



Creating and Maintaining a Gantt Chart

Microsoft Project

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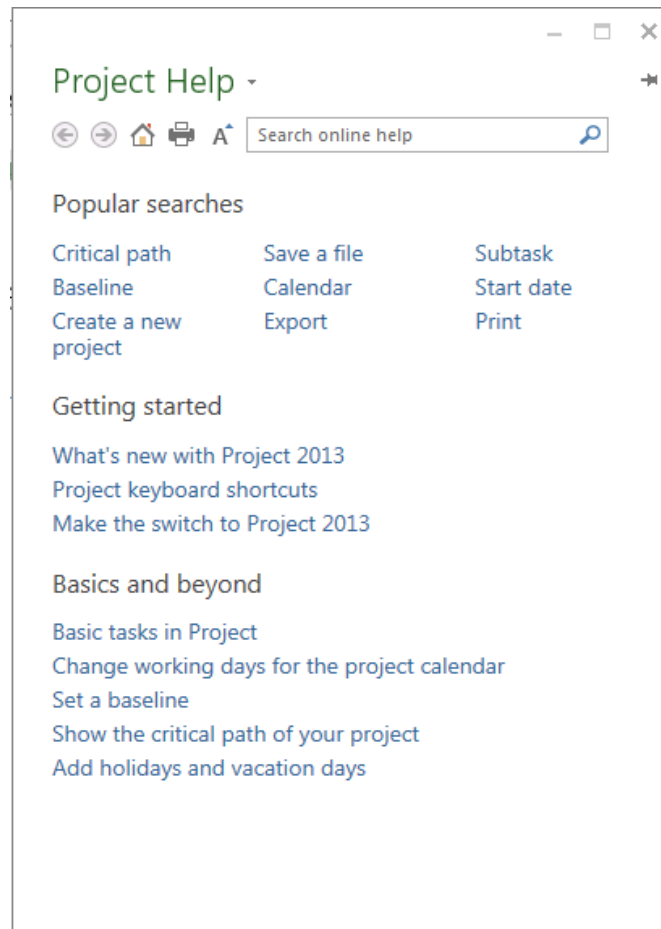
How to use Help


This manual is created to complement today's training session. You are encouraged to make notes and at the end of each section there are details on Help topics to investigate.

To activate Help, there are two options:

- Click on the help icon  located at the top right region of the screen
- Select F1 on the keyboard

Each of these will activate the Help Screen



1. Select from the Browse Project Help list (if you are connected to the internet, you will access Microsoft Office on-line), or
1. In the Search box  , type in what you are looking for (if you are connected to the internet, you will access Microsoft Office on-line)
2. Click on an item in the topics listed to read more about it

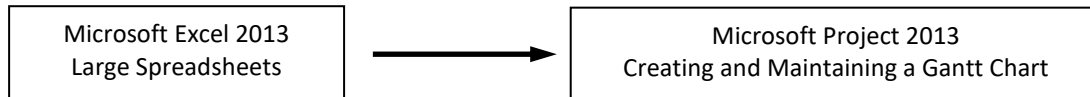
Course Details

Audience

Creating and Maintaining a Gantt Chart is aimed at those who are involved in project management and need, or want, to use Microsoft Project as a tool for planning their project. We will also look at maintaining the project on an on-going basis. The course will not cover managing resources within Microsoft Project. This is covered in the next learning segment.

Duration

3 hours



Prior Learning Segment

To gain the most from this course you will have some knowledge of project management methodology as well as good skills in moving about and managing data in Excel.

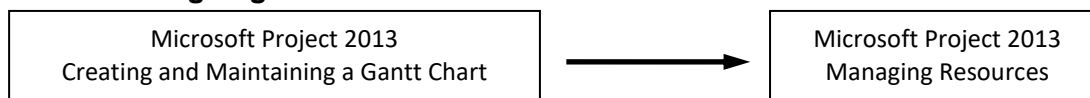
Key Learnings

- Basic Project Navigation
- Setting up a project calendar
- Creating a Gantt Chart
- Entering Tasks and duration
- Linking tasks including Lead and Lag
- Milestones and Constraints
- Updating Tasks
- Reporting and Printing

Learning Outcome(s)

At the end of this course you will have knowledge to utilise Microsoft Project as a tool for planning your project and maintaining your project on an on-going basis.

Next Learning Segment



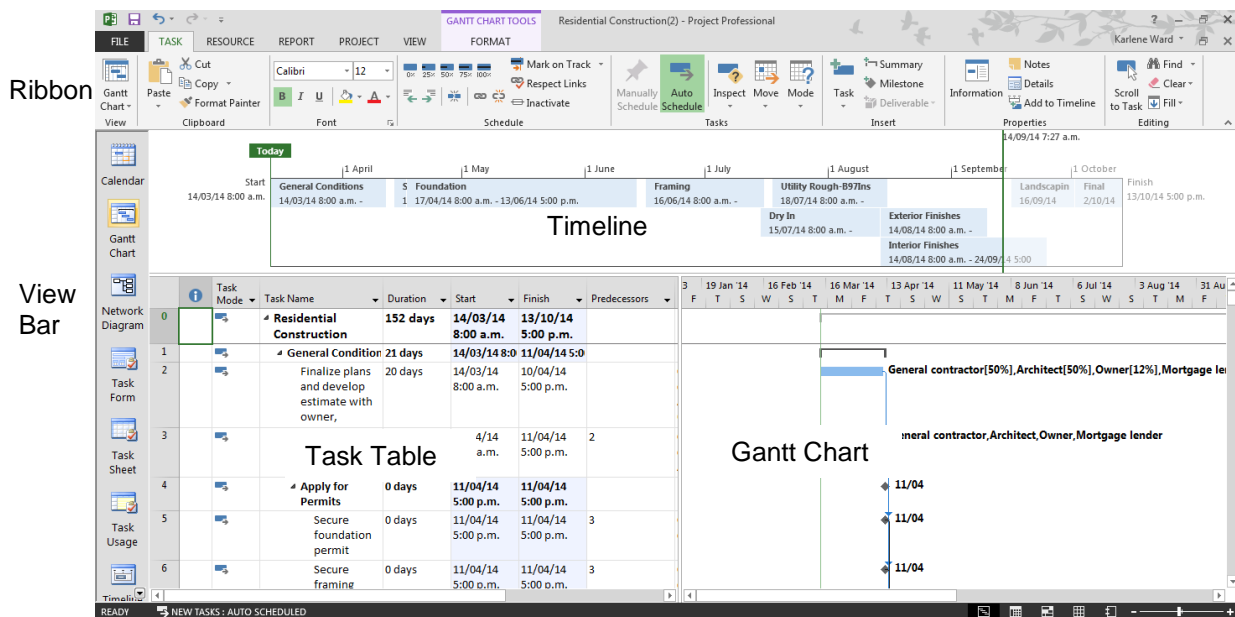
Individual Learning Programme

We also offer a comprehensive one-one individual learning programme that can take place at either your site or ours. Training is tailored to meet your immediate needs and the focus is on mastery of skill, and gives you the opportunity to apply your new skills on the job as you are being taught.

If you would like to discuss this further, please do not hesitate to contact our office on (03) 377 9499.

Basic Project Navigation

Screen Layout Overview



The Microsoft Project screen is a collection to views designed to show you the information you want in the way you want. For example in the view above, you are seeing information about the project in a timeline view, a table view and a Gantt Chart view all on the same time.

Getting familiar with navigating within project and seeing the data viewed in the way you want is critical.

The key elements of the project screen are:

Ribbon

The Ribbon provides access to all the options within Project.

- Task Tab – provides access to the tools for managing your tasks
- Resource Tab – is used when assigning resources to tasks
- Report Tab – is for producing reports and summarising the project
- Project Tab – is used when making global changes to your project, like setting the project start date, changing working hours and linking between projects
- View Tab – is for switching between views, and changing how the information is viewed
- Contextual Tabs – a number of contextual tabs will appear depending on where you are and what you are doing. Many of these are to do with the format of the option you are currently in

View Bar

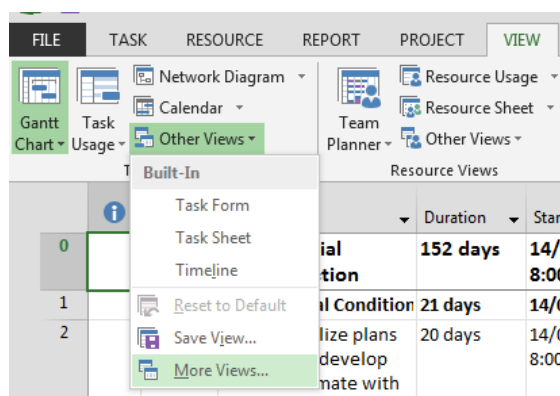
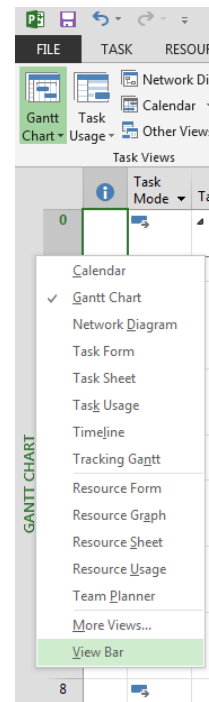
The View Bar along the left hand side of the screen provides a quick way to switch how you are viewing the data in your project. By default the view will be the Gantt Chart View. Simply click on another view to select it.

Turn the View Bar on and off

You can choose whether you see the view bar or not.

1. Right click on the View Bar. At the bottom of the list will be **View Bar**, uncheck view bar to turn it off
2. To turn the View Bar back on, right click in the grey area at the left of the screen, select **View Bar**


You can also use the **View Tab** on the Ribbon, to get access to all views, customise views or even create your own.



Timeline

The Timeline is a way of viewing upcoming key tasks in your project. You choose whether you want to see the timeline or not and which tasks you add to it. You can quickly copy the timeline and email to others, or add to a presentation.

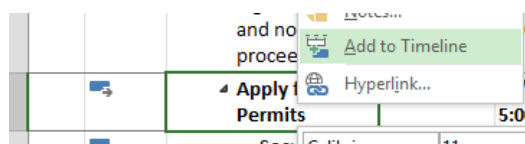
View the Timeline

1. Select the **Task Tab** on the Ribbon, on the right hand side of the ribbon select the check box next to **Timeline**

2. To turn the Timeline off, remove the tick from the Timeline check box or right click on the Timeline and turn off **Show Timeline**

Add Tasks to the Timeline

There may be key tasks which you would like to show on the timeline, these would typically be key tasks or phases within the project.

1. Right click on the task in the Task Table
2. Select **Add to Timeline**

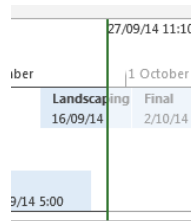


To remove a task from the timeline, right click on the task in the Timeline and choose **Remove from Timeline**.

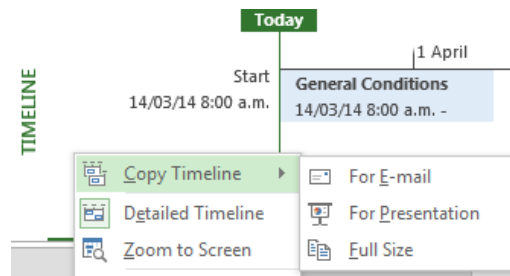
Using the Timeline

You can email the time or add it to a presentation.

1. Click and drag on the green bar to change how much of the timeline is visible.



2. Right click in the white area to the left of the start of your timeline.
3. Select **Copy Timeline | For E-mail** or **For Presentation**



4. Open your email package or presentation and paste the image



Tip: Note that when you are in the Timeline, you have access to a contextual tab that allows you to Format the Timeline. Included in this contextual tab are the Copy Timeline options.

Tables and Gantt Chart Views

The default view in Microsoft Project is to have the Task Entry Table on the left and the Gantt Chart on the right. You have considerable ability to change the level of detail shown in these views.

Task Mode	Task Name	Duration	Start	Finish	Predecessors
	Residential Construction	152 days	14/03/14 8:00 a.m.	13/10/14 5:00 p.m.	
	General Condition	21 days	14/03/14 8:00 a.m.	11/04/14 5:00 p.m.	
	Finalize plans and develop estimates own	20 days	14/03/14 8:00 a.m.	10/04/14 5:00 p.m.	
	Sign contract and notice to	1 day	11/04/14 8:00 a.m.	11/04/14 5:00 p.m.	2

Gantt Chart

Split Bar

Use the split bar between the Task Entry Table and Gantt Chart to choose how much of each you see. Clicking and dragging the split bar to the right will show more fields in the Task Entry Table.

The zoom slider

Use the zoom slider at the bottom right of the screen to change the level of detail shown in the Gantt Chart, ie daily, weekly, monthly detail. The zoom slider impacts the visual display of all graphical views.

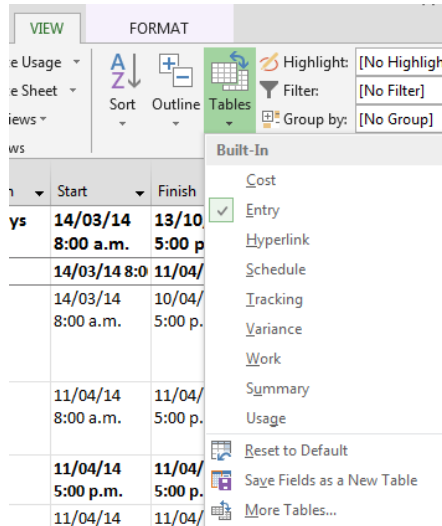


Task Tables

There are hundreds of fields in the Project database. Tables are used to display collections of these fields. For example the default **Entry** Table includes fields such as Task Name, Duration, Start, Finish etc. Additional fields can be added to a table. This could be an existing field within the database or one that you define yourself. Alternatively you can switch to another table, which will provide you with relevant fields based on what you want to do.

Switching between Tables

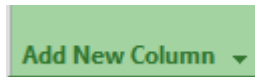
1. Make sure you are clicked somewhere within a table
2. From the Ribbon select **View | Tables**



3. Select the Table you wish to view

Add fields to an existing table

1. If you wish to show an additional field in your current table, drag the split bar to the right until you can see the column entitled **Add New Column**

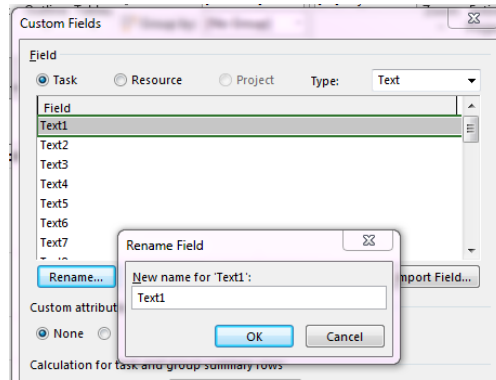


2. Click on the drop down arrow next to Add New Column, select the field to add to your table

You can define custom fields as well. For example you may have an internal code for tasks. There are many blank fields in the database that you can define for your own use, including Text and Number fields.

Define a custom field

1. Select **Add New Column** as above
2. Choose either a **Text** or **Number** field
3. Right Click on the field header in your table, eg Text1
4. Select the field, eg Text1, choose the **Rename** button



- Once you have given the field a name, choose **OK**, then **OK** again

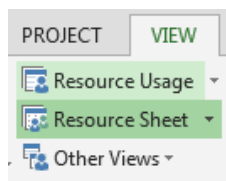
Your field will be renamed.

You can now select the column heading in your table and drag and drop the column to move it to an appropriate place in your table.

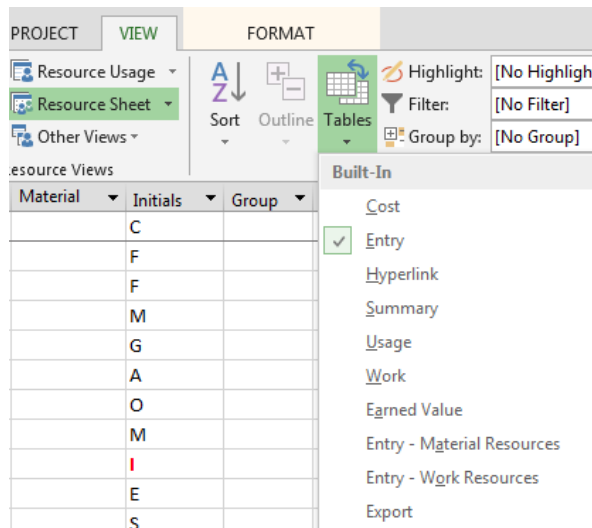
Resource Tables

Thus far all the tables we have been looking at are related to tasks. At some point we may wish to look at resources. There are two ways to switch to Resource Tables.

- From the ribbon select **View | Resource Sheet**



The resource sheet, which is also known as the Resource Entry Table, provides us with information about who our resources are and how much they get paid. Note, that now that we are looking at resources, all the Tables we can view are related to resources



Tip: Important: To switch back to tasks choose the **Gantt Chart** View. To move to resources, select the **Resource Sheet** View.

File Tab

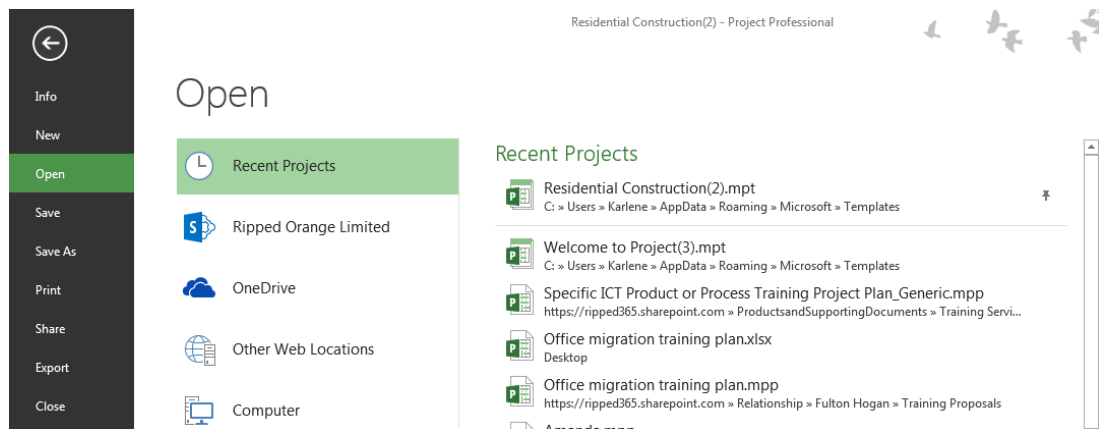
The **File** tab is the first tab of the Ribbon. Clicking on this tab will show the basic commands, e.g., **Save, Save As, Open, Close** etc. The File tab also contains other features, such as Document Properties, Recent Projects, Printing options and Sharing and Exporting options.

Recent Documents

Under **File | Open | Recent Projects** will show you the last 25 documents that you have accessed. This gives you quicker access to the files you need.

You also have the option to **pin** these documents so that means they will stay at the top of the recent documents list until you unpin it. To pin a document:

1. Click on **File | Open | Recent Projects**
2. Next to the document name is the icon of a pin, if you click on that the file will then be moved to the top of the list



3. To unpin the document just click on the pin again and it will then join the rest of the files

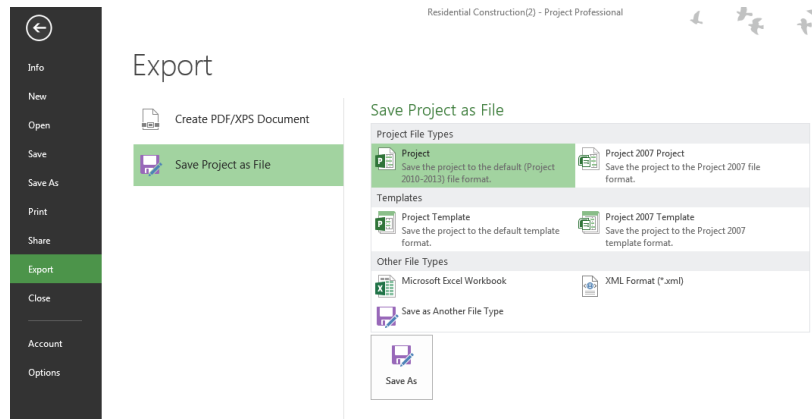
Creating a New Project

1. Click on **File | New**
2. Click on the template you would like to use or click on **Blank Project** then click on create
3. You can then start creating your timeline

Changing File Type

You can change the file type so you can save the file as a template, picture, or export the data to Excel. To do this:

1. Click on **File | Export**
2. Choose, **Save Project as File**
3. Click on which type of file you want to save the document as
4. Then click **Save As**
5. Complete the dialog box with file name, location etc



Creating a PDF file

You can save your drawing as a PDF file, which can make an effective method of sharing detail with others who don't have Microsoft Project.

1. Click on **File | Export**
2. Click on **Create PDF/XPS Document**
3. Click on **Create PDF/XPS** button on the right hand side of the screen
4. You can then browse to where you want to save and save as normal

Creating a Gantt Chart

Setting up the Calendar

The project calendar specifies when work occurs and notes holidays and weekends.

Setting up the project calendar enables you to establish the following:

- The standard working hours
- Public or company holidays throughout the period of the project

Microsoft Project comes with three calendars.

- Standard Calendar – Monday to Friday 8:00 to 17:00
- Night Shift Calendar
- 24 Hour Calendar

Any of these basic calendars can be modified or a new one created based on one of the base calendars.

When setting up our project calendar there are a number of things to consider:

1. What are our standard working hours and days – these need to be set up in Project Options
2. Making sure our Project Calendar reflects these hours and days – Done by customising our Project Calendar
3. Setting an appropriate start date and time for our project – completed via Project Information

The first two of these can be accessed via the **Project Tab | Change Working Time** dialog box.

2. Select the Calendar to use

Use Exceptions to add in holidays

Use Work Weeks to modify from standard work week, ie may need to build in some Saturdays

1. Project Options, to set standard hours and days

To set up default working hours in Project Options

1. Select **Project | Change Working Time**
2. Click on the **Options** button at the bottom of the dialog box
3. Modify the **Default Start Time** and **Default End Time**
4. Modify the **Default Hours per day, Hours per week, and Hours per month**

5. Select **OK**

Modify an existing calendar


1. From the Ribbon select **Project | Change Working Time**
2. From the **For Calendar** (drop down box) select the most appropriate calendar

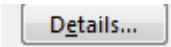
Marking out holidays on the Calendar

You will want to mark out days on the calendar when no one will be working, such as public holidays. If you do not then your project finish date could be compromised.

To make days nonworking, such as public holidays

1. Select **Project | Change Working Time**
2. From the **For Calendar** (drop down box) select the most appropriate calendar
3. From the **Exceptions** tab click in the **Name** field and type in the name of the nonworking time eg **“Christmas”** and enter the start and end dates for the holiday
4. Once all exceptions have been entered click **OK**



Tip: Use the *Details* button  to the right of the *Exceptions* area to further modify working vs non-working time.

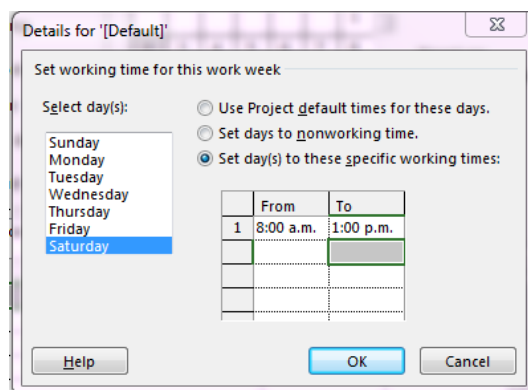
Modify Work Weeks

There are a number of reason we may want to modify work weeks, some examples include

- It may be that staff will work every Saturday morning. The Standard Calendar assumes Saturday is a non-working day, therefore we may need to modify Work Weeks.
- It may be that we only have access to the client site, after standard business hours, so for a period of the project our working hours are different.

These can be built into the project plan by modifying our work week. Let’s look at an example where we will work every Saturday morning.

1. Select **Project | Change Working Time**
2. From the **For Calendar** (drop down box) select the most appropriate calendar
3. From the **Work Weeks** tab, select **Details**
4. Select Saturday from **Select day(s)**, select the **Set day(s) to these specific working times**, radio button, enter days, select **OK**



Setting the project start date

The final step in setting up the project calendar is to set the start date and time for the specific project you are about to build. The Project start date should be set in Project Information, you can always come back in here and move the project start date if things change.

1. Select **Project | Project Information**
2. Click on the **Start Date** (drop down box), select the correct date, select **OK**



Tip: if you have modified your standard start time from 8am, you should change not only the project start date but also the start time. Failure to do so may cause confusion down the track.

Check the correct calendar is used

1. Select **Project | Project Information**
2. Click on the **Calendar** (drop down box), select the correct calendar for this project select **OK**



Tip: If you have used a calendar other than standard, you may also want to right click on your Gantt Chart, select Non-working Time and change your calendar from Standard, to the one you have customised.

Entering and Editing Tasks

There are several ways of entering tasks into Project; the simplest way is using the Task Entry Table. Simply click in the cell under the **Task Name** column and start typing.

Tasks should be entered in sequential order of execution whenever possible as this will make linking tasks and reading the project easier.

Task Mode	Task Name	Duration	Start	Finish	Predecessors
	Hire Staff	16 days	Thu 14/07/11	Thu 4/08/11	
	Place and run Ad	5 days	Thu 14/07/11	Wed 20/07/11	
	Read CV's	5 days	Thu 21/07/11	Wed 27/07/11	2
	Hold Interviews	2 days	Thu 28/07/11	Fri 29/07/11	3
	Call References	1 day	Mon 1/08/11	Mon 1/08/11	4
	Final Interviews	2 days	Tue 2/08/11	Wed 3/08/11	5
	Hire Staff Member	1 day	Thu 4/08/11	Thu 4/08/11	6
	End of Phase 1	0 days	Thu 4/08/11	Thu 4/08/11	7
	Train Staff	4 days	Fri 5/08/11	Wed 10/08/11	1
	Hold Induction	1 day	Fri 5/08/11	Fri 5/08/11	
	Hold Training Session 1	1 day	Mon 8/08/11	Mon 8/08/11	10
	Hold Training Session 2	1 day	Tue 9/08/11	Tue 9/08/11	11
	Evaluate Staff	1 day	Wed 10/08/11	Wed 10/08/11	12


Manual/Automatic Scheduled Tasks

You can now choose whether each task is **manually** or **automatically** scheduled. Manually-scheduled tasks allow you to place tasks wherever you want them - they will then only move when you choose to move them. Project won't move manually scheduled tasks!

Project managers who are accustomed to automatic scheduling with past versions of Project can turn the new manually scheduling feature off for specific tasks or the entire project. Some projects, especially complicated ones, may require Project's powerful scheduling engine to take care of scheduling for you.

Task Mode	Task Name	Duration
	Holiday Project	12 days
	Planning Phase	11 days
Manual Task	Renew passport	2 wks
Auto Task	Browse brochures	5 days
	Book it	0 days

The disadvantage of a manually-scheduled task is that you have to enter and update scheduling information on one of the tasks you need to manually update all associated manually scheduled tasks, whereas if you used automatic scheduling all the following tasks would update automatically.



Tip: To quickly change the default Task Scheduling mode for a project, right click on the READY NEW TASKS: AUTO SCHEDULED New Tasks: and select Auto Scheduled or Manual Scheduled from the status bar.

To change the task mode for a single task

1. On the **Task Mode** column click on the drop down box
2. Select if you want an automatic or a manual task
3. Then if you selected manual you will need to enter the dates etc. for the task, if you selected automatic that dates will be entered for you based on the duration and dependencies.

Editing cell contents

There are two ways to edit the contents of a cell;

- Click once in the cell to select it and then click once again to edit. Your cursor will appear in the cell. Change the cell as required, push **Enter**

- Double click on the cell and start typing in the Name field of the Task Information dialog box, push **OK** when complete

Clear Cell Contents

1. Right click on the cell, choose **Clear Contents**



Tip: Do not use the **Delete** button on the keyboard to clear cell contents. Pushing the **Delete** button will delete the entire record including duration, start and finish dates, resources and predecessors.

Delete a line

If you have entered a task you no longer need, select the task from its **ID number** and push **Delete**. This will delete the task and all associated information.

Inserting Additional Tasks

1. Push the **Insert** key on the keyboard and a blank line will appear above the cursor

Copy/Cut and Paste

1. To cut or copy the entire task including duration, start and finish dates, be sure to select the task from the ID number. To cut/copy just the cell content, select only the cell.
2. Select **Task | Cut or Task | Copy**
3. Select new location
4. Select **Task | Paste**.

If you select Paste Special in another office product, for example word – you have the option to Keep Original Table Formatting which means it will keep the tasks in a table format and look the same as in project. Another paste option is Merge Formatting which converts the tasks to have the same formatting as the document so the font etc. may change. The final option is Text Only which means it only pastes the text and there is no table around it

Move using drag and drop

1. Select the task to move from the task ID number
2. With the mouse in the pointer shape drag the task to its new location

7						
8		Hire Staff Member	1 day	Thu 4/08/11	Thu 4/08/11	6
9		End of Phase 1	0 days	Thu 4/08/11	Thu 4/08/11	7
10		Train Staff	4 days	Fri 5/08/11	Wed 10/08/11	1
11		Hold Induction	1 day	Fri 5/08/11	Fri 5/08/11	1
12		Hold Training Session 1	1 day	Mon 8/08/11	Mon 8/08/11	10
13		Hold Training Session 2	1 day	Tue 9/08/11	Tue 9/08/11	11
14		Evaluate Staff	1 day	Wed 10/08/11	Wed 10/08/11	12

Copy using drag and drop

1. Select the task to move from the task ID number
2. With the mouse in the pointer shape, hold the **Ctrl** key down while dragging the task to its new location

Adding Additional Columns

You can add extra columns to your Task Entry Table. To do this:

1. Scroll to the last column where it says **Add New Column**
2. Click on the drop down arrow and select which column you would like to add. You can do this as many times as you want

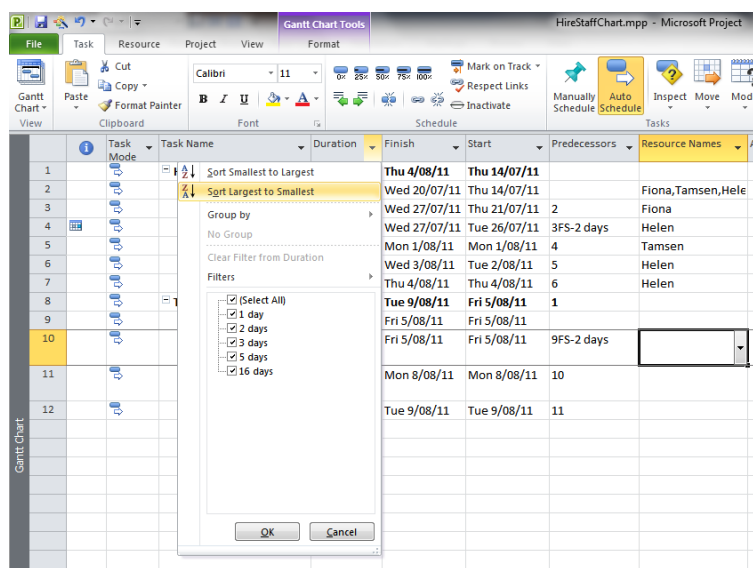
Custom Fields on the fly

When you want to create simple custom text fields you can now just start typing into a new column.

Task Name	Duration	Resource Names	Add New Column
<input type="checkbox"/> Holiday Project	12 days		
<input type="checkbox"/> Planning Phase	11 days		
Renew passport	2 wks		Very important!
Browse brochures	5 days	Owl,Pussycat	

Filtering

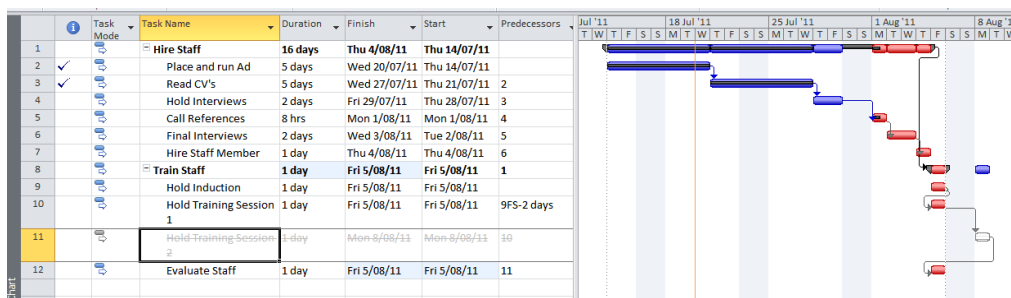
Project 2010 uses the intuitive filters that first appeared in Excel 2007. Click the drop arrow at the top of a column and then simply tick the boxes next to the items you want to see.



Inactive tasks

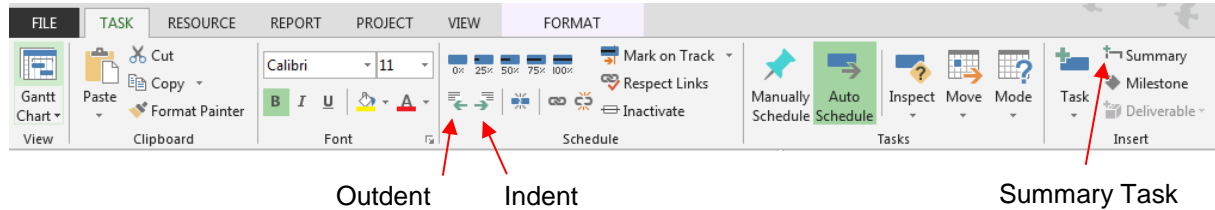
You can make tasks inactive and still retain them in the project. Inactive tasks often have critical information (such as actuals and cost information) that can be valuable for archival purposes. To make a task inactive:

1. Right click on the task you want to make inactive
2. Click on **Inactive**
3. The task will now get a line through it and it will appear as a white bar in the Gantt Chart



Summary Tasks

Summary tasks are used to give a project plan structure and help to break the project into manageable chunks. A project can be broken down into nine layers.



- **Outdent** – for promoting a task to a higher level such as a summary task
- **Indent** – used for moving tasks to a lower level under a summary task
- **Summary Task** – use to create a summary task

Top-down summary tasks

Project managers are no longer restricted to creating subtasks and then rolling them up into summary tasks. For Project 2010, you can create summary tasks first, and they can have dates that don't exactly match the roll-up dates of the subtasks.

At the beginning of the planning phase, project managers may only have some high-level information on key deliverables and major milestones of their projects. Using Project, you can divide projects into high-level phases based on the overall timeline and budget. This means that dates for individual work items do not necessarily need to line up exactly with dates for the high-level phases. Using this methodology these summary tasks may be manually scheduled. To create a summary task:

1. Click where in the table you would like the summary task to go
2. Click on **Task | Summary**
3. A summary task will then be added and you can add in the information you know

Create a Summary task for a group of tasks

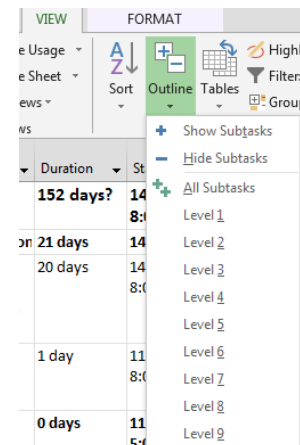
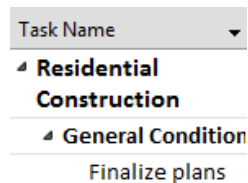
1. If you don't already have a heading for a group of tasks select **Insert | New Task** to create a blank row above each group of tasks
2. Enter a task name for each group of tasks – this will become the summary task
3. Select all the tasks directly in the group underneath the summary task
4. Click once on the **Task | Indent** (button) on the Ribbon

Controlling how much detail you see

You can control how much detail you see by using the outline options

1. Select **View | Outline**
2. Select the level of detail you would like to see. This will collapse or expand all items at the level specified

You can also control the how much detail you see for a particular summary task by clicking on the triangle next to the summary task in the Task Table.



Project Duration

Duration is defined as the difference between the start time and the finish time of the task. It is NOT the number of hours required to complete the task (this is called **Work**) in Project. Duration and Work may be equal.

Three major types of durations can be entered within Microsoft Project:

- Working Time Duration – as defined by the project calendar, entered as **hours**, **days**, **weeks**, **months**
- Elapsed Duration – 24 hours per day, seven days per week, entered as **ehours**, **edays**, **eweeks**,
- Estimated Duration – flagging the duration as an estimate only, enter a **?** after the duration

Entering Duration

1. Select the duration field in the Task Entry Table for the appropriate task
2. Type in the duration followed by a d for days or other appropriate timeframe symbol, push **Enter**

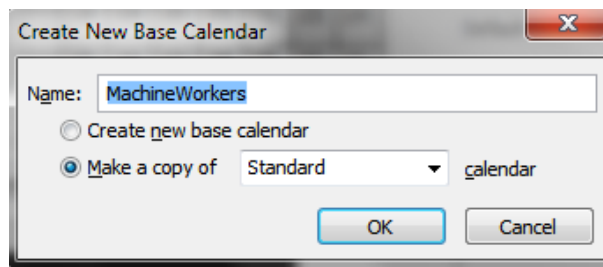
<input type="checkbox"/> Infrastructure Deployment Te	141.25 days?
<input type="checkbox"/> Scope	4 days?
Determine project scope	1 day
Secure project sponsorship	1 day?
Define preliminary resource	1 eday
Secure core resources	1 day
Scope complete	0 days

Task Calendars

Sometimes tasks need to be undertaken outside standard working time, for example, maintenance on a piece of machinery or the installation of new computers. These tasks may be best done in the weekend to minimise disruptions to daily work. Therefore it may be necessary to establish a calendar for a specific task.

Creating a task calendar

1. Select **Project | Change Working Time | Create New Calendar**
2. In the **Name** (field) give the calendar a name
3. From the **Make a copy of calendar** (drop down box) select the closest calendar to that required, select **OK** (button)
4. Modify the working time in the calendar to match that required for this task (see earlier notes on modifying calendars)
5. Once modified select **OK**



Assigning a calendar to a task

1. Select the task of interest and select the **Task Tab | Information**
2. Click on the **Advanced Tab** and in the **Calendar** drop down box select the calendar you just created, select **OK** (button)

	Task Mode	Task Name	Duration	Start	Finish	Predecessors
1		Hire Staff	16 days	Thu 14/07/11	Thu 4/08/11	
2		Place and Run ad	5 days	Thu 14/07/11	Wed 20/07/11	
3		Read CV's	5 days	Thu 21/07/11	Wed 27/07/11	2
4		Hold Interviews	2 days	Thu 28/07/11	Fri 29/07/11	3
5		Call References	1 day	Mon 1/08/11	Mon 1/08/11	4
6		Final Interviews	2 days	Tue 2/08/11	Wed 3/08/11	5
7		Hire Staff Member	1 day	Thu 4/08/11	Thu 4/08/11	6
8		End of Phase 1	0 days	Thu 4/08/11	Thu 4/08/11	7



Tip: Where a conflict exists between the task and resource calendars the task calendar will take precedence.

Linking Tasks

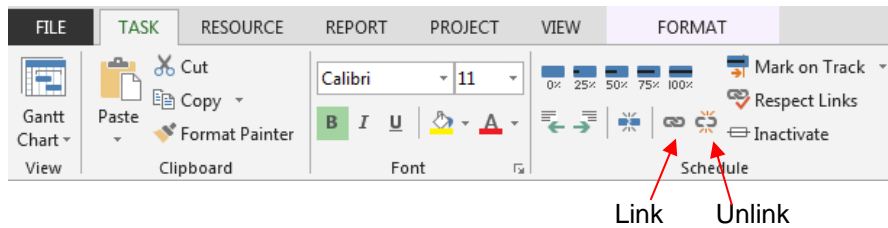
Tasks can be linked in three main ways:

- Finish to Start – Task A must finish before Task B can start
- Start to Start – the start of Task A signals the start of Task B
- Finish to Finish – the finish to Task A signals the finish of Task B

The term's predecessor and successor describe how tasks relate to each other in the project list.

Create a task relationship

1. Select the tasks to be linked
2. From the ribbon, select **Task | Link Tasks**



Tip: To link two tasks that are not next to each other, click once on the first task, hold the **Ctrl** key down and select the successor task. Let go of the **Ctrl** key before linking the tasks

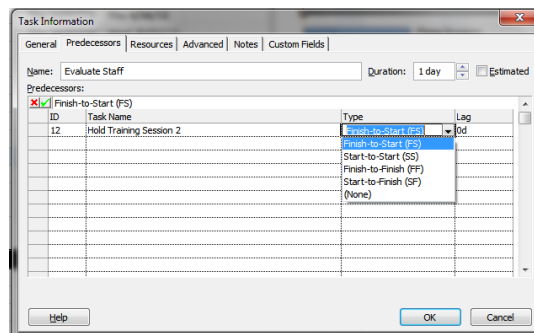
Break a task relationship

1. Select the tasks to be unlinked
2. Click on the **Unlink Tasks** button  on the ribbon. **Tasks | Unlink Tasks**

Changing the task relationship type

By default Project creates a Finish to Start relationship. To modify the relationship type:

1. Select the successor task
2. Select **Task | Information | Predecessors** (tab)
3. Select the **Type** (field) for the appropriate successor task
4. Click on the **Finish to Start** (drop down box) and select the correct relationship type then select the **OK** (button)



Tip: A fast method of changing the relationship between two tasks is to **double click the link line on the Gantt Chart**. This will activate the **Task Dependency** (dialog box) then you can select the correct relationship.

Lead and Lag

Lag and lead are two options that allow the modification of the ASAP relationship that Project automatically creates between two linked tasks.

- Lag creates a gap between two linked tasks and may be used to specify a waiting period, and is always a positive number.
- Lead allows for the tightening up of the task relationship and is used where the successor task can start prior to the predecessor being completely finished.

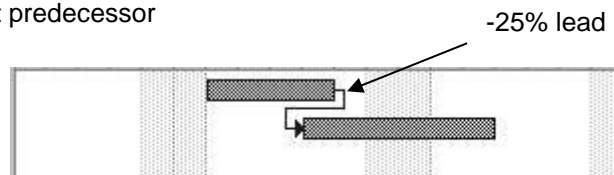
Entering lag

1. Select the successor task from the Task Entry Table
2. Activate the **Task | Information** dialogue button from the ribbon, select the **Predecessors** (tab)
3. Select the **Lag** (field) for the correct predecessor
4. Use the arrow to enter the lag number
5. Select **OK**

Entering Lead

Lead is entered as negative lag. As well as entering lead as working time duration and elapsed duration it can also be entered as a percentage, i.e. -25% would suggest that the successor task can start once the predecessor is 75% complete.

1. Select the successor task from the Task Entry Table
2. Activate the **Task | Information** dialogue button from the ribbon, select the **Predecessors** (tab)
3. Select the **Lag** (field) for the correct predecessor
4. Use the arrows to enter the appropriate lead number (negative value)
5. Select **OK** (button)



Removing Lag or Lead

1. Select the successor task from the Task Entry Table
2. Activate the **Task | Information** dialogue button from the ribbon, select the **Predecessors** (tab)
3. Select the **Lag** (field) for the correct predecessor
4. Type 0 (zero) or use arrows to find 0 and select **OK - (DO NOT PUSH DELETE)**



Tip: Double click the link line between two tasks on the Gantt Chart to activate the Task Dependency dialog box.

Milestones

Milestones are significant events in a project, e.g., the completion of a certain series of tasks, or the overall project.

Milestones do not have a duration and do not have resources assigned.

Entering a Milestone

1. Push **Insert** on the keyboard to insert a new task
2. Enter the name of the milestone into the Task Entry Table
3. Type a duration of 0 (zero) in the duration field

On entering zero duration, the symbol on the Gantt Chart will change to a  diamond shape.

Milestones can be linked just like normal tasks.

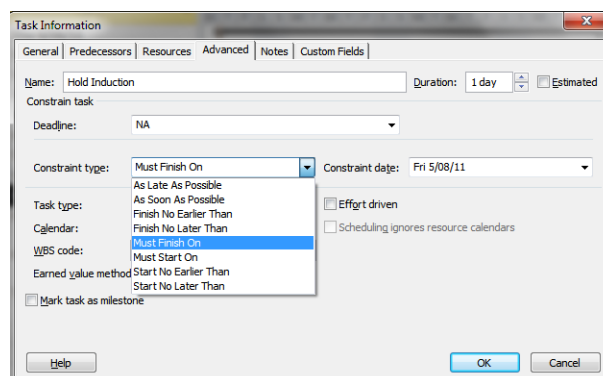
Constraints and Deadlines

Constraints are dates that are added to the project and prevent Project from rescheduling beyond the constraint date. Constraints restrict flexibility in the project plan.

Deadlines are flexible constraints that act as an indicator of important dates, but still let Project reschedule around these dates.

To add a constraint

1. Select the task or milestone to which the constraint is to be applied
2. Activate the **Task | Information | Advanced** (tab)
3. Select the **Constraint type** (drop down box) and select the appropriate constraint type
4. Select the **Constraint date** (drop down box), enter the constraint date and time select **OK** (button)



To remove a constraint

1. Select the task or milestone to which the constraint has been applied
2. Activate the Task Information dialog box **Task | Information | Advanced** (tab)
3. Select the **Constraint type** (drop down box), select **As Soon As Possible** (assuming the project has been scheduled from its start date), select **OK**

Entering a deadline

1. Select the task or milestone to which the deadline is to be applied
2. Activate the Task Information dialog box **Task | Information | Advanced** (tab)
3. Select the **Deadline** (drop down box), select the appropriate **Date**, then select **OK**

The deadline will show on the Gantt Chart as an arrow indicating the deadline date.

If movement occurs in earlier tasks in the plan, Project will reschedule the plan leaving the deadline indicator in the original position. An indicator in the Information column will also appear to signify the project is now exceeding the deadline date.

Task Mode	Task Name	Duration	Start	Finish	Predecessors
	Hire Staff	16 days	Thu 14/07/11	Thu 4/08/11	
	Place and run Ad	5 days	Thu 14/07/11	Wed 20/07/11	
	Read CV's	5 days	Thu 21/07/11	Wed 27/07/11	2
	Hold Interviews	2 days	Thu 28/07/11	Fri 29/07/11	3
	Call References	1 day	Mon 1/08/11	Mon 1/08/11	4
	Final Interviews	2 days	Tue 2/08/11	Wed 3/08/11	5
	Hire Staff Member	1 day	Thu 4/08/11	Thu 4/08/11	6
	Train Staff	3 days	Fri 5/08/11	Tue 9/08/11	1
	Hold Induction	1 day	Mon 8/08/11	Mon 8/08/11	
	Hold Training Session	1 day	Fri 5/08/11	Fri 5/08/11	9FS-2 days
	Hold Training Session	1 day	Mon 8/08/11	Mon 8/08/11	10
	Evaluate Staff	1 day	Tue 9/08/11	Tue 9/08/11	

Deadline indicators provide information that the task or milestone is no longer meeting the deadline

Removing or modifying a deadline

1. Select the task or milestone to which the deadline has been applied
2. Activate **Task | Information Advanced** (tab)
3. Select the **Deadline** (drop down box) and delete the date to remove the deadline or choose another date to change the deadline date
4. Select **OK**



Tip: To quickly activate the Task Information dialog box, double click on a task in the Task Table.

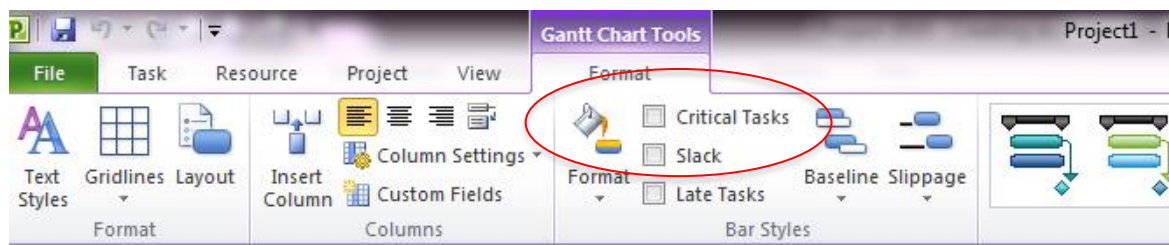
Critical Path

The critical path is the series of tasks (or even a single task) that dictates the calculated finish date of the project. That is, when the last task in the critical path is completed, the project is complete.

If it is important for the project to finish on schedule, pay close attention to the tasks on the critical path as the tasks on the Critical Path will determine whether the project finishes on time.

Showing Critical Path

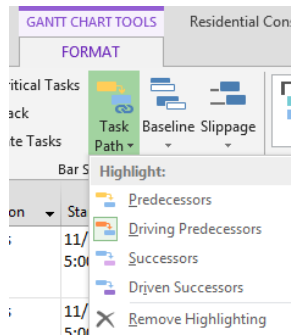
1. Select **Format | Bar styles**
2. Turn on the **Critical Tasks** check box



Task Paths

Task Paths are used to highlight tasks that are linked to the selected task. It can be an effective way of visually seeing a tasks predecessors and/or successors.

1. Select a task in the Task Table

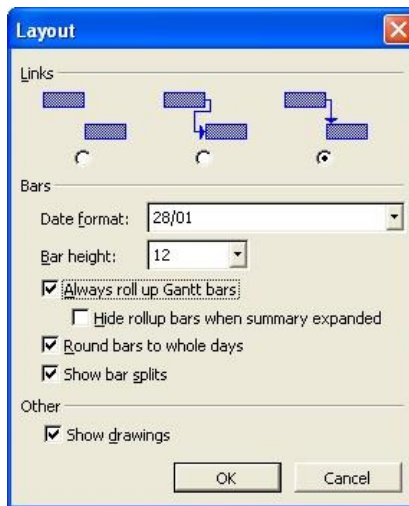


2. from the ribbon select **Format | Task Path**
3. Choose the path to see, you can see more than one
4. To remove the highlighting choose **Format | Task Path | Remove Highlighting**

Rolled Up Tasks

To show information about the sub tasks on the summary tasks, you can roll up information to the summary tasks.

1. Select **Format | Layout**
2. Turn on the **Always roll up Gantt Bars** (check box)
3. Choose **OK**



Updating Tasks



Save a Baseline

Saving a baseline will create a copy of the current estimate (or actuals) and save it as the base for future comparison.

1. Select **Project | Set Baseline**
2. Select **Set Baseline** and **Entire Project**
3. Click **OK**

Splitting Tasks

Sometimes a task may start and then have to stop for a period of time; this can be reflected on your Gantt Chart

1. Click once on the **Split Tasks** button on the **Task** tab 
2. Rest your mouse on the bar you wish to split on the Gantt Chart
3. Click and drag to the right creating the required split 

Updating Tasks

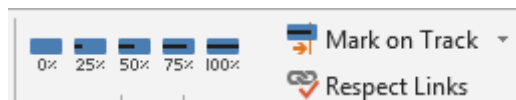
By default, Microsoft Project indicates the percentage of the task that is complete on the Gantt Chart as a thin, black line drawn horizontally through the middle of each task bar. There are a number of ways of updating a task:

- Entering Actual Start and Finish dates for the task.
- Entering % complete details (this is a % of the duration)
- Entering Actual Duration

Updates task quickly

You can quickly update any task:

1. Click once on the task in question
2. Click once on the % complete button that represents its percentage complete from the Task ribbon



Updating the Project using the Tracking Table

1. From the menu select **View | Table | Tracking**
2. Find the task to update and type in the appropriate field

	Task Name	Act. Start	Act. Finish	% Comp.	Phys. % Comp.	Act. Dur.	Rem. Dur.
1	<input type="checkbox"/> New Product Devel	NA	NA	0%	0%	0 days	769 days
2	<input type="checkbox"/> Initial New Prod	NA	NA	0%	0%	0 days	9 days
3	New product	NA	NA	0%	0%	0 days	0 days
4	Describe new	NA	NA	0%	0%	0 days	2 days
5	Gather inform	NA	NA	0%	0%	0 days	6 days
6	Convene opp	NA	NA	0%	0%	0 days	1 day
7	Decision point	NA	NA	0%	0%	0 days	0 days

Update either:

- Actual Start and Finish dates
- % Complete
- Actual Duration

Remaining duration

The remaining duration field shows the balance of duration remaining as a task is updated. If the task is going to be finished sooner or later than originally scheduled, enter a new value in the Remaining Duration field.

Tasks that take less time than planned

Make sure that either:

1. Actual Start and Finish dates are entered or
2. Actual Duration is entered

Entering % Complete, calculates the percentage based on planned duration.

Updating tasks using the ribbon

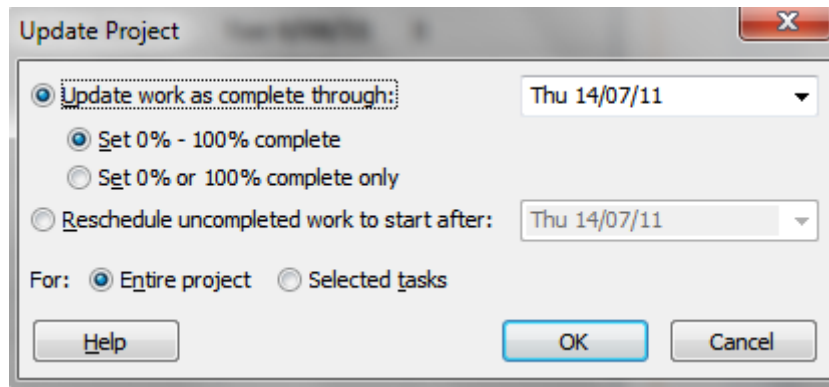
1. Select the task to be updated
2. Select **Task | Mark on Track | Update Tasks**

3. Enter the appropriate details for the task
4. Select **OK**

Updating the Project or Multiple Tasks

It is possible to update a number of tasks at the same time, or even the entire project. Perhaps several tasks were started or completed on time.

1. From the **Task Name** field, select the tasks to update
2. To update the entire project do not select any tasks
3. Select **Project | Update Project**
4. Select the **Update work as complete through** (checkbox), select a date from the top drop down box. This date will reflect the date which the tasks are to be updated as at.



5. Select either the **Set 0% - 100% complete** or **Set 0% - 100% complete only** (check box). Use the first choice to have Project calculate an exact percentage
6. Select **For Entire project** (check box) to update the entire project, or **For Selected tasks** to update only selected tasks then select **OK**

Reschedule uncompleted work

Progress may have stopped on the project for a period of time (rain, consent hold ups etc) or it may be that all the tasks have been updated as at last Friday and now you simply want to reschedule uncompleted work. The most effective way of doing this is use the Update Project dialog box.

1. Select **Project | Update Project**
2. Select the **Reschedule uncompleted work to start after:** (check box), select a date from the top drop down box. This date will reflect the date which the tasks are to be rescheduled from
3. Select **For Entire project** (check box) to update the entire project, or **For Selected tasks** to update only selected tasks then select **OK**

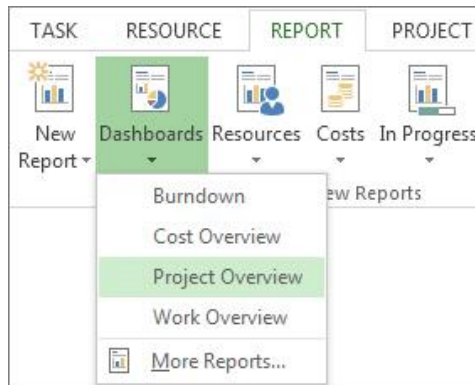
Project 2013 Reports

Create a project report

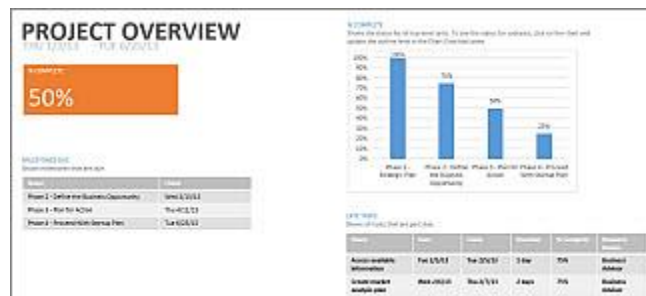
Reports have undergone a transformation in Project 2013. You can create and customise graphical reports of whatever project data you want. As you work on the project, the reports change to reflect the latest information.

1. Click the **Report** tab.
2. In the **View Reports** group, click the type of report you want and then pick a specific report.

For example, to open the Project Overview report, click **Report | Dashboards | Project Overview**.



The Project Overview report combines graphs and tables to show where each phase of the project stands, upcoming milestones, and tasks that are past their due dates.



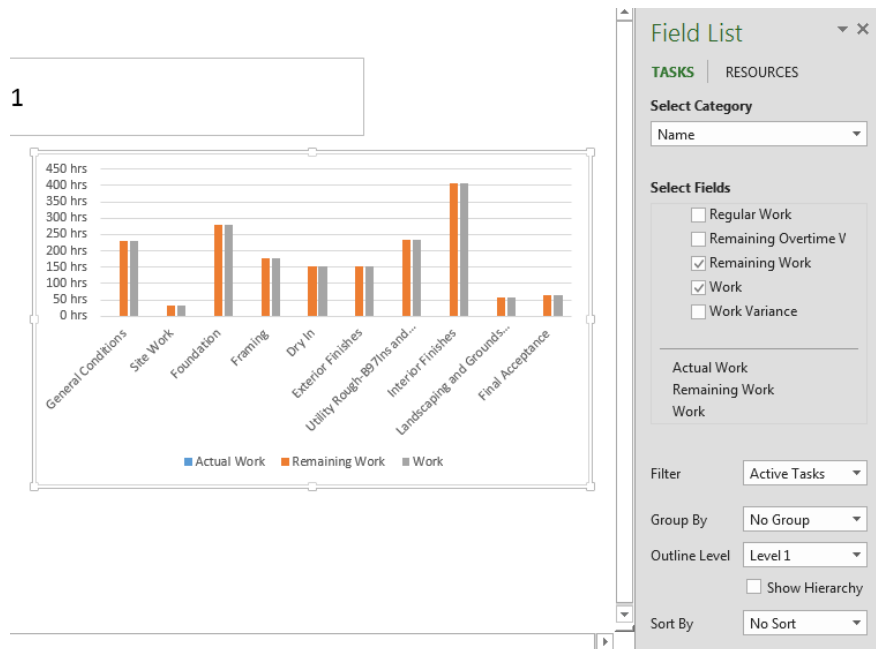
Project provides dozens of reports you can use right away, but you can also customise the content and the look of any of the reports, or build a new one from scratch.

Work with your report




Change the data in a report

You can pick and choose the data that Project shows in any part of a report.

1. Click the table or chart you want to change.
2. Use the Field list pane on the right of the screen to pick fields to show and filter information.



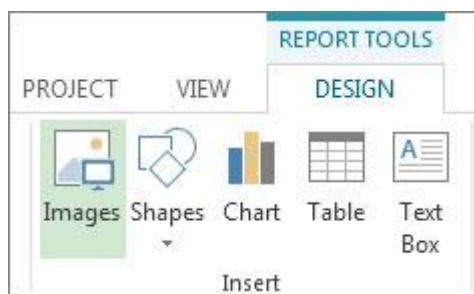
In this example both Work and Remaining work have been selected as well as Outline level 1, so we are seeing summary tasks only.

 **Tip:** When you click on a chart, three buttons also pop up directly to the right of the chart. Use the Chart Elements  and Chart Filters  buttons to quickly pick elements such as data labels and filter the information that goes into the chart.

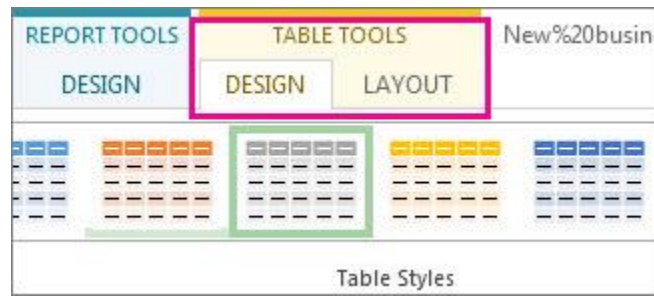
Change how a report looks

With Project, you control the look of your reports.

Click anywhere in the report and then click **Report Tools Design** to see the options for changing the look of the whole report. From this tab, you can change the font, colour, or theme of the whole report. You can also add new images (including photos), shapes, charts, or tables.



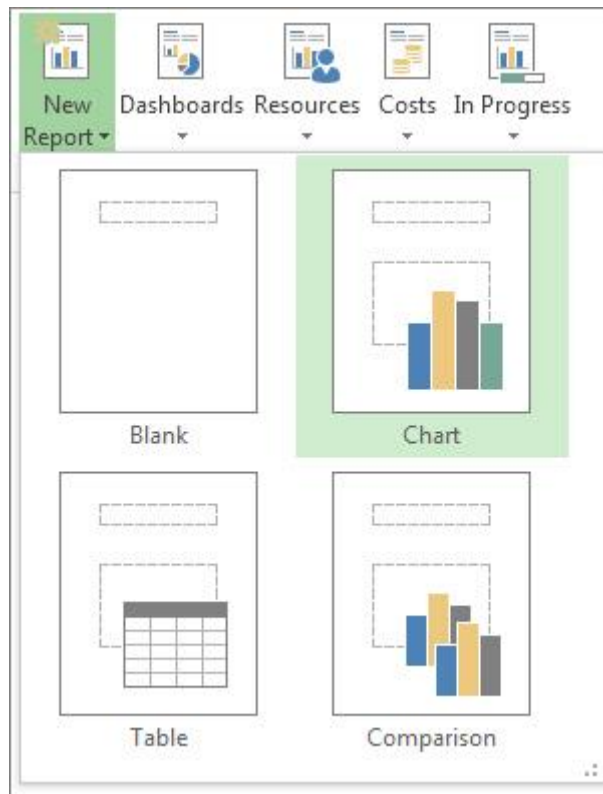
When you click individual elements (charts, tables, and so on) of a report, contextual tabs will appear at the top of the screen with options for formatting that part, ie Table Tools or Chart Tools



Tip: You can make a report part of a split view so you can see the report change in real time as you work on project data.

Make your own report

1. Click **Report | New Report**.
2. Pick one of the four options, and then click **Select**
3. Give your report a name and start adding information to it

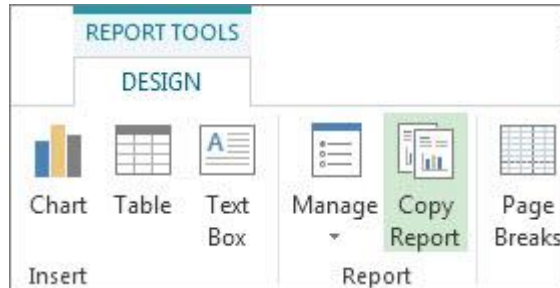


- **Blank** Creates a blank canvas. Use the **Report Tools Design** tab to add charts, tables, text, and images.
- **Chart** Project creates a chart comparing Actual Work, Remaining Work, and Work by default. Use the **Field List** pane to pick different fields to compare, and use the controls to change the colour and format of the chart.
- **Table** Use the **Field List** pane to choose what fields to display in the table (Name, Start, Finish, and % Complete appear by default). The Outline level box lets you select how many levels in the project outline the table should show. You can change the look of the table on the **Table Tools Design** and **Table Tools Layout** tabs.
- **Comparison** Sets two charts side-by-side. The charts have the same data at first. Click one chart and pick the data you want in the **Field List** pane to begin differentiating them.

Any of the charts you create from scratch are fully customisable. You can add and delete elements and change the data to meet your needs.

Share a report

1. Click anywhere in the report
2. Click **Report Tools Design | Copy Report**



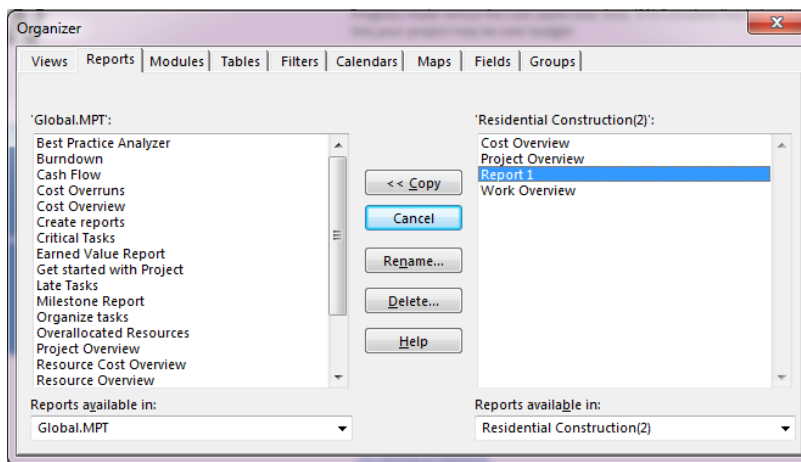
3. Paste the report into any program that displays graphics

You might need to resize and line up the report when you paste it into its new home.

Make a new report available for future projects

Use the Organizer to copy a new report into the global template for use in future projects.

1. From the ribbon select **Report Tools | Manage | Organizer**
2. From the right hand pane, select your report, click on the **Copy** button to move your report to the Global.mpt



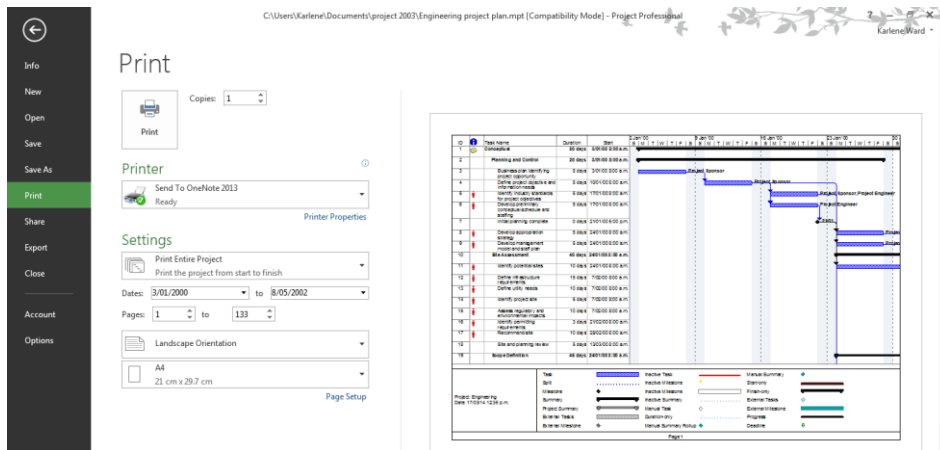
Printing the Gantt Chart

Printing in Project is “what you see is what you get”. That means that if you have 4 columns of your Task Table showing in the Gantt Chart view, that’s what you will see when you print.


Previewing the Gantt Chart

To see what the Gantt Chart will look like when printed:

1. Select **File | Print**. Whichever whole columns were displayed prior to Print Previewing will be displayed.



Restrict the number of columns to be printed

1. Return to the Gantt Chart View, by clicking on the return arrow 
2. Drag the split bar to hide the table columns which you do not want to print



Tip: A column in a table has to be “fully exposed” in order to print. By double clicking on the split bar between the Task Table and Gantt Chart, the split bar will snap to the nearest column border.

Modify the Timescale

Modifying the timescale on the Gantt Chart allows more or less information to be displayed on any one page.

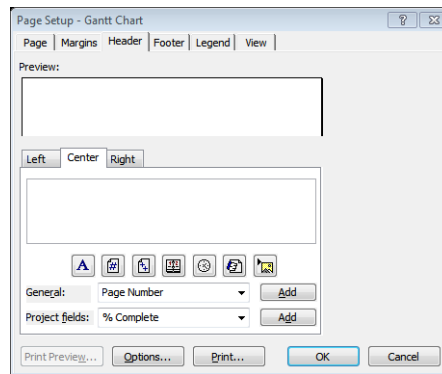
1. Select **View | Timescale**
2. From the drop down box select which view you would like to use, for example days or hours



Tip: You can also change the timescale, but using the zoom slider in the bottom right of the screen. Alternatively you can right click on the grey timescale headings in the Gantt Chart and choosing Timescale.

Modify Headers and Footers

1. Select **File | Print | Page Setup**
2. Select the **Header** tab then select the **Left, Centre or Right** (tab) from the **Alignment** (pane) to choose where the header information will appear



3. Select the **General** (drop down box) to select fields to add to the header, and choose the **Add** (button)
4. Free form text can also be added to the header by typing directly into the white text box area

Appendix Table of Contents

Project Shortcut Keys..... i

Project Shortcut Keys

Navigate Views and Windows

To do this	Press
Activate the Control menu.	ALT+SPACEBAR
Activate the entry bar to edit text in a field.	F2
Activate the menu bar.	F10 or ALT
Activate the project control menu.	ALT+HYPHEN
Activate the split bar.	SHIFT+F6
Close the program window.	ALT+F4
Display all filtered tasks or all filtered resources.	F3
Display the Field Settings dialog box.	ALT+F3
Open a new window.	SHIFT+F11
Reduce a selection to a single field.	SHIFT+BACKSPACE
Reset sort order to ID order and turn off grouping.	SHIFT+F3
Select a drawing object.	F6
Display task information.	SHIFT+F2
Display resource information.	SHIFT+F2
Display assignment information.	SHIFT+F2
Turn on or off the Add To Selection mode.	SHIFT+F8
Turn on or off Auto Calculate.	CTRL+F9
Turn on or off the Extend Selection mode.	F8
Move left, right, up, or down to view different pages in the Print Preview window.	ALT+Arrow keys

Outline a Project

To do this	Press
Hide subtasks.	ALT+SHIFT+HYPHEN or ALT+SHIFT+MINUS SIGN (minus sign on the numeric keypad)
Indent the selected task.	ALT+SHIFT+RIGHT ARROW
Show subtasks.	ALT+SHIFT+= or ALT+SHIFT+PLUS SIGN (plus sign on the numeric keypad)
Show all tasks.	ALT+SHIFT+* (asterisk on the numeric keypad)
Outdent the selected task.	ALT+SHIFT+LEFT ARROW

Select and edit in a dialog box

To do this	Press
Move between fields at the bottom of a form.	Arrow keys
Move into tables at the bottom of a form.	ALT+1 (left) or ALT+2 (right)
Move to the next task or resource.	ENTER
Move to the previous task or resource.	SHIFT+ENTER

Select and edit in a sheet view

To do this	Press
Cancel an entry.	ESC
Clear or reset the selected field.	CTRL+DELETE
Copy the selected data.	CTRL+C
Cut the selected data.	CTRL+X
Delete the selected data.	DELETE
Delete row that has a selected cell.	CTRL+MINUS SIGN (on the numeric keypad)
Fill down.	CTRL+D
Display the Find dialog box.	CTRL+F or SHIFT+F5
In the Find dialog box, continue to the next instance of the search results.	SHIFT+F4
Use the Go To command (Edit menu).	F5
Link tasks.	CTRL+F2

Paste the copied or cut data.	CTRL+V
Reduce the selection to one field.	SHIFT+BACKSPACE
Undo the last action.	CTRL+Z
Unlink tasks.	CTRL+SHIFT+F2
Set the task to manually schedule	CTRL+SHIFT+M
Set the task to auto schedule	CTRL+SHIFT+A

Move in a View

To do this	Press
Move to the beginning of a project (timescale).	ALT+HOME
Move to the end of a project (timescale).	ALT+END
Move the timescale left.	ALT+LEFT ARROW
Move the timescale right.	ALT+RIGHT ARROW
Move to the first field in a row.	HOME or CTRL+LEFT ARROW
Move to the first row.	CTRL+UP ARROW
Move to the first field of the first row.	CTRL+HOME
Move to the last field in a row.	END or CTRL+RIGHT ARROW
Move to the last field of the last row.	CTRL+END
Move to the last row.	CTRL+DOWN ARROW

Use a Timescale

To do this	Press
Move the timescale left one page.	ALT+PAGE UP
Move the timescale right one page.	ALT+PAGE DOWN
Move the timescale to beginning of the project.	ALT+HOME
Move the timescale to end of the project.	ALT+END
Scroll the timescale left.	ALT+LEFT ARROW
Scroll the timescale right.	ALT+RIGHT ARROW
Show smaller time units.	CTRL+ / (slash on the numeric keypad)
Show larger time units.	CTRL+* (asterisk on the numeric keypad)