

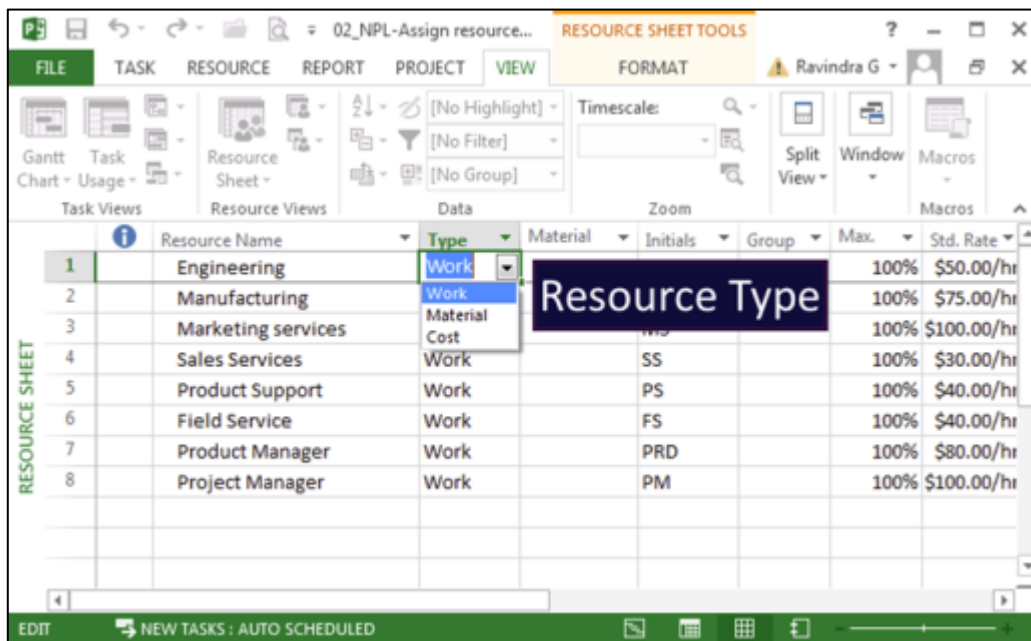
Chapter 4 - Understanding resources

Learning Objectives:

- Types of resources
- How project uses resource information
- Creating a resource list
- About resource sheet
- Specifying resource availability and booking type
- Preparing resource calendar
- Assigning resources to tasks
- Removing or replacing resource assignment

Types of Resources (Fig.4.1)

Resources are the people, supplies, and equipment that enable you to complete the tasks in your project. In Project, there are four types of resources:



The screenshot shows the 'RESOURCE SHEET' in Microsoft Project. The 'Type' column has a dropdown menu open, showing options: Work, Material, and Cost. A text box labeled 'Resource Type' is overlaid on the dropdown. The table below lists resources with their names, types, materials, initials, groups, maximum usage, and standard rates.

	Resource Name	Type	Material	Initials	Group	Max.	Std. Rate
1	Engineering	Work				100%	\$50.00/hr
2	Manufacturing	Work				100%	\$75.00/hr
3	Marketing services	Material	Cost			100%	\$100.00/hr
4	Sales Services	Work		SS		100%	\$30.00/hr
5	Product Support	Work		PS		100%	\$40.00/hr
6	Field Service	Work		FS		100%	\$40.00/hr
7	Product Manager	Work		PRD		100%	\$80.00/hr
8	Project Manager	Work		PM		100%	\$100.00/hr

Fig.4.1: Resource Type



Work resources

Work resources are people or equipment that consume time when working on a task

Material resources

Material resources are items that are consumed while working on a project. Material resources use, well, materials such as cement, sand etc. Specified to use in units.

Cost resources

Using a cost resource, you can add a fixed cost to a task without making the cost depend on work performed. For example renting equipment for the project

How resources function in Project

By defining and then assigning resources in Project,

- You can keep track of the tasks that are being performed by resources
- You can identify potential resource shortages that may force you to miss scheduled deadlines.
- You can identify underutilized resources. If you reassign these resources, you may be able to shorten the project's schedule.
- You can determine the cost of each task and your project as a whole.

How Project uses resource information

1. For effort-driven tasks, Project uses the resource information that you provide to calculate the duration of the task and, consequently, the duration of the project.
2. For a fixed duration tasks, Project ignores the resources assigned to the task when calculating the duration of the project.
3. Similarly, with no resource assignment, Project calculates the schedule using only the task duration and task dependency information that you provide.

Creating a Resource List (Fig.4.2)

1. Click either the Task or the Resource tab on the Ribbon and,
 - a. In the View group, click the bottom of the Gantt Chart button
 - b. Click the Resource Sheet button
 - c. Select the Resource Sheet view
2. As an alternative,
 - i. Click the View tab and, in the Resource Views group
 - ii. Click the Resource Sheet button.



Resource Name	Type	Material	Initials	Group	Max.	Std. Rate
1 Engineering	Work		ENG		100%	\$50.00/hr
2 Manufacturing	Work		MFG		100%	\$75.00/hr
3 Marketing services	Work		MS		100%	\$100.00/hr
4 Sales Services	Work		SS		100%	\$30.00/hr
5 Product Support	Work		PS		100%	\$40.00/hr
6 Field Service	Work		FS		100%	\$40.00/hr
7 Product Manager	Work		PRD		100%	\$80.00/hr
8 Project Manager	Work		PM		100%	\$100.00/hr

Fig.4.2: Resource Sheet

About resource sheet

Each field on the Resource Sheet serves a specific purpose, as follows:

1. Indicators: Indicators appear as Project's response to an action taken in a project. For example, over allocated resource, note about the resource.
2. Resource Name: Type the name of the resource. For a person, type the person's name or can type a job description, such as Project Manager, Team Manager Etc.
3. Type: specify whether a human (work resource), material, or cost resource.
4. Material Label: For material resources, specify the unit of measure. For example No of Cement bags
5. Initials: Type initials for the resource, or accept the default that Project provides, which is the first letter of the resource name. Typically, a resource's name appears, but you can customize the view to display initials if you prefer.
6. Group: Assign resources to groups if they share some common characteristic, such as job function.
7. Max. Units: Project expresses the amount of a Work resource available for assignment as a percentage of time spent at work.
8. Std. Rate: The standard rate is the rate typically charged for a resource's work.
9. Ovt. Rate: The overtime rate is the rate charged for any overtime work that a Work resource provides.



10. Cost/Use: In the Cost/Use column, supply a rate for costs charged for each use of a particular resource.
11. Accrue At: This field specifies how and when Project charges resource costs to a task at the standard rate or the overtime rate.
12. Base Calendar: Here you identify the calendar that Project should use when scheduling the resource
13. Information about resource: Use the General tab of the Resource Information dialog box to add information about a resource, such as an e-mail address or availability.

Assigning resources to tasks

You can easily assign resources to tasks from the Gantt Chart view. (Fig.4.3)

1. Click the Gantt Chart view shortcut at the right edge of the Status Bar or click the top of the Gantt Chart button in the View group on the Task tab of the Ribbon to switch to the Gantt Chart view. Then follow these steps to assign resources to tasks:

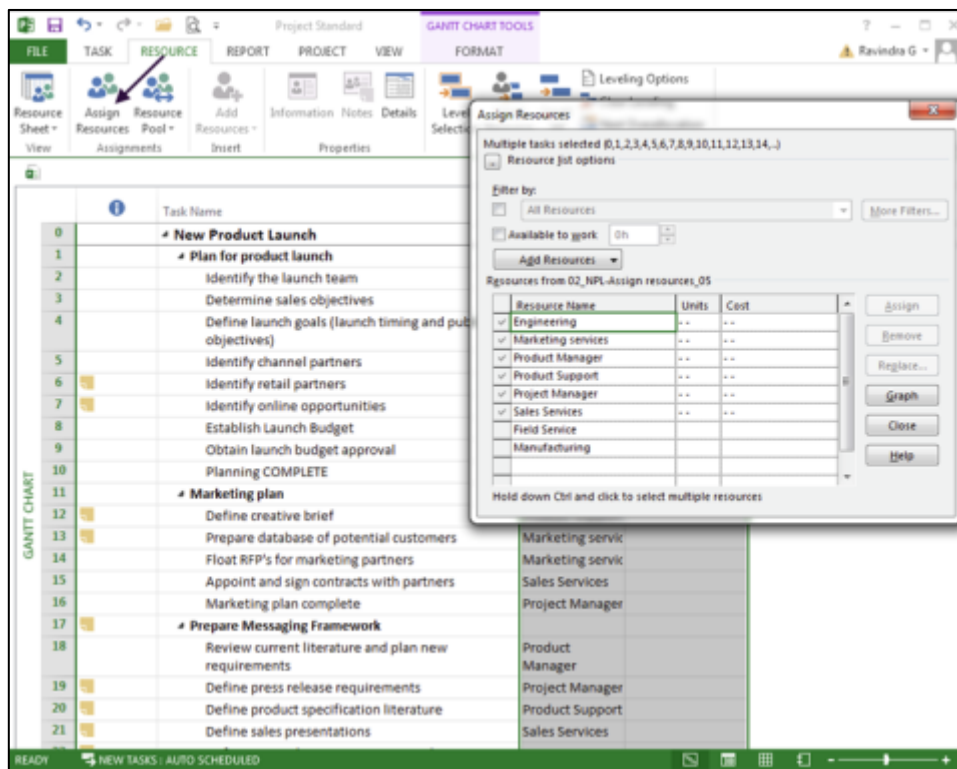


Fig.4.3: Assigning Resources



2. Select the task to which you want to assign a resource
3. click the task bar on the Gantt Chart, or you can click any column in the Gantt table
4. Click the Resource tab and, in the Assignments group
5. click the Assign Resources button to open the Assign Resources window
6. Select the resource you want to assign from the Resource Name list of the Assign Resources dialog box.
7. Do one of the following to assign the amount of a resource
 - a. To assign any amount other than 100 percent of a resource, type the quantity as a percentage in the Units column
 - b. To assign one unit (100 percent) of a resource, leave the Units column blank, because Project assigns 100 percent by default
8. Click Assign (Project places a check mark in the leftmost column of the Assign Resources window)

Removing or replacing a resource assignment

To remove a resource assignment, follow these steps: (Fig.4.4)

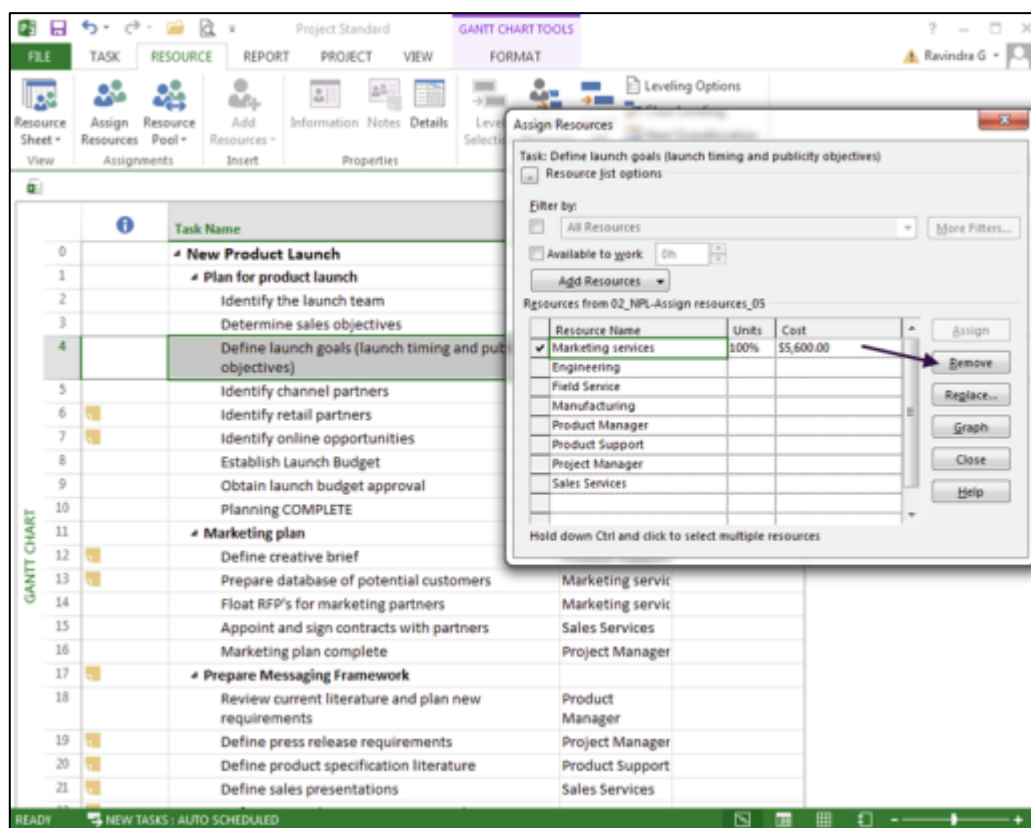


Fig.4.4: Remove resource from Task ID no.4



Using the Gantt Chart view

1. Select the task from which you want to remove the resource assignment.
2. Click the Resource tab and, in the Assignments group,
3. Click the Assign Resources button to display the Assign Resources dialog box.
4. Highlight the resource you want to remove from the task.
5. Click Remove

