MICROSOFT PROJECT BASICS

WPL_J400

Project management software is arguably one of the most difficult to learn, not only because you need to study how to use the software, but because you also need to know a little about project management theory.

Nevertheless, you need to start somewhere. This is a roll up your sleeves session where you will be introduced to the basic operating philosophy of Microsoft Project.

In this session you will:

- ✓ gain an understanding of *Microsoft Project's* operating philosophy
- ✓ learn how to start *Microsoft Project*
- ✓ gain an understanding of the main *Microsoft Project* screen elements
- ✓ gain an understanding of how *Microsoft Project* works
- ✓ learn how to use the *Ribbon*
- ✓ gain an understanding of *Backstage View* in *Microsoft Project*
- ✓ gain an understanding of the work area and project views
- ✓ learn how to change the view of your project
- ✓ learn how to split the project work area horizontally
- ✓ gain an understanding of tables in *Microsoft Project*
- ✓ learn how to change the *Table View*
- ✓ gain an understanding of the special Gantt Chart view
- ✓ learn how to work with the Gantt Chart view
- ✓ learn how to add a command to the Quick Access Toolbar
- ✓ learn how to work with existing *Microsoft Project* files
- ✓ learn how to exit from *Microsoft Project*.

How MICROSOFT PROJECT WORKS

Microsoft Project is really a computer database that uses two main *tables* of data to keep track of your project. *Project* uses one table to store information about the *tasks* of your project and

the other for **resource** information. By using the many **views** available in **Project**, you can display your project data from these tables in many different ways.

Tasks

This table is comprised of over 240 columns (or fields) which contain all sorts of information about the tasks such as scheduled start, scheduled finish, name, duration, cost, and the like. Some of these fields require you to enter data, while others are calculated and filled by Microsoft Project for you.

ID	Name	Duration	Start	Finish	Fixed	Cost	etc
8	Erect fencing	2 days	1/2/2013	3/2/2013	No	\$500	

Resources

This table contains over 200 fields (or columns).

ID	Name	Initials	Group	Max Units	Standard Rate	Overtime Rate	etc
3	Builder	FG	Contractor	4	\$55.00/h	\$75.00/h	

The two tables are joined together by assigning *resources* to *tasks*.

Views

To help you see, or *view*, your data, *Microsoft Project* adopts techniques used in spreadsheets, databases, and graphics packages.

For example you can see your task or resource table in *sheets* on the screen. Sheets are similar to spreadsheet programs where data is presented in rows and columns. In fact, many of the operations used in spreadsheets, such as widening columns, deleting data, selecting cells, and the like, are also found in *Microsoft Project*.

	1	Task Name 🔻	Duration 🔻	Start 🔻	Finish 🔻	Predecessors -	Resource Names 🔹
1		Planning	43 days	Mon 6/05/13	Wed 3/07/13		
2		Create architectural plans	3 wks	Mon 6/05/13	Fri 24/05/13		Architect, Draftsperson [200%], Building Clerk [25%]
3		Submit plans for approval	1 mon	Mon 27/05/13	Fri 21/06/13	2	Architect[67%]
4		Order materials	8 days	Mon 24/06/13	Wed 3/07/13	3	Draftsperson,Building Clerk
5		Planning Completed	0 days	Wed 3/07/13	Wed 3/07/13	2,3,4	
6		Site Works	28 days	Thu 4/07/13	Mon 12/08/13		
7		Erect fencing	3 days	Thu 4/07/13	Tue 9/07/13	5	No Barrier Fencing
8		Erect site buildings	4 days	Wed 10/07/13	Mon 15/07/13	7	Supervisor,Carpenter[400%],Labourer[800%]
9		Clear and level site	3 wks	Tue 16/07/13	Mon 5/08/13	8	Supervisor, Driver [200%], Grader [200%]

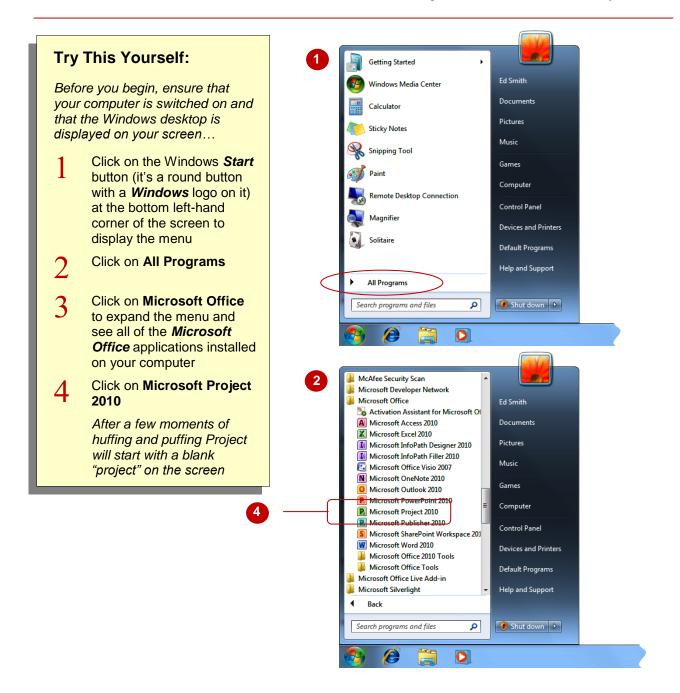
You can also see, or view, your data in *forms.* These forms are similar to a form view that you receive for data entry screens in database programs. Forms allow you to add or edit data and you can usually cycle through the cards as you would in a normal database.

Name:	Erect steelwork	Duration: 3 mo	ins 🔺	Effort drive	n <u>M</u> anually	Scheduled	vious Ne <u>x</u> t
St <u>a</u> rt:	Wed 21/08/13	h: Tue 12/11/	13	▼ Tas	k type: Fixe	ed Units 🔻 %	Complete: 0%
ID	Resource Name	Work	R/D	Leveling Delay	Delay	Scheduled Start	Scheduled Finish
4	Supervisor	225h		0d	0d	Wed 21/08/13	Tue 12/11/13
5	Rigger	2,700h		0d	0d	Wed 21/08/13	Tue 12/11/13
6	Boilermaker	2,700h		0d	0d	Wed 21/08/13	Tue 12/11/13
7	Welder	2,250h		0d	0d	Wed 21/08/13	Tue 12/11/13
10	Labourer	2,700h		0d	0d	Wed 21/08/13	Tue 12/11/13
11	Driver	900h		0d	0d	Wed 21/08/13	Tue 12/11/13
18	High Jib Crane	450h		0d	0d	Wed 21/08/13	Tue 12/11/13
21	Utility	450h		0d	0d	Wed 21/08/13	Tue 12/11/13

If you wish to see your data graphically you can view it as a *Gantt Chart* or *Network Diagram*. In addition you have a variety of other graphs for displaying resources.

STARTING MICROSOFT PROJECT

To create a new project, or edit an existing one, the first thing that you need to do is to start *Microsoft Project*. As a standard software application, how *Microsoft Project* is started is largely determined by Windows. For example, it can be started from the Windows *Start menu*, from a *shortcut*, or from *Windows Explorer* by accessing a file that was created in *Project*.



For Your Reference...

To start Microsoft Project:

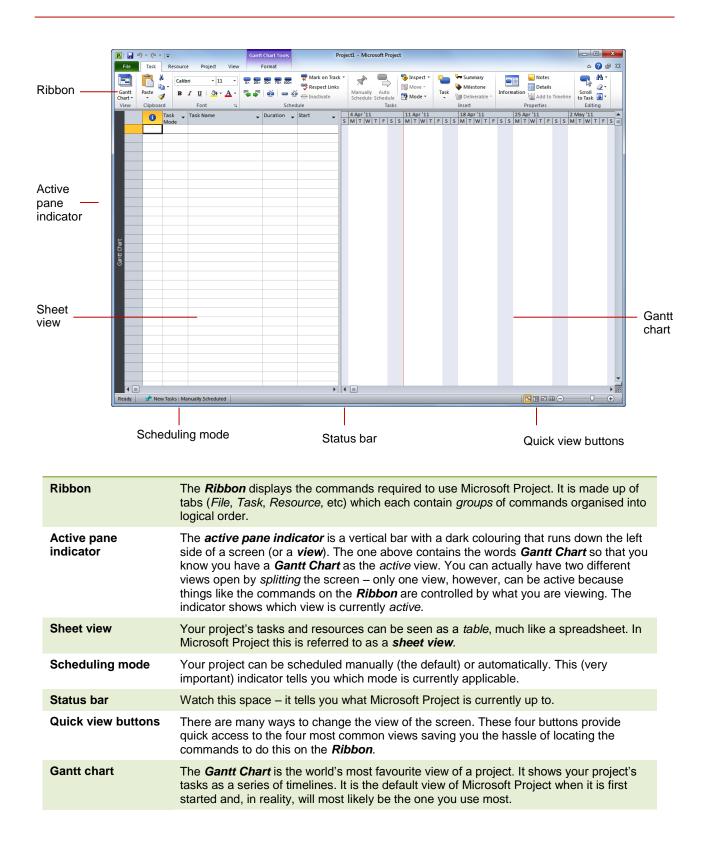
- 1. Click on the Windows Start button
- 2. Click on All Programs
- 3. Click on Microsoft Office
- 4. Click on Microsoft Project 2010

Handy to Know...

 After you have accessed *Microsoft Project* several times it should appear in the first part of the *Start* menu – this means you won't need to continue to the *All Programs* menu.

THE MICROSOFT PROJECT SCREEN

The Microsoft Project screen will vary depending upon the *view*, *table*, and *filter* that is currently active. However, you will need to become familiar with the basic components of the screen as shown below. Understanding the layout of the screen, and its components and terminology will help you in using Microsoft Project.



How MICROSOFT PROJECT 2010 WORKS

For a novice user the *Microsoft Project 2010* screen can seem intimidating. However, you'll soon see that it is made up of only three key areas. The data you type is placed in the *work* *area*. The data here can be manipulated and changed using commands on the *Ribbon*. The data is saved in a project file which is controlled through commands on the *Backstage*.

The Work Area

The **work area** occupies the largest part of the screen and contains the data associated with your project. The key point to remember is that a project is made up of *tasks* and *resources* and the work area allows you to view your task and resource data in a number of different ways. The work area may show your data in a **sheet** view, or maybe a **chart** view like a Gantt chart or maybe even both!

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		Mon 18			1	_	11 Mar '13	_	18 Mar '13	-	5 Mar '13	Tue 18/02/1		d
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	1		Planning	43 days	Mon 18/03/13					-				Ē
	2		Create architectural plans	3 wks	Mon 18/03/13					_				Ξ
	3		Submit plans for approval	1 mon	Mon 8/04/13									1
	4		Order materials	8 days	Mon 6/05/13									1
	5		Planning Completed	0 days	Wed 15/05/13									
	6		Site Works	27 days	Thu 16/05/13									
	7		Erect fencing	3 days	Thu 16/05/13									
	8		Erect site buildings	4 days	Tue 21/05/13									
	9		Clear and level site	3 wks	Mon 27/05/13									
-	10		Prepare drainage infrastructure	1 wk	Mon 17/06/13									
santt unart	11		Prepare cabling infrastructure	1 wk	Mon 17/06/13									
Ĩ	12		Site Works Completed	0 days	Fri 21/06/13									
3	13		Building Construction	125 days	Mon 24/06/13									
	14		Pour foundations	4 days	Mon 24/06/13									
	15		Erect steelwork	3 mons	Tue 2/07/13									
	16		Erect wall	2 mons	Mon 16/09/13									
	17		Install roofing superstructure	2 wks	Mon 11/11/13									
	18		Install roof retracting mechanism	1 wk	Mon 25/11/13									
	19		Erect seating tiers	3 wks	Mon 25/11/13									
	20		Building Construction Completed	0 days	Fri 13/12/13									
	21		E Fit Out	33 days	Mon 16/12/13									
1	22		Fit all windows and doors	2 wks	Mon 16/12/13									
	23		Install electrical cabling	1 wk	Mon 16/12/13									
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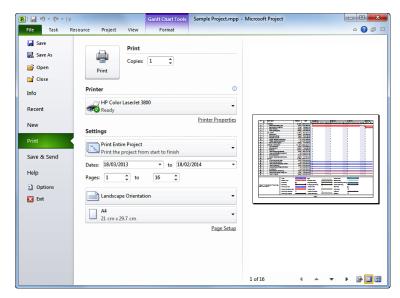
The Ribbon

When you need to do something with the data in the work area, such as format it, colour it, analyse it, move it, copy it, change the view of it and much more, you'll find all of the relevant commands on the *Ribbon*. The *Ribbon* has commands organised thematically using a series of *tabs* across the top. Commands on each tab are further organised into *groups* of like-commands. It's not too hard to get the hang of where a command can be found. Remember, a project is simply a view of task and resource data – hey, have a look at the *Ribbon* and you'll find a *Tasks* and a *Resources* tab! So whatever you need to do with tasks can be found on the *Tasks* tab, and anything you want to do with resources can be found on the *Resources* tab.

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View	Clipboard		Font 🕞	Sch	edule	Tasks		Insert	Properties	Editing	

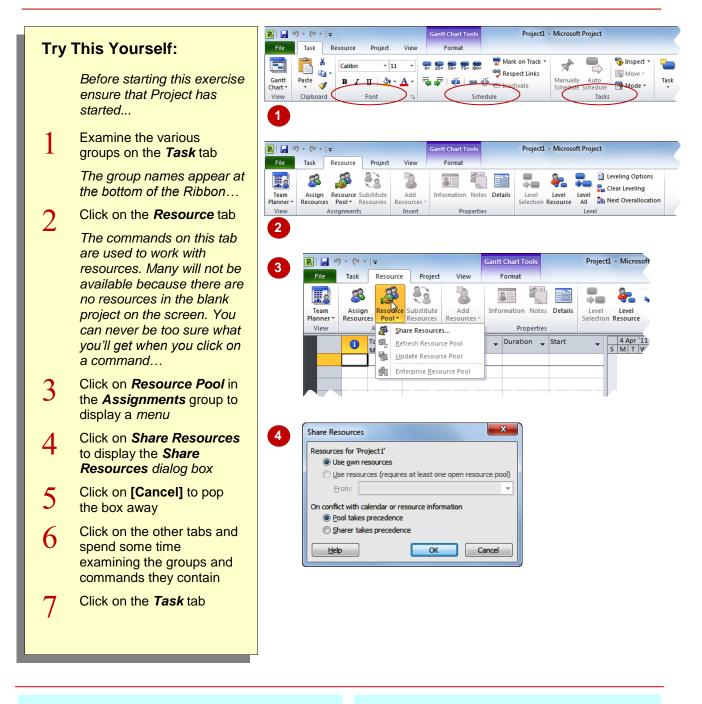
Backstage

When you want to do something with the data in your work area, such as save it so that you can access it again later, print it, share it with a colleague, send it to your boss, protect it from prying eyes, or whatever, you will need to access the Microsoft Office Backstage area of Microsoft Project. The **Backstage** is accessed using the File tab on the Ribbon. Rather than offering you commands on a Ribbon, **Backstage** occupies the entire screen and has a series of options down the left side. Here the Print option is active, and that is why you can see a preview of the work area and a series of print-related options on the right side of the Backstage.



USING THE RIBBON

The *Ribbon* is the command centre for Microsoft Project. It provides a series of *commands* organised into *groups* and placed on relevant *tabs*. Tabs are activated by clicking on their name to display the command groups. **Commands** are activated by clicking on a button, tool or gallery option. Everything you could possibly want to do in Project will be found somewhere on this **Ribbon**.



For Your Reference...

To use the Ribbon:

- 1. Click on a *tab* to display the commands
- 2. Click on a *button* to activate a *command*, display a *gallery*, or display a *dialog box*

Handy to Know...

 Additional tabs known as *Contextual tabs* appear in specific circumstances. For example, if you insert a picture, the *Picture Tools: Format* tab will appear. This provides quick access to all of the tools you may need to modify and work with the picture.

UNDERSTANDING THE BACKSTAGE VIEW

The *Ribbon* allows you work *on the content* in a worksheet – you can add more content, colour it, chart it, analyse it, copy it, and much more. The *Backstage*, which is accessed using the *File* tab,

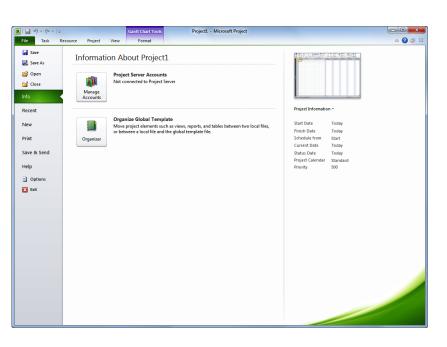
allows you to *do something with* the content you create. You can save it for reuse later, print it on paper, send it via email, and more using the options found in *Backstage* view.

The Backstage Screen

The *File* tab on the *Ribbon* is not a normal tab – as you can tell by the fact that it is coloured. Clicking on the *File* tab launches a mini-program within Microsoft Project known as *Backstage View. Backstage*, as it's known for short, occupies the entire screen although the tabs from the *Ribbon* still remain visible at the top.

At the left of the **Backstage** is a navigation pane which is made up of **Quick commands**, smallish buttons which will perform an operation immediately, and largish **tabs** which display more options and information to the right of the screen.

The whole underlying purpose of the **Backstage** is to allow you to protect your data, to share it with others, and to provide you with valuable information both about your data and the status of Microsoft Project.



Quick Commands

The *Quick commands* provide immediate access to an operation.

Saves the current project
Allows you to save the current project under a different name or location
Opens a previously saved project
Closes the current project
Provides access to options that allow you to control how Project looks and works
Allows you to close and exit from Microsoft Project

Backstage Tabs

The **Backstage tabs** provide more options for working with a project

Info	Provides status information about the current project, and allows you to manage versions and permissions
Recent	Provides a list of recently saved projects
New	Allows you to create a new project and provides access to a huge gallery of templates
Print	Allows you to print the current project and also previews it
Share	Allows you to share your project with other people
Help	Provides access to Microsoft's help network and also provides licensing information about your software

THE PROJECT WORK AREA

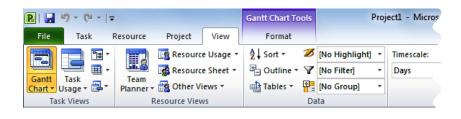
The main part of the Microsoft Project screen is made up of the *work area* where your project data is displayed. Remember, Project is really just two tables of data – *tasks* and *resources*.

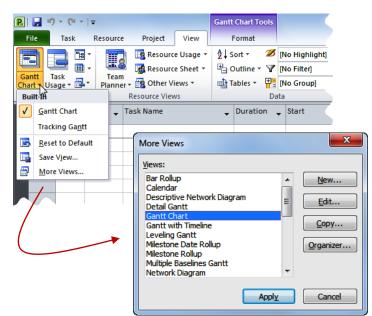
The work area shows you different aspects and sometimes combined *views* of this data. For example you can view your tasks and the resources assigned to them.

The View Tab

The *View* tab on the *Ribbon* provides you with access to the views for your project's data.

Notice, there is a *Task Views* grouping and a *Resource Views* grouping here!





When you click on the arrow for one of the *View* commands you'll receive a menu of further views available to you. All of the menus feature the *More Views* command which displays the *More Views* dialog box which lists all of the standard views available to you in Microsoft Project.

Built-In Project Views

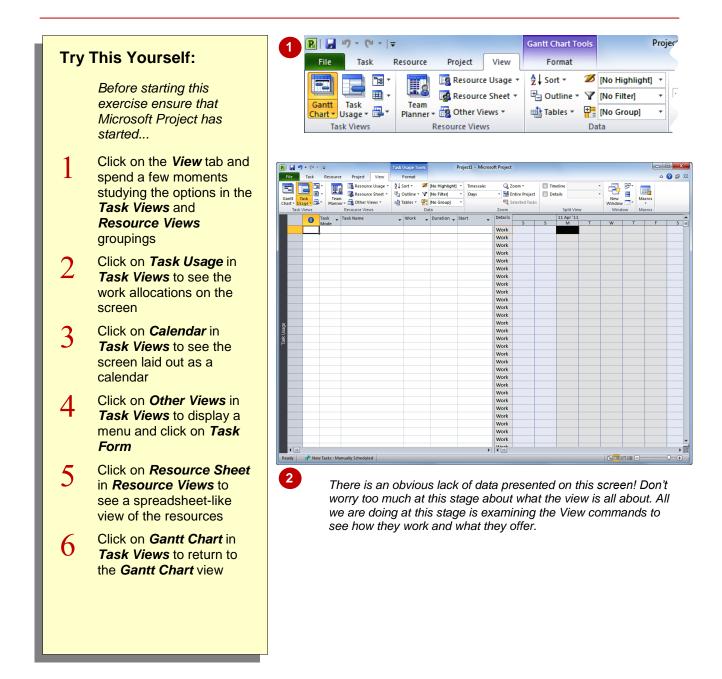
Microsoft Project contains 27 different built-in views for you. Seven of these views are available from the **Task Views** and **Resource Views** groupings on the **View** tab, while the full 27 are available from the **More Views** dialog box. Here's a list of the 27 views – the ones marked with a (**T**) or (**R**) are accessible directly from the **View** tab of the **Ribbon**.

Bar Rollup	Multiple Baselines Gantt	Task Details Form
Calendar (7)	Network Diagram (7)	Task Entry
Descriptive Network Diagram	Relationship Diagram	Task Form
Detail Gantt	Resource Allocation	Task Name Form
Gantt Chart (7)	Resource Form	Task Sheet
Gantt with Timeline	Resource Graph	Task Usage (<i>T</i>)
Levelling Gantt	Resource Name Form	Team Planner (R)
Milestone Date Rollup	Resource Sheet (R)	Timeline
Milestone Rollup	Resource Usage (R)	Tracking Gantt

WORKING WITH VIEWS

A **view** is the way we look at the project and the data it contains. In order to work with your project successfully, you will need to learn how to operate and manipulate the many different views.

The main way to change the view of your project is through the commands on the *View* tab or through the *Quick Views* buttons at the bottom right of the screen.



For Your Reference...

To display different views:

1. Click on a command on the *View* tab or

Click on the arrow of a command and click on *More Views* to display a list of all available views

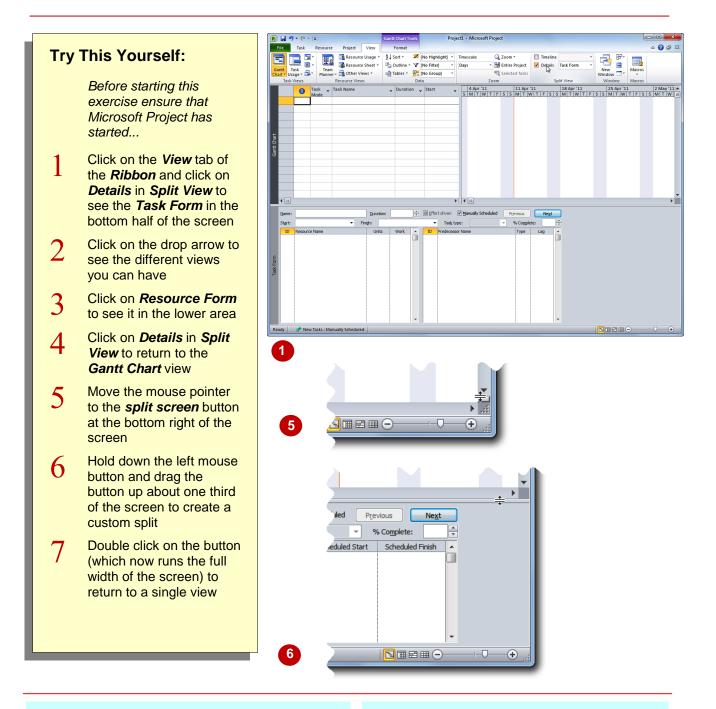
Handy to Know...

 The Gantt Chart, Task Usage, Team Planner, and Resource Sheet views appear as buttons at the bottom right of the screen.

WORKING WITH SPLIT SCREENS

Sometimes in Microsoft Project one view of your data is not enough! Project, therefore, allows you to *split* your screen horizontally into two views. For example, you might want to see tasks at the

top and their resources at the bottom. One of these views is deemed to be the *active* view – as indicated by the *active pane indicator* at the left of the screen.



For Your Reference...

To display a **spit** view:

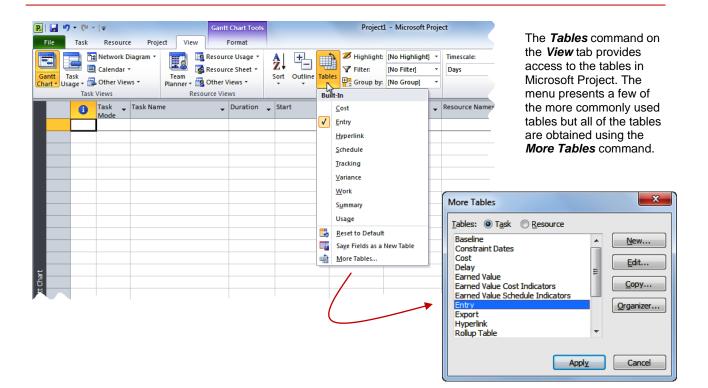
- 1. Click on *Details* in the *Spilt View* group on the *View* tab
- 2. Optionally, click on the drop arrow for **Details** and choose the desired view

Handy to Know...

 There is also a *Timeline* view in the *Split View* group. This shows a timeline which embraces the start to end of the project. It's a useful view for quickly moving to specific times in your project.

UNDERSTANDING SHEET VIEWS

Sheet views of data are common to database and spreadsheet applications. Microsoft Project also uses **sheet views** where data is presented in rows and columns. In Project there are literally dozens of columns (called *fields*) for *tasks* and similarly for *resources*. To make it easier to work with these columns, oops *fields*, they have been organised into *tables*.



About Tables

Since there are literally dozens of fields for both *Tasks* and *Resources*, Microsoft Project organises these in specialised groupings into *tables*. For example, fields for tasks associated with costs are organised into a *Cost* table, fields that are commonly used for data entry are organised into an *Entry* table, and so on.

Task Tables

There are 17 pre-defined tables for *tasks* as follows:

Baseline	Earned Value	Export	Summary
Constraint Dates	Earned Value Cost Indicators	Hyperlink	Tracking
Cost	Earned Value Schedule Indicators	Rollup Table	Usage
Delay	Entry	Schedule	Variance
			Work

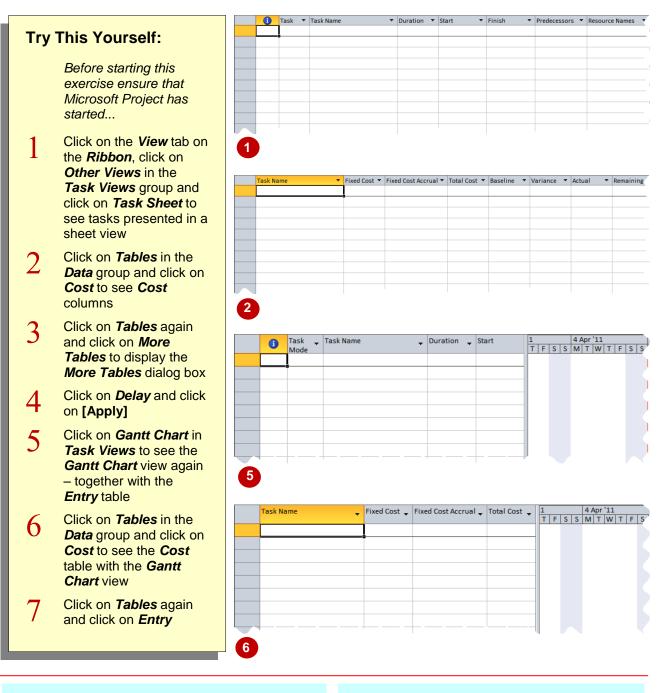
Resource Tables

There are 10 pre-defined tables for *resources* as follows:

Cost	Entry – Material Resources	Hyperlink	Usage
Earned Value	Entry – Work Resources	Summary	Work
Entry	Export		

WORKING WITH TABLES

Microsoft Project consists of two databases: *tasks* which contains over 240 columns of data, and *resources* which contains over 200 columns of data. *Tables* display information from these columns (or *fields*) into organised and logical groupings. Once a *Sheet* view has been chosen you can change the table of fields that are presented.



For Your Reference...

To change the *tables* in view:

- Click on *Tables* in the *Data* group on the *View* tab and click on the desired table or click on *More Tables*
- 2. If you are using the *More Tables* box click on the desired table and click on [Apply]

Handy to Know...

To quickly see the name of the current table view, move your mouse pointer to the All Cells box. This is located in the top left hand corner of the table, where the rows and columns intersect. A ToolTip will be displayed containing the table view name.

GANTT CHART VIEW

There is one view in Microsoft Project that acts kind of like *home base* – and that is the *Gantt Chart* view. This view contains all of the elements that are usually required to obtain a quick visual snapshot of a project. At the left the *Gantt Chart* view displays tasks in a sheet view. At the right the tasks are displayed in a timeline so that a quick visual overview can be obtained.

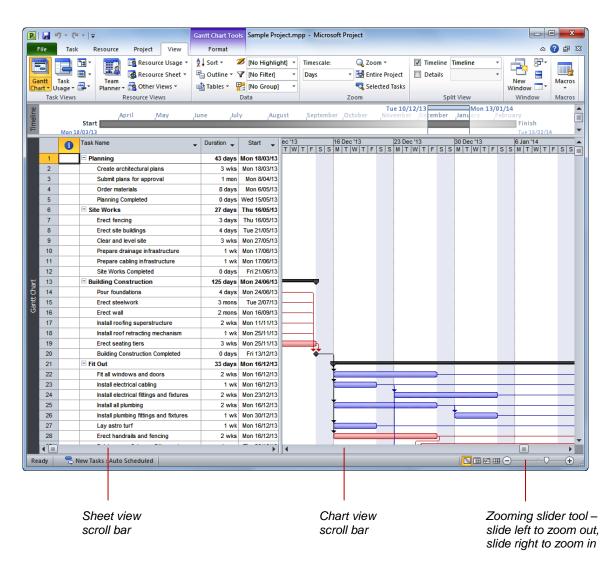
Understanding the Gantt Chart View

The *Gantt Chart* view is a split view of sorts – rather than being split horizontally it is split vertically so that there is a sheet representation on the left and a timeline, or more visual, representation on the right.

These views are overlapping. In its default mode the sheet shown on the left is the **Task Entry** table. This table has quite a number of columns, yet only a handful are seen on the screen. It is possible therefore to *scroll* this sheet view to see more columns – that is why there is a *scroll bar* at the bottom of the sheet view.

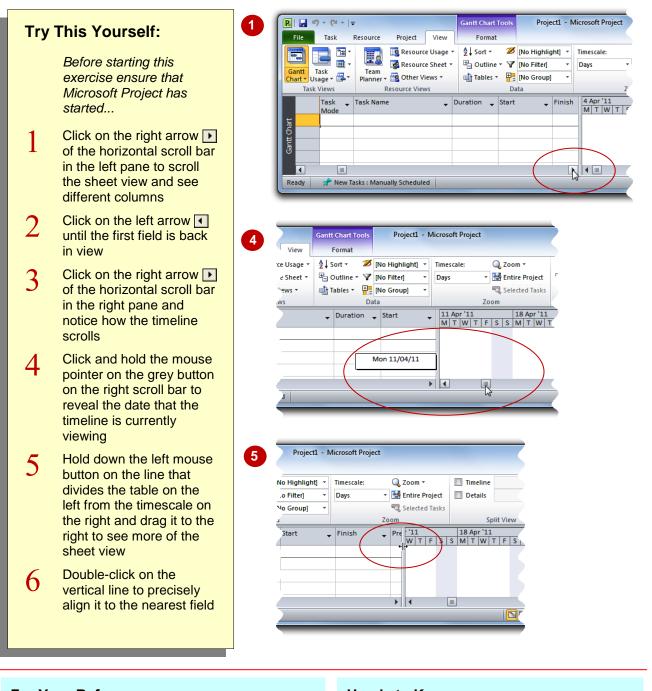
Similarly the *Gantt Chart* on the right can be scrolled if the timescale goes out beyond the physical limits of the screen. Again a *scroll bar* is displayed at the bottom of the chart to facilitate the scrolling operation.

In addition to scrolling, though, the *Gantt Chart* on the right can also be zoomed in or out, thereby making it larger or smaller on the screen.



WORKING THE GANTT CHART VIEW

The *Gantt Chart* view is used to display tasks and durations as bars plotted on a time scale. It provides an overview of the project, plus the capacity to enter or edit task information. It is the default view in Microsoft Project and the most common view. It also contains a few useful features for displaying your data.



For Your Reference...

To work with a Gantt Chart:

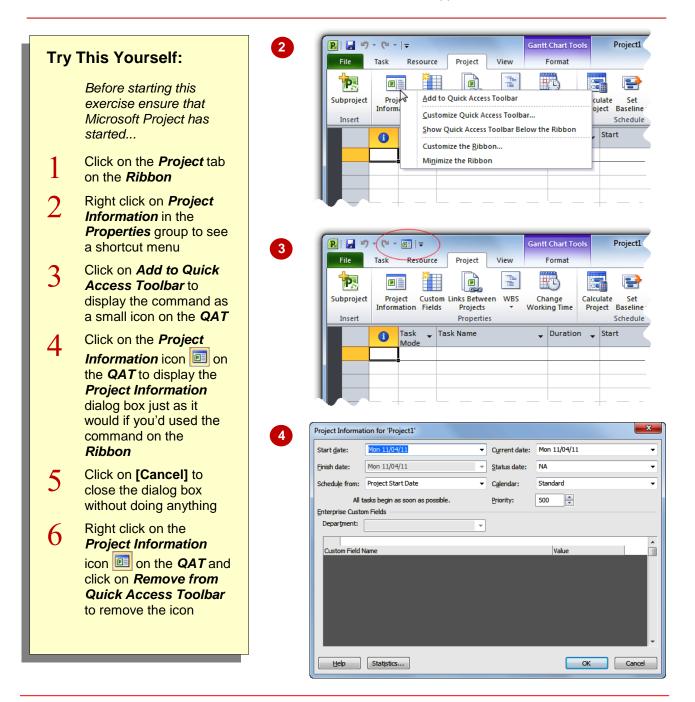
- 1. Click on the horizontal scroll buttons in the left pane to scroll the sheet and the right pane to scroll the timeline
- 2. Drag the elevator button on the right pane to a specific point in time

Handy to Know...

- Press Ctrl+Home to jump to the first task.
- Press Att + Home to see the start of the Gantt bar for the selected task.
- Press Home to jump to the start of a task row.
- Press End to jump to the end of a task row.

WORKING WITH THE QAT

The **Quick Access Toolbar** (QAT), which appears at the very top left hand corner of the screen, is a handy location to place commands from the *Ribbon* that you use frequently. This is done by choosing the *Add to Quick Access Toolbar* option which appears when you right click on the command when it is in the *Ribbon*. The command appears as an icon in the *QAT*.



For Your Reference...

To display a command on the **QAT**:

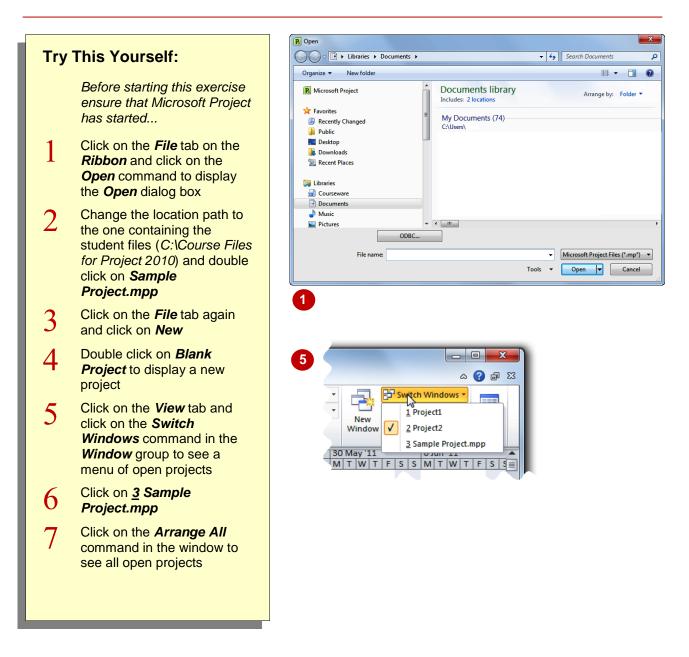
- 1. Right click on the command in the *Ribbon*
- 2. Click on Add to Quick Access Toolbar

Handy to Know...

 Changes you make to the *QAT* are global in scope – this means that they stay in Microsoft Project for every project you create.

WORKING WITH PROJECT FILES

When you first start Microsoft Project it appears with a new, empty project. This allows you to enter details and create a new project. However, you will often want to work with a project that you have worked with before. To open an existing project file, to save changes you have made in a project, or to close a project file you will need to access the **Backstage** commands.



For Your Reference...

To open an existing project file:

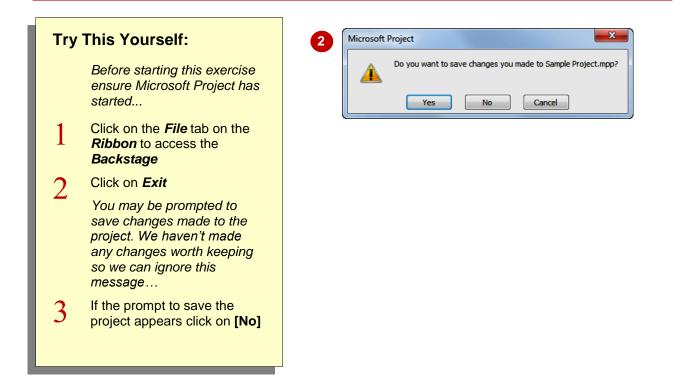
- 1. Click on File and click on Open
- 2. Locate the drive and folder where the file is stored
- 3. Select the name of the project file and click on the **[Open]** button

Handy to Know...

 If you attempt to close a project file that has been changed since it was opened Microsoft Project will prompt you and ask you to save the file before it is closed. You therefore have some protection against losing data.

EXITING FROM MICROSOFT PROJECT

Although several methods exist, the best way to leave Microsoft Project is through the *Exit* command on the *Backstage* menu. If you have made changes to the current project file since you started Microsoft Project you will be prompted to save these changes. You may be prompted to save even though you have only changed the views of a project.



For Your Reference...

To exit from Microsoft Project:

- 1. Click on the *File* tab on the *Ribbon* to access the *Backstage*
- 2. Click on Exit

Handy to Know...

 The keyboard shortcut for exiting Microsoft Project (and most other Windows applications) is Alt + F4.

NOTES:

