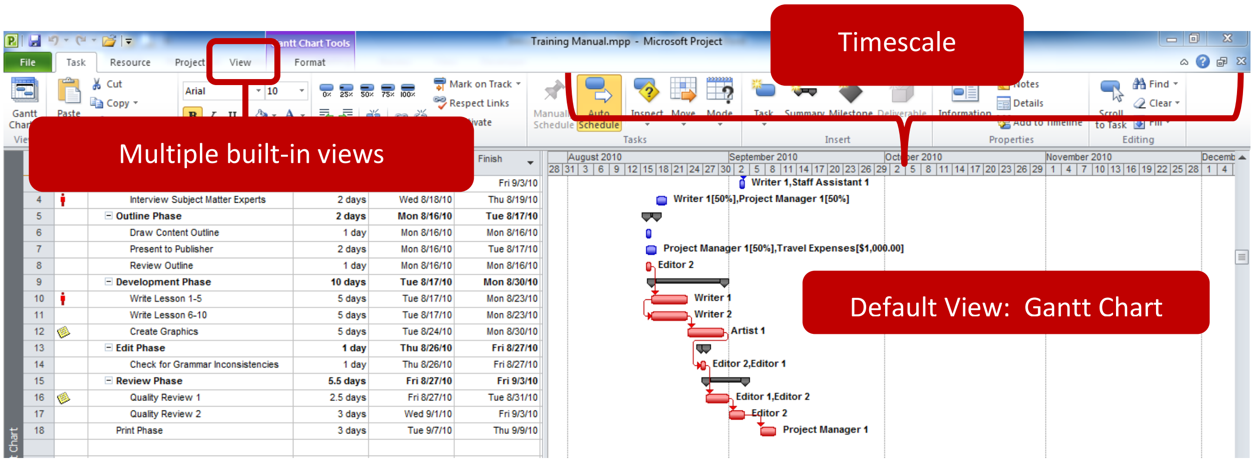
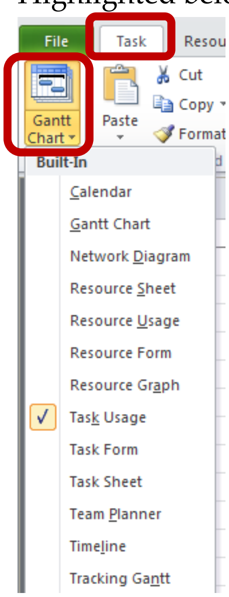
Introduction to Microsoft Project 2010

This document provides an introduction in using Microsoft Project 2010. Microsoft Project is a project management application that contains a set of tools to help managers plan, schedule, and control projects. The project plan file acts as a repository for all project-related information, including task lists, resources, calendars, and cost data.

The Project Environment



The different views of a project allow you to view the specifics of different areas of your project. Highlighted below are some views that may be found useful. Access these under the **Task tab**.

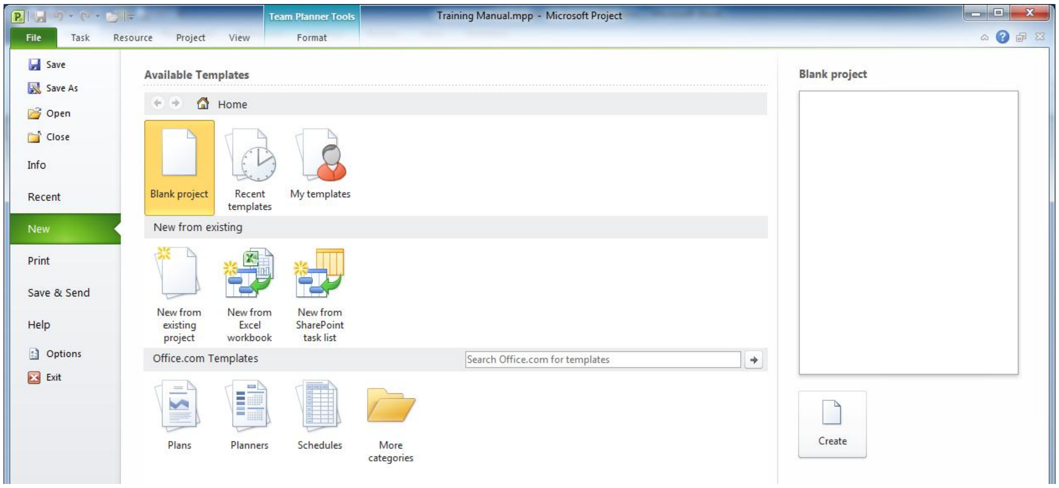


Creating a Project Plan

There are multiple ways to create a project plan – from a blank project, from a template, from an existing project, and from Excel.

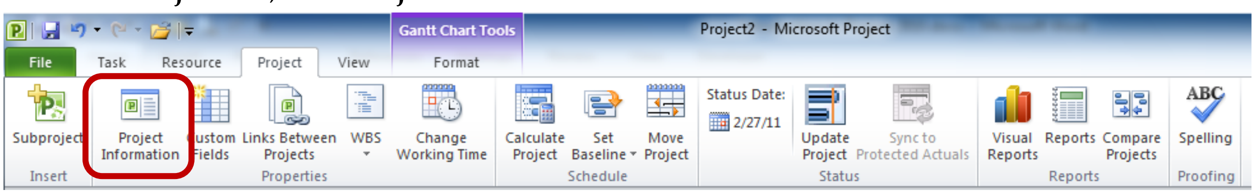
To create a project,

1. From the **File** tab, choose **New**.
2. Select the desired method and click **Create**.

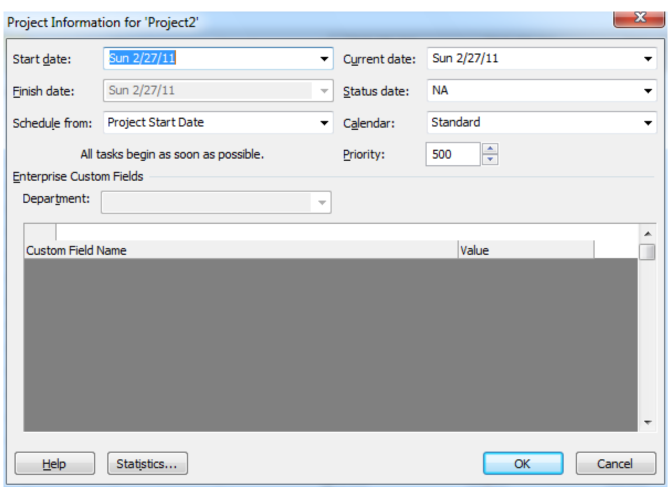


The first required step in creating a project is to enter either a start or a finish date.

1. From the **Project** tab, click **Project Information**.

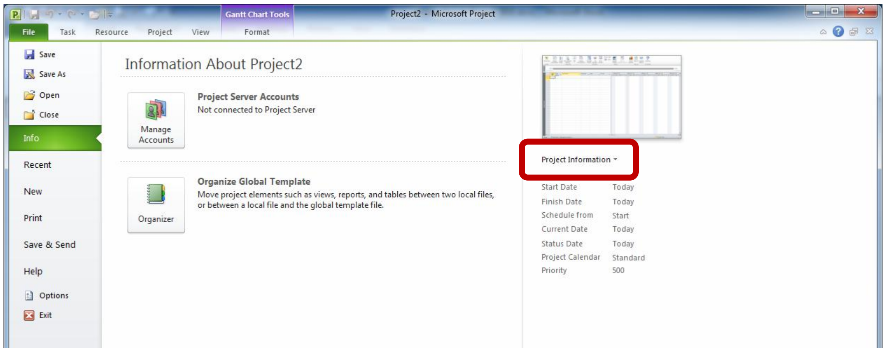


2. Set the desired Start or Finish Date and click OK.

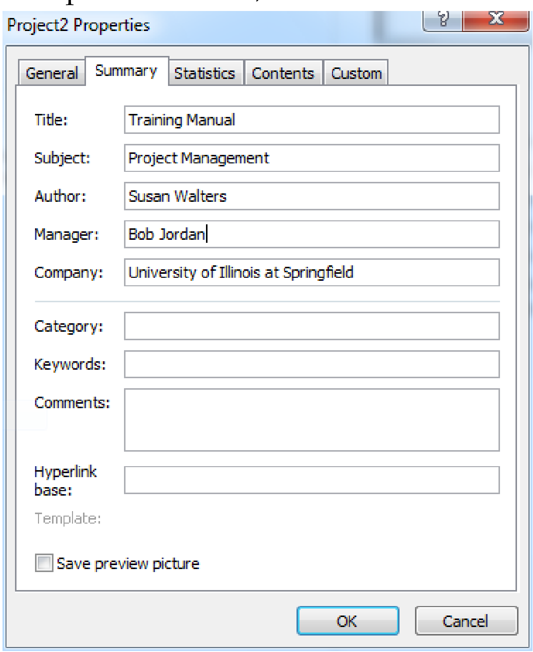


3. Additional project properties can be identified.

a. From the **File** tab, choose **Project Information**, then **Advanced Properties**.



b. Complete the fields, as desired. Click **OK**.

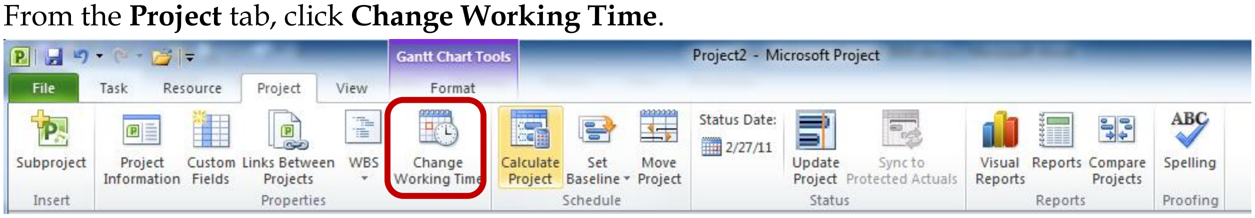


Assigning a Project Calendar

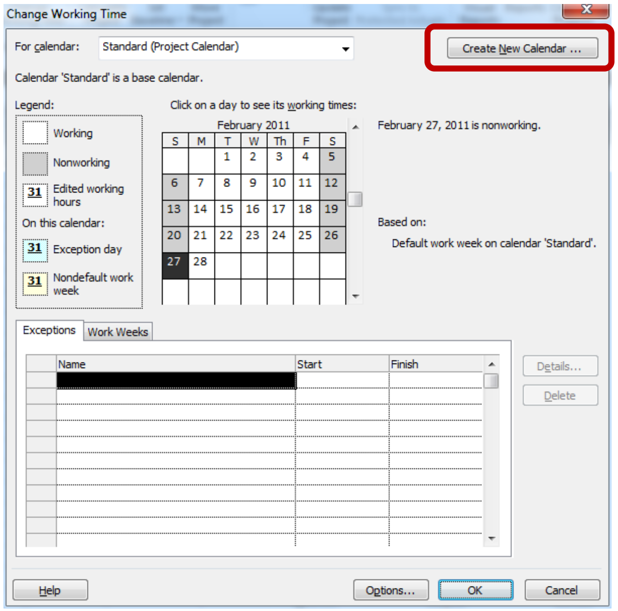
For Project to correctly determine a schedule, working and non-working times should be included. Project has three default base calendars – Standard (traditional), 24 Hours, and Night Shift. Each base calendar can be customized to meet your needs.

To create a calendar,

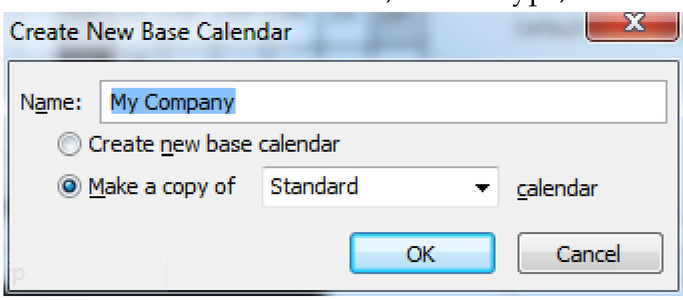
1. From the **Project** tab, click **Change Working Time**.



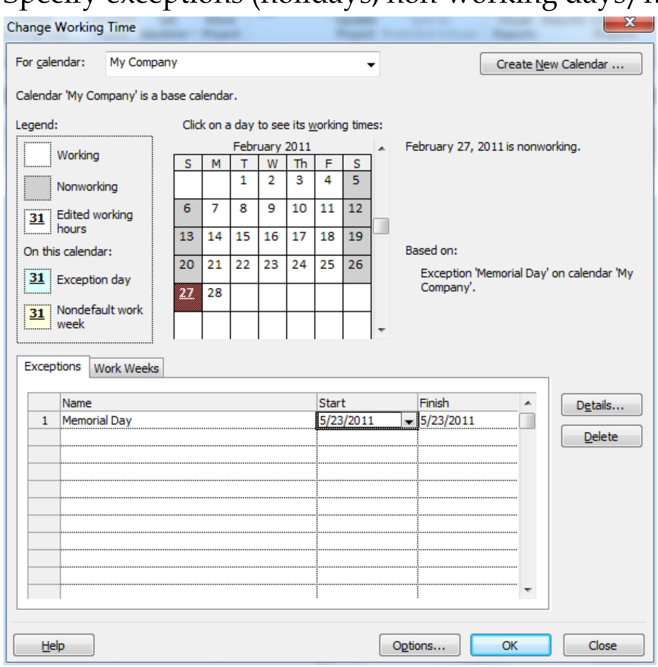
2. Click **Create New Calendar**.



3. Enter a name for the calendar, select a type, and click OK.



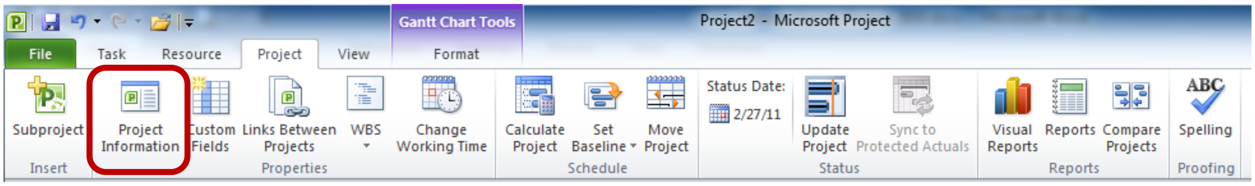
4. Specify exceptions (holidays, non-working days/hours). Click OK.



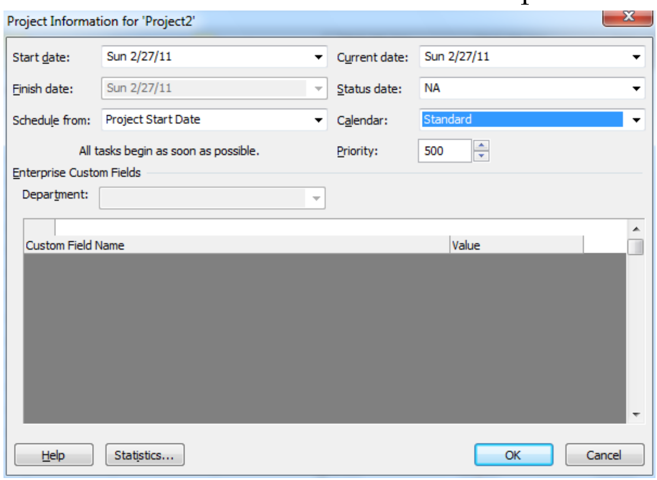
5. Note: This is not where individual employee time-off is entered.

To assign the calendar to the project,

1. From the **Project** tab, click **Project Information**.



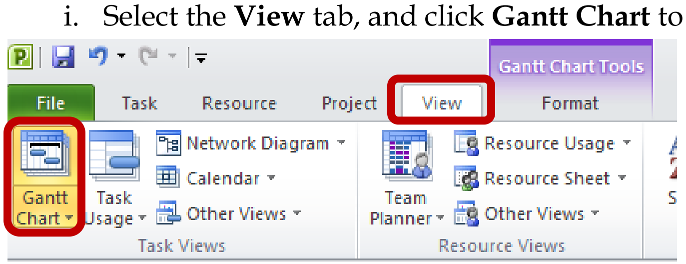
2. Select the desired calendar from the dropdown list and click OK.



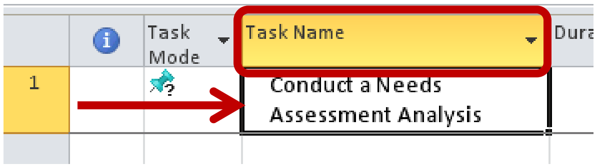
Creating a Task List and Work Breakdown Structure

Once you have created a project plan and assigned a calendar, the tasks can be entered. Tasks can also be imported from Excel or Outlook.

1. Adding Tasks
   First, we will create *summary tasks*. The summary task is the general focus of a task, and contains multiple subtasks below it. The tasks entered below the summary tasks will be the specific planned tasks.
   a. To create summary tasks,
      i. Select the **View** tab, and click **Gantt Chart** to view the entry mode.

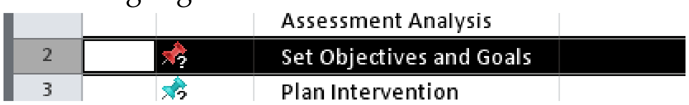


      ii. In the **Task Name** field, type a description of the first major step of your project. Continue to enter all the tasks associated with your project.

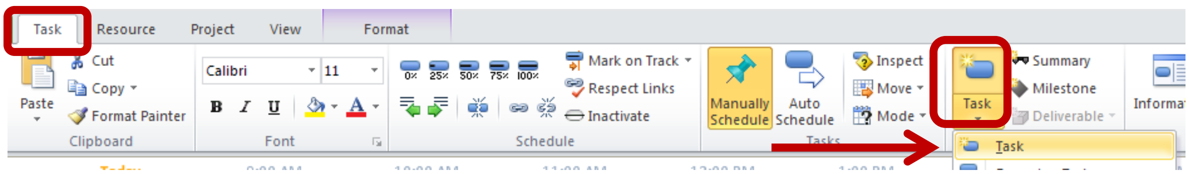


b. After creating all your summary tasks, you will begin entering the rest of your tasks.

i. Select the **first row** under the summary task you are working with, so it is highlighted.



ii. Under the **Task** tab, select **Task**, and then **Task** again. You also can add a task by **right clicking** and selecting **Insert Task**.

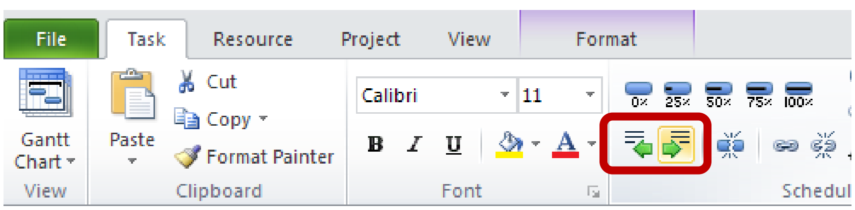


iii. Continue to add rows and subtasks until all of your summary tasks are detailed and complete.

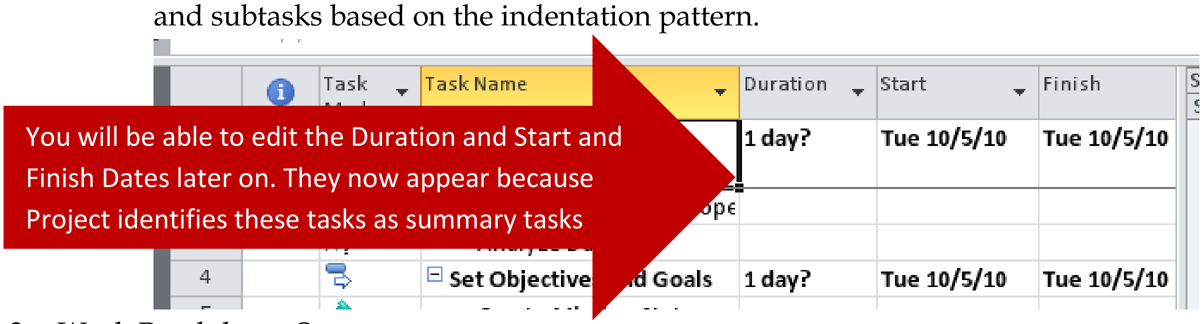
2. Organizing Tasks

Now that all your summary tasks and subtasks are entered, you can organize them into a hierarchy to distinguish between them.

a. **Select the Task Name** you wish to work with. Under the **Task tab**, select the **Indent** or **Outdent** button.



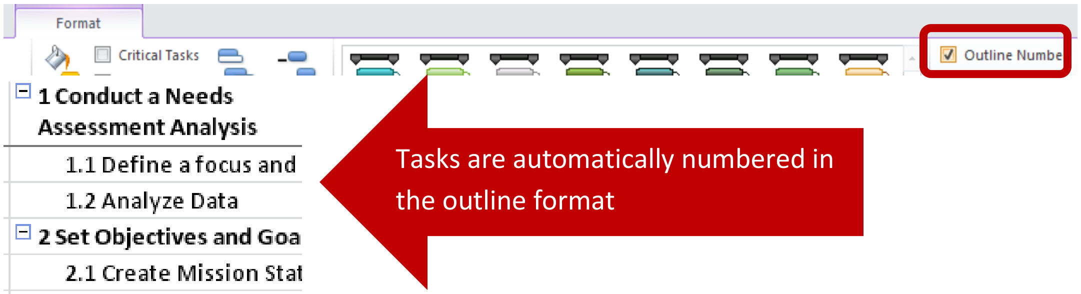
b. After completing your indentations, Project is able to identify summary tasks and subtasks based on the indentation pattern.



3. Work Breakdown Structures

A work breakdown structure is a logical hierarchy of tasks in a project represented by alphanumeric codes, similar to an outline.

a. To view outline numbers on all summary tasks and subtasks, under the **Format tab**, **check the Outline Number** box.



4. Entering Durations

There are a few specifics to understand when entering durations for tasks in Project. The first difference is the differentiation between *Duration* and *Work*. *Work* is the total number of hours between all contributors spent on the task, and *Duration* is the amount of time in which you want the task to be completed. It is also important to note that 1 day is 8 hours and 1 week is 40 hours. A *Unit* is the percentage of a resource's time assigned to a task. Hence, Work = Duration + Units. You choose which to enter; Project calculates the others.

a. When we enter durations, we enter them in the **subtask cells.** The duration of the summary task will automatically update according to the subtasks. To **enter the duration** of a subtask, under the **Duration** column, click inside the empty cell.

i. Simply type in the cell the duration you plan to work on the specific task. Use units "mo" for months, "w" for weeks, "d" for days, "h" for hours, and "m" for minutes.

ii. A common mistake is to try to fill in all the information all the way across (as one would in Excel). Instead, leave Start and Finish dates empty and let Project fill them in. When manually entered, it deadlocks them as constraints which makes Project less useful.

b. To add *work* into the spreadsheet to see the amount of total hours the task will take, select ***Add New Column***.

i. Scroll down, and select **Work**.

ii. The number of hours of total work completed for the task is automatically calculated depending on the number of **Resource Names** and the set

Duration.

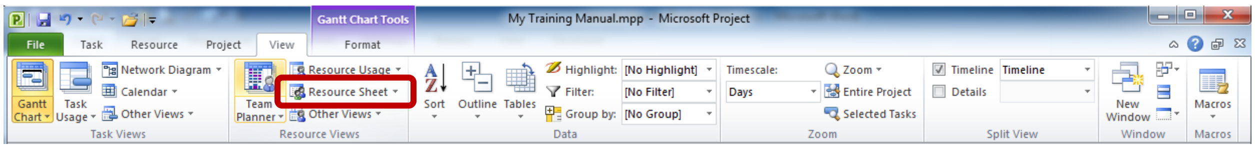
1 Conduct a Needs Assessment Analysis	8 days	Tue 10/5/10	Thu 10/14/10	Joe,Amy,Ben,Kara,Bill	469 hrs
1.1 Define a focus and sc	3 days	Tue 10/5/10	Thu 10/7/10	Ben,Kara	2!
1.2 Analyze Data	5 days	Tue 10/5/10	Mon 10/11/10	Joe,Amy,Bill	12(

Resources

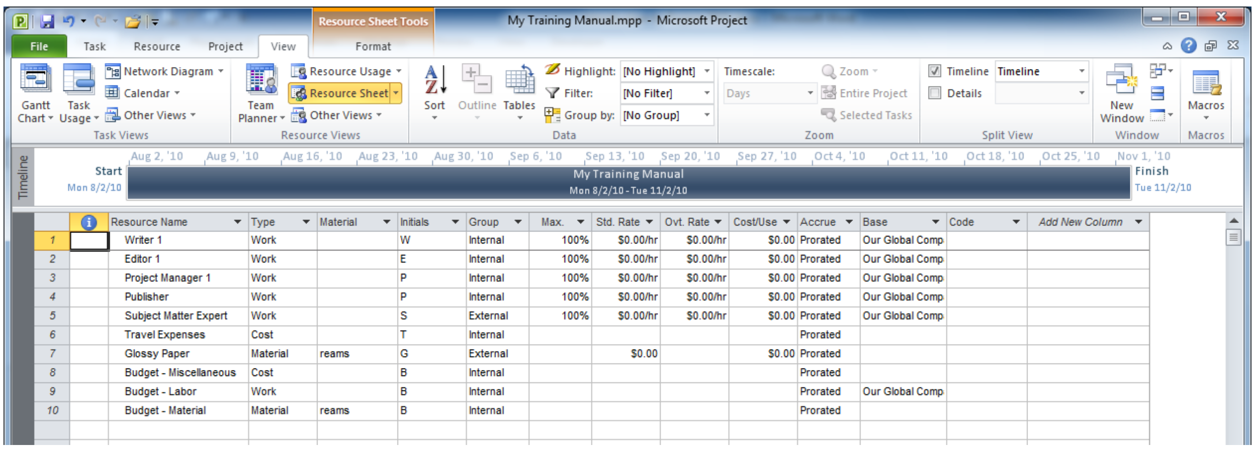
Now that tasks are identified, resources can be assigned to complete them. Resources are categorizes into four types: Work (people or equipment), Material (paper, ink, toner, etc), Cost (airfare, lodging), and Budget (project-level work, material, and cost resources).

To enter resources,

1. From the **View** tab, choose **Resource Sheet**.

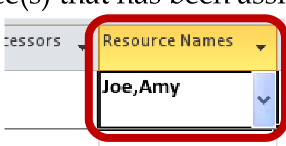


2. Enter the details, as desired.



To assign resources to tasks,

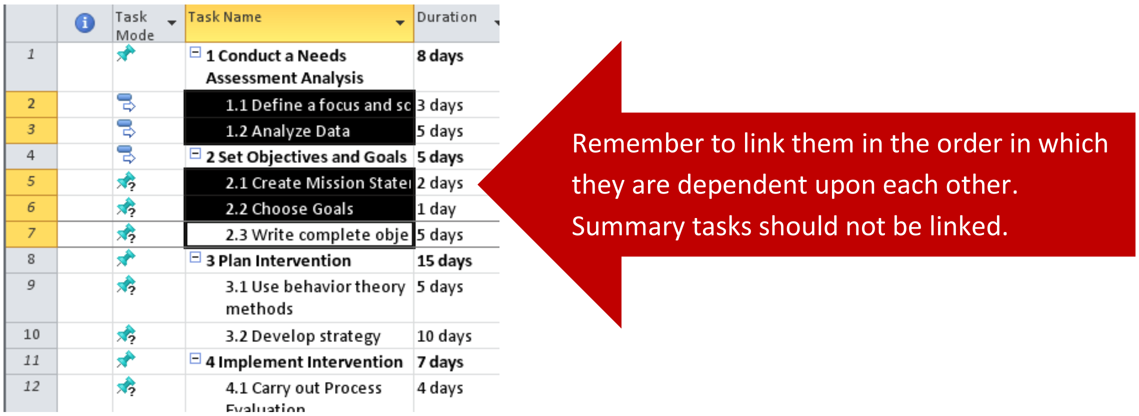
1. In the Gantt Chart view, under the **Resource Names** column, select the appropriate resource(s) that has been assigned to the task.



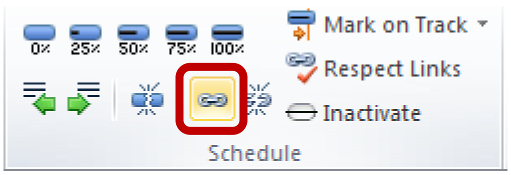
Creating Dependencies

Using dependencies allows Project to be a *managing tool* rather than just a *presentation tool*. Assigning tasks dependencies demonstrates which tasks are reliant on the completion of others, and allows you to change the duration of one task and see the effect on the entire project.

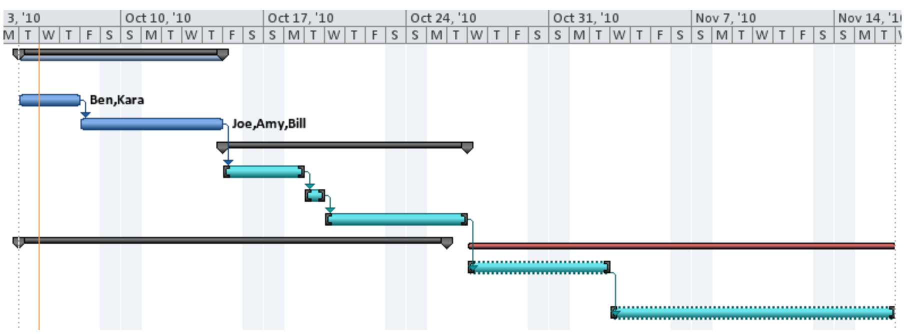
1. To link tasks together, select the first task that needs to completed, and then the task that can then be started. Use this pattern to link as many tasks as desired by holding the **Ctrl key**.



2. Click the **Link Tasks icon** under the **Task tab**.



3. You will now see how each task leads to another on the timeline.



4. After linking tasks and creating dependencies, you will notice numbers automatically entering under the **Predecessors** column. These numbers represent the ID of the task (the row number) that must be completed prior to the highlighted task.

5. After you have linked the tasks under a *summary* task, the days of duration next to the *summary* task will update to be the sum of all the *subtasks* linked to the specific *summary* task.

Predecessors and Dependency Types

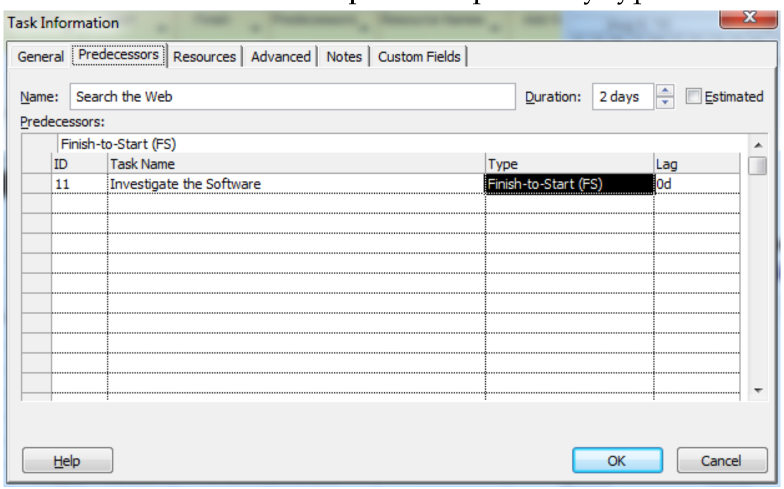
Creating relationships among tasks is key to creating realistic schedules. Relationships occur when the starting time of a task is dependent on whether another task is starting or is completed.

There are four types of dependencies:

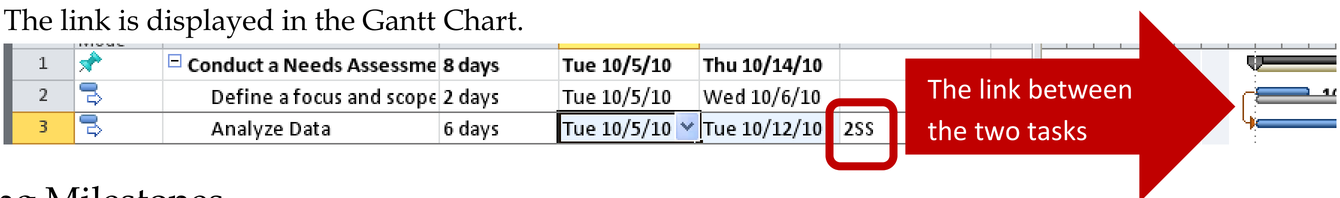
- FS (Finish to Start): The task cannot be started until the predecessor task is completed.
- SS (Start to Start): The task cannot be started until the predecessor task is started.
- FF (Finish to Finish): The task cannot be finished until the predecessor task is finished.
- SF (Start to Finish): The task cannot be finished until the predecessor task begins.

To enter a predecessor,

1. In the **Predecessors** column of the desired task, enter the **number of the row** the task is dependent upon.
2. Double-click to select the specific dependency type of the task.



3. The link is displayed in the Gantt Chart.

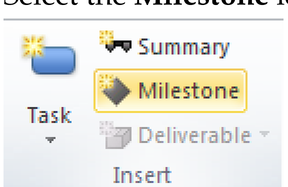


Adding Milestones

A milestone is a task that acts as a reference point, marking a major event in the project and which is used to monitor the project's progress.

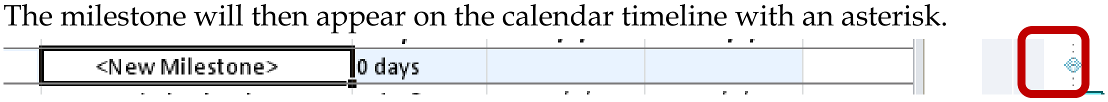
To add a milestone,

1. Click the row below the row of where you want to add your milestone.
2. Select the **Milestone** icon under the **Task** tab.



3. Type the task name of your milestone.

4. The milestone will then appear on the calendar timeline with an asterisk.



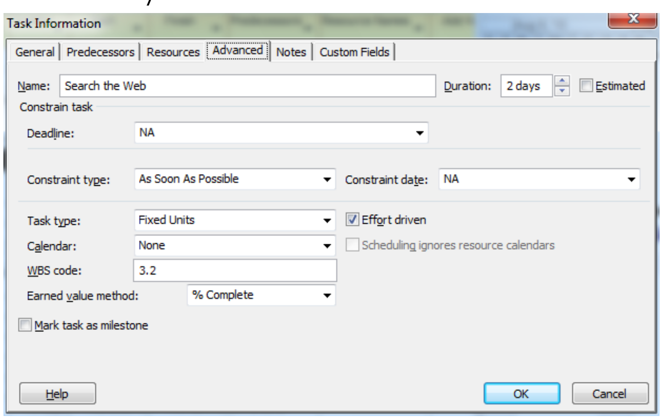
5. Any task can be identified as a milestone by making the duration value 0.

Deadlines, Constraints, and Notes

Constraints are conditions or limitations placed on the start or finish date of a task. Deadlines are target dates that indicate when you want a task to be completed. Note are additional or supporting information.

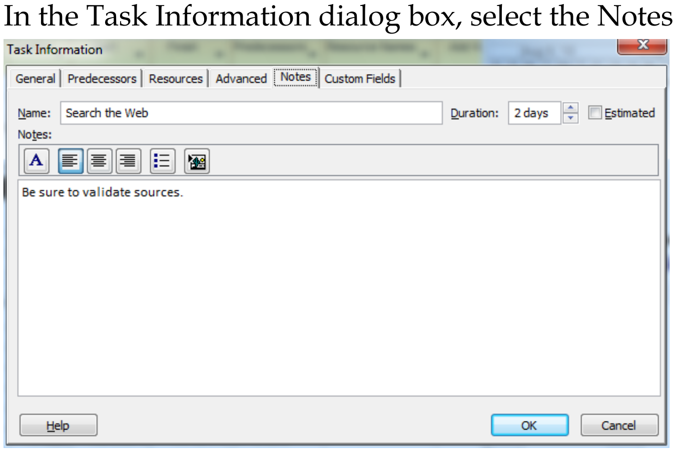
To add a constraint or deadline to a task,

1. Double-click the task.
2. In the Task Information dialog box, select the Advanced tab. Enter the constraints/deadlines as desired.



To add a note to a task,

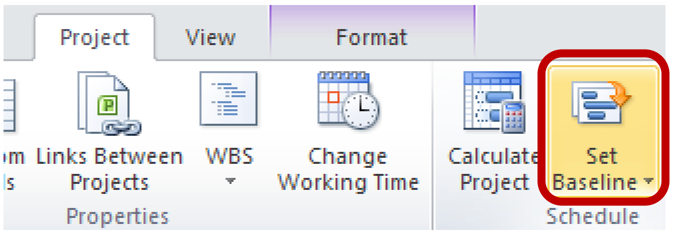
1. Double-click the task.
2. In the Task Information dialog box, select the Notes tab. Enter the desired information.



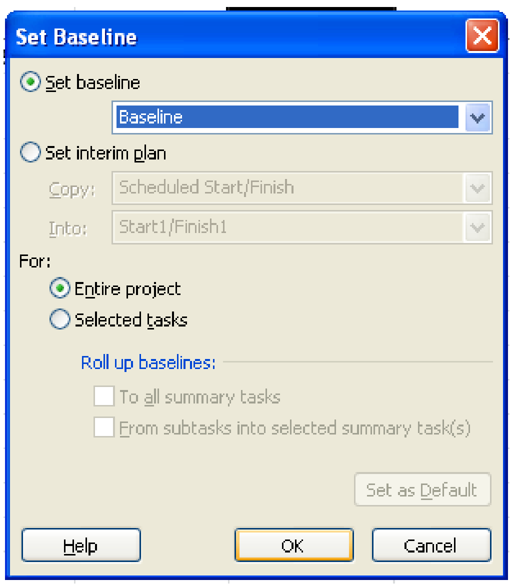
Tracking Progress

Tracking the progress of a project can be done with baselines. Baselines copy the plan for a project before anything is done, and then are compared with the progress throughout the project to track tasks and growth. This is how we determine later if we are 'on track'.

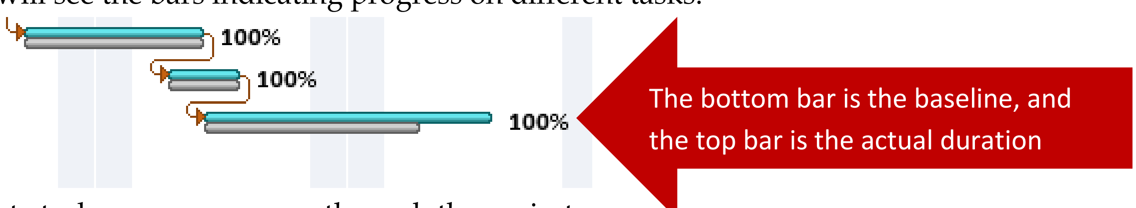
1. To set a baseline,
   a. Under the **Project tab,** click **Set Baseline**.



   b. Select if you want the baseline to be for the entire project or selected tasks, and click **OK**.

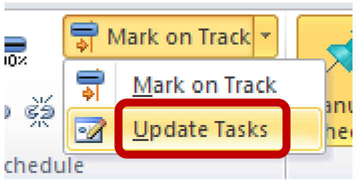


   c. To view the baseline, under the **Gantt Chart** view, to the right of the screen you will see the bars indicating progress on different tasks.

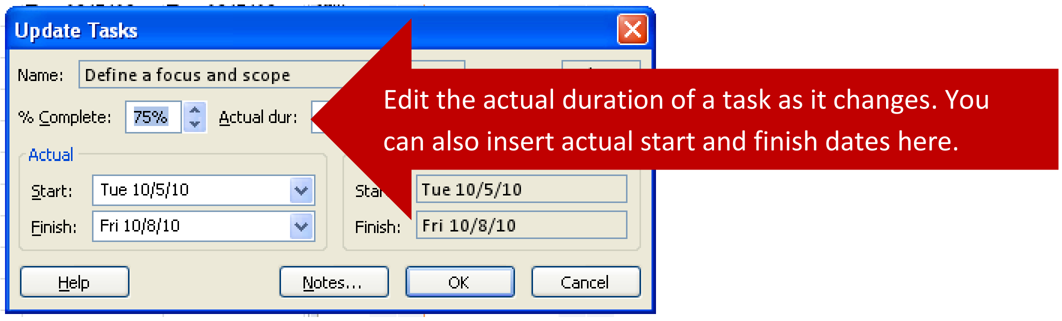


2. To update tasks as you progress through the project,

a. Under the **Task** tab, click to highlight the task you wish to update, and **Mark on Track** in the **Schedule box**, and then click **Update Tasks**.

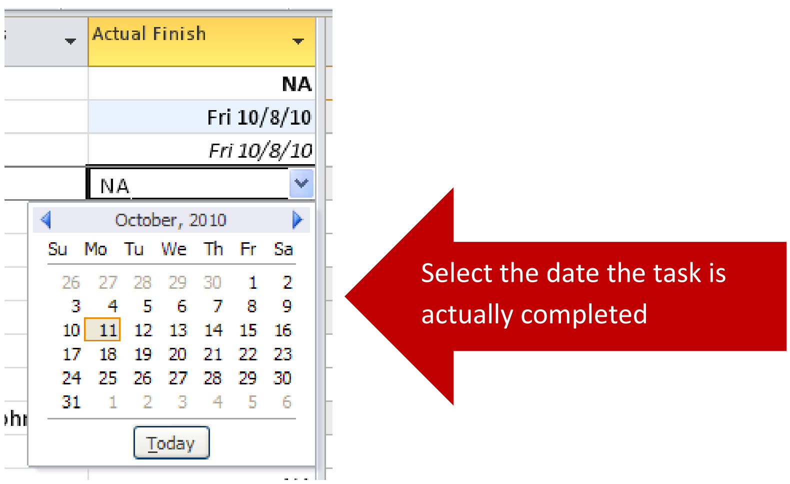


b. You are able to edit the % complete of the task, as well as the duration and dates. When finished, click **OK**.

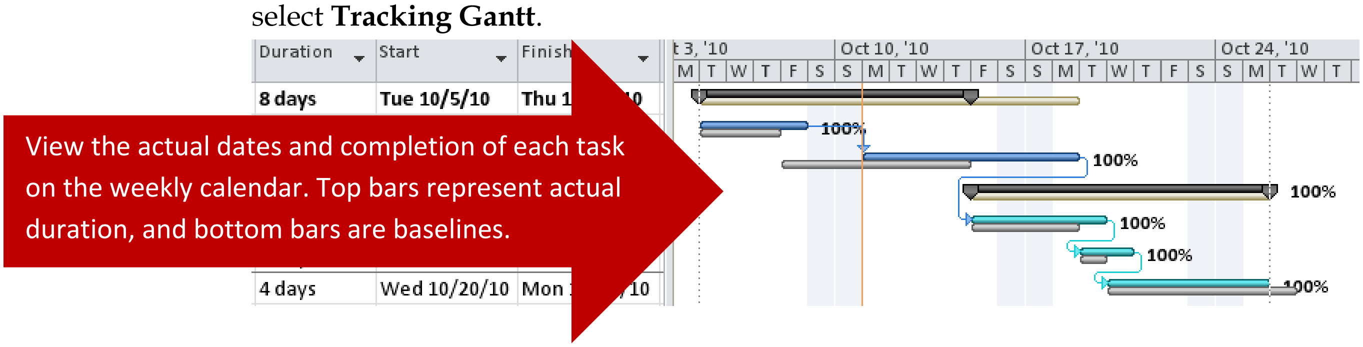


3. For another way to enter actual Finish dates to track the complete progress of tasks of a project,

a. Under the **Task tab**, select the **View** dropdown menu, and choose **Task Usage Tools**. In a **New Column**, add **Actual Finish**.



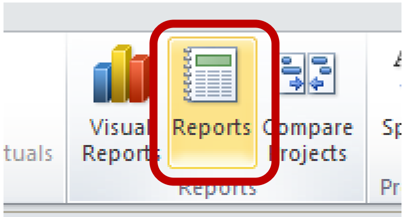
b. To view the progress, under the **Task tab,** click the **View** dropdown menu and select **Tracking Gantt**.



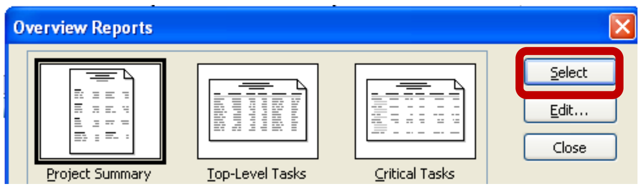
Printing Reports

While Views can be printed, there are built-in reports that are already pre-defined for easier printing.

1. From the **Project** tab, in the **Reports** category, select **Reports**.



2. Select which type of report you would like to see, and click **Select**. In the next box, click the specific report you would like to print and click **Select** again.



3. Selecting a report will take you directly to the print preview, where you can view the report to be printed on the right, and select **Print** and edit printing options.