

Microsoft Project 2007 Level 2: Working with Resources and Managing a Project

ABOUT THIS CLASS

In Microsoft Project 2007 Level 1: Creating Project Tasks, the focus was on how to create a project plan with tasks and resources. In this class, the emphasis is on refining the project plan by adding resources to tasks, including assigning additional resources and exploring task type, and finalizing the project plan. Then once the plan is finalized, the focus shifts to managing your project using the tools provided by Microsoft Project to monitor project progress and also exchanging data with other applications.

COURSE DESCRIPTION

In this class, you will assign resources to tasks and view the effect of assigning more than one resource to a task. You will also learn how to view the critical path and set a baseline. Then you will manage your project by updating task progress, marking tasks as finishing on time or ahead or behind schedule. Finally, you will learn how to import or export Microsoft Project data with other programs such as Excel or Access and how to take a screen shot of your current view that can be used in Word, PowerPoint or in a web page.

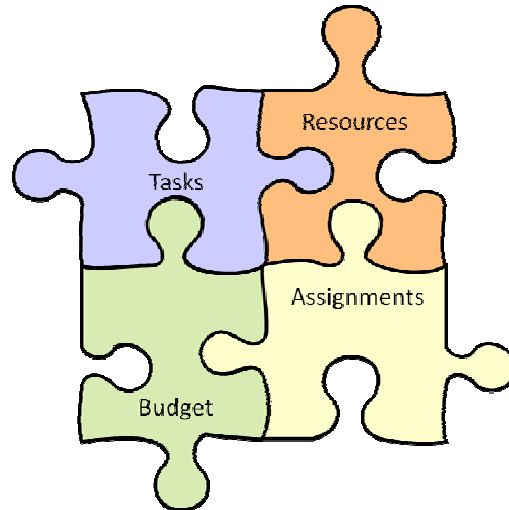
COURSE OBJECTIVES

- Assign resources to project tasks and explore the impact of adding additional resources
- Finalizing the project by saving a baseline, viewing critical path and looking for ways to shorten the duration of the project
- Update progress on tasks including learning ways to view tasks that behind schedule
- Work with data from other applications such as Excel or Access and export data out to other file formats including capturing a screen shot of the current view

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LESSON 1 MANAGING RESOURCES IN A PROJECT PLAN

Resource assignments are the final element in creating your project plan. You have created tasks with durations, created resources with costs and now you will assign resources to tasks.



A. ASSIGNING RESOURCES TO TASKS

When resources are assigned to tasks, Microsoft Project calculates how many hours it will take to accomplish the task, called *work*. To assign resources to tasks, you can use:

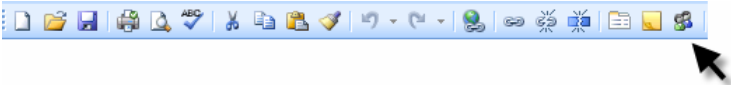
- the **Assign Resources** button on the **Standard** toolbar
- the **Predecessor** tab in the **Task Information** dialog box
- the **Predecessors** column on the Entry table in the **Gantt Chart view**

ACTIVITY 1-1 ASSIGNING RESOURCES TO TASKS

Objective: To assign resources to tasks.

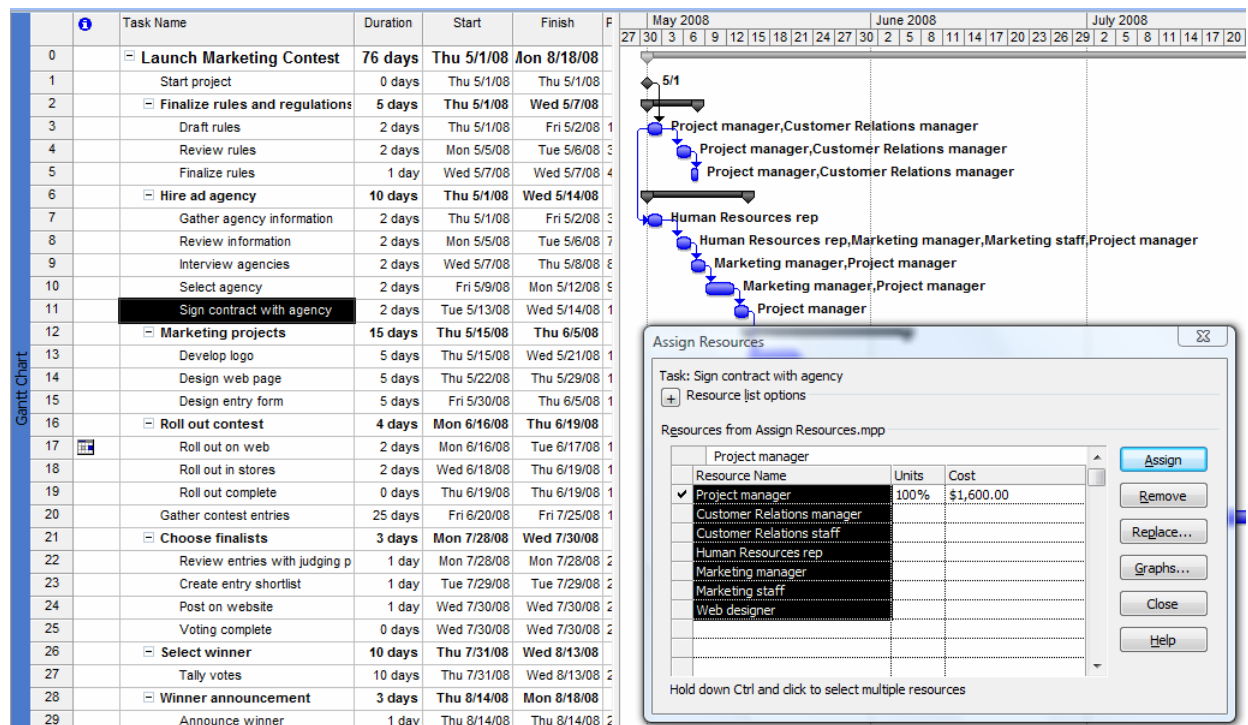
Setup: The file called *Assign Resources* is open.

Scenario: The project management team at Mills Marketing uses Microsoft Office Project 2007 to create, monitor and implement the project plans. You need to assign resources to your project tasks to view the work for each resource and task.

WHAT YOU DO	HOW YOU DO IT
1. Launch Microsoft Office Project 2007.	<ol style="list-style-type: none">On the Windows task bar, click the Start button to display the Start menu.In the Start menu, position the mouse pointer over All Programs to display them.In the All Programs submenu, choose Microsoft Office.Choose Microsoft Office Project 2007 to launch the application.If the Welcome to the 2007 Microsoft Office system dialog box appears, click Next.Select I don't want to use Microsoft Update option to decline the usage of Microsoft Update and click Finish.
2. Open the <i>Assign Resources</i> file.	<ol style="list-style-type: none">From the File menu, choose Open.In the Open dialog box, in the navigation pane, click Desktop to display the list of Folders on the Desktop.Double-click on <i>UCB_Project2007_ManagingAProject</i> folder to open it.Select <i>Assign Resources</i> and click Open.
3. Assign the Project manager to Task 1 Start Project .	<ol style="list-style-type: none">Click on the Assign Resources button on the Standard toolbarIn the Assign Resources dialog box, click on Project manager. 
4. Assign the Project manager	<ol style="list-style-type: none">Click Assign.In the Gantt Chart view, click and drag to select Tasks

<p>and Customer Relations manager to Tasks 3, 4, and 5</p>	<p>3, 4, and 5 <i>Draft rules, Review rules, Finalize rules.</i></p> <ol style="list-style-type: none"> b. In the Assign Resources dialog box, click on Project manager. c. Hold down <Ctrl>. d. Click on Customer Relations manager. e. Click Assign. f. Continue to assign resources until your project plan looks like the Gantt Chart view on page 5.
<p>5. Check the work hours calculated by Microsoft Project.</p>	<ol style="list-style-type: none"> a. On the View menu, choose Resource Usage to show the hours that resources are assigned to work on tasks. b. Choose View, Gantt Chart to return. c. Choose Window, Split to show the Task Entry Form at the bottom of the window. d. Click on different tasks to see the total work per resource on each task. e. Choose Window, Remove Split to close the Task Entry Form.
<p>6. Save the file.</p>	<ol style="list-style-type: none"> a. Choose File, Save or click the Save button on the Quick Access toolbar.
<p>7. Close the file.</p>	<ol style="list-style-type: none"> a. Choose File, Close.

Gantt Chart view



B. RESOURCE CALENDARS

Resources each have their own calendar. Because each project plan may have multiple calendars, each resource can be assigned a base calendar. Often the project calendar is selected as the base calendar; however, if you have staff working in different countries, you can choose the calendar for that country as the base.

An individual resource calendar can be edited to reflect that a resource is on vacation. Tasks the resource is assigned to will change start/finish dates as needed to reflect the time off for the resource.

C. ASSIGNING ADDITIONAL RESOURCES TO TASKS

When additional resources are assigned to tasks in Microsoft Project, the duration may change depending on the task type and Effort driven attribute of the task. Default tasks in Microsoft Project are Fixed Unit and Effort driven. *Effort driven* means that as additional resources are assigned to the task, the duration shortens for the task. The work is divided among more resources so it is less work per resource and therefore a shorter duration.

If you need to change one resource for another because of vacation schedules, you can replace the resource with another without affecting duration of the task.

Fixed Unit	The default task type. Assigning additional resources to a task reduces the task's duration. For example, if one resource is painting a wall, adding an additional resource will shorten the task's duration. This task type can be Effort driven or not.
Fixed Duration	Duration is the fixed factor for this task, so adding an additional resource will not shorten duration, instead it will affect work. For example, running a Quality Assurance script takes the same amount of duration regardless of how many resources are monitoring the task. This task type can be Effort driven or not.
Fixed Work	The amount of work to be completed is fixed. If changes are made to the task's duration or assigned resources, there is no change to the work value. This task type can only be Effort driven.

ACTIVITY 1-2 CHANGING RESOURCE CALENDARS AND ASSIGNING ADDITIONAL RESOURCES TO TASKS

Objective: To show a resource is on vacation and replace resources on affected tasks; assign additional resources to tasks to shorten the duration of the project.

Setup: The file called *Additional Resources* is open.

Scenario: You need to show that the Marketing manager is on vacation from May 19 to May 30, 2008. The Marketing manager needs to be replaced for the tasks assigned during that time. You will also assign additional resources to your project tasks to shorten the tasks which will in turn shorten the project's duration.

WHAT YOU DO	HOW YOU DO IT
1. Open the <i>Additional Resources</i> file.	<ol style="list-style-type: none">From the File menu, choose Open.Select <i>Additional Resources</i> and click Open.
2. Indicate that the Marketing manager will be on vacation from May 19 to May 30.	<ol style="list-style-type: none">Note the current start/finish dates for Tasks 13, 14, and 15 <i>Develop logo, Design web page, Design entry form</i>. These are the tasks that will be impacted by the vacation dates.Choose View, Resource Sheet.Double-click on Marketing manager.Click on Change Working Time.Use the scroll arrow to move to May, 2008.Click and drag to select May 19 to May 30.Click in the first Exceptions row and type <i>Vacation</i>.Press <Enter> to have Microsoft Project pick up the vacation dates you have already selected.Click OK to close the dialog.
3. Review the Gantt Chart to see the effect of the vacation time.	<ol style="list-style-type: none">Choose View, Gantt Chart.Review Tasks 13, 14, and 15 <i>Develop logo, Design web page, Design entry form</i>.What are the new start/finish dates?
4. Change the Marketing manager for another resource for the affected tasks.	<ol style="list-style-type: none">Choose Task 13 <i>Develop logo</i>.Click on the Assign Resources button on the Standard toolbar

-
- c. In the **Assign Resources** dialog box, click on **Marketing manager**.
 - d. Click **Replace...**
 - e. Choose **Project manager**.
 - f. Click **OK**.
 - g. Repeat the steps to replace the Marketing manager with the Web Designer for Task 14 and the Customer Relations manager for Task 15.
 - h. Click **Close**.
 - i. Review the start/finish dates for the tasks. They should be back to the original dates.
-

5. Shorten the duration for **Task 27 Tally Votes**.

- a. What is the duration of **Task 27**?
 - b. Double-click on **Task 27** to open the **Task Information** dialog box.
 - c. Click on the **Resources** tab.
 - d. Click on the first blank row below the assigned resources.
 - e. Click on the down arrow to open the resource list.
 - f. Choose **Customer Relations manager** to assign an additional resource.
 - g. Click **OK**.
 - h. What is the duration of **Task 27** now?
 - i. What is the finish date of the project now?
-

6. Save the file.

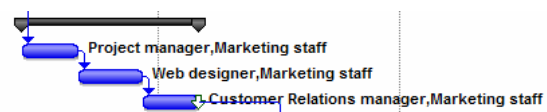
- a. Choose **File, Save** or click the **Save** button on the Quick Access toolbar.
-

7. Close the file.

- a. Choose **File, Close**.
-

Gantt Chart view after the Marketing manager is replaced

Marketing projects	15 days	Thu 5/15/08	Thu 6/5/08	
Develop logo	5 days	Thu 5/15/08	Wed 5/21/08	1
Design web page	5 days	Thu 5/22/08	Thu 5/29/08	1
Design entry form	5 days	Fri 5/30/08	Thu 6/5/08	1



LESSON 2 FINALIZING THE PROJECT PLAN

Now that the plan is complete, you can show the critical path in the Gantt Chart view which will show the tasks that must finish as planned in order for the project to finish as planned. Additionally, since the plan is now complete and you will be moving out of planning phase into managing the project, you should save a baseline version of the plan.

A. DISPLAYING CRITICAL PATH

The Gantt Chart view can be formatted to display the critical path tasks in red. It will make it easier for you to track the tasks that must finish on time. The Gantt Chart Wizard toolbar button will format critical path for you automatically.

B. SHORTENING A PROJECT DURATION

To reduce the duration of a project, you need to shorten critical path tasks. Tasks that have free time following them, called *slack* time, will not shorten the project's duration. The Detail Gantt view will show you the *Free Slack*, slack time following the task, and the *Total Slack*, slack time from the task to the end of the project.

ACTIVITY 2-1 DISPLAYING THE CRITICAL PATH AND SHORTENING PROJECT DURATION

- Objective:** To view the critical path in the project and be able to use the critical path tasks to shorten the project's duration.
- Setup:** The file called *Finalize* is open.
- Scenario:** You are in the final stages of planning the Marketing Contest plan. You want to display the critical path to see which tasks need to be managed most closely. You also want to see if you can shorten the duration of the project at all.

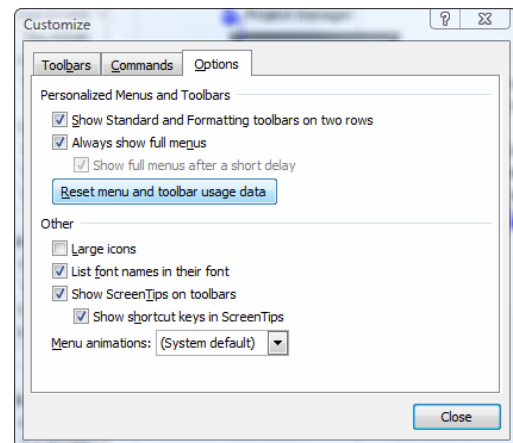
WHAT YOU DO**HOW YOU DO IT**

1. Open the *Finalize* file.

- a. From the **File** menu, choose **Open**.
- b. Select *Finalize* and click **Open**.

2. Show all the toolbar buttons for Standard and Formatting toolbars.

- a. Choose **Tools, Customize, Toolbars**.
- b. Click on the **Options** tab, if needed.
- c. Check the option to **Show Standard and Formatting toolbars on two rows**.



3. Display the critical path.

- a. Click the **Gantt Chart Wizard** button on the **Formatting** toolbar.
- b. Click **Next**.
- c. Choose **Critical Path** in the second dialog box.
- d. Choose **Next** until **Format It** button appears.
- e. Then click **Exit Wizard**.

4. Shorten the project duration by assigning an additional resource to **Task 27 Tally Votes**.

- a. What is the duration of **Task 27**?
 - b. Double-click on **Task 27** to open the **Task Information** dialog box.
 - c. Click on the **Resources** tab.
 - d. Click on the first blank row below the assigned resources.
 - e. Click on the down arrow to open the resource list.
 - f. Choose **Customer Relations manger** to assign an additional resource.
 - g. Click **OK**.
 - h. What is the duration of **Task 27** now?
-

5. Save the file.

a. Choose **File, Save** or click the **Save** button on the Quick Access toolbar

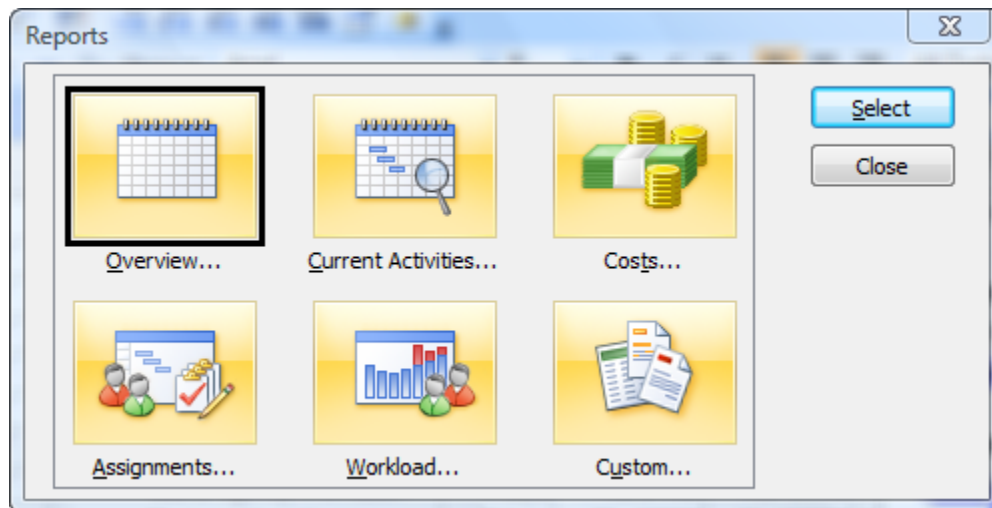
6. Close the file.

a. Choose **File, Close**.

C. PRINTING REPORTS

Microsoft Project contains many built-in reports plus the ability to customize reports. To view the reports:

- Choose **Report** menu, **Reports**.
- Double-click on Report category to open it.
- Double-click on a report name to preview it.



LESSON 3 MANAGING PROJECT TASKS

Once your project plan is created during the planning phase of your project, you should save a baseline so that you can compare what actually happens during the implementation of the project plan to what you thought would happen. Then you will manage your project plan using Microsoft Project by marking task progress, changing start/finish dates as needed, viewing task progress, splitting or rescheduling work on tasks as needed, filtering tasks to show only selected tasks and running progress reports.

A. CREATING A BASELINE

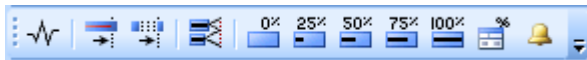
Microsoft Project has fields to store Baseline Start, Baseline Finish, Baseline Cost, Baseline Duration and Baseline Work values. You can save up to 11 baselines in one project file. The baseline can be saved for the entire project or a group of selected tasks.

To create a baseline:

- Choose **Tools, Tracking, Set Baseline**
- Save the values in Baseline, or one of the numbered Baseline fields

B. ENTERING TASK PROGRESS

Once your project is underway, you will need to mark task progress to reflect how work is progressing in the project. The *Tracking toolbar* provides you with buttons to view the project statistics, split tasks, show progress lines, mark task progress in different increments, and update task progress.



ACTIVITY 3-1 SAVING A BASELINE AND ENTERING TASK PROGRESS

Objective: To save a baseline plan for your project to be able to compare what actually happened to what you planned and to enter progress on tasks in your project.

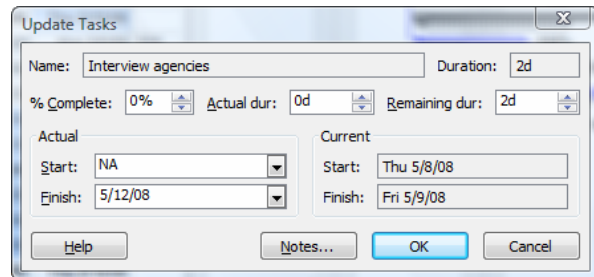
Setup: The *Baseline* file is open.

Scenario: Your project has now been underway for two weeks. You need to save a baseline plan and update task progress in your project plan. Some tasks have happened as planned, others have taken a longer or shorter duration to accomplish.

TABLE 3-1: TASK PROGRESS IN THE BASELINE PLAN

Task 1 <i>Start Project</i>	Occurred as scheduled
Tasks 3, 4, 5 <i>Draft rules, Review rules, Finalize rules</i>	Occurred as scheduled
Task 7 <i>Gather agency information</i>	Took 3 days rather than 2 days
Task 8 <i>Review information</i>	Took 2 days as scheduled
Task 9 <i>Interview agencies</i>	Took 3 days rather than 2 days
Task 10 <i>Select agency</i>	Took 2 days as scheduled
Task 11 <i>Contract with agency</i>	Took 1 day rather than 2 days

WHAT YOU DO	HOW YOU DO IT
1. Open the <i>Finalize</i> file.	<ol style="list-style-type: none"> From the File menu, choose Open. Select <i>Finalize</i> and click Open
2. Update the current date to May 15, 2008.	<ol style="list-style-type: none"> Choose Project, Project Information. Type <i>5/15/08</i> in the Current Date text box. Click OK.
3. Mark Task 1 as complete.	<ol style="list-style-type: none"> Click on Task 1. Click the 100% button on the Tracking toolbar.
4. Mark Tasks 3, 4, 5 as complete	<ol style="list-style-type: none"> Click and drag Tasks 3, 4, 5 to select them. Click the 100% button on the Tracking toolbar.
5. Mark Task 7 as finishing one day late.	<ol style="list-style-type: none"> Click on Task 7. Click the Update Tasks button on the Tracking toolbar. Type <i>5/5/08</i> in the Actual Finish text box. Click OK.
6. Mark Task 8 as finishing as scheduled.	<ol style="list-style-type: none"> Click on Task 8. Click the 100% button on the Tracking toolbar.
7. Mark Task 9 as finishing one day late.	<ol style="list-style-type: none"> Click on Task 9.



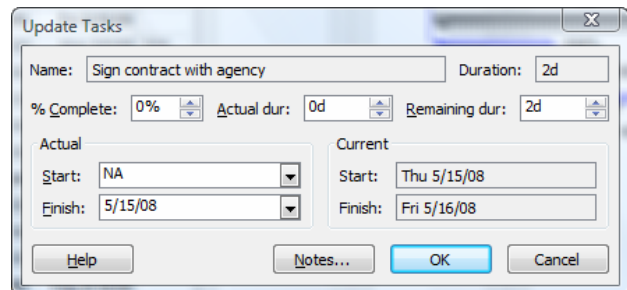
- b. Click the **Update Tasks** button on the **Tracking** toolbar.
- c. Type **5/12/08** in the **Actual Finish** text box.
- d. Click **OK**.

8. Mark **Task 10** as finishing as scheduled.

- a. Click on **Task 10**.
- b. Click the **100% button** on the **Tracking** toolbar.

9. Mark **Task 11** as finishing one day early.

- a. Click on **Task 11**.



- b. Click the **Update Tasks** button on the **Tracking** toolbar.
- c. Type **5/15/08** in the **Actual Finish** text box.
- d. Click **OK**.

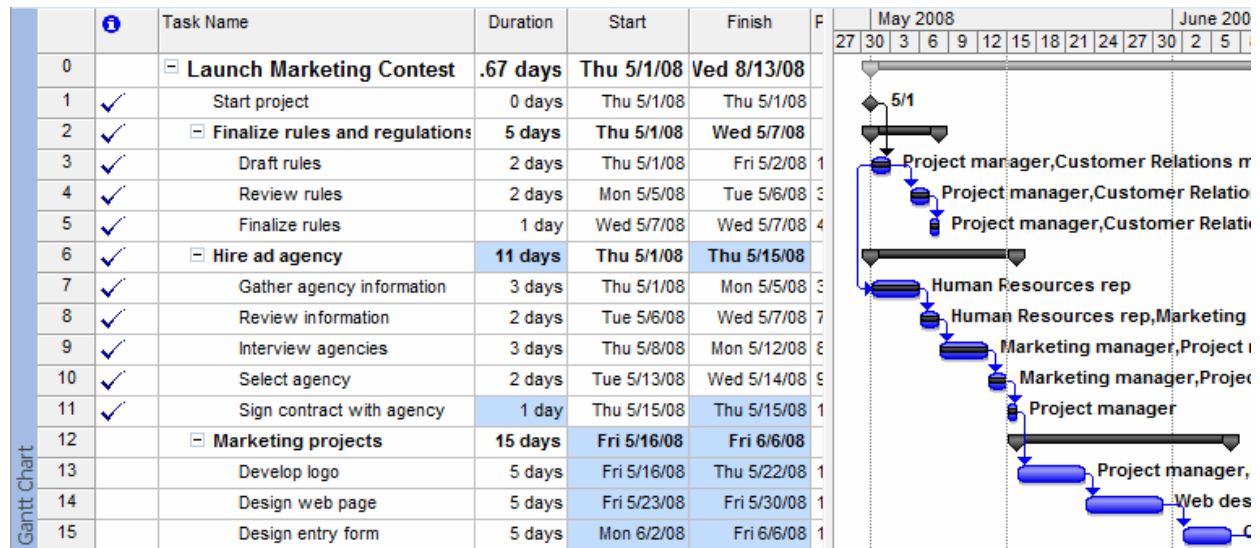
10. Save the file.

- a. Choose **File, Save** or click the **Save** button on the Quick Access toolbar

11. Close the file.

- a. Choose **File, Close**.

Gantt Chart view



C. VIEWING TASK PROGRESS

The *Tracking Gantt* view shows the baseline Gantt chart bars as well as your actual and planned task bars. It is the best view to show project progress.

ACTIVITY 3-2 TRACKING GANTT VIEW

Objective: To show the Tracking Gantt view.

Setup: The *Baseline* file is open.

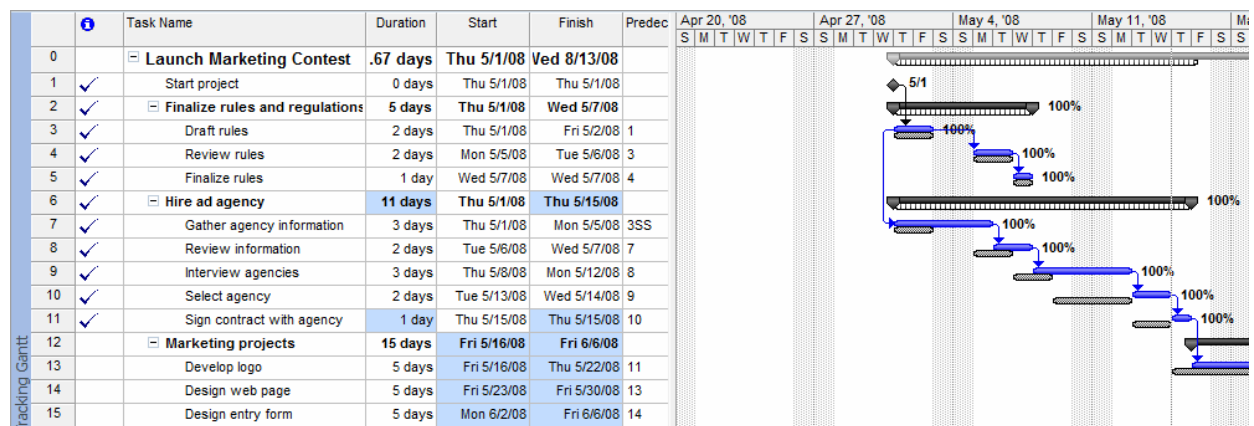
Scenario: You have entered the progress on the first two weeks' worth of tasks for the *Baseline* project and want to view the progress using the Tracking Gantt view.

WHAT YOU DO

HOW YOU DO IT

- | | |
|--|---|
| <ol style="list-style-type: none"> Change the view to the Tracking Gantt and open the Tracking toolbar. | <ol style="list-style-type: none"> On the View menu, choose Tracking Gantt to display the baseline bars as well as the planned bars. If needed, press <Alt> + <Home> to move to the beginning of the project. Right-click in a blank area of the toolbar area and select Tracking. |
| <ol style="list-style-type: none"> Save the file. | <ol style="list-style-type: none"> Choose File, Save or click the Save button on the Quick Access toolbar. |

Tracking Gantt Chart view



D. SPLITTING AND RESCHEDULING TASKS

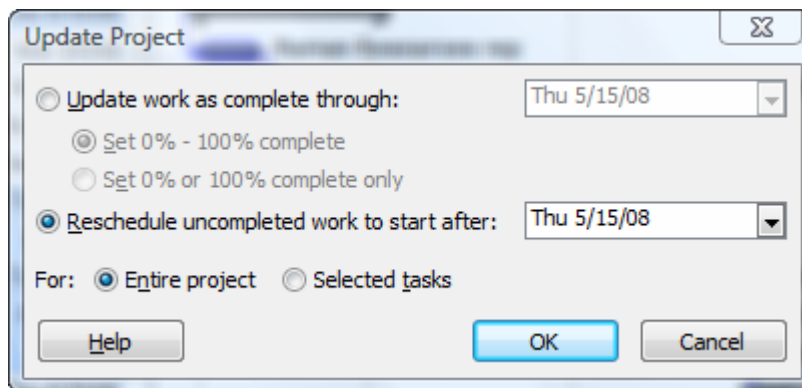
Sometimes you need to indicate a gap in the work occurring on a task. A resource is out of the office for some reason and the task will take longer to complete. When this occurs, you could increase the task's duration, but if you are tracking costs in the project that will also increase the task's cost. Instead you can split a task so show a one-day delay or reschedule work on a task if there will be a delay of multiple days.

To split a task, use the Split Task button on the Standard toolbar:



To reschedule work:

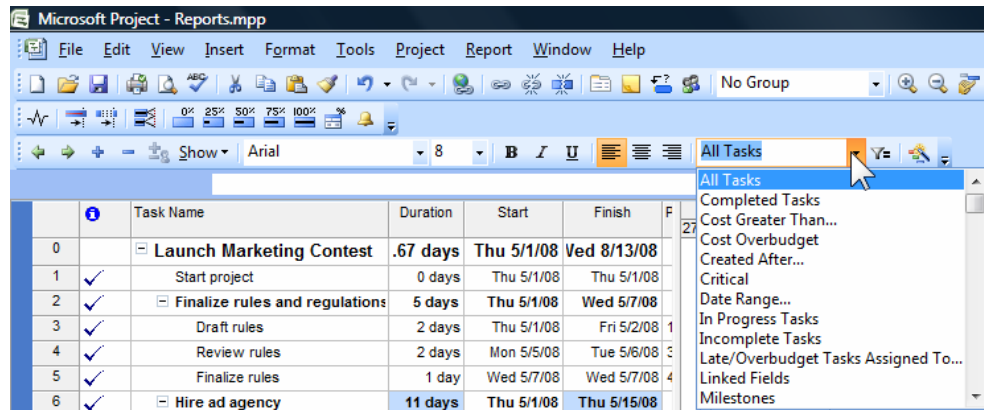
- Choose **Tools, Tracking, Update Project**
- Select **Reschedule uncompleted work to start after:** and type in a date to reschedule the work. You can choose to reschedule work for the entire project or selected tasks.



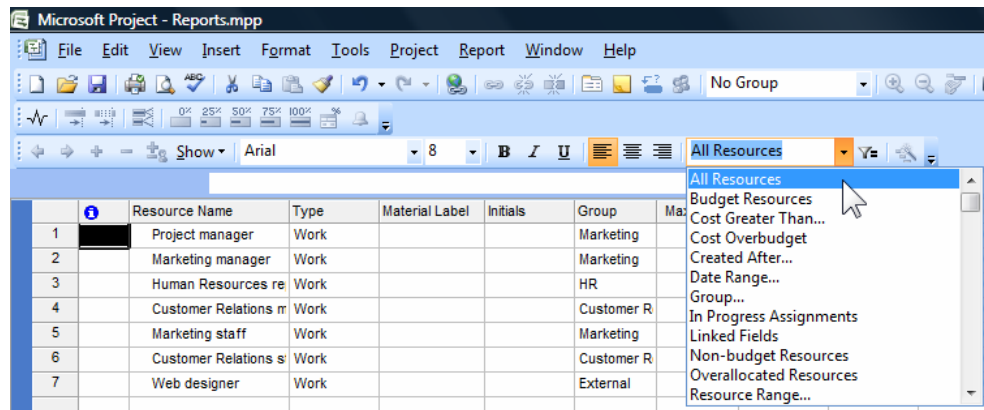
E. FILTERING TASKS

Project contains both task and resource filters which allow you to reduce the tasks that you are viewing.

Task filters



Resource filters



F. PROJECT PROGRESS REPORTS

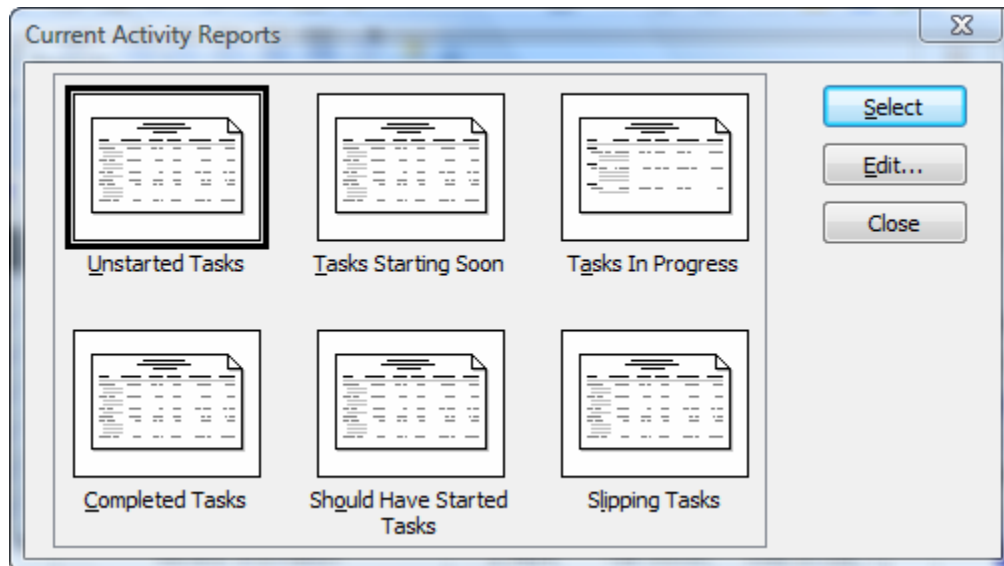
Now that the project is under way, there are several ways to view project progress. The Tracking Gantt which you learned about above it one way. Additionally, you can show the Project Statistics, filter tasks to show tasks completed or print reports that show completed tasks, slipping tasks, etc.

To show the Project Statistics dialog box:

- Click the **Project Statistics** button on the **Tracking** toolbar
- Or choose **Project, Project Information** and click on the **Statistics** button

To print reports to show project progress:

- Choose **Report menu, Reports**
- Double-click on the **Current Activities** category of reports
- Double-click to preview the report that you wish to view



LESSON 4 EXCHANGING PROJECT PLAN DATA WITH OTHER APPLICATIONS

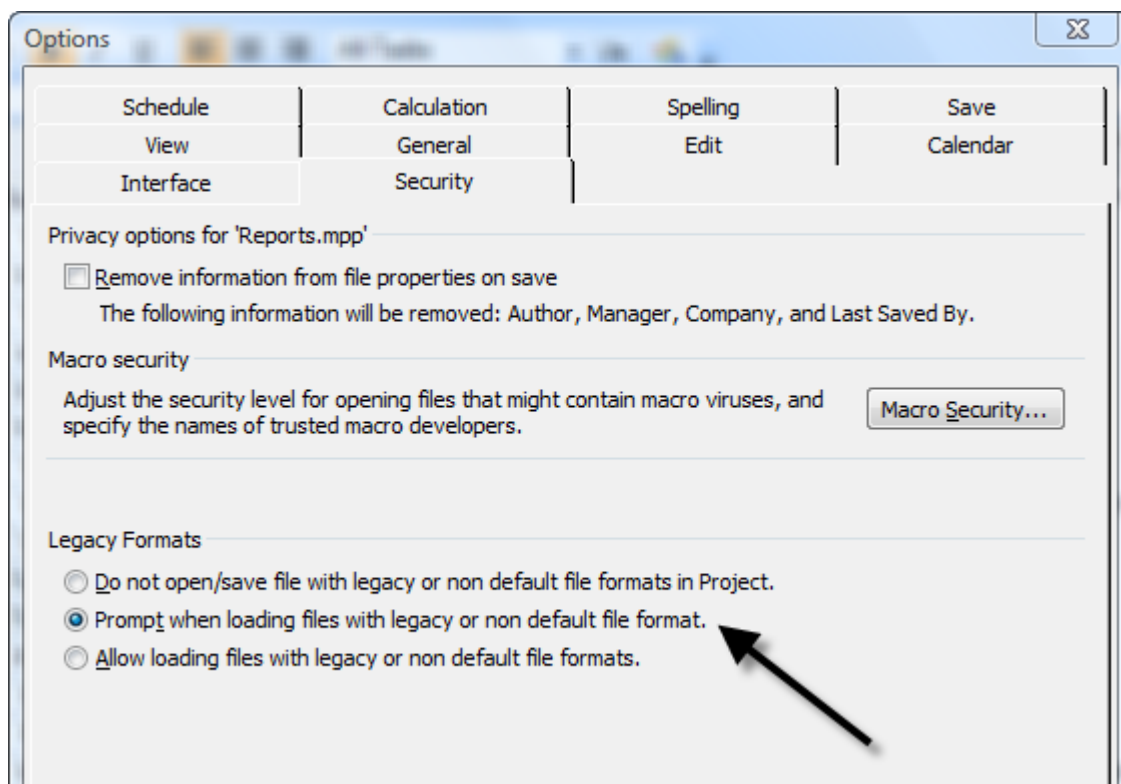
Microsoft Project can easily read data from other Microsoft Office Suite programs such as Excel and Access. Additionally, you can export data from Microsoft Project to a format that can be read by Excel or Access. Finally, you can take a picture of the current view, such as the Gantt Chart or Tracking Gantt, to either copy and paste to Word or PowerPoint or save a .gif file that can be used with web pages.

A. IMPORTING FROM EXCEL OR ACCESS

Although Microsoft Project 2007 is the same version as Excel or Access, it cannot read files with the extra “x” on the file extension such as *Worksheet.xlsx* or *Database.mdbx* which are the default file extensions in Office 2007. You will need to rename your files not to include the extra “x” to allow Microsoft Project to import them.

To import data from Excel or Access:

- Make sure that your security settings allow you to work with legacy file types:
 - Choose **Tools, Options, Security** tab.
 - Click on **Prompt when loading files with legacy or non default file format**.

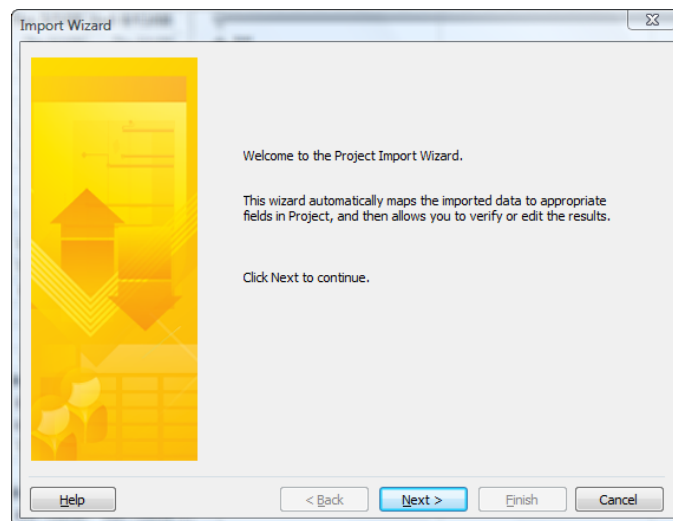


- Click **OK**

- Choose **File, Open**
- Change the **drop-down list** that shows Microsoft Project file type by default to Microsoft Excel or Microsoft Access



- Choose your file name
- Click **Open**
- The **Import Wizard** will automatically open



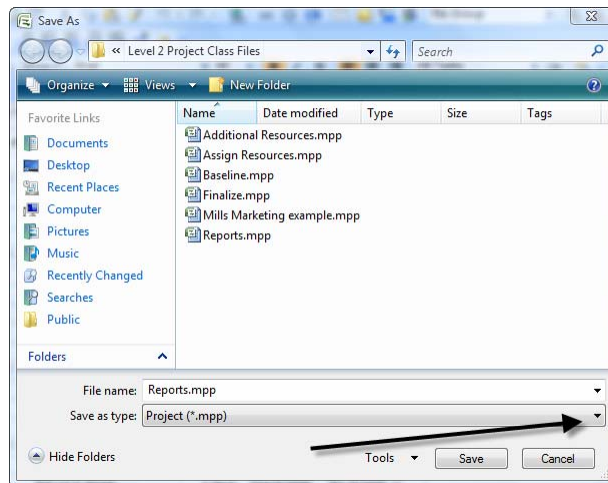
- Step through the Import Wizard to open your Excel or Access file in Microsoft Project.

B. EXPORTING TO EXCEL

In addition to opening files from Excel or Access, Microsoft Project can save to a file format that can be read by either of those programs. The **Security** settings should be set to **Prompt when loading files with legacy file types**.

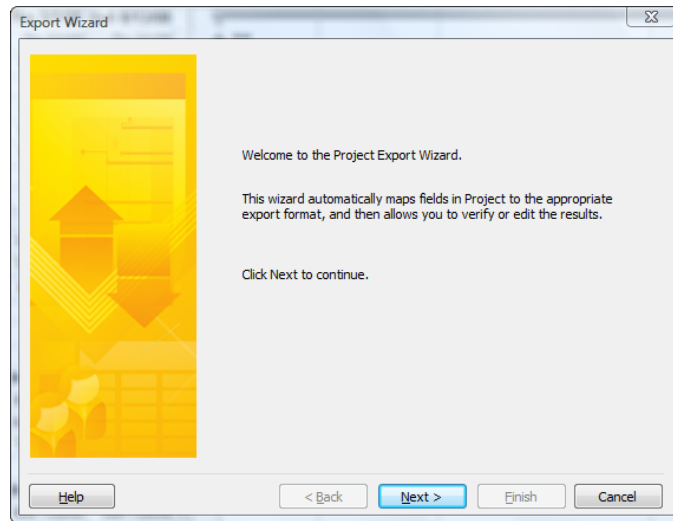
To export data to Excel or Access:

- Choose **File, Save As...**
- Change the **Save As Type ... drop-down list** that shows Microsoft Project file type by default to Microsoft Excel or Microsoft Access



- Choose Excel or Access
- Choose a location and type a file name
- Click **Save**

- The **Export Wizard** will automatically open



- Step through the Export Wizard to save your file in an Excel or Access file format

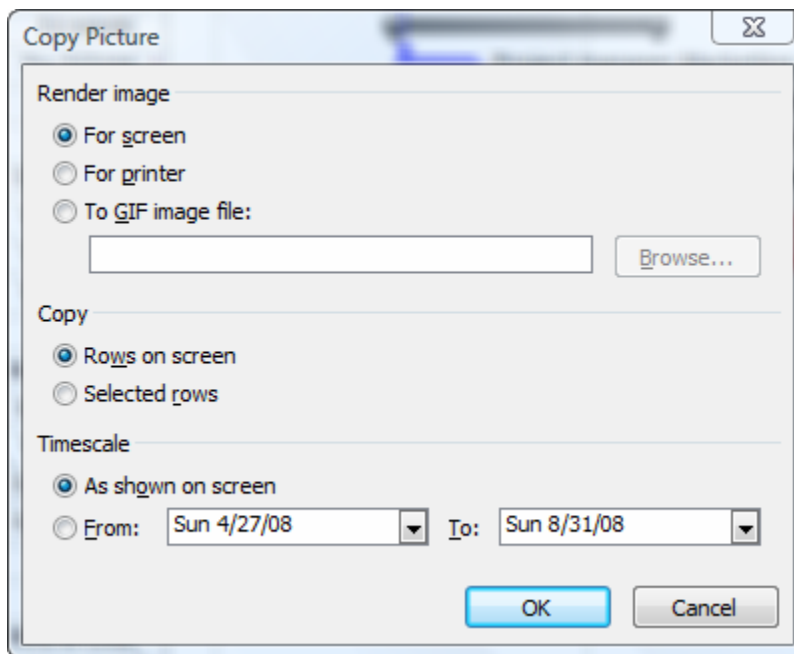
C. COPYING A PICTURE FOR USE IN WORD OR POWERPOINT

Sometimes you want to show a more visual view of your Microsoft Project file in another program. By using the camera button on the Standard toolbar, you can save a picture of your screen or copy it to the clipboard to allow it to be pasted into another program such as Word or PowerPoint.



After you click the toolbar button, you will have options for how to save your view:

- Choose how to render the image:
 - For screen copies the image to the clipboard with a resolution that is best suited for viewing on a monitor
 - For printer copies the image to the clipboard with a resolution that is best suited for printing
 - To GIF image file creates a .gif file that can be inserted into files such as web pages
- Copy allows you to select either all rows showing on screen in the view or just the selected rows
- Timescale allows you to choose what is showing on screen or a more limited date range



- Click OK and Microsoft Project will export an image with the choices that you selected