



Managing Projects with MS Project 2010



Session: 2

Creating a Project Plan



Objectives

- ◆ Describe a project plan
- ◆ Describe how to create a new MS Project 2010 file
- ◆ Describe the use of MS Project templates
- ◆ Define and describe the Work Breakdown Structure (WBS)
- ◆ Describe the procedure to create tasks and sub tasks
- ◆ Explain setting and customizing WBS codes
- ◆ Explain the integration of MS Office applications with MS Project

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Project Plan

- ◆ A project plan is a formal and official document that guides through the development of the project as well as manages the project control.
- ◆ The key purposes of a project plan to document are as follows:
 - ◆ Scope
 - ◆ Cost
 - ◆ Schedule baselines
- ◆ It shows the various resources, milestones, and activities that are part of the project.

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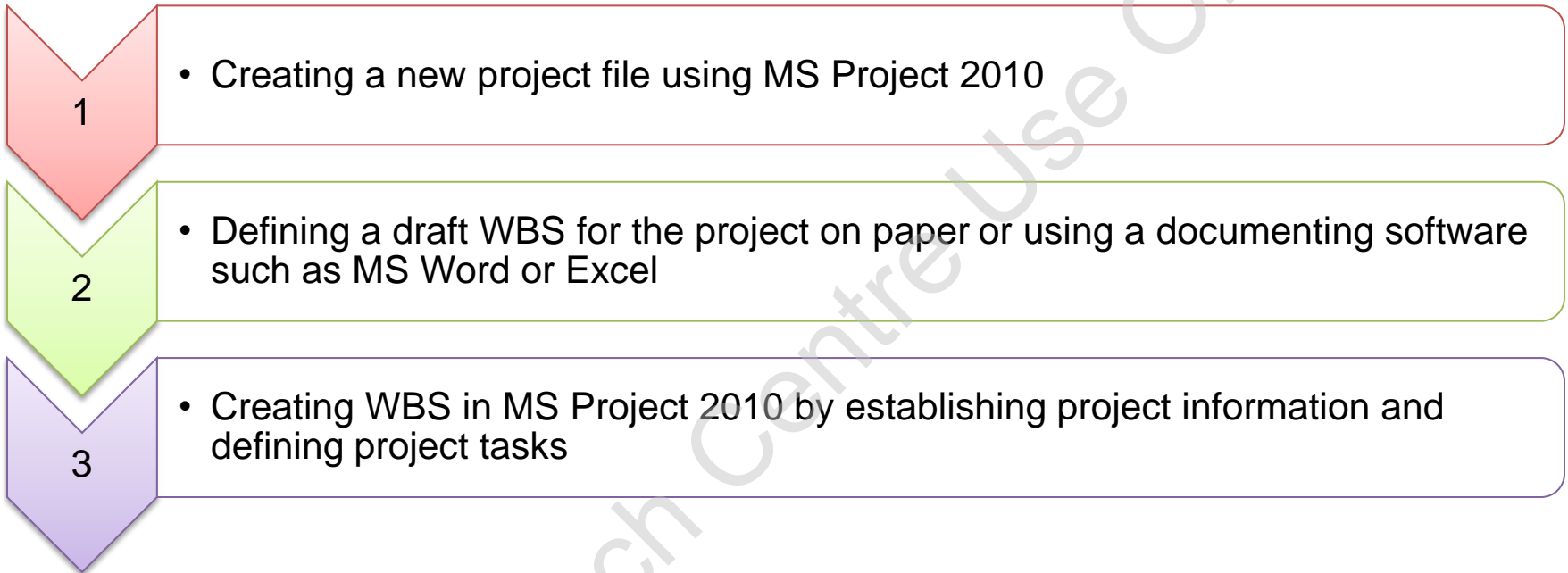
Need for a Project Plan

- ◆ Preparing a project plan is a crucial activity in a project.
- ◆ Consider a scenario wherein a company, Smart Signup Group, has decided to reengineer the existing Internet-based applications to support mobile devices and also incorporate new enhancements to the software.
- ◆ This is a massive project and without a proper project plan, there can be various problems and conflicts.
- ◆ Some of these may include uneven resource allocation, schedule lags due to lack of planning and scheduling, and so forth.
- ◆ One of the staff, Gray Zeus, has been asked to take up this initiative as a project manager.
- ◆ As a professional project manager, he/she decides to use the project management best practices combined with MS Project 2010.
- ◆ To create the project plan, he/she can create a project file in MS Project by either starting a new project or searching and using a suitable MS Project template.



Creating a Project Plan

- ◆ Following steps are involved in creating a project plan:

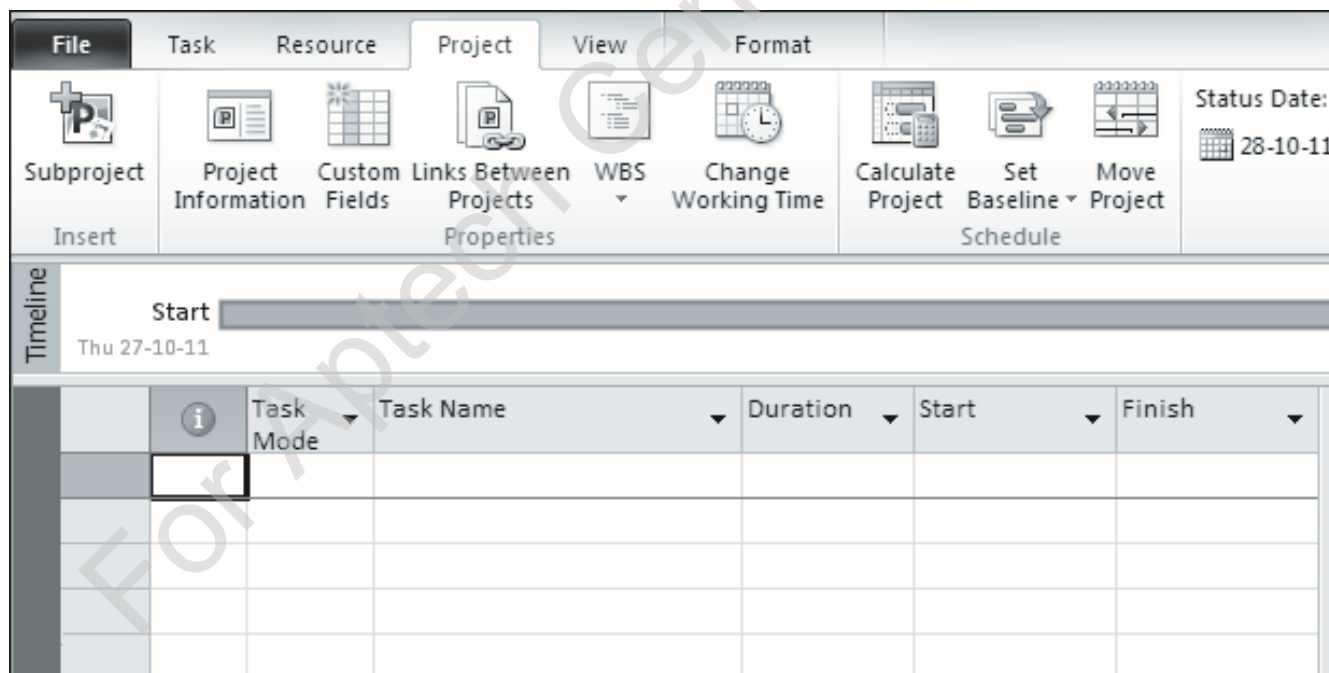


- ◆ In order to create a project plan, a user must first launch the MS Project 2010 application.



Launching MS Project 2010 and Creating a New Project

- ◆ Users can launch MS Project 2010 by selecting it from the Start menu.
- ◆ This opens a blank MS Project file.
- ◆ Users can start entering the tasks and create a project plan from scratch.
- ◆ Users can select a template suitable for the type of project that they want to manage and create the project file based on it.
- ◆ They can then edit the predefined list of tasks.
- ◆ A blank MS Project file is shown in the following figure:



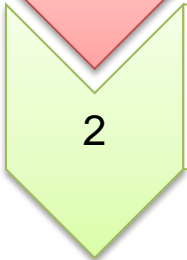


MS Project Templates 1-3

- ◆ Microsoft provides several convenient project templates through the Microsoft Office Online Website, Office.com.
- ◆ The templates contain sample tasks broken into logical phases, with durations and dependencies in place.
- ◆ The templates also include resources to create, edit, and delete project information.
- ◆ To create a new project in MS Project 2010 using templates, the following steps must be performed:



- Click the **File** tab.

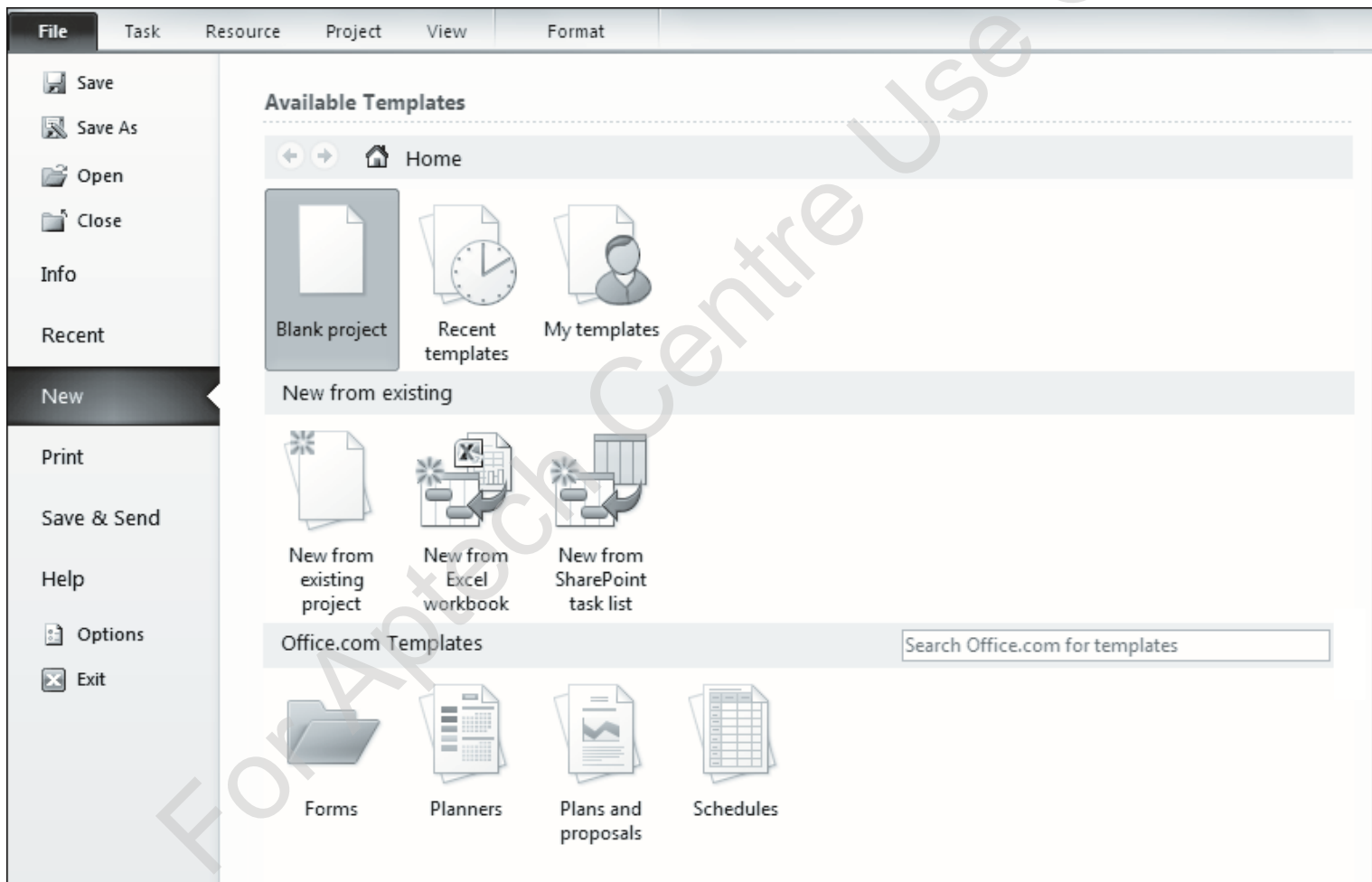


- From the **Backstage** view, select **New**. Here, under the **Office.com Templates** section, a user can select a **Template** category and then select the template that suits the project needs.



MS Project Templates 2-3

- ◆ Following figure shows the MS Project templates that are displayed while creating a new project:





MS Project Templates 3-3

- ◆ Following figure depicts the Secondary market research schedule template available from the Office.com Website:

Available Templates

Home Search Results

Office.com Templates secondary market research schedule

Secondary market research schedule

Secondary market research schedule
Provided by: Pcubed
Download size: 45KB
Rating: ★★★★★ (43 Votes)

Secondary Market Research Schedule

Task	Duration	Start Date	End Date
1. Initiation Phase	10 days		
1.1 Requirements Gathering & Analysis	4 days		
Define project for gathering requirements	1 day		
Document project requirements	1 day		
Analyze requirements	1 day		
Create requirements document	1 day		
2. Project Charter Development	10 days		
2.1 Business Case	2 days		
Document business case	2 days		
2.2 Project Scope Definition (High Level)	6 days		
Define secondary market research objectives	2 days		
Define secondary market research deliverables	2 days		
Identify specific resources to report	2 days		
Establish high-level timeline, cost, and resource estimates	2 days		
Establish list of key stakeholders	2 days		
Document project charter	1 day		
2.3 Project Charter Approval	2 days		
Initiate Project Approval	2 days		
3. Planning Phase	10 days		
3.1 Project Plan Development	10 days		
3.1.1 Scope Statement	4 days		
Create scope description (based on business objectives)	1 day		
Define scope boundaries (date in and out of scope)	2 days		
Define key project deliverables (including user acceptance criteria)	2 days		
3.1.2 Work Breakdown Structure (WBS)	4 days		
Create WBS to work level resolution	2 days		
Define task dependencies (including predecessor/successors)	2 days		
3.1.3 Performance Baseline Measurement	2 days		
Create schedule baseline (with expected resource effort)	1 day		
Define budget baseline (with schedule and cost assumptions)	1 day		
Establish baseline baseline (including trigger change control)	1 day		
3.1.4 Project Risk Planning (Project Risk Register)	4 days		
Analyze market conditions	1 day		
Analyze risks in four quadrants	2 days		
Select critical risks	1 day		
Develop risk management plan	2 days		
Develop list of risks	2 days		
3.1.5 Project Schedule Plan	2.5 days		
3.1.5.1 Project Milestones Plan	6.5 days		

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Work Breakdown Structure (WBS)

- ◆ The first step after creating a project file is to define the WBS on paper or using documenting software such as MS Word.
- ◆ A WBS sets milestones for a project, where the project is broken down into detailed smaller tasks.
- ◆ WBS in projects also helps in allocating responsibilities, assigning resources, and project monitoring and control.
- ◆ It helps in making realistic and detailed project deliverables so that the project team knows intermediate project goals.
- ◆ A WBS layout looks like a typical Windows Explorer file structure or an outline structure of a book index.

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Creating a WBS

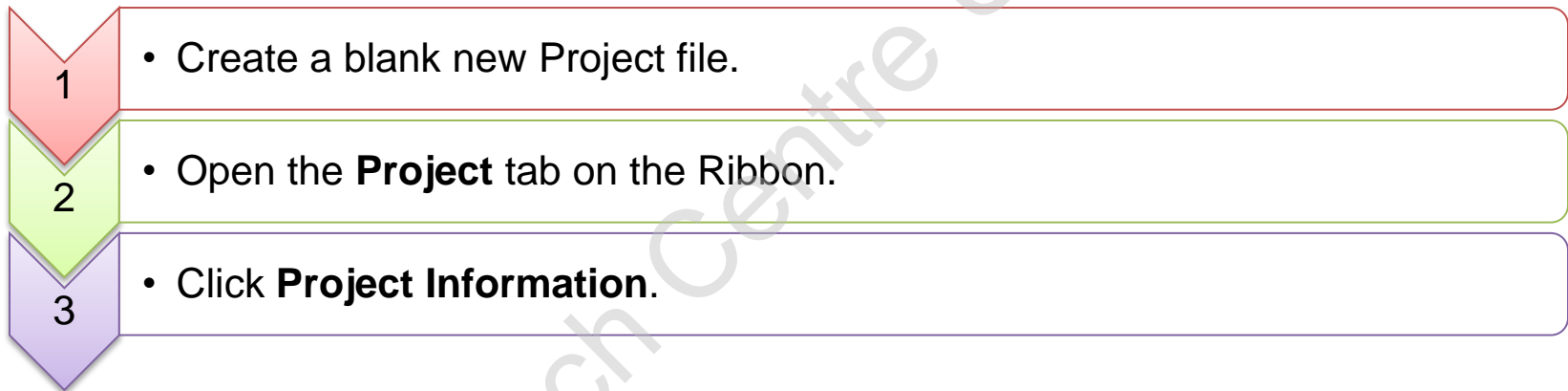
- ◆ Consider the example of a WBS defined for the Smart Signup project that develops mobile applications.
- ◆ This WBS will be created in MS Word 2010 which will then serve as a base for creating the WBS in MS Project.
- ◆ Launch MS Word 2010 and type the details for WBS.
- ◆ Save the file and exit.

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Establishing Project Information 1-2

- ◆ Project information for any project contains configuration about the project, such as start date, end date, the type of calendar used, and how tasks will be scheduled.
- ◆ To establish the project information, perform the following steps:



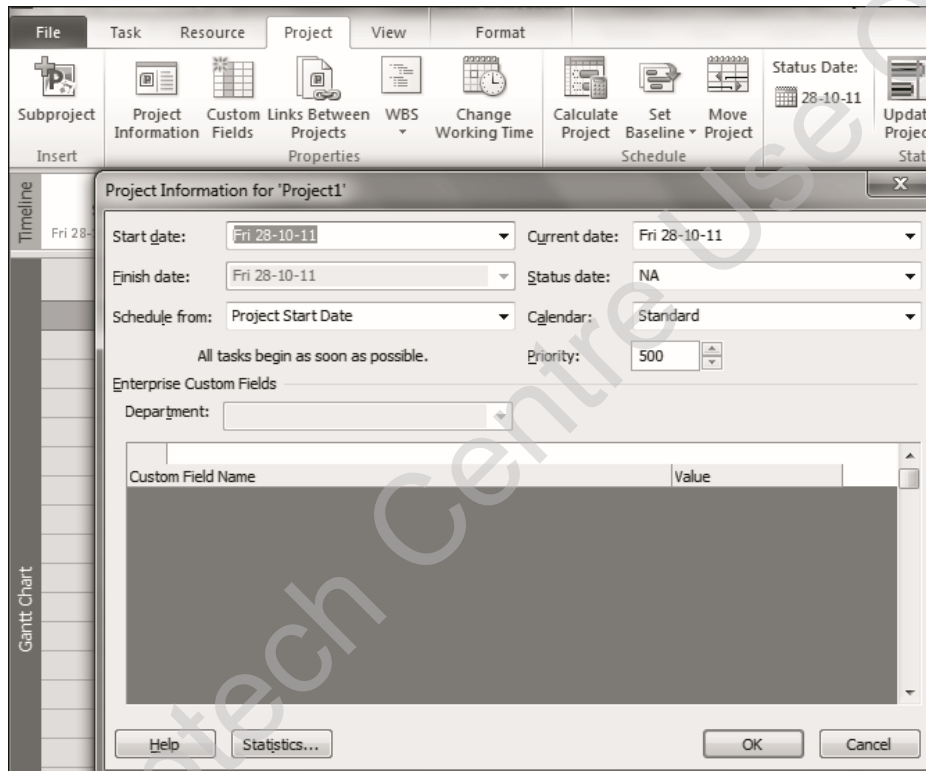
- ◆ In the **Project Information** dialog box, users can enter the following information:

Start Date
Schedule From
Finish Date
Current Date



Establishing Project Information 2-2

- ◆ Following figure illustrates **Project Information** dialog box:



4

- Enter relevant information in the **Project Information** dialog box as shown in the figure and click **OK**.

5

- Save the file as **SSU_ProjectPlan.mpp**.



Entering Tasks 1-2

- ◆ The tasks and subtasks in the WBS will be defined in the Gantt Chart table.
- ◆ To create a task, perform the following steps:

1

- In the **Gantt Chart** table, click inside the **Task Name** column and enter the task description.

2

- Press **ENTER** or the **Tab** key or simply press the down arrow key to enter the next task.

3

- To change the scheduling, click in the **Task Mode** column and select the desired option: **Manually Scheduled** or **Auto Scheduled** from the drop-down list.

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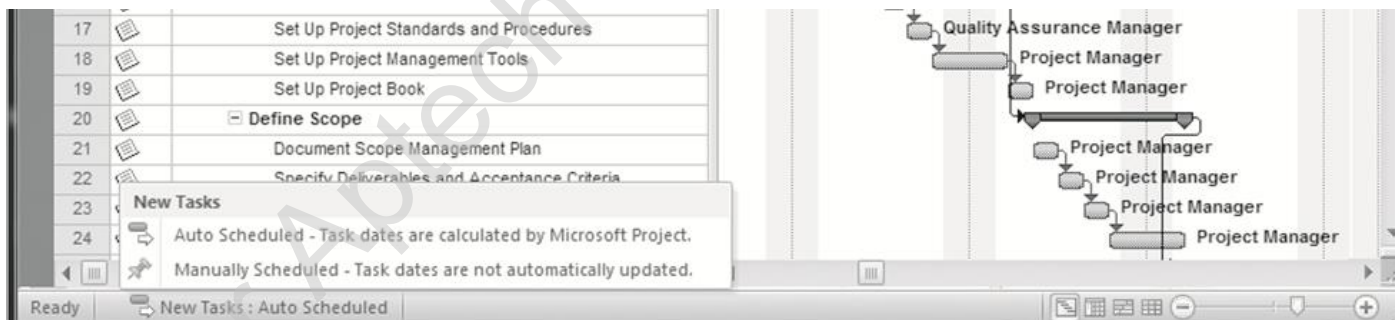


Entering Tasks 2-2

- ◆ Following figure displays an example of tasks in **Manually Scheduled** and **Auto Scheduled** modes:

Task Mode ▾	Task Name ▾	Duration ▾	Start ▾	Finish ▾
	<input type="checkbox"/> Project Scope	10 days	Fri 10/28/11	Thu 11/10/11
	Draft scope of work			
	Obtain sponsorship for the project/work order			
	Identify preliminary resources	1 day	Fri 10/28/11	Fri 10/28/11
	Secure resources	1 day	Fri 10/28/11	Fri 10/28/11

- ◆ Following figure depicts the two default scheduling options:





Creating Subtasks and Summary Tasks 1-2

- ◆ After entering all major tasks, a project manager can detail out the subtasks.
- ◆ To enter a subtask for a major task, perform the following steps:

First, select the task and click the top part of the **Task** button (with a blue icon) in the **Insert** group on the **Task** tab. This adds a new task row.

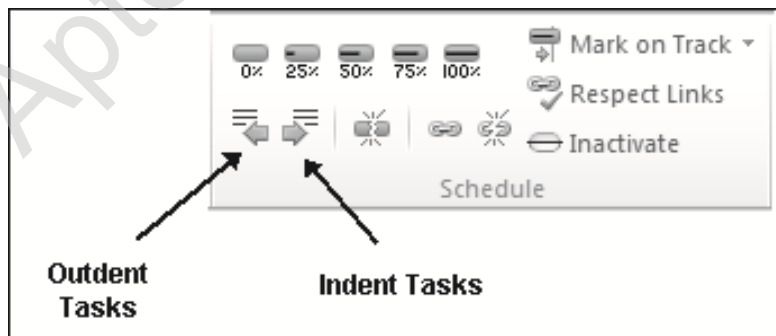


Next, enter the subtask name in the **Task Name** column.



Click the **Indent Task** button in the **Schedule** group on the **Task** tab. Similarly, to modify a subtask to main task, click the **Outdent Task** button.

- ◆ Following figure displays the **Indent Task** and **Outdent Task** options on the Ribbon:





Creating Subtasks and Summary Tasks 2-2

- ◆ The list of tasks and subtasks for the Smart Signup project is shown in the following figure:

The screenshot shows the Gantt Chart view of a project. The task list is as follows:

Task ID	Task Name	Duration	Start	Finish
1	Scope	3.5 days	Mon 04-01-10	Thu 07-01-10
2	Determine project scope	4 hrs	Mon 04-01-10	Mon 04-01-10
3	Secure project sponsorship	1 day	Mon 04-01-10	Tue 05-01-10
4	Define preliminary resources	1 day	Tue 05-01-10	Wed 06-01-10
5	Secure core resources	1 day	Wed 06-01-10	Thu 07-01-10
6	Scope complete	0 days	Thu 07-01-10	Thu 07-01-10
7	Analysis/Software Requirements	14 days	Thu 07-01-10	Wed 27-01-10
8	Conduct needs analysis	5 days	Thu 07-01-10	Thu 14-01-10
9	Draft preliminary software specifications	3 days	Thu 14-01-10	Tue 19-01-10

- ◆ Following figure shows the Summary tasks for the Smart Signup project:

The screenshot shows the Gantt Chart view of a project with summary tasks. The task list is as follows:

Task ID	Task Name	Duration	Start	Finish
1	Scope	3.5 days	Mon 04-01-10	Thu 07-01-10
7	Analysis/Software Requirements	14 days	Thu 07-01-10	Wed 27-01-10
17	Design	14.5 days	Wed 27-01-10	Tue 16-02-10
25	Development	33 days	Wed 17-02-10	Fri 02-04-10
32	Testing	60 days	Wed 17-02-10	Tue 11-05-10
48	Training	57 days	Wed 17-02-10	Thu 06-05-10
57	Documentation	49 days	Wed 17-02-10	Mon 26-04-10
67	Pilot	81.5 days	Wed 27-01-10	Thu 20-05-10
74	Deployment	5 days	Fri 21-05-10	Thu 27-05-10
81	Post Implementation Review	3 days	Fri 28-05-10	Tue 01-06-10



Defining Milestones

- ◆ A milestone can be defined as a task with zero duration.
- ◆ In essence, it simply marks a moment in time that must be reflected in the project outline.
- ◆ Such tasks do not involve any real work or effort.
- ◆ They typically involve a series of tasks, which when completed result in achieving the milestones.
- ◆ They must be completed for the project to move ahead.

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WBS Levels

- ◆ Project managers use WBS as an essential aspect of their project management methodology.
- ◆ Similar to the outline of project tasks list, WBS is a hierarchical chart of project deliverables.
- ◆ Each level represents details of the project deliverables.
- ◆ Levels in the hierarchy represent summary tasks, tasks, subtasks, and so forth.
- ◆ WBS levels are associated with a specific code set, such as 4.2, 4.2.1, 4.2.2, and so forth.
- ◆ A project manager can also define specific and customized WBS codes.

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Defining WBS Codes

- ◆ MS Project 2010 generates WBS codes for the list of tasks outlined in the Gantt Chart table.
- ◆ These codes are similar to the numbering in a table of contents of a document or a book.
- ◆ They are added to the project outline to provide a quick overview of the number of tasks and subtasks, the number of tasks completed, and the number of tasks that are pending in a project.
- ◆ MS Project 2010 allows project managers to generate a set of unique outline numbers as basic WBS codes for a project.
- ◆ Also, the user can define custom dynamic WBS codes for the project tasks list.

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Displaying the WBS Codes

- ◆ To display auto-generated WBS codes for a project, perform the following steps:

Insert a new column for WBS codes by right-clicking the column heading before which to display the WBS codes and selecting the **Insert Column** option.



Scroll down the list and select **WBS**. The WBS codes for the entire task details will then be displayed in the column.

- ◆ Following figure illustrates the WBS option for displaying WBS codes:

Subproject		Project Information	Custom Fields	Links Between Projects Properties	WBS	Change Working Time	Calculate Project	Set Baseline Schedule	Move Project	Status Date: 28-10-11
Insert										
		i	Task Mode	WBS		Task Name				
7				Warning		+ Analysis/Software Requirements				
17				WBS		+ Design				
25				WBS Predecessors		+ Development				
32				WBS Successors		+ Testing				
48				Work		+ Training				
57				Work Contour		+ Documentation				
67				Work Variance		+ Pilot				
74						+ Deployment				
81						+ Post Implementation Review				



Creating a Custom WBS Code 1-3

- ◆ MS Project 2010 allows creating custom WBS codes.
- ◆ Users can add a prefix to the WBS codes, such as the name of the project, client name, or department name.
- ◆ To create custom WBS codes, perform the following steps:

Open the **Project** tab on the Ribbon.

On the tab, in the **Properties** group, click the **WBS** button and select the **Define Code** option. This displays the **WBS Code Definition** dialog box.

In this dialog box, enter the **Project Code Prefix** as **SSU_**.

Next, in the table, click the **Sequence** drop-down list and specify the desired type unique coding for the project.

Finally, click **OK** to generate the custom WBS codes.



Creating a Custom WBS Code 2-3

- ◆ Following figure shows the creation of custom WBS codes in the **WBS Code Definition** dialog box:

WBS Code Definition in 'SoftwareDevPlan(3)'

Code preview: SSU_1

Project Code Prefix: SSU_

Code mask (excluding prefix):

Level	Sequence	Length	Separator
1	Numbers (ordered)	Any	.

☒ Generate WBS code for new task

☒ Verify uniqueness of new WBS codes

Help OK Cancel

Gantt Chart

etermine project scope
ure project sponsorship
ine preliminary resources
ure core resources
pe complete
is/Software Requirements
duct needs analysis
ft preliminary software
cifications
velop preliminary budget
iew software
cifications/budget with team
orporate feedback on
software specifications



Creating a Custom WBS Code 3-3

- ◆ Outcome of creating custom WBS codes is as shown in the following figure:

Subproject		Project Information		Custom Fields		Links Between Projects		WBS		Change Working Time		Calculate Project		Set Baseline		Move Project		Status Date: 28-10-11		Update Project		Sync Protected	
Insert						Properties						Schedule						Status					
Gantt Chart			Task Mode	WBS	Task Name	Duration	Start	Finish															
	1			SSU-MA1	Scope	3.5 days	Mon 04-01-10	Thu 07-01-10															
	2			SSU-MA1.1	Determine project scope	4 hrs	Mon 04-01-10	Mon 04-01-10															
	3			SSU-MA1.2	Secure project sponsorship	1 day	Mon 04-01-10	Tue 05-01-10															
	4			SSU-MA1.3	Define preliminary resources	1 day	Tue 05-01-10	Wed 06-01-10															
	5			SSU-MA1.4	Secure core resources	1 day	Wed 06-01-10	Thu 07-01-10															
	6			SSU-MA1.5	Scope complete	0 days	Thu 07-01-10	Thu 07-01-10															
	7			SSU-MA2	Analysis/Software Requirements	14 days	Thu 07-01-10	Wed 27-01-10															
	8			SSU-MA2.1	Conduct needs analysis	5 days	Thu 07-01-10	Thu 14-01-10															
	9			SSU-MA2.2	Draft preliminary software specifications	3 days	Thu 14-01-10	Tue 19-01-10															
	10			SSU-MA2.3	Develop preliminary budget	2 days	Tue 19-01-10	Thu 21-01-10															
	11			SSU-MA2.4	Review software specifications/budget with team	4 hrs	Thu 21-01-10	Thu 21-01-10															
	12			SSU-MA2.5	Incorporate feedback on software specifications	1 day	Fri 22-01-10	Fri 22-01-10															



Integrating Project Plans with Other MS Office Applications

- ◆ Project plans created and integrated facilitating management of projects with less effort.
- ◆ Users can use simple copy-and-paste functions to copy task outlines and notes from other MS Office applications.
- ◆ MS Project 2010 keeps intact the project outline structure copied from other Office applications.
- ◆ It automatically generates subtasks and summary tasks in the project schedule, based on the list items.
- ◆ MS Project 2010 retains text formatting, fonts, text effects, date formats, and colors from the source Office file.

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Summary

- ◆ MS Project 2010 enables users to create a project file from scratch or by using a template.
- ◆ A WBS breaks down the project into detailed smaller tasks and sets milestones for a project.
- ◆ Creating a project plan involves creating a new project file, defining a draft WBS, and creating WBS in MS Project 2010 by establishing project information and defining project tasks.
- ◆ Project information for any project specifies the project start date, end date, the type of calendar used, and how the tasks will be scheduled.
- ◆ Entering tasks and sub tasks mapping to WBS is done after configuring project information.
- ◆ The detailed list of major tasks and subtasks in a project file can be collapsed to display a list of Summary tasks to present them in reports.
- ◆ MS Project allows generating WBS codes for the list of tasks, which provide a quick glance at the number of tasks and subtasks in the project as well as the number of completed and pending tasks.
- ◆ Users can also generate custom WBS codes through the WBS Code Definition dialog box.