
Access Mode

Exclusive  Shared  Read Only



Only one user at a time can have Exclusive access to a methodology.

After you open a methodology, open a window containing enterprise/global data for all methodologies, or...  
 ...open a window containing data that pertain only to that methodology.

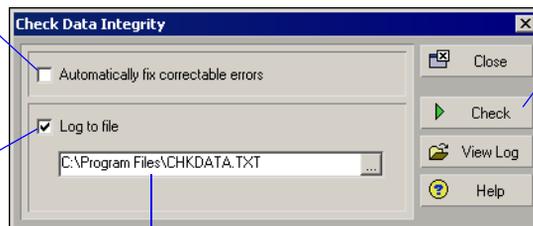


You can select the window to display each time you start the module. Choose **Edit**, **User Preferences**, and click the **Application** tab; select from the available windows listed in the **Application Startup Window** field.

**Check methodology integrity** To identify and/or correct errors and inconsistent information in the open methodology, choose **Tools**, **Check Methodology Integrity**.

Mark to allow the module to automatically fix inconsistent information.

Mark to save and view the results of the data integrity check to a log file (.txt).



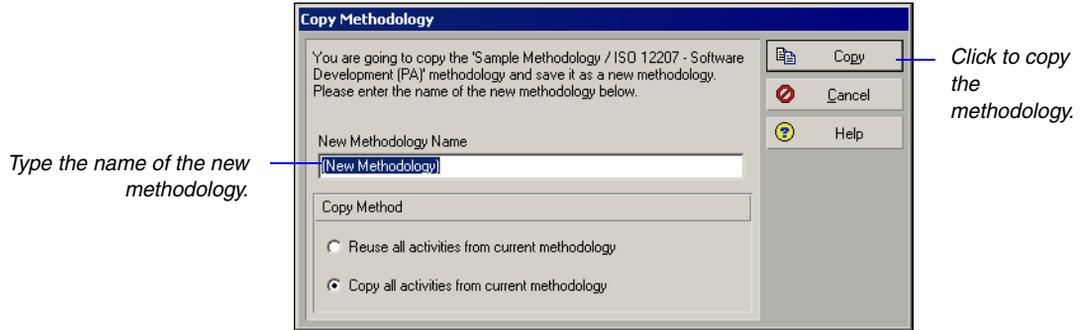
Click to identify and/or correct inconsistent information in the open methodology, depending on the options you select.

The name of the file in which you want to save the results of the data integrity check; click the **Browse** button to select a new file.



If you save the results to a log file, the module overwrites the existing log file each time you perform a data integrity check.

**Copy methodologies** You can copy an existing methodology to use as a template for a new one. Open the methodology you want to copy. Choose File, Copy.



**Reuse activities** To copy activities and activity information from the methodology, and maintain a connection or link between the copied activities and the original activities, choose Reuse All Activities from Current Methodology. If you change a reused activity, the module updates all instances of the reused activity in all methodologies.

**Copy activities** To copy activities and activity information without maintaining a connection or link between the copied activities and the original activities, choose Copy All Activities from Current Methodology. When you copy an activity, any changes you make to one instance of the activity do not affect other instances of the same activity.

---

## Reusing Activity Cores

The module enables you to copy and link, or reuse, core information from activities within a single methodology and across multiple methodologies. Core information includes the activity's name, duration type, percent complete type, attributes, activity type, steps, and notebook topics. The module does not include, or reuse, more specific information, such as assigned resources, work breakdown structure assignments, relationships, work products and documents, estimates, and activity codes.

If an activity's core information changes, you can simply edit the activity's master core copy, and the module applies your changes to all instances in which you reused the information.

The module also contains a standard copy feature that allows you to copy an activity without maintaining a link or connection between the original activity and the activity copy. If you copy an activity, any changes you make to one instance of the activity do not affect other instances of the same activity.

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*You can only delete a methodology that is opened in Exclusive mode.*

---

**Delete a methodology** Open the methodology, then choose File, Delete. Confirm that you want to delete the methodology by clicking Yes.

## Defining Methodology Properties

Use the Methodology Properties dialog box to define methodology details and defaults used throughout a methodology and to view and edit the open methodology's properties. Choose Methodology, Methodology Properties. Click each tab to view and edit that type of information for the open methodology.

For more information about setting up estimation factor categories, see the *Defining Administrative Preferences and Categories* chapter.

**General information** Use the General tab to view and edit general information about the selected methodology. This information includes the methodology's name, type, and estimation factor category value.

Use status to identify active (Available) or closed (Unavailable) methodologies. Unavailable methodologies cannot be imported in the Project Management module using Project Architect.

The screenshot shows the 'Methodology Properties' dialog box. It contains the following fields and controls:

- Methodology Name:** A text box containing 'Sample Methodology / ISO 12207 - Software Development (PA)'.
- Methodology Status:** A dropdown menu currently set to 'Available'.
- Check Out:** A dropdown menu currently set to 'Checked In'.
- Methodology Type:** A dropdown menu currently set to 'Base'.
- Estimation Factor Category:** A text box containing 'Product Maintenance' with a small icon to its left.
- Total Activities:** A text box containing the number '48'.
- Date Added:** A text box containing '31-Jul-98'.
- Added By:** A text box containing 'admin'.

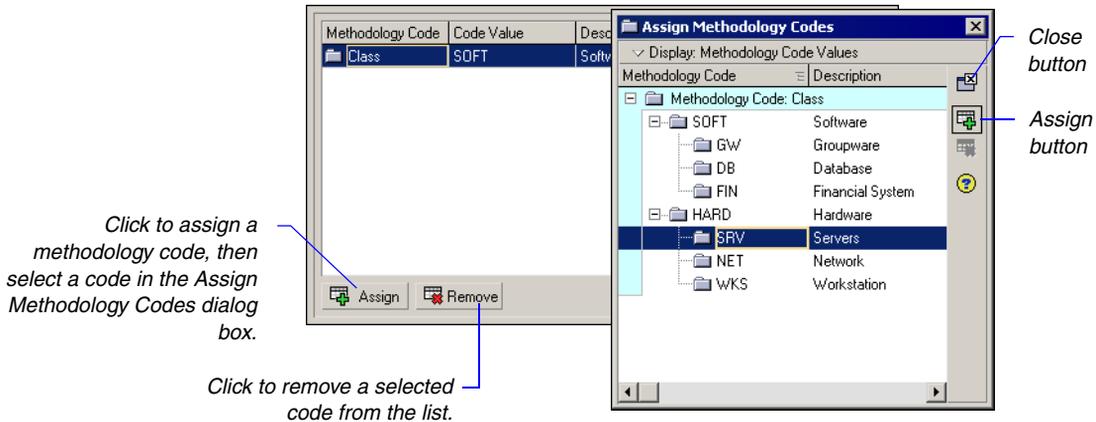
Annotations with blue lines point to specific elements:

- A line points from the 'Available' dropdown to the text: 'Use status to identify active (Available) or closed (Unavailable) methodologies. Unavailable methodologies cannot be imported in the Project Management module using Project Architect.'
- A line points from the 'Checked In' dropdown to the text: 'Indicates whether the methodology is checked in or out.'
- A line points from the 'Product Maintenance' text box to the text: 'Select the predefined category with assigned estimation factors that are best suited to the methodology.'

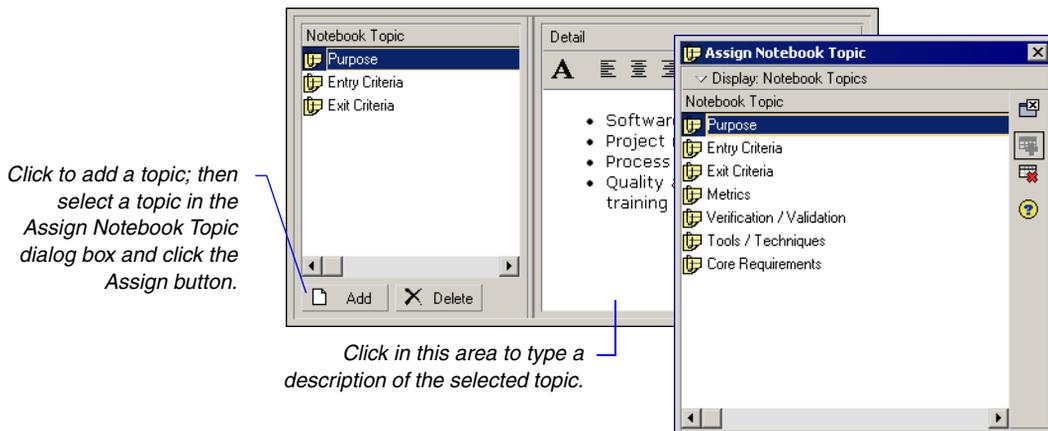
Select the predefined category with assigned estimation factors that are best suited to the methodology.

For more information about adding methodology codes and values, see the *Defining Methodology Codes* section later in this chapter.

**Methodology codes** Use the Codes tab to assign methodology code values to the open methodology. In the Assign Methodology Codes dialog box, click the value for the applicable code, then click the Assign button. You must first add methodology codes and values (choose Define, Methodology Codes).

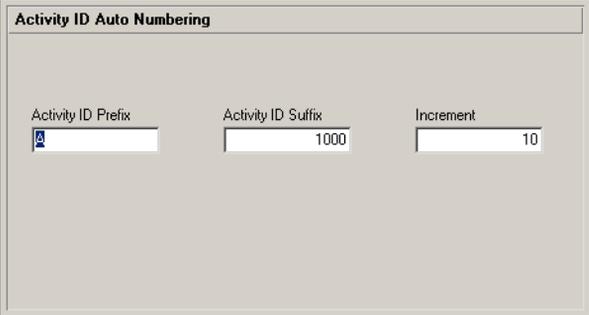


**Notebook topics** Use the Notebook tab to assign notebook topics and details to the open methodology. These topics are defined in the Notebook Topics tab of the Admin Categories dialog box.



In description fields, you can use HTML editing features, which include formatting text, inserting pictures, copying and pasting information from other document files (while retaining formatting), and adding hyperlinks.

**Activity IDs** Use the IDs tab to specify a prefix and a suffix for the open methodology's activity IDs. You can also specify the increment by which you want the module to create activity IDs for new activities.



The screenshot shows a dialog box titled "Activity ID Auto Numbering". It contains three input fields arranged horizontally. The first field is labeled "Activity ID Prefix" and contains the character "A". The second field is labeled "Activity ID Suffix" and contains the number "1000". The third field is labeled "Increment" and contains the number "10".

---

## Auto-Numbering Activity IDs

When you create a new activity, the activity ID is automatically generated using auto-numbering. The prefix and suffix are linked with the increment in a chain that produces a unique ID. For example, "A" (prefix), "1000" (suffix), "10" (increment) yields activity IDs of "A1010," "A1020," "A1030," and so on. If you change the activity ID prefix, suffix, or increment, the module applies the change only to new activities, not existing activities.

---

For more information about bottom-up estimating, see the *Using Bottom-Up Estimation Data* section later in this chapter.

**Costs** Use the Costs tab to view the open methodology’s total labor, nonlabor, material, and expense cost estimations, and specify a default price for activities without resources. You can establish low and high estimates for labor, nonlabor, and material costs in the Resources tab of Activity Details, and for expenses in the General tab of Methodology Expense Details. These low and high cost estimates enable users of the Project Management module to perform bottom-up estimations in Project Architect.

*This setting is used to calculate the cost for activities that have labor/nonlabor units with no assigned resources or resources that do not have prices.*

Default Price/Unit		Costs	
Specify the Default Price for activities without resources Price / Units		Low Cost	High Cost
Default Price / Unit		Labor	Nonlabor
\$50.00/h		\$71,000.00	\$695,350.00
		Material	Expenses
		\$0.00	\$500.00
		Total	
		\$73,200.00	\$707,850.00

For more information about setting up links between methodologies, see the *Linking Methodologies* section in this chapter.

**Links** Use the Links tab to view a list of methodologies linked to the open methodology. To establish links between base and plug-in methodologies, choose Methodology, Methodology Links.

Linked Methodologies
CMM Level 2
CMM Level 3
ISO 12207 Project Management
ISO 12207 Software Acquisition
ISO 12207 Software Maintenance

## Linking Methodologies

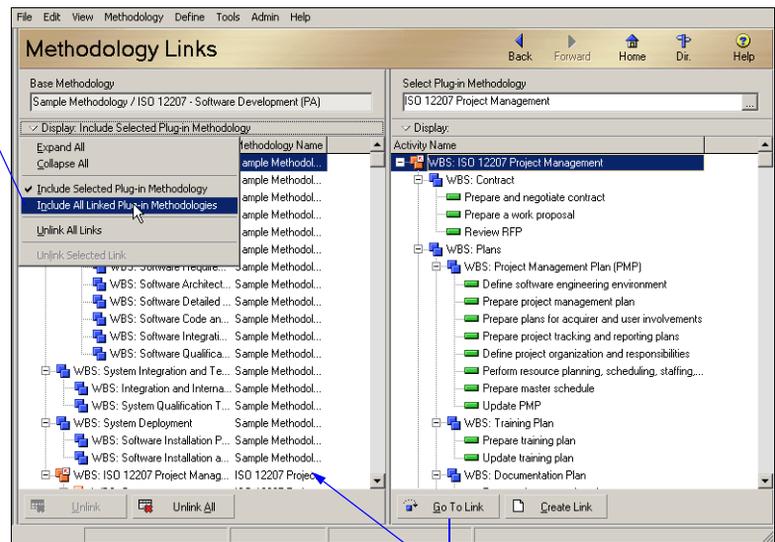
The module enables you to create relationships, or links, between base and plug-in methodologies. Base methodologies contain the critical infrastructure of activities performed during a development process, while plug-ins solve specific development needs. You can link WBS elements and activities in plug-in methodologies to WBS elements in base methodologies.

When you use Project Architect to create a project plan from a base methodology in the Project Management module, you can choose to include linked, plug-in methodologies in the base methodology.

**Create methodology links** Choose Methodology, Methodology Links.

To show the links for all the linked plug-in methodologies, choose **Include All Linked Plug-in Methodologies**.

To view a list of all methodologies linked to the open methodology, choose **Methodology, Methodology Properties**, then click the **Links** tab.



Click for a selected WBS plug-in element to see where it is linked in the base methodology.

If the open methodology is a base methodology, click the Browse button in the Select Plug-In Methodology field, then select the plug-in methodology you want to link. If the open methodology is a plug-in methodology, click the Browse button in the Select Base Methodology field, then select the base methodology you want to link.

---

*You can also create a link by dragging a plug-in methodology's WBS element to a WBS element in the base methodology.*

---

In the Base Methodology WBS table, select the WBS element under which you want to link a plug-in WBS. In the Plug-In Methodology WBS table, select the WBS element you want to link, then click Create Link. The blue WBS symbols change to orange to identify linked WBS elements.



*You can only create links between a base methodology and one or more plug-in methodologies.*

---

**Delete methodology links** Choose Methodology, Methodology Links. If the open methodology is a base methodology, in the Base Methodology WBS table select the WBS element link that you want to delete, then click Unlink. You can also unlink a WBS element by selecting the element in the Base Methodology WBS table and dragging it to the Plug-In Methodology WBS table. To delete all links, click Unlink All.

If the open methodology is a plug-in methodology, in the Plug-In Methodology WBS table select the WBS element link you want to delete, then click Go to Link. The link is selected in the Base Methodology WBS table. Click Unlink.

## Defining Estimation Factors

The Methodology Management module enables you to define the estimation factors used by project managers to determine project size/complexity when performing bottom-up estimations of work efforts and cost in the Project Management module. Each estimation factor consists of a factor name and description and one or more values; you can specify one value as the default for the factor. You can also assign an estimation factor category to each factor; you can use these categories to organize and apply multiple factors at once when size/complexity is calculated.

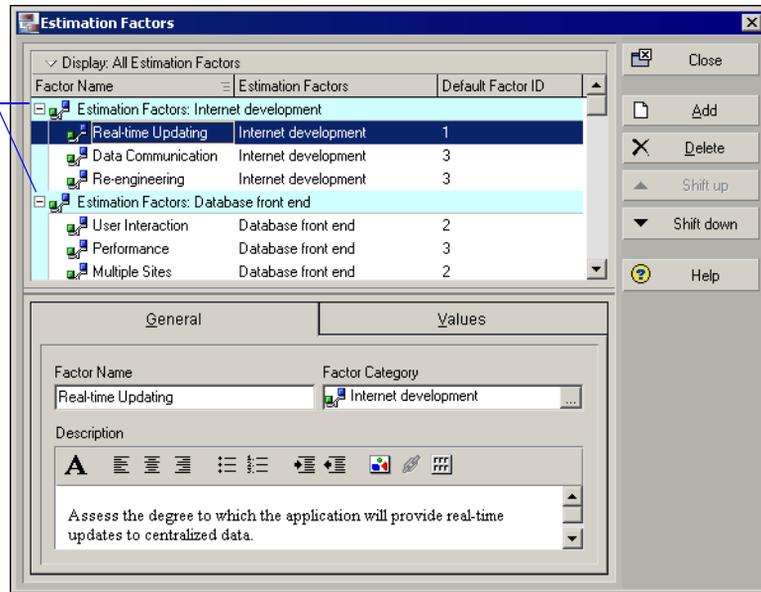
Project managers perform bottom-up estimations in the Project Management module using the Size and Complexity Wizard in Project Architect, by selecting values that match the defined set of estimation factors established in the Methodology Management module. The user's selection for each factor determines a project's size/complexity value.

To calculate the size and complexity percentage, Project Architect adds all factors you select, divides that sum by the sum of the maximum factor values for each factor, and produces a value between 0 and 1. This value is multiplied by 100.

You can specify an unlimited number of estimation factors per factor category, with a maximum of six values for each factor.

**Add estimation factors** Choose Define, Estimation Factors. Click Add, click the General tab, type the factor's name, then type a brief description of the factor. Optionally, select a factor category for the new factor.

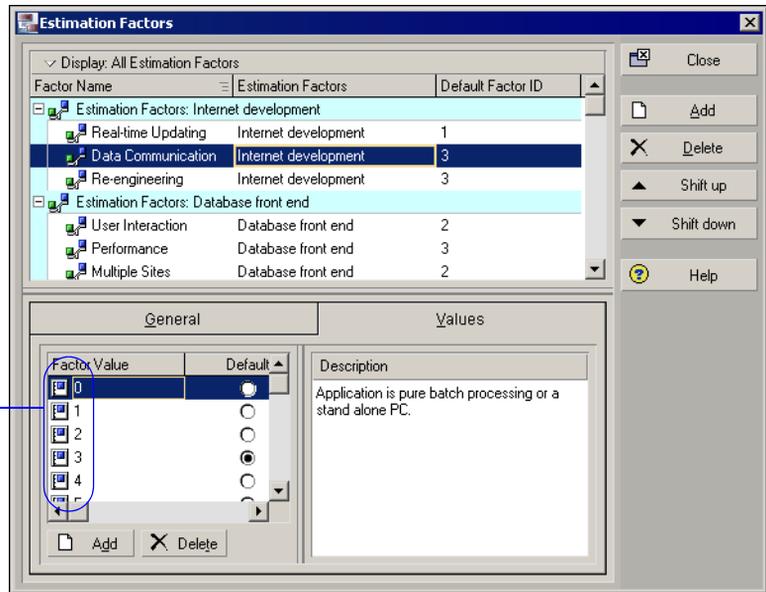
Factor categories help to organize related factors for a methodology.



For more information about setting up estimation factor categories, see the *Defining Administrative Preferences and Categories* chapter.

Factor categories enable you to organize factors for a methodology according to phase or some other characteristic. To use the Size and Complexity Wizard in Project Architect, you must have assigned estimation factors to a factor category, and also assigned the factor category you want to use for the methodology in the General tab of Methodology Properties (choose Methodology, Methodology Properties).

Click the Values tab.



You can define up to six values per factor.

For more information on using the Size and Complexity Wizard, see the Project Management Reference Manual.

For more information on reporting capabilities in the module, see the Customizing Reports chapter.

To add a factor value, click Add, type the numeric value, then type a description of the value. To set a default factor value, choose the value in the Default column. Type a description for each factor value. These descriptions, which should indicate the complexity of the value, are displayed when the value is selected in the Size and Complexity Wizard.

**Produce report listing factors** You can produce a standard report that lists the available estimation factors, organized by estimation factor category. You can use the report as a quick reference when selecting size and complexity factors in Project Architect. Choose Tools, Reports, then select Estimation Factor Categories in the Admin Categories report group.

## Using Bottom-Up Estimation Data

In the Methodology Management module, you can define each activity's low and high estimation values for labor and nonlabor resource units, and expense costs. These values enable users of the Project Management module to perform bottom-up estimations in Project Architect.

**Calculating bottom-up estimations** In the Project Management module, project managers perform bottom-up estimations by first calculating the size and complexity of a project. The Project Management module uses this project size/complexity value to calculate a value between the low and high estimation values defined for the labor and nonlabor units and expense costs defined for each activity in the project.

A project's size/complexity value can be between 0 and 100. If the size/complexity value equals 0, the Project Management module uses the low estimate for each activity. If the size/complexity value equals 100, the Project Management module uses the high estimate for each activity. For size/complexity values between 0 and 100, the Project Management module calculates an intermediate value between the low and high estimates for each activity. The value calculated using the size/complexity factor is then copied into the planned labor/nonlabor units and expense costs for each activity.

For details on how Project Architect calculates size/complexity using estimation factor values, see the preceding section. For more information on bottom-up estimation, see the Project Management Reference Manual.

You can supply the size/complexity value, or have Project Architect calculate it for you based on estimation factor values you specify in the Methodology Management module.

## Using Project Architect

Users of the Project Management module can select, customize, and import methodologies as prebuilt project plans from the Methodology Management module. Project Architect is a wizard that walks you through each step of this process. You can use Project Architect to create a new project plan or to add activities and associated information to an existing project. Also, as you customize methodologies, Project Architect allows you to enter rationales for your tailoring decisions. Because Project Architect copies methodologies from the Methodology Management module database, the information you change does not affect source methodologies.

In addition to providing access to methodologies, Project Architect also contains a bottom-up estimation feature that allows you to estimate resource units and costs for your methodology selections. Project Architect bases this estimate on project size and complexity factors that you specify during the architect process. This allows you to estimate work effort and cost before creating or adding a project.

After you select and customize the methodology you want to import, Project Architect displays detailed summaries of the project plan you developed, including a list of information you removed. This allows you to return to a previous window and make additional changes before importing the project.

For more information on Project Architect, see the Project Management Reference Manual.

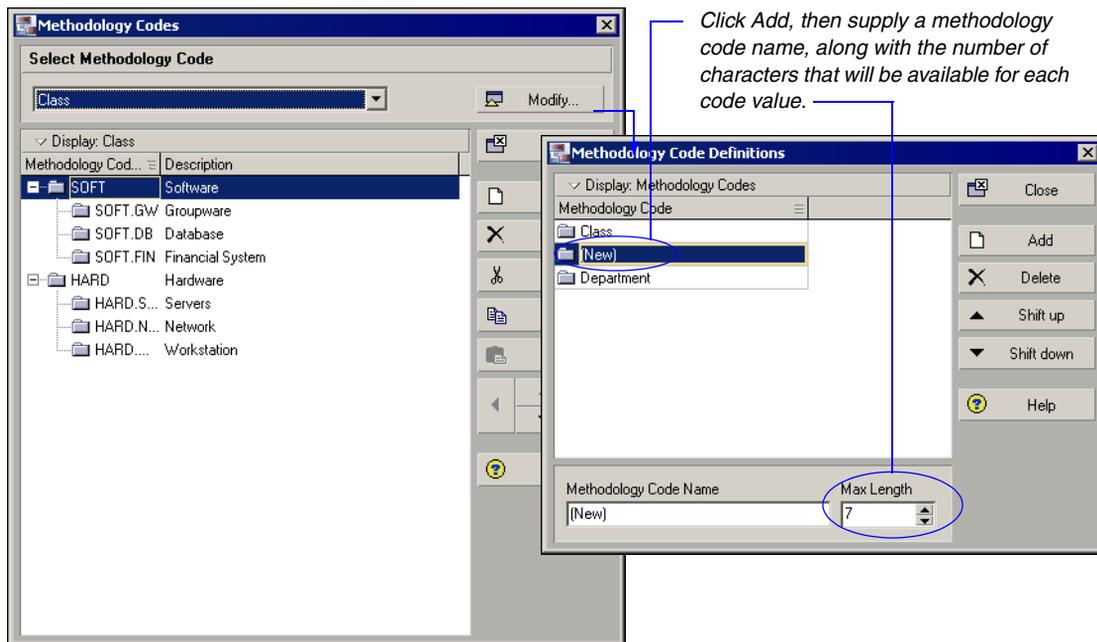
Project Architect is available from the File menu in the Project Management module.

## Defining Methodology Codes

Use methodology codes to group methodologies in categories in reports and when using Project Architect in the Project Management module. For example, create a code to group methodologies concerned with a specific product or outcome, such as software.

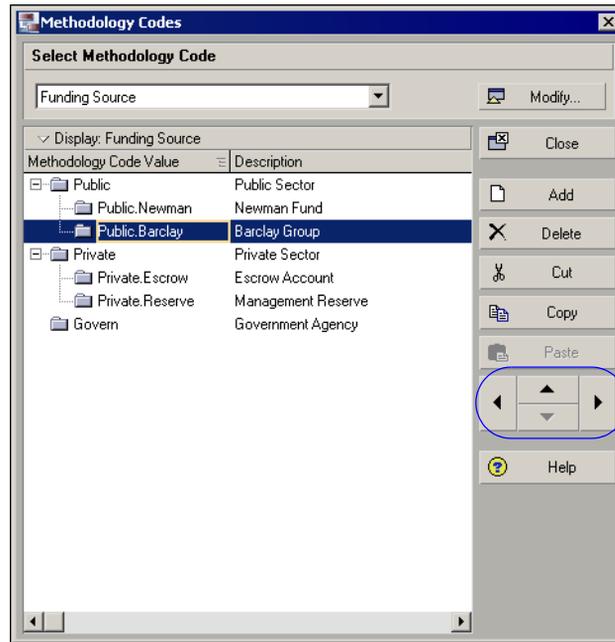
Methodology codes are set up in the Methodology Codes Dictionary, which is available to all methodologies. You can create values for the predefined codes provided in the Methodology Management module, or you can create new methodology codes and values for use with your methodologies.

**Define methodology codes and values** Choose Define, Methodology Codes. Click Modify in the Methodology Codes dialog box, then define as many methodology code definitions as you need.



To add values to a methodology code, in the Methodology Codes dialog box select the methodology code for which you want to establish values, then click Add. Type the values and descriptions.

To change a code value's position in the methodology codes hierarchy, select the code, then click the appropriate arrow button. For example, if you create a code called Funding Source, you may then want to specify code values for the different sectors from which the funding is received, such as Public, Private, and Government Agency. Within these sectors you can create values for the specific funding sources. To indent a source beneath a sector, first select the source, then click the up or down arrow buttons until the source is directly below the sector. Click the right arrow button to indent the source.



For instructions on assigning code values to methodologies, see the *Defining Methodology Properties* section earlier in this chapter.

To see a graphical display of the methodology codes hierarchy, click the Display Options bar in the Methodology Codes dialog box and choose Chart View. You can also modify the appearance of the table or chart using the other menu commands available from the Display Options bar.



# Establishing a Work Breakdown Structure

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## *In this chapter*

**WBS Overview**

**Viewing and Editing a WBS**

**Applying Estimation Weights to WBS Elements**

**Adding WBS Elements and Assigning Properties**

**Using WBS Milestones**

A work breakdown structure (WBS) is a hierarchical arrangement of the products and services produced during and by a project. Each element of a WBS may contain more detailed WBS elements, activities, or both. When a user of the Project Management module creates a project from a methodology, the methodology's WBS becomes the project's WBS.

When creating a methodology, you typically develop the WBS first, assign work products and documents to each WBS element, and then define activities for performing the element's work, along with an organizational breakdown structure (OBS) element responsible for all work included in the WBS element.

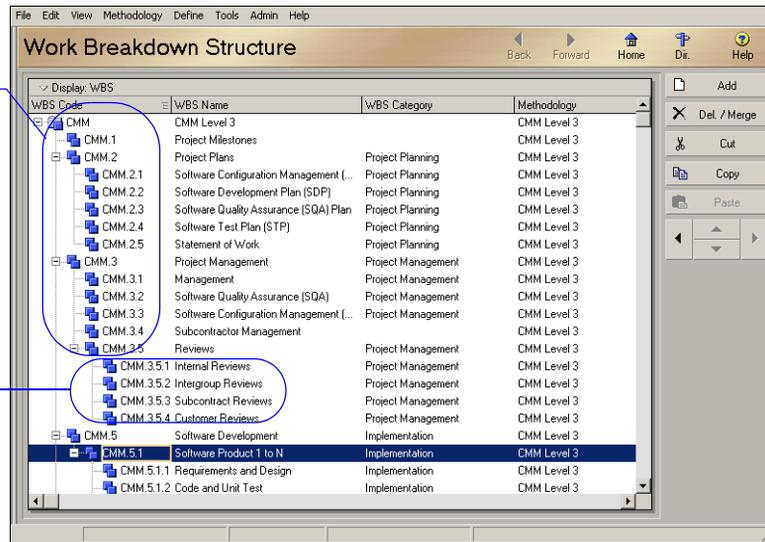
Read this chapter to learn how to set up and implement a WBS.

## WBS Overview

Each methodology in your database is arranged in a work breakdown structure (WBS) hierarchy. The WBS can be subdivided into as many levels as needed to parallel work in the methodology. The root, or highest level of the WBS, represents the methodology, with the first-level elements representing distinct milestones or phases in the methodology, and the second and subsequent levels representing the tasks necessary to complete those milestones and phases. A well-constructed WBS in the Methodology Management module provides the foundation for successful projects in the Project Management module.

When you create a methodology, the module automatically creates a WBS element at the root hierarchy level and with the same name as the methodology; you can differentiate the WBS level from that of the methodology by adding numbers or letters such as CMM.1, CMM.B.

You can further break down the work, to extend the methodology to another level and develop a more detailed project plan.



For more information about top-down estimation, see the Project Management Reference Manual.

**Top-down estimates** You can use the WBS in each methodology for top-down estimations of data when projects are created from the methodologies in the Project Management module. When the methodology WBS is transferred to the project WBS, the estimates established in the Methodology Management module are used as the basis for labor, nonlabor, and material unit and cost distributions for the activities associated with the WBS elements.

For more information about weighted milestones, see the *Using WBS Milestones* section later in this chapter.

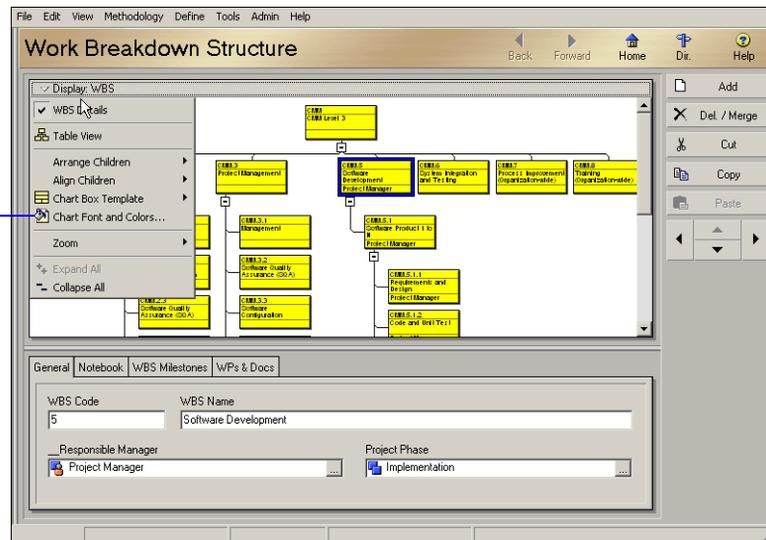
**Weighted milestones** In the Methodology Management module, you can add an unlimited number of WBS milestones, which can be used to calculate earned value in the Project Management module. Milestones are assigned at the WBS level, and each milestone is given a weight that indicates its importance to the project schedule. When you mark a WBS milestone as complete, the Project Management module uses its weight to calculate the performance percent complete of all activities included in the WBS level.

## Viewing and Editing a WBS

You can view a WBS as a chart or as a table. Open the Work Breakdown Structure window by choosing Methodology, WBS; you can also click WBS from the Home workspace if you have not yet selected a window for the open methodology.

**View the Work Breakdown Structure chart** Click the Display Options bar, then choose Chart View. To change the displayed information, click the Display Options bar and choose Chart Box Template, then an information type.

To change the display's appearance, click the Display Options bar, then choose Chart Font and Colors.

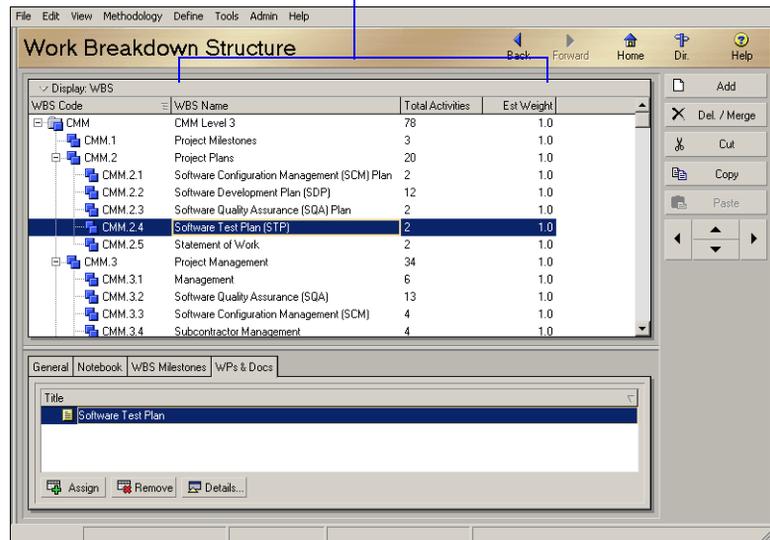


To change the WBS display from hierarchy to list view, click the WBS Code column label. An outline symbol (≡) in the column label indicates a hierarchy display, and a triangle symbol (▼) in the column label indicates a list display.

**View the Work Breakdown Structure table** Click the Display Options bar, then choose Table View. To list and sort WBS elements, click the WBS Code column label. To change the information displayed in the table, click the Display Options bar, then choose any of the following:

- To view detailed information about a specific WBS element, choose WBS Details (the checkmark should be displayed next to the command), then select the WBS element whose information you want to view. To hide WBS Details, choose the command again (the checkmark should not be displayed).
- To change the columns in the WBS display, choose Columns, then one of the predefined displays, or customize the columns.

*This display includes each WBS element's name, total activities, and estimated weight.*



*You can also directly edit some WBS information in the Work Breakdown Structure table. Double-click the information you want to change, then type or select the new value.*

**Edit a WBS element** Select the WBS element you want to edit. To change the element's position in the WBS, click the appropriate arrow buttons at the bottom of the command bar on the right side of the Work Breakdown Structure window. Display Work Breakdown Structure Details by clicking the Display Options bar and choosing WBS Details, then enter new information in the tabs as described in this and subsequent sections in this chapter.

**Delete a WBS element** Select the WBS element you want to delete, then click Del./Merge. If the WBS element has activity assignments, you are prompted to delete the WBS element and all of its activity assignments, or delete the WBS element and reassign, or merge, all of its activity assignments to the element's higher-level WBS element. Click OK, then click Yes.



*If you delete a higher-level WBS element, the module also deletes all elements contained in that element.*

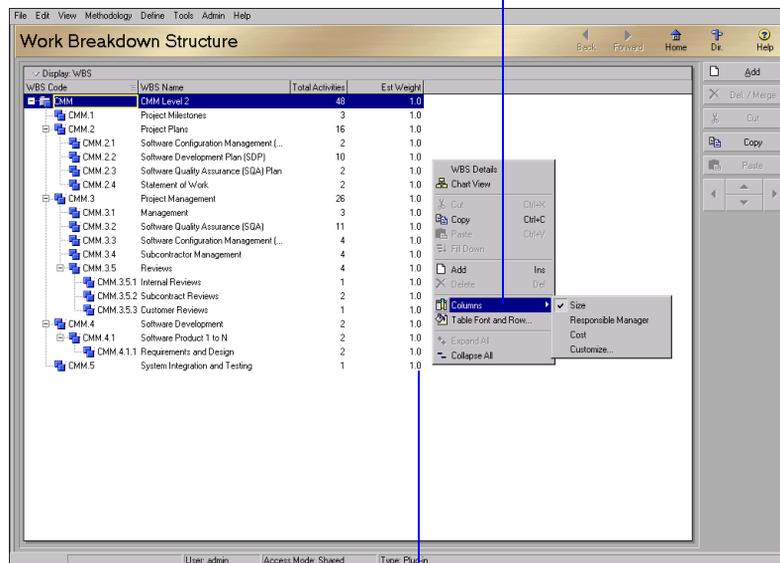
## Applying Estimation Weights to WBS Elements

For more information about top-down estimation, see the Project Management Reference Manual.

Top-down estimation data consist of estimation weights for work breakdown structure (WBS) elements and activities in a methodology. The Project Management module imports these weights when project managers import methodologies to develop project plans. When performing a top-down estimation in the Project Management module, the user first specifies the labor, nonlabor, or material units to apply to the project. Then, according to the estimation weights defined in the Methodology Management module, the Project Management module distributes the units in a top-down manner, via the WBS, to the project's activities.

**Apply estimation weights to WBS elements** Choose Methodology, WBS. Click the Display Options bar, then choose Columns, Size. In the Est Weight column, enter the applicable weights for each element listed for the open methodology.

*You can also right-click to select the columns to display for entering data.*



*Type directly in the Column field for the WBS element to enter its estimated weight.*

## Adding WBS Elements and Assigning Properties

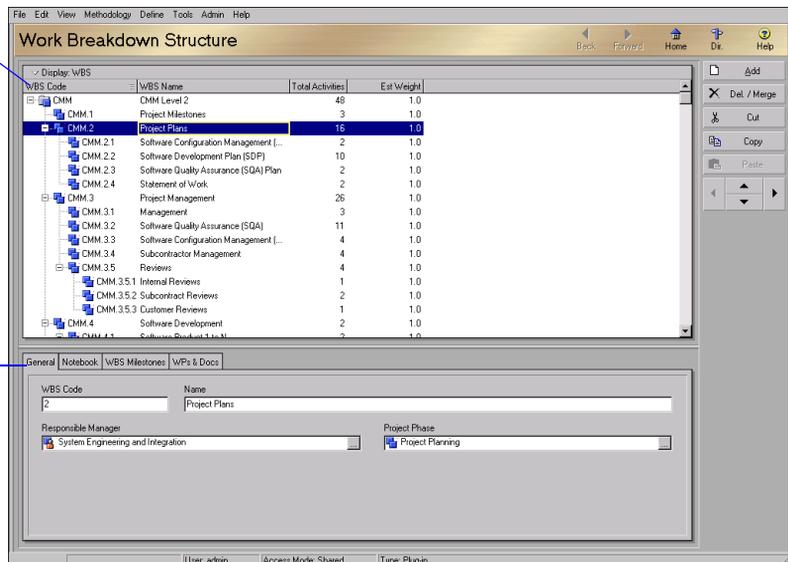
When you create methodologies, the module automatically creates a WBS top-level element with the same name as the methodology. Use the Work Breakdown Structure window to create, view, and edit the open methodology's WBS. Choose Methodology, WBS.

**Add a WBS element** Select the WBS element immediately above and at the same hierarchy as the element you want to add, then click Add.

Display Work Breakdown Structure Details by clicking the Display Options bar and choosing WBS Details.

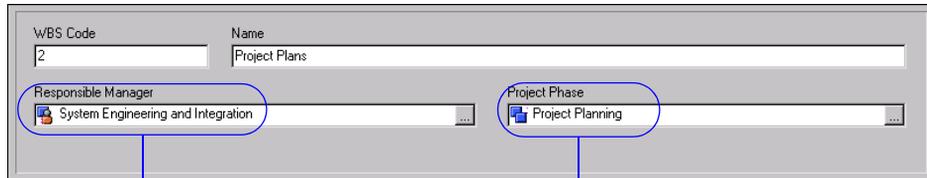
Click the WBS Code column label to display the WBS hierarchy, if necessary. An outline symbol (≡) in the WBS Code column label indicates a hierarchy display.

Display Work Breakdown Structure Details so you can add and assign information for each WBS element you are creating.



For more information about WBS categories, see the *Defining Administrative Preferences and Categories* chapter.

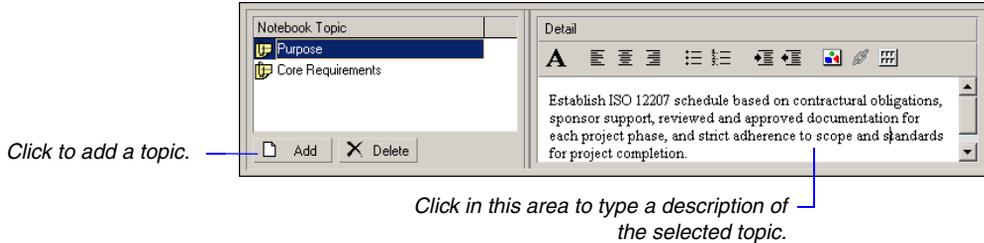
**General information** Use the General tab to view and edit the selected WBS element's general information. This includes the code, name, custom WBS category (Project Phase, in the example), and responsible manager (OBS element). For more information about assigning OBS elements to WBS elements, see the *Setting Up the Organizational Breakdown Structure* chapter.



The name of the selected WBS element's root OBS element

The WBS category name and associated values are established in the Admin Categories dialog box.

**Notebooks** Use the Notebook tab to assign notebook topics and details to the selected WBS element. These topics are defined in the Notebook Topics tab of the Admin Categories dialog box.



Click to add a topic.

Click in this area to type a description of the selected topic.



You can use HTML editing features in description fields, which include formatting text, inserting pictures, copying and pasting information from other document files (while retaining formatting), and adding hyperlinks.

For more information about work products and documents, see the *Creating and Maintaining a Document Library* chapter.

**Work products and documents** Use the WPs & Docs tab to assign documents to specific WBS elements to track work for adherence to organizational as well as product standards. These documents are pre-established in the Work Products and Documents window, and are categorized for organizational purposes in the Admin Categories dialog box.



Click to assign a work product or document to a selected WBS element.

Click to display a description of the selected work product or document.

Indicates this document is a work product.

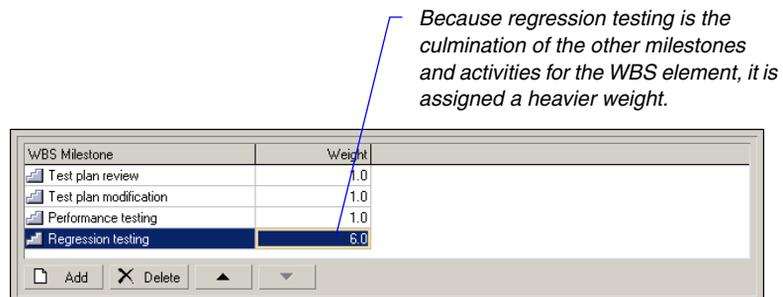
## Using WBS Milestones

In the Methodology Management module, you can add an unlimited number of WBS milestones, which can also be used to calculate earned value in the Project Management module. Milestones are assigned at the WBS level, and each milestone is given a weight that indicates its importance to the methodology. When the methodologies are imported to the Project Management module, and you mark a WBS milestone as complete in the project schedule, the milestone's weight is used to calculate the performance percent complete of all activities included in the WBS level; that is, the performance percent complete is applied to all activities under that WBS level and then rolled back up to the WBS.

You may want to use WBS milestones when higher-level task increments comprise a body of activities and you want to control the activities at the WBS level. For example, to control the testing work in final code preparation, you might assign WBS milestones to the major steps required to complete the testing—such as test plan review, test plan modification, performance testing, regression testing, and so on. Each of these milestones would contain the detailed activities required to complete it.

Choose Methodology, WBS, then display WBS Details.

**Add WBS milestones** Use the WBS Milestones tab to add an unlimited number of WBS milestones to a WBS element. Click Add, then type a name for the milestone and assign a weight for calculating performance percent complete for all activities in the WBS element when the methodology is imported in the Project Management module.



The following example shows how the methodology WBS milestones are used in the Project Management module.

The Project Management module calculates this performance percent complete, or earned value, based on the weighted milestones you mark as complete on this tab, independent of the child activities corresponding to the selected WBS element.

A number indicating the significance of this milestone relative to the others listed, and used to calculate a corresponding percent complete value when the milestone is marked Completed

% Complete

WBS Milestone	Weight	Completed
Test plan review	1.0	<input type="checkbox"/>
Test plan modification	1.0	<input checked="" type="checkbox"/>
Performance testing	1.0	<input type="checkbox"/>
Regression testing	6.0	<input type="checkbox"/>

When you mark the checkbox for a milestone, the module calculates the performance percent complete for the WBS element based on the milestone's weight value in combination with the other milestones listed.



# Setting Up the Organizational Breakdown Structure

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## *In this chapter*

**OBS Overview**

**Viewing an OBS**

**Setting Up and Assigning an OBS**

**Editing OBS Elements**

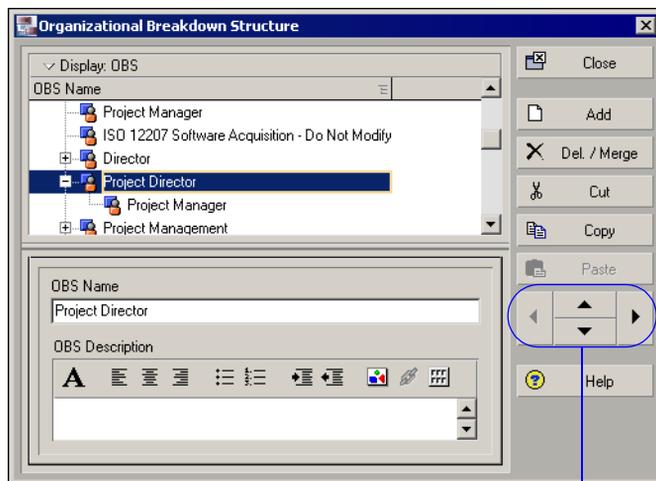
An organizational breakdown structure (OBS) is a hierarchical arrangement of a project's management structure. The OBS feature in the Methodology Management module supports larger projects, which involve more than one project manager, to accommodate the enterprise project structure (EPS) environment in the Project Management module.

An OBS is not the same as a resource pool. While resources are assigned to activities, OBS elements are assigned to work breakdown structure (WBS) elements. The OBS element assigned to a WBS element is typically the project manager responsible for that WBS element.

Read this chapter to learn how to set up an OBS and associate its elements with the WBS.

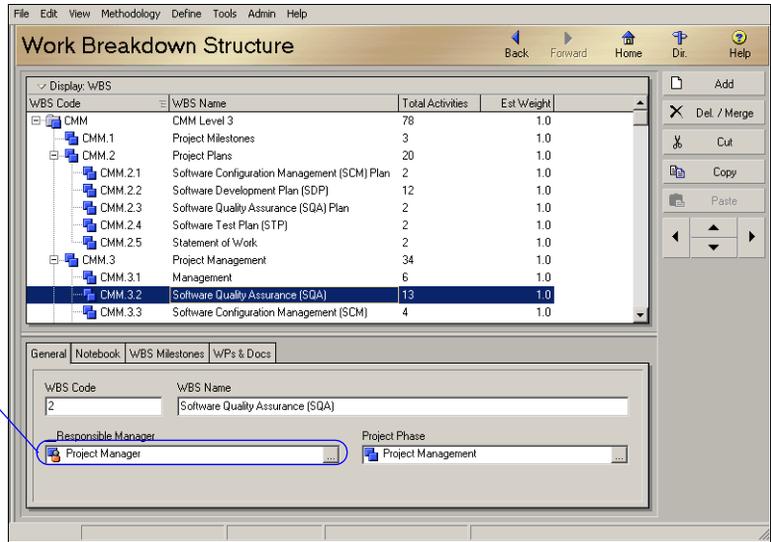
## OBS Overview

The organizational breakdown structure (OBS) is a global hierarchy that represents the managers responsible for the methodologies in the module. The OBS usually reflects the management structure of your organization, from top-level personnel down through the various levels constituting your business. You can associate the responsible managers with their areas of the WBS. When you associate a responsible manager with a WBS element, any elements you add to that branch of the WBS are assigned that manager OBS element by default. In the Project Management module, the OBS hierarchy is also used to grant users specific access privileges to projects and the WBS levels within projects.



*Click to move elements up/down  
or indent/outdent.*

**Enterprise OBS elements** Creating a WBS element in the Work Breakdown Structure window creates and associates an OBS element as the responsible manager.



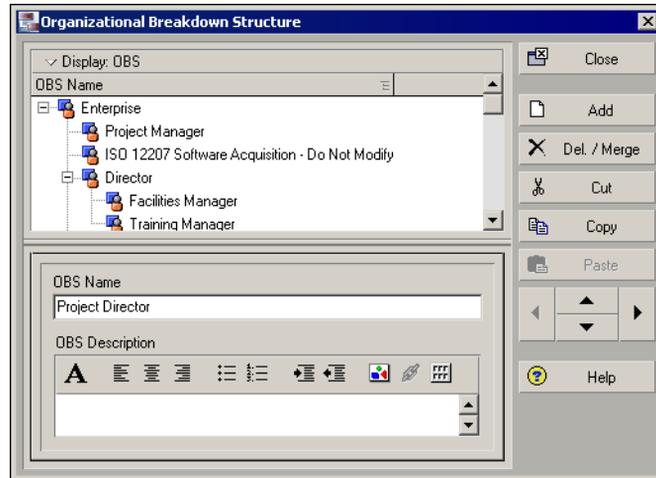
The module associates the OBS assigned to the WBS level in which the new element is added.

For more information about producing OBS and other standard reports, see *Part 4: Customizing Methodologies*.

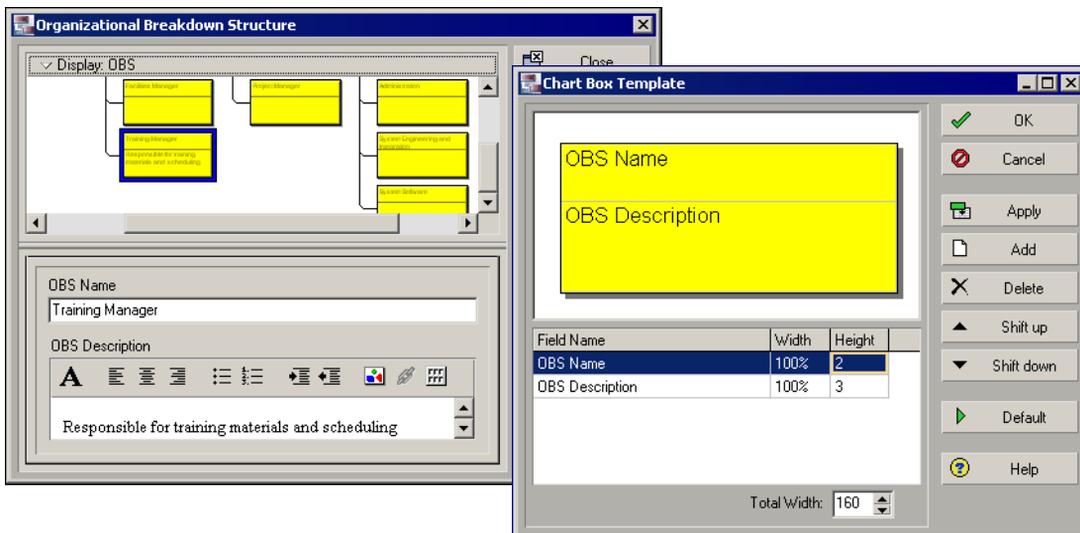
You can also produce reports based on your OBS; several standard OBS reports are included with the sample methodologies supplied with the module.

## Viewing an OBS

The module provides two ways to view an OBS: as a chart or as a table. Choose Define, OBS, to open the Organizational Breakdown Structure dialog box.



**View the Organizational Breakdown Structure chart** Click the Display Options bar, then choose Chart View. To change the information that is included in the chart and the way in which it is displayed, click the Display Options bar and choose Chart Box Template, Customize.



**View the OBS table** Click the Display Options bar, then choose Table View.

*Click the OBS Name column once to view the OBS hierarchy; click it again to list and sort OBS elements.*

*OBS Details are hidden so that more of the table is visible.*

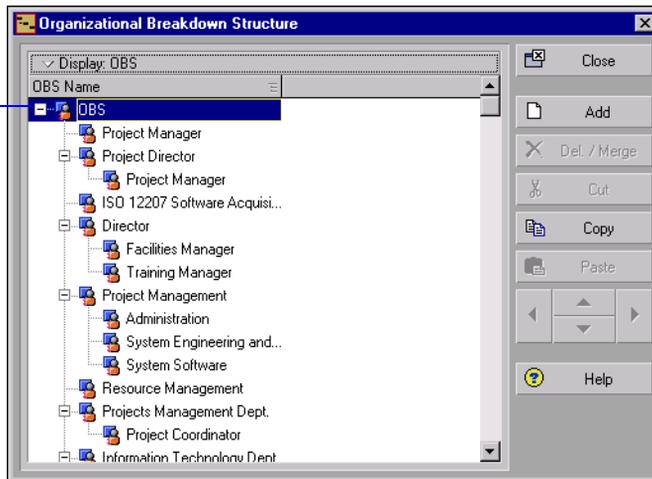


## Setting Up and Assigning an OBS

Use the Organizational Breakdown Structure dialog box to create, view, and edit the global OBS used by all methodologies in the module.

**Create an OBS** A root OBS element is automatically created when you create a new methodology so that an OBS element is available for assignment to each WBS element you add to the methodology. When you use the Work Breakdown Structure window to set up the WBS as the foundation of the methodology, you can use the existing root OBS as the default for each WBS element, or you can set up the OBS before you build the WBS. You can then assign actual responsible managers when you create WBS elements. Once your basic OBS is in place, and you bring the methodology into the Project Management module as a project, you can include additional OBS elements to provide access to specific EPS nodes, projects, and WBS elements, to users not included with the original enterprise OBS element.

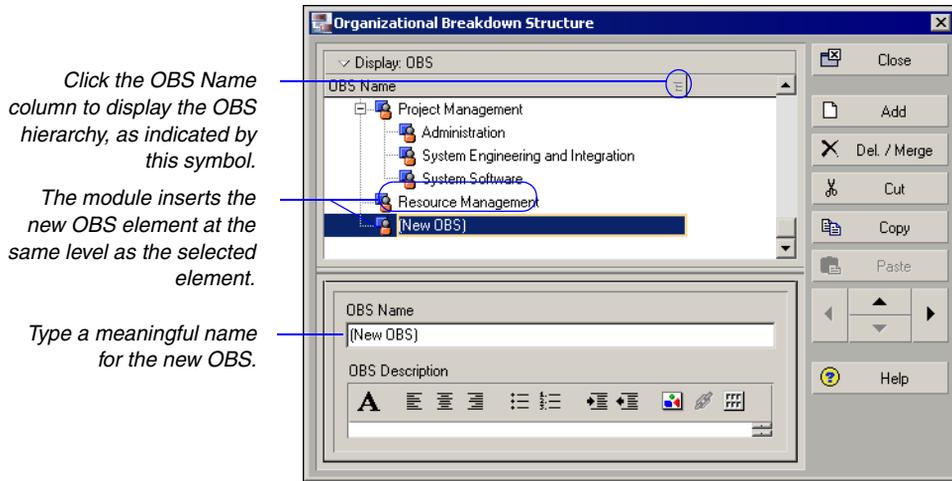
*Root OBS element; you can change the name to represent the top person or group in the organization.*



**Add an OBS element** Choose Define, OBS. Select the OBS element immediately above and at the same hierarchy level as the element you want to add, then click Add.



*An OBS can have only one root element.*

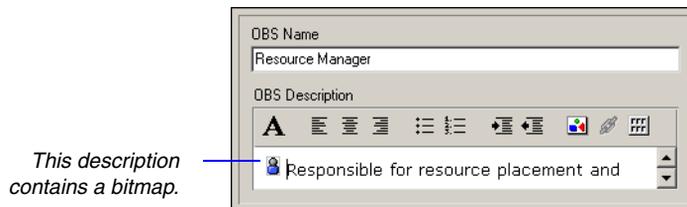


Click the OBS Name column to display the OBS hierarchy, as indicated by this symbol.

The module inserts the new OBS element at the same level as the selected element.

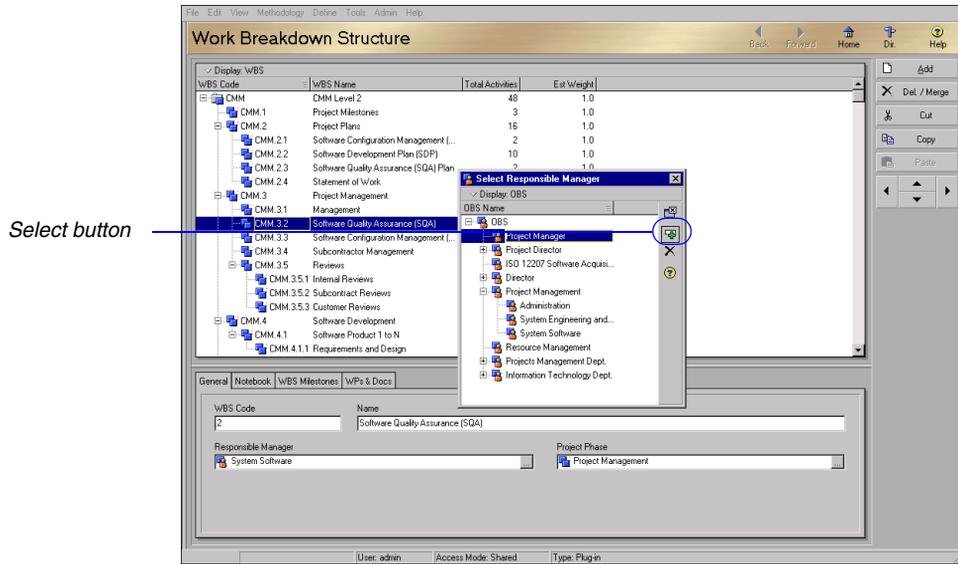
Type a meaningful name for the new OBS.

Click in the OBS Description area to type a description of the OBS element. You can use HTML editing features, which include formatting text, inserting pictures, copying and pasting information from other document files (while retaining formatting), and adding hyperlinks.



This description contains a bitmap.

**Assign an OBS element to a WBS element** Choose Methodology, WBS. Select the WBS element to which you want to assign an OBS element. Display Work Breakdown Structure Details by clicking the Display Options bar and choosing WBS Details. Click the General tab, then click the Browse button in the Responsible Manager field. Select the OBS element you want to assign, then click the Select button.

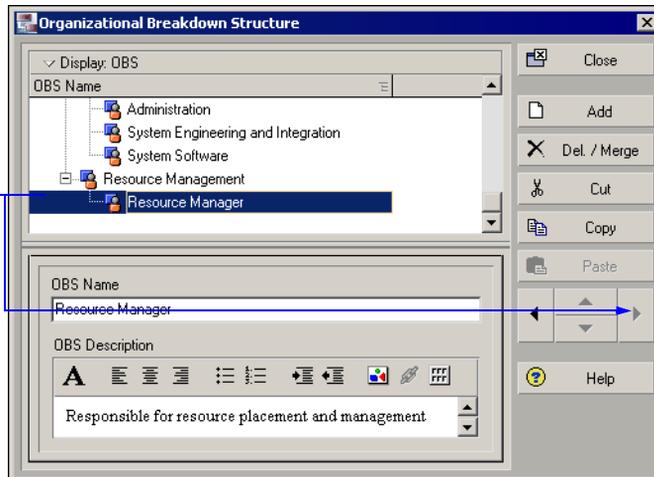


## Editing OBS Elements

You can edit an OBS in several ways. You can change an existing OBS element's position and information, you can add an OBS element (described earlier), and you can delete an OBS element. Choose Define, OBS.

**Edit an OBS element** Click the OBS Name column label to display the OBS hierarchy. (An outline symbol  in the OBS Name column label indicates a hierarchy display.) Select the OBS element you want to edit. To change the element's information, type a new name and/or description for the element. To change the element's position in the OBS, click the appropriate arrow buttons.

*The Resource Manager OBS element was moved to the right using the right-arrow button, to make it an element of the Resource Management OBS.*



**Delete an OBS element** Click the OBS Name column label to display the OBS hierarchy. Select the OBS element you want to delete, then click Del./Merge. If the OBS element you want to delete has work breakdown structure (WBS) assignments, you are prompted to merge the element with its higher-level OBS element. To delete the OBS element and reassign its WBS assignments to the element's parent OBS element, choose Merge Element(s). To delete the OBS element without reassigning its WBS assignments, choose Delete Element(s). Click OK, then click Yes.



*If you delete a higher-level OBS element, the module deletes all of the elements contained in that element.*



# Defining Resources and Roles

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## *In this chapter*

**Resources and Roles Overview**

**Viewing and Adding Resources**

**Defining and Assigning Resource Codes and Values**

**Setting Up Roles**

**Assigning Roles to Resources**

Resources include the personnel and equipment that perform work on activities across all methodologies. In the Methodology Management module, you can create a resource hierarchy that reflects your organization's resource structure and supports the assignment of resources to activities. The Methodology Management module also enables you to establish unlimited resource codes that can be used in the Project Management module for grouping and rollups, and you can set up roles with specific skill sets and use them as resource assignments until specific resources can be assigned. This enables you to plan costs by role at the project planning stage.

This chapter describes resources, roles, and resource codes.

## Resources and Roles Overview

Use the Methodology Management module to develop a methodology resource plan that integrates resources and costs, so you can effectively control the methodologies when they become projects in the Project Management module. Begin by defining a list of all the resources necessary to complete the projects included in your enterprise project structure (EPS). For each resource, set availability limits and unit prices. Group the resources by broad categories so you can easily find a specific resource when assigning resources to activities in a methodology.

To enable grouping and rollups of your resources for a methodology once it becomes a project in the Project Management module, set up resource codes and assign code values. Use this information to produce resource reports and layouts in the Project Management module that help you analyze resource allocation.

**Roles** If you are in the planning stage of your methodology or want to see how certain resource assignments will affect costs, you can assign roles as temporary placeholders for resource assignments. Roles are project personnel job titles or skills. They represent a type of resource with a certain level of proficiency—rather than a specific individual. Roles can also be assigned to specific resources to further identify that resource's skills.

## Viewing and Adding Resources

Use the Resources window to maintain both your organization's resource hierarchy and individual resource information. You can assign resources to activities in any methodology. This enables users of the Project Management module to create projects with preassigned resources.



*Resources are different than expenses. While resources can be time-based and generally extend across multiple activities and/or projects, expenses are one-time expenditures for nonreusable items required by activities.*

Choose Define, Resources, or click Resources on the Home workspace, to display the Resources window.

*You can also open the Resources window at the global level—without any methodologies open.*

The screenshot shows the 'Resources' window in Primavera Methodology Management. The window has a menu bar (File, Edit, View, Methodology, Define, Tools, Admin, Help) and a toolbar (Back, Forward, Home, Dir., Help). The main area is divided into two sections: a tree view on the left and a table on the right.

The tree view shows a hierarchy of resources:

- Display: All Resources
  - SYSDEV (expanded)
    - TST (expanded)
      - LDAN (expanded)
        - Laura Daniels
      - JPHIL (expanded)
        - Jeremy Philips
    - ORG (expanded)
      - PO (expanded)
        - Project Office
      - ADMIN (expanded)
        - Project Administration
      - PM (expanded)
        - Project Management
      - JMCD (expanded)
        - John McDougal

The table on the right shows the following data:

Resource ID	Resource Name	Primary Role	Default Units / Time
SYSDEV	Systems Development	PM.PPDC	398%
TST	Testing	PM.PPDC	298%
LDAN	Laura Daniels	TC	100%
JPHIL	Jeremy Philips	PM.QAM	100%
ORG	Organization		2900%
PO	Project Office		900%
ADMIN	Project Administration		300%
PM	Project Management		600%
JMCD	John McDougal	PM.SPA	100%

The bottom section of the window has tabs for General, Codes, Details, Roles, and Notes. The 'General' tab is active, showing the following fields:

- Resource ID: SYSDEV
- Resource Name: Systems Development
- Employee ID: 116950000
- Title: (empty)
- E-Mail Address: (empty)
- Office Phone: 718-456-9021

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*To change the resource display from hierarchy to list view, click the Resource ID column label. A triangle symbol (▼) in this column label indicates a list display. You can sort resource information in a list display by clicking a column label.*

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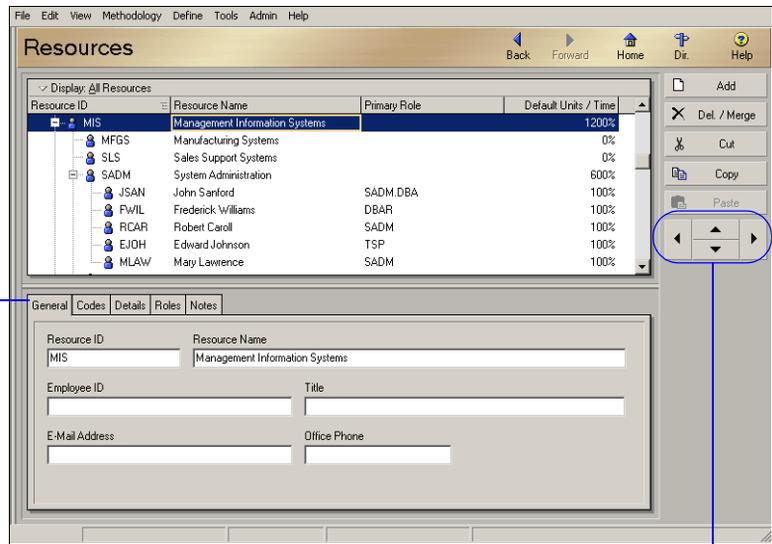
**View resources** Click the Display Options bar, then choose one of the following:

- To view detailed information about a specific resource, choose Details (the checkmark should be displayed next to the command), then select the resource whose information you want to view. To hide Resource Details, choose the command again (the checkmark should not be displayed).
- To view resources as a chart, choose Chart View.
- To select the columns to include in the display, choose Columns, Customize.
- To select the resources to display, choose Filter By, then choose All Resources to view all resources, or Current Methodology to view only those resources that have assignments in the open methodology.
- To organize the resource hierarchy, choose Group and Sort By, and choose one of the predefined groupings or customize your own.

**Add a resource** Click the Display Options bar, then choose Group and Sort By, Default, to display the resource hierarchy. Select the resource immediately above and at the same level as the resource you want to add, then click Add. Depending on your user preferences, the New Resource Wizard may start. The wizard prompts you to add the information included in each tab in Resource Details. If you do not use the wizard, this information can also be entered directly in each tab. To display Resource Details, click the Display Options bar, then choose Details.

Refer to this section to establish basic resource information. To specify additional information, refer to the following sections later in this chapter:

- Codes – *Defining and Assigning Resource Codes and Values*
- Roles – *Setting Up Roles and Assigning Roles to Resources*

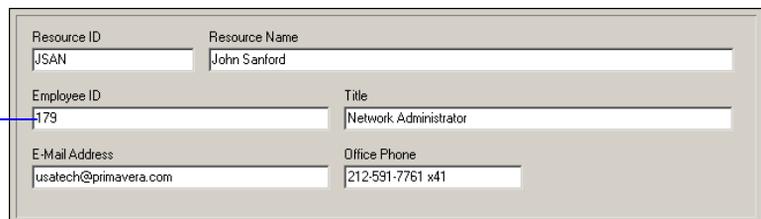


Use Resource Details to add, view, and edit detailed information about a new or selected resource.

Click the left/right arrows to indent or outdent a selected resource to denote its position in the hierarchy; click the up/down arrows to move a selected resource up or down in the hierarchy.

**General information** Use the General tab to enter general information about the selected resource, including the resource's ID, name, title, employee ID, e-mail address, and office phone number.

The employee identifier corresponding to the resource



**Details** Use the Details tab to specify a resource’s labor classification (labor [personnel], nonlabor [equipment], or material [supplies]), indicate whether a resource can log overtime hours, and define the resource’s standard rate and availability.



The available time units are minutes, hours, days, weeks, months, and years. Your system administrator sets the abbreviation for each time unit in the Admin Preferences dialog box.

The number of units available during each workperiod (hour, day, week, or month) of the specified timeframe; you can enter a percentage, or a numeric value followed by a forward slash (/) and the appropriate time duration, depending on your user preference setting for time units.

The minimum amount of time a resource is available to work on an activity.

By default, displays the view currency selected in User Preferences when the resource was added; you can select a different currency to associate with the resource.

Mark to enable the resource to record overtime hours for activities in Primavera Timesheets.

Type the number by which the resource’s standard price should be multiplied to determine the resource’s overtime price (standard price \* overtime factor = overtime price).

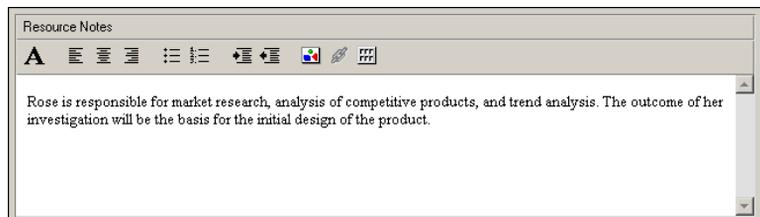
Type the resource’s monetary price followed by a forward slash (/) and the unit associated with the price.

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## Default Units/Time

You can enter the default units/time value as a percentage, or as a numeric value followed by a forward slash (/) and the appropriate time duration, depending on your user preference setting for time units. For example, if the selected resource is one person, a reasonable value may be eight hours (units) per day (duration). In this case, the Default Units/Time would be 8.00h/d, or eight hours of work per day. If you are entering a percentage, you would enter 100 indicating that the resource is available to work full-time. Similarly, if the selected resource is a department with five people, then the Max Units/Time may be 40.00h/d, or 500 percent. This means that five people can perform 40 hours of work per day, rather than one person performing 8 hours of work per day.

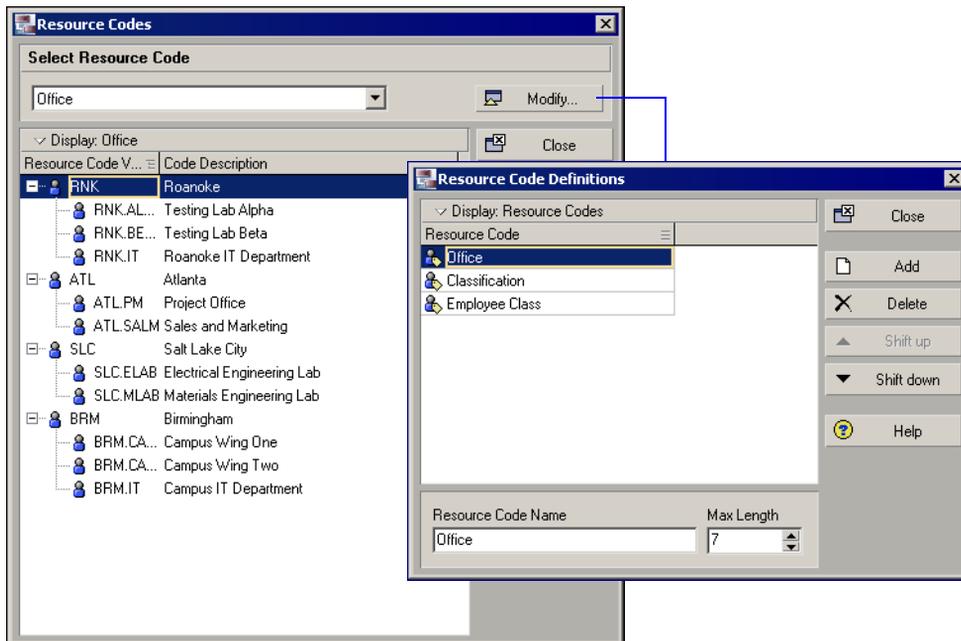
**Notes** Use the Notes tab to enter comments about the resource. You can use HTML editing features, which include formatting text, inserting pictures, copying and pasting information from other document files (while retaining formatting), and adding hyperlinks.



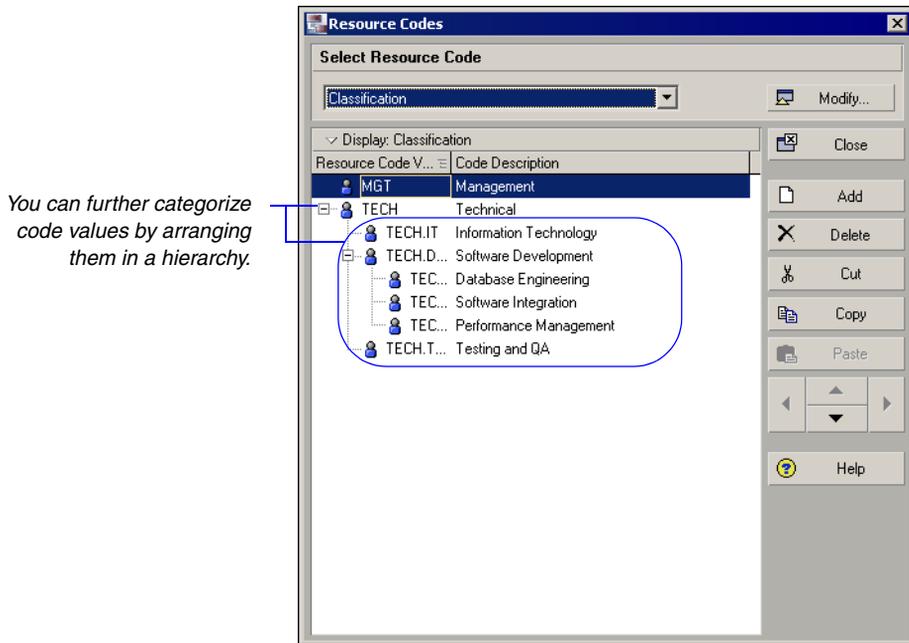
## Defining and Assigning Resource Codes and Values

Resource codes provide another way to categorize project resources. For example, establish a code called Responsibility, and create values for it, such as Team Lead and Engineer. Assign these values to the appropriate resources so you can quickly group, filter, or sort by all engineers or all team leads once you import a methodology as a project in the Project Management module. Choose Define, Resource Codes, to display the Resource Codes dialog box.

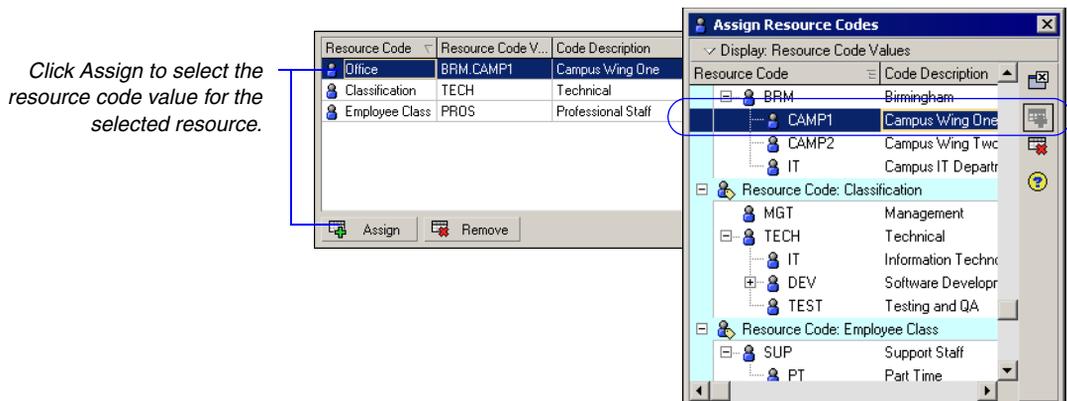
**Set up resource codes** Click Modify to add resource code definitions—broad categories for which you will be adding values. Type the resource code name and enter the maximum number of characters for each value you will be assigning to the code. Click Close when you are finished adding codes and value lengths.



**Add resource code values** Select the code for which you want to establish values, then click Add. Type the resource code value name; the maximum number of characters is preset at the resource code level. Type a description for the value. To create a hierarchy of code values, click the right arrow key to indent the selected value one level.



**Assign resource code values** You can assign code values to resources using the Codes tab in Resource Details. Click the Display Options bar and choose Details, click the Codes tab, then click Assign.



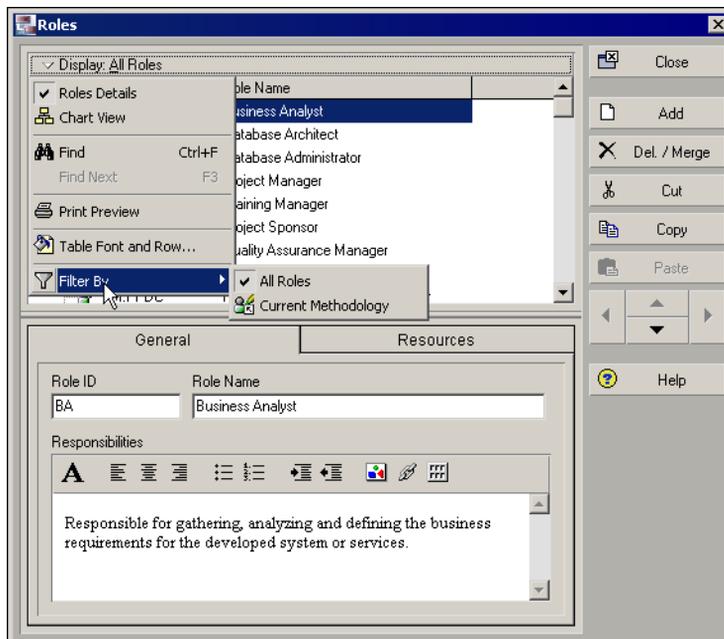
## Setting Up Roles

Roles are project personnel job titles or skills, for example, software engineer, database administrator, and quality insurance inspector. You can create a standard set of roles that you can assign to resources and activities in all methodologies. You can establish an unlimited number of roles and organize them in a hierarchy for easier management and assignment. The set of roles you assign to an activity defines the activity's skill requirements.

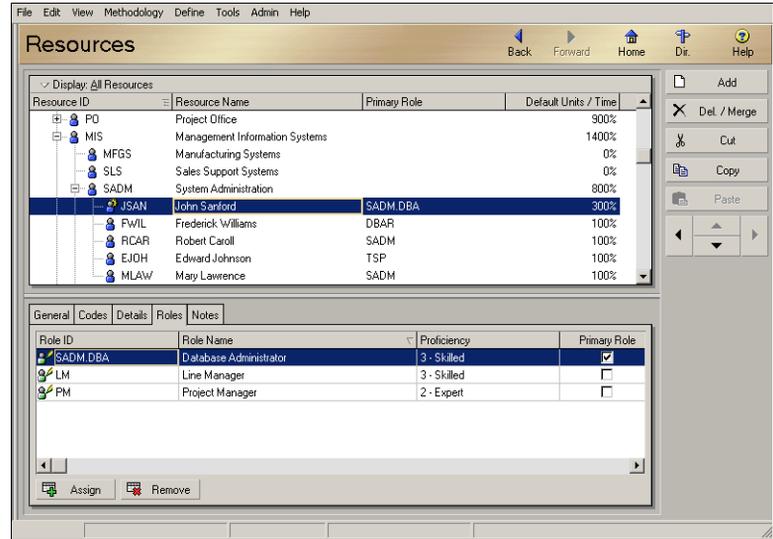
Assign roles to activities as you would resources during methodology setup and cost planning. When your plans are finalized, you can replace roles with resources, based on each activity's role and skill requirements.

**View roles** Choose Define, Roles, then click the Display Options bar.

- To view only those roles that have assignments in the open methodology, choose Filter By, Current Methodology.
- To view all roles, choose Filter By, All Roles.

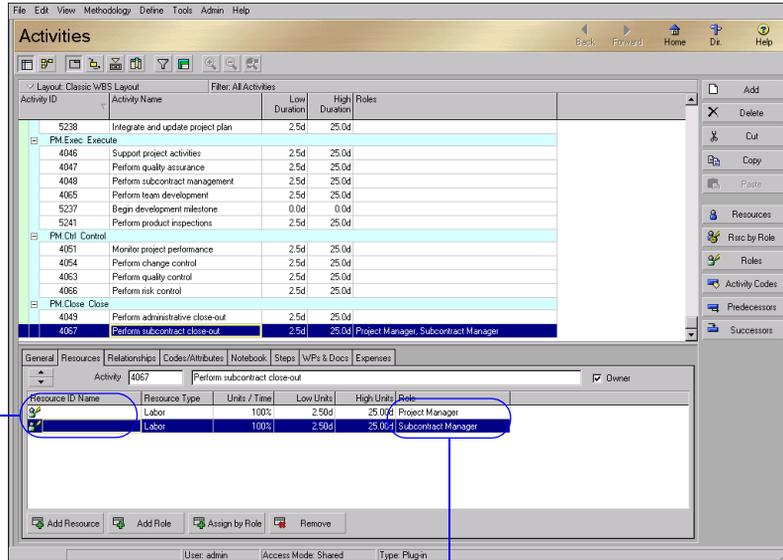


**View roles for a specific resource** Choose Define, Resources. Select the resource whose roles you want to view. Display Resource Details by clicking the Display Options bar and choosing Details. Click the Roles tab.



*You can customize the Resources tab columns to include other information for resources and roles. Right-click in the Columns area of the tab, then choose Edit Resource Columns.*

**View roles for a specific activity** Choose Methodology, Activities. Select the activity whose roles you want to view. Display Activity Details by clicking the Layout Options bar and choosing Show on Bottom, Activity Details. Click the Resources tab.



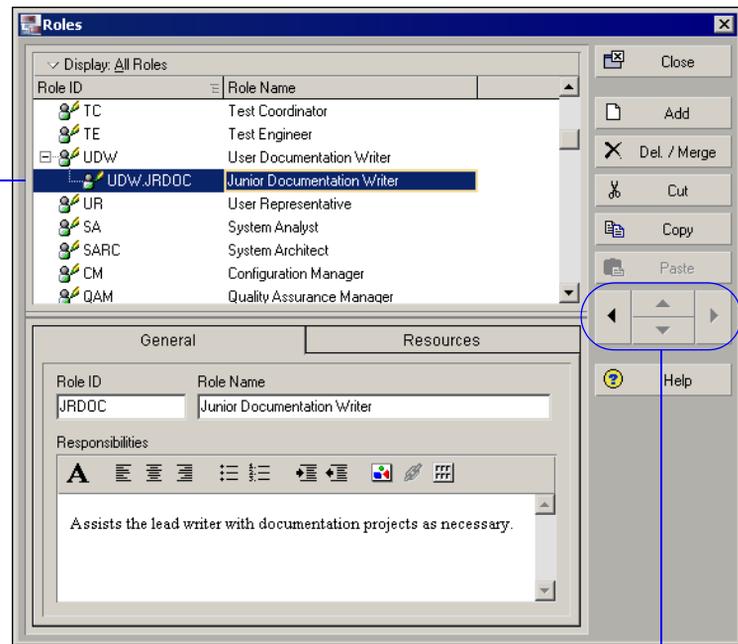
Resources have not yet been associated with the roles added to the selected activity.

Roles can be added to activities during the planning stage.

**Add a role** Choose Define, Roles. Select the role immediately above and at the same level as the role you want to add, then click Add. Type the role's ID and name. To create a hierarchy of roles, click the right arrow key to indent the selected role one level. For example, you may want to list specific roles included under Project Manager, such as Director and Sponsor.

Type a description of the role's responsibilities. You can use HTML editing features, which include formatting text, inserting pictures, copying and pasting information from other documents (while retaining formatting), and adding hyperlinks.

Replace the highlighted text with the ID and name of the new role.



Click the up/down arrows to move a role up or down in the list; click the left/right arrows to change a role's hierarchy level.

## Assigning Roles to Resources

The set of roles you assign to a resource describes the resource's skill capabilities. These role assignments make it easy to assign resources to activities according to role. You can also assign roles to activities directly when you are unsure of the actual resources available to work on those activities. You can later replace the roles with the applicable resources.

For information on assigning resources to activities by role, see the *Working with Activities* chapter.

The module provides two ways to assign roles to resources. You can assign roles to resources from Resource Details, and you can assign roles to resources from the Roles dialog box.

**Assign roles to resources from Resource Details** Choose Define, Resources, then select the resource to which you want to assign a role. Click the Display Options bar, then choose Details. Click the Roles tab, then click Assign. Select the role you want to assign, click the Assign button, then click the Close button.

*Mark the checkbox for the role you want to use as the default role, if more than one is listed for the resource.*

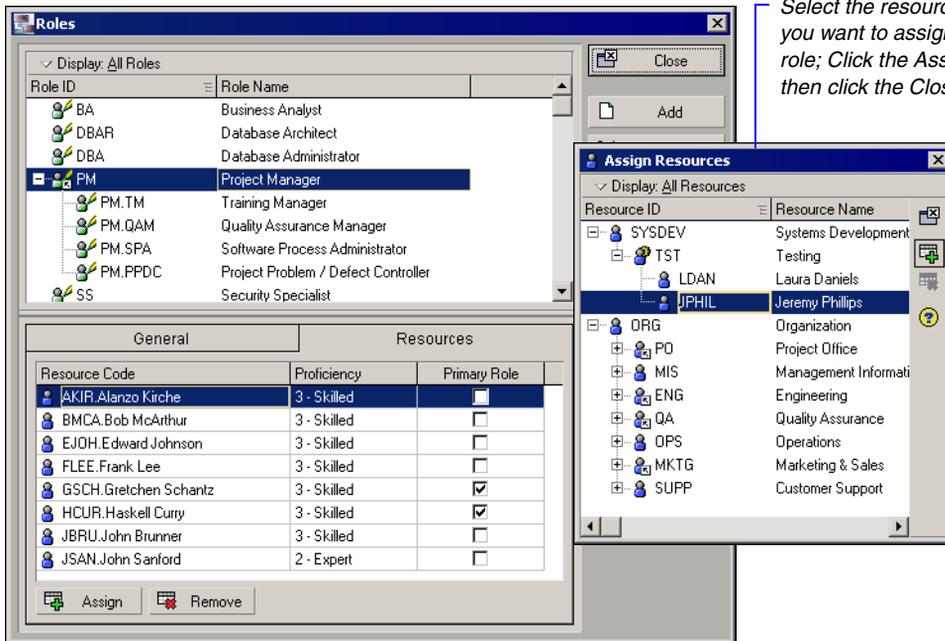
*Displays resource roles for the selected resource; click the Role ID column label to sort the display.*

*You can modify role names in the Roles dialog box (choose Define, Roles).*

Role ID	Role Name	Proficiency	Primary Role
QAA	Quality Assurance Analyst	3 - Skilled	<input type="checkbox"/>
PM.QAM	Quality Assurance Manager	3 - Skilled	<input checked="" type="checkbox"/>
SwE	Software Engineer	3 - Skilled	<input type="checkbox"/>

*Project managers can use the proficiency levels for roles in the methodology to analyze resource and skill supply and demand using role and proficiency usage profiles in the Project Management module.*

**Assign roles to resources from the Roles dialog box** Choose Define, Roles. Click the Display Options bar, then choose Roles Details. Select the role you want to assign. Click the Resources tab, then click Assign.



Double-click the displayed proficiency level, then select the appropriate proficiency level.



# Working With Custom User Fields

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## *In this chapter*

**Creating User-Defined Fields**

**Working with User-Defined Fields**

User-defined fields enable you to customize fields and values and add them to the methodology database. For example, you can use them to track additional activity data such as delivery dates and purchase order numbers. You could also track resource- and cost-related data such as profit, variances, and revised budgets.

This chapter describes how to configure user-defined fields to meet your methodology's needs.

## Creating User-Defined Fields

User-defined fields (UDFs) enable you to add an unlimited number of custom fields and values to the methodology database. Examples of UDFs include purchase order numbers, delivery dates, drawing numbers, profit, variances, and revised budgets.

**Subject areas** You may customize an unlimited number of UDFs in any of the following subject areas: Activities, Activity Steps, Activity Resource Assignments, and Resources. In each of these subject areas, you can add columns and group, sort, and filter data based on the UDFs applicable to the subject area.

**Data types** For each custom field you create, you can specify any of the following data types for that field: Cost, Integer, Number, Text, Start Date, and Finish Date. The data type you select determines the type of data you can specify in a field. For example, if you select Start Date, when you create a column for the Start Date you can only enter dates in the Start Date column.

The following table summarizes the data types available and their uses in user-defined fields:

<b>Data Type</b>	<b>Use For</b>
Text	Text or combinations of text and numbers
Start Date	Start date
Finish Date	Finish Date
Number	Numeric value with two decimal places
Cost	Currency value
Integer	Numeric data except money

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Text	Text or combinations of text and numbers
Start Date	Start date
Finish Date	Finish Date
Number	Numeric value with two decimal places
Cost	Currency value
Integer	Numeric data except money

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**Defining user-defined fields** From the Define menu, select User Defined Fields. In the Select Subject Area drop-down list, select the subject area to which you want to add a new field, then click Add.



*You must select the subject area before you can input any additional information for the UDF.*

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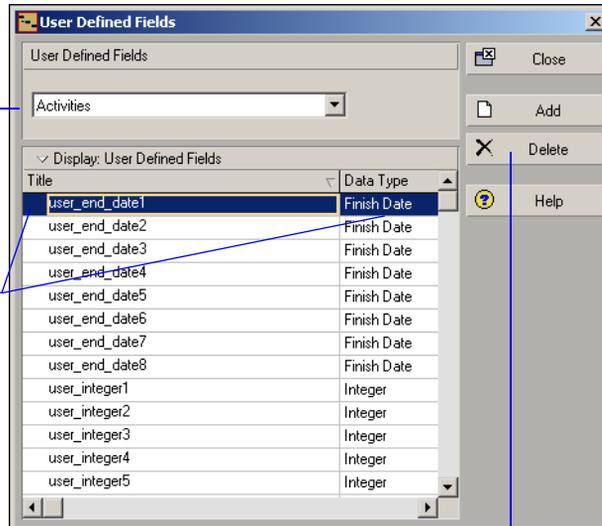
Double-click in the Title column and type a name for the UDF. Double-click in the Data Type column and select the appropriate data type, then click Close.



*The maximum size of user-defined text fields is 255 characters.*

*You must select a subject area before entering a Title or Data Type.*

*Enter a Title and Data Type for the user-defined field. For example, you could enter Change Order # as the title and select Number as the data type.*



*The Add and Delete buttons are disabled if you do not have edit privileges for user-defined fields.*



*Only users with security privileges to edit UDFs can add, modify, or delete UDFs in the User Defined Fields dialog. Users that do not have access rights to edit UDFs can still view them in the User Defined Fields dialog. Any user can assign values to existing UDFs in columns. Also, only users with project security privileges to view project cost data can view UDF values with a Data Type of Cost.*

## Working with User-Defined Fields

Like other data fields, you can create columns for UDFs, group, sort, and filter based on UDF data, and view UDF data in reports. Read the following sections to learn more about utilizing these capabilities.

**Creating UDF columns** You can display UDFs in the columns of the Activity Table, Activity Steps, Activity Resource Assignments, and Resources.

For detailed information on adding columns, refer to the *Customizing Layouts* chapter.



---

*You can only create columns for a UDF in the layout of the subject area in which you created the UDF. For example, if you create a UDF called Purchase Order Number in the Resources subject area, the Purchase Order Number UDF can only be viewed in the Resources layout.*

---

For detailed information on grouping, sorting, and filtering data, refer to the *Grouping, Sorting, and Filtering Data* chapter.

**Group, sort, and filter UDFs** When a layout is grouped by user field, you can group, sort, filter, and view summaries. To group and sort based on UDFs, click View, Group and Sort. To filter data based on a UDF, select View, Filters.

For detailed information on reports, refer to the *Customizing Reports* chapter.

**Viewing UDFs in reports** You can view UDFs in reports and display them in columns. In the Report Wizard, you can select any UDF to be included in the report. You can also group, sort, and filter data based on a UDF. After you run the report, any UDFs you selected will appear in columns.

# Implementing Methodologies

## In this part

**Working with Activities**

**Working with Methodology Expenses**

**Managing Risks**

**Creating and Maintaining a Document Library**

**Checking Methodologies In and Out of the Module**

**R**ead this part to learn how to more fully define methodologies. *Working with Activities* describes how to add activities and relationships to methodologies, while *Working with Methodology Expenses* discusses how to monitor activity expenses and identify potential problems with methodologies.

*Managing Risks* describes how to define risks and assign them to work breakdown structure (WBS) elements. In *Creating and Maintaining a Document Library* you learn how to track related documents and deliverables.

The final chapter in this part, *Checking Methodologies In and Out of the Module*, discusses how to track methodologies that are used outside of the Methodology Management module database.

# Working with Activities

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## *In this chapter*

**Activities Overview**

**Adding Activities**

**Defining General Activity Information**

**Establishing Relationships**

**Displaying Activity Details for Assignments**

**Assigning Resources and Roles**

**Assigning Notebook Topics**

**Adding Steps**

**Creating and Assigning Activity Step Templates**

**Creating and Assigning Activity Codes and Attributes**

**Viewing Core Reuse**

**Adding Expenses**

**Assigning Work Products and Documents**

Activities are the fundamental building blocks of a methodology. They are the lowest level of a work breakdown structure (WBS) and, as such, are the smallest subdivision of the methodology. This chapter describes how to add activities and their properties in the Methodology Management module.

## Activities Overview

Activities represent work that must take place in a determined amount of time. Use the Activity Table or Activity Network layouts to add activities and build your methodologies. Within these layouts, the module enables you to define the following activity information:

- Activity ID and name – to uniquely identify and describe the activity
- Predecessor and successor relationships – to define relationships with other activities in the same methodology
- Activity type, duration type, and percent complete type
- Low and high resource unit and duration values for bottom-up estimating in Project Architect
- Work breakdown structure (WBS) element
- Activity codes and values – to categorize activities
- Activity attributes – to sort, filter, and group activities, and to maintain corporate standards in project plans
- Core reuse – to copy and link, or reuse, activities within a single methodology and across multiple methodologies
- Expenses
- Work products and documents
- Resources
- Roles – to identify skill requirements for staffing the activity
- Notes about performing the activity
- Steps – to divide the activity into smaller units
- Activity Step Templates – to specify reusable sets of steps common to many activities

# Adding Activities

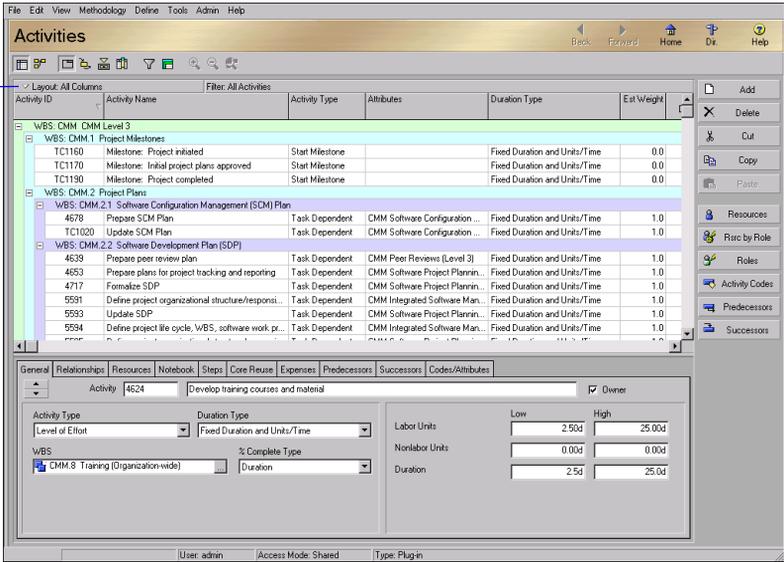
Use the Activities window to create, view, and modify activities for the open methodology. The Activities window can be divided into upper and lower layouts. For example, show an Activity Table or Activity Network in the top layout, and/or show Activity Details, an Activity Table, or Trace Logic in the bottom layout. Customize the layouts to suit your requirements.

For more information about Activity Core Reuse, see the *Creating and Linking Methodologies* chapter.

You can also reuse an activity’s core information for multiple activities within a single methodology and across multiple methodologies. This expedites the activity creation process because an activity’s core information does not need to be defined more than once. Core information includes an activity’s name, duration type, percent complete type, activity type, attributes, steps, and notebook topics.

Choose Methodology, Activities, to display the Activities window.

To open a layout, click the Layout Options bar and choose Show on Top/Show on Bottom, then select the layout type.

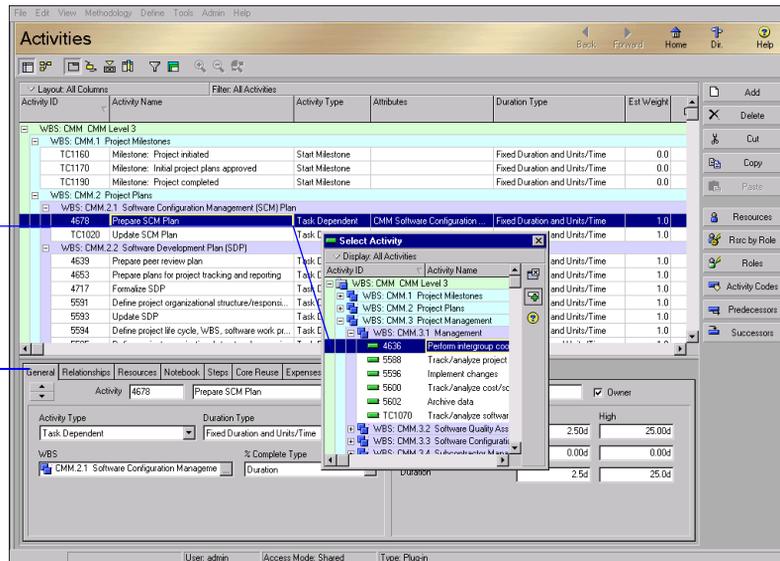


To add an activity to a methodology, use the Activity Table or Activity Network. Depending on your user preferences, the New Activity Wizard may start to help you add an activity.

**Add activities in the Activity Table** In the Activity Table, select the group band or another activity within the group band into which you want to add the new activity, then click Add. To add a new activity, click Create a New Activity. To reuse or add a linked copy of an existing activity, click Reuse Existing Activity Core, then select an activity. To reuse an activity from a different methodology, click the Display Options bar in the Select Activity dialog box, choose Select Methodology, then select the methodology whose activity you want to reuse.

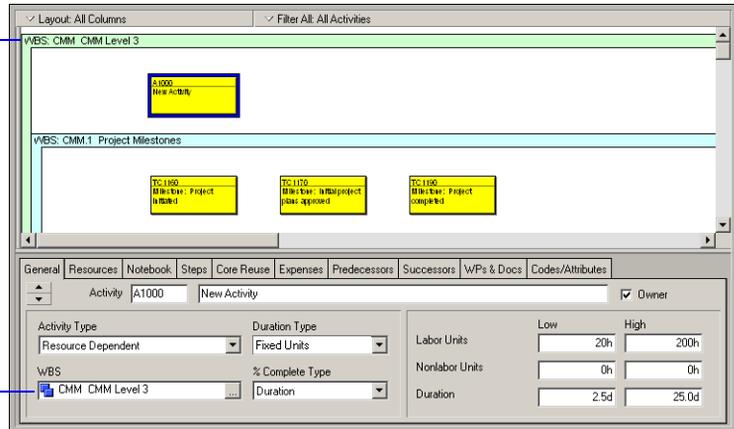
Select an existing activity to reuse its information for the new activity.

Use Activity Details to complete activity information.



**Add activities in the Activity Network** In the Activity Network, select the group band or another activity box within the group band into which you want to add the new activity, then click Add. To add a new activity, click Create a New Activity. To add a linked copy of an existing activity, click Reuse Existing Activity Core, then select an activity.

*The new activity was added to the top-level WBS group band.*



*If no groups are set up in the Activity Network, the activity is added to the bottom of the layout.*

## Defining General Activity Information

*To specify which Activity Details tabs you want to display and their order, click the Layout Options bar, then choose Bottom Layout Options.*

Use the General tab in Activity Details to define general information for the selected activity, including duration type, WBS assignment, activity type, and low and high estimation values.

Choose Methodology, Activities, then select the activity whose general information you want to define. Click the Layout Options bar, then choose Show on Bottom, Activity Details; click the General tab.

Activity		Low	High
Labor Units	2.50d	25.00d	
Nonlabor Units	0.00d	0.00d	
Duration	2.5d	25.0d	

**Activity type** Select the activity type according to the activity's function in the methodology and the calendar that should be used for the activity during scheduling when the methodology is imported as a project in the Project Management module.

- To indicate that the activity's resources are scheduled according to the activity calendar, select Task Dependent.
- To indicate that each of the activity's resources are scheduled according to the resource's own calendar, select Resource Dependent. Use this activity type when several resources are assigned to the same activity but may work separately.
- To indicate that the activity's duration is dependent on its predecessor and/or successor activities, select Level of Effort (LOE). LOE activities do not have constraints and are considered to be ongoing; examples include project management tasks, reviews, and meetings. The Project Management module does not include LOE activities when leveling resources.



*All finish to start and start to start predecessors and start to finish and start to start successors drive the start date of the LOE activity; all finish to finish and start to finish predecessors and finish to start and finish to finish successors drive the finish date of the LOE activity.*

- To indicate that the activity marks the beginning or end of a major stage in the project, select Start or Finish Milestone. Milestones do not have time-based costs or resource assignments. The module does not recognize durations for milestone activities.
- To indicate that the activity's duration is dependent on the earliest start date and latest finish date of the activities that share a common WBS level, select WBS Summary.



Driving resources can not be assigned to WBS Summary activities.

---

**Duration type** Select the duration type based on whether resources, the schedule, or costs will be most important when activities are updated in a project created using the methodology. The duration type applies only when resources are assigned to the activity. The following equation must hold true regardless of which data are updated:

$$\text{Remaining Units (resource)} = \text{Units/Time} \times \text{Remaining Duration (activity)}$$

For example, if a resource is assigned to an activity for 8 hours/day for 5 days, the remaining units or work effort is calculated as 40 hours. The duration type enables you to control which variables of this equation are calculated when you change a value.

- Select Fixed Duration & Units/Time or Fixed Duration & Units to indicate that the schedule is a limiting factor in your project. The activity's duration does not change regardless of the number of resources assigned when you modify or update activities. You usually choose this duration type when you are using task dependent activities.

When you update the remaining duration for the activity, you can choose to calculate either the remaining units or the units per timeperiod. If you want to recalculate the remaining units and keep the units/time for the resource constant, choose Fixed Duration & Units/Time. The module uses the equation:

$$\text{Remaining Units} = \text{Units/Time} \times \text{Remaining Duration}$$

If you want to keep the remaining units constant instead and recalculate the units/time, choose Fixed Duration & Units. The module uses the equation:

$$\text{Units/Time} = \text{Remaining Units/Remaining Duration}$$

- Select Fixed Units/Time to indicate that resource availability is the most critical aspect of your project. In this case, the units/time or rate of the resource remains constant, even if the activity's duration or work effort changes. You most often use this duration type when you are planning resource dependent activities.
- Select Fixed Units to indicate that the budget (units or cost) is a limiting factor; that is, the total amount of work is fixed. When you update activities, the work effort required to complete the activity does not change, even if the activity's duration or the resource rate changes. Typically, you would use this type in conjunction with resource dependent activities. Increasing resources can decrease the activity duration.

**WBS** Click the Browse button to assign a new WBS element to the selected activity.

**Percent complete type** You can calculate an activity's percent complete according to activity duration, activity units, or a physical percent complete that you enter for each activity. You must define a percent complete type for each activity.

- To specify that the activity's percent complete be calculated from the actual and remaining units, select Units.
- To specify that the activity's percent complete be calculated from the actual and remaining duration, select Duration.
- To indicate that the activity's percent complete will be entered by the user for this activity, select Physical.

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*You can modify labor, nonlabor, and material high and low estimated units in the Activity Details Resources tab.*

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**Labor units** The selected activity's low and high estimated work effort for labor resources.

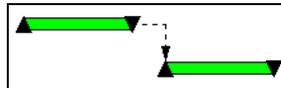
**Nonlabor units** The selected activity's low and high estimated work effort for nonlabor resources.

**Duration** A low and high estimation of the number of workperiods required to complete the selected activity.

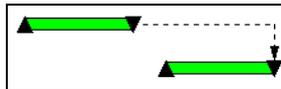
## Establishing Relationships

Create relationships between activities to indicate whether an activity can begin only after other activities start or finish. The module provides several methods for assigning relationships. Use the Activity Network to visualize the flow of logic as you link activities, or use the Relationships tab in Activity Details to assign relationships to activities. Choose Methodology, Activities, to display the Activities window. Click the Layout Options bar, then choose Show on Bottom, Activity Details; click the Relationships tab.

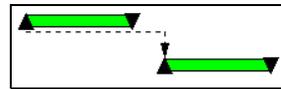
**Relationship types and lag** You can define the following four types of relationships. Typically, you define relationships from the predecessor to the successor activity.



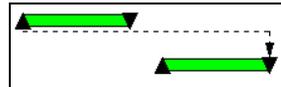
*Finish to start (FS). The successor activity can begin only when the predecessor activity completes.*



*Finish to finish (FF). The finish of the successor activity depends on the finish of the predecessor activity.*



*Start to start (SS). The start of the successor activity depends on the start of the predecessor activity.*

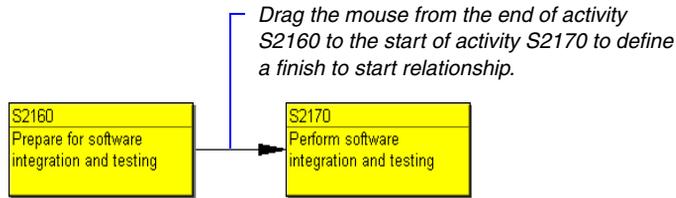


*Start to finish (SF). The successor activity cannot finish until the predecessor activity starts.*

When a successor activity cannot start or finish as soon as its predecessor starts or finishes, you can define a lag time for the relationship. Lag is the number of time units from the start or finish of an activity to the start or finish of its successor. Lag can be a positive or negative value. For example, a start to start relationship with a three-day lag indicates that the successor activity can start three days after the start of its predecessor.

While you are dragging the relationship line between two activities, the module displays a hint window that indicates the type of relationship that will be created when you release the mouse button.

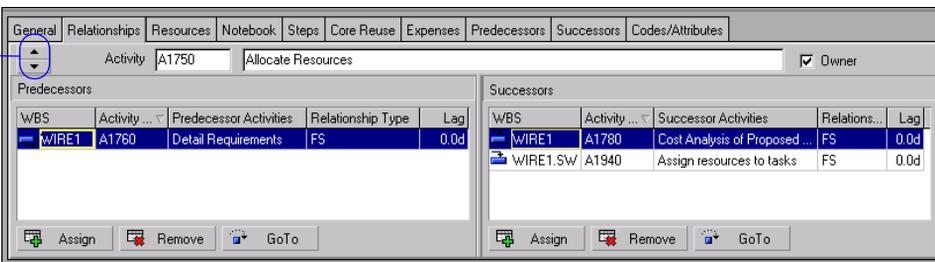
**Create relationships in the Activity Network** Drag the mouse between any two activities that you want to connect. Point to the left or right of the predecessor activity and drag the mouse to the left or right of the successor activity. The mouse pointer changes to a  as you define relationships.



 To modify or delete a relationship, double-click the relationship line.

**Assign relationships using Activity Details** Select the activity to which you want to add a predecessor or successor relationship. Display Activity Details by clicking the Layout Options bar and choosing Show on Bottom, Activity Details, then click the Relationships tab. Click Assign in either the Predecessors or Successors section. Select the predecessor or successor activity you want to assign, click the Assign button, then click the Close button. Double-click the Relationship Type field, then select a relationship type. Double-click the Lag field, then type the relationship's lag time value.

Use the arrow buttons to move from one activity to the next activity.



W/BS	Activity ...	Predecessor Activities	Relationship Type	Lag
WIRE1	A1760	Detail Requirements	FS	0.0d

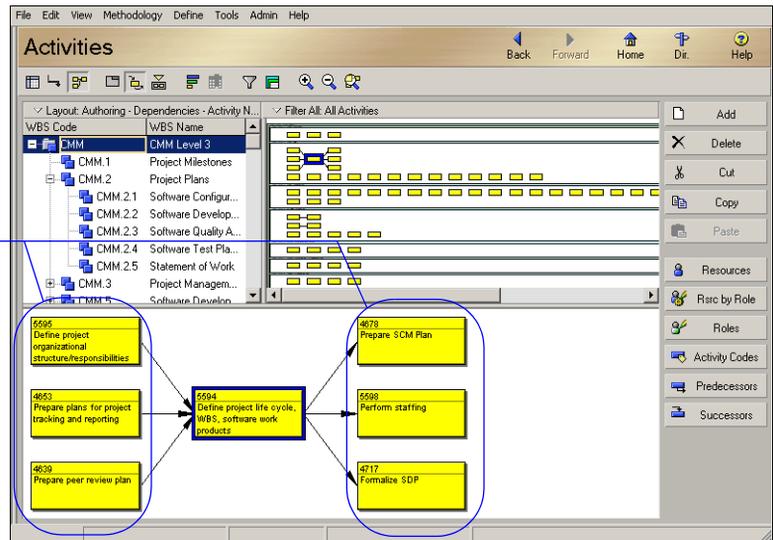
W/BS	Activity ...	Successor Activities	Relations...	Lag
WIRE1	A1780	Cost Analysis of Proposed...	FS	0.0d
WIRE1.SW	A1940	Assign resources to tasks	FS	0.0d

 You can also use the Predecessors or Successors tabs in Activity Details to assign relationships. The Relationships tab combines the predecessor and successor information in a single tab. The data stored in the Relationships tab is synchronized with the information in the Predecessors and Successors tabs.

**Trace Logic** The module provides a separate Trace Logic layout so you can examine a path while still viewing the entire methodology. Click the Layout Options bar and choose Show on Bottom, Trace Logic. In the Activity Table or Activity Network, select the activity from which you want to begin tracing a path in the network.

To move through the chain of activities, click a predecessor or successor of the selected activity. To modify the number of predecessor/successor levels, click the Layout Options bar, then choose Bottom Layout Options.

*This Trace Logic layout shows three predecessors and successors for the selected activity.*



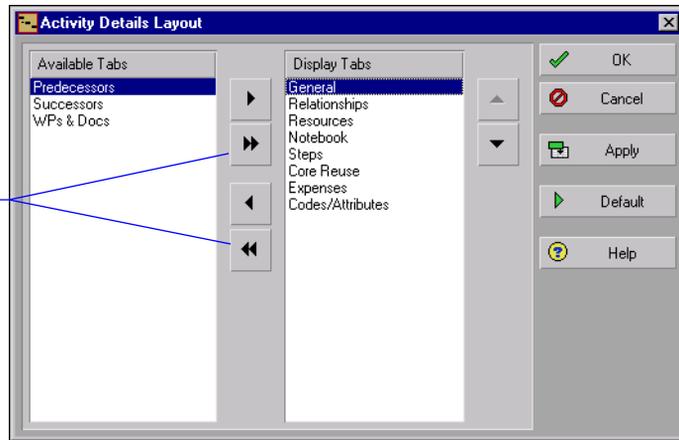
## Displaying Activity Details for Assignments

Choose Methodology, Activities, to display the Activities window. Click the Layout Options bar, then choose Show on Bottom, Activity Details. Display the following Activity Details tabs so you can assign additional methodology information:

- **Codes/Attributes**, which are used to categorize activities according to your organizational and project needs, and to categorize activities according to corporate standards in project plans in all methodologies.
- **Resources**, which include the personnel and equipment that perform work on activities across all methodologies. You can also assign and remove project personnel job titles or skills, known as roles.
- **Notebook**, or additional information that further describes the activity according to specific categories of information.
- **Steps**, which divide activities into smaller units.
- **Core Reuse**, which is a list of methodologies that reuse the selected activity. You can also view the number of times the activity appears in each methodology, and the activity's owner methodology.
- **Expenses**, which are one-time expenditures for nonreusable items. You can associate predefined cost categories with expenses to categorize them.
- **WPs & Docs**, which enable you to catalog and track all methodology-related documents and deliverables.

**Modify Activity Details tabs** Click the Layout Options bar, then choose Bottom Layout Options. In the Available Tabs column, click the tab that you want to display, then click the right arrow button. To shift the tab left in Activity Details, with the tab selected, click the up arrow button. To shift the tab right in Activity Details, with the tab selected, click the down arrow button.

*To shift all tabs listed from one column to another in the dialog box, click the applicable double-arrow button.*



## Assigning Resources and Roles

Choose Methodology, Activities, to display the Activities window. Click the Layout Options bar, then choose Show on Bottom, Activity Details. In the Activities window, select the activity to which you want to assign a resource or role. Click the Resources tab.

Resource ID	Resource Name	Units / Time	Low Units	High Units	Role
BSCH	Gretchen Schantz	25%	1.22d	1.22d	Project Manager
RMAR	Robert Marshall	25%	1.22d	1.22d	Project Problem / Def
SPOD	Sidney Poor	25%	1.22d	1.22d	JSP Developer

For information about establishing resources and roles for your methodologies, see the *Defining Resources and Roles* chapter.

You can customize the Resources tab columns to include other information for resources and roles. Right-click in the Columns area of the Resources tab, then choose *Edit Resource Columns*.

Click Add Resource to assign a resource to the selected activity; click Add Role to assign a role to the selected activity. Select the resource or role you want to assign. To assign multiple resources or roles, hold down the Ctrl key, then click each resource/role you want to assign. Click the Assign button, then click the Close button.

To define detailed information, double-click each appropriate cell and enter the information for the selected activity. To replace a resource or role assigned to the activity, select the resource or role you want to replace, click Add Resource or Add Role, then click the Replace button. Select the new resource or role, then click the Close button.



*In the User Preferences, Calculations tab, you can define the default behavior when replacing a resource assigned to an activity. Choose to always use the units/time of the new resource or of the current assignment (i.e., the resource you are replacing); or, choose to be prompted each time you replace a resource on an existing activity assignment.*

Roles with specific skill sets can be assigned resources to enable schedule and cost planning until specific resources are identified. You can later replace the role with the correct resource, based on the proficiency requirements established for the role.

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*To quickly find a particular resource in the Assign Resources by Role dialog box, click the Display Options bar, then choose Group and Sort By, and the resource code assigned to the resource. The list of resources will be resorted by resource code within role.*

---

**Assign resources to activities by role** At least one role must be assigned to activities to assign resources by role. Click Assign by Role; the Assign Resources by Role dialog box lists the roles assigned to the selected activity. The resources who can fulfill each role are listed below each role. Select the resources you want to assign. Click the Assign button, then click the Close button.

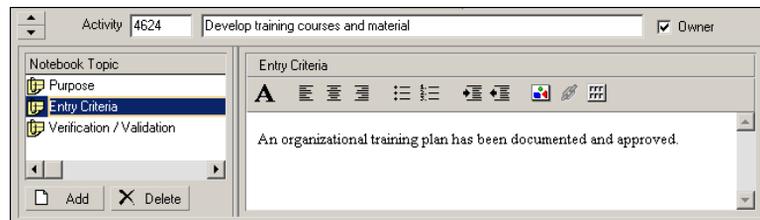
Once you assign a resource or role and specify the planned units anticipated for its use on activities, project managers can use this information in the Project Management module (when they import methodologies) to perform bottom-up estimations of work efforts and cost.

## Assigning Notebook Topics

Choose Methodology, Activities. Click the Layout Options bar, then choose Show on Bottom, Activity Details. In the Activities window, select the activity to which you want to assign a note. Click the Notebook tab in Activity Details.



*Notebook topics are predefined in the Notebook Topics tab of the Admin Categories dialog box. To make the topics accessible for assignment to methodologies, WBS elements, and/or activities, mark the appropriate checkboxes in the Admin Categories dialog box.*



**Assign notebook topics** Click Add. Select the notebook topics you want to assign. To assign multiple topics, hold down the Ctrl key, then click each notebook topic you want to assign. Click the Assign button, then click the Close button.

In the right section of the Notebook tab, type a brief description for the selected notebook topic. You can use HTML editing features, which include formatting text, inserting pictures, copying and pasting information from other information fields (while retaining formatting), and adding hyperlinks.

## Adding Steps

You can divide an activity into smaller task increments called steps and then assign weights to the steps to calculate the activity's percent complete when the methodology is imported in the Project Management module. Weighted steps enable you to track the progress of an activity based on the number of steps completed.

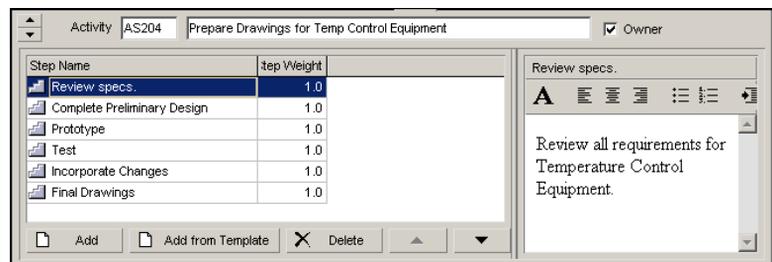
In the Methodology Management module, the percentage value is shown, relative to the weights of the other steps. For example, three steps are assigned to an activity; the first step has a weight of 2, and the second and third steps each have a weight of 1. When you mark the first step (weight of 2) complete in the Project Management module, the percent complete is 50. When you mark the first and second steps complete, the percent complete is 75. When all three steps are marked complete, the percent complete is 100.

For more information on creating Activity Step Templates and assigning them to activities, refer to the next section, *Creating and Assigning Activity Step Templates*.

You can add steps unique to each activity. You can also create Activity Step Templates that capture a group of steps common to multiple activities, then assign the step group to activities. This section describes how to add unique steps to activities; the next section describes how to create and assign Activity Step Templates.

**Add steps** Choose Methodology, Activities. Click the Layout Options bar, then choose Show on Bottom, Activity Details. In the Activities window, select the activity to which you want to add a step. Click the Steps tab in Activity Details.

*You may want to use weighted steps when a methodology consists of large activities that encompass distinct tasks.*



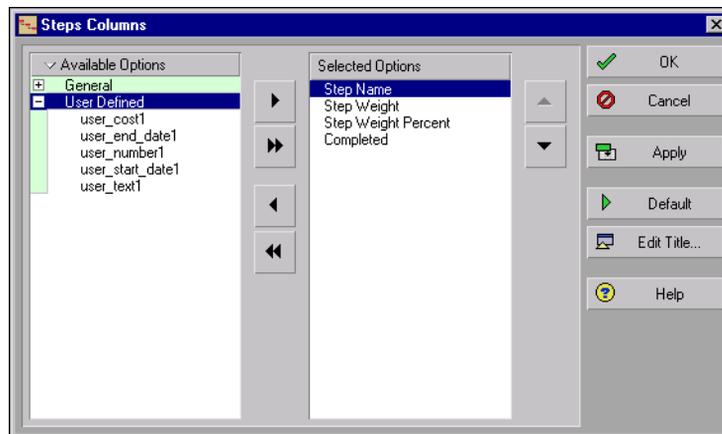
Click Add. Type the name of the new step. Type a brief description of the step for the selected activity. You can use HTML editing features, which include formatting text, inserting pictures, copying and pasting information from other information fields (while retaining formatting), and adding hyperlinks. To move the step to an earlier stage of the activity, click the up arrow. To move the step to a later stage of the activity, click the down arrow.

Enter a number indicating the weight of the step, relative to the other steps listed for the activity. The weight can be any number between 0.0 and 999999.0. The Step Weight indicates the step's importance to the activity. The higher the value, the greater the importance. The Step Weight Percent column displays the percent value that corresponds to the step's weight. The step weight percent value is calculated based on the step weights assigned to the activity. This column is 0 percent for nonweighted steps.



*You must select Physical as the percent complete type in the General tab in Activity Details to use weighted steps to calculate an activity's percent complete in the Project Management module.*

**Add user-defined fields to the Steps tab** If you are the activity's primary resource, you can change the titles of user-defined fields and use them to enter values, such as finish date, start date, cost, or number of hours worked for a step. Choose Enterprise, User Defined Fields to assign and edit these titles. To add columns for user-defined fields, right-click over the columns in the Steps tab, and choose Customize Steps Columns.



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## Creating and Assigning Activity Step Templates

Your organization may have several activities that repeat within a project or across projects. For example, every time you develop a new software application, several specifications must be written and approved. Developing a specification is a multi-step process that never changes.

For example, the “Write Specifications” activity could have the following steps:

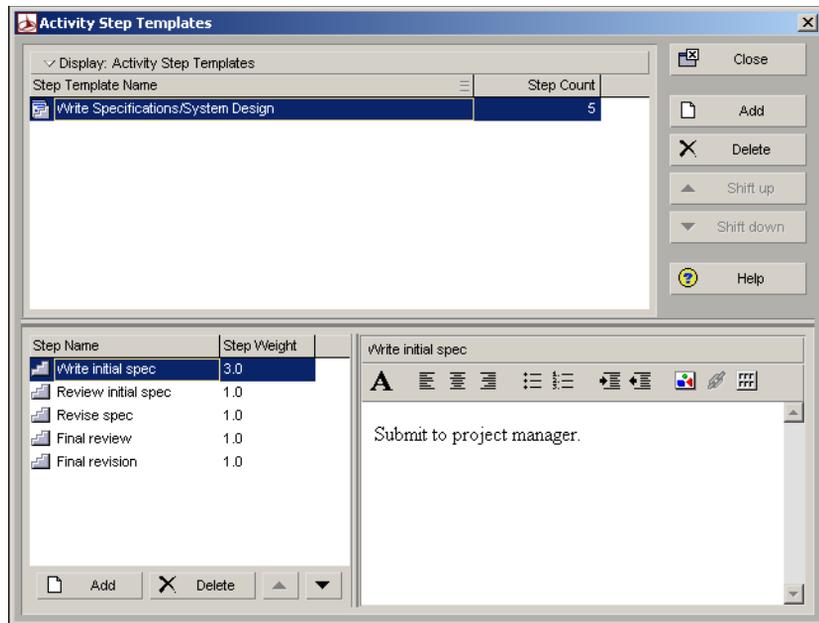
- Submit initial spec
- Review initial spec
- Revise initial spec
- Final review
- Final revision

These steps may apply to many or all “Write Specifications” activities in a project or across all projects. Rather than manually inputting these steps into each “Write Specifications” activity, you can create an activity step template containing these steps and assign the template to each applicable activity at once. You can create an activity step template manually or convert existing step(s) into a template.

**Creating activity step templates manually** Choose Define, Activity Step Templates. In the top grid of the Activity Step Templates dialog, click Add. Type a name in the Step Template Name field (e.g., Specification steps). To add steps to the template, click Add in the bottom grid. Type a Step Name and a Step Weight. The Step Weight is used to calculate the progress of an activity; the greater the weight of the step, the more progress has been made on the activity when you mark a step complete.

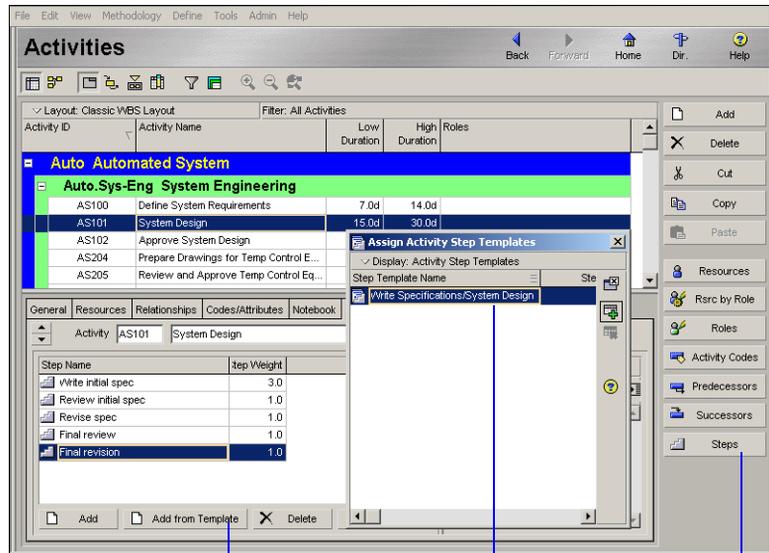
You can add an unlimited number steps to a template.

For more information on weighted steps, refer to the previous section, *Adding Steps*.



**Converting existing step(s) into an activity step template** In the Activity Table, select the activity that contains the step(s) you want to convert to a template. In the Steps tab of Activity Details, ctrl-click to select the desired steps, then right-click in the Steps tab and choose Create Template. Enter a name for the template when prompted. The steps and their associated name, description, weight, and UDFs are added to the new template.

**Assigning Activity Step Templates to activities** You can assign an Activity Step Template to activities separately or to several activities at once. To assign a template to one activity, select the activity in the Activity Table. Click the Layout Options bar and choose Show on Bottom, Activity Details. In the Steps tab, click Add From Template. In the Assign Activity Step Templates dialog, select the template you want to add and click the Select icon (+ symbol). The Steps tab is automatically populated with the steps listed in the template.



*Click to add steps from an Activity Step Template, then select the template.*

*Click to add a template to multiple activities (the activities must be selected in the Activity Table).*

You can also assign an Activity Step Template to multiple activities at once. In the Activity Table, Ctrl-click each activity you want to add a template too. From the Command Bar, click Steps to launch the Assign Activity Step Templates dialog. Choose the template you want to add to the selected activities, then click the Select button (+ symbol).

## Creating and Assigning Activity Codes and Attributes

Activity codes represent broad categories of information, such as manufacturing, quality control, or location. For each code, you can define specific values that further describe that category. For example, if your organization has more than one location, you can create a Location code with values such as New York, Los Angeles, and Chicago. You can then associate activities with a specific location, such as New York. You can define an unlimited number of values for each code.

When project managers create a project plan from a methodology, Project Architect copies your activity code assignments. In the Project Management module you can sort, filter, and group activities according to the activity codes and values you assigned to the activities in the Methodology Management module.

Attributes are characteristics that enable you to categorize activities in all methodologies, and to maintain corporate standards in project plans. Examples of attributes are quality assurance, auditing, and security. You can assign attributes to activities in any methodology.

In the Methodology Management module, use attributes to sort, filter, and group activities. In the Project Management module, attribute assignments enable project managers to customize their project plans more efficiently and effectively by including and removing activities according to attribute assignment.

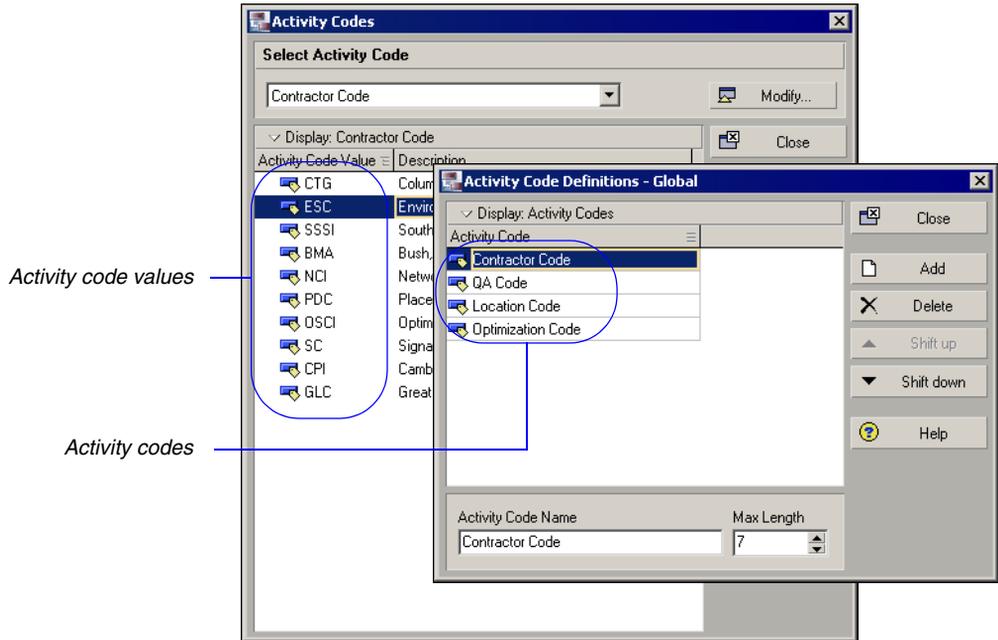


*You can also create "locked" attributes to guarantee that a project plan includes an activity or a group of activities. If you assign a locked attribute to an activity or a group of activities, users of the Project Management module cannot remove the activities from a methodology.*

---

In the Methodology Management module, activity codes and attributes are global; that is, they are available for assignment to activities in all methodologies.

**Create global activity codes** Choose Define, Activity Codes, then click Modify. Click Add, then type the name of the activity code. Specify the maximum number of characters for the activity code's values.



**Create global activity code values** Choose Define, Activity Codes. Select the activity code for which you want to create a value, then click Add. Type the value's name and description.

The screenshot shows the 'Activity Codes' dialog box. At the top, there is a 'Location Code' dropdown menu and a 'Modify...' button. Below this is a tree view showing a hierarchy of activity codes: NHL, BDC, RTC, VO, Chicago, Chicago..., Chicago..., LSQ, SLCE, and ATLC. Each code has a corresponding description. A new value '(New Code Value)' is highlighted in the list. To the right of the list is a vertical toolbar with buttons for Close, Add, Delete, Cut, Copy, Paste, and Help. A blue circle highlights the navigation arrows (left, up, down, right) in the toolbar. Two blue arrows point from text annotations to the '(New Code Value)' row and the navigation arrows.

Type the new value name and description directly in these cells; the name's length cannot exceed the length specified in the Max Length field for the code.

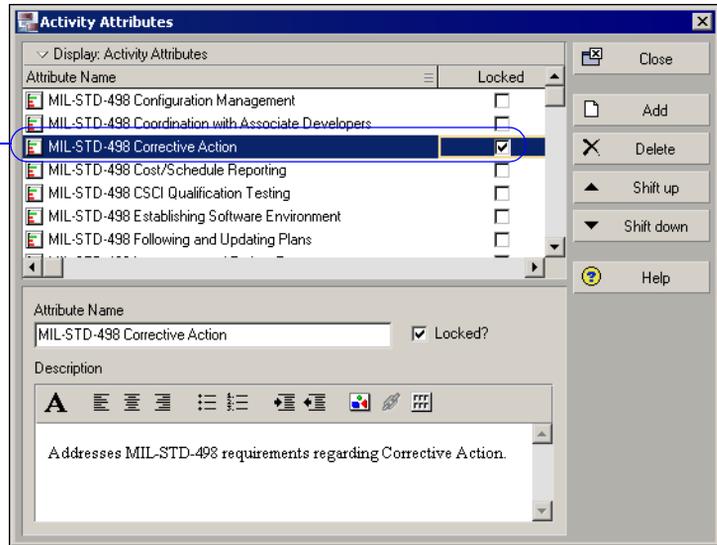
Use these arrows to indent/outdent a value in the activity code hierarchy, and to move a selected value up or down in the list.



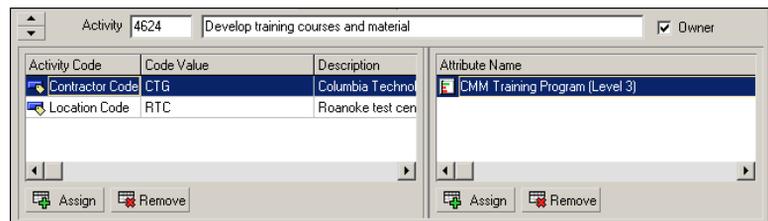
If you change activity codes or values, the module applies your changes to all activity assignments.

**Create activity attributes** Choose Define, Activity Attributes. Click Add, and type the attribute's name. To prevent users of the Project Management module from removing activities with this attribute, mark the Locked checkbox. Type a brief description of the attribute.

*Any activities assigned this attribute cannot be removed from a methodology in the Project Management module.*



**Assign codes, code values, and attributes** Choose Methodology, Activities. Click the Layout Options bar, then choose Show on Bottom, Activity Details. In the Activities window, select the activity to which you want to assign a code and value. Click the Codes/Attributes tab in Activity Details.



Click Assign in the left section of the Codes/Attributes tab. Select the activity code and value you want to assign. To assign multiple codes and values, hold down the Ctrl key, then click each code value you want to assign. Click the Assign button, then click the Close button.

To assign attributes to the selected activity, under the list of attributes in the right section of the Codes/Attributes tab, click Assign. Select the attribute you want to assign. To assign multiple attributes, hold down the Ctrl key, then click each attribute you want to assign. Click the Assign button, then click the Close button.

Activities are grouped by attributes in this layout.

The screenshot displays the 'Activities' window in Primavera Methodology Management. The window title is 'Activities' and it includes a menu bar (File, Edit, View, Methodology, Define, Tools, Admin, Help) and a toolbar with navigation buttons (Back, Forward, Home, Dir, Help). Below the toolbar is a 'Layout: Authoring - General' section with a 'Filter: All Activities' dropdown. The main area is a table with columns: Activity ID, Activity Name, Activity Type, Duration Type, and Resources. The activities are grouped into four categories, each with a green header row:

- Attributes: CMM Project Tracking and Oversight (Level 2)**
  - 4652 Conduct internal reviews (Task Dependent, Fixed Duration and Units/Time)
  - 4666 Conduct customer/user review (1 to N) (Task Dependent, Fixed Duration and Units/Time)
  - 4688 Perform QA of project tracking and oversight (Level of Effort, Fixed Duration and Units/Time)
  - 4930 Track/Analyze project risks (Level of Effort, Fixed Units/Time)
  - 4931 Track/Analyze cost/schedule variance (Level of Effort, Fixed Units/Time)
  - 4932 Track/Analyze software work projects (Level of Effort, Fixed Units/Time)
- Attributes: CMM Quality Assurance (Level 2)**
  - 4680 Prepare SQA Plan (Task Dependent, Fixed Duration and Units/Time)
  - 4682 Perform QA of software engineering (Level of Effort, Fixed Duration and Units/Time)
  - 4683 Perform QA of software deliverables (Level of Effort, Fixed Duration and Units/Time)
  - 4684 Review SQA results with customer (Level of Effort, Fixed Duration and Units/Time)
  - 4686 Support independent evaluation of SQA activities (Task Dependent, Fixed Duration and Units/Time)
  - 5452 Update SQA Plan (Task Dependent, Fixed Duration and Units/Time)
  - 5609 Review SQA activities with software engineering org... (Level of Effort, Fixed Duration and Units/Time)
- Attributes: CMM Requirements Management (Level 2)**
  - 4645 Perform QA of software requirements management (Level of Effort, Fixed Duration and Units/Time)
  - 5611 Review system requirements (Task Dependent, Fixed Duration and Units/Time)
  - 5614 Review/incorporate requirements changes (Task Dependent, Fixed Duration and Units/Time)
- Attributes: CMM Software Configuration Management (Level 2)**
  - 4678 Prepare SCM Plan (Task Dependent, Fixed Duration and Units/Time)
  - 4697 Perform configuration control (Task Dependent, Fixed Duration and Units/Time)
  - 4698 Perform configuration audits (Task Dependent, Fixed Duration and Units/Time)
  - 4699 Perform QA of configuration management (Level of Effort, Fixed Duration and Units/Time)
  - 4719 Establish configuration management system (Task Dependent, Fixed Duration and Units/Time)

On the right side of the window, there is a vertical toolbar with buttons for Add, Delete, Cut, Copy, Paste, Resources, Rstrc by Role, Roles, Activity Codes, Predecessors, and Successors. At the bottom of the window, the status bar shows 'User: admin', 'Access Mode: Shared', and 'Type: Plugin'.

## Viewing Core Reuse

When you copy activities and activity information in a methodology, you can maintain a connection or link between the copied activities and the original activities by choosing to reuse the activities from the methodology. Then, if you change a reused activity, the module updates all instances of the reused activity in all methodologies. You can reuse activities in one methodology and across multiple methodologies.

For more information about core reuse, see the *Creating and Linking Methodologies* chapter.

Choose Methodology, Activities. Click the Layout Options bar, then choose Show on Bottom, Activity Details. In the Activities window, select the activity for which you want to view a list of methodologies that use the activity. Click the Core Reuse tab in Activity Details.

*The number of times the selected activity appears in the corresponding methodology*

Methodology Using Activity Core	Owner	Total Activities
MIL-STD-498 Software Development	<input checked="" type="checkbox"/>	1

*Indicates the selected activity's originating methodology*

## Adding Expenses

Choose Methodology, Activities. Click the Layout Options bar, then choose Show on Bottom, Activity Details. In the Activities window, select the activity to which you want to add an expense. Click the Expenses tab in Activity Details.

Expense Item	Expense Category	Accrual Type	Low Cost	High Cost	Vendor	Unit of Measure
User Training Facilities	Facilities	Uniform over Activity	\$5,500.00	\$7,000.00	Conference Properties	Conference Properties

For information about setting up expenses for your methodologies, see the *Working with Methodology Expenses* chapter.

Click Add, then type the expense's name. To assign an expense category to the expense, double-click the Expense Category field, then select an expense category from the list and click the Select button; click the Close button. To change the expense's accrual rate, double-click the Accrual Type field, then select a new accrual rate. Double-click the Low Cost field, then type your low cost estimation of the expense. Double-click the High Cost field, then type your high cost estimation of the expense. These low and high cost estimates enable users of the Project Management module to perform bottom-up estimations in Project Architect. This allows you to estimate costs before creating or adding a project.

To specify the organization or business to which the expense is payable, double-click the Vendor field, then type the vendor's name. Double-click the Unit of Measure field to specify a unit of measure for the expense item.

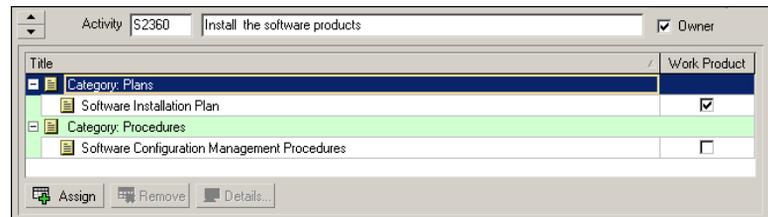
## Assigning Work Products and Documents

Work products and documents enable you to catalog and track all project-related documents and deliverables. You can assign these documents to activities and work breakdown structure (WBS) elements in all methodologies. A document may provide standards and guidelines for performing work, or it may be a work product or deliverable produced by work on the activity. Examples of work products are testing plans, design specifications, and airframe blueprints. When you assign a document to an activity, you can also indicate whether it is a work product.

For more information about work products and documents, see the *Creating and Maintaining a Document Library* chapter.

Set up the categories for work products and documents by choosing Admin, Admin Categories, then clicking the Document Categories tab. Categories are assigned to documents in the Work Products and Documents window.

**Assign work products and documents** Choose Methodology, Activities. Click the Layout Options bar, then choose Show on Bottom, Activity Details. In the Activities window, select the activity to which you want to assign a work product or document. Click the WPs & Docs tab in Activity Details.



Click Assign. Select the work product or document you want to assign. To assign multiple work products and documents, hold down the Ctrl key, then click each document. Click the Assign button, then click the Close button. To view detailed information about and/or open a work product or document, select the item, then click Details.



# Working with Methodology Expenses

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## *In this chapter*

**Adding Expenses**

**Defining Expense Details**

Expenses are nonresource costs associated with a methodology and assigned to a methodology's activities. They are typically one-time expenditures for nonreusable items. Examples of expenses include facilities, travel, overhead, and training.

Read this chapter to add expenses to methodologies.

## Adding Expenses

You can create methodology-specific expenses and assign them to activities. You can also categorize expenses, and specify whether an expense accrues at the start, at the end, or uniformly over the duration of an activity. The module also enables you to enter a low cost and a high cost estimation value for each expense to facilitate bottom-up estimations.



*Expenses are not the same as resources. Resources can be time-based and generally extend across multiple activities and/or multiple methodologies. Examples of resources are personnel and equipment. Unlike resources, expenses are methodology-specific and they are not time-based.*

Use the Methodology Expenses window to create, view, and edit expenses and related cost information for activities in the open methodology. When project managers use the methodology to develop a project plan in the Project Management module, this information enables them to estimate the project's total cost. You can also assign a corresponding work breakdown structure (WBS) code so you can identify the area of work with which it is associated.

The Methodology Expenses window is displayed when you choose Methodology, Expenses. To include Methodology Expense Details at the bottom of the Methodology Expenses window, click the Display Options bar and choose Expense Details.

Expense Item	Expense Category	WBS	Vendor
Network Hardware	Hardware	SWD.3.1	National Computer Systems
Product Manuals	Publishing	SWD.4.1	ABC Printers
Risk Management Consulting	Consulting	SWD.1	Risk Management Corp.
Test machines - stress testing	Hardware	SWD.2.2.5	National Computer Systems,...
Test machines - unit testing	Software	SWD.2.2.6	National Computer Systems,...
User Training Facilities	Facilities	SWD.4.2	Conference Properties, Inc.

Expense Item: Network Hardware  
Expense Category: Hardware

Vendor: National Computer Systems  
Low Cost: \$35,000.00  
High Cost: \$42,000.00

Unit of Measure: Each

For steps on adding expenses to activities from the Activities window, see the *Working with Activities* chapter.

**Add expenses** Click Add. Select the activity that incurs the expense, then click the Select button. The activities in the Select Activity dialog box are organized by WBS code, so you can easily find the activity by WBS association.

Click the General, Activity, and Description tabs, and enter the expense's information. For an explanation of the fields on these tabs, refer to the *Defining Expense Details* section of this chapter.

**Group expenses** You can group expenses by WBS code, expense category, or vendor, to make assignment easier. Click the Display Options bar, then choose Group and Sort By. Choose one of the grouping items listed.

**Copy expenses** Select the expense item you want to copy, then click Copy. Select the expense item group to which you want to add the copied expense, then click Paste.



*If the expenses are grouped by WBS, you can only paste into the same WBS from which the expense was originally copied. The WBS is assigned to the expense's activity and cannot be changed from within the Methodology Expenses window.*

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## Defining Expense Details

Use Methodology Expense Details to view and edit detailed information about the selected expense item. Methodology Expense Details are displayed in the lower portion of the Methodology Expenses window when you choose Expense Details from the Display Options bar. To display the Methodology Expenses window, choose Methodology, Expenses.

**General information** Use the General tab to define general information for the selected expense item, such as the item name, category, vendor, and low and high cost estimations. You can also enter the expense’s unit of measure.

For more information about defining expense categories, see the *Defining Administrative Preferences and Categories* chapter.

The name of the business or organization to which the selected expense is payable

Examples of units of measure include Yards, Cubic Feet, and Each (if an expense is per item).

Define expense categories in the Admin Categories dialog box.

Expense Item	Network Hardware			Expense Category	Hardware
Vendor	National Computer Systems			Low Cost	High Cost
				\$35,000.00	\$42,000.00
Unit of Measure	Each				

These low and high cost estimates enable users of the Project Management module to perform bottom-up estimations in Project Architect.

**Activity information** Use the Activity tab to change the selected expense item’s activity assignment and specify the expense item’s accrual type. You can also view the item’s activity assignment according to WBS element.

The ID and name of the activity that incurs the selected expense

The code for the WBS element that contains the selected expense’s assigned activity

The rate at which the selected expense accrues

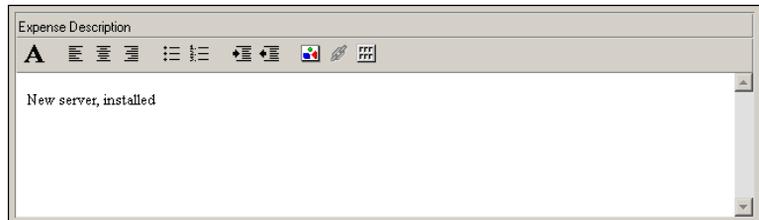
Activity	S2260 Perform system integration and testing	
WBS	SwD.3.1	Accrual Type
		Start of Activity

Select one of the following accrual types:

- **Start of Activity**, to accrue the entire expense on the date the activity begins
- **End of Activity**, to accrue the entire expense on the date the activity ends
- **Uniform Over Activity**, to evenly distribute the expense over the course of the activity's duration

To change an expense assignment, click the Browse button in the Activity field. Select the activity to which you want to reassign the expense, click the Select button, then click the Close button.

**Description** Use the Description tab to enter a description of the selected expense item. You can type a new description. You can use HTML editing features, which include formatting text, inserting pictures, copying and pasting information from other document files (while retaining formatting), and adding hyperlinks.





# Managing Risks

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## *In this chapter*

**Adding Risks**

**Calculating Exposure Values**

**Customizing Risk Layouts**

The Methodology Management module contains an integrated risk management feature that enables you to identify, categorize, and prioritize potential risks associated with specific work breakdown structure (WBS) elements. You can also create risk control plans and assign a probability of occurrence to each risk.

This chapter describes how to add risks, calculate a risk's exposure values, and customize how you view risks.

## Adding Risks

The Methodology Management module contains an integrated risk management feature that enables you to identify, categorize, and prioritize potential risks associated with specific work breakdown structure (WBS) elements.

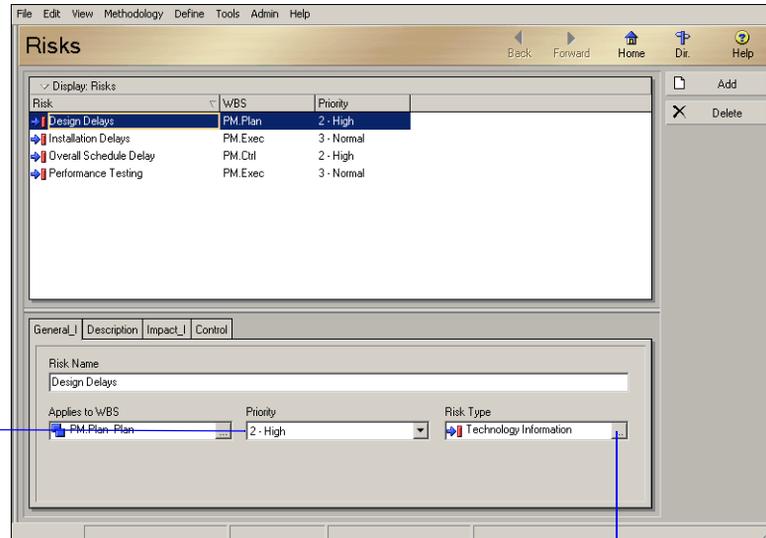
You can also perform a “what-if” impact analysis for each risk. The Methodology Management module uses a risk's probability of occurrence, and resource unit and expense estimates to calculate a risk's net exposure values. These exposure values are then used to determine the risk's impact on the project's cost, float, and finish date when Project Architect is used to import the methodology in the Project Management module. The current project data are not changed.

Choose Methodology, Risks, to display the Risks window. Click the Display Options bar, then click Risk Details.

**Add a risk** Click Add, then click the General tab in Risk Details. Type the risk's name, then select the WBS element that the risk will affect.

For instructions on adding risk types, see the *Defining Administrative Preferences and Categories* chapter.

Select a priority from 1 to 5, where 5 is the most critical.



Click to select the type that best categorizes the risk.

**Add a risk description and control plan** Click the Description tab, then type a description of the risk. To enter a description of the risk's control plan, click the Control tab, then type the description in the Risk Control Plan field. You can use HTML editing features in both tabs; these features include formatting text, inserting pictures, copying and pasting information from other document files (while retaining formatting), and adding hyperlinks.

## Calculating Exposure Values

The Methodology Management module uses a risk's probability of occurrence, and resource unit and expense estimates to calculate a risk's net exposure values. These exposure values are then used to determine the risk's impact on the project's cost, float, and finish date when Project Architect is used to import the methodology in the Project Management module. The current project data are not changed. Choose Methodology, Risks, to display the Risks window. Click the Display Options bar, then click Risk Details.

**Calculate a risk's exposure values** Select the risk whose exposure values you want to calculate, then click the Impact tab. Type the estimated number of labor and nonlabor time units, and the estimated total cost of expenses the risk will incur, if the risk occurs. Type or select a percent estimate of the probability that the risk will occur. The module calculates and displays the risk's exposure values as  $\text{Exposure} = \text{Impact} \times \text{Probability}$ .

*This number is calculated using the WBS.*

The screenshot shows a software window titled "Risk Details" with a tab labeled "Impact". At the top, "Impacted Activities" is set to "10". Below this is a table with columns for "Low", "High", "Impact", and "Exposure".

	Low	High	Impact	Probability	Exposure
Labor Units	200h	2000h	200h	50%	100h
Nonlabor Units	0h	0h			
Expenses	\$0.00	\$0.00			

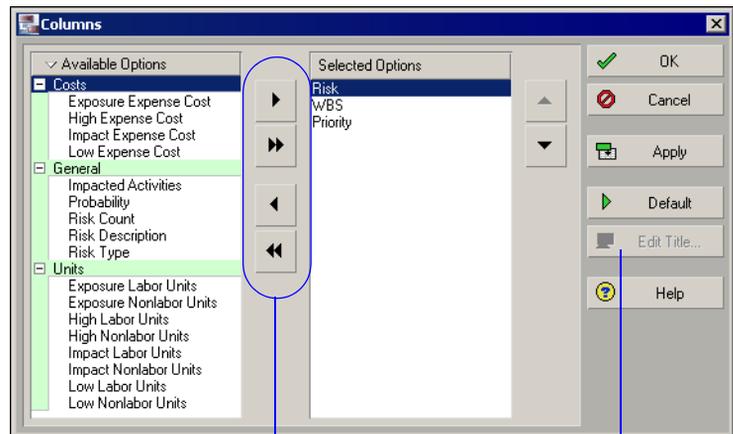
A blue circle highlights the "Low" and "High" columns for Labor Units, Nonlabor Units, and Expenses. A blue line points from the text "This number is calculated using the WBS." to the "Impact" field (200h). Another blue line points from the text "These fields contain the low and high labor and nonlabor time unit estimates, and the low and high expense cost estimates, for the WBS assigned to the risk currently selected." to the circled fields.

*These fields contain the low and high labor and nonlabor time unit estimates, and the low and high expense cost estimates, for the WBS assigned to the risk currently selected.*

## Customizing Risk Layouts

Use the Columns dialog box to specify which columns you want to display in the current risk spreadsheet layout. Choose Methodology, Risks, to display the Risks window.

**Customize risk layout columns** Click the Display Options bar and choose Columns, Customize.



Double-arrow buttons add/remove all available columns in the current layout; single-arrow buttons add/remove selected items in the current layout.

Click to change the column title of a selected item.

Modify the columns shown in the risk layout by clicking the right/left arrow buttons to move data items between the Available Options and Selected Options columns.

Items listed in the Selected Options column are included in the current layout when you click OK. Click Apply to see your changes without closing the dialog box.

**Filter, group, and sort risk layouts** You can select the risks you want to view and specify how you want to display them, and you can restrict which risks you view. In the Risks window, click the Display Options bar. Choose Filters or Group and Sort By and the option that best describes how you want to view risks.

*This risk layout is grouped by WBS element and filtered by probability for quick analysis.*

The screenshot shows the 'Risks' window in Primavera Methodology Management. The window title is 'Risks' and it has a menu bar with 'File', 'Edit', 'View', 'Methodology', 'Define', 'Tools', 'Admin', and 'Help'. Below the menu bar are navigation buttons: 'Back', 'Forward', 'Home', 'Dir.', and 'Help'. The main area contains a table of risks with columns: 'Risk', 'Priority', 'Impacted Activities', 'Impact Labor Units', 'Exposure Labor Units', and 'WBS'. The risks are grouped by WBS element. The 'Overall Schedule Delay' risk is highlighted in blue, indicating it is selected. Below the table is a 'General' tab with fields for 'Impacted Activities' (value: 4), 'Labor Units' (Low: 80h, High: 80h), 'Nonlabor Units' (Low: 0h, High: 0h), and 'Expenses' (Low: \$0.00, High: \$0.00). There is also a 'Probability' field with a value of 50%.

Risk	Priority	Impacted Activities	Impact Labor Units	Exposure Labor Units	WBS
WBS: PM: PMI Project Management				100h	
WBS: PM: Init Initiate				0h	
WBS: PM: Plan Plan				100h	
Design Delays	2 - High	10	200h	100h	PM:Plan
WBS: PM: Exec Execute				0h	
Installation Delays	3 - Normal	6			PM:Exec
Performance Testing	3 - Normal	6			PM:Exec
WBS: PM: Ctrl Control				0h	
Overall Schedule Delay	2 - High	4			PM:Ctrl
WBS: PM: Close Close				0h	

# Creating and Maintaining a Document Library

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## *In this chapter*

**Viewing a Document Library and Adding/Deleting Documents**

**Specifying Work Product and Document Location References**

**Assigning Work Products and Documents**

Use the Work Products and Documents feature to catalog and track all methodology-related documents. These materials include guidelines, procedures, standards, plans, design templates, worksheets, and all types of deliverables. A document can provide standards and guidelines for performing an activity's work, or it can be a work product or deliverable produced by work on the activity. Examples of work products are testing plans, design specifications, and airframe blueprints. When you assign a document to an activity, you can also indicate whether it is a work product.

This chapter describes how to maintain your methodology's library of documents.

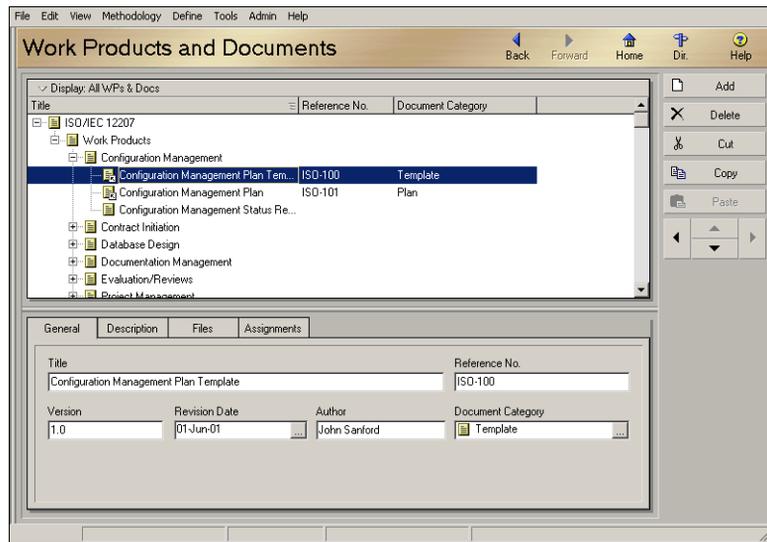
## Viewing a Document Library and Adding/Deleting Documents

The Work Products and Documents feature allows you to maintain general information, such as revision date, location, and author, about your organization's documents. The actual document files can be stored on a network file server, configuration management system, or Web site, depending on your organization.

Choose Define, Work Products & Documents, to display the Work Products and Documents window. Click the Display Options bar and choose WP & Doc Details.

*To change the list of work products and documents from a hierarchy display to a list view, click the Title column label. A triangle symbol (▼) in the Title column label indicates a list display.*

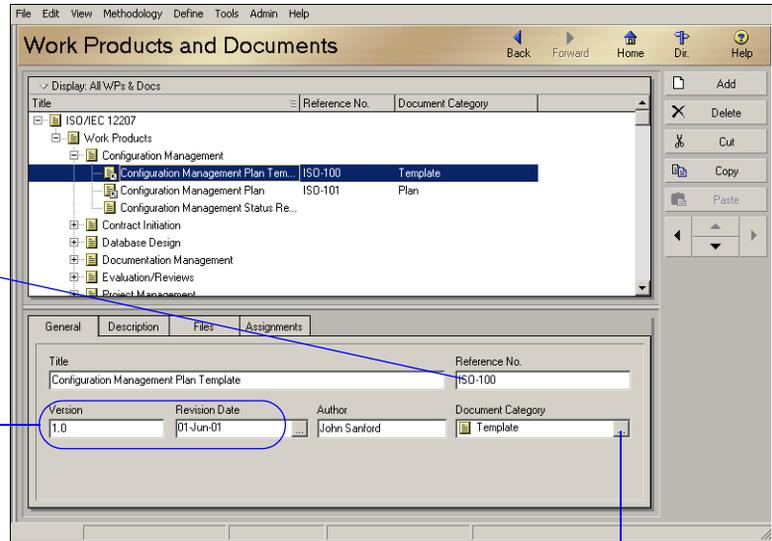
**View a methodology's document library** Select the work product or document whose information you want to view.



**Add a work product or document** Select the work product or document immediately above and at the same level as the item you want to add, then click Add. Click the General tab in Work Product and Document Details. Type a name for the work product or document, then add general information about it.

Enter the reference or catalog number for the selected work product or document.

Track the version of the work product or document by entering the corresponding number and last update date.



Set up document categories by choosing Admin, Admin Categories.

Use Work Product and Document Details to view, add, and edit detailed information about and/or open the selected work product or document. You can also use Work Product and Document Details to assign the selected item to work breakdown structure (WBS) elements and activities.

**Enter a document description** Click the Description tab and type a description for the document. You can use the HTML editing features, which include formatting text, inserting pictures, copying and pasting information from other document files (while retaining formatting), and adding hyperlinks.

**Delete work product or document records** Select the work product or document or group of work products or documents you want to delete, then click Delete. Click Yes when prompted.



Deleting a document record deletes only the record, not the actual file that contains the document.

## Specifying Work Product and Document Location References

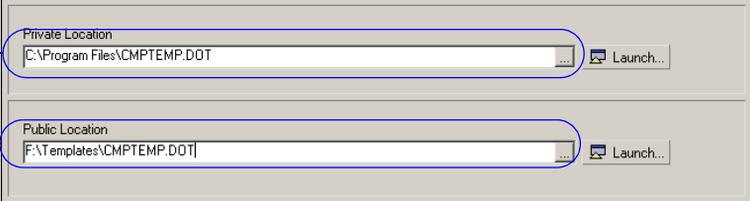
The module supports two types of work product and document location references, private and public. Private location references can be viewed only by users of Methodology Management and Project Management modules. Public location references can be viewed by all project participants, including users of Primavera Timesheets. For this reason, public location references typically refer to files stored in a widely accessible network location, an intranet, or the Internet.

Choose Define, Work Products & Documents. Click the Display Options bar, then choose WP & Doc Details.

**Enter work product and document location references** Select the work product or document for which you want to enter a location reference. Click the Files tab.

Use this field to define the document as **private**.

Use this field to define the document as **public**.



The screenshot shows a software interface with two input fields. The top field is labeled 'Private Location' and contains the text 'C:\Program Files\CMPTEMP.DOT'. To its right is a button labeled 'Launch...'. The bottom field is labeled 'Public Location' and contains the text 'F:\Templates\CMPTEMP.DOT'. To its right is also a button labeled 'Launch...'. Blue circles highlight each field, with lines pointing to the explanatory text on the left.

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To use the Launch feature, the files listed in the Private Location/Public Location fields must be a type recognized by Windows.

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**Open a work product or document** Select the work product or document you want to open. Click the Files tab. To view the private file for a work product or document, click Launch next to the Private Location field. To view the public location for a work product or document, click Launch next to the Public Location field.

## Assigning Work Products and Documents

Use the module to assign work products and documents to both activities and WBS elements. For example, during a methodology’s early planning stages, you may assign a work product or document to a WBS element. Later, you can assign the same work product or document to one or more activities as your methodology’s activity details develop.

Choose Define, Work Products & Documents. Click the Display Options bar, then choose WP & Doc Details.

For instructions on assigning work products and documents from the Activities and Work Breakdown Structure windows, see the *Working with Activities* and *Establishing a Work Breakdown Structure* chapters.

**Assign work products and documents from the Work Products and Documents window** Select the work product or document you want to assign. To assign multiple work products or documents, hold down the Ctrl key, then click each work product or document. Click the Assignments tab.

Click Assign. Select the activity or WBS element to which you want to assign the selected work product or document. Click the Assign button, then click the Close button. To remove a work product or document assignment from an activity or WBS element, select the item in the Assignments tab, then click Remove.

To change the sort order of any column, click the column labels.

WBS Code	Activity ID	Activity Name	Work Product
SWD.CM	C1010	Prepare configuration management plan	<input checked="" type="checkbox"/>
SWD.4	C1020	Perform configuration control of softw...	<input type="checkbox"/>

Mark to indicate the item is a work product.



# Checking Methodologies In and Out of the Module

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*In this chapter*

**Managing Remote Methodologies**

**Checking Out Methodologies**

**Checking In Methodologies**

The Check-In/Check-Out feature enables you to keep track of methodologies that have been checked out for use at other locations. Until the methodologies are checked back in to the module, other users cannot change activity, resource, and other information for the methodologies.

This chapter describes how to check methodologies in and out of the module.

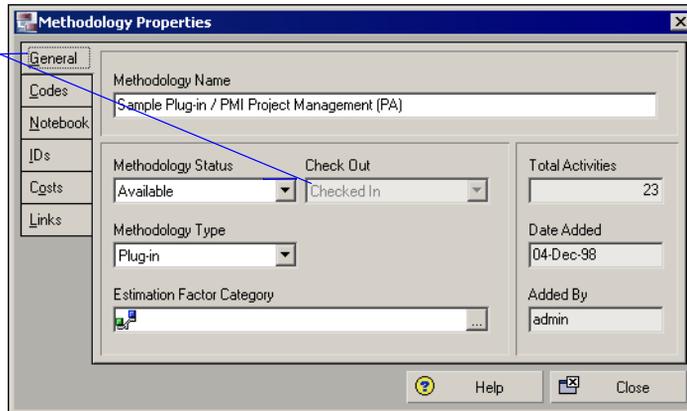
## Managing Remote Methodologies

Check methodologies out of the module to work on them at remote locations. When a methodology is checked out, it cannot be modified in the module until it is checked back in.

You can check methodologies out in Primavera proprietary format (XER), which enables you to use activity, cost, resource, and other types of methodology information with other Methodology Management installations, regardless of the database being used (Oracle, or Microsoft SQL Server, including MSDE).

**Track check-in/check-out status** You can easily determine whether a methodology has been checked out of the module. Choose Methodology, Methodology Properties.

*Click the General tab, then review the value in the Check Out field.*



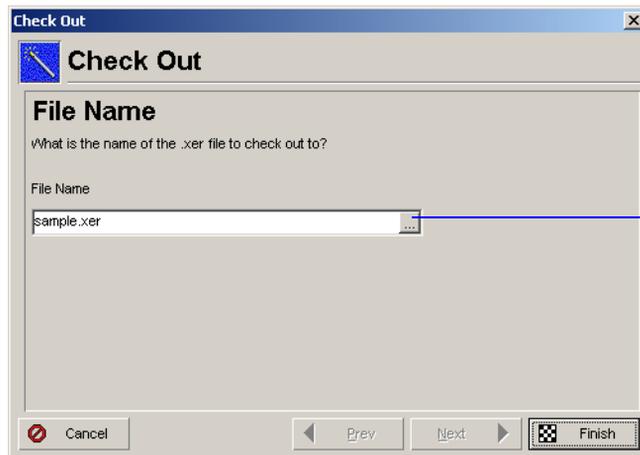
The screenshot shows the 'Methodology Properties' dialog box with the 'General' tab selected. The 'Methodology Name' field contains 'Sample Plug-in / PMI Project Management (PA)'. The 'Methodology Status' dropdown is set to 'Available', and the 'Check Out' dropdown is set to 'Checked In'. The 'Methodology Type' dropdown is set to 'Plug-in'. The 'Estimation Factor Category' field contains a small icon. The 'Total Activities' field shows '23', 'Date Added' shows '04-Dec-98', and 'Added By' shows 'admin'. A blue arrow points from the text on the left to the 'Check Out' dropdown menu.

Field	Value
Methodology Name	Sample Plug-in / PMI Project Management (PA)
Methodology Status	Available
Check Out	Checked In
Methodology Type	Plug-in
Estimation Factor Category	[Icon]
Total Activities	23
Date Added	04-Dec-98
Added By	admin

## Checking Out Methodologies

The Check-Out wizard guides you through the steps for checking out a methodology. Before you start the wizard, open the methodology that you want to check out. Note that you can only check out one methodology at a time.

**Check out methodologies** Choose File, Check Out. Specify the name of the file and the location where the file will be saved, then click Finish.



*Click the  
Browse  
button to  
select the  
file  
location.*

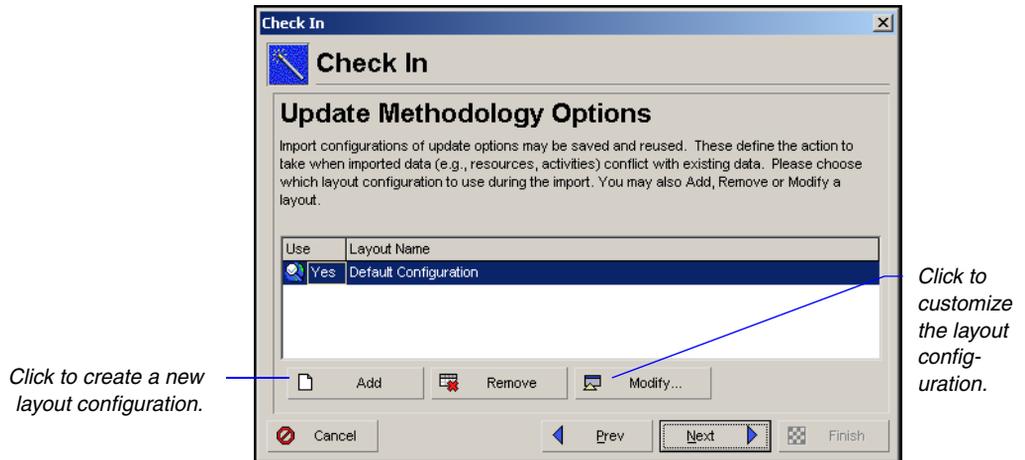
## Checking In Methodologies

A methodology previously checked out of a Methodology Management module database can be checked back in to any Methodology Management installation. Before you start the wizard, open the methodology that has been checked out.

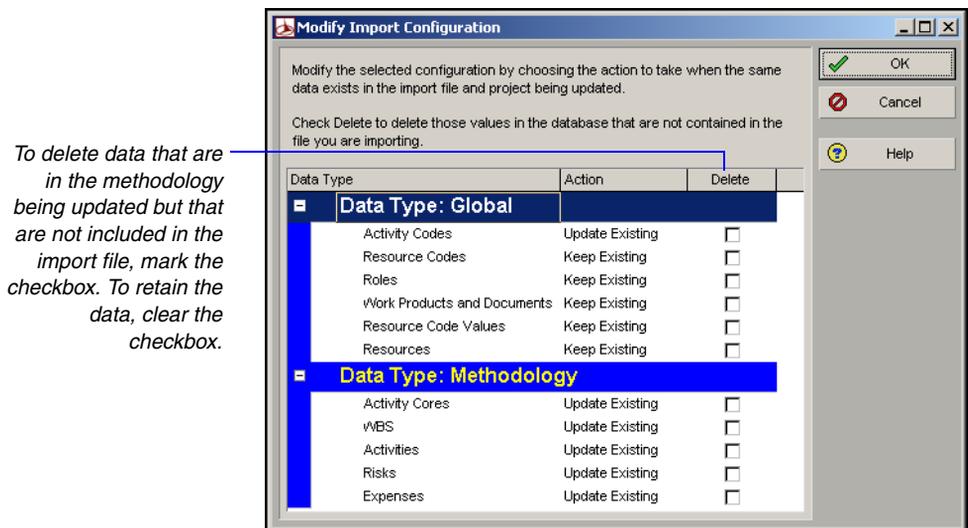
**Check in a methodology** Choose File, Check In. Click the Browse button to select the methodology file that you want to check in, then click Next.



**Choose update methodology options** Select a layout configuration to use when importing methodology data. The options specified in the layout configuration determine how the module handles data in the import file that match data in the database. You can create and save several different configurations; however, only one configuration can be used to check in the file. Select Yes in the Use field next to the configuration you want to use.



**Modify a layout configuration** To modify the options specified in a layout configuration, select the layout name in the Update Methodology Options dialog box, then click Modify.



The Modify Import Configuration dialog box lists the data types for which you can set options. Mark the Delete checkbox next to a type to remove data that exist in the methodology being updated but that are not included in the file being checked in. For example, if risks are defined in the methodology being updated, but they are not included in the file being checked in, mark the checkbox in the Delete column to remove the risks from the methodology being updated. Select one of the following in the Action field to indicate how the data type is updated:

- **Keep Existing** - Retains data in the existing methodology and does not overwrite them with the updated data; adds new data if the record does not exist.
- **Update Existing** - Overwrites data in the existing methodology with updated data; adds new data if the record does not exist.
- **Insert New** - Retains data in the existing methodology and adds any new data items. For example, if a new role was added to the data, but you don't want to change the existing roles, choose Insert New to add the new role to the existing methodology.
- **Do Not Import** - Retains data in the existing methodology and does not import the updated data.

Click OK to save changes to the layout configuration. Click Next.



*If the module is unable to detect the view currency specified for the methodology being checked in, a dialog displays to allow you to select it. Click the Browse button to select a matching currency, then click Finish to complete the check-in. If the view currency of the methodology you are checking in is not available, cancel the wizard, then contact your administrator to request that the currency be added.*

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# Customizing Methodologies

## In this part

**Working with Layouts**

**Grouping, Sorting, and Filtering Data**

**Customizing Layouts**

**Customizing Reports**

**Printing Layouts and Reports**

**R**ead this part to learn how to customize your desktop and create layouts that show you the data you need to manage your methodologies.

*Working with Layouts* describes the types of layouts you can create and explains how to add, open, and save layouts. It also describes how to import and export layouts to share with other users. Read *Grouping, Sorting, and Filtering Data* to learn how to organize the data displayed in layouts to focus immediately on the information you need to see.

*Customizing Layouts* shows you how to change the look and content of layouts by modifying columns, customizing Activity Network boxes, and editing fonts and colors. *Customizing Reports* discusses how to create reports and assign them to report groups. The last chapter in this part, *Printing Layouts and Reports*, describes how to preview and print layouts and reports, and save layouts and reports as HTML files.

# Working with Layouts

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## *In this chapter*

**Layout Types**

**Creating, Opening, and Saving  
Layouts**

**Exporting and Importing Layouts**

Use the module to create layouts that display the data you want to see, in the format you need to see them. You can customize the top and bottom areas of the layout to include tables, Activity Network diagrams, and Activity Details. Once you are satisfied with your layout, you can save it so you or other team members can use it again.

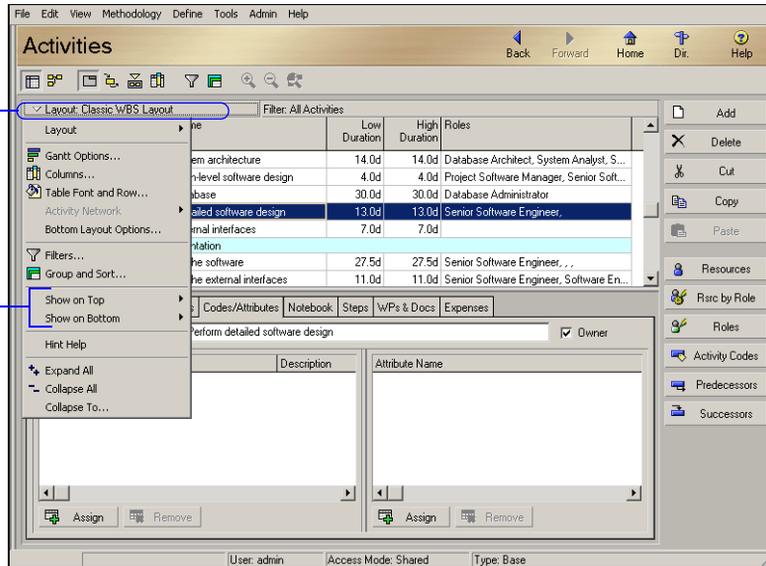
This chapter describes the different layout types and explains how to create, open, save, export, and import layouts.

## Layout Types

You can open the following types of activity layouts: Activity Tables, Activity Networks, Activity Details, and Trace Logic. Split the Activities window into top and bottom panes to display different types of layouts at the same time. For example, show an Activity Table in the top pane and Trace Logic in the bottom pane.

Click the **Layout Options** bar to display a menu of options that you can use to customize the top and bottom panes of the Activities window.

Click **Show on Top** and **Show on Bottom** to select the layout type displayed in each area of the Activities window.



For additional information about layout types and examples of sample layouts, see the [Quick Tour](#) chapter.

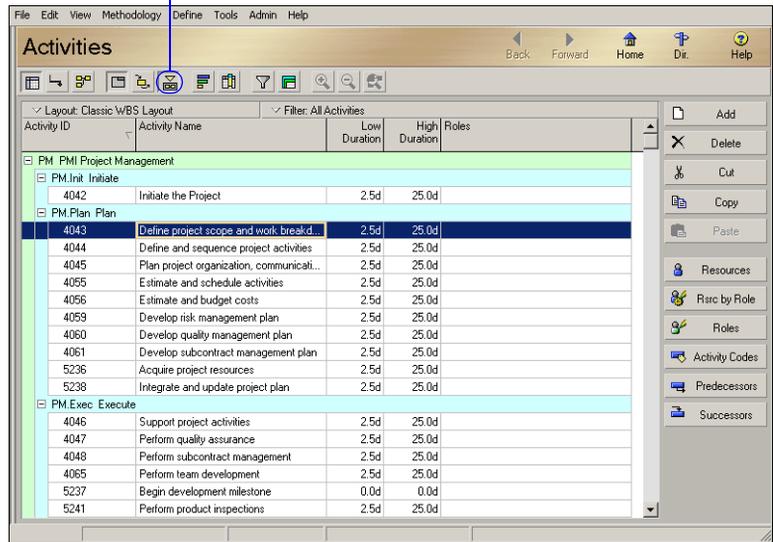
Refer to the examples on the following pages:

### Activity Table

Displays activity information in spreadsheet format. Use this type of layout to quickly update a methodology.

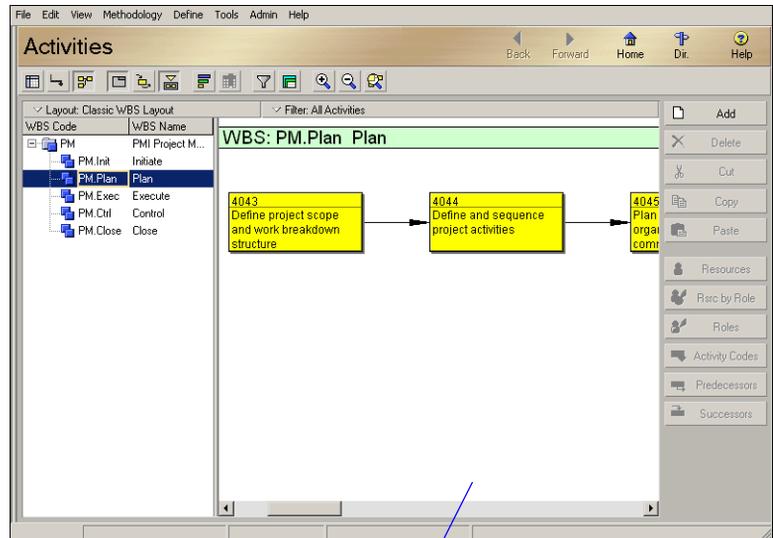
*You can use filters and data grouping to see only those activities that occur in your current status cycle.*

*Click the Show/Hide Bottom Layout button to display the top layout in an expanded view.*

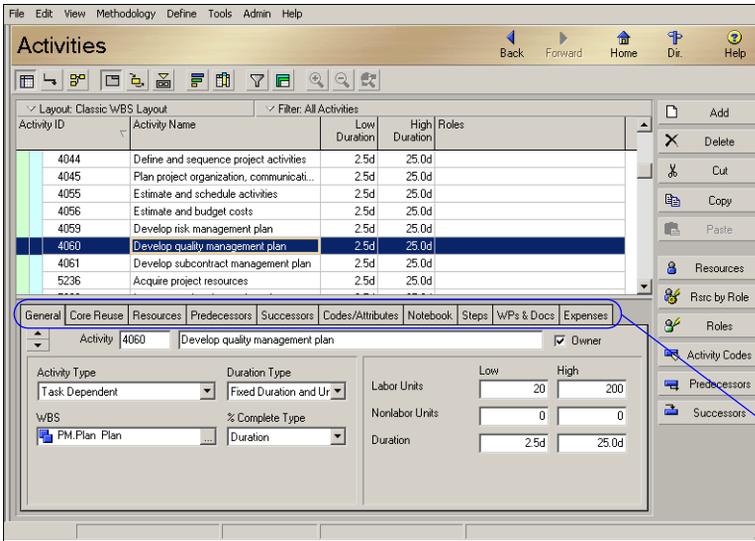


### Activity Network

Provides a graphical display of activities, including logical relationships. The Activity Network can be displayed in the top layout only. The left side of this example displays the WBS hierarchy, while the right side shows the activity flow in graphical format. Use this layout to change the sequence of activities as your methodology evolves.

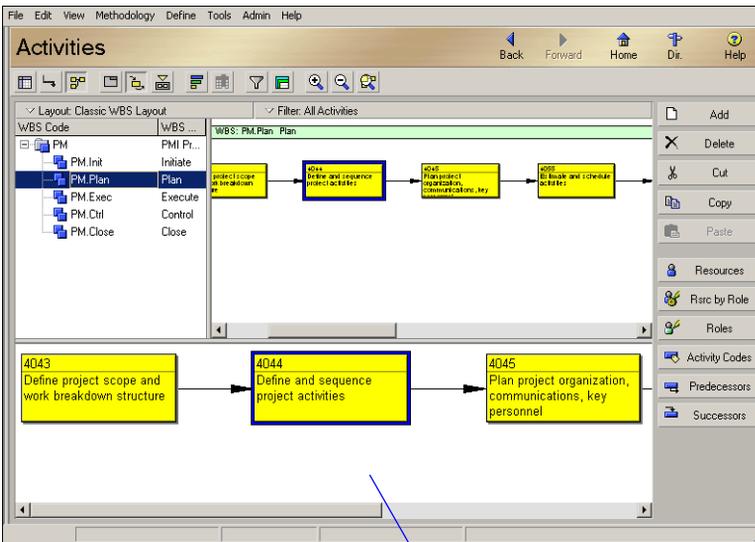


*To quickly zoom in on an Activity Network box, hold down the Alt key, then click and drag in the Activity Network section.*



**Activity Details**  
 Display and enable you to modify detailed information for an activity you select in either the Activity Table or the Activity Network. This type of layout can be displayed in the bottom layout only. Use this layout type to add and update activities.

To show or hide any of the Detail tabs, right-click on a tab title and choose *Edit Activity Detail Tabs*.



To quickly zoom in on a box, hold down the Alt key, then drag in the Trace Logic layout.

## Creating, Opening, and Saving Layouts

Once you create a layout, you can save it and use it again at other stages of the methodology or with different methodologies. Make layouts available to all users (global) or to a specific user only.

Choose Layout, Open, to apply an existing layout to the current methodology.



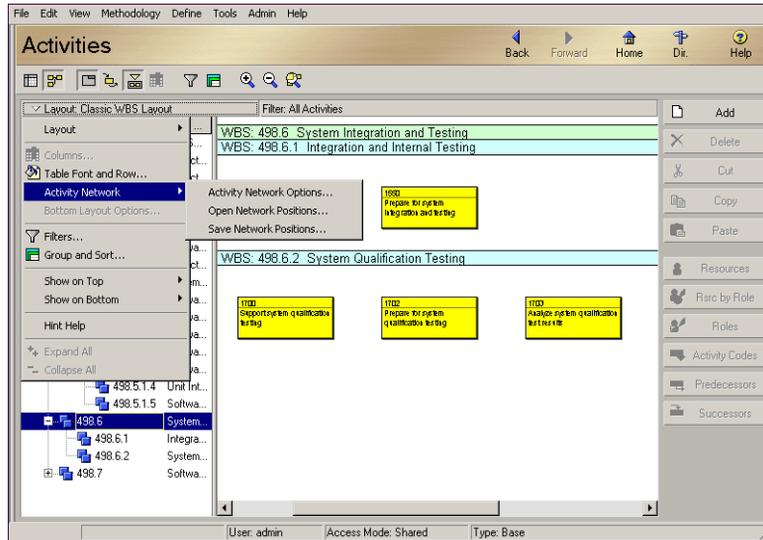
For detailed instructions on customizing the top and bottom layouts, see the *Customizing Layouts* chapter.

**Add a new layout** Customize the top and bottom layouts to create a new layout, then save the layout using a name you specify. Click the Layout Options bar, then choose Layout, Save As. Type the layout name, then select who will be able to use this layout: All Users, the Current User, or Another User. If you select Another User, click the Browse button in the User field, then select the user's name. (If you save a layout and specify a user other than yourself, you will no longer be able to access the layout.) Click Save.

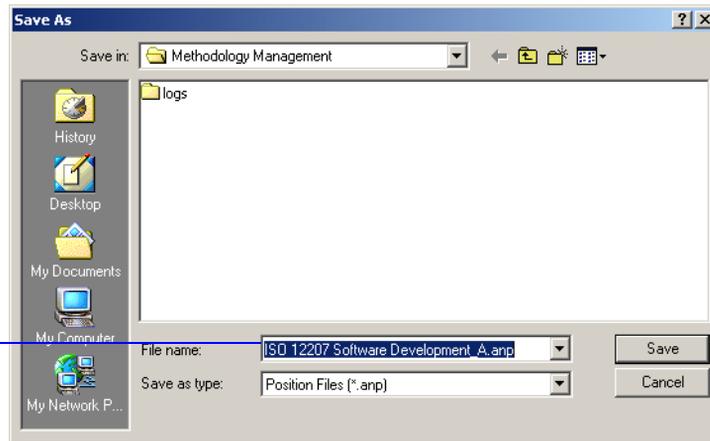
**Open a layout** Click the Layout Options bar, then choose Layout, Open. Select the layout you want to open, then click Open. To preview the layout without closing the Open Layout dialog box, click Apply.

**Save changes to a layout** Click the Layout Options bar, then choose Layout, Save. To save a copy of the layout using a different name, choose Layout, Save As. Type a name for the layout copy, then click Save.

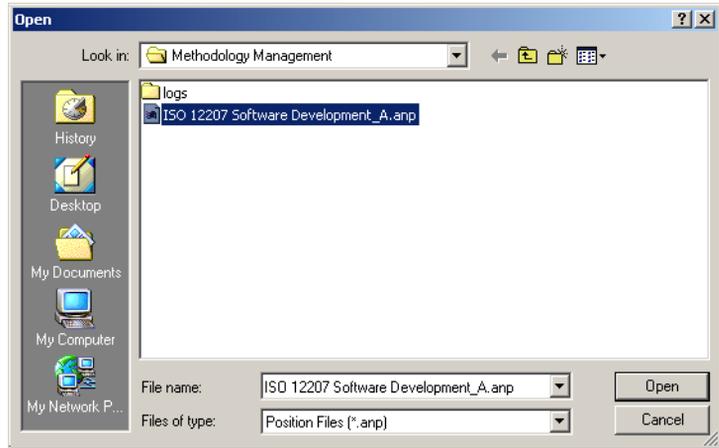
**Save an Activity Network layout** You can save an Activity Network layout as an .ANP file, to use later or e-mail to another project user. To save an Activity Network layout, click the Layout Options bar, then choose Activity Network, Save Network Positions.



Type a unique name to identify the layout, then click Save.



**Open a saved Activity Network layout** Click the Layout Options bar, then choose Activity Network, Open Network Positions. Browse to the folder where the saved layout file is located. Select this file and click Open.



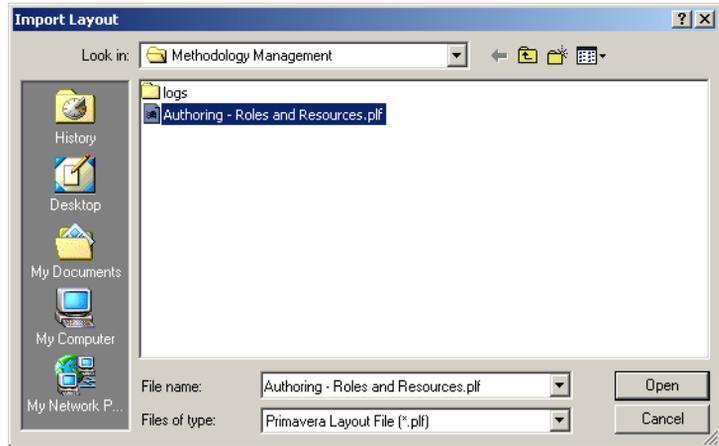
## Exporting and Importing Layouts

If you want to share a layout with other users, export it to a central location from which they can import the layout to use with their own methodologies.

**Export a layout** Click the Layout Options bar, then choose Layout, Open. Click the name of the layout you want to export, then click Export. Specify a name and location for the export file, then click Save.



**Import a layout** Click the Layout Options bar, then choose Layout, Open. Click Import, then select the location of the layout file you want to import. (Primavera layout files have a .PLF extension.) Click Open. If you want to make the layout available to all users, click Yes when prompted.



*To overwrite the current layout with your changes, click the Layout Options bar and choose Layout, Save.*



# Grouping, Sorting, and Filtering Data

---

## *In this chapter*

**Grouping Data**

**Sorting Data**

**Filtering Data**

The module provides extensive grouping, sorting, and filtering capabilities so you can view a methodology from many different perspectives.

Grouping organizes activities into categories that share a common attribute. For example, focus on activities by resource, responsibility, or durations. Sorting arranges activities or resources in any order you select, such as by labor cost.

Use filters to narrow your selection to a specific data group. The module provides several filters which you can use or modify; you can also add new filters.

Read this chapter to learn how to group, sort, and filter data in your methodologies.

## Grouping Data

Group to organize information in categories that share a common attribute, such as work breakdown structure (WBS), code value, or resource. You can customize group criteria when you are working with activities and resources. Group by simple, one-level lists of information, such as durations, costs, and other numeric data. You can also group by multiple data items in the same layout. For example, group by activity type, then resources. Each group band can have a unique color and font.

Group criteria can also be arranged in hierarchies of data at multiple levels (up to 20). These items include WBS and activity codes. Choose whether to indent each level in the hierarchy, and specify up to which level to show. If you limit the number of levels, you can group by additional data items.

*This layout is grouped by multiple levels of the WBS.*

Activity ID	Activity Name	Low Duration	High Duration	Roles
CMM Level 3				
CMM.1 Project Milestones				
TC1160	Milestone: Project initiated	0.0d	0.0d	
TC1170	Milestone: Initial project plans approved	0.0d	0.0d	
TC1190	Milestone: Project completed	0.0d	0.0d	
CMM.2 Project Plans				
CMM.2.1 Software Configuration Management (SCM) Plan				
4678	Prepare SCM Plan	2.5d	25.0d	
TC1020	Update SCM Plan	2.5d	25.0d	
CMM.2.2 Software Development Plan (SDP)				
4639	Prepare next review plan	2.5d	25.0d	

Activity	Activity Name	Owner
4678	Prepare SCM Plan	

Activity Type	Duration Type	Labor Units	Nonlabor Units
Task: Dependent	Fixed Duration and Ur	Low: 20, High: 200	0, 0
WBS: CMM.2.1 Software Configuratio...	% Complete Type: Duration	Duration: 2.5d, 25.0d	

**Customize grouping** In the Activities window, click the Layout Options bar, then choose Group and Sort. You can also click the Display Options bar from the Resources window and then choose Group and Sort By, Customize.

*To select the data item by which you want to group data, click the Group By field and select a value from the drop-down list.*

*When grouping by a hierarchical item, such as WBS, mark the Indent checkbox to indent each level, and specify how many levels to show.*

*These settings apply to the Group By field selected above.*

*When grouping by numbers or durations, choose an interval for each group. For example, group activities by actual costs in increments of \$3,000.*

You can show or hide the ID/Code and Name/Description fields as labels in the group-by bands when grouping by hierarchies that include both an ID/code and a name description. Mark or clear the checkboxes to choose the text to display on the grouping bands.

- To display the field name on the grouping band, mark the Show Title checkbox.
- To display the ID or Code value on the grouping band, mark the Show ID/Code checkbox.
- To display the Name or Description on the grouping band, mark the Show Name/Description checkbox.



*You must select either Show ID/Code or Show Name/Description.*

WBS: ERP Systems.ERP Systems		
WBS: ERP Systems.ERP1 ERP System Installation		
A1690	Project Execution	
WBS: ERP Systems.ERP1.1 Analyze System		
A1100	Design system architecture	
A1110	Perform high-level software design	
A1120	Design database	
A1150	Perform detailed software design	
A1350	Design external interfaces	
WBS: ERP Systems.ERP1.2 Perform Test Rollout		
A1250	Prepare for system integration and testing	
A1260	Perform system integration and testing	
A1280	Perform stress testing	
A1290	Perform interface testing	
WBS: ERP Systems.ERP1.3 Implement full system		
A1760	Test New Design	
A1790	Cost Benefit Analysis	
A1800	Document New Design	

Title
ID/Code
Name/Description

You can sort grouping bands alphabetically rather than hierarchically. If the Sort Grouping Bands Alphabetically checkbox is not marked, the group bands are sorted by default according to their placement in the hierarchy.



*This sorting option can be applied on a row-by-row basis for each group by row. For example, alphabetically sort the band of the first hierarchical group by row, and hierarchically sort the band of the second hierarchical group by row.*

Activity ID	Activity Name	Low Duration	High Duration	Roles																																													
<div style="display: flex; justify-content: space-between;"> <span>Layout: Classic WBS Layout</span> <span>Filter: All Activities</span> </div>																																																	
<table border="1" style="width: 100%;"> <thead> <tr> <th>Activity ID</th> <th>Activity Name</th> <th>Low Duration</th> <th>High Duration</th> <th>Roles</th> </tr> </thead> <tbody> <tr> <td colspan="5"> <div style="display: flex; justify-content: space-between;"> <span>WBS: Financial System Upgrade</span> <span>Filter: All Activities</span> </div> </td> </tr> <tr> <td>FUSYS.PA</td> <td>Project Administration</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FUSYS.RQ</td> <td>System Requirements</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FUSYS.DS</td> <td>System Design</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FUSYS.IM</td> <td>System Implementation</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FUSYS.IT</td> <td>System Integration Tests</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FUSYS.QA</td> <td>QA Tests</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FUSYS.SI</td> <td>System Installation</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					Activity ID	Activity Name	Low Duration	High Duration	Roles	<div style="display: flex; justify-content: space-between;"> <span>WBS: Financial System Upgrade</span> <span>Filter: All Activities</span> </div>					FUSYS.PA	Project Administration				FUSYS.RQ	System Requirements				FUSYS.DS	System Design				FUSYS.IM	System Implementation				FUSYS.IT	System Integration Tests				FUSYS.QA	QA Tests				FUSYS.SI	System Installation			
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FUSYS.IT	System Integration Tests																																																
FUSYS.QA	QA Tests																																																
FUSYS.SI	System Installation																																																

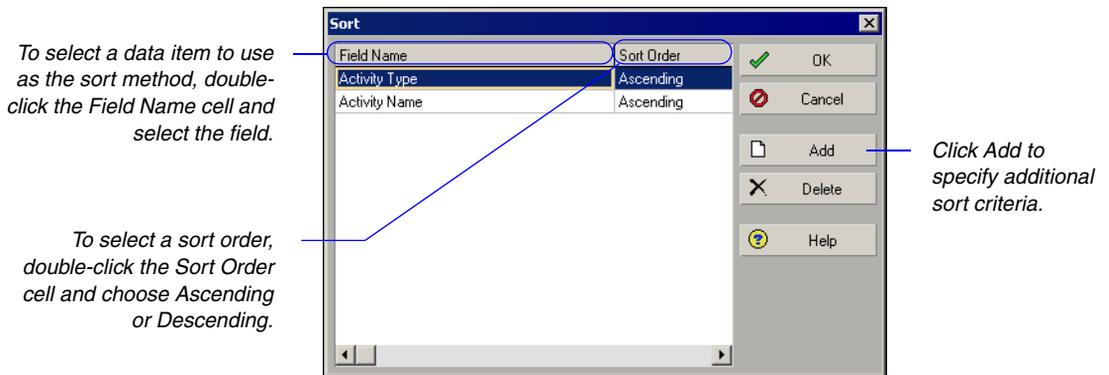
*These grouping bands are sorted alphabetically. . .*

*. . . and these grouping bands are sorted hierarchically.*

## Sorting Data

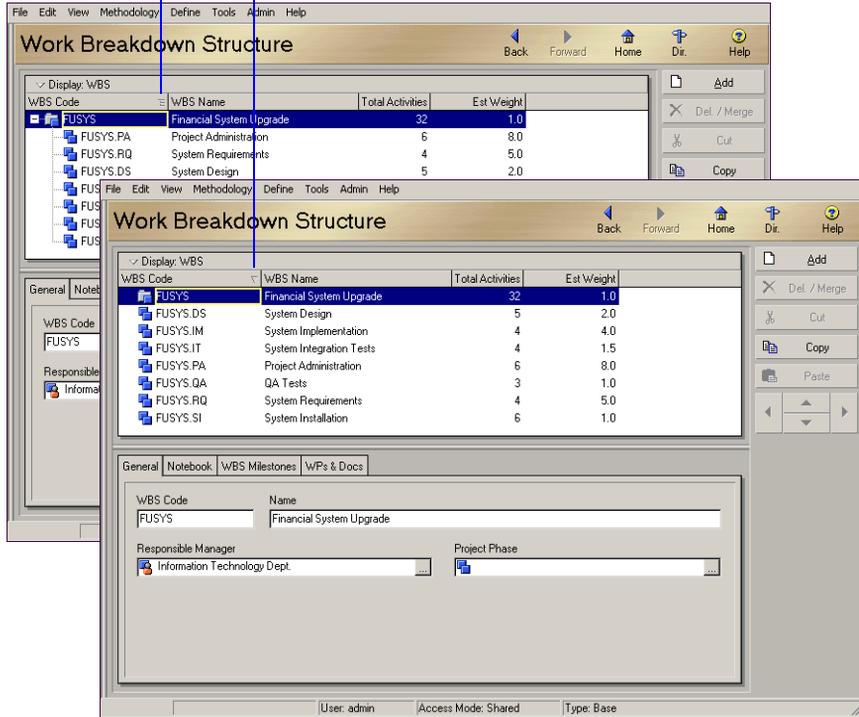
Sorting determines the sequence in which the module lists activities or resources, depending on the displayed window. You can sort alphabetically, numerically, or chronologically based on the data item you choose. For example, sort by high duration in descending order to see activities estimated to take a longer period of time at the top of the layout.

**Specify sort order** In the Activities window, click the Layout Options bar, then choose Group and Sort. Click Sort. You can also click the Display Options bar from the Resources window and choose Group and Sort By, Customize, then click Sort.



**Sort columns alphabetically** You can sort rows within a column alphabetically by clicking on the column header. The three-way toggle enables you to sort the column by hierarchy or an ascending or descending alphabetical list.

An outline symbol (☰) in the column header indicates a hierarchy view. Depending on the direction it is pointing, a triangle symbol (▼) indicates a descending or ascending alphabetical list.

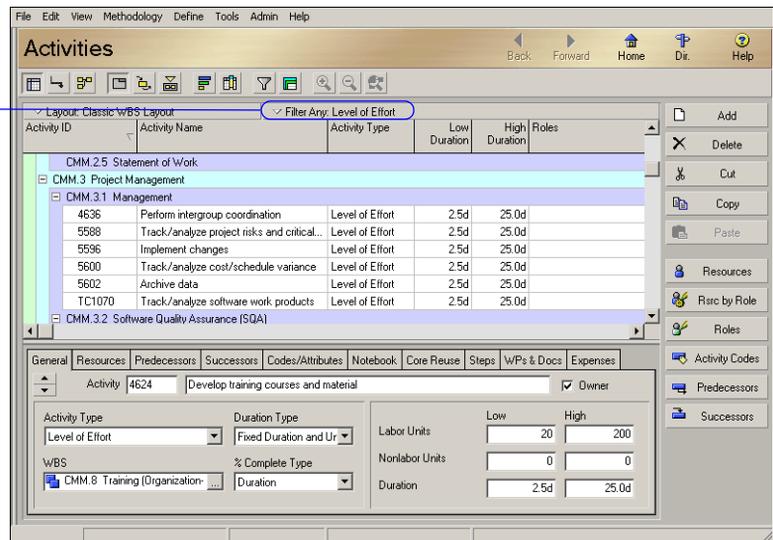


You can also change sort order with the Sort dialog box. Click Sort in the Group and Sort dialog box.

## Filtering Data

Use filters to focus on specific data. A filter is a set of instructions that determines which data are displayed in a layout. You can create a set of filters for activities, or you can use predefined filters. Filters can be user-defined or global. User-defined filters are filters that you define. They are available only to you for all methodologies to which you have access. Global filters are available to all users for all methodologies. When you apply a filter, you can specify whether to change the current layout to include only those activities that meet the filter criteria, or you can simply highlight the activities that meet the criteria.

*Displays the name of the filter currently applied to the layout*



**Select a filter** In the Activities window, click the Layout Options bar, then choose Filters. Mark the checkbox next to each filter you want to apply.

*Choose All or Any to combine multiple filters. Combining filters further narrows the selected data.*

*Mark to view all activities (and remove all filters).*

*These predefined filters are available when you are selecting activities in the Activities window.*

*Choose to display only the activities in the current layout that meet the filter criteria or to simply highlight the activities in the current layout that meet the criteria.*

*To convert a user-defined filter into one that all Methodology Management users can access, select it, then click Make Global.*

You can also customize individual filters when creating reports (using the Report Wizard).

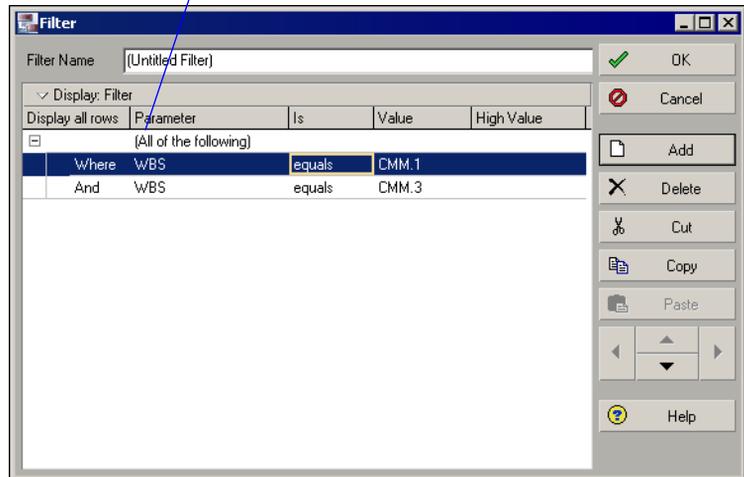
To view a user-defined or global filter's settings before applying it, select it, then click Modify. To view the criteria for a predefined filter, first copy and paste it. The filter is copied to the user-defined list, which you can then modify.

**Create a user-defined filter** In the Activities window, click the Layout Options bar, then choose Filters. Click New. Type a filter name. Click the Parameter cell and select a data item. Double-click the Is cell to select a filtering criteria. Specify a value in the Value field. If the values require a specific entry, you can select from a drop-down list. For example, if filtering by activity type, you must select from a list of the available types.

Click Add to define multiple selection criteria. Specify whether all criteria must be met or at least one criteria.

If you specify that All criteria must be met, the module joins each statement with an "And." If Any criteria can be met, an "Or" is used.

You can also click the Display Options bar from the Risks window, then choose Filters to filter the current list of risks. You cannot save filters created in Risks.



You can "nest" criteria to create multiple levels of selections. If you specify the topmost parameter as All of the Following, each successive level selects from only the activities that meet the criteria of previous levels. If you specify Any of the Following as the highest parameter, each group of criteria is separated by an "Or."

**Remove filters** In the Activities window, click the Layout Options bar, then choose Filters. To remove a specific filter, clear the Select checkbox next to that filter. To remove all filters, click All Activities. To preview your changes, click Apply.

**Delete user-defined activity filters** In the Activities window, click the Layout Options bar, then choose Filters. Select the filter you want to delete, then click Delete. You can only delete user-defined filters.

---

## Combining Filters

To create a filter that selects any activity from one selection criteria *and* any activity from another selection criteria, you must define two separate filters and then combine them when you run the filters. For example, to select any activity belonging to the Engineering group that is not complete, you might create one filter that selects any activity that falls under various WBS levels (specific to the Engineering group), and another filter that selects any activity with remaining labor units greater than zero. To run the filters, choose Activities Must Meet All of the Selected Filters and mark the checkboxes for the two filters on the Filters dialog box.

---

# Customizing Layouts

---

*In this chapter*

**Modifying Columns**

**Formatting Activity Network  
Layouts**

This chapter describes how to customize layout columns and specify the look of Activity Network boxes to help you analyze methodology activities. You will also learn how to customize activity layouts.

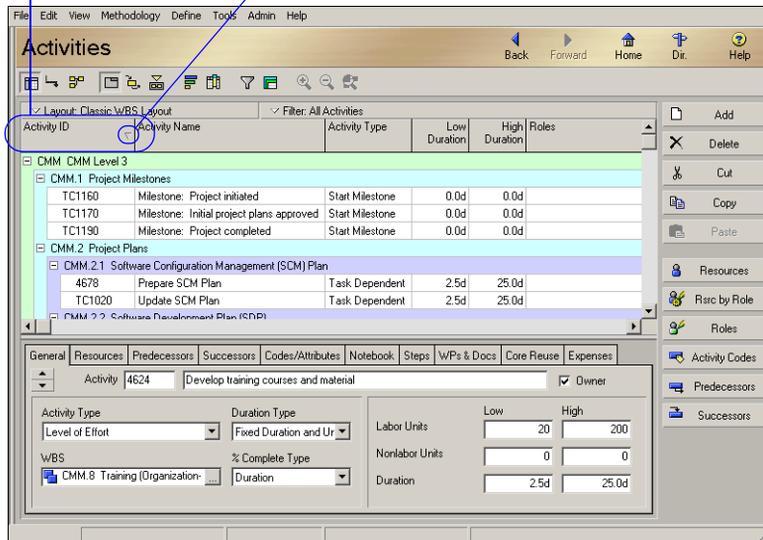
## Modifying Columns

You can customize the look and content of the columns included in tables and spreadsheets in the Activities window. Choose which columns you want to include; change the column widths, the order in which columns are displayed, and the row height; specify column fonts and colors; edit column titles; and copy column formats from other layouts.

To move a column, click and drag it to a new location.

Click a column title to toggle the sort order from ascending to descending. The down arrow indicates that the data are sorted in descending order.

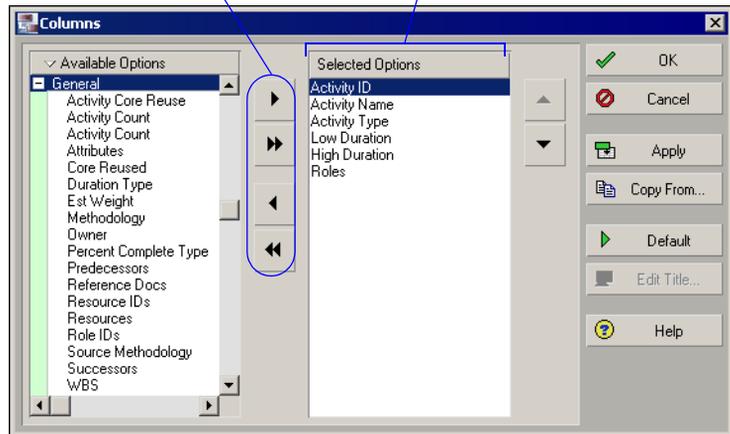
You can also customize the columns displayed in most windows, such as Resources, WBS, and Expenses.



**Add or remove columns** In the Activities window, click the Layout Options bar, then choose Columns.

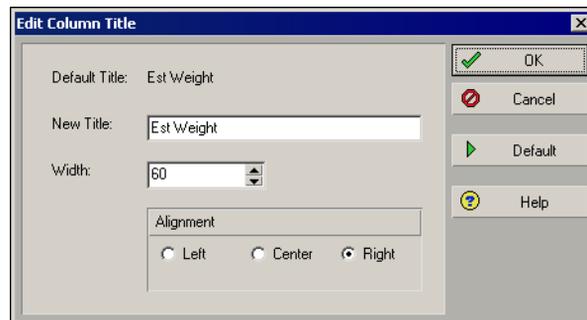
To include a column in the layout, select it in the Available Options area, then click the right arrow. To remove a column from a layout, select it in the Selected Options area, then click the left arrow. Click the double-arrows to add or remove all columns at once.

The sequence of columns in the layout will be the same as their order in this list. Click the up and down arrows to move columns higher or lower in the list.

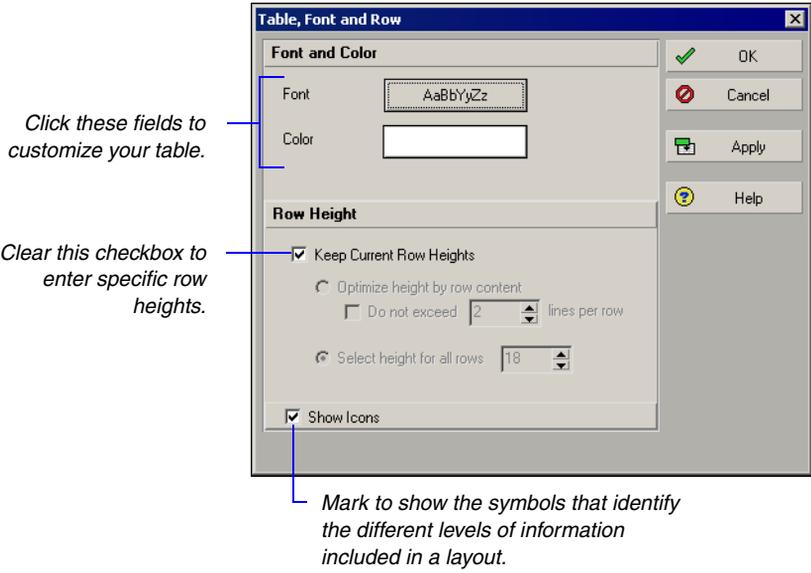


**Copy column format from another layout** In the Columns dialog box, click the Copy From button. Select the layout and click Open.

**Edit column titles** In the Available Options or Selected Options area of the Columns dialog box, select the column name you want to change. Click Edit Title. Type the new name, then specify the maximum number of characters for the column width. Choose how the title will be aligned.



**Change column fonts, colors, and row height** In the Activities window, click the Layout Options bar, then choose Table Font and Row. Click the Font button to change a font. To change a color, click the Color button.



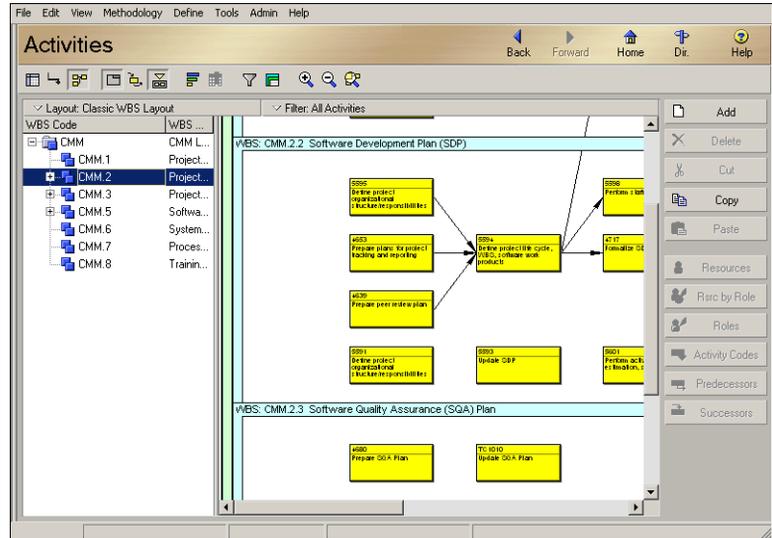
You can also specify the height for rows:

- The Keep Current Row Heights option enables you to retain all custom row heights manually set in the layout during your current user session.
- Clear the Keep Current Row Heights checkbox to automatically size each row based on cell content, font size, and column width or to specify a height for all rows in the layout. If you choose to Optimize Height by Row Content, you can set a value to limit the amount of lines per row that are automatically adjusted during text wrapping.

 Manually adjusted row heights are not saved when you save the layout.

## Formatting Activity Network Layouts

The Activity Network layout displays a methodology as a diagram of activities and relationships, according to the work breakdown structure (WBS). You can control nearly every aspect of the Activity Network, including the appearance of activities, the contents of activity boxes, and the spacing between activities.

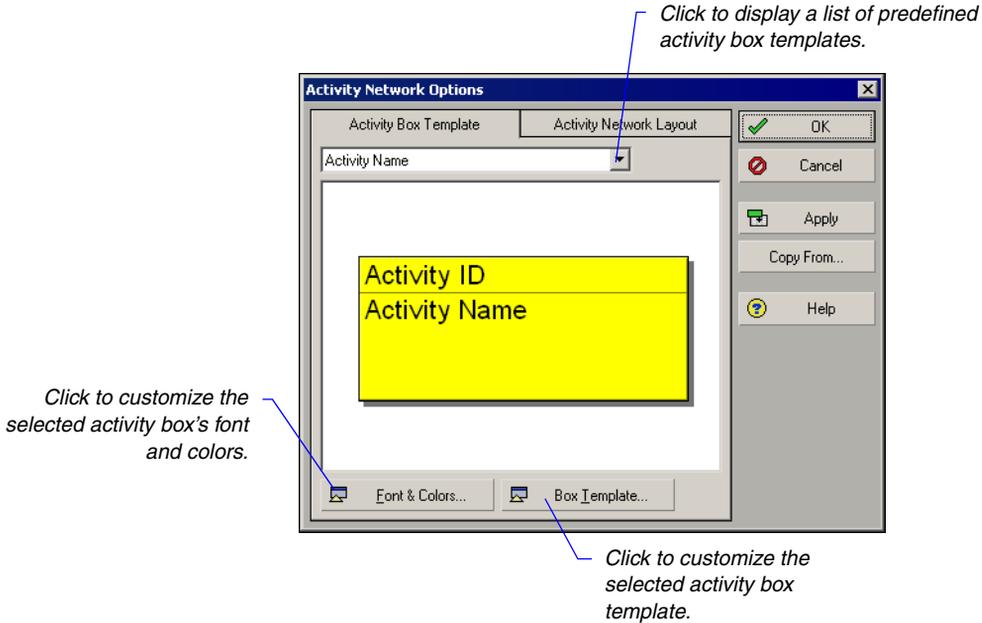


You can use an Activity Network layout to

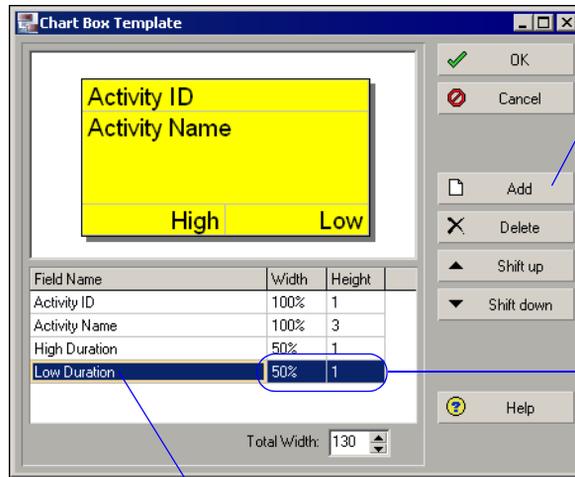
- Easily view relationships among activities and the flow of work through a methodology
- Examine and edit an activity and its predecessors and successors
- Focus on the driving relationship path

An Activity Network box visually represents a methodology activity. When customizing boxes, you can specify particular fonts and colors, set spacing and positioning, and copy styles from another layout.

**Choose an Activity Network box template** With an Activity Network layout displayed in the Activities window, click the Layout Options bar, then choose Activity Network, Activity Network Options. Click the Activity Box Template tab.



**Customize an Activity Network box template** You can use one of the predefined activity box templates, or customize your own. With an Activity Network layout displayed in the Activities window, click the Layout Options bar, then choose Activity Network, Activity Network Options. Click the Activity Box Template tab. From the drop-down list, select a template that is similar to the one you want to create, then click Box Template. You can add rows for inserting new fields and determine the height and width of the field cells within the activity box.



Click to add a new row to the activity box.

Use the Width and Height fields to customize the size of the new data item's cell.

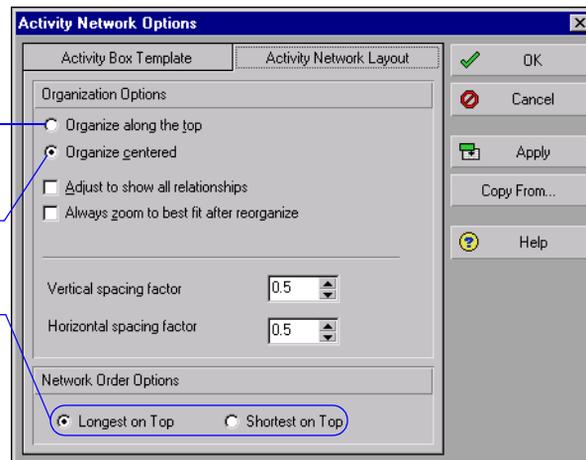
Double-click the Field Name field and choose the data item to add to the box.

**Customize the Activity Network layout** With an Activity Network layout displayed in the Activities window, click the Layout Options bar, then choose Activity Network, Activity Network Options. Click the Activity Network Layout tab.

Aligns activity boxes towards the top of the Activity Network window, in relation to their predecessors/successors

Centers activity boxes in relation to their predecessors/successors

Choose to display the Activity Networks with the longest or shortest path of linked activities on top.



When an activity's predecessor/successor is not immediately adjacent to its activity in the Activity Network, the relationship line may not be visible because of other activity boxes. To reposition activity boxes so that all relationship lines are visible, mark the Adjust to Show All Relationships checkbox.

To have the module automatically determine the view that best shows all activity boxes in the layout after you have reorganized it, mark the Always Zoom to Best Fit After Reorganize checkbox.

To change the amount of vertical space between activity boxes in the Activity Network, specify a spacing factor that is a percentage of the height of activity boxes in the Activity Network table.

To change the horizontal space between activity boxes in the Activity Network, specify a horizontal spacing factor that is a percentage of the width of activity boxes in the Activity Network table.

**Copy from another Activity Network layout** With an Activity Network layout displayed in the Activities window, click the Layout Options bar, then choose Activity Network, Activity Network Options. Click Copy From. Select the Activity Network layout whose attributes you want to copy. Click Open.



*In the Activity Network, when you select a data item for grouping, the hierarchy on the left side of the window contains the WBS so you can filter activities according to the hierarchy.*

---

# Customizing Reports

---

## *In this chapter*

**Reports Overview**

**Opening Reports**

**Creating and Modifying Reports**

**Using Report Groups**

Reporting is a key part of monitoring a project and communicating its progress to team members and executive management. This chapter discusses how to open standard reports, create new reports, and modify existing reports. It also describes how you can organize reports in hierarchical groups.

Refer to the *Printing Layouts and Reports* chapter for instructions on setting page and print options, previewing and printing layouts and reports, and publishing layouts and reports in HTML format.

## Reports Overview

You can create new reports, or modify existing ones, using the Report Wizard or Report Editor. The module provides you with a large library of standard reports.

The Report Wizard allows you to create a wide variety of complex reports very rapidly using a wizard-style interface. You can also use the wizard to modify reports created using the wizard.

The Report Editor is a “what-you-see-is-what-you-get” (WYSIWYG) report writer that allows you to group, sort, filter, and roll up methodology information. You can also display time distributions for units and costs, and include graphics and HTML links in reports.

After you create a report, you can preview, print, or save it to a text or HTML file. If you save a report to a file, you can import the data to a spreadsheet program, e-mail the report, publish the report on a Web site, and/or archive the report.

## Opening Reports

Use the Reports window to create, edit, run, and delete global and methodology reports. You can also use the Reports window to export and import reports to and from other applications.

**Open the Reports window** Choose Tools, Reports.

*Click the Display Options bar to define screen fonts and colors.*

*Indicates that these reports were created using the Report Wizard*

*Indicates the reports were created using the Report Editor*

*Click to print the selected report.*

*Click to build reports using the Report Editor.*

*Click to easily create ad-hoc reports.*

## Creating and Modifying Reports

For additional information about creating and modifying reports using the Report Wizard and Report Editor, see the online help.

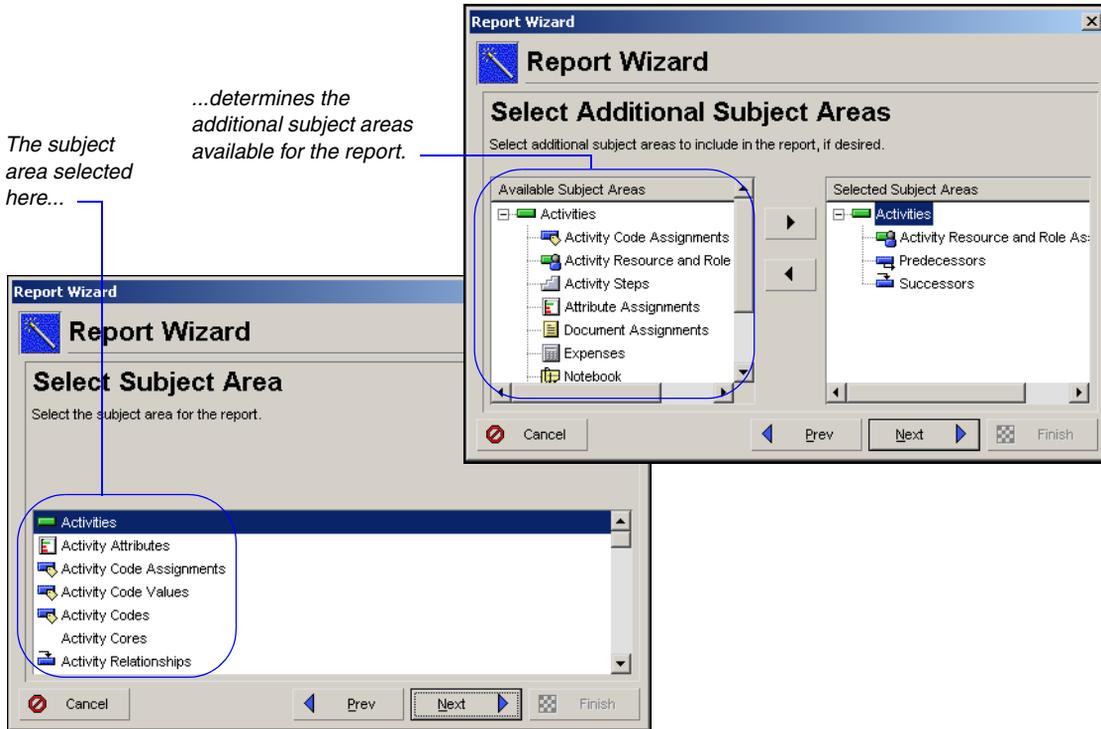
You can create and modify reports using the Report Wizard or Report Editor.

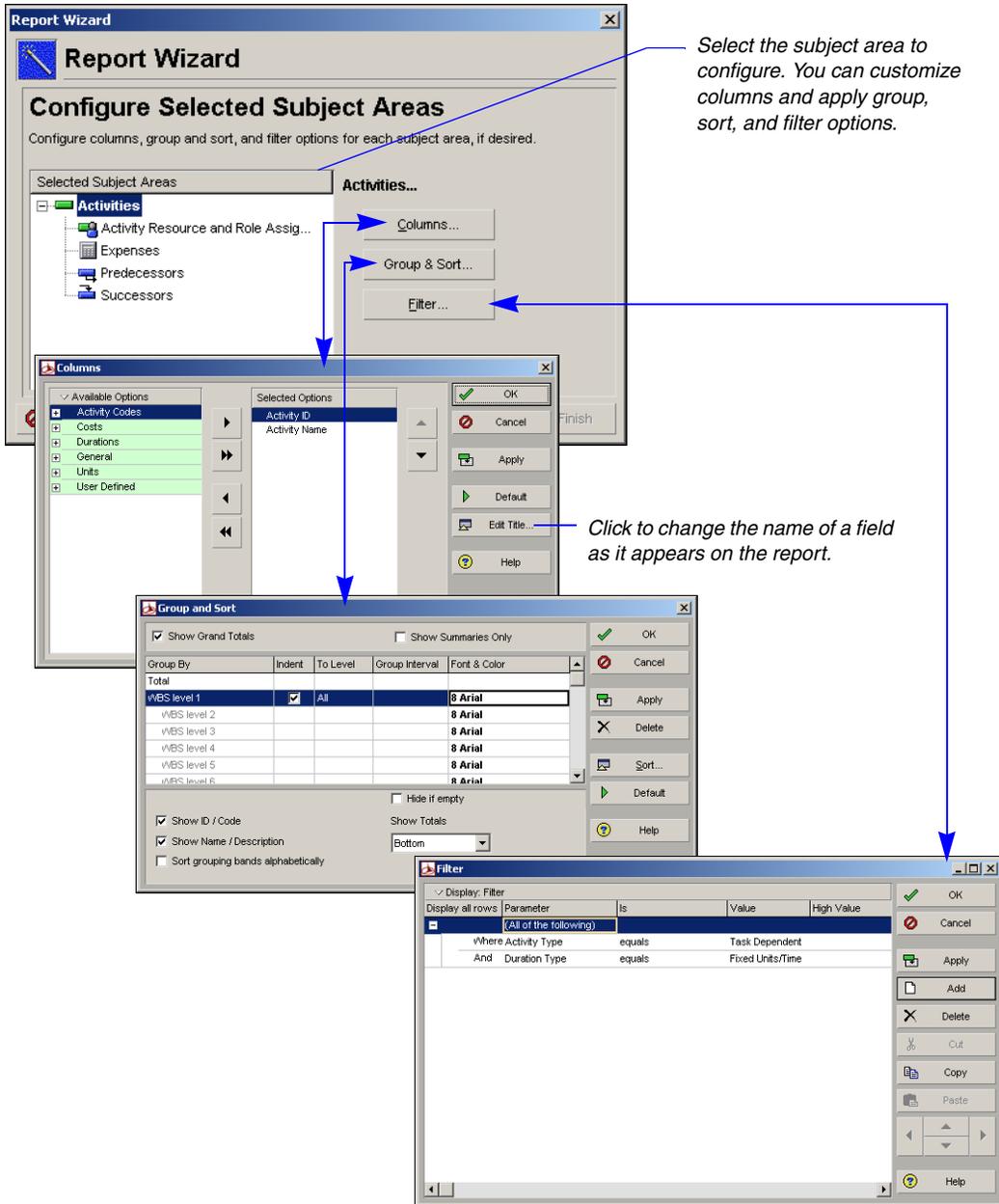
The Report Wizard quickly steps you through creating ad-hoc reports and enables you to group, sort, and filter the data. If a report is modified using the Report Editor and you decide to change it again using the Report Wizard, the changes made in the Report Editor will be lost.



*To include a new report in a particular report group, select the report group in the Reports window before you start the wizard. When you finish creating the report, it will be saved in the selected report group.*

**Create a report with the Report Wizard** Choose Tools, Report Wizard, and follow the prompts. When you are finished defining the report parameters, click Finish.





**Modify a report** You can modify reports using the Report Wizard and the Report Editor. In the Reports window, select the name of the report you want to modify. To use the wizard, click the Wizard button. To use the Report Editor, click the Modify button.

## Using Report Groups

Report groups are a hierarchical way to organize reports. Each report can belong to one report group. The module provides standard groups for organizing your reports.



*Report groups are added and deleted in the Admin Categories dialog box. See Defining Standard Categories and Values in the Defining Administrative Preferences and Categories chapter for more information.*

**1** Select the report.

**2** Click the Browse button in the Report Group field.

**3** Select a new report group.

# Printing Layouts and Reports

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## *In this chapter*

**Defining Page Settings**

**Previewing Layouts and Reports**

**Printing Layouts and Reports**

**Publishing Layouts and Reports  
in HTML Format**

Printing layouts and reports for distribution is an effective way to communicate project data. This chapter discusses how to define page settings (such as page orientation, margins, and header/footer settings), preview layouts/reports, and print them (including how to convert them to Web reports).

## Defining Page Settings

The module provides a number of options for customizing printed layouts and reports. For example, you can customize header and footer settings and change margins for the printed page.

**Define page settings** From the Print Preview window, click the Page Setup button. Click the Page tab to set orientation, scaling, and paper size.

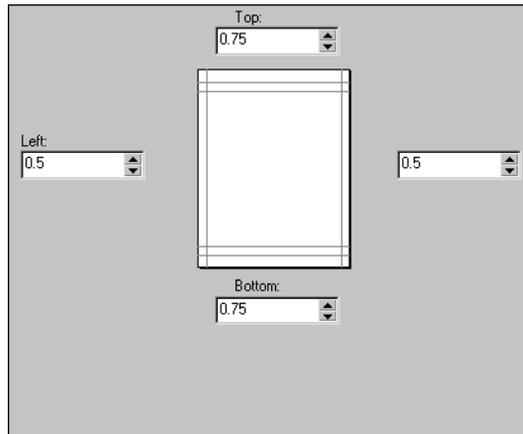
*Portrait orientation prints vertically on the page; landscape orientation prints horizontally on the page.*

*Use Print Preview to see the number of pages the layout will span. Choose this option to compress spacing by specifying the number of pages. This option is available for layouts only.*

The screenshot shows a 'Page Setup' dialog box with three main sections: Orientation, Scaling, and Paper Size. The Orientation section has radio buttons for 'Portrait' and 'Landscape', with 'Landscape' selected. The Scaling section has three radio buttons: 'Adjust to:' (set to 100), 'Fit to:' (set to 0 page(s) wide by 0 tall), and 'Fit timescale to:' (set to 1 page(s) wide). The Paper Size section has a dropdown for 'Paper size' set to 'Letter', and 'Width' and 'Height' fields set to 11 and 8.5 respectively. Blue circles highlight the Orientation and Scaling sections, with lines pointing to explanatory text on either side.

*To increase or reduce the size of the printed layout/report, specify a percentage in the Adjust To field. To increase or reduce the number of pages to be printed horizontally and vertically, choose Fit to, then specify a value in the Pages Wide by Tall field.*

**Set page margins** Click the Margins tab, then specify the values for each margin.



**Add headers and footers** You can customize the header and footer. You can also insert a graphic, such as your company logo, in the header or footer. Click the Header or Footer tab.

Type or select the amount of sections to divide the header or footer into.

Select when you want to print the header/footer.

Select the height of the header/footer.

Mark to display divider lines between the sections.

Click to add a logo to the selected section.

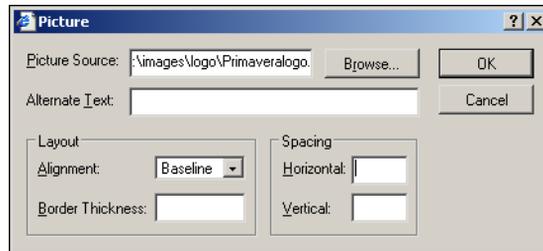
Click to change the font, then specify font settings and click OK.

In the Text/Logo section, add text to the header or footer by typing directly in the selected tab. Do not modify any text between square brackets [ ].

Select a global variable and click Add. Global variables include portfolio properties (earliest project start, earliest data date, and so on).

In the Define Header/Footer section, define the values you want to insert in the header or footer. Choose Text/Logo to add text variables or a logo. Choose Picture to select an image to display in the selected section. Choose Revision Box to allow space in the header/footer to be able to enter dates, approvals, and revision information.

**Add a logo to a header or footer** Click the Header or Footer tab, in the Define header/footer section, choose Text/Logo for the selected section. In the Add Text section, click the Picture button. Click the Browse button in the Picture dialog box, then select a filename and click Open. Specify the layout and spacing options and click OK. The logo image is displayed in the Header or Footer Sample area.



*If you change the report page setup from the Print Preview dialog box, the changes will be applied only to the current printing. To save changes to the report page setup permanently, make the changes from the Properties palette in the Report Editor.*

---

**Specify layout options** Use the Options tab to select whether to include icons and grid lines in the printed layout.

*Mark this checkbox if you want each group printed on its own page. For example, you may want to group activities by resource and distribute a printout to each individual.*

Timescale Start: 02-Jul-03

Timescale Finish: 06-Dec-03

Print

- Activity Table
- All Columns
- Grid Lines
- Gantt Chart
- Profile
- Spreadsheet

Page Settings

- Break Page Every Group



*The Options tab is not available when printing reports or with the Activity Network layout.*

## Previewing Layouts and Reports

The Print Preview option enables you to review a layout or report before sending it to a printer.

**Open Print Preview** To preview a layout, display the layout in the Activities window, then choose File, Print Preview. To preview a report, in the Reports window, select the report you want to preview, then click Run Report. Choose Print Preview, then click OK.

Use these buttons to move to the beginning of the layout/report, scroll through it one page at a time, or move to the end of the layout/report.

Click to zoom in and out of the displayed page.

Click to select the default printer, paper size, and orientation.

When you are satisfied with the look of the layout/report, click to print it.

Resource ID	Resource Name	Labor	Max Shifts / Time
OSBEV	Opt Bus Development	YES	0%
TEST	Test Eng	NO	0%
LDAN	Laura Daniels	YES	0%
JPHIL	Jeremy Phillips	YES	0%
ORG	Organization	YES	10000%
PO	Project Office	YES	4000%
ASBEM	Project Administration	YES	1000%
PM	Project Management	YES	1000%
JANM	John McAnagard	YES	0%
FLEE	Frank Lee	YES	0%
JERP	John Brunner	YES	0%
RCBP	Robert Cray	YES	0%
ALM	Alison Archer	YES	0%
GDCH	Geoffrey Chisholm	YES	0%
IMC	Management Information Systems	YES	20000%
SHOD	Hardware Support Systems	YES	5000%
GLD	Global Support Systems	YES	3000%
OSBS	Opt Bus Administration	YES	0%
JDM	John Daniels	YES	0%
FITL	Fredrick Lambert	YES	0%
RCAR	Robert Carroll	YES	0%
EAJH	Edward Johnson	YES	0%
BLAW	Blay Lawrence	YES	0%
CPHSD	Corporate Support Systems	YES	2000%
BEV	Business Development	YES	0%
BKRM	Bryona Hancock	YES	0%
CBW	Charles Wells	YES	0%
CAEM	Claudia Arnold	YES	0%
EMEA	Bob McArthur	YES	0%
JOPM	John Spencer	YES	0%

The status bar indicates the size at which the layout/report is currently magnified, the number of the page that is currently displayed, and the total number of pages in the layout/report.

As you move your mouse over the Print Preview window, the mouse pointer changes to a magnifying glass. Click the Zoom In button in the toolbar to zoom in on details and the Zoom Out button to zoom back out.

## Printing Layouts and Reports

The module provides several ways to print layouts and reports—you can send them directly to a printer or create an HTML file, or you can print to an ASCII text file (reports only).

**Print a layout** To send a layout directly to your printer, open the layout you want to print, then choose File, Print. You can also click the Print button from the Print Preview window.

**Print a report** From the Reports window, select the name of the report you want to print. Click Run Report.

The screenshot shows the 'Run Report' dialog box with the following elements and annotations:

- 1** Select the destination for the report. For an ASCII text file, you can also specify the character to use to separate fields and text. (Points to the 'Send Report To' radio buttons and the 'Field Delimiter' and 'Text Qualifier' dropdowns.)
- 2** For HTML and ASCII files, specify a name and location for the saved file. (Points to the 'Output file' text box.)
- 3** Click to run the report. (Points to the 'OK' button.)

The dialog box contains the following fields and controls:

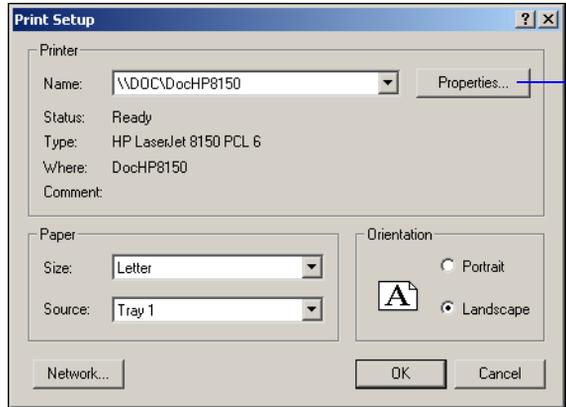
- Send Report To:** Radio buttons for 'Print Preview', 'Directly to Printer', 'HTML File', and 'ASCII Text File' (selected).
- Field Delimiter:** A dropdown menu.
- Text Qualifier:** A dropdown menu.
- Output file:** A text box containing 'C:\WINNT\report.txt' and a browse button (...).
- View file when done:** A checked checkbox.
- Notes:** An empty text area.
- Buttons:** 'OK' (with a green checkmark), 'Cancel' (with a red X), and 'Help' (with a question mark).



You can also publish a report to an HTML file through Print Preview. For more information, see the Publishing Layouts and Reports in HTML Format section in this chapter.

## Selecting a Printer

You can select a printer, other than the current default for the operating system, to print your layouts and reports. The printer settings will remain the same until you log out of the module. Choose, File, Print Setup.

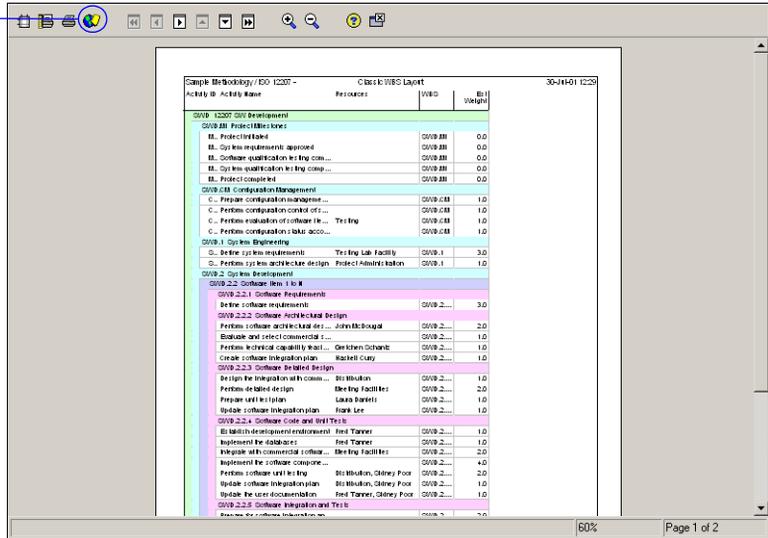


*Click to adjust the features and settings provided by the selected printer.*

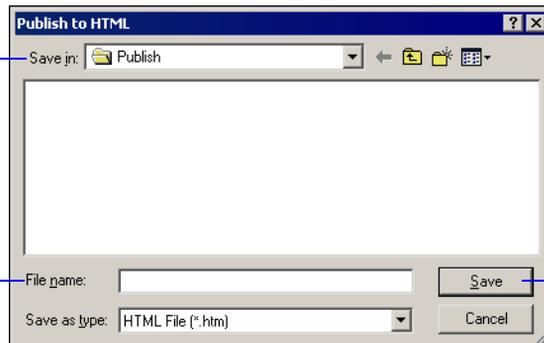
## Publishing Layouts and Reports in HTML Format

Use Print Preview to publish layouts and reports as HTML files and post them to a Web site to share with other project team members.

1 Click the Publish button.



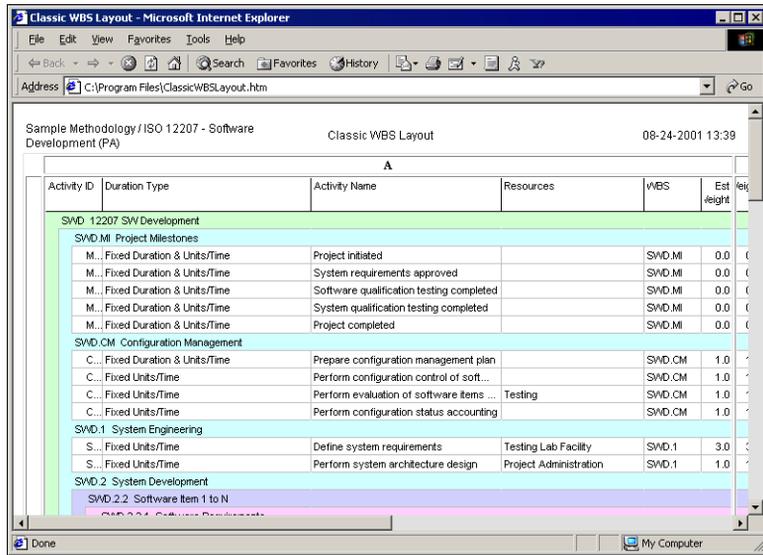
2 Select the drive and folder where the file should be stored.



3 Type a name for the file.

4 Click Save.

The module opens the layout/report in your Web Browser.



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