



# Managing Projects with MS Project 2010



## Session: 9

### Project Baseline



# Objectives

- ◆ Explain baselines and interim plans
- ◆ Explain how to create a baseline schedule
- ◆ Describe how to work with multiple baselines
- ◆ Explain how to create and clear interim plans
- ◆ Describe organizing project details
- ◆ Describe sorting and filtering project details

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# Introduction

- ◆ Every project has a method of benchmarking project data to compare the actual activity against the original project plan.
- ◆ The saved version of the project plan is called a 'baseline' that includes the entire information of a project.
- ◆ MS Project provides a feature called as 'interim plan' that is essentially used as a timing checklist.
- ◆ It includes the actual start and end dates of tasks and also the estimated start and end dates for tasks that are yet to start.

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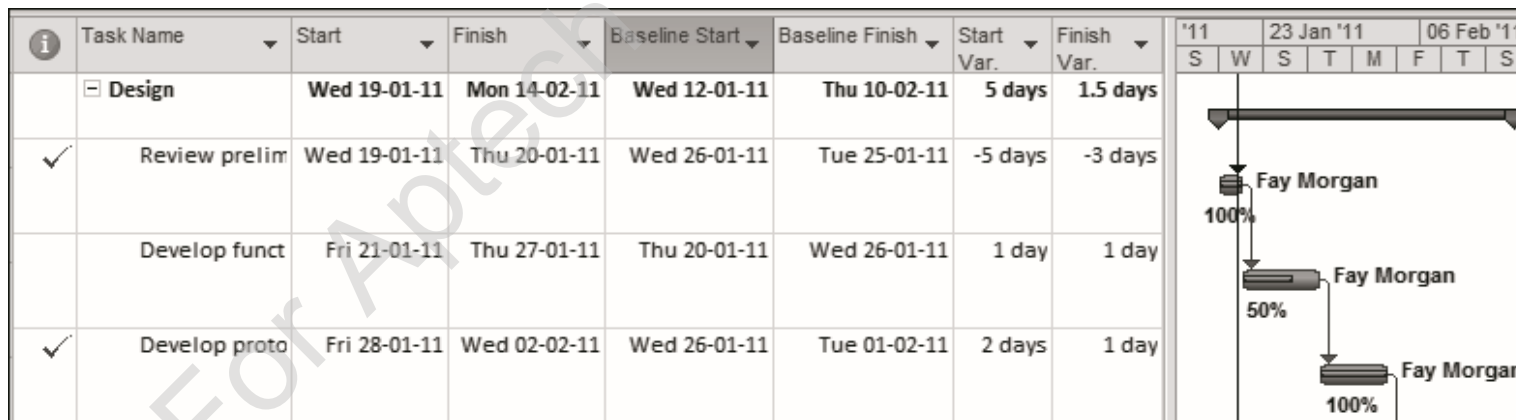
# Baseline Scheduling

- ◆ Saving a baseline is like storing a permanent record of project estimates of time, cost, and resource workload.
- ◆ A project manager can use project baselines to describe about the project status at any point of time in a project.
- ◆ Project baselines are useful especially at the end of a project, when comparing the actual timelines to the estimated timelines.
- ◆ Thus, a project baseline helps the project manager to make more accurate estimates upfront.
- ◆ MS Project facilitates to save and clear baselines for any selected tasks.



# Look and Feel of a Baseline 1-2

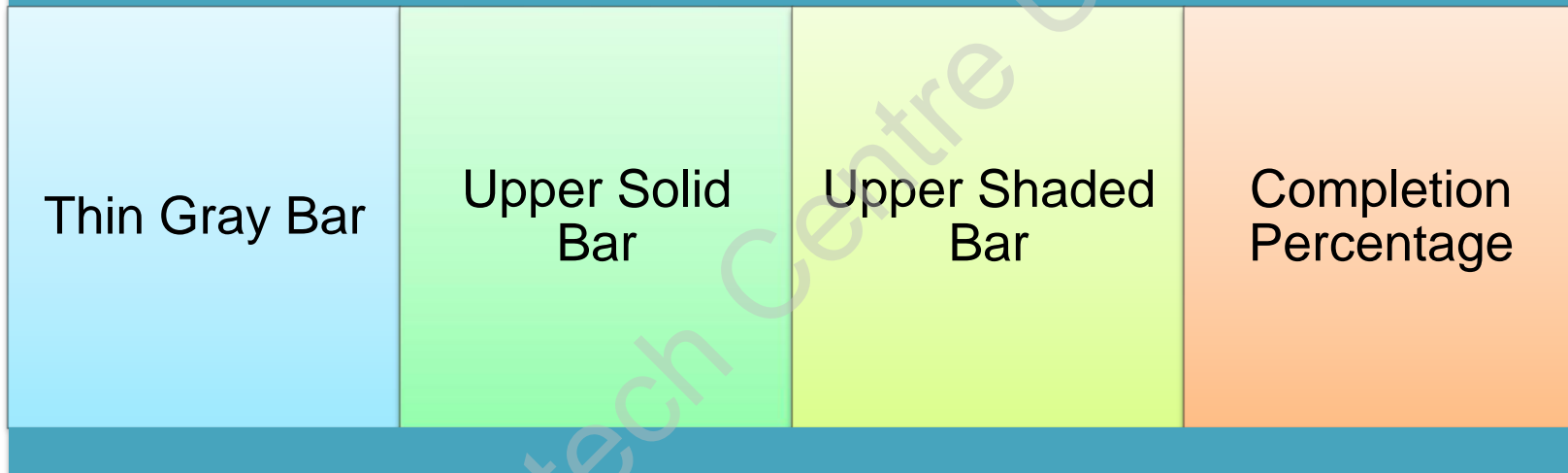
- ◆ A project baseline captures baseline start, finish, duration, work, and cost information of every task in the project plan.
- ◆ MS Project displays visual indications to track an actual activity against the estimated timelines of a task.
- ◆ The Gantt Chart view of a project displaying a check mark in the indicators column for every task that is marked as complete.
- ◆ All Completed works on the Gantt Chart View display a black progress bar to illustrate the percentage of completion of the task.
- ◆ In the following figure, the Gantt Chart view presents data as a pair of taskbars for each task:





## Look and Feel of a Baseline 2-2

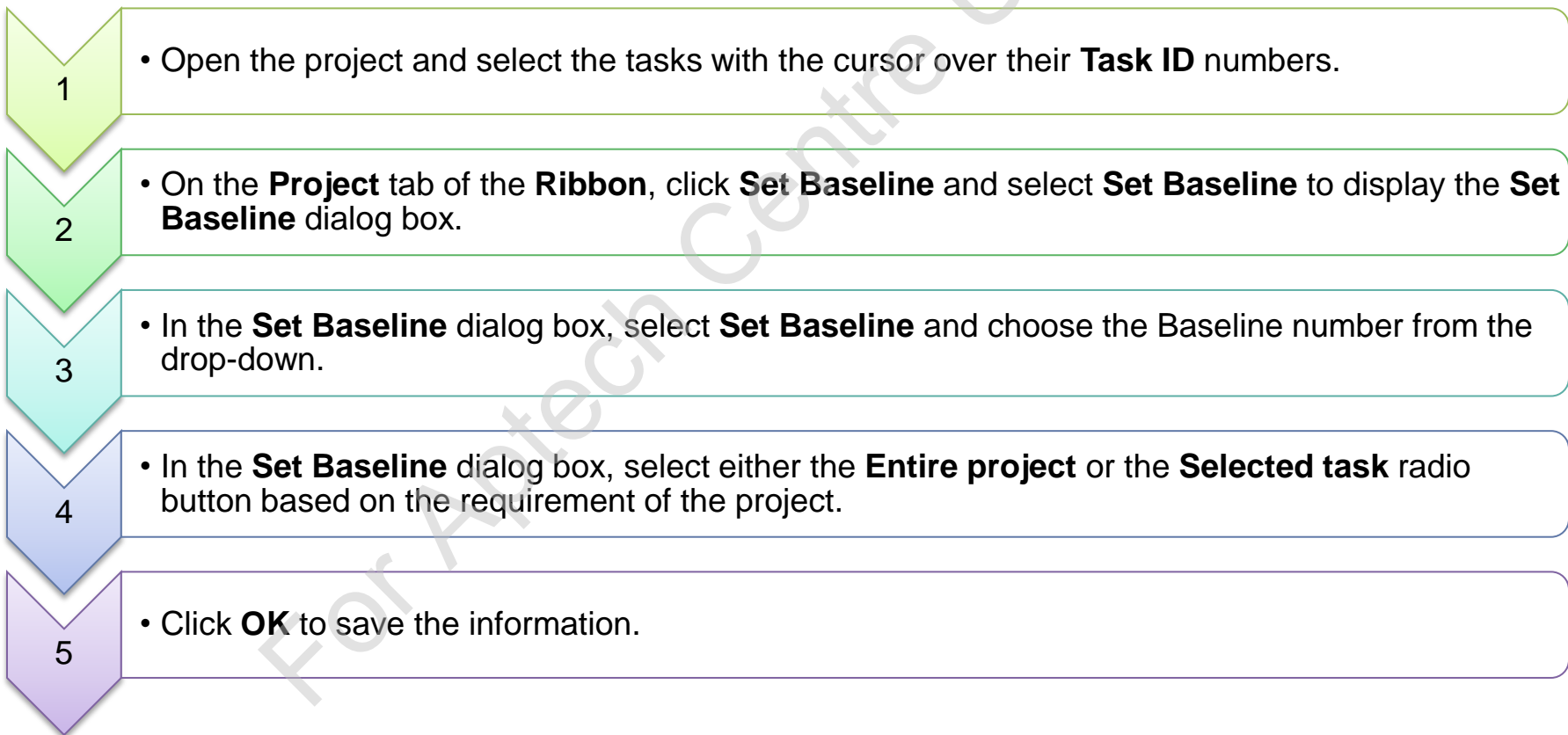
The Gantt Chart view presents data as a pair of taskbars for each task, as follows:





# Saving a Baseline Schedule 1-2

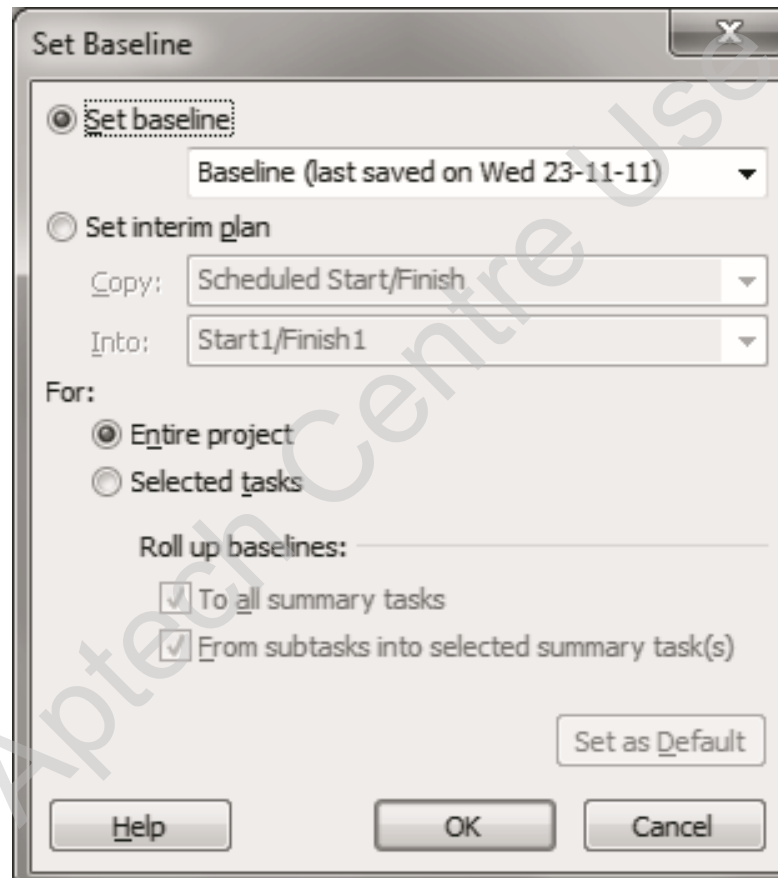
- ◆ To save a baseline schedule, click the **Set Baseline** button on the **Ribbon**.
- ◆ Saving a project baseline for the first time, saves the summary task information.
- ◆ A manager can save a project baseline using the following steps:





## Saving a Baseline Schedule 2-2

- ◆ Following figure shows an example of saving a baseline schedule:

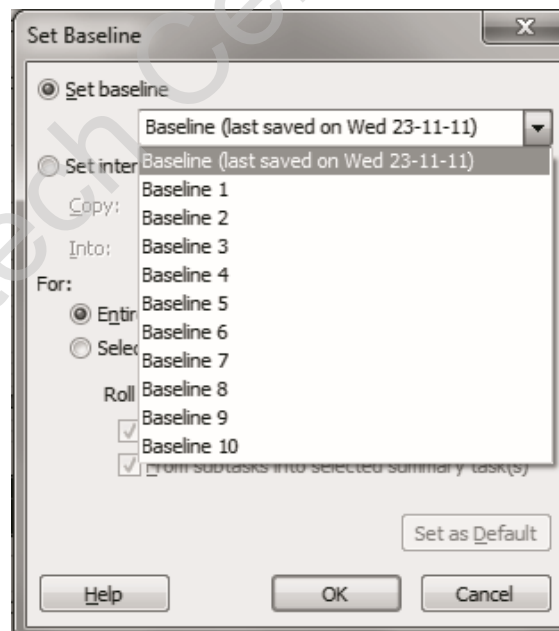






# Multiple Baselines

- ◆ MS Project 2010 comes with a unique feature of saving a project baseline data up to 11 times during the project life cycle.
- ◆ The ability to save multiple project baselines can help the project manager to check the progress of the project plan over the life of longer duration project.
- ◆ Multiple baselines also help in anticipating the budget overrun, though not included in the original saved plan.
- ◆ When a baseline is saved, it saves without overwriting any of the existing baselines.
- ◆ Following figure shows an example of setting list of baselines, with the last date being saved:





# Clearing a Baseline 1-2

- ◆ To accommodate frequent changes in a project and to get more valid variance data, the user must clear or reset the baselines.
- ◆ To delete a baseline from the project plan, the manager has to clear the baseline.
- ◆ Steps to clear an existing baseline are as follows:

Open the project and click the **Project** tab of the **Ribbon**.

To clear the baseline of selected tasks, select the tasks by clicking their **Task ID** numbers.

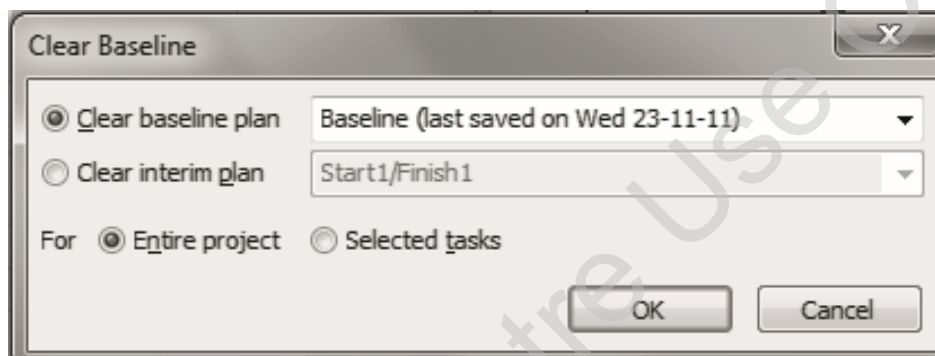
Click **Set Baseline** and select **Clear Baseline** to display **Clear Baseline** dialog box with **Clear baseline plan** radio button selected by default.

From the **Clear Baseline Plan** drop-down list, choose the baseline to clear.



## Clearing a Baseline 2-2

- ◆ **Clear Baseline** dialog box is shown in the following figure:



Select **Entire project** radio button to clear the baseline for the entire project or **Selected task** radio button to clear baseline for selected tasks.

Click **OK** to clear either the entire project baseline or selected tasks.



# Interim Plans

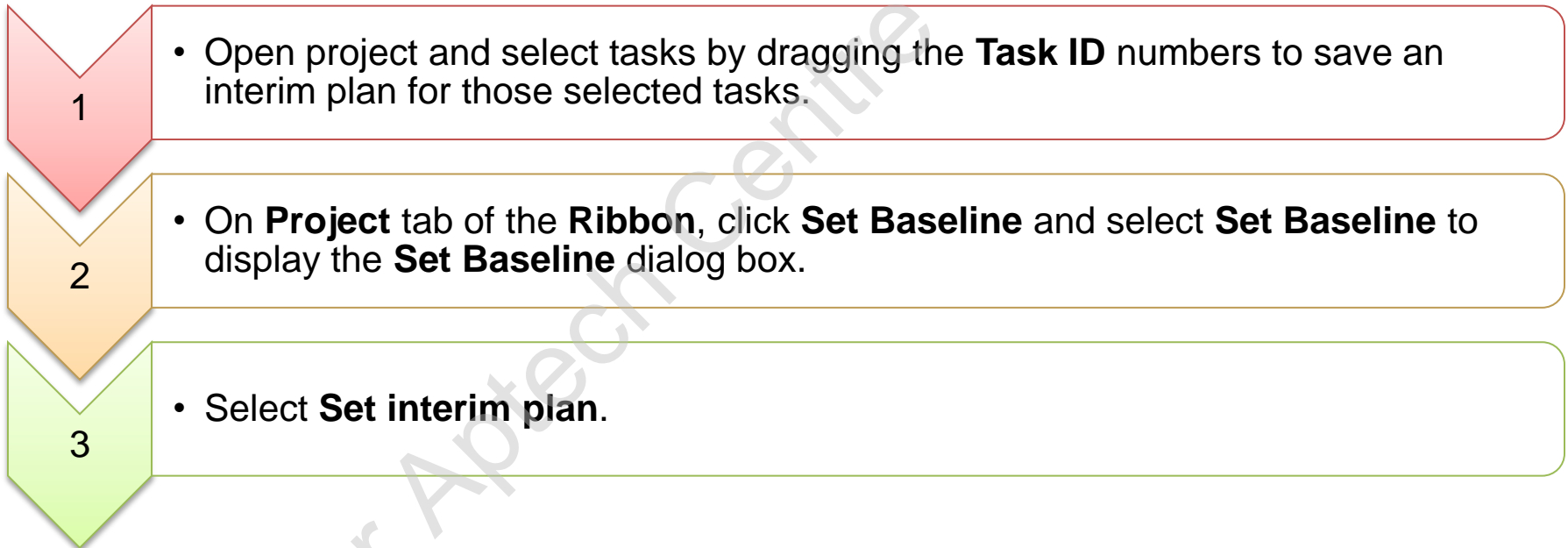
- ◆ An interim plan is a timing checklist that includes the actual start and end dates of tasks as well as the estimated start and end dates for those tasks that are yet to start.
- ◆ An interim plan saves only timing information and will not save any information related to resource assignments, costs, and so forth.
- ◆ An interim plan records date changes and does not overwrite the original baseline cost data.

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# Saving Interim Plans 1-3

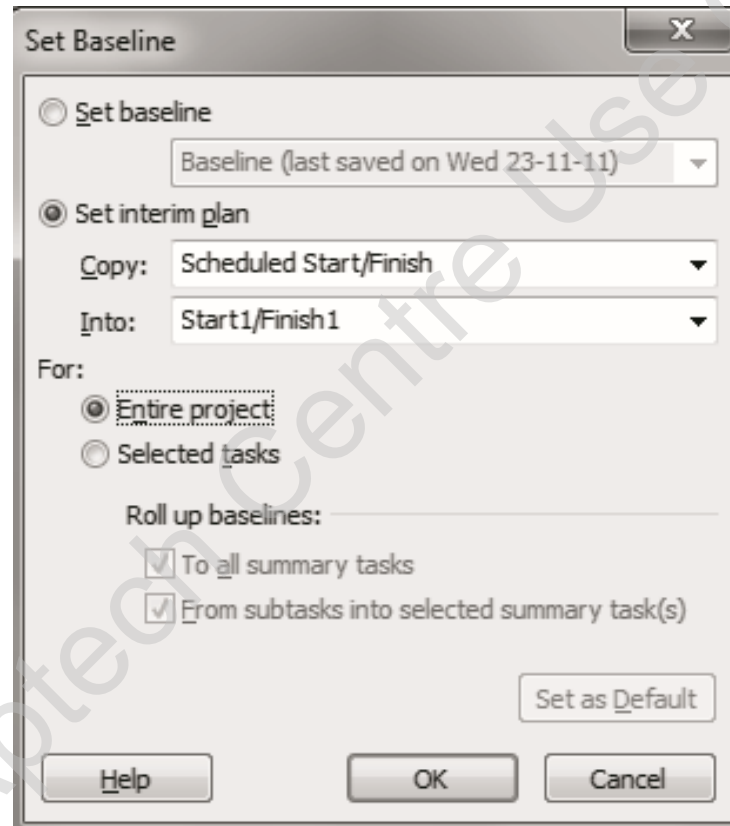
- ◆ Interim plans and baselines are saved using the same **Set Baseline** dialog box.
- ◆ For an interim plan, a project manager has to specify the location of the baseline to save the interim plan.
- ◆ Steps to save an interim plan are as follows:





## Saving Interim Plans 2-3

- ◆ **Set Baseline** dialog box is shown in the following figure:





## Saving Interim Plans 3-3

4

- From the **Copy** drop-down list, select the set of data to copy to the interim plan.

5

- From the **Into** drop-down list, select those fields to save the interim plan data.

6

- Select **Entire project** or **Selected tasks** to save the plan.

7

- Use option **To all summary tasks** check box under **Roll up baselines** to roll up the baseline data up to the summary task level for all the tasks.

8

- Use option **From subtasks into selected summary task(s)** to roll up baseline data to summary tasks for the tasks selected in the **Gantt Chart** view.

9

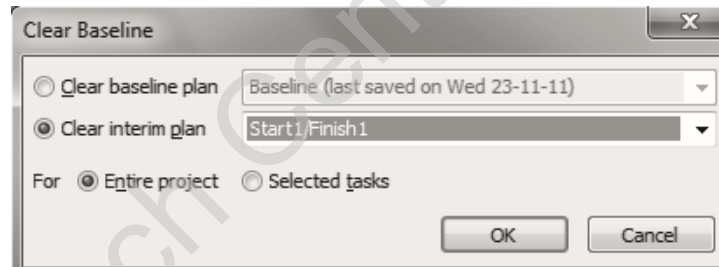
- Click **OK** to save the plan.



# Clearing Interim Plans

- ◆ As MS Project supports saving for only 10 interim plans, the project manager may find the need to clear some interim plans.
- ◆ Steps to clear an interim plan are as follows:

- 1 • Open project and select tasks by dragging the task **ID** numbers to clear an interim plan for those selected tasks.
- 2 • On **Project** tab of the **Ribbon**, click **Set Baseline** and select **Clear baseline** to display the **Clear Baseline** dialog box as shown in the following figure:



- 3 • Select the **Clear interim plan** radio button, and then choose the plan from the drop-down list to clear from the list.
- 4 • Select **Entire project** radio button to clear the specified interim plan for the entire project or **Selected tasks** radio button to clear the specified interim plan for certain tasks.
- 5 • Click **OK** to clear the plan.





# Customizing Baseline and Interim Plans 1-3

- ◆ A project having interim plans and multiple baselines demonstrates adjustments made for major changes or problems occurred during the project life cycle.
- ◆ A project manager gets a holistic view of the project by generating views and reports of interim and baseline plans.
- ◆ Such views and reports help project managers to submit detailed project information to the senior management and other stakeholders of the project.
- ◆ Steps to view or print information from various baselines or interim plans are as follows:

Open the project in **Task Sheet** view.

On the sheet, click the **Add New Column** heading to display the menu.

Select the field to insert.

Repeat Steps 2 to 3 to insert additional columns.

Click **OK** to display the column(s).



# Customizing Baseline and Interim Plans 2-3

- ◆ The menu with the available fields appears, as shown in the following figure:

Task Name	Duration	Start	Finish	
<input checked="" type="checkbox"/> <b>Analysis/Software Requirements</b>	<b>14 days</b>	<b>Thu 01-12-11</b>	<b>Tue 20-12-11</b>	% Complete
Conduct needs analysis	5 days	Thu 01-12-11	Wed 07-12-11	% Work Complete
Draft preliminary software specification	3 days	Thu 08-12-11	Mon 12-12-11	Active
Develop preliminary budget	2 days	Tue 13-12-11	Wed 14-12-11	Actual Cost
Review software specifications/budget	4 hrs	Thu 15-12-11	Thu 15-12-11	Actual Duration
Incorporate feedback on software speci	1 day	Thu 15-12-11	Fri 16-12-11	Actual Finish
Develop delivery timeline	1 day	Fri 16-12-11	Mon 19-12-11	Actual Overtime Cost
Obtain approvals to proceed (concept, t	4 hrs	Mon 19-12-11	Mon 19-12-11	Actual Overtime Work
Secure required resources	1 day	Tue 20-12-11	Tue 20-12-11	Actual Start
Analysis complete	0 days	Tue 20-12-11	Tue 20-12-11	Actual Work
<input checked="" type="checkbox"/> <b>Design</b>	<b>14.5 days</b>	<b>Wed 21-12-11</b>	<b>Tue 10-01-12</b>	ACWP
Review preliminary software specificati	2 days	Wed 21-12-11	Thu 22-12-11	Assignment
Develop functional specifications	5 days	Fri 23-12-11	Thu 29-12-11	Assignment Delay
Develop prototype based on functional	4 days	Fri 30-12-11	Wed 04-01-12	Assignment Owner
Review functional specifications	2 days	Thu 05-01-12	Fri 06-01-12	Assignment Units
Incorporate feedback into functional sp	1 day	Mon 09-01-12	Mon 09-01-12	Baseline Budget Cost
Obtain approval to proceed	4 hrs	Tue 10-01-12	Tue 10-01-12	Baseline Budget Work
Design complete	0 days	Tue 10-01-12	Tue 10-01-12	Baseline Cost
				Baseline Deliverable Finish
				Baseline Deliverable Start
				Baseline Duration
				Baseline Estimated Duration
				Baseline Estimated Finish
				Baseline Estimated Start
				Baseline Finish
				Baseline Fixed Cost
				Baseline Fixed Cost Accrual
				Baseline Start
				Baseline Work

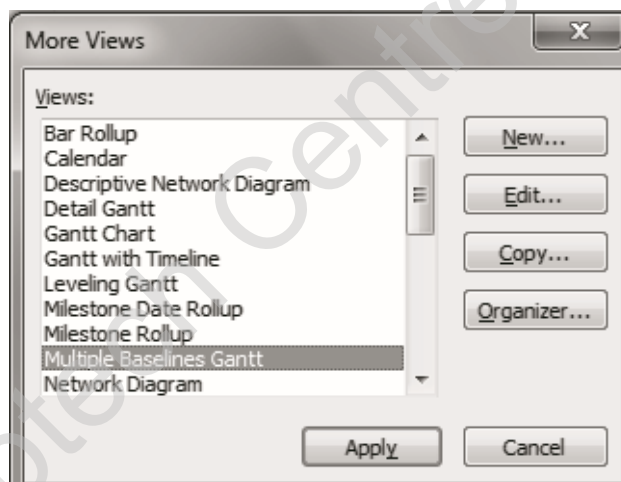


# Customizing Baseline and Interim Plans 3-3

- ◆ Steps to display the first three baselines in the view are as follows:

On the **Task** tab, click the bottom portion of the **Gantt Chart** button, and then click **More Views** on the menu.

Click **Multiple Baselines Gantt** in the views list of the **More Views** dialog box, and then click the **Apply** button as shown in the following figure:



To display task notes, add the Notes column in the task sheet.

Click **OK** to save and display the column(s).

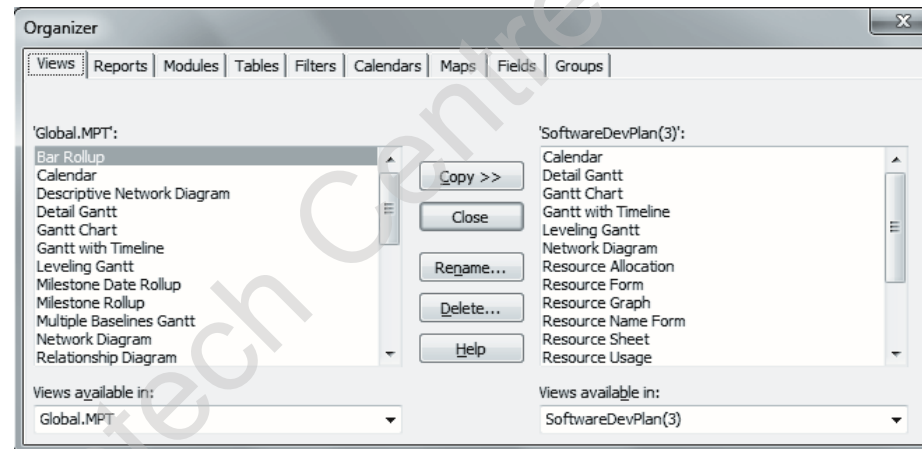


# Organizing Project Details

- ◆ MS Project provides a feature called Organizer to help project managers to share views, tables, forms, reports, and so forth among projects.
- ◆ Steps to display the Organizer are as follows:

1

- On the **File** tab, click Info, and then click the **Organizer** button to display the **Organizer** window as shown in the following figure:



2

- Use tabs in the **Organizer** dialog box to copy various elements from the Global template (**Global.mpt**) to the current project. Also, the user can copy elements from the current project to the Global template or between project sheet.

3

- Click **OK** to save the information and organize project details.

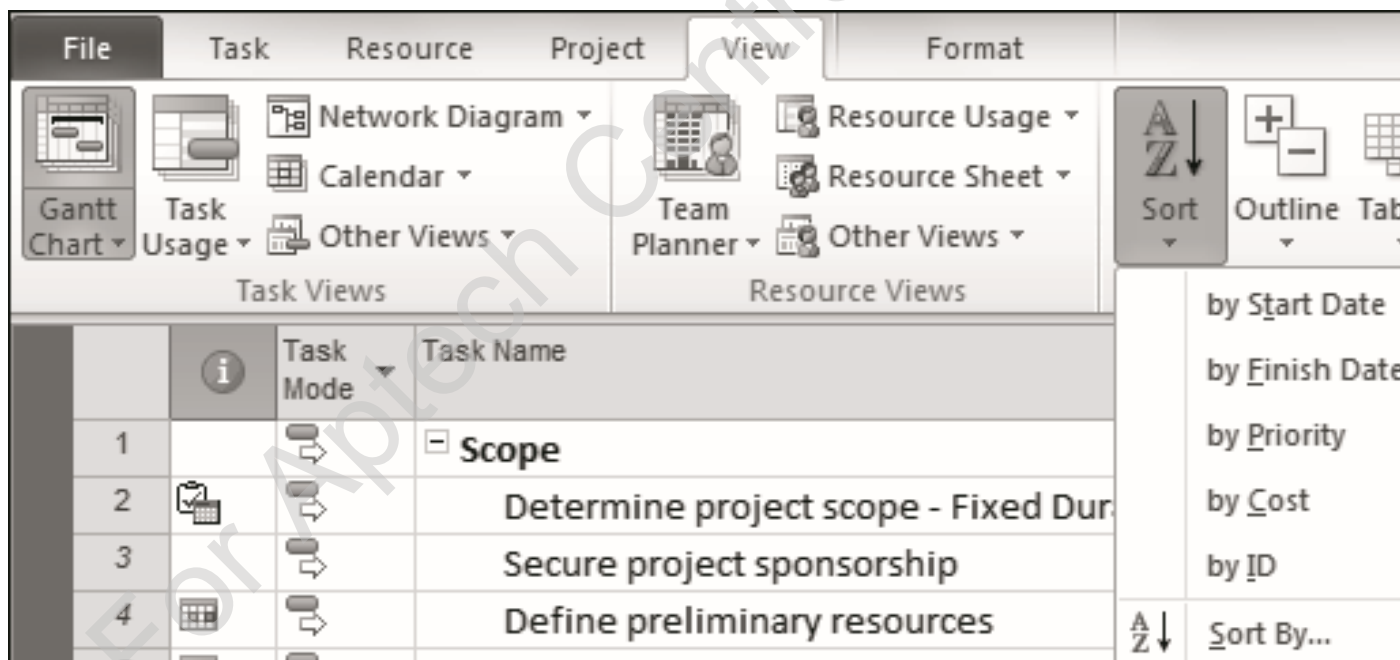


# Sorting Project Details 1-2

- ◆ MS Project allows project managers to sort tasks by a number of criteria, including start date, finish date, priority, cost, and so forth.
- ◆ Steps to apply a preset sorting order are as follows:

1

- On the **View** tab of the **Ribbon**, click **Sort** and then choose an option from the submenu, such as **by Start Date** or **by Cost** as shown in the following figure:





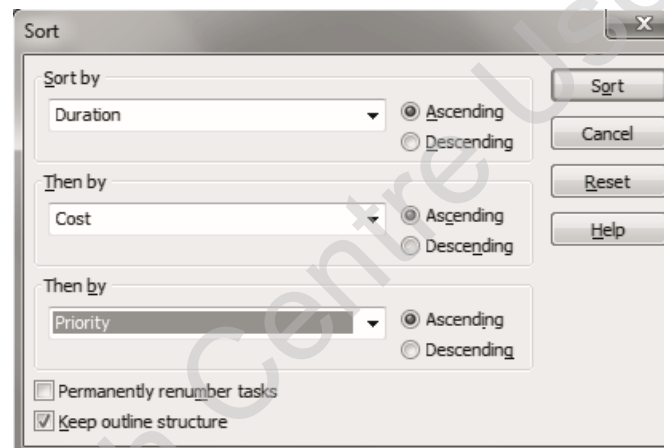
## Sorting Project Details 2-2

2

- Click **Sort** by option in the drop-down list to display the **Sort** dialog box as shown in the given figure.

3

- In the **Sort** by list, select criteria.



4

- Select either **Ascending** (to sort from lowest to highest) or **Descending** (to sort from highest to lowest).

5

- To choose a second criterion, click the first **Then by** box and make a selection.

5

- Click **Sort**.

6

- To return to original task order, select **Sort by** and choose ID, that is MS Project's standard sorting order.



# Filtering Project Details 1-3

- ◆ Filters in MS Project are handy tools for a project manager to track important task information such as delayed tasks or over budget tasks and so forth.
- ◆ To filter tasks, on the **View** tab of the **Ribbon**, click **Filter** drop-down box and select a filter from the list as shown in the following figure:

The screenshot shows the MS Project ribbon with the View tab selected. The Filter dropdown menu is open, displaying a list of filters. The 'Filter' button in the ribbon is highlighted, and the dropdown menu shows the following options:

- [No Filter]
- Custom
- [No Filter]
- Built-In
- Active Tasks
- Completed Tasks
- Critical
- Date Range...
- Incomplete Tasks
- Late Tasks
- Milestones
- Summary Tasks
- Task Range...
- Tasks With Estimated Durations
- Using Resource...
- Clear Filter
- New Filter
- More Filters...
- Display AutoFilter
- Show Related Summary Rows

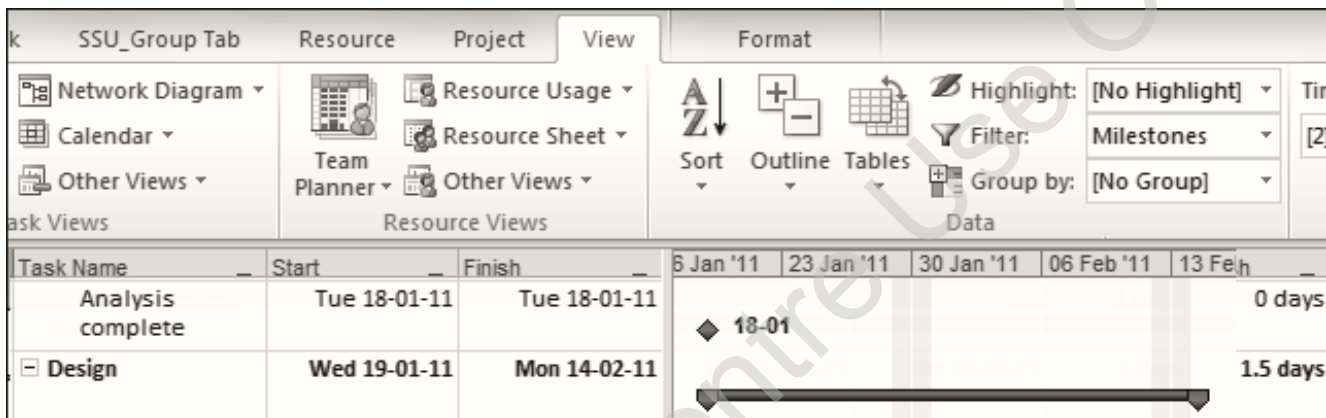
The task list below the ribbon shows the following tasks:

Task Name	Duration	Start	Finish
<b>Scope</b>	<b>498 days</b>	<b>Mon 04-01-10</b>	<b>W</b>
Determine project scope - Fixed Duration	8505 hrs	Mon 04-01-10	Fri 04-01-10
Secure project sponsorship	1 day	Mon 27-12-10	Mon 27-12-10
Define preliminary resources	1 day	Tue 29-11-11	Tue 29-11-11
Secure core resources	1 day	Wed 30-11-11	Wed 30-11-11
Scope complete	0 days	Wed 30-11-11	Wed 30-11-11
<b>Analysis/Software Requirements</b>	<b>14 days</b>	<b>Thu 01-12-11</b>	<b>Tu</b>
Conduct needs analysis	5 days	Thu 01-12-11	Wed 07-12-11
Draft preliminary software specification	3 days	Thu 08-12-11	Mon 12-12-11
Develop preliminary budget	2 days	Tue 13-12-11	Wed 14-12-11
Review software specifications/budget	4 hrs	Thu 15-12-11	Thu 15-12-11
Incorporate feedback on software specification	1 day	Thu 15-12-11	Fri 16-12-11
Develop delivery timeline	1 day	Fri 16-12-11	Mon 19-12-11
Obtain approvals to proceed (concept + 4 hrs)	4 hrs	Mon 19-12-11	Mon 19-12-11



## Filtering Project Details 2-3

- ◆ Following figure shows the outcome of selecting the filter milestones:







## Filtering Project Details 3-3

- ◆ Following table lists some filters that are useful to identify and solve problems during the project schedule:

Filter Name	Display Information
Critical	Tasks that must be completed according to schedule to meet final deadline (also known as 'critical path')
Cost Overbudget	Tasks that exceed budgeted expenditure
Incomplete Tasks	Tasks that have not been marked as complete
Late/Overbudget Tasks Assigned To	Tasks assigned to a resource that are running late than their baseline estimate and are over budget
Should Start By	Tasks that should have started as on a specified date
Slipped/Late Progress	Tasks that are running late and have no progress recorded
Overallocated Resources	Tasks with resources assigned that are overbooked during the task
Slipping Assignments	Tasks that involve resource work that should have begun by now
Work Incomplete	Tasks that should have had all their work recorded by now
Work Overbudget	More work hours have been put in on the task than the estimated



# Summary

- ◆ Baselines help to record actual activity to the original project plan efficiently to track their progress.
- ◆ MS Project 2010 provides the option to save multiple baselines and interim baseline plans.
- ◆ A maximum of 11 project baselines can be saved and a maximum of 10 interim plans can be saved in MS Project 2010.
- ◆ Baseline plans and interim plans can be deleted by clearing them.
- ◆ Interim plans and baseline plans use the same set baseline dialog box in MS Project.
- ◆ The Organizer feature helps the project manager to save and share project information among projects and in the global project template.
- ◆ Customizing baseline and interim plans help project managers to generate views and reports with detailed information of a project.
- ◆ Using Sort and filter feature in MS Project 2010 helps project managers to focus on critical aspects of a project during the project life cycle.