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SEE-HOW guide!



Plain & Simple

Microsoft Project 2013



Ben Howard



Microsoft

Project 2013 Plain & Simple

Ben Howard

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Contents

Acknowledgments xi

1

About this book 1

No computerese!2

A quick overview3

A few assumptions6

What's new in Project 2013?.....6

Using a touch-enabled system.....6

A final few words6

2

Getting started with Project 2013..... 7

Understanding Project terminology8

Understanding the Backstage view.....12

Adding commands to the ribbon.....14

Collapsing and pinning the ribbon16

Customizing the Quick Access Toolbar.....18

Understanding views, tables, filters, and groups.....20

Selecting a different view22

Displaying the View Bar.....24

Displaying a different table.....26

Selecting a different filter	27
Selecting a different group	28
Working with and inserting columns in a table	30
Hiding a column	32
Moving a column	33
Resizing a column	34
Saving a modified view	35
Displaying the Project Summary Task	36

3

Getting the Project basics right. 37

Assigning a different calendar as the Project Calendar	39
Setting the calendar's working week	40
Defining public and organizational holidays	42
Defining the calendar options	44
Entering the project start date	46
Setting the project properties and basic options	48
Setting the project currency	50
Changing the default view and date format	52
Saving the project to a local drive	54
Saving the project to SkyDrive	56
Saving the project to Project Server 2013 or Project Online	58
Saving and synchronizing the project to SharePoint 2013	60

4

Creating and modifying tasks 61

Understanding and setting the schedule mode	62
Entering tasks	66
Indenting tasks	68
Outdenting tasks	70
Inserting new tasks into the schedule	71
Moving tasks around the schedule	72
Moving summary tasks around the schedule	74
Deleting tasks	76

5

Setting estimates 77

Entering duration estimates for detail tasks	78
Entering duration estimates for summary tasks	80
Entering work estimates	81
Marking tasks that need an estimation review	82

6

Linking the tasks 83

Linking dependent tasks	86
Changing the dependency type	88
Unlinking tasks	90
Adding a lag or lead time to a dependency	92
Displaying task paths	94

7

Assigning and managing resources	97
Creating work resources quickly in the Gantt Chart view	98
Creating resources using the Resource Sheet	100
Modifying resources	102
Changing the maximum units for a resource.....	104
Changing a resource's working day.....	105
Entering resource holidays	106
Assigning a single work resource to a task.....	110
Assigning multiple work resources to a task	112
Adjusting the work, duration, and assignment units for a task.....	114
Assigning material resources to a task	116
Assigning cost resources to a task	117
Resolving overallocated resources using the Task Inspector.....	119
Resolving overallocated resources using the Team Planner	120
Deleting resources	121

8

Adding external dependencies and deadlines	123
Adding a deadline to a task	124
Changing a start or finish date for manually scheduled tasks.....	126
Adding external dependencies for auto scheduled tasks	130
Adding a specific calendar to a task	132
Planning for tasks that might not happen!	134

9

Communicating the plan 137

Formatting the table area	138
Formatting individual bars or a selection of bars	140
Formatting all the bars at once	142
Viewing the Task Path	144
Displaying the critical path	146
Showing and hiding dependency links	148
Viewing and printing the Project Overview report	152
Viewing and copying burndown reports	154
Printing the project schedule	156
Using Visual Reports	158
Using the Timeline view	160
Formatting the Timeline view	162
Copying the Timeline view to other applications	163
Printing the Timeline view	164
Sharing the plan using SharePoint	166
Synchronizing with a SharePoint task list	168
Emailing the project schedule	169

10

Updating and replanning 171

Setting a baseline	172
Clearing a baseline	175
Updating an existing baseline	176
Rescheduling the entire plan to start on a new date	180
Updating %Complete for individual tasks	182

Updating %Work Complete for specific tasks	184
Setting and displaying the Status Date.	186
Updating %Complete for the entire project at once	188
Updating tasks with Actual Start, Actual Duration, and Remaining Duration.	190
Updating tasks with actual work done per period and remaining work.	192
Rescheduling uncompleted work to a future date	194
Moving tasks forward or backward in the schedule.	195
Amending remaining duration and work estimates.	196

11

Closing the project	199
Setting any remaining duration or work to zero.	200
Setting milestones to 100% complete	202
Inactivating unnecessary tasks.	204
Comparing the final schedule to the baseline.	206
Comparing different project versions.	208
Saving a plan as a template	210
Index.	213

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Assigning and managing resources

Resources are required in order to complete tasks on projects, and once resources are defined, they need to be assigned to tasks. There are three resource types: work, material, and cost. Work resources are used to track work and its related cost, material resources are used to track the materials used and their cost, and cost resources are used to track other independent costs.

When you are adding work resources to a project schedule, it's possible to add them quickly in an ad hoc manner; this can be useful if the resources are assigned to a task full time or if they are used only as an indication of responsibility or ownership of a task. In such an instance, one can assume that the monitoring of workloads or costs is not of significant concern to the project manager. At other times, when workloads and costs are of importance, then resources should be planned carefully and an understanding of the correct use of work, material, and cost resources is required.

Not all projects will require resources on them. Sometimes it's sufficient to just define what needs doing, how long it will take, and in what order tasks need to be completed. If your project falls into this category, you can skip this section.

7

In this section:

- Creating work resources quickly in the Gantt Chart view
- Creating resources using the Resource Sheet
- Modifying resources
- Entering resource holidays
- Assigning work resources to a task
- Adjusting the work, duration, and assignment units for a task
- Assigning material resources to a task
- Assigning cost resources to a task
- Resolving overallocations
- Deleting resources

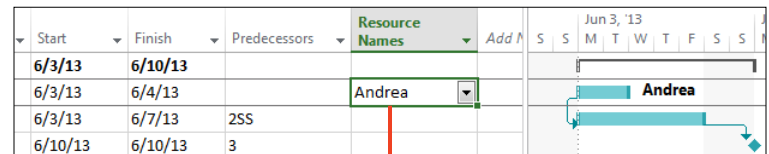
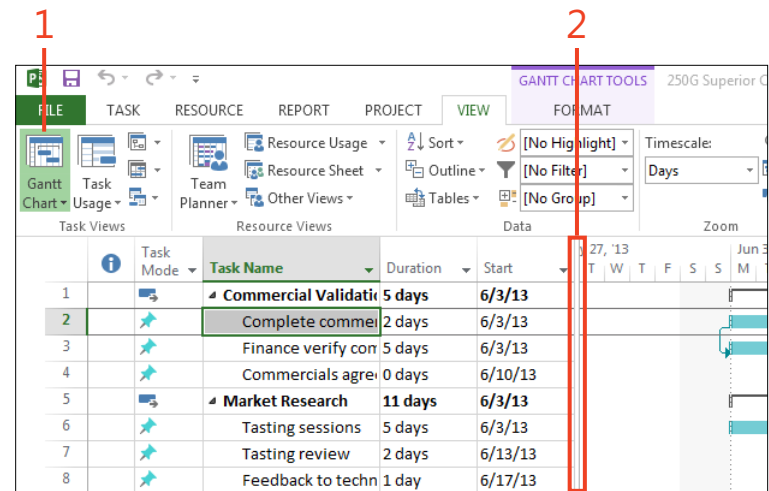
Creating work resources quickly in the Gantt Chart view

Use this option if you are not concerned about tracking costs or other resource information and your goal is to quickly assign resources to tasks and see these assignments in the Gantt Chart view. You might not be interested in the workload that the resource has. Instead, you are concerned with the responsibility or ownership of the task. When resources are created in this manner, Microsoft Project will assign the project calendar and

default standard hourly rate to the resource. Using this method to create resources also creates the assignment between the resource and the task, and therefore, a work value for the task is calculated based on the task duration. Only work resources can be created using this method because the work resource is the default resource type. Once a resource has been entered, the same resource may be assigned to multiple tasks.

Create work resources quickly using the Gantt Chart view

- 1 In the View tab, click the Gantt Chart view.
- 2 Drag the vertical splitter bar to the right to reveal the Resource Names column.
- 3 Type the resource name into the field, thereby both creating the resource and assigning it to the task.



TIP Assigning resources to tasks creates work on the task. By default, a one-day duration task with a resource assigned to it using the method described above will create eight hours of work if the project calendar represents an eight-hour day. To see the work value, insert the Work column into the table.



CAUTION Do not assign resources to summary tasks; doing so causes Project to calculate work values at the summary task level.

Changing a resource's working time

When a resource is created, the resource's calendar is copied from the project calendar. Therefore, the resource's calendar contains the same working and nonworking details as the project's calendar.

If a resource works a different number of hours, or even a different shift pattern from that defined by the project calendar, then the resource's calendar might need to be modified to reflect the resource's working pattern.

Once we understand each resource's working time and have set it accordingly, we need to define how much of the resource's working day can be classified as productive time. Productive time is time that can be spent working solely on a project, and nonproductive time is everything else, such as company meetings, staff training, and so on. Some organizations ignore nonproductive time if it's less than four hours per week, and track only significant portions of nonproductive time, such as holidays or training courses. Other organizations assume that resources are productive for 80 percent of their working week, so a day is lost per week doing "admin" type tasks.

The amount of productive time that a resource is available is defined by the Max Units value for a resource. If it's sufficient that your work estimates include admin time, such as answering phones and so on, you can leave the Max Units for each resource at 100 percent. If, however, you want to set a resource's productive time to be less than 100 percent, you can set the resource's Max Units to the value you choose.

Whether you use the concept of productive time or not often depends on how accurate your work estimates need to be.

In addition to the Max Units settings you choose, you might also want to enter larger periods of nonworking time for each resource—for example, holidays or training. These periods are entered as calendar exceptions for each resource, and Project uses these calendar exceptions when a resource is assigned to a task. The effect of the exception will depend on the task mode (Auto Scheduled versus Manually Scheduled) and if Auto Scheduled, the task type (fixed units, work, or duration).

Creating resources using the Resource Sheet

The Resource Sheet is a view within Project that allows the user to view, create, and edit resources and resource information. You can access the Resource Sheet view from the View tab or from the Status Bar (it's the fourth icon in the View Shortcuts area).

Ideally, you should create resources on the Resource Sheet before assigning them to tasks. This method is more formal than the ad hoc method of creating resources by typing their names directly into the Resource Names column on the Gantt Chart view, and it allows for additional entry of resource information, such as resource calendars, resource rates, email addresses, and so on. Adding resources through the Resource Sheet implies a higher level of project management formality and competence.

Three types of resources are available in Project:

- Work resources that are resources or pieces of equipment that perform work to accomplish a task
- Material resources that are project consumables, such as paint

Create a resource using the Resource Sheet

- 1 Select the Resource Sheet by clicking the Resource Sheet shortcut in the status bar.

(continued on next page)

- Cost resources, such as travel expenses

Work resources will require at least a resource name, and, optionally, additional information may be entered, such as resource initials, standard rates, department, accounting code, and so on. The default resource type is Work. A work resource is generally thought of as a person (sometimes known as a named resource) or role, but the term can equally apply to equipment that your organization hires or owns. For example, a work resource could be a cement mixer.

Material resources require a resource name and, optionally, a material label such as "each," cost per unit, cost per use value, and accounting code. For example, coffee can be a material resource. Because it is priced per pound, coffee would have a label of "pound" and the cost would be \$10.00. To create a material resource, set the type for the resource to "Material."

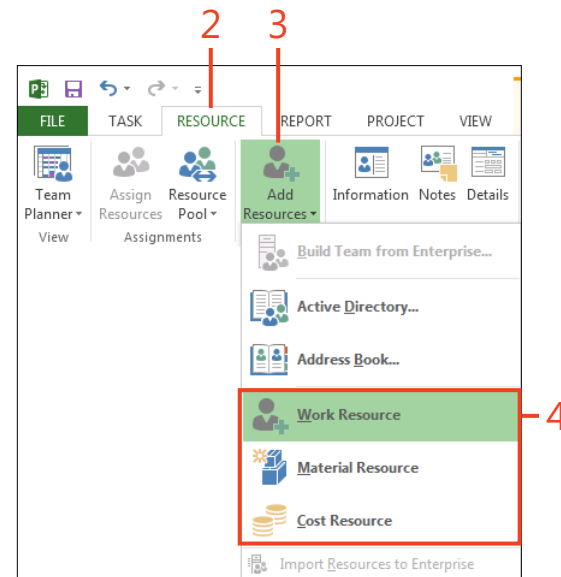
Cost resources require only a name and the resource type set to "Cost." For example, a cost resource could be airfare.



Create a resource using the Resource Sheet

(continued)

- 2 Click the Resource tab.
- 3 Click the Add Resources button.
- 4 Select Work, Material, or Cost Resource from the menu.
- 5 Overtyping the <Resource Name> text with the resource name and complete the other details as necessary.



	Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt.	Cost/Use	Accrue	Base	Code
1	Andrea	Work		A	Accounts	100%	\$35.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	123-654

5



TIP Adding a standard rate for a material resource allows the cost of the material to be calculated based upon the quantity used. If the standard rate is left at \$0.00, the cost of the material will be zero. The value of a cost resource is entered when the assignment is created.



TIP You can easily create work resources that represent an organization, group of people, or role by typing in the representative name—for example, Fabrikam Inc., Finance, or Account Manager. This is useful if you want to identify responsibility for a task away from a named resource to a function or group of people, but it can have implications if you are trying to track the workload and costs associated with that task. This is also known as a generic resource.

Modifying resources

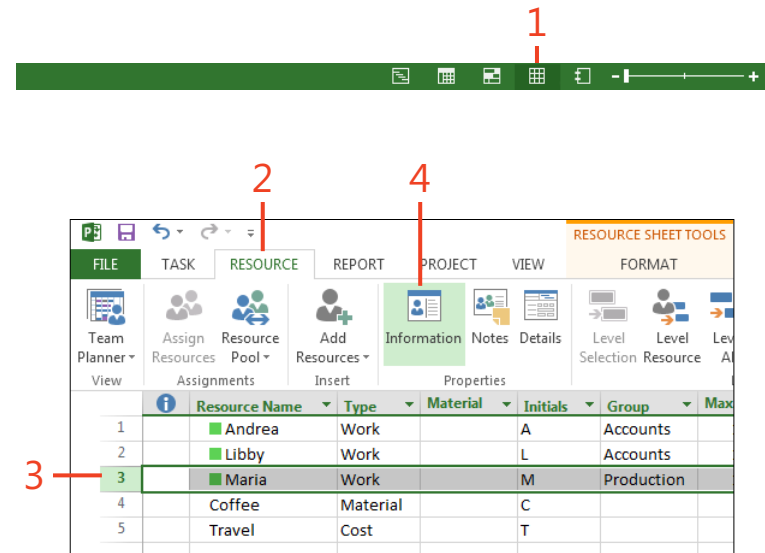
You might need to modify resource details, including the resource's availability, the resource's standard rate, email details, and so on. You can modify resource details by editing the field directly in the Resource Sheet (if the field you want to edit is not available, you will need to insert it), or you can open the Resource Information dialog box to access the fields.

The values that can be modified depend on the type of resource (work, material, or cost). For example, an email address is not applicable for a material resource.

Modify a resource using the Resource Information dialog box

- 1 Select the Resource Sheet by clicking the Resource Sheet shortcut in the status bar.
- 2 Click the Resource tab.
- 3 Select the desired resource by clicking the resource ID in the row header.
- 4 Click the Information button to open the Resource Information dialog box.

(continued on next page)



Modify a resource using the Resource Information dialog box *(continued)*

5 Change the desired values and click OK.

Resource Information

General Costs Notes Custom Fields

Resource name: Maria Initials: M

Email: maria@fabrikam.com Group: Production

Logon Account... fabrikam\maria Code: 321-908

Booking type: Committed Type: Work

Material label:

Generic Budget

Inactive

Change Working Time ...

Default Assignment Owner:

Resource Availability

	Available From	Available To	Units
	NA	NA	100%

Help Details... OK Cancel

5



TIP You can quickly open the Resource Information dialog box by double-clicking the resource ID or any place in the row for the resource.



TIP Project integrates into Lync, enabling you to see the online status of resources within your contact list. Clicking the Resource Name in the Resource Sheet will display the resource's Lync contact information.

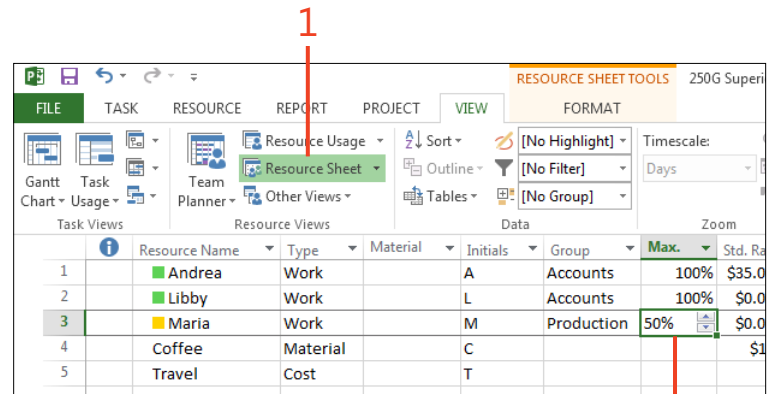
Changing the maximum units for a resource

The amount of productive time that a resource is available is defined by the Max Units value for a resource. If it's sufficient that your work estimates include admin time, such as answering phones and so on, then you can leave the Max Units for each

resource at 100 percent. If, however, you want to set a resource's productive time to be less than 100 percent, you can set the resource's Max Units to the value you choose.

Change the Max Units for a resource

- 1 In the View tab, click Resource Sheet.
- 2 Change the Max Units for the desired resource.



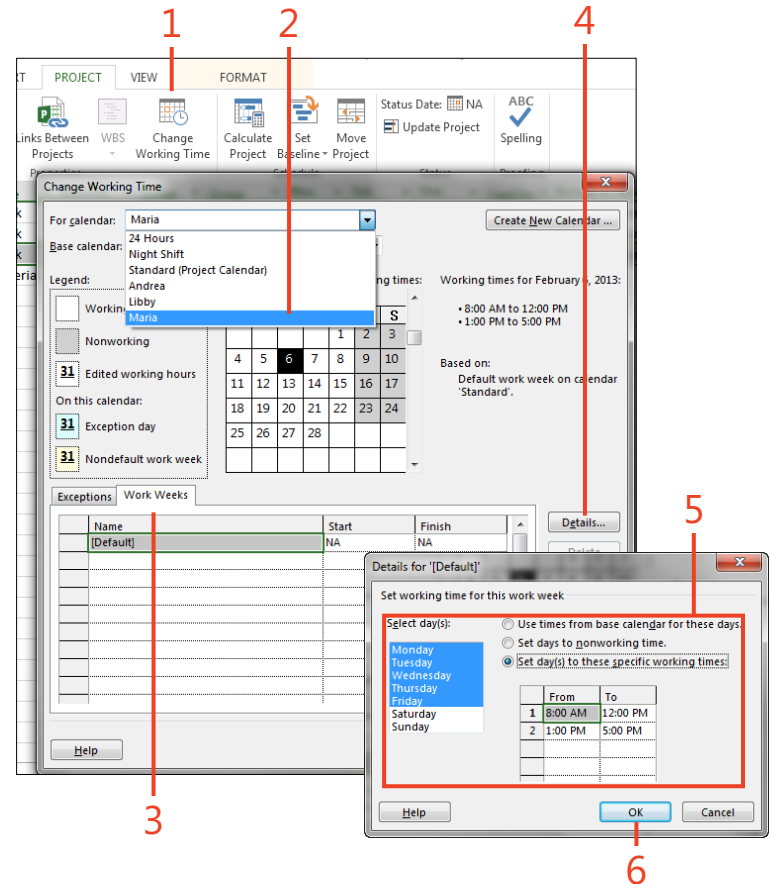
Changing a resource's working day

The amount of time that a resource is potentially available is defined by the resource's working calendar. When a resource is created, that resource inherits a copy of the project calendar (including any exceptions to the standard working week). If the

resource works a different number of hours from those defined in the project calendar or a different shift pattern, then you might want to update the resource's calendar to reflect this.

Change a resource's working day

- 1 In the Project tab, click the Change Working Time button.
- 2 Choose the resource whose working day you would like to change.
- 3 Click the Work Weeks tab and highlight the appropriate week.
- 4 Click the Details button.
- 5 Edit the specific working times for the work week.
- 6 Click OK.
- 7 Click OK to exit the remaining dialog boxes.



CAUTION Changing the start time for a resource away from the default (8:00 AM) can have scheduling consequences when multiple resources are assigned to the same task.

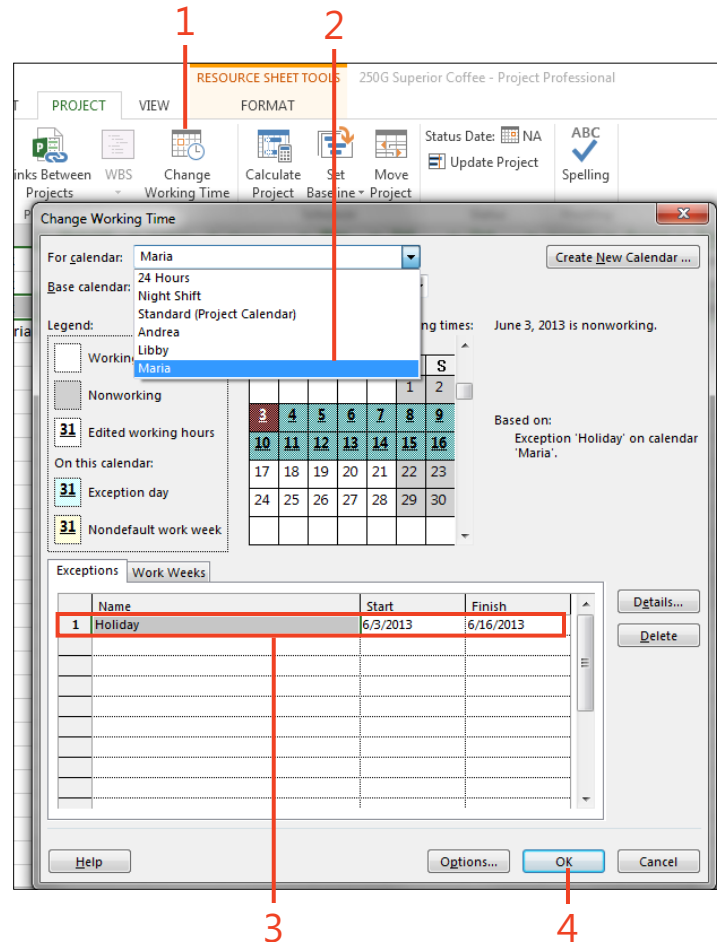
Entering resource holidays

One of the biggest impacts on a project is resource availability, or, put more correctly, lack of it. It's important that, as a project

manager, you track your resource's planned absences so that Project will not schedule the resource to work on vacation.

Enter a resource's holidays

- 1 In the Project tab, click the Change Working Time button.
- 2 Choose the Resource whose holiday you wish to enter.
- 3 Enter the holiday details on a new line in the Exceptions tab.
- 4 Click OK.



TIP The minimum period you are able to enter for a vacation is a single day.



TIP If the resource is highlighted in the Resource Sheet when the Change Working Time button is selected, the resource will already be selected when the Change Working Time dialog box is displayed.

Setting up a view to assign resources

Much of what we do in Project requires us to be in the right view, at the right time, in order to see the right information. When we assign resources, this is no less important. When assigning resources, I set up my view as follows:

Insert the columns "Type," "Effort Driven," and "Work" into the entry table on the Gantt Chart view.

Check the Details check box in the View tab and select the Task Usage view. Within the Task Usage view, insert the column "Assignment Units."

I am then able to navigate through the task list in the top portion of the screen and view the assignment details for each task in the lower portion of the screen.

You can make changes to Work, Duration, or add or remove resources for a task in the top portion of the screen. When any of these changes are made, Project displays a SmartTag in the top left-hand corner of the cell where you have just made the change. Clicking the SmartTag allows you to review the calculation that Project has chosen and provides you with the option to change Project's decision. Changes to individual assignments, including work or assignment units, can be made in the lower portion of the screen.

Remember that a view can be saved. To do so, click the View tab and select the drop-down menu on the Gantt Chart button. I typically name my saved view "Resource Assignment."

Effort Driven, task Type, and Work columns added

View saved as Resource Assignment view

Task ID	Task Name	Effort Driven	Type	Duration	Work
1	Task 1	No	Fixed Units	7.5 days	60 hrs
2	Task 2	Yes	Fixed Units	5 days	0 hrs
3	Task 3	No	Fixed Duration	5 days	0 hrs
4	Task 4	Yes	Fixed Duration	5 days	0 hrs
5	Task 5	Yes	Fixed Work	5 days	40 hrs
6	Task 6	No	Fixed Units	5 days	0 hrs

Assignment and Peak units showing for each resource

Resource	Assignment Units	Peak	Duration
Elizabeth	50%	50%	7.5 days
Andrea	100%	100%	

Task Usage view showing in lower half of the screen

SmartTag providing additional scheduling options

Peak units visible in the details

Start	Finish	Predecessors	Resource Names	Details
2/4/13	2/15/13		Andrea, Elizabeth	Work Peak U
2/4/13	2/8/13		Elizabeth	Work Peak U
2/4/13	2/15/13		Andrea	Work Peak U

How does Project assign work?

Where one or more work resources are assigned to a task, Project uses the following formula for each assignment:

$$\text{work} = \text{assignment units} \times \text{duration}$$

Work defines the effort, or number of hours, required to complete a task.

Assignment units define what percentage of their working day each resource can devote to a task. The assignment units will initially be set to the Max Units value defined for each resource, but this value can be modified per resource and per assignment.

Duration defines the total number of days between the start and end of a task. By default, duration is displayed in days in Project, where one day is equal to eight hours (this is dependent on the calendar options for the project).

When there is a single resource assigned to a task full time, the formula is very simple. For example, a two-day duration task (which is equivalent to 16 hours) assigned to a resource who works full time on the task will calculate a work value of 16 hours (assuming a calendar of 8 hours per day) (work = 16 hours \times 100%).

The scheduling process in Project becomes more complex when either of the following two combinations occurs:

- Resources do not work full time on a project. Instead, their availability is reduced (for example, if they are deemed to be productive for 80 percent of the time, their Max Units would be set to 80 percent, and their initial Assignment Units would also equal 80 percent).
- If, having made an assignment, that assignment is then modified, modifying the assignment could include any of the following:
 - Changing the duration
 - Changing the work
 - Changing the assignment units
 - Adding one or more resources or removing one or more resources from the task
 - Any combination of the above

Let's take a look at the first scenario. If a resource's Max Units is set to 80%, work = duration \times 80%, therefore work = 16 \times 80% = 12.8 hours, or put another way, working at 80% productivity over two days allows us to accomplish 12.8 hours of work. Again, this is fairly simple to understand.

We can make it a little more complex by modifying either of the work, duration, or (assignment) units. Let's assume we modify the Work value from 12.8 hours to 16 hours, Project has the option to do one of two things. It can increase the units from 80 percent to 100 percent, leaving the duration at 2 days (16 hours); or it can increase the duration from 2 (16 hours) to 2.5 days (20 hours), leaving the units at 80 percent.

Exactly what Project will do depends on several factors. First, if the task is manually scheduled, the duration will not change and the units will increase to 100 percent. If the task is auto scheduled, Project uses a task field called Type to determine which variable to fix and which to change. The three available values for the Type field are Fixed Units, Fixed Work, and Fixed Duration (the default). Project "fixes" the variable defined by the task type and changes the second variable when the third variable is modified. Therefore, for an auto scheduled task with the task type set to the default setting of Fixed Units, increasing the work from 12.8 hours to 16 hours will increase the duration to 2.5 days, leaving the units "fixed" at 80 percent.

Taking the scenario a little further, we might want to add an additional resource to the task. Assuming we have the following task, where there is a single resource completing 16 hours of work in 2.5 days duration, the following options could occur when another resource is added to the task:

- The second resource works at the same rate as the first resource (that is, 80 percent) over the same duration. Hence the work value doubles (duration = 2.5 days, work = 32 hours).
- The second resource works at the same rate as the first resource (that is, 80 percent), but shares the workload of the first resource. Therefore, the work value stays the same (16 hours) but the duration decreases (1.25 days).
- The duration and work values stay the same (2.5 days duration and 16 hours work), but the resources work fewer hours per day, so their units are reduced from 80 percent to 40 percent.

Finally, there is another field, called Effort Driven, that affects auto scheduled tasks. You can set this field to either Yes or No (the default is No). If the task is effort driven (the value is set to Yes), when an additional resource is assigned to the task, the work value for the task is split equally across the resources assigned to the task. Note that fixed work type tasks are deemed to be effort driven by default.

As you can see, getting the correct values set for Work, Units, and Duration for a task involves a little thought and practice. Luckily, Project allows us to set a view that includes all of the fields we need to see in order to successfully manage the variables of Work, Units, and Duration for each assignment.

Assigning a single work resource to a task

Assigning work resources to a task creates work values for the task. The simplest way to assign resources is directly within the Gantt Chart view. This creates a simple assignment where the work value is calculated using the following formula: work = units × duration.

By default, the units for a single resource is 100 percent and, therefore, the work calculated is simply the number of days duration multiplied by the number of hours in a working day (by default, eight hours). I call this the default assignment (where neither the work nor assignment units have been modified).

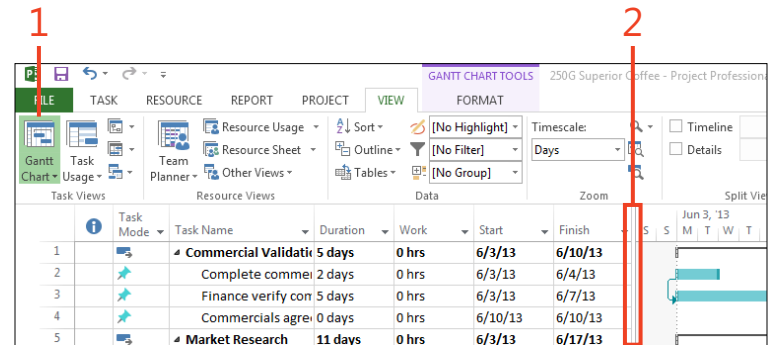
Assign a single work resource to a task

- 1 In the View tab, select the Gantt Chart view.
- 2 Drag the vertical splitter bar (click and hold the bar) to the right to reveal the Resource Names column within the entry table.

(continued on next page)

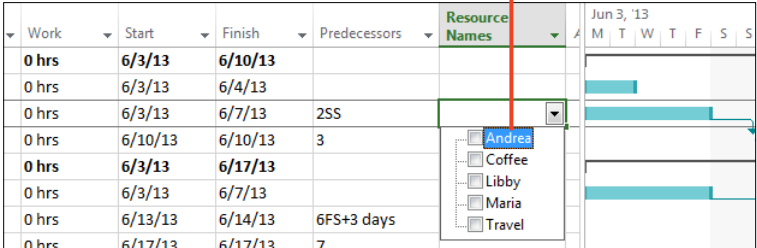
If you have already created resources by typing their names directly into the Gantt Chart view, then you have already assigned your resources to tasks using the default assignment.

When working with assignments, it's a best practice to have both the duration and work column visible in the entry table, and I have already done this for the remaining screen shots in this section. For information on how to add columns into a table, see Section 2, "Getting started with Project 2013," or Section 3, "Getting the Project basics right."

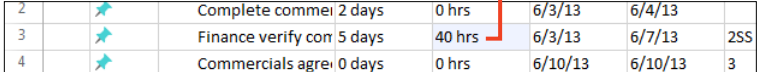


Assign a single work resource to a task *(continued)*

- 3 Click in the Resource Names cell for the desired task and select the resource using the drop-down menu.
- 4 Review the value in the work column to ensure that the calculated value matches your expectations.



Work	Start	Finish	Predecessors	Resource Names	Jun 3, '13
0 hrs	6/3/13	6/10/13			
0 hrs	6/3/13	6/4/13			
0 hrs	6/3/13	6/7/13	2SS		
0 hrs	6/10/13	6/10/13	3		
0 hrs	6/3/13	6/17/13			
0 hrs	6/13/13	6/14/13	6FS+3 days		
0 hrs	6/17/13	6/17/13	7		



2	✦	Complete comm	2 days	0 hrs	6/3/13	6/4/13	
3	✦	Finance verify con	5 days	40 hrs	6/3/13	6/7/13	2SS
4	✦	Commercials agre	0 days	0 hrs	6/10/13	6/10/13	3



TIP If the Work column is not displayed, you can insert it by clicking the Format tab and then clicking the Insert Column button.



TIP If you are using Lync to communicate with your coworkers and resources, their online status will appear next to their name. To use Lync, enter the email address for the resource in the Resource Information dialog box.

Assigning multiple work resources to a task

Making multiple assignments on one task raises questions of how the work should be spread among the resources—for example, if a five-day duration task has a single assignment, the assignment will total 40 hours of work for the assigned resource (this is the default assignment). If a second resource is then assigned to the task, Project has three options to choose from:

- Spread the existing work between the two resources (resulting in 20 hours of work each), reduce the duration to 2.5 days, leaving the assignment units at 100 percent.
- Spread the existing work between the two resources (resulting in 20 hours work each), reduce the assignment unit for each resource 50 percent, leaving the duration at five days.
- Increase the total work to 80 hours (resulting in 40 hours work each), leave the duration at five days and the assignment units at 100 percent.

The value that changes depends initially upon the task mode (Auto Scheduled versus Manually Scheduled), and if the task is auto scheduled, it will also depend upon the task type (of which

Assign multiple work resources to a task

- 1 In the View tab, select the Gantt Chart view.
- 2 Drag the vertical splitter bar to the right to reveal the Resource Names column within the entry table.

(continued on next page)

there are three: Fixed Units [the default], Fixed Work, or Fixed Duration) and whether the task is effort-driven (definitions of these items are given in the sidebar “How does Project assign work?” on page 108).

Reviewing and setting the task mode, and if applicable, the task type prior to assigning the resources is best practice. With all of these sophisticated components at play, it’s recommended to keep a watchful eye on both the duration, work, and assignment unit values for a task while making changes. Luckily, Project makes this easy by providing the ability to insert the Work column in the table and to split the screen horizontally to display more detailed task information. For more information on setting up a view to contain all of these elements, see the sidebar “Setting up a view to assign resources” on page 107.

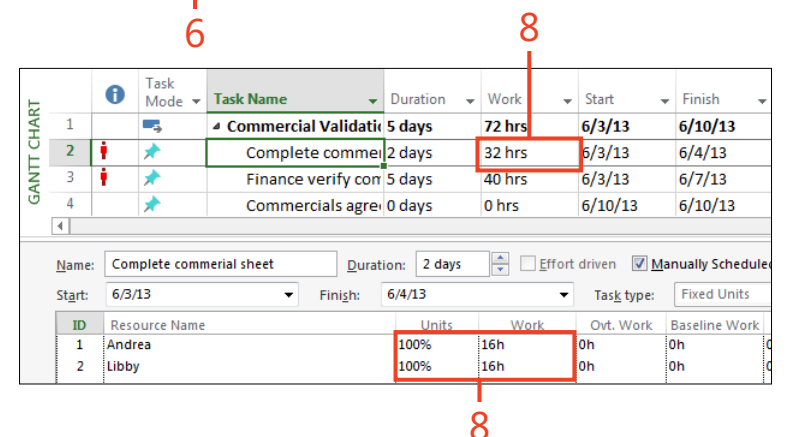
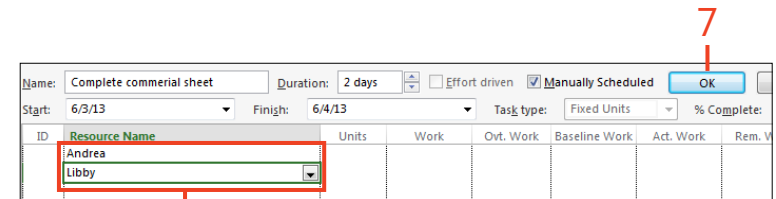
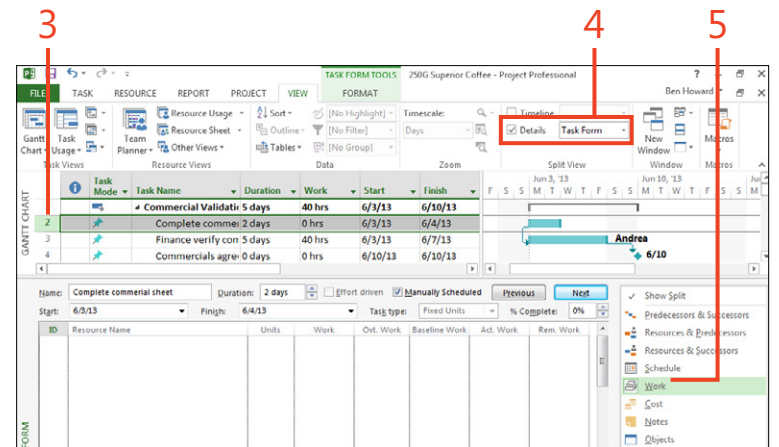
Remember, Project will use the formula $\text{work} = \text{units} \times \text{duration}$ to calculate the amount of work on an assignment. Where there are multiple assignments, the work values for each assignment are rolled up and summarized for the task.

	Task Mode	Task Name	Duration	Work	Start	Finish	F	S
1		Commercial Validati	5 days	40 hrs	6/3/13	6/10/13		
2		Complete commel	2 days	0 hrs	6/3/13	6/4/13		
3		Finance verify con	5 days	40 hrs	6/3/13	6/7/13		
4		Commercials agre	0 days	0 hrs	6/10/13	6/10/13		
5		Market Research	11 days	0 hrs	6/3/13	6/17/13		

Assign multiple work resources to a task

(continued)

- 3 Select the row by clicking the task ID in the row header.
- 4 Click the Details check box and make sure the task form is displayed.
- 5 Within the Task Form, right-click the task form (in the lower pane) and select the Work view if it's not already shown.
- 6 On the task form, select resources from the drop-down list.
- 7 Click OK.
- 8 Verify that the work and units values are as you expected, both for the resources and the task.



Adjusting the work, duration, and assignment units for a task

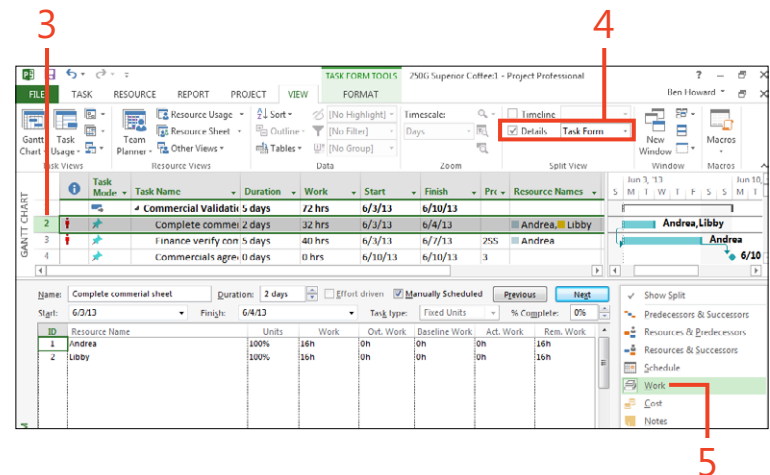
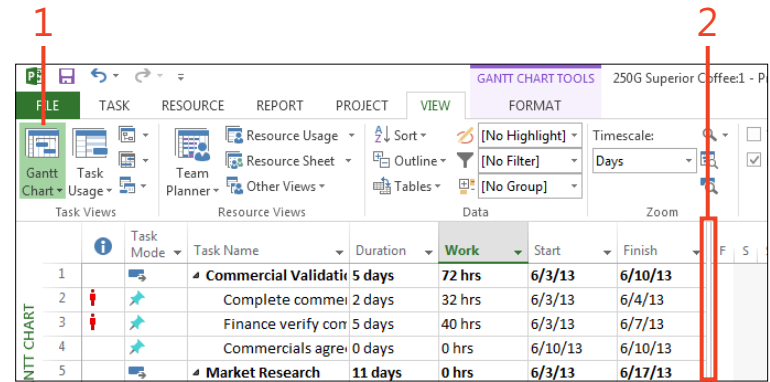
When you are assigning multiple resources to a single task, the way that Project distributes the work might not be as you expected or wanted. The best way to make adjustments is to review the data available and then make changes as necessary.

Adjust the work, duration, and assignment units for a task

- 1 In the View tab, select the Gantt Chart view.
- 2 Move the vertical splitter bar to the right to reveal the Resource Names column in the entry table.
- 3 Select the row by clicking the task ID in the row header.
- 4 Click the Details check box and make sure the task form is displayed.
- 5 Within the task form, right-click the task form (in the lower pane) and select the Work view if not already shown.

(continued on next page)

This might be an iterative process so don't necessarily expect to get it right the first time. Remember that Project has an Undo command available on the Quick Access Toolbar, or press Ctrl+Z to undo the last command.



Adjust the work, duration, and assignment units for a task *(continued)*

- 6 Adjust either the task work or duration fields or the resource work or units fields. If necessary, click OK to update the assignment after the amendments and verify that the work, units, and duration values are as you expect. Repeat as required until the values are correct.

6

Task Name	Duration	Work	Start	Finish	Pre	Resource Names
Commercial Validati	5 days	72 hrs	6/3/13	6/10/13		
Complete comme	2 days	32 hrs	6/3/13	6/4/13		Andrea, Libby
Finance verify con	5 days	40 hrs	6/3/13	6/7/13	2SS	Andrea
Commercials agre	0 days	0 hrs	6/10/13	6/10/13	3	

sheet	Duration: 2 days	<input type="checkbox"/> Effect Driven	<input checked="" type="checkbox"/> Manually Scheduled	OK	Cancel	
Finish:	6/4/13	Task type:	Fixed Units	% Complete:	0%	
	Units	Work	Ovt. Work	Baseline Work	Act. Work	Rem. Work
	100%	16h	0h	0h	0h	16h
	100%	16h	0h	0h	0h	16h



CAUTION The units value displayed in the form is the Assignment units value (this represents the initial assignment units value, which is not necessarily the current one used in the calculation $\text{work} = \text{units} \times \text{duration}$); changing the Work value does not change this (initial) assignment unit value. This is as expected but can cause a lot of confusion.



TIP The impact of the resource assignments and work values on the task is calculated only when the OK button is clicked.

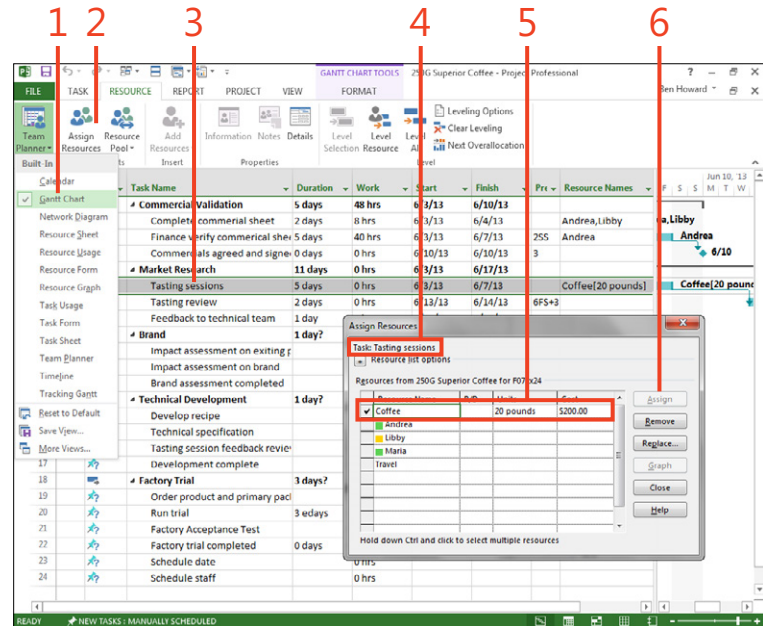
Assigning material resources to a task

When a material resource is assigned to the task, the assignment defines the quantity of the material used and consequently the cost of that material, too. Material resources can't be created on the fly in the same way that work resources can. Material resources always need to be created in the Resource Sheet before they can be assigned to a task. When material

resources are assigned, the amount of material required is entered in the Units field. For this example we will use the material resource "coffee," which was previously added to the Resource Sheet; as a reminder, the label for coffee is pound and the price is \$10 per pound.

Assign a material resource to a task

- 1 In the Resource tab, select the Gantt Chart view from the drop-down menu on the Team Planner button.
- 2 Click the Assign Resources button to display the Assign Resources dialog box.
- 3 Click the task that you want to make the assignment on.
- 4 Verify that the selected task name is displayed within the Assign Resource dialog box.
- 5 Type in the quantity of the required resource in the Units field.
- 6 Click the Assign button.



TIP If a standard rate has been entered for the material resource within the Resource Sheet, the cost of the assignment will be displayed.



TIP It's possible to multiselect several tasks and assign the resources to those tasks at once.

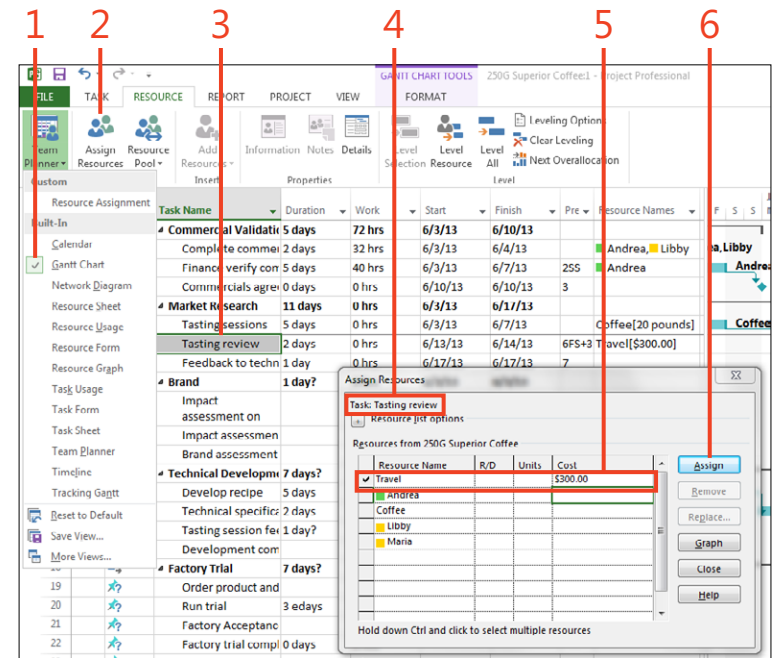
Assigning cost resources to a task

Cost resources are typically used to add cost to tasks without adding work hours or task duration. A typical cost that a cost resource would be used for is travel expenses. When the cost

resource is assigned to a task, the estimated cost should be entered.

Assign a cost resource to a task

- 1 In the Resource tab, select the Gantt Chart view from the drop-down menu on the Team Planner button.
- 2 Click the Assign Resources button to display the Assign Resources dialog box.
- 3 Click the task that you want to make the assignment on.
- 4 Verify that the task name is displayed within the Assign Resource dialog box.
- 5 Type in the estimated cost for the resource on the task.
- 6 Click the Assign button.



What is an overallocated resource?

Juggling resource demand and availability on a project is another key skill required of the project manager. Project 2013 automatically highlights resources that are overallocated and provides several features to help resolve the overallocations.

When a work resource is assigned to a task, Project calculates the Peak Units value, which reflects the maximum workload that a resource has on an assignment. For example, if a resource is assigned 10 hours of work during a single eight-hour day, the Peak Units field would equal 125%. The Max Units field is defined for each resource on the Resource Sheet and defines the maximum value that the resource is available during the current time period.

An overallocated resource is one where the peak units for any time period exceeds the max units defined for the time period—for example, two tasks running simultaneously with the same resource assigned could give 16 hours of work in an eight-hour day. Tasks with overallocated resources show a “red man” (👤) in the indicators column in the Gantt Chart view.

There are many ways to view and review overallocations. Any resource that is overallocated is always displayed in red in the Resource Sheet and other resource-centric views. An Overallocated filter is available to quickly identify those resources that are overallocated. In the Team Planner both resources and the conflicting assignments are highlighted in red, and on the Gantt Chart view the “red man” is displayed to indicate tasks where an overallocation exists.

Task Mode	Task Name	Resource Names	Jun 3, '13	Jun 10, '13
			S S M T W T F S S	M T W
1	Commercial validation			
2	Complete commercial sheet	Andrea, Libby		
3	Finance verify commercial sheet	Andrea, Maria		

Resolving overallocated resources using the Task Inspector

The Task Inspector button shows both warnings and suggestions for each task. Turning it on displays an additional section

of information for each task and is helpful when trying to resolve overallocated resources.

Resolve overallocated resources using the Task Inspector

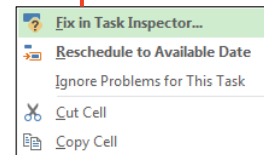
- 1 On the Gantt Chart view (or any task-based view), scan the screen for any tasks with the red man icon.
- 2 Hover over the red man icon and right-click to show the menu options.
- 3 Select Fix In Task Inspector.
- 4 Read the specific message regarding the overallocation; the overallocated resources are displayed below the message.
- 5 Select the appropriate action to resolve the overallocation.

Task ID	Task Name	Duration	Work	Start
1	Commercial Validation	5 days	112 hrs	6/3/13
2	Complete commercial sheet	2 days	32 hrs	6/3/13
3	Commercial sheet	5 days	80 hrs	6/3/13
4	Commercial sheet agreed and signed	0 days	0 hrs	6/1/13

1

2

3



4

5

Task Inspector

2 - Complete commercial sheet

Resources overallocated due to work on other tasks
Andrea

ACTIONS:

Reschedule Task: Move task to resources' next available time.

Team Planner: View overallocated resources in Team Planner.

INFO:

Manually Scheduled
Start: 6/3/13
Finish: 6/4/13

Show warning and suggestion indicators for this task.



box.

TIP You can disable warnings for the task by clearing the Show Warning And Suggestion Indicators For This Task check



TRY THIS Select the Task Inspector from the Task tab by clicking the Task Inspector icon () in the task group.

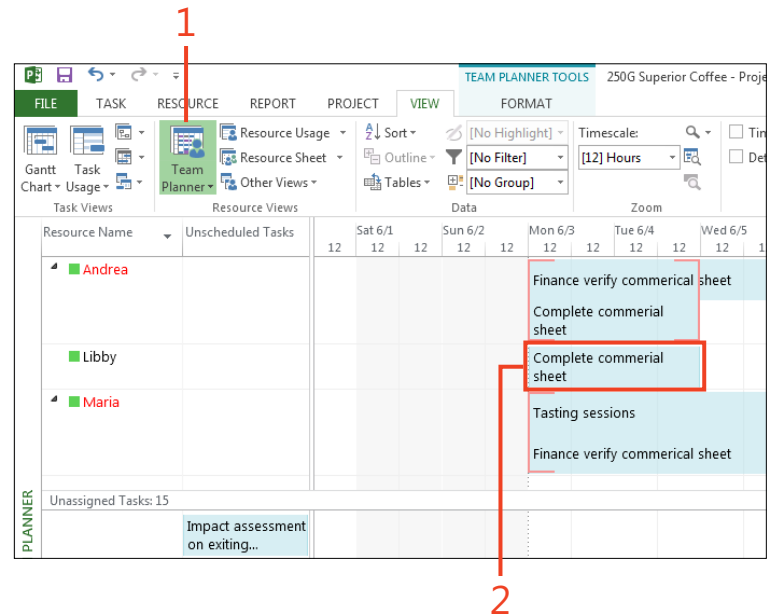
Resolving overallocated resources using the Team Planner

The Team Planner view is available in the Professional version of Project, and it allows you to see at a glance which tasks have been assigned to resources. By dragging the tasks between resources you can change existing assignments, remove a resource, from a task, or assign currently unassigned tasks to resources. By dragging the tasks left or right, you can change the

dates on which the tasks are scheduled to occur. This is perfectly acceptable for a simple plan, but on a more complex plan with many dependencies and auto scheduled tasks, this can have major scheduling implications. The Team Planner is best suited to viewing and changing assignments between resources rather than rescheduling the start and finish dates of tasks.

Resolve overallocations using the Team Planner

- 1 In the View tab, select the Team Planner button.
- 2 Drag the task up or down to change the resource the task is assigned to.



CAUTION If the task is auto scheduled, dragging the task left or right will place a constraint date on the task, meaning that the task will be scheduled to start or finish on a specific date. Ideally, each project plan should have a minimal number of constrained tasks.



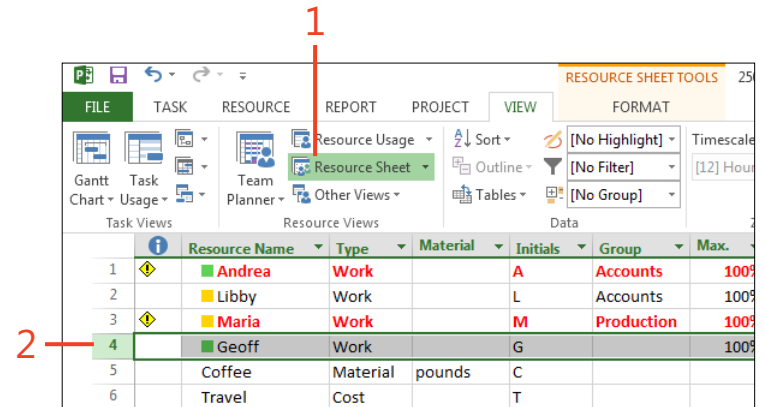
CAUTION If a task is moved outside of the original schedule dates, any dependent tasks will be affected. If the dependent tasks are manually scheduled, they might be marked with a potential scheduling problem in the Gantt chart. If the dependent tasks are auto scheduled, they will be rescheduled automatically and can therefore change the start and end dates on other tasks.

Deleting resources

Sometimes resources are created that are not actually required or used. You should remove these resources from the project because they are not necessary.

Delete a resource

- 1 In the View tab, click the Resource Sheet button.
- 2 Click the row heading to select the resource.
- 3 Press the Delete key to remove the resource.



CAUTION Deleting a resource also deletes any assignments associated with the resource. If the project has been running for a while, then it's likely that the resource has performed actual work on a project, in which case the actual work will also be removed, causing you to lose historical information regarding the tasks performed by the resource (a warning is shown confirming that you would like to remove the resource). If a resource has left the project, then instead of deleting the resource, it's best practice to reassign the remaining work to another resource and append the word LEFT, followed by the date, to the resource's name. This preserves any actual work or other values that are related to the resource.

Index

Symbols

- 24 Hours calendar, description of, 38
- % Complete tracking, 177–178, 182, 184, 188
- % Work Complete tracking, 177–178, 184

A

- account information, viewing in Backstage
 - view, 12
- Actual Duration, 177–178, 190
- Actual Finish date, 190
- Actual Start date, 177–178, 190
- actual work values, 193
- Add A Place option, 167
- Alt+Shift+Right shortcut key, 69
- Arrow cursor icon, 33
- “as is” date, 186
- As Late As Possible constraint, 128
- assignment-based views, information included in, 20
- assignment information, choosing correct views for, 9
- assignments
 - default value of, 110
 - formula for, 108
 - modifications to, 108
- assignment units
 - adjusting, 114
 - defined, 108
 - displayed value, 115
- As Soon As Possible constraint, 128
- Author field, 48
- AutoFilter, displaying, 27

- auto scheduled tasks
 - adding external dependencies, 130
 - automatic rescheduling of, 62
 - calendar exceptions and, 99
 - changing start/finish dates and, 126
 - and constraints, 120
 - effect of new calendars on, 133
 - and effort driven tasks, 109
 - entering start/finish dates, 128
 - estimated durations in, 82
 - formatting options for, 143
 - unlinking tasks and, 90
 - vs. manually scheduled tasks, 181

B

- background color, changing, 138
- Backstage view
 - accessing, 12
 - defining calendar options in, 44
 - description of, 12
 - exiting, 12
 - personal templates, 211
 - saving plans with, 53, 167
- bars
 - formatting all, 142
 - formatting multiple, 140
- Bar Style, 142
- Baseline Duration field, 174
- baseline fields, 174, 206
- baselines
 - auto scheduled tasks and, 181
 - basics of, 174

- clearing, 175
- comparing to final schedule, 206
- saving a copy, 175
- setting for entire schedule, 172
- tracking concepts and, 178
- updating existing, 176
- Baseline Start field, 174
- blue check mark icon, 188
- bold command, 138
- bottom-up planning, 62
- burndown reports
 - predefined in Project 2013, 150
 - viewing and copying, 154
- buttons, description of, 13

C

- calendar icon, 133
- calendars
 - adding to tasks, 132
 - and resource assignment, 99, 105
 - changing, 39
 - defining holidays, 42
 - defining options in, 44
 - included in MS Project 2013, 38
 - setting working week of, 40
- cells, formatting, 138
- change requests
 - discovering implications of, 134
 - updating baselines for, 176
- Chart area
 - description of, 11
 - increasing viewing area, 17

- charts
 - burndown charts, 154
 - changing chart style, 155
 - Clear Filter button, adding to Quick Access Toolbar, 27
 - Clear Group button, adding to Quick Access Toolbar, 29
 - cloud-based services, saving projects to, 53
 - colors, changing, 138, 142
 - color scheme, changing, 142, 153
 - columns
 - adding deadlines with deadline columns, 124
 - autosizing, 34
 - Constraint Date/Type, 130
 - defined by tables, 20
 - description of, 11
 - hiding, 32
 - inability to delete, 32
 - inserting, 30, 111, 207
 - Marked column, 139
 - moving, 33
 - redisplaying, 32
 - resizing, 31, 34, 52
 - viewing additional, 207
 - viewing resources with, 107
 - commands
 - adding to Quick Access Toolbar, 18
 - adding to ribbon UI, 14
 - description of, 13
 - communication. *See* reports
 - Comparison Report, 208
 - constrained tasks, 120
 - constraint dates
 - for auto scheduled tasks, 128
 - methods of entering, 130
 - Copy Report button, 152
 - cost reports, 150
 - cost resources
 - assigning to tasks, 117
 - creating, 100
 - defined, 100
 - costs, displaying currency symbol for, 50
 - Cost Variance, 206
 - critical path
 - calculation of, 147
 - displaying, 146
 - Ctrl+B (bold) shortcut, 138
 - Ctrl+F2 shortcut, 86
 - Ctrl+I (italic) shortcut, 138
 - Ctrl+U (underline) shortcut, 138
 - Ctrl+Z (undo) shortcut, 114
 - currency type, setting, 50
 - cursor icons
 - Arrow icon, 33
 - Move Cursor icon, 33
- D**
- dashboard-style reports, 150
 - date format, changing default, 52
 - deadlines, adding to tasks with deadline column, 124
 - Default End Time, 45
 - Default Start Time, 45
 - Delete key, hiding columns with, 32
 - dependencies
 - abbreviations for, 88
 - adding external to auto scheduled tasks, 130
 - adding lag/lead time to, 92
 - changing type of, 88
 - default type, 88
 - types of, 84
 - dependency links, displaying, 148
 - dependency network, creating, 86
 - dependent tasks
 - changing start/finish dates and, 126
 - linking, 86
 - potential scheduling problem with, 120
 - detail tasks
 - described, 65
 - entering, 66
 - entering duration estimates for, 78
 - entering work estimates for, 81
 - updating, 178, 182
 - dialog boxes, displaying, 13
 - dialog launcher, 13
 - documents, managing in Backstage view, 12
 - driven successor tasks, 94
 - driving predecessor tasks, 94
 - duration
 - adjusting, 114
 - defined, 108
 - duration budget, 80
 - duration column, 66
 - duration estimates
 - amending, 196
 - elapsed time, 79
 - entering for detail tasks, 78
 - entering for summary tasks, 80
 - project closing and, 200
 - reviewing tasks with, 82
 - duration field, question mark (?) in, 82
 - duration variance, 206
 - duration vs. work, 77
- E**
- Effort Driven, 109
 - elapsed time duration, 78, 79
 - emailing project schedules, 169
 - Estimated check box, 82
 - estimated flags, 82

estimates. *See* duration estimates; *See* work estimates

Excel, creating visual reports in, 158

exceptions

- defining, 42
- holidays/training courses, 99
- nonrecurring, 43
- recurring, 42

Exception tab, setting exception recurrence pattern, 43

Export option, saving plans with, 53

external dependencies, adding to tasks, 130

F

F3 (remove filter) shortcut, 27, 147, 201

filters

- finding incomplete tasks with, 200
- Milestones filter, 202
- presenting data with, 20
- selecting different filters, 27
- Unstarted Tasks filter, 204

finish date

- changing, 126
- entering for auto scheduled tasks, 128
- vs. deadlines, 124
- warning of delay, 125

Finish No Earlier Than constraint, 128, 130

Finish No Later Than constraint, 128

Finish to Finish (FF) dependency, 84

Finish to Start dependency, 84, 88

Finish Variance, 206

Fixed Duration, 109

Fixed Units, 109

Fixed Work, 109

fonts, changing, 138

Format Bar dialog box, 141

G

Gantt Bars, 196

Gantt Chart view

- creating work resources in, 98, 110
- description of, 11, 21
- formatting all bars, 142
- formatting multiple bars, 140
- red man icon, 118

Gantt With Timeline view

- choosing alternate default view, 52
- description of, 10, 21

generic resources, creating, 101

green arrow icon, 124

Gridlines dialog box, 187

groups (grouping)

- creating a custom group, 14
- presenting data with, 20
- selecting different groups, 28

H

holidays

- defining in calendars, 42
- entering for resources, 106
- tracking nonproductive time, 99

Hours Per Day values, 45

I

icons

- blue check mark, 188
- calendar icon, 133
- cursor icons, 33
- green arrow icon, 124
- red man icon, 118
- task mode icons, 62

Inactivate button, 204

Inactive Tasks feature, 134

incomplete tasks, finding, 27, 200

indenting tasks, effect of, 68

indicator column

- blue check mark, 188
- calendar icon, 133
- green arrow icon in, 124

in-progress reports, 150

Insert Column button, 111

insert key shortcut, 71

Insert Task button, 71

italicize command, 138

L

lag times, 84, 92

lead times, 84, 92

legends, removing from report, 156

links, creating between dependent tasks, 86

local drives, 54

logos, adding to reports, 155

Lync

- online status in, 111
- resource contact information in, 103

M

man days/hours, 81

manually scheduled tasks

- and Timeline view, 161
- changing start/finish dates, 126
- duration estimates and, 80
- effect of new calendars on, 133
- effect of resource assignments on, 109
- formatting options for, 143
- project preplanning and, 62
- vs. auto scheduled tasks, 181

Marked column, 139

Marked Tasks, 139

Mark On Track button, 183, 186

material resources

- assigning to tasks, 116

- creating, 100
- defined, 100
- standard rate for, 101
- Max Units value, 99, 104, 108, 118
- Microsoft Excel file format, 53
- Microsoft Project 2013
 - aligning features with project phases, 3
 - built-in views, 20
 - coordinating work times in, 44
 - navigating in, 10
 - new features of, 6
 - reporting features in, 150
 - terminology used in, 8
 - user interface diagram, 9
- Microsoft Project Plan file (.mpp)
 - default file format, 53
 - entities contained in, 9
- milestone reports
 - printing, 156
 - producing custom, 151
- Milestones filter, 202
- milestone tasks
 - described, 65
 - entering, 66
 - formatting, 139
 - naming, 66
 - percent complete setting, 183
 - project closing and, 200, 202
 - updating, 178, 182
- mitigation tasks, 134
- modified views, saving, 35
- monetary budgets, using work estimates with, 81
- Move Cursor icon, 33
- Move Task button, 180
- Must Finish On constraint, 128
- Must Start On constraint, 128

N

- names/naming
 - milestone tasks, 66
 - modified views, 35
- new tasks, inserting in schedule, 71
- Night Shift calendar, description of, 38
- nonproductive time, 99
- nonworking days, in duration estimates, 78

O

- Office Art shapes, formatting, 163
- options
 - setting in Backstage view, 12
 - setting in calendars, 44
- organizational holidays, defining, 42
- outdenting tasks, 70
- Outline Level, 68, 72
- overallocated resources
 - explained, 118
 - resolving with Task Inspector, 119
 - resolving with Team Planner, 120
- overview report, 150, 152

P

- paths, tracking with Task Path feature, 144
- PDF file format, 53, 57
- Peak Units value, 118
- personal templates, 211
- Pivot Diagram, 158
- Pivot Table fields, 158
- PowerPoint, copying Timeline view to, 163
- Predecessor column, 89
- predecessor tasks, 62, 86, 90, 94, 144
- predefined reports, 150
- presentation styles, 142
- productive time, 99, 104

- Project Calendar. *See also* calendars
 - assigning a different calendar, 39
 - setting up, 38
- project data, choosing correct views for, 9
- project level information, choosing correct views for, 9
- project life cycle, 3
- Project Online, 58
- Project Overview, viewing and printing, 152
- project plans
 - basics of, 2
 - comparing versions of, 208
 - definition of, 8
 - ensuring easy update of, 181
 - rescheduling to new date, 180
 - saving as templates, 210
 - saving to SharePoint, 166
 - synchronizing task lists with SharePoint, 168
 - updating, 178
 - updating entire project, 188
 - updating individual tasks, 182
 - updating per period, 192
 - updating with actual data, 190
- Project Portfolio Management, 58
- Project Professional edition, saving to SharePoint/Project Server, 53
- Project Reports feature, 150
- projects
 - changing default date format, 52
 - changing default view, 52
 - closing, 200–211
 - comparing versions of, 208
 - creating a schedule for, 62
 - definition of, 8
 - displaying task paths, 94
 - entering start date, 46
 - increasing viewing area, 16
 - life cycle of, 3

- managing in Backstage view, 12
- overview of estimate setting for, 77
- overview of task interdependency, 83
- overview of task management in, 61
- returning to from Backstage view, 12
- saving, 53–54, 56, 58
- selecting appropriate calendar for, 38
- setting currency type, 50
- setting properties of, 48
- project schedules
 - emailing, 169
 - selecting views of, 20
- Project Server 2013, saving projects to, 53, 58
- Project Summary Task, displaying, 36
- project title, adding to report, 156
- project views, tracking updates with, 177
- properties, setting, 48
- public holidays, defining, 42

Q

- question mark (?) abbreviation, 82
- Quick Access Toolbar
 - adding Clear Filter button, 27
 - adding Clear Group button to, 29
 - adding commands to, 18
 - customizing, 18
 - description of, 10
 - moving position of, 19

R

- red man icon, 118
- red underlined tasks, 126
- remaining duration
 - amending, 196
 - tracking concepts and, 178
 - updating tasks and, 190
- remaining work, 192

- reports
 - adding logos to, 155
 - adding title to, 156
 - burndown reports, 154
 - Comparison Report, 208
 - creating visual reports, 158
 - customized, 151
 - dependency links, 148
 - displaying critical path, 146
 - emailing, 169
 - formal reporting features, 150
 - formatting bars, 140–143
 - formatting table area, 138
 - printing the project schedule, 156
 - sharing with SharePoint, 166
 - synchronizing task lists with SharePoint, 168
 - Timeline view, 160–165
 - viewing and printing, 152
 - viewing task path, 144
- Report tab, 151
- Reschedule Uncompleted Work To Start After date, 194
- resource assignment, definition of, 8
- resource-based views, information included in, 20
- resource information
 - choosing correct views for, 9
 - dialog box, 102
- resource list, definition of, 8
- Resource Names column, 100
- resource reports, 150
- resources
 - ad hoc creation of, 100
 - arranged by groups, 20
 - assigning cost resources to tasks, 117
 - assigning material resources to tasks, 116
 - assigning multiple work resources to tasks, 112

- assigning single work resources to tasks, 110
- changing productive time available for, 104
- changing working days for, 105
- changing working time of, 99
- creating generic, 101
- creating using Resource Sheet, 100
- creating work resources in Gantt Chart view, 98
- definition of, 8
- deleting unnecessary, 121
- formula for assignment, 108
- modifying, 102
- planned absences for, 106
- reassigning work, 121
- relationship to tasks, 9
- resolving overallocated, 118–120
- specifying with filters, 20
- types available, 100
- updating work complete for, 177
- viewing assigned, 107
- Resource Sheet
 - creating resources with, 100
 - description of, 21
 - modifying details on, 102
- Resource tab, location of, 20
- Resource Usage view, 21, 177
- ribbon user interface
 - adding commands to, 14
 - collapsing, 10
 - collapsing and pinning, 16
 - customizing, 10, 14
 - description of, 10, 13
- rows, description of, 11

S

- Save As command, 53
- saving
 - modified views, 35
 - projects, 53–54, 56, 58
- scenarios, planning for varied, 134
- schedule. *See also* reports; *See also* baselines
 - comparing to baseline, 206
 - emailing, 169
 - inserting tasks into, 71
 - moving summary tasks, 74
 - moving tasks in, 72, 195
 - rescheduling, 194
 - setting baselines for, 172
 - snapshots of, 174
 - tracking concepts, 178
- schedule data, effect of linking tasks on, 85
- schedule mode
 - changing, 62
 - changing for individual tasks, 63
 - changing for new tasks, 63
 - defining default, 63
 - manual vs. auto, 62
- schedule-related information, viewing, 9
- scheduling problems, correcting, 126
- scheduling styles, 142
- screen resolution
 - selecting appropriate, 14
 - standard, 13
- Set Baseline dialog box, 175
- Set Interim Plan button, 175
- SharePoint
 - saving projects to, 53
 - sharing reports with, 166
 - synchronizing task lists with, 168
- SkyDrive, 56
- SmartTags, 107
- SS abbreviation, 88

- Standard calendar
 - description of, 38
 - working days included in, 40
- standard rates, for material resources, 101
- start dates
 - changing, 126
 - entering, 46
 - entering for auto scheduled tasks, 128
 - rescheduling, 180
 - verifying, 47
- start/end times, matching to working time, 44
- Start No Earlier Than constraint, 128, 130
- Start No Later Than constraint, 128
- Start to Finish (SF) dependency, 84
- Start to Start (SS) dependency, 84
- Start Variance, 206
- Status bar
 - description of, 11
 - shortcuts available on, 22
- status date
 - and rescheduling, 194
 - and updating, 188
 - setting/displaying, 186
- Subject field, 48
- subtasks
 - creating, 68
 - hiding while moving, 75
- successor tasks, 86, 90, 94, 144
- summary tasks
 - automatic bold font for, 138
 - collapsing, 75
 - creating by outdenting, 70
 - deleting, 76
 - described, 64
 - entering, 67
 - entering duration estimates for, 80
 - inactivation of, 135, 205
 - moving around the schedule, 74

- removing duration estimate for, 80
- scheduling of, 67
- tracking, 185
- updating, 178, 182

T

- table area
 - description of, 11
 - formatting, 138
- tables
 - choosing additional, 26
 - displaying different tables, 26
 - presenting data with, 20
 - tracking updates with, 177
- tabs, description of, 10, 13
- task calendar, creating, 132
- task-centric views, 9, 20
- task columns, viewing, 11
- Task Dependency dialog box, 89–90
- Task ID number, 86
- task information, choosing correct views for, 9
- Task Information dialog box, 92, 124, 128, 130
- Task Inspector, resolving overallocated resources with, 119
- task lists
 - definition of, 8
 - synchronizing with SharePoint, 168
 - viewing, 11
- task mode
 - icons representing, 62
 - linking tasks and, 85
- Task Name column, 66
- Task Path feature, 144
- task paths, displaying, 94, 144
- tasks
 - auto vs. manually scheduled, 62
 - calendars and, 132

- changing schedule for, 63
- changing schedule mode of, 63
- constrained tasks, 120
- cost resources and, 117
- critical path and, 147
- deadlines for, 124
- definition of, 8
- deleting, 76
- dependency links, 148
- entering, 66
- estimation reviews for, 82
- external dependencies for, 130
- filters and, 20
- finding incomplete, 200
- grouping with Work Breakdown Structure, 64
- groups of, 20
- inactivating, 204
- inactivating/activating, 134
- indenting as subtasks, 68
- inserting new, 71
- linking and, 85
- linking dependent tasks, 86
- material resources and, 116
- moving summary tasks, 74
- moving within schedule, 195
- outdenting to summary task, 70
- overallocated resources for, 118
- planning for potential, 134
- predecessors/successor tasks, 90
- reassigning, 121
- red underlined, 126
- relocating with cut and paste, 75
- reordering, 72
- rescheduling to future date, 194
- resources and, 9
- setting as complete, 200, 202
- start/finish dates, 126, 128
- task management, 61

- timeline view and, 160
- undeleting, 76
- unlinking, 90
- updating, 178, 182, 184, 190, 192
- work, duration and assignment units for, 114
- work resources and, 110, 112
- task synchronization, 166
- Task tab, location of, 20
- Task Usage view, 21, 177
- Team Planner
 - description of, 21
 - red highlighted resources in, 118
 - resolving overallocated resources with, 120
- templates, creating, 210
- text, formatting, 162
- Text Styles button, 162
- Themes button, 153
- Timeline view
 - adding tasks to, 160
 - copying to other applications, 163
 - customizing, 11
 - description of, 11
 - formatting, 162
 - printing, 164
- Title field, 48
- top-down planning, 80
- top-down scheduling, 62
- total slack, 147
- touch-enabled systems, 6
- tracking, basics of, 178
- Tracking Gantt chart
 - baseline duration in, 174
 - description of, 21
 - enabling tracking with, 177
 - percent complete values in, 185
 - updating projects and, 188
- Tracking table, 177, 188, 200

U

- uncompleted work, 194
- underline command, 138
- Undo button, 76
- undo command, 114
- unlinking tasks, 90
- Unstarted Tasks filter, 204
- Update Project dialog box, 194
- updates
 - for individual tasks, 182
 - rescheduling, 194
 - types of, 178
- Update Work As Complete Through date, 188

V

- vacations. *See* holidays
- variance, 206
- variance fields, adding to table, 207
- variances, calculation of, 174
- View Bar
 - displaying, 24
 - display order in, 25
 - hiding, 25
- views
 - accessing, 20
 - categories of, 20
 - changing default view, 52
 - default view, 10
 - for resource assignment, 107
 - predefined, 20
 - presenting data with, 20
 - printing reports from, 151, 156
 - returning to original, 156
 - saving, 107
 - saving a modified, 35
 - selecting for desired data, 9, 22
 - tracking with, 177

- View tab
 - location of, 20
 - selecting view with, 22
- Visio Professional/Premium, 158
- visual reports, creating in Excel, 158
- Visual Reports feature, 150, 158

W

- warnings, disabling, 119
- weekend work, scheduling, 132
- Windows 8, 6
- Work Breakdown Structure (WBS), 64
- work column, inserting, 81, 98
- work estimates
 - amending, 196
 - entering, 81
 - project closing and, 200
- working days, changing, 105
- working time
 - changing, 99
 - coordinating with calendar, 44
 - defined, 108
 - verifying selected times, 40
- working week, setting, 40
- work reports, 150

- work resources
 - assigning multiple, 112
 - assigning single, 110
 - creating in Gantt Chart view, 98
 - defined, 100
- work value
 - adjusting, 114
 - displaying, 98
- Work Variance, 206
- work vs. duration, 77