The Mouse Training Company

MS Excel 2007 Introduction

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INTRODUCTION

Excel 2007 is a powerful spreadsheet application that allows users to produce tables containing calculations and graphs. These can range from simple formulae through to complex functions and mathematical models.

How To Use This Guide

This manual should be used as a point of reference following attendance of the introductory level Excel 2007 training course. It covers all the topics taught and aims to act as a support aid for any tasks carried out by the user after the course.

The manual is divided into sections, each section covering an aspect of the introductory course. The table of contents lists the page numbers of each section and the table of figures indicates the pages containing tables and diagrams.

Objectives

Sections begin with a list of objectives each with its own check box so that you can mark off those topics that you are familiar with following the training.

Instructions

Those who have already used a spreadsheet before may not need to read explanations on what each command does, but would rather skip straight to the instructions to find out how to do it. Look out for the arrow icon which precedes a list of instructions.

Keyboard

Keys are referred to throughout the manual in the following way:

[**RETURN**] – Denotes the return or enter key, [**DELETE**] – denotes the Delete key and so on.

Where a command requires two keys to be pressed, the manual displays this as follows:

[**CTRL**] [**P**] – this means press the letter "p" while holding down the Control key.

Commands

When a command is referred to in the manual, the following distinctions have been made:

When Ribbon commands are referred to, the manual will refer you to the Ribbon – E.g. "Choose **HOME** from the Ribbons and then **B** for bold**"**.

When dialog box options are referred to, the following style has been used for the text – "In the **PAGE RANGE** section of the **PRINT** dialog, click the **CURRENT PAGE** option"

Dialog box buttons are also in bold text – "Click **OK** to close the **PRINT** dialog and launch the print."

<u>Notes</u>

Within each section, any items that need further explanation or extra attention devoted to them are denoted by shading. For example:

"Excel will not let you close a file that you have not already saved changes to without prompting you to save."

SECTION 1 THE BASICS

<u>By the end of this section you will be able to:</u>

Understand and use common Windows elements

Launch Excel

Understand the concept of a spreadsheet

Recognise Excel screen elements

Work with Toolbars

Use Menus

Get Help

WINDOWS CONCEPTS

Excel is an application that runs under the Windows graphical user interface. When launched, Excel sits in its own "window" – the box that surrounds the application elements. The window can be moved, sized, closed, minimised and maximised using the features common to the Windows environment – these are listed below:

WINDOW BORDER The box that surrounds the Excel screen when it is not maximised is called the window border. When the mouse is over the border, the pointer changes from a single to a double-headed arrow – clicking and dragging with this shape allows the window to be resized.

TITLE BAR The coloured bar that appears at the top of the Excel window. The title bar tells you which application you are using and if the workbook you are in is maximised, it will also contain the name of the workbook. If the Excel window is not maximised, by positioning the mouse over the title bar and clicking and dragging, you can move the Excel window to a new location on the screen.

MAXIMISE BUTTON When working in a workbook, the Excel screen contains two windows, an application window and a workbook window. You can maximise both windows to capitalise on the space you have on-screen. If you would like the window that your Excel application is in to fill up the whole screen, click the outermost maximise button. You may find that the workbook you are in can still be bigger – click the inner maximise button to fill the remaining space within the Excel application window.

MINIMISE BUTTON This button is very useful if you need to temporarily switch from Excel into another application without closing Excel down completely. Click the minimise button to shrink Excel to an icon on the task bar; you will then be able to view other icons and applications you may wish to access. When you are finished and ready to continue, click the Excel icon from the task bar to resume. The innermost minimise button will minimise the current workbook window.

RESTORE BUTTON This button only appears when a window is maximised. A maximised window has no border and you cannot see what is behind it. If you want to put the window back inside its border so that you can move and size it, click the restore button.

CLOSE BUTTON This button is used to close a window. If you click the close button for a workbook window you close the document. The last button will close the Excel application.

DIALOG BOX LAUNCHER this button launches dialog boxes specific to the part of the ribbon you see them the category will be named such as **FONT**, **CLIPBOARD**, etc

Menus

Menus are no longer used in Excel they have been replaced by Ribbons and will be referred to as such throughout the manual

Ribbons

Ribbons are tabs that show different commands with respect to what you wish to do. The **HOME** ribbon shows basic formatting options.
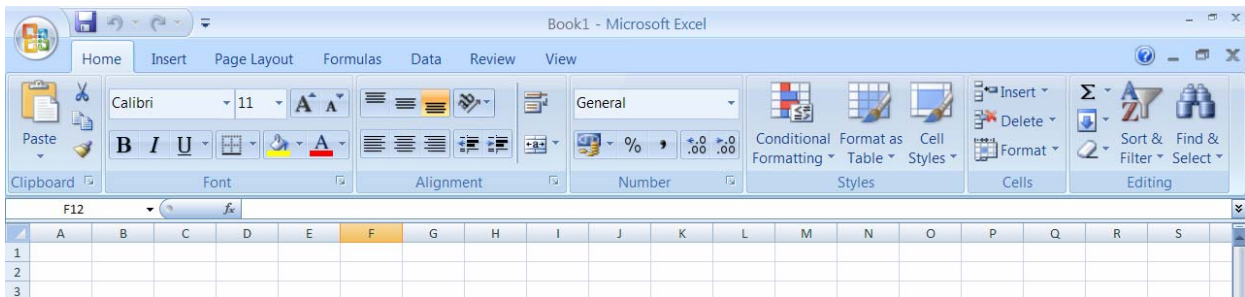
The **INSERT** ribbon allows the insertion of any object. Just click on the named ribbon to see list of commands that you can perform by clicking on the appropriate icon.
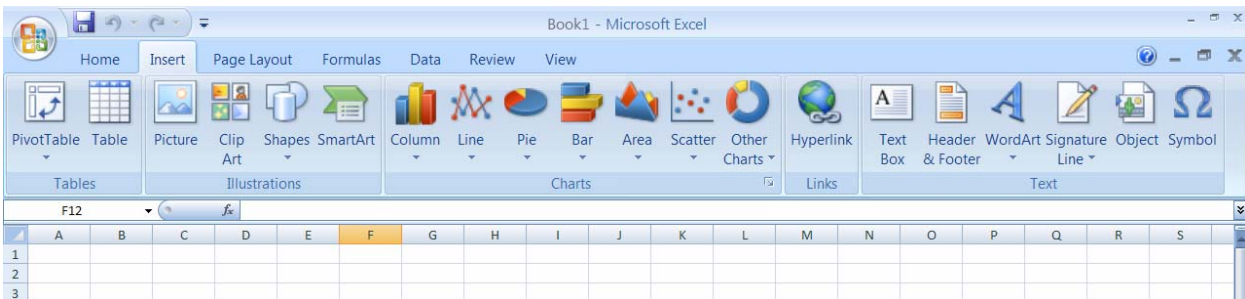
By holding your mouse over an icon, a helpful hint will appear to show you what that command will do. Clicking will apply that command
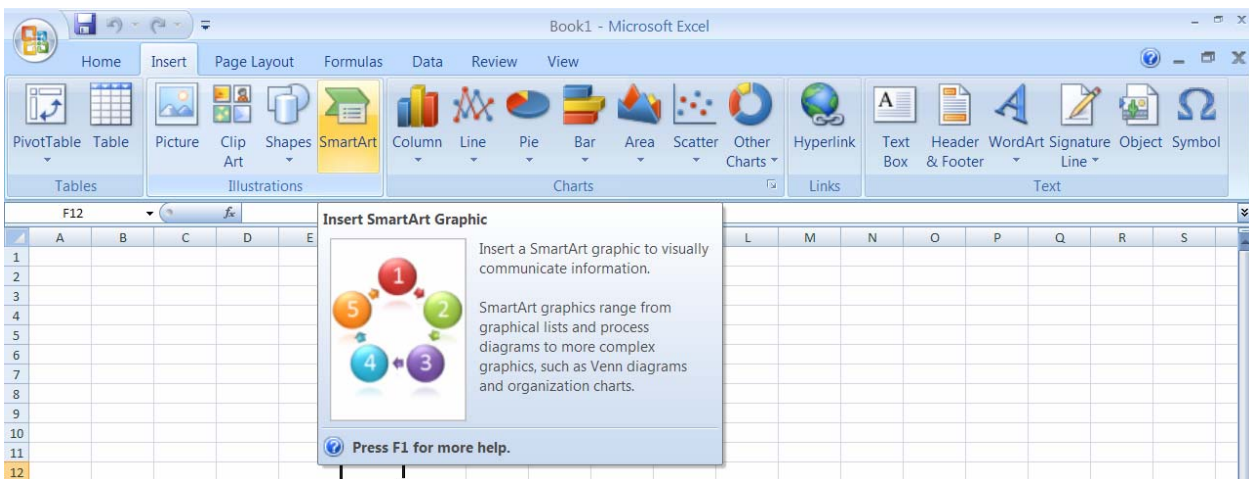
Any Icon on the ribbon with a down arrow offers other options and sometimes a dialog box.

E.G. choosing a column chart will offer a number of varieties of column charts to insert. Clicking right at the bottom where it offers **all chart types** will bring up a dialog box to insert any chart type
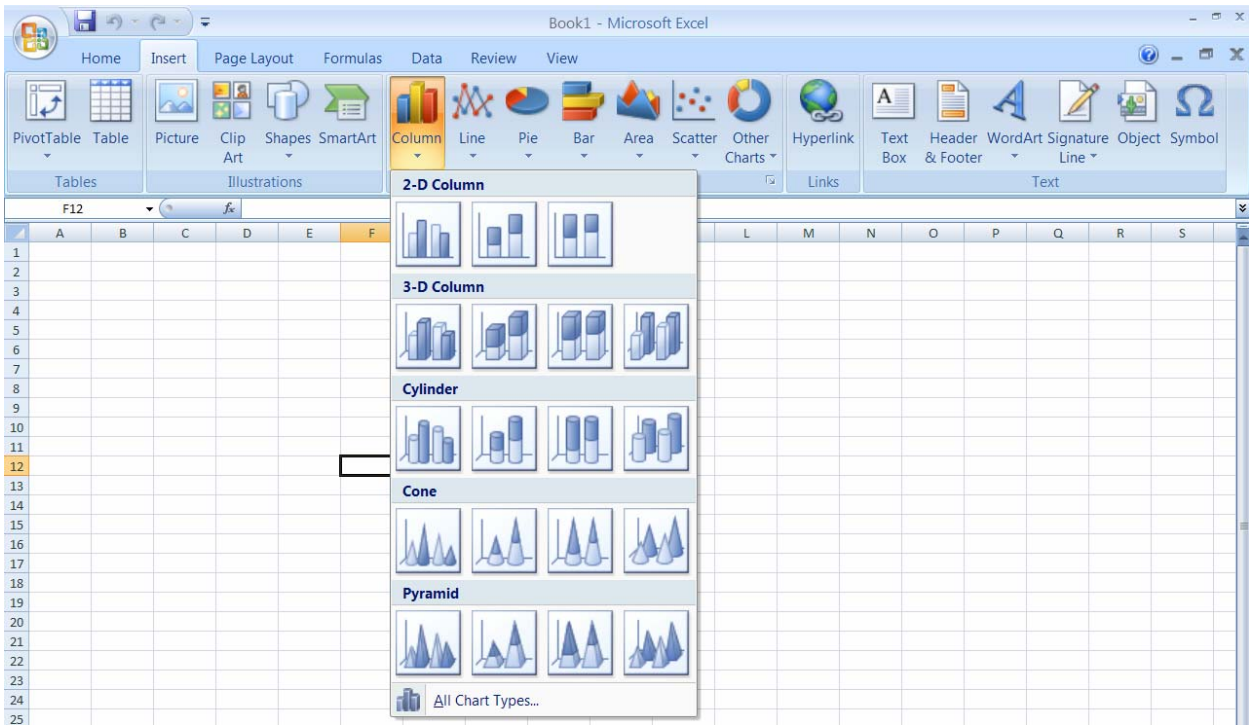
Dialog Box

To open a dialog box use dialog box launcher when the dialog box is open, make a choice from the various options and click **OK** at the bottom of the dialog box. If you wish to change your mind and close the dialog box without making a choice then click on **CANCEL**. The dialog box will close without any choice being applied. If you would like help while the dialog box is open then click on the "? " in the top right hand corner this will bring up a help window that will display the relevant topics.
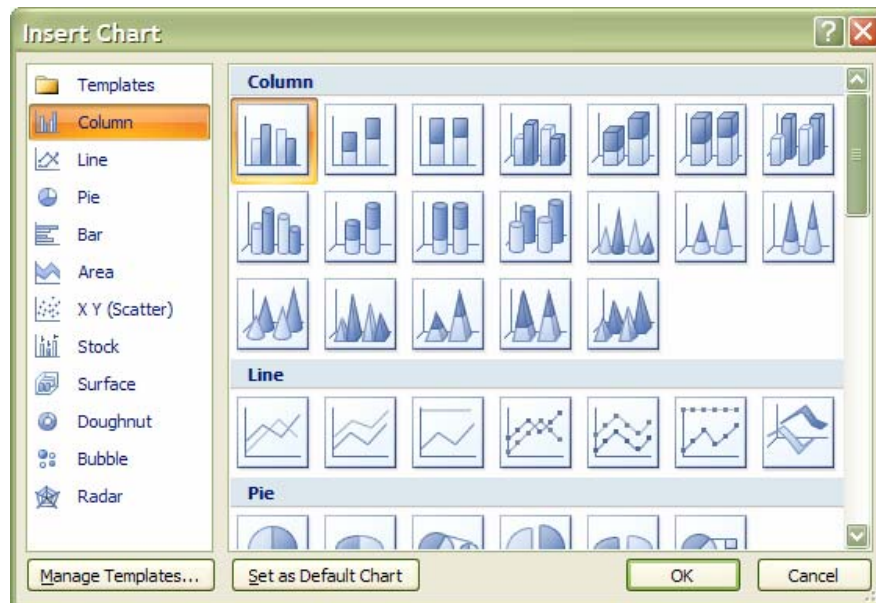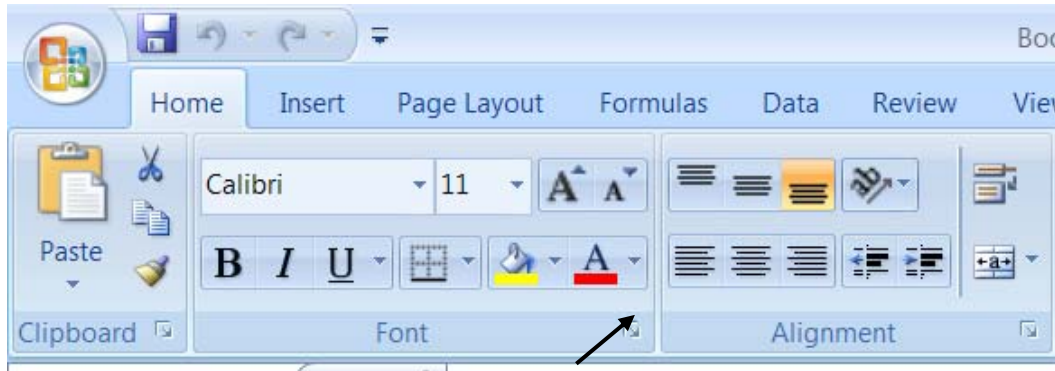
Look at a group type on the ribbon such as **FONT** and in the bottom right hand corner of that group you may see a small box with an arrow, clicking this is another method to call up a dialog box, this time, directly from the ribbon. Many dialog boxes may be more familiar if you have used EXCEL before.

Office Button

The **OFFICE BUTTON** is the start of excel and has many important commands and option. Such as excel settings, opening, saving, printing and closing files. This will be explored further later in the manual.

Toolbars

There are **only** two toolbars within the new version of Office 2007 there is the **QUICK ACCESS TOOLBAR** seen here next to the **OFFICE BUTTON,** and there is the **MINI TOOLBAR**

Quick Access Toolbar

By default there are only three buttons on the **QUICK ACCESS TOOLBAR** but these can be edited and other regularly used buttons can be placed there. Using the drop down menu nest to the **QUICK ACCESS TOOLBAR** will allow the customisation of this toolbar adding your most often used commands.

Mini Toolbar

Whenever text is selected within excel a small formatting toolbar will appear above the highlighted text it will disappear if the mouse cursor is moved away from the toolbar and will reappear when the mouse cursor is moved over the highlighted text again.
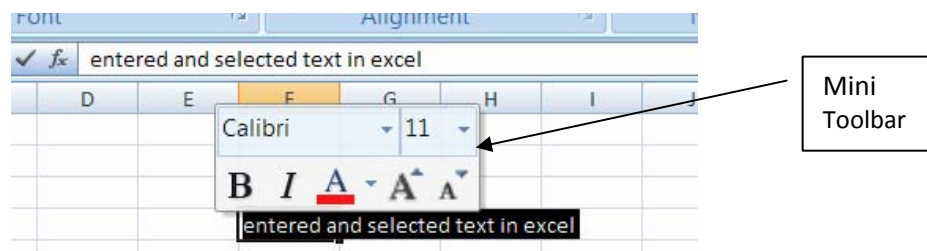
Name Box

The **NAME BOX** is the small white box to the left of the **FORMULA BAR.** It has a number of useful features such as navigation, the creation and selection of named cells and ranges. Entering a cell reference and pressing return will navigate you to the specific cell entered. Using the drop down arrow to the right of it will allow you to select any specified names in the workbook. When creating functions the box will have a different appearance and will allow you to choose the most popular functions used in that workbook.

Formula Bar

The **FORMULA BAR** is the white bar to the right of the **NAME BOX** and is used for entering and editing data, creating and editing functions and formulae. The construction of formulae and functions can be seen in this bar even when the cell containing the formula is showing a calculated value. (Unless cell is formatted to **HIDDEN** and the sheet protected). The **fx** button on the left of the bar is a tool to create functions and formulae.
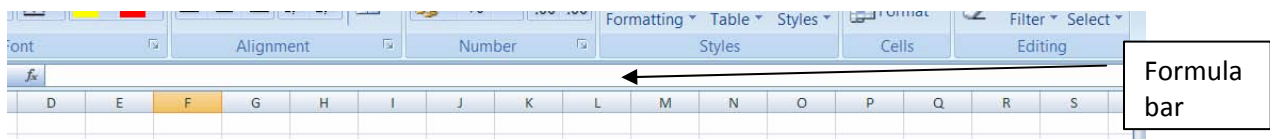
Worksheets

You use worksheets to list and analyse data. You can enter and edit data on several worksheets simultaneously and perform calculations based on data from multiple worksheets. When you create a chart, you can place the chart on the worksheet with its related data or on a separate chart sheet. The names of the worksheets appear on tabs at the bottom of the workbook window. The name of the active sheet is bold.
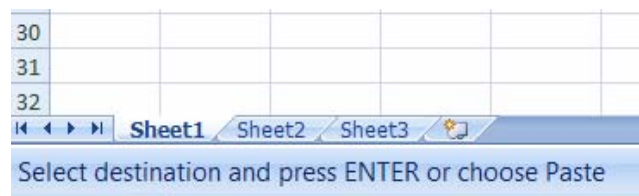
Status Bar

The Status bar, across the bottom of the screen, displays different information at different times. To the left is an indicator, which will display Ready, Edit etc. depending on the mode in which the user is currently working. If menus are being accessed, this area will usually give details on the currently highlighted menu option. If you are in the middle of a task – copying data for example – this area will often display messages and prompts instructing you on what to do next.

To the right of the Status bar, keyboard status indicators reveal whether the Num Lock etc. are switched on.

Task Pane

A task pane is a window that collects commonly used actions in one place. The task pane enables you to quickly create or modify a file, perform a search, or view the clipboard.

It is a Web-style area that you can either, dock along the right or left edge of the window or float anywhere on the screen. It displays information, commands and controls for choosing options. Like links on a Web page, the commands on a task pane are highlighted in blue text, they are underlined when you move the mouse pointer over them, and you run them with a single click.

A task pane is displayed automatically when you perform certain tasks, for example when you choose **INSERT**, **CLIPART** Ribbons to insert a picture
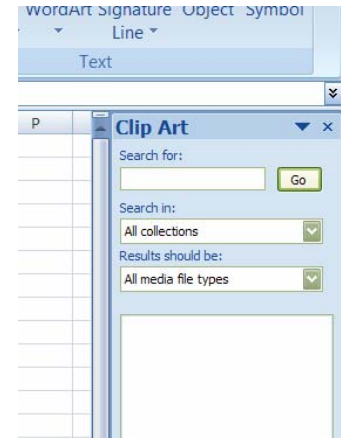
Smart Tags

Smart Tags, first introduced in Microsoft Office XP, make it easier for you to complete some of the more common tasks and provide you with control over automatic features.

You do not have to complete any additional steps to make the Smart Tags appear or disappear in Excel. The Paste Options, AutoFill Options, Trace Error and Insert smart tags appear automatically to allow you to quickly choose actions and remain in place until you begin another action. For example, when you complete a paste operation, the **Paste Options** button remains in place alongside your text until you begin typing new text.
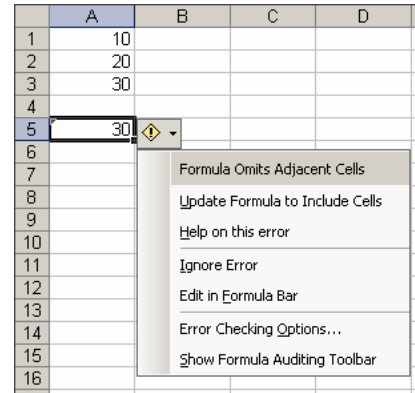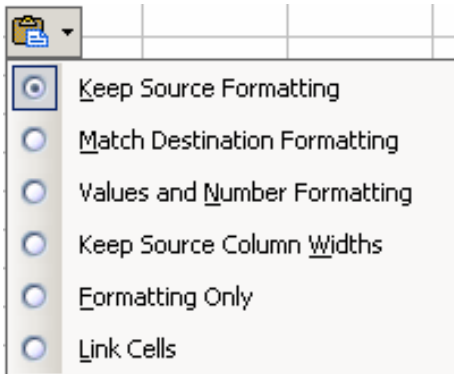
This feature alerts you via a smart Tag of a possible error in a cell. You can select a command to resolve the error, ignore it, or access further Error Checking options.

The example above right shows the use of a smart tag where a formula has been written into a cell with a possible error i.e. =Sum (A1:A2) may need to read =Sum (A1:A3). If you hover over the tag, the message, *the formula in this cell refers to a range that has additional numbers adjacent to it,* appears then the options drop down.

GETTING HELP

Excel offers several quick ways to get help when performing particular tasks. You can select from a list of topics provided by Help, or you can even type a help request in plain English, and Excel will supply the answer using the *Answer Wizard.*

MICROSOFT EXCEL HELP

➢ To access help:

i.   Click "?" On the title bar OR press **F1**. The Help window will open:

ii. This is very similar to a web page

iii. You may enter search criteria and press **[RETURN]** (like a search when on the internet)

iv. The window will display the topics that match your search. Click on a topic in order for it to be displayed
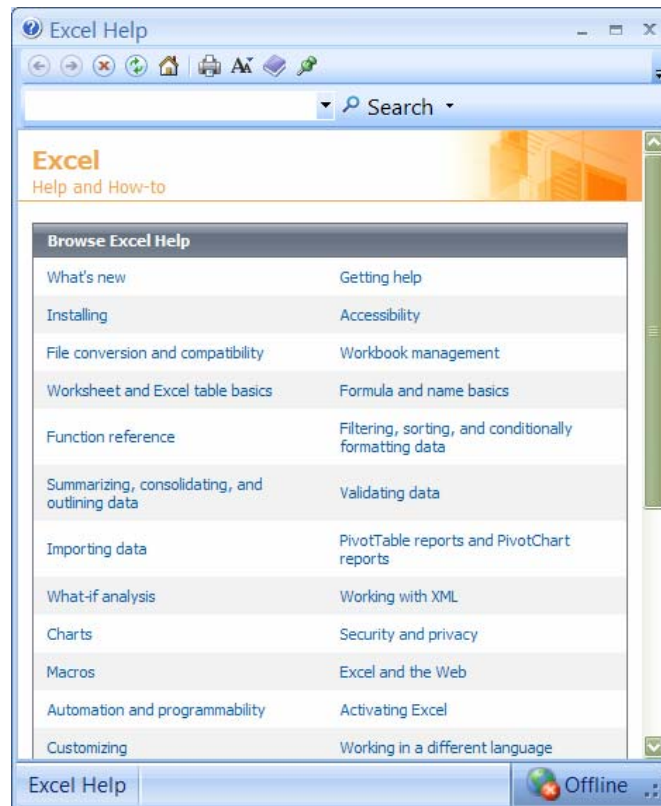
➢ Find a specific topic

i.   The contents page allows you to select from a list of topic headings. Like search results on the internet these are **HYPERLINKS** to help files.

ii. You may need to be online to access some of the help links. The search will be more extensive if you are online as it will search online help files from Microsoft.

SECTION 2 MOVE AROUND AND ENTER INFORMATION

MOVING

Moving Around Workbook

With such a large working area available, you need to be aware of some of the techniques used for moving around the workbook. It is possible to move using either the keyboard or the mouse.

Mouse

i.   The mouse is good if you want to move small distances. Click the white plus on any cell that you want to move to. The cell you clicked on becomes the selected cell.

Depending on the position of the mouse in relation to the active cell, Excel displays different pointer shapes. The shape that must be displaying when moving to a cell or selecting cells is

Keyboard

i.   You can select a cell by moving around with your cursor keys. (Arrow keys on your keyboard).

ii.   Having selected a cell, by double clicking the cell it becomes the active cell with a flashing cursor. You can also make a cell active by clicking in the **FORMULA BAR** or by pressing the **F2** key
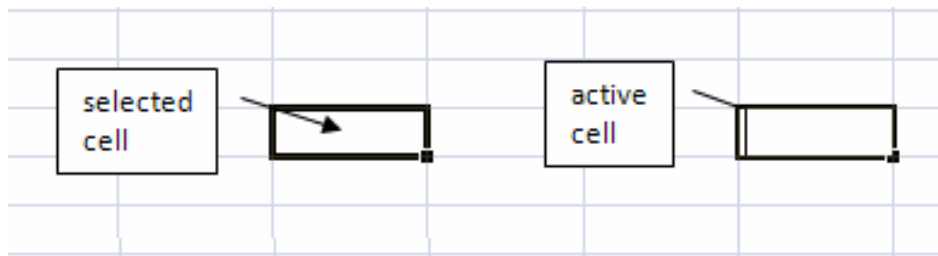
Please note that while any cell is active various commands will not be available until the cell is no longer active. You may close the cell by pressing RETURN or cancelling whatever was entered by pressing ESC.

Scrolling

The vertical and horizontal scroll bars do not move the active cell but they do allow you to see areas of the worksheet that are not currently visible. Having scrolled to an area of the worksheet, if you then need to move the active cell into that region, click the mouse onto a cell of your choice.

➢ **To use the scroll bars:**

i.   Click on the scroll arrows up/down or left/right.

ii.   Drag the scroll box until the relevant cell becomes visible.

The size of a scroll box indicates the proportional amount of the used area of the sheet that is visible in the window. The position of a scroll box indicates the relative location of the visible area within the worksheet.

USEFUL KEYS FOR MOVING

The table below lists some useful tips for scrolling:

To scroll	Do this
One row up or down	Click the arrows in the vertical scroll bar.
One column left or right	Click the arrows in the horizontal scroll bar.
One window up or down	Click above or below the scroll box in the vertical scroll bar.
One window left or right	Click to the left or right of the scroll box in the horizontal scroll bar.

When dragging the scroll box a scroll tip will display, showing the row or column you will move to when you release the mouse.

Keyboard

When you need to move further, it is better to use the keyboard. The table below lists useful movement keys.

To Move	Do This
One Cell Up, Down, Left or Right	**[←][→][↑][↓]**
Up One Screen	**[PAGE UP]**
Down One Screen	**[PAGE DOWN]**
Left One Screen	**[ALT][PAGE UP]**
Right One Screen	**[ALT][PAGE DOWN]**
To Edge of Worksheet (or current block of data)	**[CTRL][RELEVANT ARROW KEY]**
To a Particular Cell	**[F5]** then type the reference for the cell required and press Return
To column A in the current row	**[HOME]**
To cell A1	**[CTRL][HOME]**

Workbook Sheets

➢ To move between sheets

Each new workbook contains worksheets, named Sheet 1 to Sheet 3. The sheet name appears on a tab at the bottom of the workbook window.

Mouse

i.   You may click on any sheet tab to go to that sheet

Keyboard

i.   Press **[CTRL][PAGE DOWN]** to move to the next sheet, or **[CTRL][PAGE UP]** to move to the previous sheet.

If the sheet required is not in view, use the tab scrolling buttons to display the sheet.

The last tab is to create a new worksheet, be careful or any new sheets may need to be deleted

Sheet Tab scrolling buttons

New worksheet tab

Sheet tabs
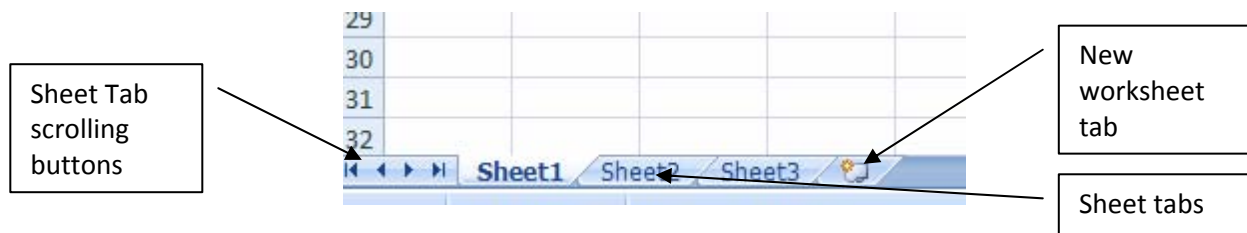
Moving Around Sheet

➢ To move to a specific cell:

Go To

You can use **[F5]** to tell Excel to move to a specific cell. **[F5]** is the Microsoft Office Go To key. When you press **[F5]** in Excel a dialog box is displayed where you can type in a cell reference.

Keyboard

i.   Press **[F5]** on the keyboard. The following dialog box will appear.

ii. Type the cell reference that you want to move to in the **REFERENCE** box and press **[RETURN]**.

iii. You can use **[F5]** to move to a cell in a different sheet. **E.G.** To go to Sheet7 cell A1 you can press **[F5]** and then type **Sheet7!A1**. (The exclamation mark tells excel that the text immediately before it, is a sheet name. The sheet name must exist in the workbook)

iv. Excel keeps a log of the cells you have visited using the 'Go to' key, and lists them in the '**GO TO'** list area of the dialog. You can go back to a previously visited cell by pressing **[F5]** and double-clicking on the cell reference you want from the list.

v.   Named ranges are also listed in the **GO TO** list if they have been set up.

DATA ENTRY
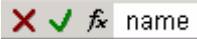
Enter Text And Numbers

There are various aspects to note and be aware of, both in terms of entering data, and also to do with the nature of the data being entered. You can enter data into a cell by positioning the cursor in the cell and typing the information. The maximum number of characters that a cell can contain is 32,000.

Excel recognises text and numeric entries and initially displays them with different alignments – left for text and right for numbers. You can override these with other formats if required.

> ## ➢ To enter information:

Mouse

   i.   Move to the cell where you want the entry and type a word (for example NAME in cell A1). The text will appear in the Formula bar as well as in the current cell. The cursor will be visible as a flashing insertion point in the formula bar.

   ii.   Click on the green tick mark on the formula bar to confirm the entry.

OR

Keyboard

   i.   Press **[RETURN]** to confirm the entry.

Until you confirm an entry, Excel remains in "Enter" mode, and the cell is active (see Status bar). Excel will return to the "Ready" mode, and the text will appear in the cell.

When you press [RETURN] to confirm an entry, Excel will by default move the selected cell down to the cell below. You can disable this setting or choose to move the selected cell in a different direction using the EXCEL OPTIONS dialog box (OFFICE BUTTON). See the Customisation section for more information.

Cancelling And Editing Data Entries

You may find that you have typed an entry into the wrong cell. Provided you have not confirmed the entry by pressing [**RETURN**] or clicking the green tick from the formula bar, you can abandon it.

> ## ➢ To abandon or cancel an entry:

Mouse

   i.   Click the red cross from the Formula Bar.

OR

Keyboard

   i.   Press **[ESC]** to cancel entry

When you have confirmed an entry, while the cell is still selected, the current cell reference will be displayed in the Name box and the cell contents are displayed in the Formula bar. Text information, as opposed to numeric information, will initially appear left aligned within the cell. If you enter text which is longer than the column width, the display on the worksheet will seem to overlap into the next cell to the right (if that cell is empty).

➢ **To edit an unconfirmed entry**

Occasionally, you may make a typing error prior to confirming an entry. You cannot use the arrow keys to move backward you MUST use the formula bar at that point using the arrow keys merely confirms the entry and moves the focus of the selected cell.

➢ **To edit a confirmed entry**

i.   Double click on the cell containing the data to be edited

OR

i.   Press [f2] key

OR

i.   Edit directly in formula bar

Using any of these methods above will allow change the cell to an active cell and allow you to use the cursor keys **[←][→]**to move around the data you wish to edit. Use **[BACKSPACE]** to delete characters behind the cursor or **[DELETE]** to delete characters in front of the cursor within the data or you may add information to the entry before confirming it.

Enter Dates

It is possible to enter dates into Excel and have them accepted and displayed as such provided you use a recognised format. Excel 2003 will allow entry of dates from 1900 onward.

➢ **Recognised formats for dates**

Use a forward slash (/) as the day/month/year separator: **01/01/01**

Use a dash (hyphen) as the day-month-year separator: **1-1-01**

Do not use full stops as a date separator as excel will read this as text and the value will not be entered as a true date

Dates entered in excel appear as dates but are actually numbers formatted to appear as dates this allows calculation with them so it is important to enter them correctly. A date once entered correctly will ALWAYS have a four digit year in the formula bar however that date may appear in the cell. Dates start at the number **1** which represents the date **1-1-1900**. Dates being numbers align to the right. Any date entered before that date will not be recognised as a true date to excel but will be seen as text and therefore align to the left as with all text.

If you omit the year from a date, Excel will assume the current year. You will not see the year in the cell but if you look at the cell contents on the Formula bar, you will see that Excel has added it.

With some recognised date styles, Excel will automatically format the date to display in a certain way. You can choose how your dates are displayed by formatting them yourself (see the section on formats for more information).

Some entries are recognised by Excel and are formatted automatically. Dates are one such entry (as described above), percentages are another. When you delete data from such cells and replace it with other entries, you may find that you get surprising results. This is because although you cleared the data from the cells, the formats still remain and are causing the new data that you typed to display in a certain way. For more information on clearing cell data, see the clearing cells later in this section.

Autocomplete

When you type the first few letters of an entry into a cell, Excel can complete the entry automatically using an option known as AutoComplete. It does this by building a list based on the entries already entered in a column. If Excel suggests an inappropriate entry, you can pick a different entry from the list.

➢ **To use AutoComplete:**

Keyboard

i. Position yourself over the next blank cell in a column.

ii. Begin typing the entry – Excel will try to match what you type with other items already entered in the current column and will automatically complete the entry for you.

Order date	Customer	Product	Quantity
01/01/97	Viking Supplies	Widget	10
02/01/97	Bloggs & Co	Ratchet	23
02/01/97	Jones Brothers	Gimlet	200
03/01/97	Viking Supplies		

iii. Press **[RETURN]** to accept Excel's proposed entry.

OR

Continue typing to replace Excel's proposed entry with your own entry. Press **[RETURN]** to confirm completion.

Pick From List

You can get AutoComplete to display a list of possible entries built up from previously entered column data and select the one you want without typing anything.

➢ **To pick from an AutoComplete list:**

Mouse

i. Click the right mouse button in the required cell.

ii. Choose Pick from List.

iii. Choose the entry required.

Order date	Customer	Product	Quantity
01/01/97	Viking Supplies	Widget	10
02/01/97	Bloggs & Co	Ratchet	23
02/01/97	Jones Brothers	Gimlet	200
03/01/97	Viking Supplies		

Gimlet
Ratchet
Widget

OR

Keyboard

I. Use keys to move to required cell then use **[ALT] [↓]** to show list and then cursor keys to move through list **[RETURN]** confirms selection

Excel can only AutoComplete column entries if there are no gaps in your data. If you leave a gap, the next cell that you type in, will not AutoComplete, neither will you be able to pick from a list.

You can stop Excel from AutoCompleting column entries by switching the setting off.

➢ **To disable AutoComplete**

OFFICE BUTTON, ADVANCED, untick the **USE AUTOCOMPLETE** checkbox.

EDITING

There are various ways in which you can change or remove data you have entered in cells on the worksheet.

Typing Replaces Selection

This option is a feature that is standard throughout the Microsoft Office suite. It ensures that if you type when an item is selected, your typing replaces the selected item. This is extremely useful in a number of instances. When you want to change a short cell entry, it might be quicker to make use of this option to overwrite the entry with the new one.

➢ **To overwrite a cell entry:**

Keyboard

i.   Move to the cell you want to change.

ii.   Type in the new entry (the former one will disappear as soon as you start typing).

iii. Press **[RETURN]** to confirm the changed entry.

Use The Mouse To Edit

Perhaps one character has been omitted, or two characters have been transposed, and only a slight adjustment needs to be made. If this is the case, you can add or change characters using edit mode. You can edit directly in the cell or on the Formula bar.

➢ **To edit in cell:**

i.   Double-click the cell to change – this will access Edit mode (the prompt on the Status bar will say 'Edit').

ii.   Use the arrow keys to move the cursor to the edit position within the entry and the **[DELETE]** and **[BACKSPACE]** keys to remove characters if necessary.

iii. Press **[RETURN]** to confirm the changes.

➢ **To edit in the Formula bar:**

i.   Move to the cell to change.

ii.   Click in the Formula bar where the cell contents appear. This will drop you straight into Edit Mode (see Status bar) and a cursor appears in the Formula bar.

iii. Use the arrow keys to move the cursor to the edit position within the entry and the **[DELETE]** and **[BACKSPACE]** keys to remove characters if necessary.

iv.   Press **[RETURN]** to confirm the changes.

Using The Keyboard

You can access edit mode using a function key.

➢ **To edit a cell:**

i.   Select the cell to be edited.

ii. Tap the **[F2]** function key. Excel will go into Edit mode. A cursor will appear at the end of the active cell.

iii. Use the arrow keys to move the cursor to the edit position within the entry and the **[DELETE]** and **[BACKSPACE]** keys to remove characters if necessary.

iv. Press **[RETURN]** to confirm the changes.

Select Information

When you want to issue a command that will affect several cells, you should select those cells first.

When you select a block of cells, Excel shows you which cell is the active cell within that selection by leaving it white, while the rest of the cells are highlighted black. There are a variety of ways you can select different items on the worksheet and these are described below.

➢ **To select cells with the mouse**

When you select with the mouse, you need to make sure that the selection pointer is displayed. This is the white plus that appears when the mouse is positioned over the middle of a cell.

To select	Do this
A single cell	Click the cell, or press the arrow keys to move to the cell.
A range of cells	Click the first cell of the range, and then drag to the last cell.
All cells on a worksheet	Click the Select All button.
Nonadjacent cells or cell ranges	Select the first cell or range of cells, and then hold down [CTRL] and select the other cells or ranges.
A large range of cells	Click the first cell in the range, and then hold down **[SHIFT]** and click the last cell in the range. You can scroll to make the last cell visible.
An entire row	Click the row number.
An entire column	Click the column letter.
Adjacent rows or columns	Drag across the row or column headings. Or select the first row or column; then hold down **[SHIFT]** and select the last row or column.
Nonadjacent rows or columns	Select the first row or column, and then hold down **[CTRL]** and select the other rows or columns.
More or fewer cells than the active selection	Hold down **[SHIFT]** and click the last cell you want to include in the new selection

➢ **Select cells with the keyboard**

Sometimes, selecting with the keyboard gives you more control over the amount of data you select. The table below lists the more useful keys for selecting:

To select	Do this
The active cell plus one Cell up, down, left or right	**[SHIFT][←],[SHIFT][→],[SHIFT][↑],[SHIFT][↓]**
To Edge of Worksheet (Or current block of data)	**[SHIFT][CTRL][RELEVANT ARROW KEY]**
The current region	**[CTRL][*]** (Use the asterisk from the number pad)
Whole Column	**[CTRL][SPACEBAR]**
Whole Worksheet	**[CTRL][A]**

Mouse

i.   You can cancel a selection by moving somewhere else. Click the white plus on any cell outside the selection.

I.   By using one of the arrow or cursor keys **[←]** or **[→]** or **[↑]** or **[↓].**

Select Multiple Sheets

There are some situations where you need to select more than one worksheet. The active sheet in a workbook can be determined by its white tab where its name appears in bold.

➢ **To select adjacent worksheets:**

Mouse

i.   Click the tab of the first worksheet that you want to include in your selection.

ii. Hold down the **[SHIFT]** key and click on the tab of the last worksheet that you want included in your selection. All the sheets between the first and the last will be selected. The selected sheet tabs will turn white and the word 'Group' will appear on the title bar.

Select Non-Adjacent Sheets

➢ **To select non-adjacent worksheets:**

Mouse

i.   Click the on the first worksheet's tab that you want to include in your selection.

ii. Hold down the **[CTRL]** key and click each other worksheet's tab that you want included in your selection. The selected sheet tabs will turn white and the word '[group]' will appear on the title bar.

You can cancel sheet selection by clicking on a sheet tab that is not included in the current selection. For more information on working with multiple worksheets, see the relevant section later in this manual.

CLEAR CONTENTS, FORMATS AND COMMENTS

If you want to remove an entry completely from a cell, you need to clear the cell. There are a variety of ways you can do this and the method you choose depends on what you want to remove from the cell. You can remove data from cells using the ribbons or the keyboard. This command would only remove cell data (numbers, text, dates, formulae). If you have formatted the cells, clearing their contents would leave the formats intact so that new data you type in the cleared cells would keep the old data's formats.
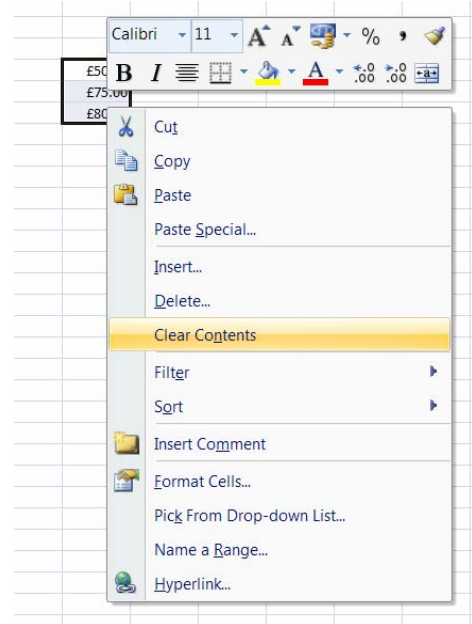
➢ To clear contents:

Mouse

   i.   Select the cell or cells you want to clear.

   ii.   Right click on the cell/selection.

   iii.   Choose Clear contents from the shortcut menu.

OR

Keyboard

   i.   Move to the cell or select the cells whose contents you want to clear.

   ii.   Tap the **[DELETE]** key.

   iii.   If you need to be able to choose what gets removed when you clear a cell, you should use the Clear command under the Edit menu.

➢ To clear formats

Mouse

   i.   Make selection

   ii.   Go to the **HOME** Ribbon

   iii.   Click on **THE ERASER** to the right of the ribbon

   iv.   Click on **CLEAR FORMATS** to clear formats OR **CONTENTS** to clear the data in the cell (same as right mouse click)

   v.   All **FORMATS** will be removed from selection

➢ To clear comments

Mouse

   i.   Repeat steps 1-3 as above then Click on **CLEAR COMMENTS**

Do not clear cells by simply typing a space in them as this could give false results with some of the advanced Excel features. Always clear cells properly.
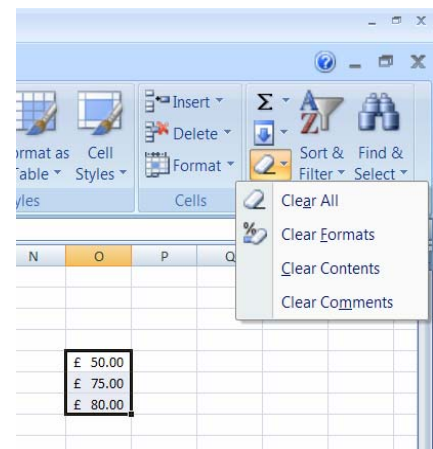
THE FILL HANDLE

The fill handle is a very useful tool in Excel. It allows you to copy and clear data but also to fill in series of data (dates, weekdays etc.). Those aspects of the fill handle are dealt with later in this manual. The fill handle appears in the bottom right hand corner of the active cell or selection. When your mouse is over the fill handle, the white plus pointer changes to a black plus.

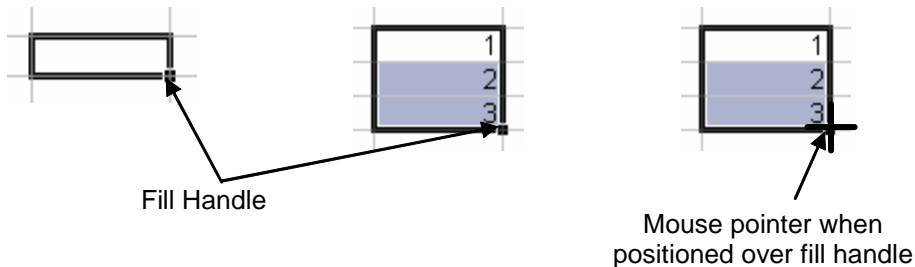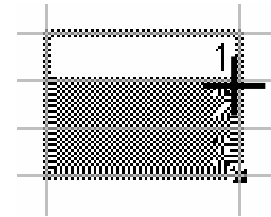You can use the fill handle to clear the data from a cell.

Fill Handle

Mouse pointer when
positioned over fill handle

> ➤ **To clear cell contents with the fill handle:**

<u>Mouse</u>

   i.   Select the cells whose contents you want to clear.

  ii.   Position your mouse over the fill handle to display the black plus.

 iii.   Drag the fill handle back over the selected cells. Release the mouse when all cells have been included.

You can use the fill handle to clear more than just contents. By holding down the [CTRL] key, the fill handle can be used to clear both contents and formats from cells.

USEFUL INFORMATION

Scrolling

To scroll long distances hold down the **[SHIFT]** key while dragging the scroll box

When you use the scrolling keys (such as **[PAGE UP]** and **[PAGE DOWN]**) with **SCROLL LOCK** turned off, your selection moves the distance you scroll. If you want to preserve your selection while you scroll through the worksheet, turn on **SCROLL LOCK** first.

Data Entry

You can enter the current date into a cell by pressing **[CTRL][;].**

If you want to break a line within a cell, press **[ALT][RETURN].**

Select Cells To Limit Data Entry

When you want to limit the cells that data should be typed in, you can do this by selecting them. When you type in a selection, the entry appears in the active cell (the cell that remains white). You can then move the active cell down or right within the selection to continue. When Excel hits the edge of the selected block, pressing **[RETURN]** or **[TAB]** would move you to the next column or row within the selection.

> ➢ **To set limits for data entry: (select a range)**

<u>Mouse</u>

i.   Select the cells where the entries should be made.

ii.   Type the first entry. The entry will appear in the active cell.

iii.   Press **[RETURN]** to move the active cell down.
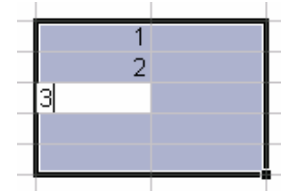
<u>OR</u>

iv.   Press **[TAB]** to move the active cell right.

You can continue using [RETURN] or [TAB] to move the active cell to the next cell within the selection where you want data. If you need to go back up or left, use [SHIFT][RETURN] or [SHIFT][TAB].

Do not use arrow keys to move within the selection as they will deselect the block.

Select Cells For Multiple Entry

When the same data needs to be entered into lots of cells, you can do it by selecting them first, typing in the data and then confirming the entry with a special key combination.

> ➢ **To make multiple entries:**

<u>Mouse</u>

i.   Select the cells where you want the entries to appear (use the **[CTRL]** key if there are several non-adjacent blocks to fill in).

ii.   Type the entry – it will initially appear in the active cell.

iii.   Press **[CTRL][RETURN].**

SECTION 3 FORMULAE AND FUNCTIONS

FORMULAE

In a spreadsheet application, at a very basic level, values often need to be added, subtracted, multiplied and divided. To allow for the fact that individual values might change, spreadsheet formulae generally refer not to actual values, but to the cells where those values are being held. If values have been entered into A1 and A2, then A1A2 will return an answer which will automatically recalculate if the value of A1 should change. It is this automatic recalculation which makes spreadsheets invaluable.

Excel recognises formulae because they are preceded by an equals sign (=).

When entering basic formulae, the mathematical operators defining the operation to be carried out are as follows:

Addition	
Subtraction	-
Multiplication	*
Division	/
Exponentiation	^

You will find all of these mathematical operators ranged across the top and down the right hand side of the numeric keypad.

Typing Formulae

You enter formulae by typing them in the cell where you want the formula's result to appear. When you confirm entry of a formula, Excel will display the result on the worksheet, but the underlying calculation appears on the Formula bar.

> **To enter a formula:**

Keyboard

i.   Move to the cell where you want to enter the formula.

ii. Type an equals sign (=).

iii. Type the formula (e.g. d2*e2).

iv. Press **[RETURN]** to confirm the entry.

v.   Excel automatically recalculates formulae. If you change one of the cells referenced in your formula, as soon as you press **[RETURN]** to confirm the changed value, your formula result will update.

Entering Formulae By Pointing

It is possible to enter formulae without actually typing the equals sign (=) or the cell references. Instead, you can make use of a pointing technique to indicate which cells are to be included. As with typing formulae, it is important to start off in the cell where the answer is to be displayed.

Pointing can be quicker and more efficient than typing cell references as it reduces the chances of errors.

➢ To enter a formula using keyboard AND mouse:

i.   Position the cursor in the cell where you want the formula.

ii. Type an equals sign (=).

iii. Click the first cell whose reference should be included in your formula. A moving dotted line, known in Excel as a 'marquee', will appear around that cell and the cell reference will appear in the formula bar immediately after the equals sign.

OR

iv. Use an arrow key to move there. A moving dotted line, known in Excel as a 'marquee', will appear around that cell and the cell reference will appear in the formula bar immediately after the equals sign.

v.   Type in the mathematical symbol you want to use in your calculation, then click on (or move to) the next cell to be included in the formula.

vi. Continue building the formula in this way.

vii. Press **[RETURN]** to complete the formula.

Marquee

	A	B	C	D	E	F	
1	Order Date	Cusomer	Product	Quantity	Price	Total	
2	01/01/2001	Viking Supplies	Widget	10	5	=D2	
3	02/01/2001	Bloggs & Co	Ratchet	23	7		
4	03/01/2001	Jones Brothers	Gimlet	200	3		
5	04/01/2001	Viking Supplies	Gimlet	201	3		
6							

AVERAGE ✗ ✓ *fx* =D2

Errors In Formulae

Sometimes you may get surprising results from a formula. This is most often because you have referenced the wrong cell, but it could also be that you have multiplied where you should have added and so on. You can correct formulae using the editing techniques described earlier in this manual.

➢ **To edit a formula:**

Mouse

i.   Double-click on the cell containing the formula. The cell will switch from displaying the result of the formula to the formula itself.

ii.   Click the mouse over the part of the formula to change to anchor the cursor there. Type any new characters or use the **[BACKSPACE]** and **[DELETE]** keys to remove characters.

iii. Press **[RETURN]** to confirm the changes.

OR

i.   Move to the cell containing the erroneous formula.

ii.   Click on the Formula bar which will show you the formula where you want to make the change.

iii. Type any new characters or use the **[BACKSPACE]** and **[DELETE]** keys to remove characters.

iv.   Press **[RETURN]** to confirm the changes.

OR

Keyboard

i.   Press **[F2]** to access edit mode.

ii.   Use the arrow keys to move the cursor to the edit position. Type any new characters or use the **[BACKSPACE]** and **[DELETE]** keys to remove characters.

iii. Press **[RETURN]** to confirm the changes

Filling Formulae

Having entered an initial formula in the first cell of a column or row, you often find that you want to generate results for the other cells in that column or row. In the example below, you would probably want your formula to work out totals for all the orders.

	F2	▼	fx	=D2*E2		
	A	B	C	D	E	F
1	Order Date	Cusomer	Product	Quantity	Price	Total
2	01/01/2001	Viking Supplies	Widget	10	5	50
3	02/01/2001	Bloggs & Co	Ratchet	23	7	
4	03/01/2001	Jones Brothers	Gimlet	200	3	
5	04/01/2001	Viking Supplies	Gimlet	201	3	
6						

There are a variety of ways that you can get Excel to copy a formula so that it generates results for other cells in a column or row.

The Fill Handle And Formulae

The fill handle has already been described earlier in this manual. It can be used to clear cells but has other uses as well, one of which is filling formulae.

Fill Handle

Mouse pointer when positioned over fill handle
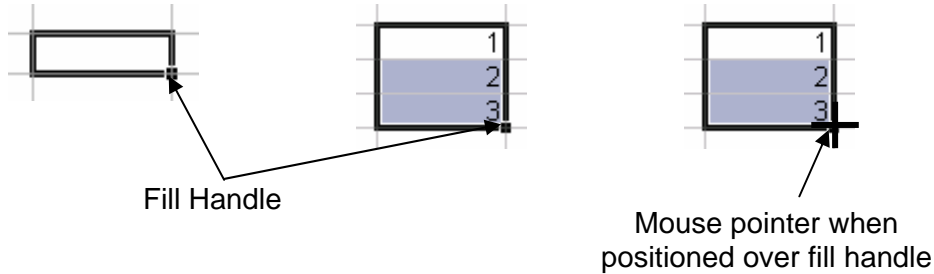
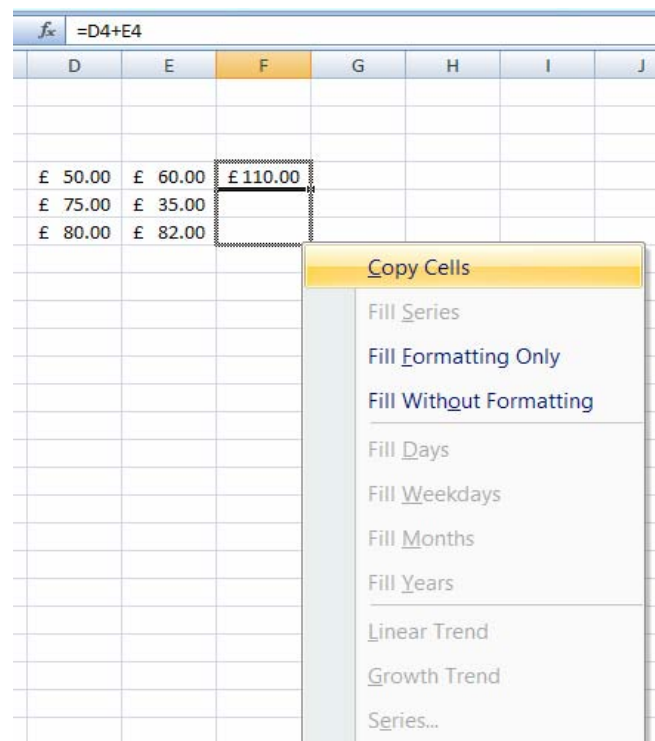### ➢ To use the fill handle to copy formulae:

<u>Mouse</u>

i. Move to the cell that has the formula that you want to fill.

ii. Position your mouse pointer over the fill handle. It will change to a black plus.

iii. Drag the black plus down, up, left or right over the cells where you want your copied formula to generate results. You will see an outline around those cells.

iv. Release the mouse when the outline includes all the cells where you want results.

v. A Smart Tag will be produced. The options it offers are not needed at the moment.
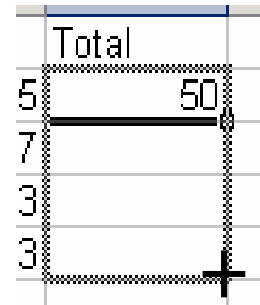
You can also double-click the fill handle to fill down as far as the entries in the adjacent columns

<u>OR</u>

i. Instead of using the left mouse button to fill down, try using the right mouse button. When released after dragging a menu will appear offering numerous options as to how the data should be filled

fx =D4+E4

D	E	F	G	H	I	J
£ 50.00	£ 60.00	£ 110.00				
£ 75.00	£ 35.00					
£ 80.00	£ 82.00					

Copy Cells
Fill Series
Fill Formatting Only
Fill Without Formatting
Fill Days
Fill Weekdays
Fill Months
Fill Years
Linear Trend
Growth Trend
Series...

Fill Formulae Using Keystrokes

You can fill a column or a row of formulae using the keyboard.

> ➢ **To fill using keystrokes:**

Keyboard

i. Select the cell containing the formula to fill *and* the cells where you want to copy it.

ii. Press **[CTRL][D]** to fill down.
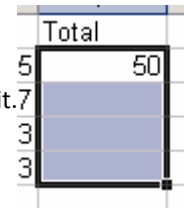
OR

iii. Press **[CTRL][R]** to fill right.

There are no keystrokes to fill up or left. Instead, repeat step1 above and then click Edit from the menu bar, choose Fill and select the direction for the fill from the resulting sub-menu.

BODMAS With Formulae

BoDMAS is a mathematical acronym that simply reminds us of the order of operations that mathematics uses to step through more complicated formulae. (Brackets, Division, Multiplication, Addition, Subtraction).

Excel follows these rules to a point please take note of the following table to see the order of preference that excel uses when working out calculations

To change the order of evaluation, enclose in brackets the part of the formula to be calculated first.

1st	–	Negation (as in –1)
2nd	%	Percent
3rd	^	Exponentiation
4th	* and /	Multiplication and division
5th	and –	Addition and subtraction
6th	&	Connects two strings of text (concatenation)
7th	= < > <= >= <>	Comparison

> ➢ **Using BODMAS**

E.G. The following formula produces 11 because Excel calculates multiplication before addition. The formula multiplies 2 by 3 and then adds 5 to the result.

Type =52*3 press [RETURN] **Result =11**

In contrast, if you use parentheses to change the syntax, Excel adds 5 and 2 together and then multiplies the result by 3 to produce 21.

Type =(52)*3 press [RETURN] **result = 21**
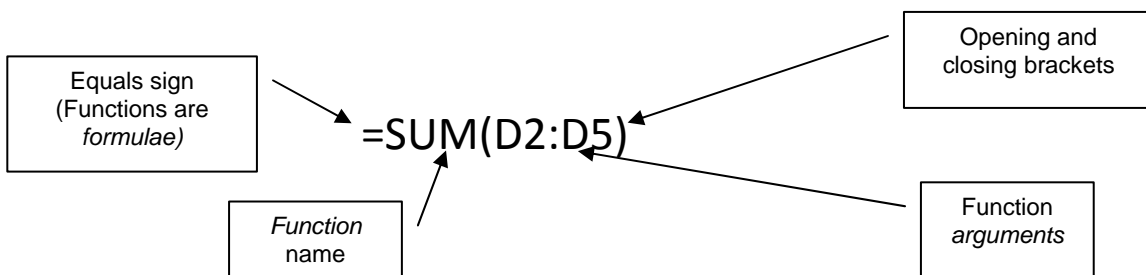
FUNCTIONS

Sum Function

Having mastered how to set up your own custom formulae, you will be able to carry out any calculations you wish. However, some calculations are complicated or involve referring to lots of cells making entry tedious and time consuming. For example, you could construct a formula to generate a total at the bottom of a column (or the end of a row), like this:

=D2D3D4D5

The above formula would work, but if there were 400 cells to total and not just 4, you would get bored with entering the individual cell references and would run out of space (formulae are limited to 1024 characters only).

When formulae become unwieldy or complex, Excel comes to the rescue with its own built-in formulae known as *functions*.

Functions always follow the same syntax:

The name of the selected function tells Excel what you want to do and the arguments generally tell Excel where the data is that you want to calculate.

Excel has a huge number of functions, not all of them are relevant to everyone. The functions are categorised according to what they do. In this manual, we outline some of the functions that can be used at a general level.

Autosum

> ➢ **using Autosum**

Mouse

i. Move selected cell to bottom of column or end of row of figures.

ii. Click on the **FORMULAS** Ribbon, then click on **AUTOSUM.** From the menu select the **SUM** function
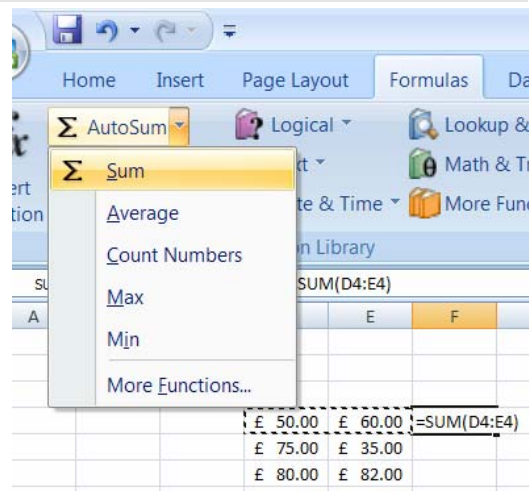
iii.   A 'marquee' will appear around the suggested range to sum and a pre-built function will appear in selected cell.

iv.   If suggested range is correct then press **[RETURN]**. If not redefine range by selected the figures you wish to include in the function and press **[RETURN].**

The Shortcut Key For The Sum Function Is [ALT][=]

Other Common Functions

The **Sum** function is very useful, but the AutoSum icon can also be used to for some other common functions: **Average** (of the selected figures), **Count** (the number of selected figures), **Max** (the largest selected figure) and **Min** (the smallest selected figure).

➢ To use other common functions:

Mouse

i.   Select the cell immediately below a column of figures (or to the right of a row of figures) to be totalled.

ii.   Click on the drop-down arrow next to the AutoSum icon and select the function that you want to use from the list.

iii.   The selected function will automatically appear in the Formula bar and Excel will make a guess at which cells you want to use (you will see a marquee around the cells and their references will be the function arguments).

iv.   Press **[RETURN]** to accept the cells that Excel proposes.
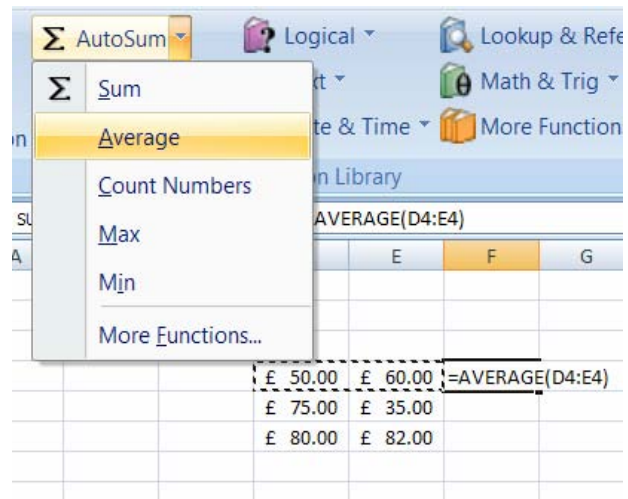
Function Library

On the formulas ribbon you will find the function library which is dedicated to functions **AUTOSUM** functions are just a few of the most regularly used functions.
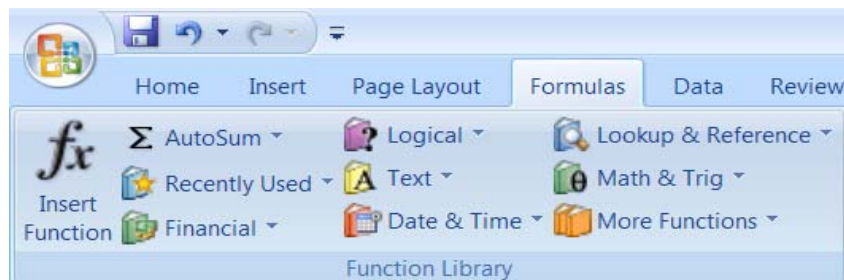
The functions are broken down in to categories and grouped accordingly to make it easy to access the specific function you desire to use. In many places you will see the **MORE FUNCTIONS** command which allows access to the whole range of functions available to excel. This brings us to the **INSERT FUNCTION** utility.

Insert Function
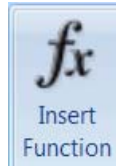
If after looking through all categories you do not find, or find it difficult to locate a specific function then we can use the **INSERT FUNCTION** facility. Which contains all functions available
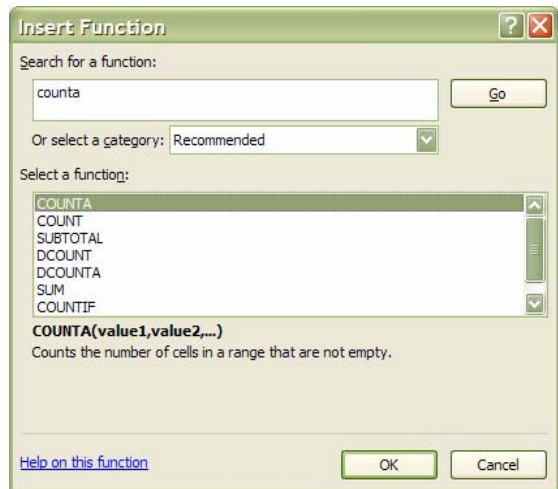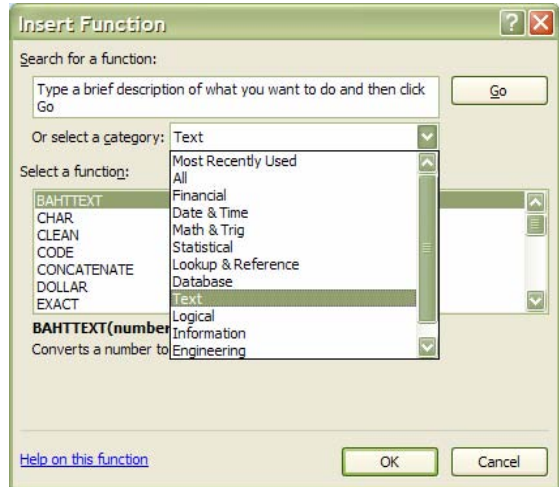
in excel

> ### To insert function

<u>Mouse</u>

i.   Click the cell where you want a result

ii.   Go to the **FORMULAS** ribbon and click on the **INSERT FUNCTION** icon on the far left

iii. The **INSERT FUNCTION** dialog box appears

EITHER

i.   Type a description of the function you wish to use in the topmost box and click on go OR select a category

      from the drop down box

ii.   Results will appear in the bottom box then select a specific function with a single click of the mouse

iii. A description will appear underneath the white box and the syntax of how it is constructed

iv.   If further explanation is required on a specific function then click on the blue hyperlink in the bottom left corner to get more information.

V.   When the function you want is selected (in this case **COUNTA**) click **OK.**

vi.   A dialog box appears (below right) with a suggested range for the function. Excel will place the function on the worksheet in the selected cell. You can see the selected function being built on the formula bar. If this is incorrect reselect the range and press **[RETURN].**

OR

vii. Click the Range selector button. This will collapse the dialog box shown above.

viii. Drag across the cells to replace Excel's pre selected guess with your own cell references. Click the button marked on the picture below to return to the dialog.
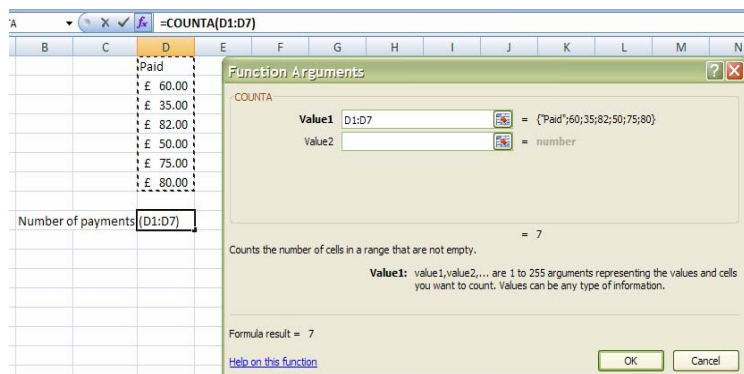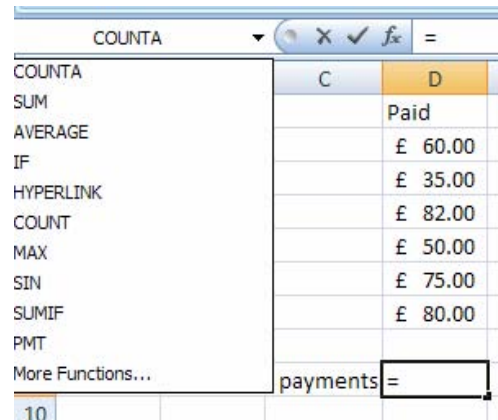
Function Box

There are some functions that are accessed more than others and for that reason Excel gives you a slightly quicker method for entering them than the Paste function dialog. The Function box, groups the most commonly used functions for quick and easy access.

> ➢ **To enter a function using the Function box:**

Mouse

i. Type the equals sign (=) on the formula bar (or directly into your cell). Excel displays the function box to the left of the Formula bar.

ii. Click the drop-down list arrow to the right of the function box to display a list of function names.

iii. Select the function you require by clicking its name from the list.

> **OR**

i. If your function is not listed, click the More Functions... option to access the Paste function dialog (*see above for instructions*).

Type Functions

When you get more familiar with functions and start to remember how they are constructed, you can type them rather than selecting them using the previously described methods.

> ➢ **To type a function:**

Keyboard

i. Move to the cell where you want the function.

ii. Type an equals sign (=) followed immediately by the function name and an open bracket.

iii. A tool tip appears to indicate the arguments the function needs.

iv. Select (or type) the cells you want the function to act upon using the mouse or arrow keys.

v. Press **[RETURN]** to confirm the entry.

As long as your formula only contains one function, you do not need to type the closing bracket. Pressing [RETURN] makes Excel close the bracket automatically.

Function Argument Tool Tips

Excel 2007 displays information about function arguments as you build a new formula. The tool tips also provide a quick path to **HELP**. You click any function or argument name within the tool tip.
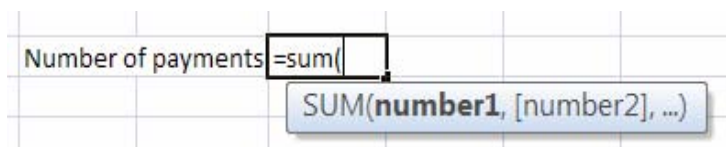
CELL REFERENCES

In functions, you often need to refer to a range of cells. The way Excel displays cell references in functions depends on whether the cells you want the function to act upon are together in a block or in several non-adjacent cells or blocks.

The table below explains how you can use different operators to reference cells:

Operator	Description	Example
Reference operator: (colon)	Range operator, which produces one reference to all the cells between two references, including the two references	B5:B15
, (comma)	Union operator, which combines multiple references into one reference	SUM(B5:B15,D5:D15)
(single space)	Intersection operator, which produces one reference to cells common to two references - In this example, cell B7 is common to both ranges	SUM(B5:B15 A7:D7)

Counting And Totalling Cells Conditionally

Occasionally you may need to create a total that only includes certain cells, or count only certain cells in a column or row.

	A	B	C	D	E	F
1	Order date	Customer	Product	Quantity	Price	Total
2	01/01/97	Viking Supplies	Widget	10	5	50
3	02/01/97	Bloggs & Co	Ratchet	23	7	161
4	02/01/97	Jones Brothers	Gimlet	200	3	600
5	03/01/97	Viking Supplies	Gimlet	201	3	603
6	01/01/97	Viking Supplies	Widget	296	5	1480
7	02/01/97	Bloggs & Co	Ratchet	371	7	2597
8	02/01/97	Jones Brothers	Gimlet	446	3	1338
9	03/01/97	Viking Supplies	Gimlet	521	3	1563
10	01/01/97	Viking Supplies	Widget	596	5	2980
11	02/01/97	Bloggs & Co	Ratchet	671	7	4697
12						
13	Viking Supplies Total					
14	Bloggs & Co No. of orders					

The example above shows a list of orders. There are two headings in bold at the bottom where you need to generate a) the total amount of money spent by Viking Supplies and b) the total number of orders placed by Bloggs & Co.

The only way you could do this is by using functions that have conditions built into them. A condition is simply a test that you can ask Excel to carry out the result of which will determine the result of the function.

Use Sumif()

You can use this function to say to Excel, "Only total the numbers in the **Total** column where the entry in the **Customer** column is Viking Supplies". The syntax of the SUMIF() function is detailed below:

=SUMIF(range,criteria,sum_range)

Range is the range of cells you want to test.

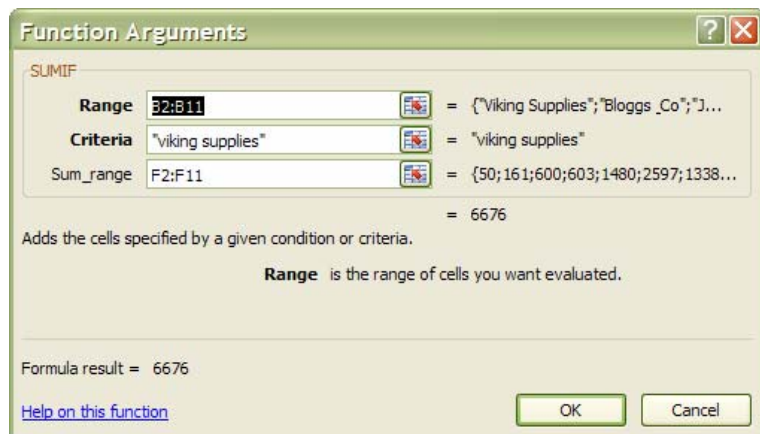**Criteria** is the criteria in the form of a number, expression, or text that defines which cells will be added. For example, criteria can be expressed as 32, "32", ">32", "apples".

Sum range these are the actual cells to sum. The cells in sum range are summed only if their corresponding cells in range match the criteria. If sum range is omitted, the cells in range are summed.

=SUMIF(B2:B11, "Viking Supplies", F2:F11)

With the example above, the SUMIF function that you would use to generate the **Viking Supplies Total** would look as above.

Using the **INSERT FUNCTION** tool the dialog would look like this and show any errors in entering the values or ranges

Use Countif

The COUNTIF function allows you to count those cells that meet a certain condition.

The function syntax is as follows:

=COUNTIF(range,criteria)

Range is the range of cells from which you want to count cells.

Criteria is the criteria in the form of a number, expression, or text that defines which cells will be counted. For example, criteria can be expressed as 32, "32", ">32", "apples".

With our example (shown above), the COUNTIF function that you could use to determine the number of orders placed by Bloggs & Co. would look like this:

=COUNTIF(B2:B11, "Bloggs & Co.")

ABSOLUTE AND RELATIVE REFERENCES

Relative References

When you fill formulae, you tell Excel to base the formulae it creates on the one you have entered by starting from the cell that contains it.

In the example shown right, the formula being copied says =D2*E2. However, once copied, if you click on any of the copies, Excel will have updated the references to keep the row numbers current (D3*E3, D4*E4 and so on).

This is because Excel, by default, uses *relative referencing.* When you enter a formula, you enter specific cell references. Behind the scenes, Excel 'translates' those references into positions relative to the result cell. So, in our example shown left, Excel would take the formula:

=D2*E2

Translate it as follows:

= [two cells to the left]*[one cell to the left].

It therefore does not matter which row you copy the formula into, Excel will always use "[two cells to the left] multiplied by [one cell to the left]" to generate the result.

Most of the time, this is what you would want, but there are occasions where you need to stop Excel updating cell references when you copy formulae.

Absolute References

The example below shows a formula being created to work out the amount of discount each order would receive. The order totals are in column F and the discount rate is in B13. The initial formula has therefore been set up as:

=F2*B13

The formula will generate a result for the first order. However, when copied, you will get zeros against the discount amounts for the other orders. This is due to the relative referencing that Excel applies to all formulae by default.

Having copied the above formula, if you clicked on any formula in the Discount amount column below the first one, you would see that Excel has updated the references (=F3*B14, F4*B15). This is where the problem lies – you want Excel to change the first reference as your formula needs to refer to the different order totals, but the discount rate should remain constant. You need to make that reference *absolute.*

➢ **To make a reference absolute:**

Keyboard

i.   Move to the cell where you have typed the formula and press **[F2]** to access Edit mode.

ii.   Move the cursor with the arrow keys so that it is next to the reference we want to fix.

iii.   Press **[F4]**. Dollar signs will appear against the column letter and the row number.

iv.   Press **[RETURN]** to confirm the change.

v.   In our example, amending the formula to read:

=F2*B13

vi.   This would prevent Excel from changing the B13 reference when the formula is copied.

	A	B	C	D	E	F	G	H
						SUM	fx =F2*B13	
1	Order Date	Cusomer	Product	Quantity	Price	Total	Discount Amount	
2	01/01/2001	Viking Supplies	Widget	10	5	50	=F2*B13	
3	02/01/2001	Bloggs & Co	Ratchet	23	7	161		
4	03/01/2001	Jones Brothers	Gimlet	200	3	600		
5	04/01/2001	Viking Supplies	Gimlet	201	3	603		
6	05/01/2001	Viking Supplies	Widget	296	5	1480		
7	06/01/2001	Bloggs & Co	Ratchet	371	7	2597		
8	07/01/2001	Jones Brothers	Gimlet	446	3	1338		
9	08/01/2001	Viking Supplies	Gimlet	521	3	1563		
10	09/01/2001	Viking Supplies	Widget	596	5	2980		
11	10/01/2001	Bloggs & Co	Ratchet	671	7	4697		
12								
13	Discount Rate	25%						

Fill Handle

You can get the fill handle to fill formulas down to the same level as the entries in the previous column by double-clicking on it.

Absolute References

Pressing [F4] repeatedly over a reference allows you to toggle between making both the row and column absolute (A1), just the column absolute ($A1), just the row (A$1), or nothing absolute (A1).

SECTION 4 FILE OPERATIONS

You can save any information entered in Excel so that you may call it back at a later stage either to add, edit or print the contents. It's a good idea to save work frequently as this will minimise the risk of work being lost in the event of a power cut or system fault.

Save Files

Excel gives any new document you create a temporary name – the word 'Book' followed by a number. The number increases by one for each new workbook you create in any one work session.

Parts of the **SAVE AS** dialog box

PREVIOUS FOLDER- As you move through the folder structure in the Files list, this button allows you to go back to the previous folder that you viewed.

UP ONE LEVEL- Click this button to look in the folder that is up one level in the current folder structure.

DELETE- Click this button to delete the selected file or folder.

CREATE NEW FOLDER- Click this button to create a new folder within the current folder.

VIEWS- Click the arrow next to this button to display file and folder view options.

FILE NAME- Type or select a file name for the file that you are saving.

SAVE AS TYPE- In the list, click the file format in which you want to save the file. Most 2007 Microsoft Office system programs can save files in more than one format, so you may need to select the format that you want.

MY PLACES- Click a shortcut on the **FAVORITE LINKS** bar to save the file to the location represented by the shortcut.
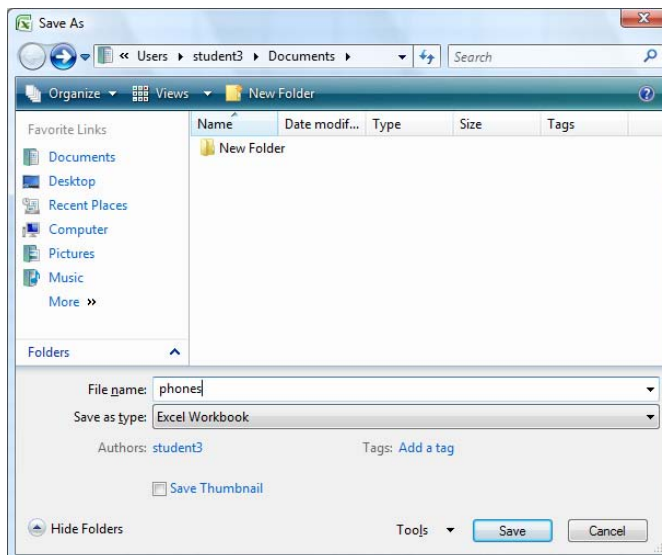
TOOLS- Click **TOOLS** to display a list of tasks that you can perform. The tools that are available vary depending on the program that you are using.

SAVE   After you determine the location, file name, and format of the file that you are saving, click **SAVE** to save the file.

CANCEL   To go back to the file without saving it, click **CANCEL**.

Your FAVORITE LINKS bar might be different from what is shown because you can add, remove, or rearrange the shortcuts.

> ➢ **To save a file:**

<u>Mouse</u>

i.   Click the **SAVE** button. On the **QUICK ACCESS** toolbar. If you have not saved the workbook previously, the **SAVE AS** dialog box will appear asking you for a document name and location.

ii.   The first list box marked **SAVE IN** allows you to determine the drive and folder that you want to save the document in. The area below the **SAVE IN** list allows you to see which files are stored in the area currently displayed.

> ➢ **To change the location:**

<u>Mouse</u>

i.   Click the drop-down list arrow to the right of the **SAVE IN** list box and choose the desired drive or folder.

If you choose a drive, you will see a list of folders within that drive inside the dialog box. If the list is very long, Excel provides you with a horizontal scroll bar to access folders that are not currently visible. Once you can see your folder, you can double-click to open it.

ii.   At the bottom of the dialog box are two list boxes, one for the file name and one for the document type. Excel automatically assigns the first few words you typed as the workbook name.

File Types And File Names

Excel in general has always saved files with three letter filetypes such as **book1.xls** or **accounts.xlt** the last three letters always being the *type* of file that it is saved as. In 2007, however, this has now changed and the default filetype for all excel files is now **book1.xlsx** a *four character* filetype. This is because the nature of the contents of the file has changed radically and is in no way comparable to earlier versions.

> ➢ **Naming a file:**

<u>Mouse</u>

i.   Click in the **FILE NAME** box and drag your mouse over the current file name – this will highlight it.

ii.   Type the new name.

iii.   Choose from the **SAVE AS TYPE** box which version of excel you wish to save this file as. (If somebody using a previous version needs to access this file this is essential)

iv.   Finally, when the location, name and filetype have been entered, save the workbook by clicking the button marked **SAVE**. This closes the dialog box. Back in the Excel screen you will notice that the name you allocated to your workbook appears on the **TITLE BAR** at the top of the screen

v.   IF you saved this file as an earlier version you will see **COMPATIBILITY MODE** next to the filename in the **TITLE BAR**

Workbook names can be up to 255 characters. File names cannot include any of the following characters: forward slash (/), backslash (\), greater than sign (>), less than sign (<), asterisk (*), period (.), question mark (?), quotation mark ("), pipe symbol (|), colon (:), or semicolon (;). You do not need to type the document extension (".xlsx") as Excel automatically adds this to all files you save.

Saving Changes To Files

Once you have allocated a name to a file using the **SAVE AS** dialog, clicking the **SAVE** button simply saves any new changes to the name you originally gave. It is worth saving files that you are working on every ten minutes or so. When you click the Save button, the status bar displays a message to say that it is saving and a blue meter which counts up to show how long the save will take.

Keyboard

i.   You can save the current workbook by using the keystroke **[CTRL][S]**. If the workbook has never been saved before, the **SAVE AS** dialog will appear, otherwise, **[CTRL][S]** saves any new changes to the file name that you have already allocated.

Saving As A Different Type Or Different Name

If a file you work with needs to be saved as something else or it needs saving under a different name or maybe another version then we cannot use the **SAVE** button as this would just save the changes to this file we must call up the **SAVE AS** dialog again and save the file as something else.

➢   **To save as different file**

Mouse

I.   Click on the **OFFICE BUTTON** move mouse cursor to **SAVE AS**

ii.   There are various options to choose from with explanations but the top choice will bring the **SAVE AS** dialog box to the screen again

iii.   Make the necessary changes and click on save
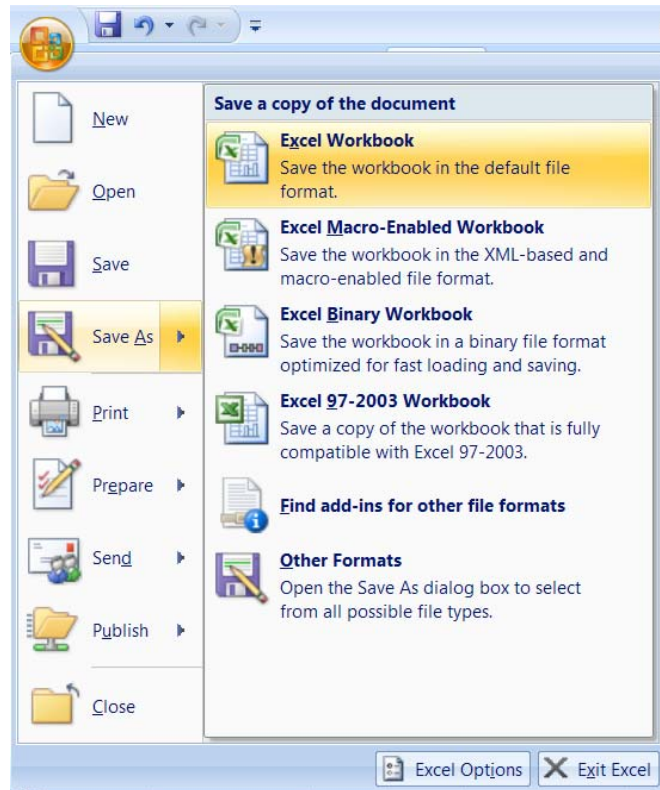
Close Files

When you finish working on a file, you can close it down using the following methods:

> **To close the current file:**

Mouse

i.   Click on **OFFICE BUTTON** and choose **CLOSE** near the bottom of menu.

OR

ii.   Click once on the cross (situated on the right-hand side of the screen)

You will see two of the above buttons on-screen – one will close the current file and the other will close the Excel application. To close the current file, use the innermost close button.

iii. If you have changed a file since the last time you saved it, Excel will not let you close that file without prompting you first to save the changes. A dialog box will appear with the option to save the change you have made
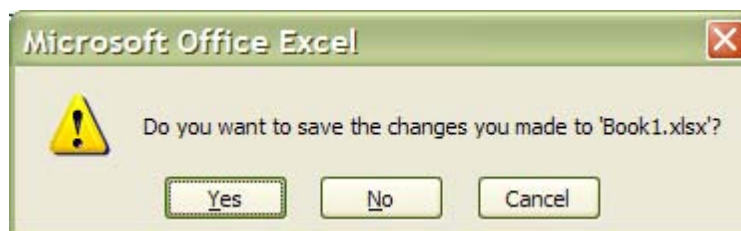
Open Files

> ➢ **To open a file:**

Mouse

i. Click on **OFFICE BUTTON** and choose a recently used file which appears on the right hand side of menu

OR

II. Click on **OFFICE BUTTON** and choose **OPEN.**

iii. The **OPEN** dialog box will appear

iv. If the file you want is not listed in the window, click the **LOOK IN** drop-down list box to change to the location of the desired workbook.

v. To open the file either: Click once on the file name to select it and click the **OPEN** button.

OR

i. After locating the file Double-click the file name.

Keyboard

i. You can also open workbooks using the key combination **[CTRL][O]**. This will invoke the File Open dialog – follow the steps outlined above to select and open the file that you want.
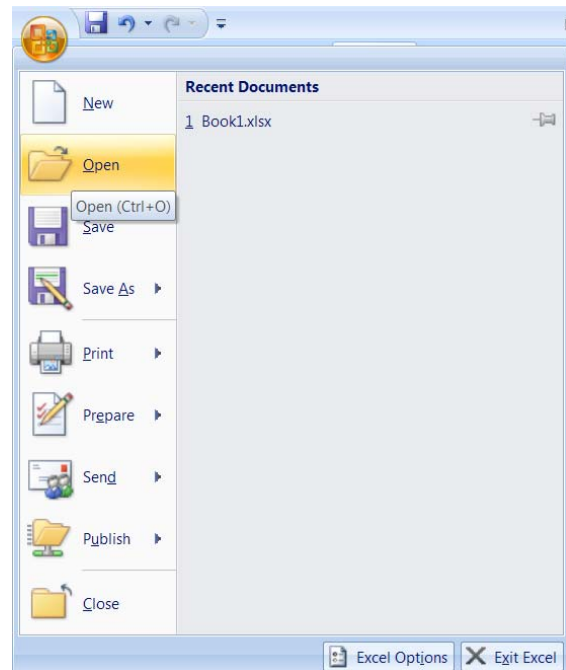
New Files

> ➢ **To create a new file:**

Mouse

Click on **OFFICE BUTTON** and click on **NEW** The following dialog box will appear
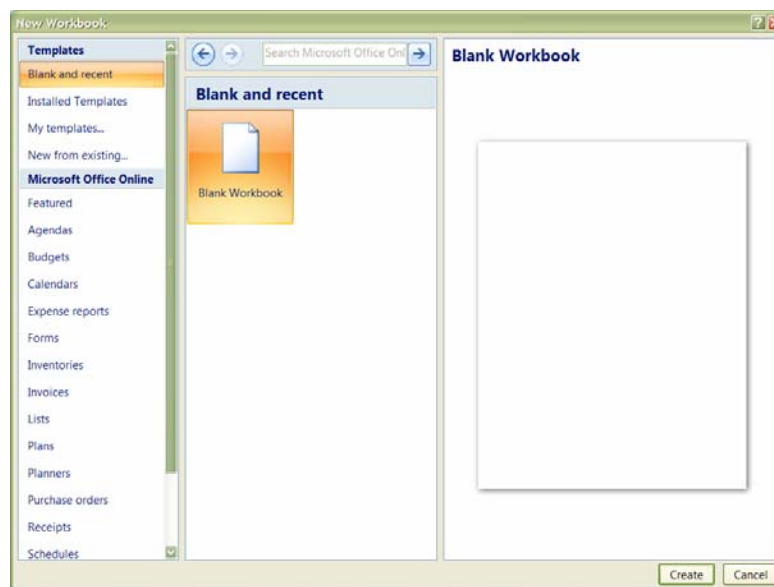
ii. On the left are categories of templates. If you are online there are many more choices are available as you can see.

iii. Choosing a category such as **BLANK OR RECENT** will allow you to create a **NEW** workbook from any featured in the middle pane only a blank workbook is available at the moment.

iv. A preview of any workbook type is shown on the right.

V. When you have the correct type of workbook selected even if it is only blank click on **CREATE.**

OR

Keyboard

i. **[CTRL][N]** will create a new blank file.

Section 5

MOVING AND COPYING DATA

Having entered information in a worksheet, you may decide that you need to reposition it or use cell entries in another worksheet or file that you have created. The good thing about Excel is that once you have entered something once, you can move or copy it anywhere – to other Excel files and even to files that belong to other applications.

All Microsoft products use the same terminology when describing moving and copying items – cut, copy and paste. These terms stem from the times when typesetters would lay out templates by physically cutting an item from its current location, and gluing or pasting it in to the new location.

Moving Items

> ### To move items:

Mouse

i.   Select the cells that you want to move.

ii.   Click the **CUT** button on the **HOME** Ribbon. The selected cells will display a marquee around them and Excel will show a prompt on the Status bar to tell you what to do next.

iii.   Move to the cell where you want to place the cells you cut. If you have cut a block of cells, the cell you select before you paste is where you want the top left cell in the cut block to move to.
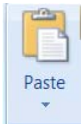
iv.   Click the Paste button from the **HOME** ribbon

OR

v.   Press **[RETURN]**.

OR

Keyboard

i.   Select the cells you want to move.

ii.   Press **[CTRL][X]** to cut the cells out a marquee will appear around the cells, and you will see a prompt on the status bar.

iii.   Move to the cell where you want the cut cells to jump to. If you have cut a block of cells, the cell you select before you paste is where you want the top left cell in the cut block to move to.

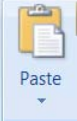iv.   Press **[CTRL][V]** to paste the cells into their new location.
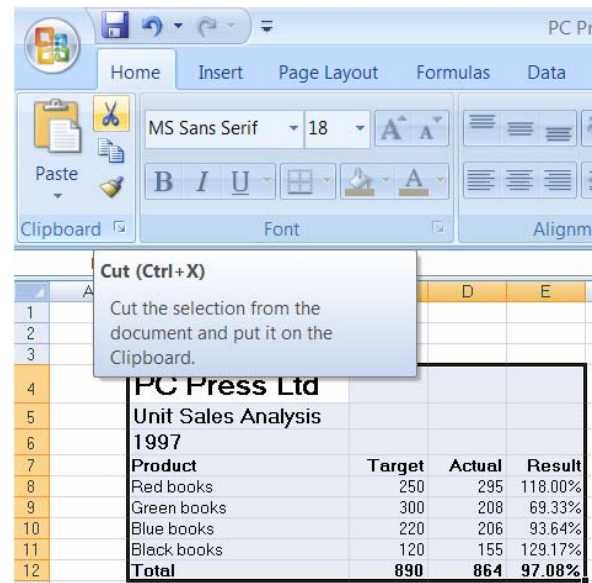
Copying Items

> ➢ **To copy items:**

Mouse

i.   Select the cells that you want to copy.

ii.   Click the **COPY** button on the **HOME** Ribbon.   The selected cells will display a marquee around them and Excel will show a prompt on the Status bar to tell you what to do next.

iii. Move to the cell where you want to place the cells you cut. If you have cut a block of cells, the cell you select before you paste is where you want the top left cell in the cut block to move to.

iv.   Click the Paste button from the **HOME** ribbon the copied cells will appear

OR

v.   Press **[RETURN].** The copied cells will appear.

OR

Keyboard

i.   Select the cells you want to copy.

ii.   Press **[CTRL][C]** to make a copy. Excel displays a marquee around the copied cells and a prompt on the Status bar.

iii. Move to the cell where you want the copy to go. If you have copied a block of cells, the cell you select before you paste is where you want the top left cell in the copied block to be positioned.

iv.   Press **[CTRL][V]** to paste the copy back in.

OR

v.   Press **[RETURN].**
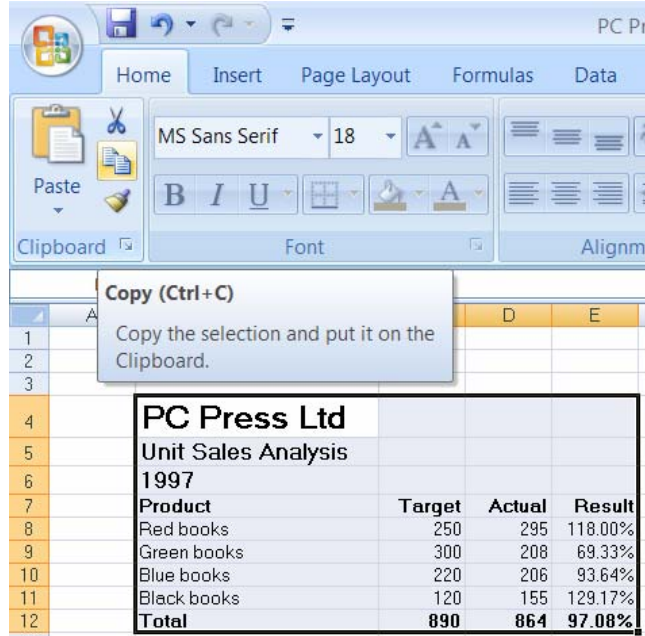
Clipboard

Clicking on the **DIALOG BOX LAUNCHER** the clipboard will open as a taskpane on the left hand side of the screen

The clipboard holds the last 24 items that have been cut or copied from any of the Microsoft applications and allows you to paste the same item many times in many places including other applications.
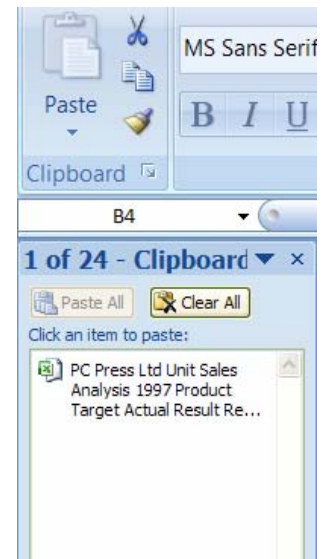
The clipboard is generic to all applications and needs merely to be displayed as it is here. The clipboard can be cleared at any time or single Items deleted

Drag And Drop

You can move and copy cells by selecting and dragging them with the mouse. When you do this, you must ensure that you have the correct mouse pointer shape displaying before dragging and dropping.

When you select a cell or a group of cells, Excel outlines them with a heavy border. When the mouse is moved slowly over this border, it will display a white arrow which points up and to the left – and a four arrowed cross in black this is your drag and drop pointer and allows you to move and copy cells with the mouse.
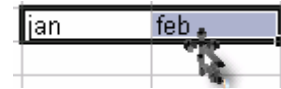
➢ **To Move:**

Mouse

i.   Select the cells you want to move or copy.

ii. Point to the border of the selection.

iii. With the drag and drop pointer displaying, drag the selection to the upper-left cell of the paste area. You'll see a fuzzy box, the same size as the selected block that will follow your mouse – when you release the mouse the selected cells will jump to their new location.
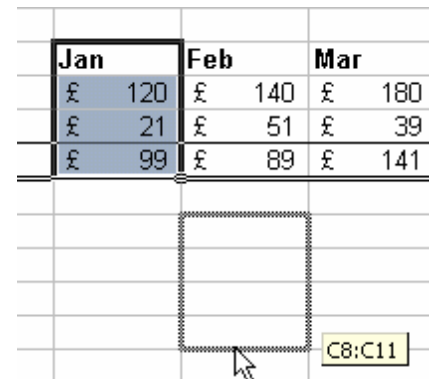
When you move cells to an area that already has data, Microsoft Excel will ask you to confirm that you wish to replace the existing cell contents with the data you are moving.

➢ **To Copy:**

Mouse

i.   If you want to copy the selection, repeat steps one and two above but before clicking on to it hold down the [**CTRL**] key on the keyboard, then begin clicking and dragging. You will see a plus sign appear next to the mouse pointer to signal the fact that you are copying rather than moving.

ii. With the fuzzy box positioned where you want the copy, let go of the mouse first and then release the **[CTRL]** key.
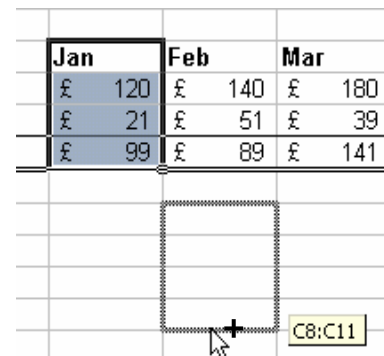
Shortcut Menus

You can use commands from Excel's shortcut menus to move and copy items. The shortcut menus appear when you click the right mouse button over a cell or selection.

➢ **To move cells:**

Mouse

i.   Select the cells you want to move.

ii.   With the mouse positioned anywhere within the highlighted area, click the right mouse button.

iii.   From the resulting shortcut menu, choose **CUT**. A marquee will appear around the selected cells and the Status bar will display a prompt.

iv.   Click the right mouse button over the cell where you want the cut cells to jump to. If you have cut a block of cells, the cell you click before you paste is where you want the top left cell in the cut block to move to.

v.   Choose **PASTE** from the shortcut menu. The cut cells will jump to their new location.

OR

vi.   Press **[RETURN]**. The cut cells will jump to their new location.

➢ **To copy cells:**

Mouse

i.   Select the cells you want to copy.

ii.   With the mouse positioned anywhere within the highlighted area, click the right mouse button.

iii.   From the resulting shortcut menu, choose **COPY**. A marquee will appear around the selected cells and the Status bar will display a prompt.

iv.   Click the right mouse button over the cell where you want the cut cells to jump to. If you have cut a block of cells, the cell you click before you paste is where you want the top left cell in the cut block to move to.

v.   Choose **PASTE** from the shortcut menu. The cut cells will jump to their new location.

OR

vi.   Press **[RETURN]**. The cut cells will jump to their new location.
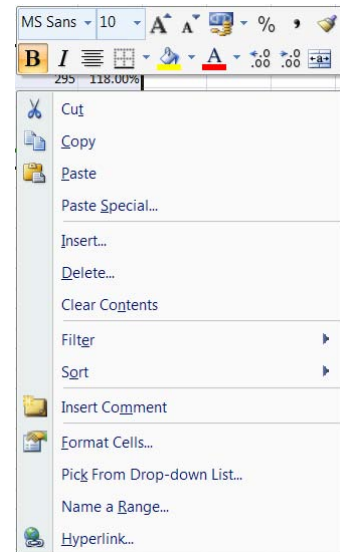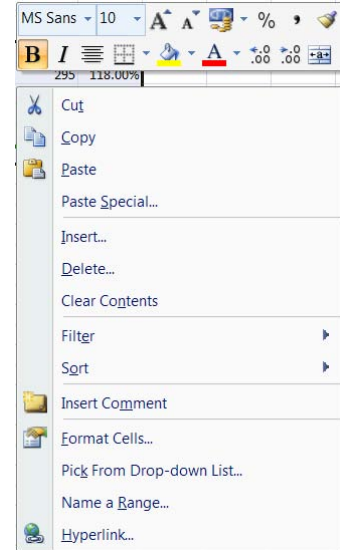
If you want to insert the cut or copied cells between two rows or columns of existing data, you can use the Insert cut/copied cells option that also appears on the shortcut menu.

Moving And Copying Between Files

You can use any of the methods described above (even drag and drop) to move and copy items from one workbook to another. When doing this, it is useful to be able to arrange the screen so that you can see the source file (the file containing the items that you want to move or copy) and the destination file (the document where you want to put them) at the same time.

> ➢ **To view open files:**

<u>Mouse</u>

i.   Open both workbooks using the techniques described in **SECTION 4**, File Operations.

ii.   Click **VIEW** ribbon, Choose **ARRANGE ALL** on the ribbon. A dialog box will open to allow you to choose how the files will be arranged. Choose horizontal and the two workbooks will be tiled on screen one above the other, each in its own window.

iii. Use your preferred technique (as described above) to move or copy items from one file to the other.

OR

iv.   If you click the **SWITCH WINDOWS** icon, this will list the files that are currently open to allow you to switch from one file to another. Copying from one file and then switching to paste into another file.

Insert Paste

As already mentioned, Excel will overwrite existing data with cells that you are moving or copying. There are occasions where you want to swap the positions of cells without overwriting what you already have.

	A	B	C	D	E	F
1	Order Date	Cusomer	Product	Quantity	Price	Total
2	01/01/2001	Viking Supplies	Widget	10	5	50
3	02/01/2001	Bloggs & Co	Ratchet	23	7	161
4	03/01/2001	Jones Brothers	Gimlet	200	3	600
5	04/01/2001	Viking Supplies	Gimlet	201	3	603
6						

In the example above, if you wanted to move the selected cells up two rows so that both "Viking Supplies" orders were next to each other, you would have to use Insert paste to do it, otherwise the existing data (the "Bloggs & Co. order) would be overwritten.

> ➢ **To insert the cells between existing cells:**

<u>Mouse</u>

i.   Select the cells you want to move or copy.

ii.   Point to the border of the selection.

iii. Hold down **[SHIFT]** (if moving) or **[SHIFT][CTRL]** (if copying) as you drag. You'll see a fuzzy line that you can position horizontally (between rows) or vertically (between columns). Release the mouse, then the keyboard. Your cells will jump to their new location.

Moving And Copying Between Worksheets

When you drag cells to areas not currently visibly, Excel will scroll the display down or across allowing you to move or copy the cells to those areas. Sometimes, you may want to drag an item to a different worksheet within the workbook.

➢ **To move and copy to another worksheet:**

Mouse

i.   Select the cells to move or copy and position the mouse over the selection border.

ii.   Hold down the **[ALT]** key as you drag the cells (**[ALT][CTRL]** if you are copying).

iii. Drag down over the sheet tab that you want to put the cells on and Excel will jump to that sheet. Continue dragging until you are in the location on the selected sheet that you want the cells in. Release the mouse **then** the keyboard.

Paste Special

The Paste Special option gives you the ability to choose what should be pasted into the destination cells. For example, you may want to paste data without its formats, or you might want to convert a formula to a static value – Paste special gives you the choice. You can also use **PASTE SPECIAL** to add/subtract/divide or multiply the copied cells with the destination cell data.

➢ **To use Paste Special:**

Mouse

i.   Select the cells you want to copy.

ii.   Right click anywhere within the highlighted block and choose Copy from the shortcut menu.

iii. Click the right mouse button over the cell where you want the copied data to appear. If you have copied a block of cells, the cell you click before you paste is where you want the top left cell in the copied block to move to.

iv.   Choose Paste Special. The following dialog box will appear:

v.   Select an option in the **PASTE** section of the dialog to choose what will be pasted into the destination cells

vi.   Select an option from the **OPERATION** section of the dialog to choose the mathematical operation you want to perform on the copied data.

vii. Check the **SKIP BLANKS** box to suppress empty cells being pasted.

viii. Check the **TRANSPOSE** box to change the arrangement of the copied cells from column to row and vice versa.

ix.   Click **OK** to close the dialog and paste the data.

SECTION 6 FORMATTING

Having produced a spreadsheet, it may be formatted to achieve a more professional and more easily readable layout of data for both screen display and printout. There are several different ways of formatting data in Excel 2007 to produce extremely impressive effects, and many of the tools in the **FORMATTING** groups on the **HOME** ribbon are used for the most popular formatting tasks. This section looks at several different approaches to improving the layout of a spreadsheet.

Formatting Groups On Home Ribbon

The Formatting groups are together on the **HOME** ribbon the buttons that create formats most frequently used to enhance worksheet appearance. Not all the formats that you can apply in Excel are contained in the Formatting group icons some can only be accessed via the dialog box which is accessed by the dialog launch button found at the bottom right of a formatting group which is discussed later in this section.
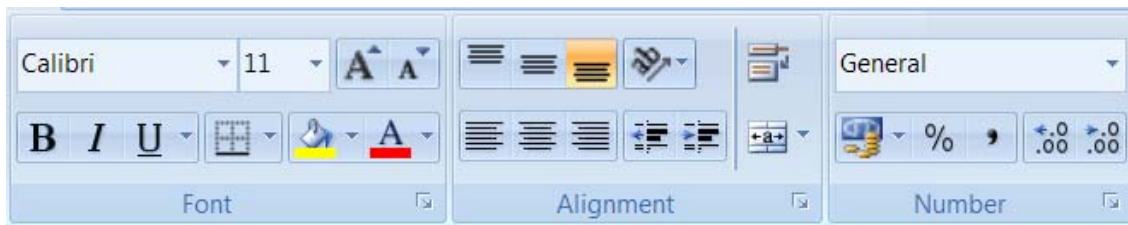
Font

By default, Excel 2007 uses Calibri as its base font and all new worksheets will use this font for data that you enter. However, you can choose different font faces for cells on the worksheet using the Formatting toolbar.

> ➢ **To change the font:**

Mouse

i.   Select the cells where you want to change the font.

ii.   Click the drop-down list arrow to the right of the Font box in the Formatting group on the **HOME** ribbon.

iii. The fonts are listed alphabetically. Use the vertical scroll bar on the right of the list to move the list items up and down.

iv.   Select the desired font by clicking on it. The font face for the selected cells will change to reflect your choice.

OR

Keyboard

i.   Select the cells to change.

ii.   Press **[CTRL][SHIFT][F]** to highlight the current font on the formatting toolbar.

iii. Use **[ALT]** **[↓]** to drop down the list of available fonts, use the up and down arrows to move the highlight bar up and down the list and **[RETURN]** to apply the chosen font to the selected cells.

Point Size

This controls the size of the printed characters.

> ➢ **To change the point size :**

Mouse

i.   Select the cells with the data to change.

ii.   Click on the drop-down list arrow to the right of the currently displayed point size.

iii. Pick a new number from the list – the selected cell data will change size accordingly.

OR
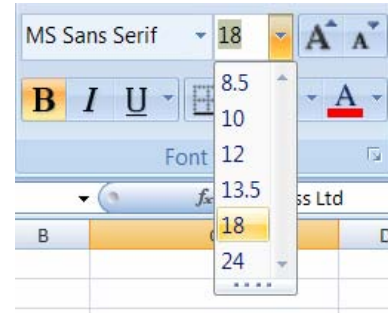
Keyboard

i.   Select the text to change.

ii.   Press **[CTRL][SHIFT][P]** to highlight the current point size on the formatting toolbar.

iii. Either type the point size that you want to use (your typing will replace the currently selected number) or use **[ALT][↓]** to display the list of point sizes and move the highlight bar to the selected size using the up and down arrow keys.

iv.   Press **[RETURN]** to apply the currently highlighted size to the selected cells.

OR

Mouse

After selecting cells you may use your mouse to increase or decrease the size of your font in the selected cells by clicking on the increase or reduce point size buttons in the font group. This will change the size of your font one point at a time

Although Excel displays from 8 to 72 points in the list, you can type your own numbers in and press [RETURN] to apply the format)

Bold, Italic And Underline

Bold, italic and underline can be applied to the selection using buttons on the formatting toolbar or keyboard shortcuts.

> ➢ **Apply bold, italic or underline:**

Mouse

i.   Select the cells to change.

ii.   Click on either the **B, I** or **U** buttons on the toolbar. The button will "switch on" and the selected text will display the applied format.

iii. Clicking on the underline drop down arrow will give you the option of having double underline instead of the regular single one. You may still toggle this off by clicking the **U** again

OR
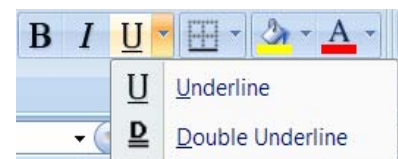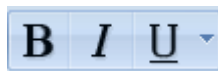
Keyboard

i.   Select the cells to change.

ii.   Press **[CTRL][B]** to apply bold formatting, **[CTRL][I]** to apply italic formatting or **[CTRL][U]** to apply single underline formatting to the selected cell data.

> ➢ **Remove Bold, Italic and Underline:**

Mouse

i.   Select the cells with the format.

ii.   Click the Bold, Italic or underline button to turn the format off.

OR

Keyboard

i.   Select the cells with the format.

ii.   Press **[CTRL][B], [CTRL][I]** or **[CTRL][U]** to switch the format off.

Font Colour

This will change the colour of on-screen information. It will also print the information in the chosen colour if you are connected to a colour printer.

> ➢ **To change font colour:**

Mouse

i.   Select the cells whose font colour you want to change.

ii.   Click the drop-down list arrow displayed on the right-hand side of the button and choose the desired colour.

iii.   Themes (see later) show complimentary colours and shades on the theme that you may have chosen for your worksheet (those in figure are default)

iv.   There are also standard colours to choose from

v.   If you still cannot find what you want from the default palette there are more colours to choose from. Click more colours to find any colour you desire.

> ➢ **To reset font colour:**

Mouse

i.   Select the cells you want to reset to the default colour.

ii.   Click the drop-down list arrow displayed on the right-hand side of the Font colour button.

iii.   The **AUTOMATIC** option will reset text back to the default colour (normally black).

Background Fill Colour

If you want to shade the background of cells, use the Fill colour button.

> ## To change fill colour:

Mouse

i.   Select the cells whose background colour you want to change.

ii. Click the drop-down list arrow displayed on the right-hand side of the Fill colour button.

iii. The **NO FILL** option will remove any applied fill colours.

iv. The fill colour palette has the same range of colours and colour options that in the text colour drop down list

Borders

When you print a worksheet, Excel allows you to choose whether you want all the cell gridlines to print or not. Often, you want to print some but not all of the lines – this is when you need to apply borders. You can then tell Excel not to print the gridlines but your borders *will* be printed.

> ## To apply borders:

Mouse

i.   Select the area you want to border.

ii. Click the drop-down list arrow to the right of the Borders button on the Formatting toolbar.

iii. From the palette, click on the required border option.

If the palette does not have the bordering option that you want to apply, use the Format cells dialog (discussed later in this section) to apply the borders.

> ## To remove borders:

Mouse

i.   Select the area with the borders you want to remove.

ii. Click the drop-down list arrow to the right of the Borders button on the Formatting toolbar.

iii. From the palette, click on the first border option.

Alignment

You can select from three different cell alignment options in Excel by clicking the relevant button (described below). The buttons determine how data lines up between the left and right edges of the selected cell(s).
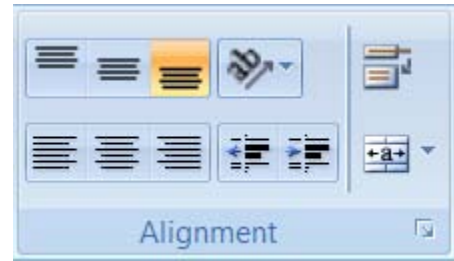
Alignment

> ➢ **To change alignment:**

<u>Mouse</u>

i. Select the cell(s) whose alignment you want to change.

ii. Click on the button for the alignment you require (*see below*).

iii. Click this button to left-align cell data. Left alignment ensures that the left edge of an entry is flush with the left edge of the cell. Left alignment is the default alignment for text entries in cells.

iv. Click this button to centre cell data. This will make each cell entry in the selection position itself in the middle of the cell.

v. Click this button to right-align cell data. Right alignment ensures that the right edge an entry is flush with the right edge of the cell. Right alignment is the default for numeric cell entries.

Merge Cells

If you want to type a heading across the top of a table of data, it can be quite difficult to line it up in the centre. If the columns in your table are different widths, or the title is a certain length, the chances of you getting it exactly central along the top of the table are practically nil. Luckily Excel has a solution. You can merge the cells across which you want the heading, centring it at the same time.

	A	B	C	D	E	F
1	ORDERS 1997					
2						
3	Order date	Customer	Product	Quantity	Price	Total
4	01/01/97	Viking Supplies	Viking Supplies	10	5	50
5	02/01/97	Bloggs & Co	Bloggs & Co	23	7	161
6	02/01/97	Jones Brothers	Jones Brothers	200	3	600

> ➢ **To merge cells:**

<u>Mouse</u>

i. Select the cells you want to merge.

ii. Click the **MERGE AND CENTRE** button from the Formatting toolbar.

	A	B	C	D	E	F
1			ORDERS 1997			
2						
3	Order date	Customer	Product	Quantity	Price	Total
4	01/01/97	Viking Supplies	Viking Supplies	10	5	50
5	02/01/97	Bloggs & Co	Bloggs & Co	23	7	161
6	02/01/97	Jones Brothers	Jones Brothers	200	3	600

> ➢ **To Unmerge cells**

Mouse

   i.   Select the cells you want to unmerge

   ii.   Click the Merge and Centre button again and this will unmerge the cells selected

   iii.   As you can see from the figure right if you click the drop down arrow to the right of the merge cell button you have options to merge cells with different alignments.
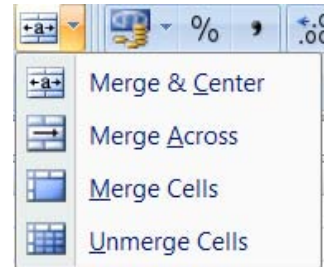
Indents

Indents allow you to control where a cell entry begins inside a cell.

> ➢ **To indent cell data:**

Mouse

   i.   Select the cell(s) where you want an indent.

   ii.   Click the increase indent button to indent the selected cell data by a standard amount from the left. You can click this button again to increase the amount of indent and so on.

   iii.   If you need to take the indent back, click the decrease indent button to do this.

Number Formats

Initially, numbers in Excel use a General format. You may find that the results of formulae run to different numbers of decimal places, or you might want to display numbers as monetary values with a currency symbol and two decimal places. There is no need for you to enter the numbers in the way you want them displayed – it is far better to use Excel's number formatting buttons.

INCREASE AND DECREASE DECIMAL PLACES

You can add and remove decimal places from numeric data using the Increase Decimal and Decrease Decimal buttons. Where you decrease, Excel will round numbers up or down to the nearest unit. However many places that you may increase or decrease the value to excel will still use the entered value to calculate not the value that appears in the cell as this is only an appearance not a true value (check formula bar)

> ➢ **To increase decimals:**

Mouse

   i.   Select the cells with the numbers you want to change.

   ii.   Click the **INCREASE DECIMAL** button from the **ALIGNMENT** group on the **HOME** ribbon

   iii.   Keep clicking the **INCREASE DECIMAL** button until your numbers display the correct number of decimal places.

➢ **To decrease decimals:**

Mouse

i. Select the cells with the numbers you want to change.

ii. Click the **DECREASE DECIMAL** button from the **ALIGNMENT** group on the **HOME** ribbon

iii. Keep clicking the Decrease Decimal button until your numbers display the correct number of decimal places.

COMMA STYLE

Comma style sets all the selected numbers to 2 decimal places and puts commas between different thousand multiples.

E.G. 100000 would become 100,000.00 when comma style is applied to it.

➢ **To apply comma style:**

Mouse

i. Select the cells with the numeric data you want to format.

ii. Click the Comma Style button from the Number group on the **HOME** ribbon

CURRENCY

iii. Applying this style will add a £ sign and two decimal places (pence) to the selected numbers.

➢ **To apply currency style:**

Mouse

i. Select the cells with the numeric data you want to format.

ii. Click the Currency button from the Number group on the **HOME** ribbon.

iii. Using the drop down arrow to the right of the currency button gives access to the most likely used currency formats in use you can choose from different currency symbols using the **FORMAT CELLS** dialog discussed later in this section
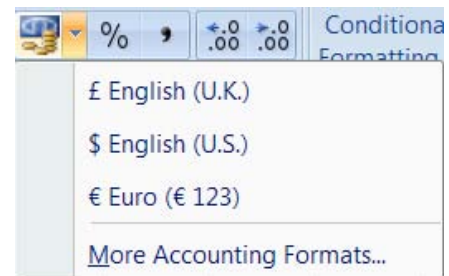
PERCENT STYLE

Where you have typed decimals on the worksheet, you may want to express those values as percentages. You can do this with the Percent Style format.

E.G. 0.5 would become 50% when you apply Percent Style.

➢ **To apply Percent Style:**

Mouse

i. Select the cells with the numeric data you want to format.

ii.   Click the Percent Style button from the Formatting toolbar.

> *The number formats (apart from Increase and Decrease Decimal) are mutually exclusive. Applying Comma Style to cells that already have Currency formats would lose the currency symbol. If you need to return to the default General style for numbers, you can use the Format Cells dialog discussed later in this section.*
>
> *If you ever see ###### in cells that normally display numbers, it is because the format you have applied is too wide for the column. To show the numbers, either change to a format that fits or widen the column (see later in this section for details on changing column widths).*

Advanced Formats

When you want to apply formats that Excel does not give you buttons for on the Formatting toolbar, you need to use the Format Cells dialog. This dialog contains all the formatting options (including those accessible via the Formatting toolbar) that you can use within the Excel application.

Format Cells Dialog

The Format Cells dialog is divided into tabs, each tab dealing with a format category.

➢ **To access the Format Cells dialog:**

Mouse

iii.   Select the cells whose formats you want to change.

iv.   Click the **DIALOG BOX LAUNCHER**. From either the **FONT, ALIGNMENT** or **NUMBER** group on the **HOME** ribbon

OR

Keyboard

i.   Press **[CTRL][1]**

ii.   The dialog box as seen top of next page will appear. Depending on which **DIALOG BOX LAUNCHER** you clicked will depend on which tab will appear first of the six in the dialog box

iii.   Once the dialog is on-screen, you can move between the format categories by clicking on the labelled tabs and change settings on each. Each tab has a Preview window to show you what the effects of your changes will look like should you choose to apply them.   When all the formats have been set, click the **OK** button to close the dialog and apply the new formats.

FONT TAB

Most of the formats you find on the Font tab of the Format cells dialog can be applied directly from the Formatting Toolbar and need no further discussion. However, there are some extra Effects that can be applied should you need to do so.
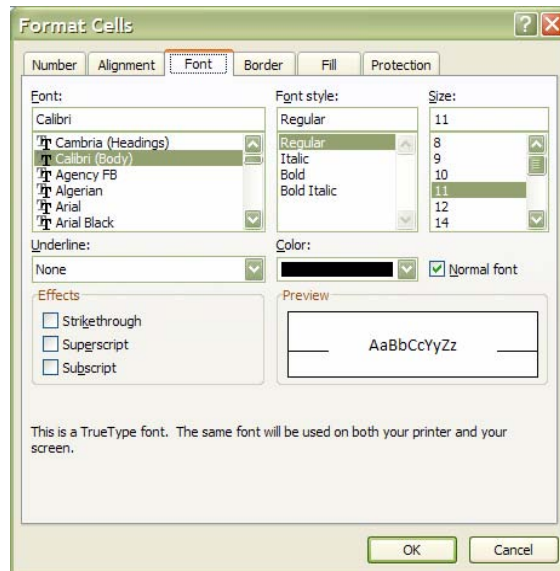
➢ **To apply effects:**

<u>Mouse</u>

   i.   Select the cells you want to format.

  ii.   Click the **DIALOG BOX LAUNCHER**. From either the **FONT, ALIGNMENT** or **NUMBER** group on the **HOME** ribbon

 iii.   Click the **FONT** tab.

 iv.   Check the **STRIKETHROUGH**, **SUPERSCRIPT** or **SUBSCRIPT** boxes (the **PREVIEW** window will show you what the formatting will look like on sample data).

  v.   Click **OK** to close the dialog and apply the changes.

> *The Superscript and Subscript options are mutually exclusive.*
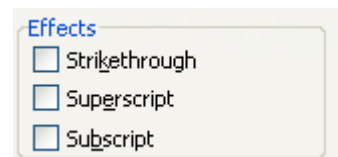
ALIGNMENT TAB

The settings on this tab give you lots of options for alignments which are not available on the Formatting toolbar.
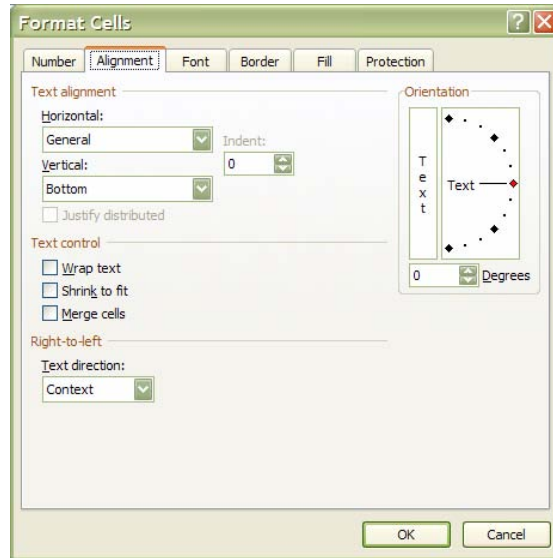
HORIZONTAL ALIGNMENT

Most of the formats for horizontal alignment are available on the Formatting toolbar, however there are some extras:

Justify - where you have several lines of data in a cell, you can ensure that the left and right edges of the data are straight.

Fill – use this to repeat the selected cell entries within their cells so that the entire cell from left to right is full.
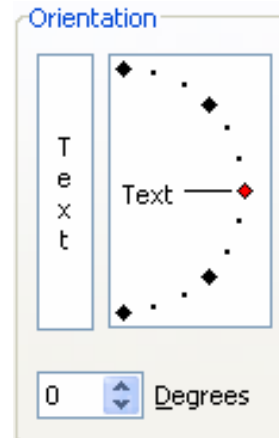
> ➢ **To change horizontal alignment:**

<u>Mouse</u>

    i.   Select the cells you want to format.

    ii.   Click the **DIALOG BOX LAUNCHER**. From either the **FONT, ALIGNMENT** or **NUMBER** group on the **HOME** ribbon

    iii.   Click the **ALIGNMENT** tab.

    iv.   Click the drop-down list arrow to the right of the Horizontal list box.

    v.   Choose the alignment by clicking on the required option from the list.

    vi.   Choose **OK** to close the dialog and apply the changes.
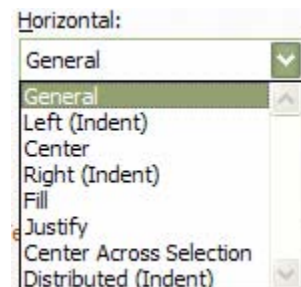
VERTICAL ALIGNMENT

Use the options in this list to choose how data lines up between the top and bottom edges of cells.

➢ **To change vertical alignment:**

Mouse

    i.   Select the cells you want to format.

    ii.   Click the **DIALOG BOX LAUNCHER**. From either the **FONT, ALIGNMENT** or **NUMBER** group on the **HOME** ribbon

    iii.   Click the **ALIGNMENT** tab.

    iv.   Click the drop-down list arrow to the right of the **VERTICAL** list box.
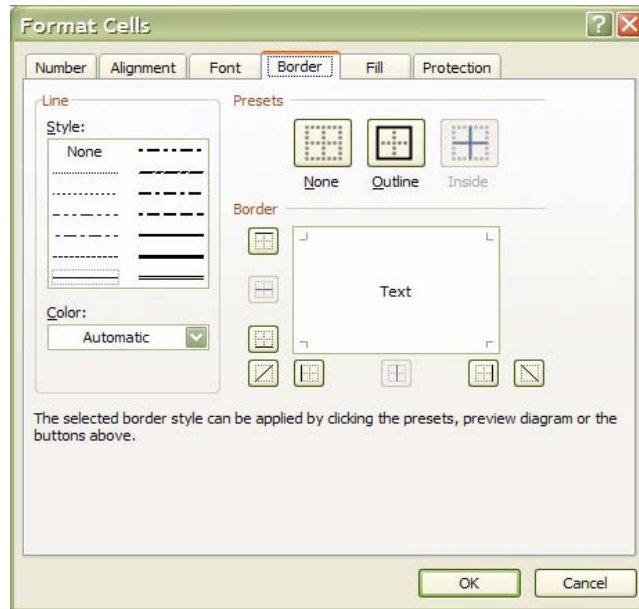
    v.   Choose the alignment by clicking on the required option from the list.

    vi.   Choose **OK** to close the dialog and apply the changes.

TEXT CONTROL

The text control options allow you to determine how the size of the data in the selected cells will affect columns and rows.

Wrap text - Where you have an entry that is too wide for the column, you can get Excel to wrap within a cell. Where a single line becomes multiple lines, Excel will automatically adjust the row height.

BEFORE	Viking Sup	**AFTER**	Viking Supplies

Shrink to fit - Reduces the apparent size of font characters so that all data in a selected cell fits within the column. The character size is adjusted automatically if you change the column width. The applied font size is not changed on printouts.

BEFORE	Viking Sup	**AFTER**	Viking Supplies

Merge cells - Makes the selected cells into one cell.

Where there are entries in all the selected cells, when you merge them together, Excel will warn you that it will only keep the entry in the top left cell in your selection.

➢ **To change text control settings:**

Mouse

    i.   Select the cells you want to format.

    ii.   Click the **DIALOG BOX LAUNCHER**. From either the **FONT, ALIGNMENT** or **NUMBER** group on the **HOME** ribbon

    iii.   Click the **ALIGNMENT** tab.

    iv.   Check the relevant options under the **TEXT CONTROL** heading to switch on the effect.

    v.   Click **OK** to close the dialog and apply the new formats.

ORIENTATION

You can display and print data in Excel oriented any way you choose.

BEFORE   Customer   **AFTER**

Shown above are some examples of different orientations.

> ## To change orientation:

Mouse

i.   Select the cells you want to format.

ii. Click the **DIALOG BOX LAUNCHER**. From either the **FONT, ALIGNMENT** or **NUMBER** group on the **HOME** ribbon

iii. Click the **ALIGNMENT** tab.

iv. In the **ORIENTATION** section, to keep characters horizontal but arrange them one underneath the other, click the picture that corresponds.

OR

v.   Drag the red dot marker up or down to give a degree value of plus or minus 90° from the base position (horizontal).

vi. Click **OK** to apply the new formats and close the dialog.

PATTERNS TAB

You can use settings on the Patterns tab to not only add background fill colours to cells, but apply patterns to them as well.
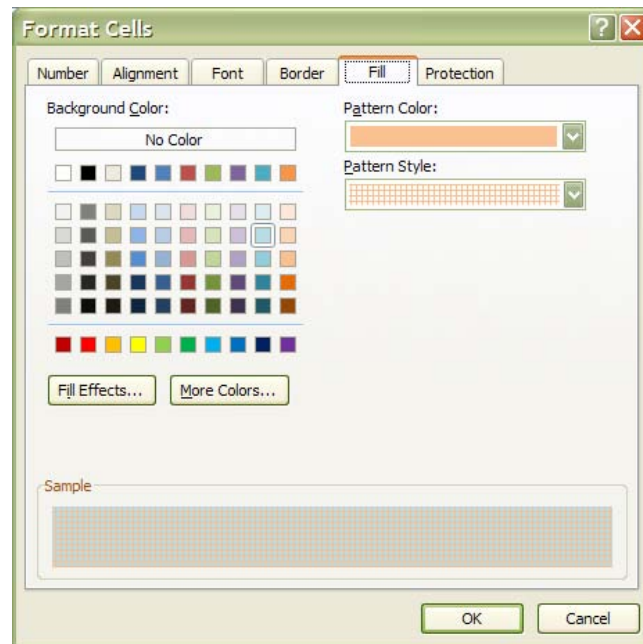
> ➢ **To apply patterns to cells:**

Mouse

i.   Select the cells you want to format.

ii.   Click the **DIALOG BOX LAUNCHER**. From either the **FONT, ALIGNMENT** or **NUMBER** group on the **HOME** ribbon

iii.   Click the **PATTERNS** tab.

iv.   Click the drop-down list arrow on the right of the **PATTERNS** box to display a palette of colours for the pattern.

v.   Choose the pattern that you want (i.e. lines, dots etc). If you want to change what colour the lines/dots etc. that make up your pattern will be, access the palette once again and click a colour.

vi.   The colour palette on the left will give the cell a background colour

vii.   Click the fill effects button to choose more advanced patterns and colouring. The fill effects dialog will be launched (This will be discussed later. It is a dialog box that is used for filling colours and patterns of many types of objects.)

viii.   Choose the more background colours the more colours button a separate dialog box will be launched with an extensive choice of colours

ix. The **SAMPLE** pane will display what the chosen formats will look like should you choose to apply them. Choose **OK** to close the dialog and apply your formats.

BORDERS TAB

You can change border line sty les, colours and directions using the Borders tab.

➢ To apply custom borders:

Mouse

i. Select the cells you want to format.

ii. Click the **DIALOG BOX LAUNCHER**. From either the **FONT, ALIGNMENT** or **NUMBER** group on the **HOME** ribbon

iii. Click the **BORDER** tab.

iv. Choose the line style by clicking on the appropriate line from the **STYLE** palette.

v. Choose the line colour by clicking on the drop-down arrow to the right of the **COLOUR** box to access a colour palette. Click the colour you want your border to be.

vi. In the **BORDER** section, set which edges of your selection need bordering by clicking the button which shows the relevant edge.

OR

vii. If there are multiple edges that need borders, click the preview diagram (where the word "Text" sits) along the edges that you want the borders. Clicking the word "Text" in the preview diagram will give diagonal borders. One click will add a border, another will remove it.

OR

viii. Use the preset buttons to apply a borders see the effects in the preview

ix. Click the **OK** button to close the dialog and apply your changes.

NUMBERS TAB

The Numbers tab gives you the ability to display data that Excel stores numerically in lots of different ways. The Formatting toolbar gives you buttons for applying only very few of the vast selection of number formats that Excel contains. The options that you see on the tab vary depending on which category of format you select. Generally speaking, Excel will display a sample based on the contents of the active cell and the default option within the category you selected. You can then pick from a list of format codes until the sample is displayed the way you want it.

Category

Sample of format (preview)

The custom category allows creation of personalised formats using codes.

Choose settings for format here
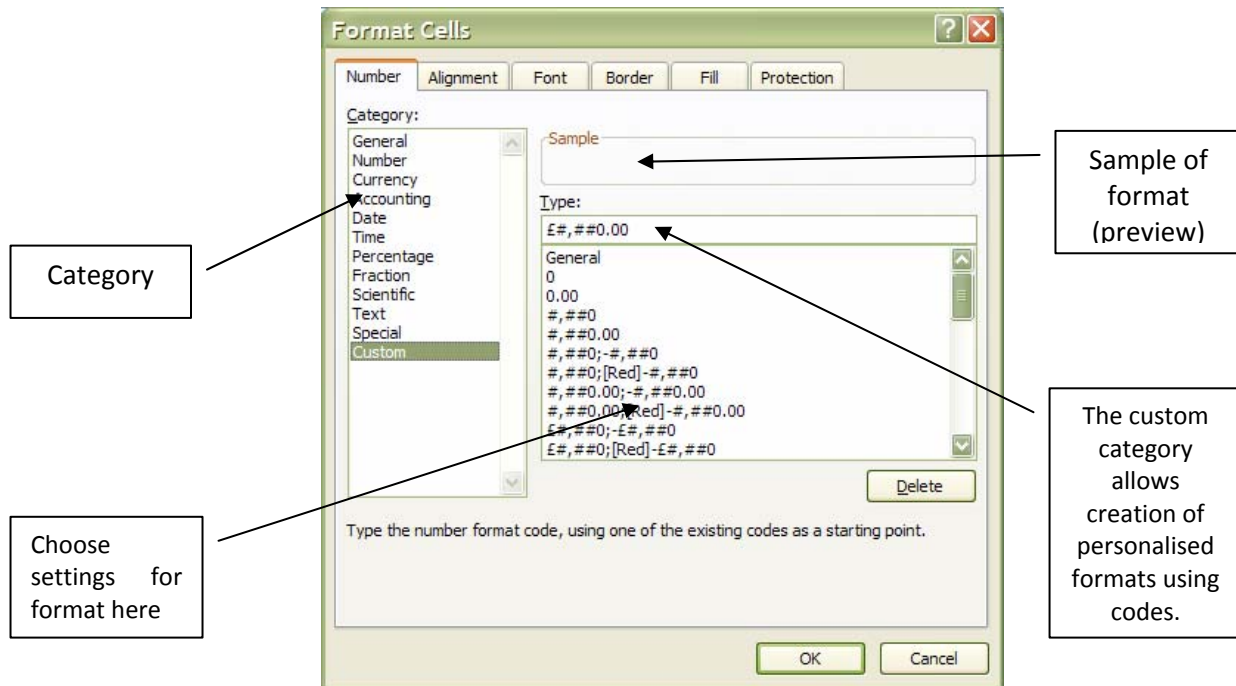
> ➤ **To apply number formats:**

Mouse

   i.   Select the cells you want to format.

   ii.   Click the **DIALOG BOX LAUNCHER**. From either the **FONT, ALIGNMENT** or **NUMBER** group on the **HOME** ribbon

   iii.   Click the **NUMBER** tab.

   iv.   Click the category of formatting your numeric data should use from the **CATEGORY** list.

   v.   Select the relevant options that appear until the **SAMPLE** data looks the way you want your numbers to look.

   vi.   Click **OK** to close the dialog and apply the format.

Custom Number Formats

There are occasions when you want numeric data to display in a way that Excel does not have a format for. When this happens, you can create a custom format.

➢ **To create a custom number format:**

Mouse

i.   Select the cells you want to format.

ii. Click the **DIALOG BOX LAUNCHER**. From either the **FONT, ALIGNMENT** or **NUMBER** group on the **HOME** ribbon

iii. Click the **NUMBER** tab. Then choose the Custom category (the last option on the Category list). The dialog box will change to show you a list of Type format codes.

iv. Scroll down the Type list until you find a code similar to the one you want to format your data with.

v.   For example, if you wanted to change a date currently displaying as 01/01/2000 to display as "January", select the format code "mmm-yy" to give you a base to alter – it would initially display your date as "Jan-2000", but you can change it to what you want.

vi. Click in the Type box and amend the code to give the display you want (watch the sample as you do this). For the example mentioned above, you would type "mmmm". When you have the correct code, click OK to close the dialog and apply the custom number format.
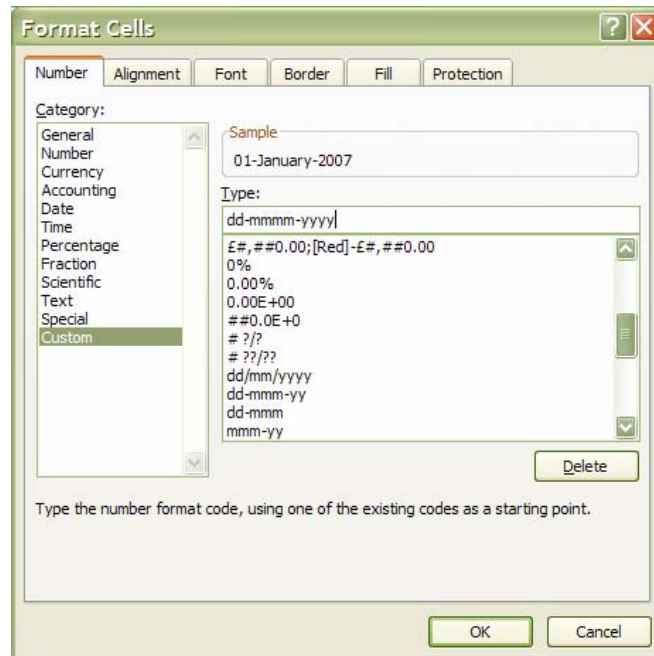
Custom formats, once created, only exist in the file that they were set up in. If you want to use them in another workbook, you can copy the format across. You can copy formats only using Paste Special (see Section 5 for more information).

PROTECTION TAB

You can use the settings on this tab to control which cells are accessible when you protect a worksheet. This topic is dealt with in the section "Working with multiple sheets" later in this manual.

FORMATTING COLUMNS AND ROWS

Excel has some formats that apply themselves to whole columns and rows. Changing widths and heights, hiding, inserting and deleting rows and columns are all operations that you might want to carry out.

Column Width

You can alter the width of a single column, or by selecting the columns whose width you want to change, you can make all columns in the selection the same width. With a single column, Excel changes the width of the column to the left of your mouse pointer.

> ### To change column width:

Mouse

i.   Move the mouse over the intersection between the column letters on the right-hand side of the column you want to change. The mouse pointer will display the shape that you need for changing column width.

ii. Click and drag to the right or left to widen or narrow the column – a guide will draw itself down into the worksheet to preview where the column edge will jump to, and Excel will display the actual width of the column in points in a tip box that appears.

iii. Release the mouse when the desired width has been reached.
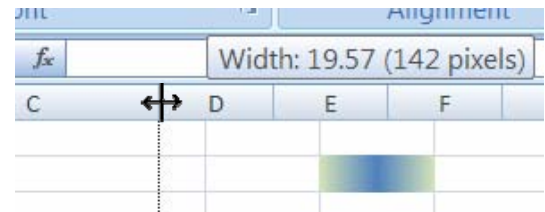
> ### To change width of multiple columns:

Mouse

i.   Select the columns whose width you want to change by clicking and dragging over the column letters with the selection pointer (white plus).

ii. Position the mouse over one of the intersections between the column letters in your selection. The pointer will display the shape needed for altering column widths.

iii. Click and drag to the right or left to widen or narrow the column - a guide will draw itself down into the worksheet to preview where the column edge will jump to, and Excel will display the actual width of the column in points in a tip box that appears.

iv. Release the mouse when the desired width is reached. All the columns in the selection will jump to the same width as the one you changed.

AUTOFIT

If you're not sure what the optimum width for a column would be, you can get Excel to AutoFit it for you. AutoFit looks at all the data in a column and fits the column width around the widest entry – you may find the column gets wider or narrower when you AutoFit.

> ➤ **To AutoFit a column:**

Mouse

i.   Move the mouse over the intersection between the column letters on the right-hand side of the column you want to change. The mouse pointer will display the shape that you need for changing column width.

ii. Double-click the intersection.

> ➤ **To AutoFit multiple columns:**

Mouse

i.   Select the columns you want to AutoFit by clicking and dragging over the column letters with the selection pointer (white plus).

ii. Position the mouse over one of the intersections between the column letters in your selection. The pointer will display the shape needed for altering column widths.

iii. Double-click to AutoFit all selected columns.

DEFAULT WIDTH

If you need to change Excel's default width, you can choose an option from the menu to do so and to set a new default for the whole sheet

> ➤ **To change the default column width:**

Mouse

i.   Click in any column.

ii. Choose Format from the cells group on the home ribbon, and click on default Width.

iii. A dialog box appears. Enter a size and click **OK**

iv. All columns on that sheet will change to the new size
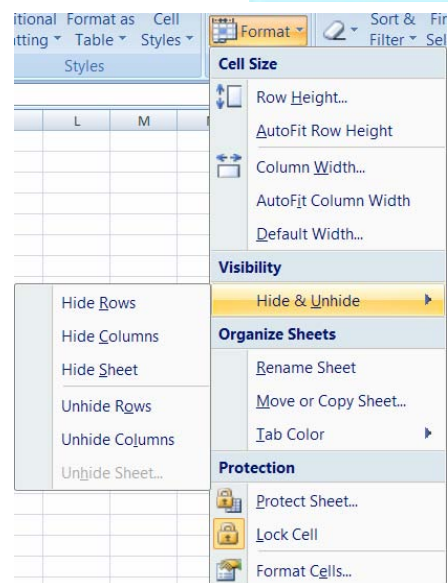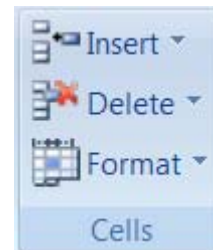
Any column that has previously had its width changed will be unaffected by this. Because other formats can affect the widths your columns need to be, it is often a good idea to leave changing column widths until last, this will avoid you repeatedly having to change the widths as you apply other formats. If the column of a cell is too narrow to display the numbers, Excel displays the cell with ####. If you hover over the cell a tool tip will appear displaying the information within the cell.

Row Height

Excel automatically changes row height when you alter the font and point size of the cell entries within it. However, you can alter the height of a single row manually, or by selecting the rows whose height you want to change, you can make all rows in the selection the same height. With a single row, Excel changes the height of the row above your mouse pointer.

> ➢ **To change row height:**

Mouse

i. Move the mouse over the intersection between the row numbers below the row you want to change. The mouse pointer will display the shape that you need for changing row height.

ii. Click and drag up or down to increase or decrease row height – a guide will draw itself across into the worksheet to preview where the row edge will jump to, and Excel will display the actual height of the row in points in a tip box that appears.

iii. Release the mouse when the desired height has been reached.
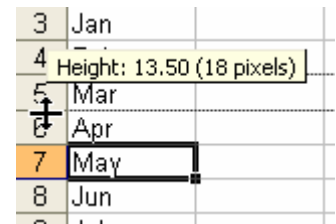
> ➢ **To change height of multiple rows:**

Mouse

i. Select the rows whose height you want to change by clicking and dragging over the row numbers with the selection pointer (white plus).

ii. Position the mouse over one of the intersections between the row numbers in your selection. The pointer will display the shape needed for altering row heights.

iii. Click and drag up or down to increase or decrease row height - a guide will draw itself across into the worksheet to preview where the row edge will jump to, and Excel will display the actual height of the rows in points in a tip box that appears.

iv. Release the mouse when the desired height is reached. All the rows in the selection will jump to the same height as the one you changed.
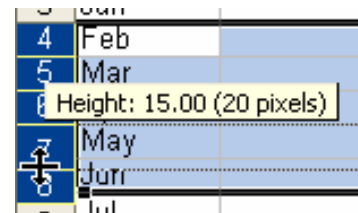
AUTOFIT

If you're not sure what the optimum height for a row would be, you can get Excel to AutoFit it for you. AutoFit looks at all the data in a row and fits the row height around the tallest entry – you may find the row gets taller or shorter when you AutoFit.

> ➢ **To AutoFit a row:**

Mouse

i. Move the mouse over the intersection between the row numbers below the row you want to change. The mouse pointer will display the shape that you need for changing column width.

ii. Double-click the intersection.

> ➢ **To AutoFit multiple rows:**

<u>Mouse</u>

i.   Select the rows you want to AutoFit by clicking and dragging over the row numbers with the selection pointer (white plus).

ii.   Position the mouse over one of the intersections between the row numbers in your selection. The pointer will display the shape needed for altering row heights.

iii.   Double-click to AutoFit all selected rows.

Hide Columns, Rows And Sheets

You can choose not to display certain rows and columns on your screen. Hiding them also prevents them from printing.

> ➢ **To hide columns:**

<u>Mouse</u>

i.   Select the column you want to hide by clicking on the column letter, or if you want to hide multiple columns, highlight them.

ii.   Click the right mouse button anywhere over the selection to display the shortcut menu.

iii.   Choose Hide.

OR

i.   Click on **FORMAT** command in the cell group on the **HOME** ribbon

ii.   Move mouse cursor of **HIDE & UNHIDE**

iii.   Click on hide columns

OR

<u>Keyboard</u>

i.   Repeat step 1 above.

ii.   Press **[CTRL][0]**
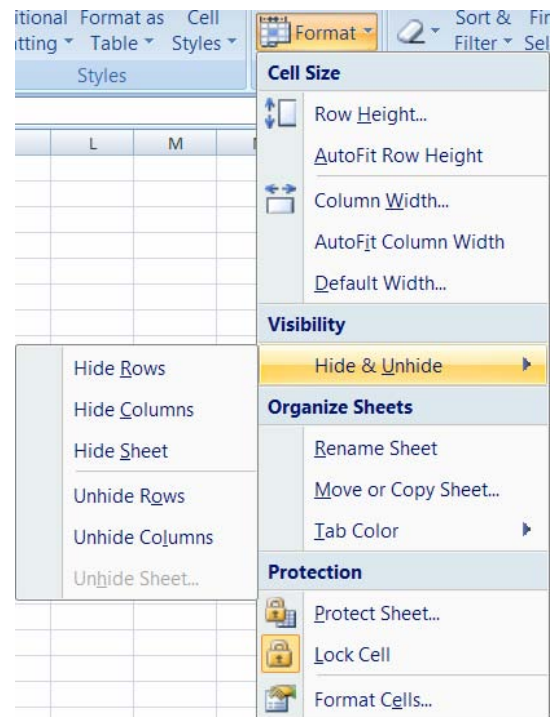
➢ **To hide rows:**

Mouse

   i.   Select the row you want to hide by clicking on the row number, or if you want to hide multiple rows, highlight them.

   ii.   Click the **RIGHT MOUSE** button anywhere over the selection to display the shortcut menu.

   iii. Choose **HIDE**.

OR

   i.   Select rows to be hidden

   ii.   Click on **FORMAT** command in the **CELL** group on the **HOME** ribbon

   iii. Move mouse cursor to **HIDE & UNHIDE**

   IV. Click on **HIDE ROWS**

OR

Keyboard

   i.   Repeat step 1 above.

   II.   Press **[CTRL][0]**

➢ **To hide sheets**

Mouse

   i.   Select sheet or sheets to be hidden

   ii.   Click on **FORMAT** command in the **CELL** group on the **HOME** ribbon

   iii. Move mouse cursor to **HIDE & UNHIDE**

   IV. Click on **HIDE SHEET**

OR

   i.   Select sheets to be hidden

   ii.   Right click on a selected sheet tab

   III. Click **HIDE**

➢ **To unhide columns and rows or sheets:**

Mouse

   i.   Select the columns or rows either side of the hidden ones by dragging over the column letters or row numbers with the selection pointer.

   ii.   Position the mouse over the row or column intersection between the selected rows or columns

   iii.   Double-click.

OR

Keyboard

   i.   Repeat step 1 above.

   ii.   Press **[CTRL][SHIFT][].**

OR

Mouse

   i.   Click on **FORMAT** command in the cell group on the **HOME** ribbon

   ii.   Move mouse cursor to **HIDE & UNHIDE**

   iii.   Click on unhide sheet, column or row

INSERT AND DELETE CELLS, ROWS, COLUMNS OR SHEETS

You can add new cells into a worksheet if you need to make space to add new entries in. Excel also gives you tools for adding entire rows and columns. If you add cells, Excel will ask you how the existing cells should be rearranged to accommodate the new ones.

Add Cells

➢ **To insert a cell:**

Before

Mouse

   i.   Select the cell below or to the right of where you want the new one.

   ii.   Click the right mouse button to access the shortcut menu.

   iii.   Choose Insert. The following dialog box will appear:

   iv.   Choose **SHIFT CELLS RIGHT** to insert a new cell to the left of the selected one, or **SHIFT CELLS DOWN** to insert a new cell above the selected one.

Shift cells right

Or

Shift cells down

Keyboard

   i.   Repeat step 1 above.

ii.   Press **[CTRL][SHIFT][+]**

> ➢ **To insert multiple cells:**

Mouse

i.   Select the amount of cells corresponding to the number you want to insert below or to the right of where you want the new ones.

ii.   Click the right mouse button to access the shortcut menu.

iii.   Choose Insert to access the dialog.

iv.   Choose **SHIFT CELLS RIGHT** to insert new cells to the left of the selected one, or **SHIFT CELLS DOWN** to insert new cells above the selected one.

OR

Keyboard

i.   Repeat step 1 above.

ii.   Press **[CTRL][SHIFT][+]**.

> ➢ **To insert entire rows:**

Mouse

i.   Select the row below where you want the new one by clicking its row number, or if you are inserting multiple rows, highlight them.

ii.   Click the right mouse button anywhere over the selection to access the shortcut menu.

iii.   Choose Insert. Excel adds the number of selected rows above the first row in your selection.

OR
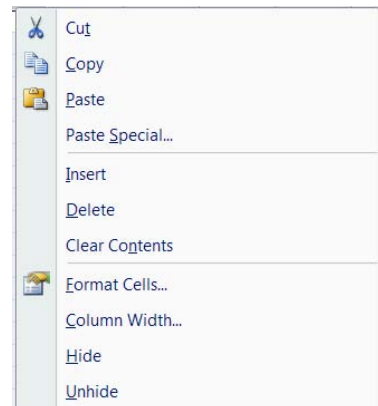
Keyboard

i.   Repeat step 1 above. Then Press **[CTRL][SHIFT][+]**.

> ➢ **To insert entire columns:**

Mouse

i.   Select the column to the right of where you want the new one by clicking its column letter, or if you are inserting multiple columns, highlight them.

ii.   Click the right mouse button anywhere over the selection to access the shortcut menu.

iii.   Choose **INSERT**. Excel adds the number of selected columns to the left of the first column in your selection.

OR

Keyboard

i.   Repeat step 1 above.

ii.   Press **[CTRL][SHIFT][+].**

Delete Cells

In Excel 2007 we can delete straight from the **HOME** ribbon by clicking on the delete button to show us a menu to delete any part of the workbook, **sheet, row, column** or **cell**

> ➢ **To delete cells:**

Mouse

i.   Select the cells you want to delete.

ii.   Click the right mouse button to access the shortcut menu.

iii.   Choose **DELETE**. The following dialog box will appear:

iv.   Choose **SHIFT CELLS LEFT** to close the gap left by the deleted cells with cell entries to the left.
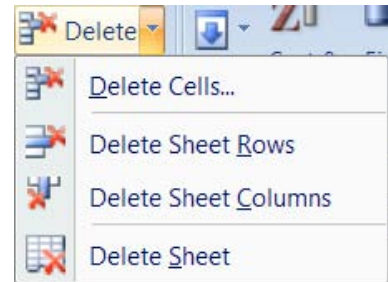
OR

v.   Choose **SHIFT CELLS UP** to close the gap left by the deleted cells with cell entries above.

OR

Keyboard

i.   Select the cells to delete.

ii.   Press **[CTRL][-].**

iii.   Choose **SHIFT CELLS LEFT** to close the gap left by the deleted cells with cell entries to the left.
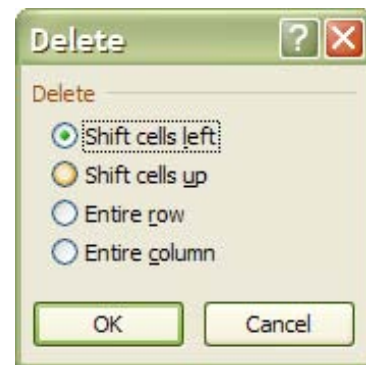
OR

iv.   Choose **SHIFT CELLS UP** to close the gap left by the deleted cells with cell entries above.

> ➢ **To delete entire rows or columns:**

Mouse

i.   Select the row or column you want to delete by clicking its row number or column letter or, if you are deleting multiple columns or rows, highlight them.

ii.   Click the right mouse button anywhere over the selection to access the shortcut menu.

iii.   Choose **DELETE**.

OR

Keyboard

i.   Repeat step 1 above.

II.   Press **[CTRL][-]**

FORMAT PAINTER

The Format Painter is a tool that you can use to copy all formats from one area of the worksheet to another. This is particularly useful when you have spent time formatting one group of cells and you decide that another group of cells should have the same formats – rather than reapplying the formats again manually, one by one, you can paint them on to the new cells with the Format Painter.

➢ **To paint formats:**

Mouse

Select the cell that has the formatting you want to use.

Click the **FORMAT PAINTER** button from the **HOME** ribbon in the **CLIPBOARD** group. Your mouse pointer will change to display a paintbrush next to the selection pointer (white plus).

Select all the cells you want to apply the formats to by dragging over them. As soon as you release the mouse, the formats will appear.

If you want to keep cell contents but remove all the formatting from those cells, click on the eraser on the home ribbon and clear formats

Shortcut Keys For Formatting

Excel has some shortcut keys that you can use for formatting data. The table below lists those you can use:

To	Press
Display the Cells command (Format menu)	**[CTRL][1]**
Apply the General number format	**[CTRL][SHIFT][~]**
Apply the Currency format with two decimal places (negative numbers appear in parentheses)	**[CTRL][SHIFT][$]**
Apply the Percentage format with no decimal places	**[CTRL][SHIFT][%]**
Apply the Exponential number format with two decimal places	**[CTRL][SHIFT][^]**
Apply the Date format with the day, month, and year	**[CTRL][SHIFT][#]**
Apply the Time format with the hour and minute, and indicate A.M. or P.M.	**[CTRL][SHIFT][@]**
Apply the Number format with two decimal places, 1000 separator, and – for negative values	**[CTRL][SHIFT][!]**
Apply the outline border	**[CTRL][SHIFT][&]**
Remove all borders	**[CTRL][SHIFT][_]**
Apply or remove bold formatting	**[CTRL][B]**
Apply or remove italic formatting	**[CTRL][I]**
Apply or remove an underline	**[CTRL][U]**
Apply or remove strikethrough formatting	**[CTRL][5]**
Hide rows	**[CTRL][9]**
Unhide rows	**[CTRL][SHIFT][9]**
Hide columns	**[CTRL][0]**
Unhide columns	**[CTRL][SHIFT][+]**

SECTION 7 NAMES

When entering formulae or referring to any area in a workbook, it is usual to refer to a 'range'. For example, B6 is a range reference; B6:B10 is also a range reference. One problem with this sort of reference is that it is not very meaningful and therefore easily forgettable. If you want to refer to a range several times in formulae or functions, you may find it necessary to write it down, or select it, which often means wasting time scrolling around the workbook. Instead, Excel offers the chance to name ranges in a workbook, and to use these names to select cells, refer to them in formulae or use them in Database, Chart or Macro commands.

Rules When Naming Cells

Names are unique within a workbook and the names that you choose to use must adhere to certain rules.

The first character of a name must be a letter or an underscore character. Remaining characters in the name can be letters, numbers, full stops, and underscore characters.

Names cannot be the same as a cell reference, such as Z$100 or R1C1.

Spaces are not allowed. Underscore characters and full stops may be used as word separators - for example, First.Quarter or Sales_Tax.

A name can contain up to 255 characters.

Names can contain uppercase and lowercase letters. Microsoft Excel does not distinguish between uppercase and lowercase characters in names. For example, if you have created the name Sales and then create another name called SALES in the same workbook, the second name will replace the first one.

Names can refer to external cells or ranges (in other workbooks) and can even be used when those workbooks are not open, although when the references are checked by excel on update errors will occur if they are not valid.

NAME BOX

The Name box is situated on the left-hand side of the Formula bar. You can use the Name box to set up names and move to them.

DEFINE NAME

There are three ways to create names or define them the management of names will be found on the **FORMULAS RIBBON** in the **DEFINED NAMES** group.
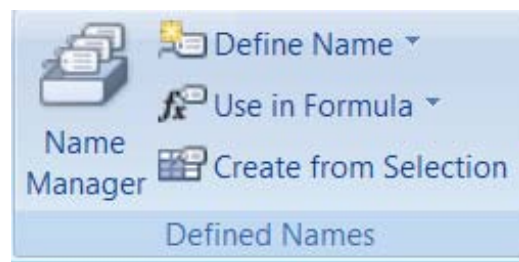
To define a name

> ### Method 1 (Define)

Mouse

i. Select the cell or cells you wish to name

ii. Click the **DEFINE NAME** from the **DEFINED NAMES** group on the **FORMULAS** ribbon. A dialog is launched

iii. In the **NEW NAME** dialog box, in the **NAME** box, type the name that you want to use for your reference. Names can be up to 255 characters in length.

iv. In the name box, enter the defined name that you want to create.

v. To specify the scope of the name, in the **SCOPE** drop-down list box, select **WORKBOOK**, or the name of a worksheet in the workbook.

vi. You may enter a descriptive comment up to 255 characters. This is optional (see note)

vii. If you had selected cells or ranges previous to opening the **NEW NAME** dialog then the cells or ranges selected will be displayed in the **REFERS TO** box
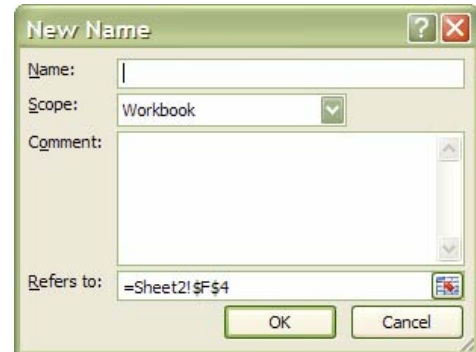
If you had not previously selected cells or ranges: Then In the REFERS TO **box**

viii. Enter a **CELL REFERENCE.** The current selection is entered by default. To enter other cell references as an argument, click **COLLAPSE DIALOG** (which temporarily hides the dialog box), select the cells on the worksheet, and then press **EXPAND DIALOG.**

ix. **CONSTANT** Type an **=** (equal sign), followed by the constant value.

x. **FORMULA** Type an **=** (equal sign) followed by the formula. To finish and return to the worksheet, click **OK**.

If you save the workbook to Microsoft Office SharePoint Server 2007 Excel Services, and you specify one or more parameters, the comment is used as a tooltip in the PARAMETERS toolpane.

To make the New Name dialog box wider or longer, click and drag the grip handle at the bottom.

> ### Method 2 (Direct)

Mouse

i. Select the cell, range of cells, or nonadjacent selections (nonadjacent selection: A selection of two or more cells or ranges that don't touch each other. When plotting nonadjacent selections in a chart, make sure that the combined selections form a rectangular shape.) that you want to name.

ii. Click in the **NAME BOX** at the left end of the formula bar(formula bar: A bar at the top of the Excel window that you use to enter or edit values or formulas in cells or charts. Displays the constant value or formula stored in the active cell.).

iii. Type the name that you want to use to refer to your selection. Names can be up to 255 characters in length and press **RETURN**.

You cannot name a cell while you are changing the contents of the cell.

➢ **Method 3 (By Selection)**

MOUSE

i. You can convert existing row and column labels to names.

ii. Select the range that you want to name, including the row or column labels.

iii. On the **FORMULAS** tab, in the **DEFINED NAMES** group, click **CREATE FROM SELECTION.**

iv. In the **CREATE NAMES FROM SELECTION** dialog box, designate the location that contains the labels by selecting the **TOP ROW, LEFT COLUMN, BOTTOM ROW** or **RIGHT COLUMN** check box.

V. Press **ENTER.**
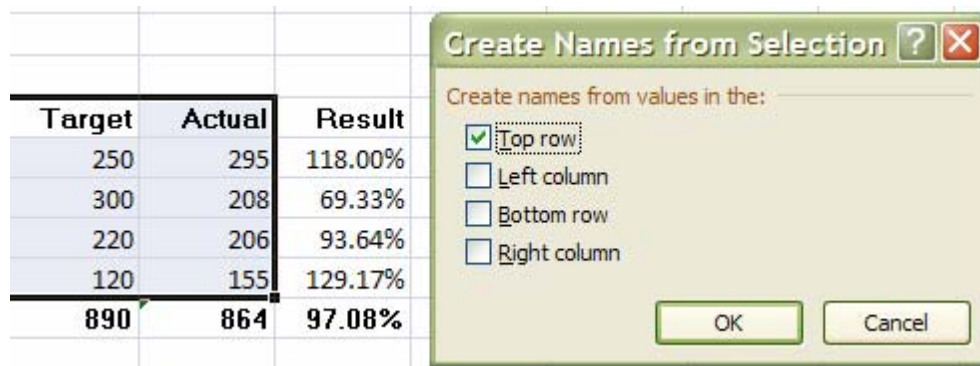
Selecting Names (Navigation)

Names have great uses as a navigation tool within a document and are very easy to use . You may have used large portions of your spreadsheet to store data and with over 1,000,000 rows and 0ver 16,000 columns it would be tedious or near impossible to move around to known areas without names.

➢ **To select names and navigate**

Mouse

i. Click on drop down arrow to right of name box and click on the name you would like to navigate to

ii. You will now be at that location with the named cells selected
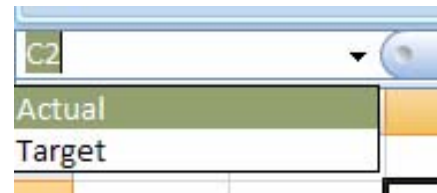
Manage Names By Using The Name Manager.

Use the **NAME MANAGER** Dialog box to work with all of the defined names and table names in the workbook. For example, you may want to find names with errors, confirm the value and reference of a name, view or edit descriptive comments, or determine the scope. You can also sort and filter the list of names, and easily add, change, or delete names from one location.

➢ To use name manager

<u>Mouse</u>

i. To open the **NAME MANAGER** Dialog box, on the **FORMULA** tab, in the **DEFINED NAMES** group, click **NAME MANAGER**.
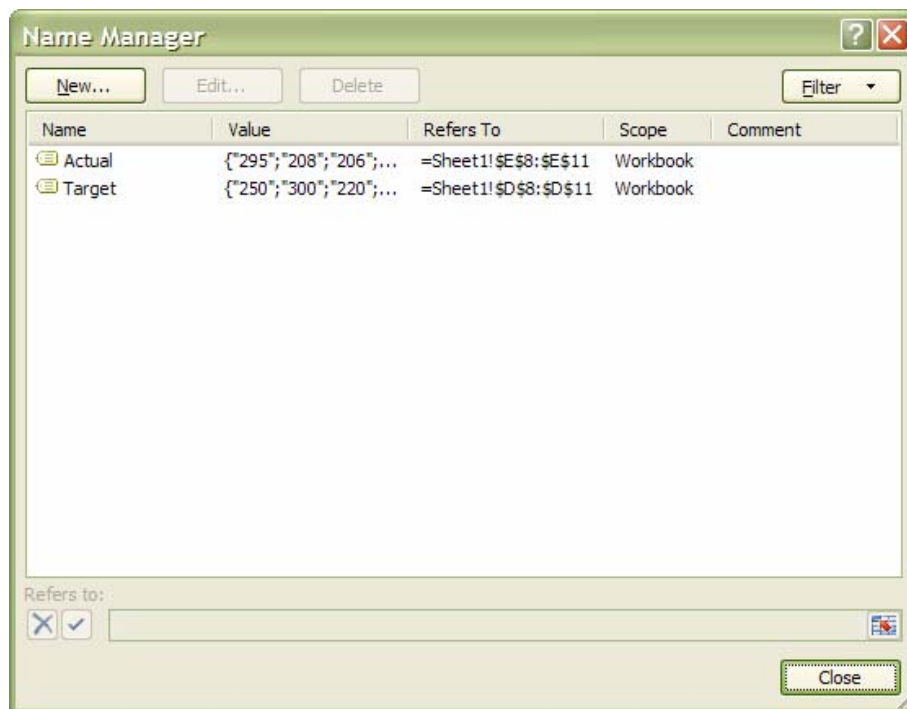
VIEW NAMES

The **NAME MANAGER** Dialog box displays the following information about each name in a list box:

ICON and **NAME** defined name is indicated by a defined name icon.

A **TABLE NAME** is indicated by a table name icon.

If you save the workbook to Microsoft Office SharePoint Server 2007 Excel Services, and you specify one or more parameters, the comment is used as a tooltip in the Parameters toolpane.

You cannot use the Name Manager Dialog box while you are changing the contents of the cell.

The Name Manager Dialog box does not display names defined in Visual Basic for Applications (VBA), or hidden names (the visible property of the name is set to "False").

RESIZE COLUMNS

To automatically size the column to fit the largest value in that column, double-click the right side of the column header.

SORT NAMES

To sort the list of names in ascending or descending order, alternately click the column header.

FILTER NAMES

Use the commands in the **FILTER** drop-down list to quickly display a subset of names. Selecting each command toggles the filter operation on or off, which makes it easy to combine or remove different filter operations to get the results that you want.

To filter the list of names, do one or more of the following:

Select:	To:
Names Scoped To Worksheet	Display only those names that are local to a worksheet.
Names Scoped To Workbook	Display only those names that are global to a workbook.
Names with Errors	Display only those names with values that contain errors (such as #REF, #VALUE, #NAME, and so on.)
Names without Errors	Display only those names with values that do not contain errors.
Defined Names	Display only names defined by you or by Excel, such as a print area.
Table Names	Display only table names.

➢ To Change a name

Mouse

i. On the **FORMULAS** tab, in the **DEFINED NAMES** group, click **NAME MANAGER**.

ii. In the **NAME MANAGER** Dialog box, click the name that you want to change, and then click **Edit**. You can also double-click the name.

iii. The **EDIT NAME** dialog box is displayed.

iv. Type the new name for the reference in the **NAME** box.

v. Change the reference in the **REFERS TO** box, and click **OK**.

vi. In the **NAME MANAGER** Dialog box, in the **REFERS TO** box, change the cell, formula or constant represented by the name.

vii. To cancel unwanted or accidental changes, click **CANCEL** , or press **ESC**.

viii. To save changes, click **COMMIT** , or press **RETURN**.

If you change a defined name or table name, all uses of that name in the workbook are also changed. The CLOSE *button only closes the* NAME MANAGER *Dialog box. It is not required to commit changes that have already been made.*

➢ Delete one or more names

i.   On the **FORMULAS** tab, in the **DEFINED NAMES** group, click **NAME MANAGER**.

ii.   In the **NAME MANAGER** Dialog box, click the name that you want to change.

iii. To select a name, click it.

iv.   To select more than one name in a contiguous group, click and drag the names, or press **[SHIFT][CLICK]** for each name in the group.

v.   To select more than one name in a non-contiguous group, press **[CTRL][CLICK]** for each name in the group.

vi.   Click **DELETE**. You can also press **DELETE**.

vii. Click **OK** to confirm the deletion.

The Close button only closes the Name Manager Dialog box. It is not required to commit changes that have already been made.

Names In Functions

Names in functions can be very useful because it saves you having to go and select large amounts of cells or ranges when constructing a function you can just refer to the name and even then remembering the name is not necessary it can be selected and used easily within your function or formula.

➢ To use names in functions

i.   Go to cell you wish to create formula in and type in the function you wish to start with

ii.   **E.G. =SUM(**

iii. On the **FORMULAS** tab, in the **DEFINED NAMES** group, click **USE IN FORMULA**.

iv.   Select which named range you wish to use and click on it.

OR

v.   Press **[F3]**, choose the name you require and click **OK**

vi.   The function will now contain the named range and will calculate using the range or ranges it refers to

vii.   Press **ENTER.** Or click on the green tick on the left of the **FORMULA BAR.**

You may wish to use other methods to create your function or formulae only one method is mentioned here but it is the same method for using the named ranges

Paste List Of Names

You can use the Paste Names dialog to give you an index of all the names in your workbook.   Excel will place this on the workbook wherever the active cell is positioned.

➢ **To paste a list of names:**

Mouse

i.   On the **FORMULAS** tab, in the **DEFINED NAMES** group, click **USE IN FORMULA**.

ii.   Click on **PASTE NAMES** a dialog box is launched

iii.   Select an individual name and click on **OK** for an individual paste.
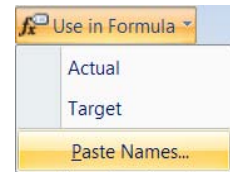
OR

iv.   Click on **PASTE NAMES** to have all names pasted into worksheet with their cell references

Keyboard

i.   Select a blank cell where you want the list of names to begin.

ii.   Press **[F3]** to access the Paste Names dialog.

iii.   Press **[TAB]** to jump to the Cancel button, then **[TAB]** again to select the Paste List button. The list will appear on the worksheet.

When you choose a start cell for your pasted list, make sure there is not any data immediately below as it will get cleared when you paste the list.

Intersecting Names

Where you have named both columns of cells *and* rows of cells in a table, all the values will belong to two ranges. You can use both names in a formula to retrieve the value where they intersect.

Product	Target	Actual	Result		
Red books	250	295	118.00%		
Green books	300	208	69.33%	=Red_books Target	
Blue books	220	206	93.64%		
Black books	120	155	129.17%		
Total	890	864	97.08%		

➢ **To display a value from intersecting range names:**

Keyboard

i.   Select the cell where you want to display the value.

ii.   Type an equals sign **(=)** to begin the formula then press **[F3]** to access the **PASTE NAMES** dialog, select the first name and press **[RETURN].**

iii. Type a space. Press **[F3]** again and select the second name. Press **[RETURN].** Press **[RETURN]** again to complete the formula.

E.G.: To retrieve the red books target figure from the data shown in the diagram above, your formula would read: =RED_BOOKS TARGET

SECTION 8 WORKING WITH MULTIPLE SHEETS

MULTIPLE WORKSHEETS

When you create a new workbook, Excel gives you multiple pages within that workbook called *worksheets*. The number of worksheets you get defaults to 3, but you can change that (see the section on customisation for more information). The worksheets are useful when you want to store information under common column headings but need to split it up, (for example by month, week or by department).

When the same data needs to be entered on several worksheets, you can use Group mode which forces data that you type on one worksheet appear on all selected sheets. When Group mode is active, any formatting that you apply to the active worksheet also gets applied to the selected sheets.

Moving Between The Workbook Sheets

Each new workbook contains worksheets, named sheets 1 to sheet 3. The sheet name appears on a tab at the bottom of the workbook window.

Tab scrolling

Create new sheet

➢ **To move between worksheets:**

Mouse

i.   Click on the appropriate tab

If the sheet required is not in view, use the tab scrolling buttons to display the sheet.

OR

Keyboard

i.   Press **[CTRL][PAGE DOWN]** to move to the next sheet, or **[CTRL][PAGE UP]** to move to the previous sheet.

Worksheet Names

Excel assigns the names "Sheet 1, Sheet 2" and so on to worksheets in a workbook but you can overwrite them with more meaningful names to describe the data they contain.

➢ **To rename a worksheet:**

Mouse

i.   Double-click the sheet tab that you want to rename – the current name will become highlighted.

ii.   Type the name you want.

iii.   Press **[RETURN]**.

Worksheet names can be a maximum of 31 characters.

Move And Copy Worksheets

Having named your sheets, you may need to switch them about so they are arranged in a different order.

> **To move a sheet:**

Mouse

i.   Click and drag the sheet tab left or right. You'll see a page which follows your mouse pointer as you drag and a black marker arrow to show where the sheet will jump to if you release the mouse.

ii.   Release the mouse when the sheet is in the correct position.

> **To copy a worksheet:**

Mouse

i.   Hold down the **[CTRL]** key then click and drag the sheet tab.

ii.   When the black arrow marker indicates the position that you want the copy, release the mouse *then* the **[CTRL]** key.

Because no 2 worksheets can have the same name, when you copy a sheet as described above, Excel will suffix the copy's name with (2).

Insert And Delete Worksheets

You can add and remove worksheets to and from a workbook as required.

> **To add a worksheet:**

Mouse

i.   Click on the last tab of the sheets this is a create new worksheet tab

ii.   Excel will name it initially with the next sequential number available.

OR

Keyboard

i.   Press **[SHIFT][F11]**

ii.   A new sheet will appear the tab will be to the left of whichever sheet you are currently on and Excel will name it initially with the next sequential number available.

> **To delete a worksheet:**

Mouse

i.   Click the right mouse button over the worksheet that you want to delete.

ii.   Choose **DELETE** from the shortcut menu. If there has been ANY work on the sheet to be deleted the following dialog box will appear:

iii.   Click **OK** to confirm the deletion.
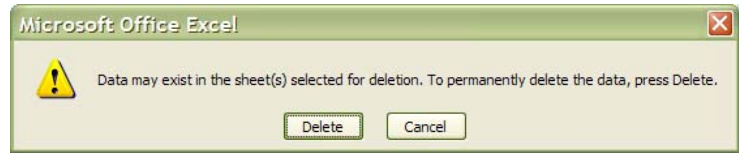
ACTIVATE GROUP MODE

Whenever you select more than one worksheet, Excel considers those sheets to be grouped and switches group mode on accordingly. When group mode is active, the grouped worksheet tabs turn white and the word "[group]" appears on the title bar. Any data that you enter and any formatting that you apply will appear on all worksheets in the group in the same positions on each – this is particularly useful if you need to create a "Summary" sheet that will reference the other worksheets three dimensionally.

Group Adjacent Sheets

When the worksheets that you want to group are next to each other, you can use the **[SHIFT]** key to block select them.

➢ **To group adjacent worksheets:**

Mouse

i.   Click the on the first worksheet's tab that you want to include in your group.

ii. Hold down the **[SHIFT]** key and click on the last worksheet's tab that you want included in your group. All the sheets between the first and the last will be selected. The selected sheet tabs will turn white and the word "**[GROUP]"** will appear on the title bar.

Group Non-Adjacent Sheets

When the sheets you want are not next to each other in the workbook, you can use the **[CTRL]** key to group them.

➢ **To group non-adjacent worksheets:**

Mouse

i.   Click the on the first worksheet's tab that you want to include in your group.

ii. Hold down the **[CTRL]** key and click each other worksheet's tab that you want included in your group. The selected sheet tabs will turn white and the word "**[GROUP]"** will appear on the title bar.

When worksheets are grouped, use normal data entry and formatting commands to populate them (see previous sections for more information).

Deactivate Group Mode

When you have finished entering and formatting data simultaneously, you can deactivate group mode. There are two ways to do this:

➢ **To deactivate group mode:**

Mouse

i.   Click on a sheet tab that is not currently grouped (non white).

OR

i.   Click the right mouse button over any sheet tab and choose Ungroup Sheets from the shortcut menu.

FILL DATA ACROSS WORKSHEETS

You can copy data to the same position on multiple sheets using the Fill command. This is particularly useful if you need to decide what gets copied (everything, or just the formats). It also saves time for those occasions where you accidentally deactivated group mode, typed your entries and then realised that they are only on one page!

> ➢ **To fill across worksheets:**

Mouse

   i.   Select the cells you want to copy to the other worksheet(s).

   ii.   Select the worksheets you want the copy to appear on by clicking the sheet tabs (use **[SHIFT]** to block select or **[CTRL]** to pick non-adjacent pages).

   iii. On the **FORMULAS** tab, in the **EDITING** group, click the down arrow to the right of the **FILL** icon.

   iv. Choose across worksheets

   v.   Choose the appropriate option and click **OK**.
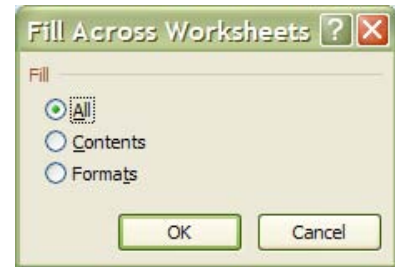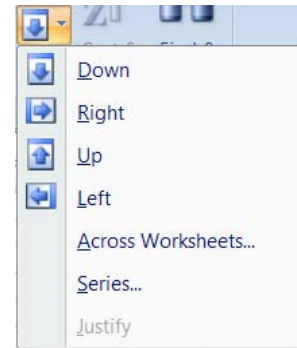
When you have finished filling the data, remember to deactivate group mode!

3-D Formulae

When you have data on multiple worksheets, you often want a summary page that will collect data from cells across all the sheets and calculate it in a certain way. You can do this with a 3-D formula. 3-D formulae are no different from the formulae already discussed in an earlier section of this manual, however, the way you refer to cells on different worksheets has not yet been explored – that is what we will

look at in this section.

External References

When you refer to a cell that is in another worksheet, Excel uses the following syntax:

SINGLE CELL

'WORKSHEET NAME'![CELL REFERENCE]

In the diagram on previous page, cell D35 on the Summary sheet would be referenced as follows:

'SUMMARY'!D35

CELLS ON ADJACENT WORKSHEETS

1STWORKSHEET NAME:LASTWORKSHEET NAME![CELL REFERENCE]

In the diagram on previous page, cell E32 across all staff would be referenced:

CONNERS:PULASKI!E32

CELLS ON NON-ADJACENT WORKSHEETS

1ST WORKSHEET NAME![CELL REFERENCE],2ND WORKSHEET NAME![CELL REFERENCE]

In the diagram, cell D35 on Connor's and Fuller's sheets would be referenced:

CONNERS!D35,FULLER!D35

Luckily, because you can get Excel to put the references in automatically by pointing at the cells, you do not have to memorise the syntax!

Commas separate up the references when selecting ranges or cells in this manner from different sheets

➢ **To create a 3-D formula:**

Mouse

   i.   Select the cell where you want the result.

   ii.   Begin the formula by typing an equals sign (=), or select a function that you want to use.

   iii.   When you need to enter cell references in your formula, move to the worksheet that contains the first cell you want by clicking the relevant sheet tab.

   iv.   Click on the cell whose value you want in your formula.

v.   If you only need to refer to one cell, press **[RETURN]** to complete the formula.

OR

vi.   If you need to select the same cell on adjacent sheets, hold down the **[SHIFT]** key and click on the last sheet tab in the block of adjacent sheets. Press **[RETURN]** to complete the formula.

OR

vii.   If you need to select the different cells on different sheets, **TYPE A COMMA** and click the next sheet tab and cell you need to reference, insert another comma and click the next sheet tab and cell you need to reference and so on until all references have been entered. Press **[RETURN]** to complete the formula.

PROTECT WORKSHEET DATA

If you type in a cell that already has an entry, you overwrite that entry as soon as you press [**RETURN**]. Excel does have an Undo facility, but if you need to delegate data entry to someone who is not too familiar with Excel, they could quite feasibly end up overwriting your carefully constructed formulae. To prevent that happening, you can protect worksheets in workbooks. Protected sheets can allow access to some cells but not others. Those that are unavailable cannot be edited, formatted or cleared.
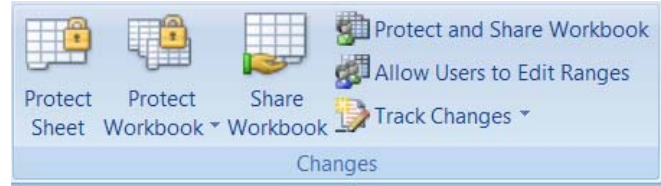
Unlock Cells

By default, all cells in a worksheet are locked. This does not have any effect on data entry and editing until you switch on the worksheet protection at which point all locked cells are made unavailable. This means that if you want to have access to certain cells, but not others, you need to unlock those cells first.

In the diagram below, you would need to unlock the selected cells so that when you protect the worksheet, those cells are accessible.
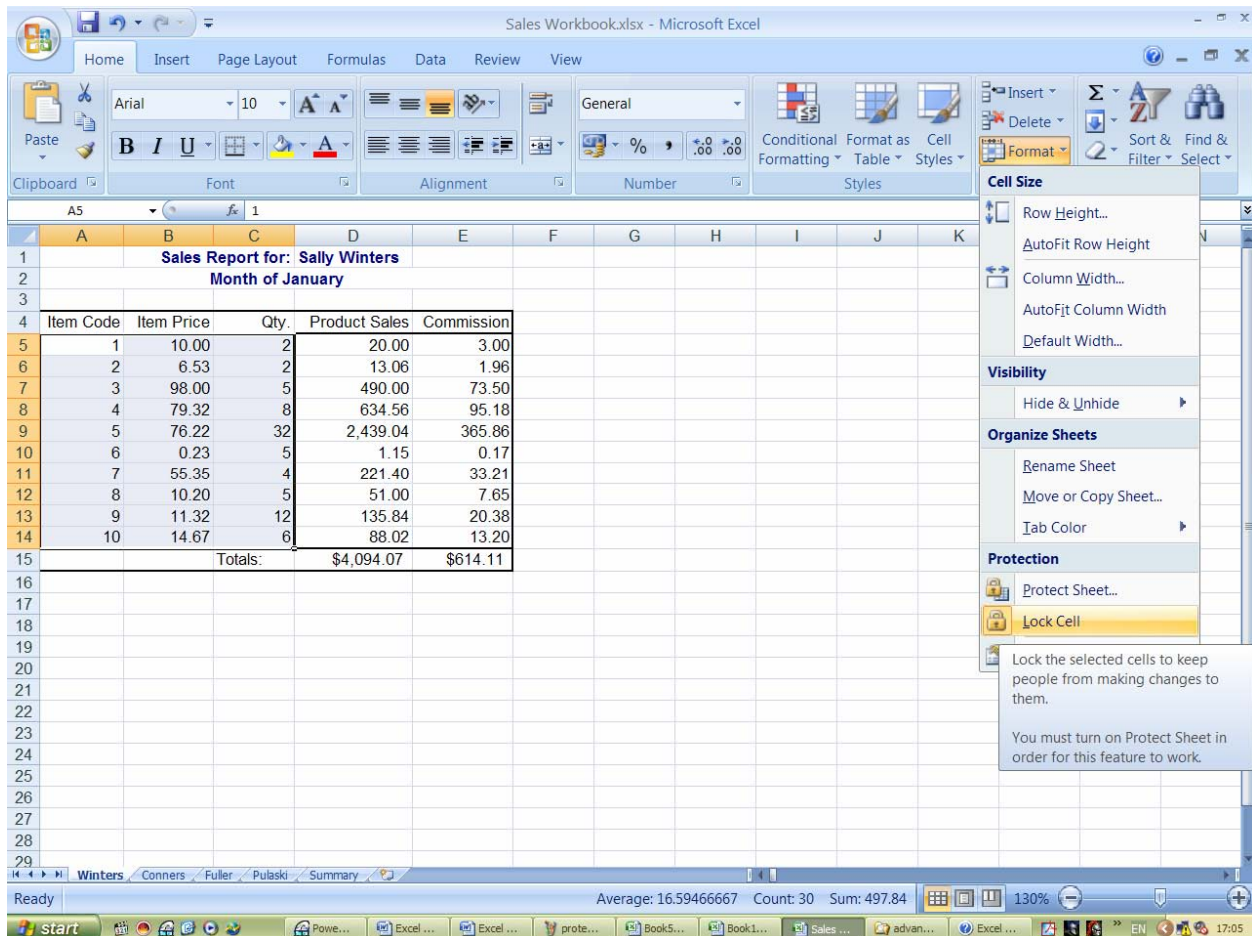
➢ **To unlock cells:**

Mouse

i. Select the cells you want to be accessible when you protect the worksheet – you can select cells on multiple sheets using group mode if necessary.

ii. Click the **DIALOG BOX LAUNCHER**. From either the **FONT, ALIGNMENT** or **NUMBER** group on the **HOME** ribbon

iii. Click the **PROTECTION** tab. And uncheck the **LOCKED** box.

iv. Click **OK** to close the dialog and save the setting.
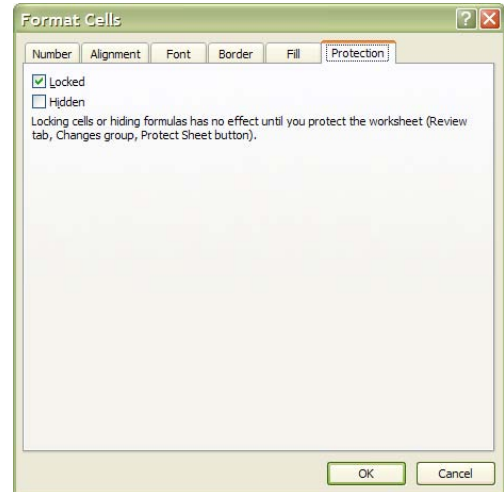
OR

i. Select the cells you want to be accessible when you protect the worksheet – you can select cells on multiple sheets using group mode if necessary.

ii. Click the **FORMAT** button in the **CELLS** group on the **HOME** ribbon. (See picture on previous page)

iii. The **LOCK CELL** button is already selected (all cells are locked by default). Click the **LOCK CELL** button to unlock the selected cells.

Worksheet Protection

➢ **To protect a worksheet:**

Mouse

i. Ensure that the sheet you want to protect is the active sheet.

ii. Click the **FORMAT** button in the **CELLS** group on the **HOME** ribbon. (See picture on previous page). Click on **PROTECT SHEET**. A dialog box is launched

iii. Select from the checkboxes what you wish people be allowed to do (best left as default) Ticking the **FORMAT CELLS** option would then allow all users to change the formatting of cells (locked or unlocked) while still preventing them from changing the actual contents of the locked cells.

iv. Type a password to prevent unauthorized users from removing sheet protection. A password is case sensitive, can be up to 255 characters long, and can contain any combination of letters, numbers, and symbols.

v. Click **OK** to close the dialog and switch on sheet protection.
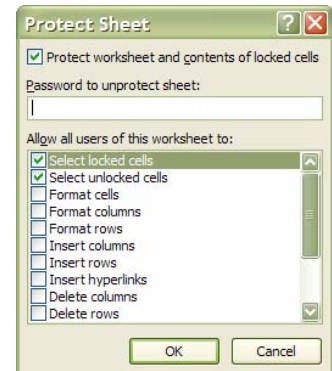
*RECORD ALL PASSWORDS SOMEWHERE AS DATA CAN BE LO**ST IF YOU CANNOT REMEMBER THEM** With worksheet protection active, only the unlocked cells are available to work with. If you try and type in a locked cell, the following warning appears:*
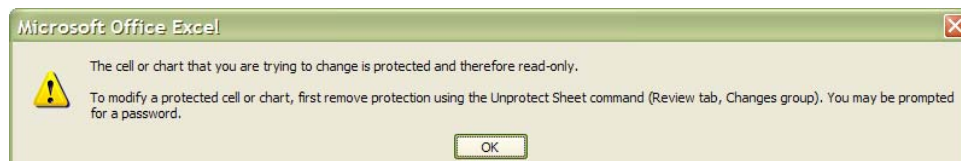
Unprotect Sheets

If you do need access to the locked cells, you can switch worksheet protection off, provided you know the correct password.

> ➤ **To switch off sheet protection:**

Mouse

i.   Select the protected sheet.

ii.   Click the **FORMAT** button in the **CELLS** group on the **HOME** ribbon. Click on **UNPROTECT SHEET**.

iii. If you had a password then a dialog box will appear Type the password and click OK. The sheet is now unprotected.

Excel only lets you protect and unprotect sheets one at a time, that is to say, you cannot group all the sheets you want to protect or unprotect and do it in one go.

View Worksheets Side By Side

You can display several worksheets in a workbook tiled in various ways on screen. These options can be found on the **VIEW** ribbon and the **WINDOW** group.
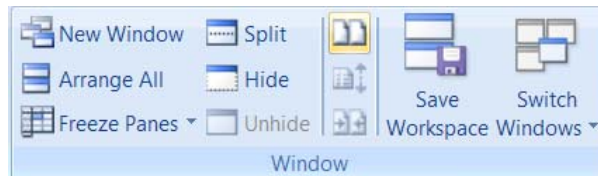
> ➤ **To display worksheets side by side:**

Mouse

i.   Go to the **VIEW** ribbon and click on the **SIDE BY SIDE** button a dialog is launched

ii.   Choose a file you wish to compare with and see side by side

iii. Click **OK**

iv.   Repeat the above steps until you have a window for each worksheet.

v.   On the **VIEW** ribbon, click Arrange all. The Arrange Windows dialog box will appear:

vi.   Choose the arrangement you want your worksheet windows to follow. Check the box **WINDOWS OF ACTIVE WORKBOOK** (this prevents windows from other open files being included in the arrangement).

vii. Click **OK** to close the dialog and arrange the windows.
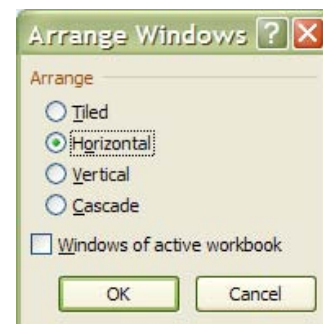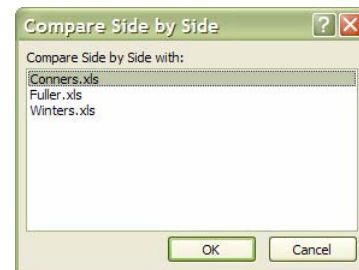
If your initial window is maximised, you do not see any change to the screen when you issue the New Window command, you may not know how many windows you have. When you access the Window menu, the bottom section lists the number of windows currently open.
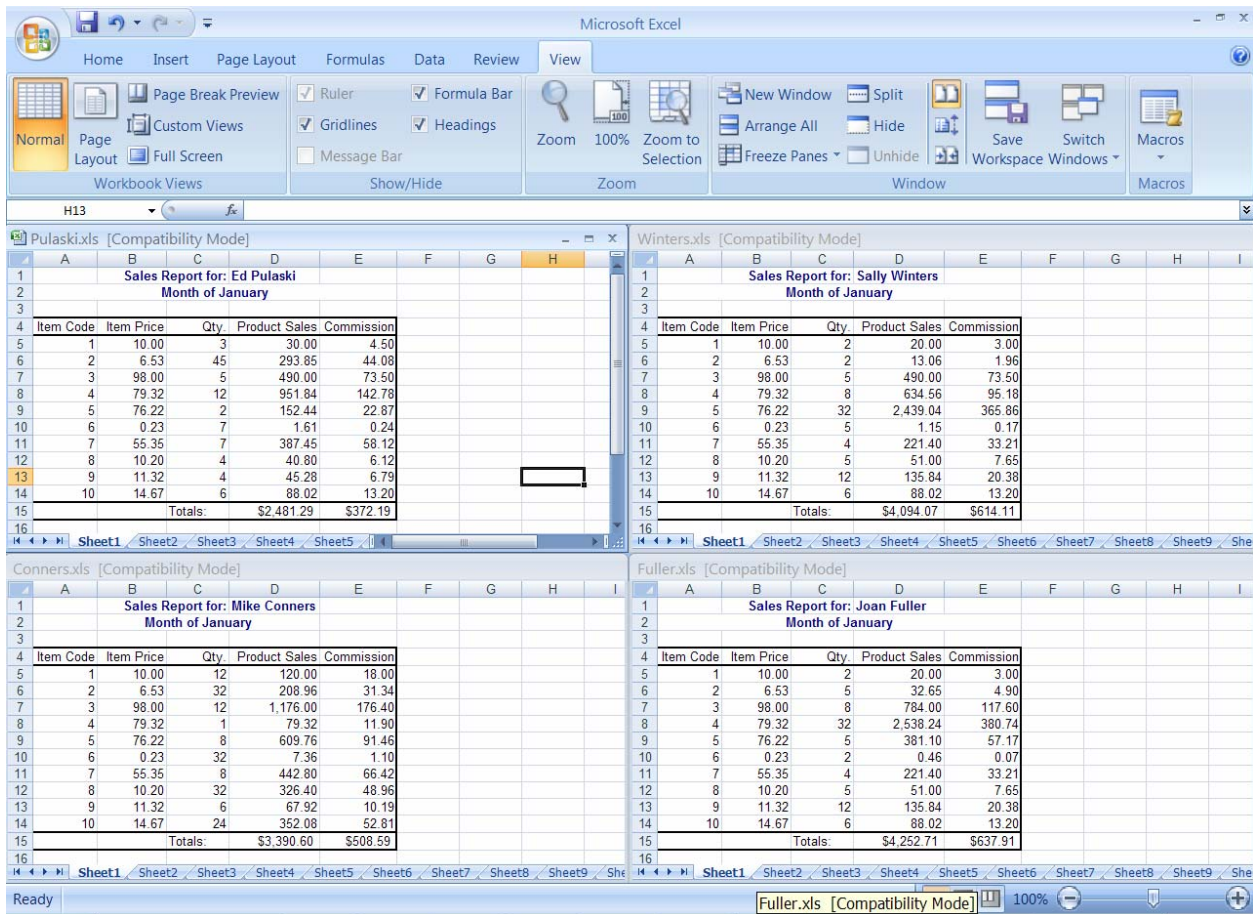
Picture above shows tiled windows

 When the windows are opened with the method mentioned previously, the button for synchronous scrolling will allow simultaneous scrolling for all windows. If this feature does not help it can be switched off.

Hide Windows

Whole windows can be hidden. Although you may need them open for calculations, macros, referred tables, etc you may not wish to see them.

> ➢ **To hide a window**

Mouse

i. Select the window you wish to hide

ii. Go to the **VIEW** ribbon and click the **HIDE** button in the **WINDOW** group. The window is now hidden
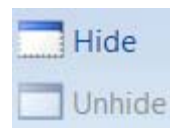
> ➢ **To unhide a window**

Mouse

i. Go to the **VIEW** ribbon and click the **UNHIDE** button. In the **WINDOW** group a dialog is launched

ii. Choose window to unhide and click **OK.** The window reappears.

Watch Window

A watch window can be used to easily track results of multiple cells when you are working on a different sheet or workbook. This saves you from having to switch back and forth or scroll between sheets to keep track of important data.

➢ To set a watch

<u>Mouse</u>

i.   Select a cell to which you want to add a Watch

ii.   Go to the **FORMULAS** ribbon an click on **WATCH WINDOW** in the **FORMULA AUDITING** group

iii.   Click on **ADD WATCH**

iv.   Select cell you wish to monitor

v.   Click on **ADD**

vi.   You may now switch windows or scroll and the watch window will monitor that cell for changes in result
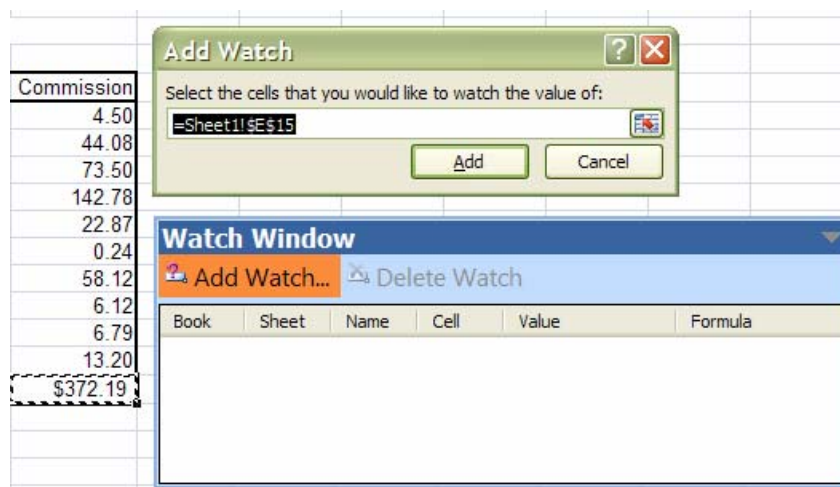
as you enter or manipulate figures elsewhere.

➢ To delete a watch

<u>Mouse</u>

i.   Go to the **FORMULAS** ribbon an click on **WATCH WINDOW** in the **FORMULA AUDITING** group

ii.   Select watch to delete

iii.   Click on **DELETE WATCH** on watch window
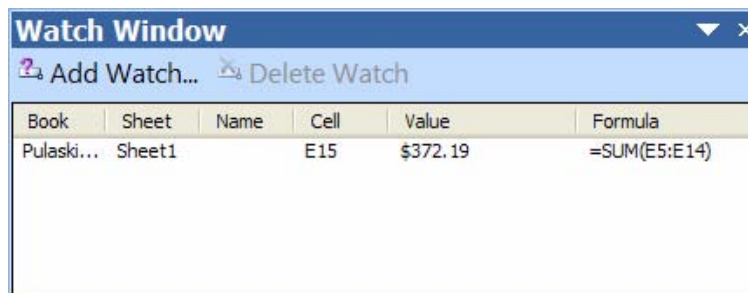
Change Colour Of Worksheet Tab

➢ **To change the colour of a worksheet tab:**

i.   Select the worksheet whose tab you want to re-colour.

II.   Click the **FORMAT** button in the **CELLS** group, **HOME** ribbon and move your cursor down the menu to **TAB COLOUR.**

iii.   Select the colour and click **OK**
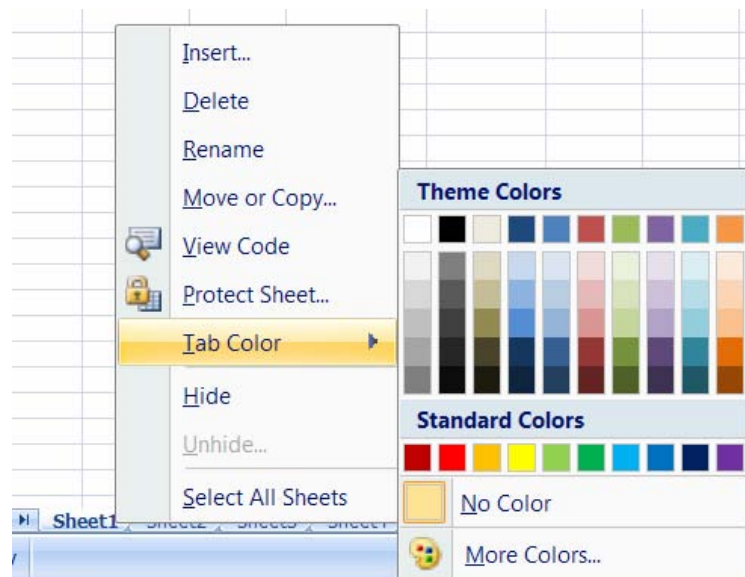
OR

i.   Right-click on the tab and choose the **TAB COLOUR** option.

ii.   Select the colour and click **OK**

SECTION 9 PRINTING

When you want a hard copy of worksheet data, Excel gives you many tools for choosing how that printout will look. Swapping the page orientation between portrait and landscape, scaling the size of the printout and choosing whether to print worksheet gridlines are but a few of the options that can be set. Excel automatically assigns headers and footers to your worksheet data, but you can change or enhance these very easily.

PRINT PREVIEW

Before sending anything to print, it is always a good idea to preview what you will see on the page. The Print Preview window will show how your data is going to print.

➢ To go to print preview

Mouse

i.   Click the worksheet that you want to preview before you print it.

ii.   Click the **MICROSOFT OFFICE BUTTON** , click the arrow next to **PRINT** and then click **PRINT PREVIEW**.

OR
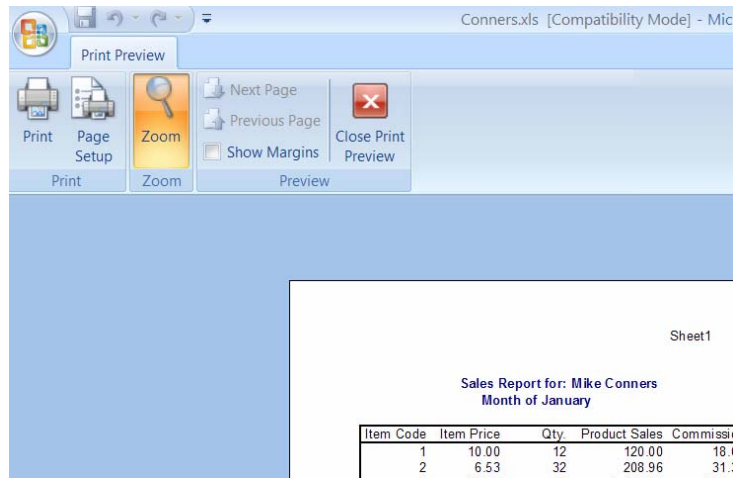
Keyboard

i.   Press **[CTRL][F2].** On the **PRINT PREVIEW** tab, do one or more of the following:

ii.   To preview the next and previous page, in the **PREVIEW** group, click **NEXT PAGE** and **PREVIOUS PAGE**.

iii. To view page margins, in the **PREVIEW** group, select the **SHOW MARGINS** check box.

iv.   This displays the margins in the **PRINT PREVIEW** view. To make changes to the margins, you can drag the margins to the height and width that you want. You can also change the column widths by dragging handles at top of print preview page.

To make page setup changes, on the Print Preview tab, in the Print group, click Page Setup, and then select the options that you want on the Page, Margins, Header/Footer, or Sheet tab of the Page Setup dialog box.

PAGE SETUP

When you want to alter headers and footers, orientation and so on, you use the Page Setup dialog box. There are four tabs within this dialog, each give settings for one aspect of your printout. You can access the Page Setup dialog from either the worksheet or the Print Preview window, however if you access it from the
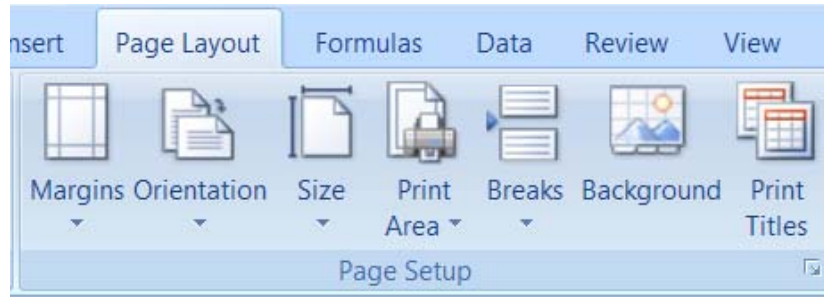
latter, some of the **SHEET** tab settings are unavailable.

PAGE SETUP GROUP ON THE PAGE LAYOUT RIBBON

➢ **To access the page setup dialog:**

Mouse

i. Click the **DIALOG BOX LAUNCHER**. From **PAGE SETUP** group on the **PAGE LAYOUT** ribbon
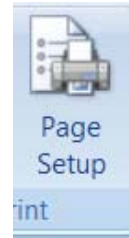
OR

i. If you are in the Print Preview window, click the **PAGE SETUP** button

PAGE TAB

The **PAGE** tab allows you to set page orientation, scaling, paper size, print quality and a start number for page numbering.
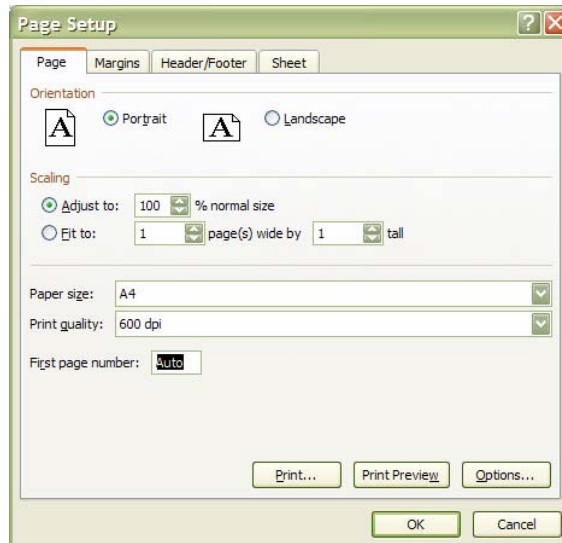
ORIENTATION

Use this setting to swap between portrait and landscape printouts.

➢ **To change page orientation:**

Mouse

i.   Access the **PAGE SETUP** dialog and click the **PAGE** tab.

ii. The default orientation is **PORTRAIT**. Click **LANDSCAPE** to switch to printing on a landscape page.

iii. Click **OK** to close the dialog and save the setting – next time you access **PRINT PREVIEW,** the new settings will be displayed.
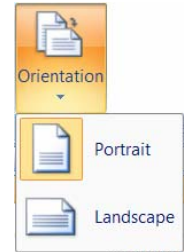
OR

i.   Go to **PAGE SETUP** group on the **LAYOUT** ribbon and select **ORIENTATION**. Choose portrait or landscape

SCALING

You can manually scale the size of your printout by choosing a percentage amount you want to increase or decrease it by. The Adjust to option reduces or enlarges the printed worksheet.   The Fit to option will only reduce (not enlarge) the worksheet or selection when you print so that it fits on the specified number of pages.
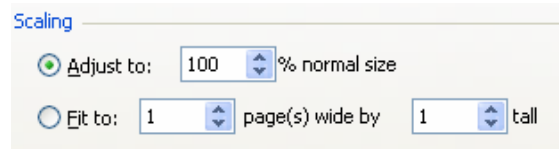
➢ **To reduce or enlarge your printout:**

Mouse

i.   Access the Page Setup dialog and click the **PAGE** tab.

ii. Select the **ADJUST TO** check box, and then enter a percentage number in the % normal size box. You can reduce the worksheet to 10 percent of normal size or enlarge it to 400 percent of normal size.

iii. Click **OK** to close the dialog and save the setting – next time you access Print Preview, the new settings will be displayed.

➢ **To fit your printout to a number of pages:**

Mouse

i.   Access the Page Setup dialog and click the **PAGE** tab.

ii. Select the **FIT TO** check box and then enter a number in the **PAGE(S) WIDE BY** box. If you want to limit the number of pages tall, enter a number in the **TALL** box.

iii. Click **OK** to close the dialog and save the setting – next time you access Print Preview, the new settings will be displayed.

PAPER SIZE

You can pick the size of the paper you want to print on by choosing from a list of pre-defined sizes.

➢ **To choose paper size:**

Mouse

i.   Access the Page Setup dialog and click the **PAGE** tab.

ii. Click the drop-down list arrow to the right of the **PAPER SIZE** box and click the paper size you want.

iii. Click **OK** to close the dialog and save the setting – next time you access Print Preview, the new settings will be displayed.

OR
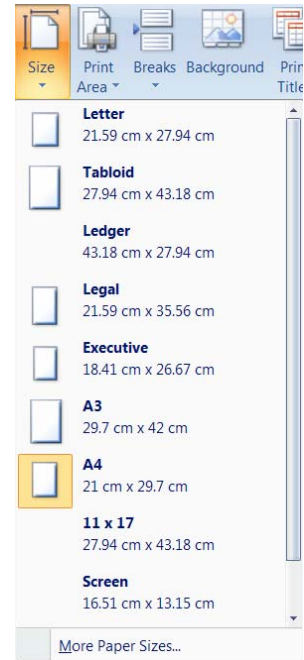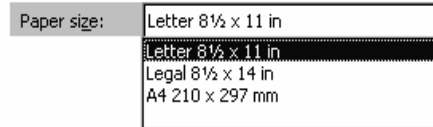
i.   Go to the **PAGE SETUP** group on the **LAYOUT** ribbon and click on the **SIZE** button to see many predefined sizes to set your paper size to. If the size you wish is not available in the list. Then click on **MORE PAPER SIZES** at the bottom. This launchs the **PAGE SETUP** dialog box

PRINT QUALITY

You can enhance the quality of the printout if you need a pristine copy.

➢ **To change print quality:**

Mouse

i.   Access the Page Setup dialog and click the **PAGE** tab.

ii. Click the drop-down list arrow to the right of the **PRINT QUALITY** box and click the resolution you want for the print quality of the active workbook.

iii. Click **OK** to close the dialog and save the setting – next time you access Print Preview, the new settings will be displayed.
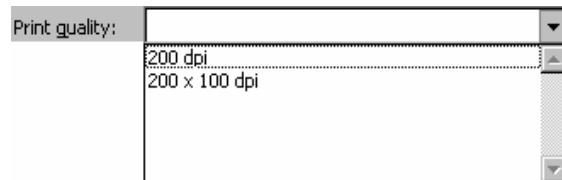
Resolution is the number of dots per linear inch (dpi) that appear on the printed page. Higher resolution produces better quality printing in printers that support higher resolution printing.

SET FIRST PAGE NUMBER

If your printout is to form part of a larger document, you may need to change start number for pages.

➢ **To change first page number:**

Mouse

i.   Access the Page Setup dialog and click the **PAGE** tab.

ii. Drag across the word Auto in the **FIRST PAGE NUMBER** box to select it. Type the number you want the page numbering to begin at.
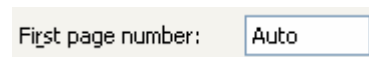
III. Click **OK** to close the dialog and save the setting – next time you access Print Preview, the new settings will be displayed.

Margins Tab

The Margins tab lets you set top, bottom, left and right margins and centre your data horizontally and vertically on the page. You can also determine how far from the bottom and top edges of the page your headers and footers print.
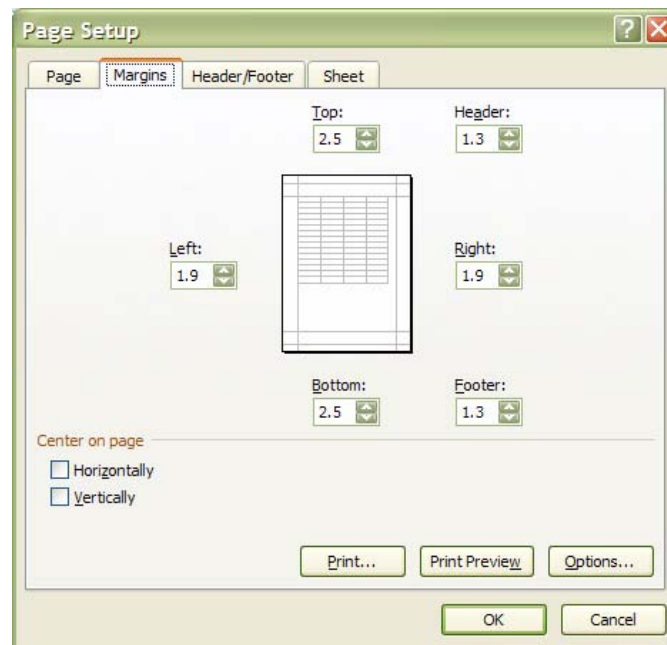
> ➢ **To change margins:**

Mouse

i. Access the Page Setup dialog and click the **MARGINS** tab. (above)

ii. Use the up and down arrows in the **TOP, BOTTOM, LEFT** and **RIGHT** boxes to increase and decrease margin measurements. The page sample in the middle of the dialog will update to show how your settings will look should you choose to apply them.

iii. Click **OK** to close the dialog and save the settings – next time you access Print Preview, the new settings will be displayed.

OR

i. Go to the **LAYOUT** ribbon and the **PAGE SETUP GROUP** and click on margins a selection of quick margin changes will be available including the last custom settings for a page

ii. Click on a set of margins and they will be set.
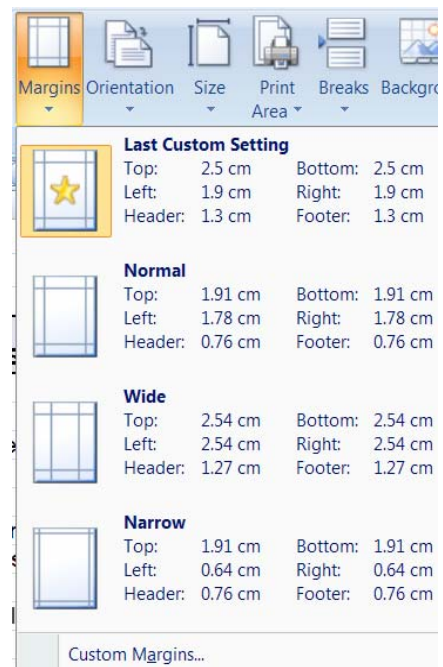
> ➢ **To change header and footer position:**

Mouse

i. Access the **PAGE SETUP** dialog and click the **MARGINS** tab.

ii. Use the up and down arrows in the **HEADER** and **FOOTER** boxes to increase and decrease the space between the header and footer and the top and bottom edges of the page.

iii. Click **OK** to close the dialog and save the settings – next time you access **PRINT PREVIEW**, the new settings will be displayed.

CENTRE ON PAGE

Use these check boxes to centre the data you are printing horizontally (between left and right margins) and/or vertically (between top and bottom margins).

> ➢ **To centre horizontally and vertically:**

Mouse

i. Access the **PAGE SETUP** dialog and click the **MARGINS** tab.

ii. Click the **HORIZONTALLY** check box to centre between left and right margins. Click the **VERTICALLY** check box to centre between top and bottom margins.

iii. Click **OK** to close the dialog and save the settings – next time you access **PRINT PREVIEW**, the new settings will be displayed.
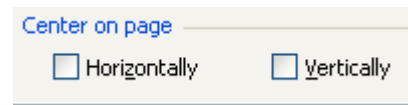
Header/Footer Tab

Unless you specify otherwise, Excel uses the sheet name as the header for your printout and the page number as the footer. You can choose from a predefined list of options for your header and footer, or for total flexibility, you can build up the header and footer with codes that will generate dates, times, file names etc.

Sample header and
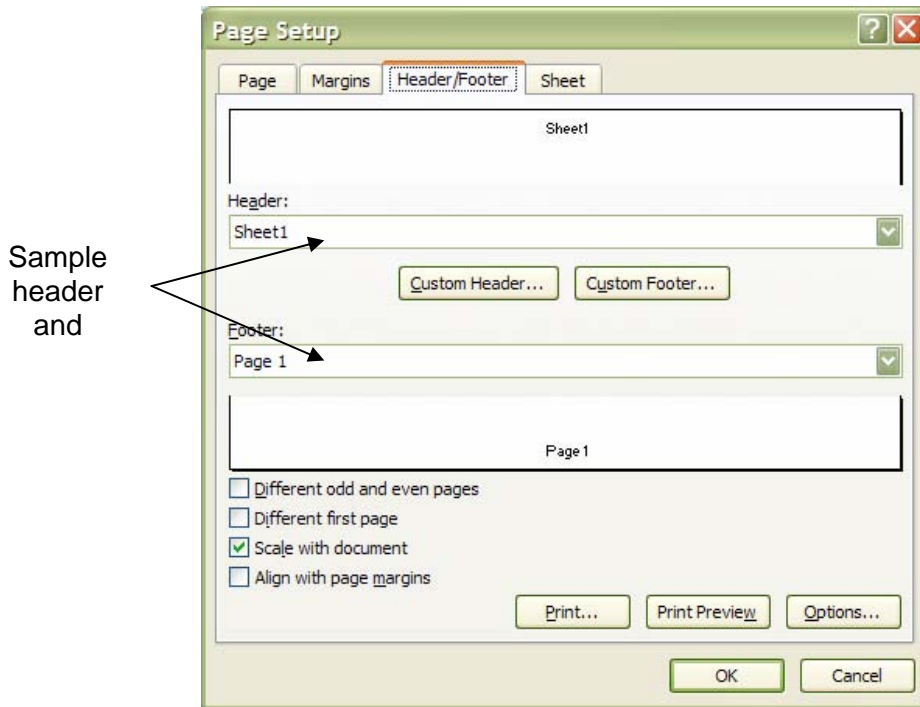
HEADER

Excel's default header is the sheet name. The **HEADER** box gives a list of options for you to use as your header. Excel spaces items out in the header at the top left, middle and top right of the page. Where an option has commas separating items Excel will interpret the comma as the spacing symbol.

➢ **To change the header:**

Mouse

i.   Access the Page Setup dialog and click the **HEADER/FOOTER** tab.
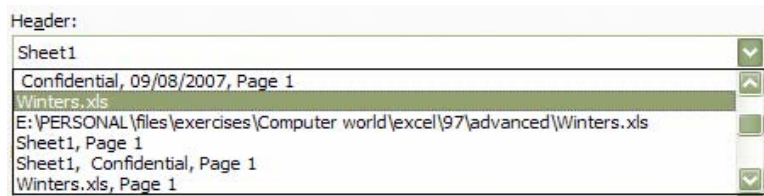
OR

i.   Click the drop-down list arrow to the right of the **HEADER** box to view a list of predefined headers and click the one you want. The sample area will show you what your choice will look like.

ii.   Click **OK** to close the dialog and save the settings – next time you access Print Preview, the new settings will be displayed.

FOOTER

Excel's default footer is the page number. The **FOOTER** box, gives you the same options as the header box, but the position of the chosen item will be at the bottom of the page. Excel spaces items out in the footer at the top left, middle and top right of the page. Where an option has commas separating items Excel will interpret the comma as the spacing symbol.

➢ **To change the footer:**

i. Click the **DIALOG BOX LAUNCHER**. From **PAGE SETUP** group on the **PAGE LAYOUT** ribbon, select the **HEADER/FOOTER** tab ,

ii. Click the drop-down list arrow to the right of the **FOOTER** box to view a list of predefined footers and click the one you want.

iii. Click **OK** to close the dialog and save the settings – next time you access Print Preview, the new settings will be displayed.

New Methods For Headers And Footers In 2007

In Microsoft Office Excel, you can quickly add or change headers or footers to provide useful information in your worksheet printouts. You can add predefined header and footer information or insert elements such as page numbers, the date and time, and the file name.

To define where in the printout the headers or footers should appear and how they should be scaled and aligned, you can choose header and footer options.

For worksheets, you can work with headers and footers in Page Layout view. For other sheet types, such as chart sheets (chart sheet: A sheet in a workbook that contains only a chart. A chart sheet is beneficial when you want to view a chart or a PivotChart report separately from worksheet data or a PivotTable report.), or for embedded charts (embedded chart: A chart that is placed on a worksheet rather than on a separate chart sheet. Embedded charts are beneficial when you want to view or print a chart or a PivotChart report with its source data or other information in a worksheet.), you can work with headers and footers in the **PAGE SETUP** dialog box.
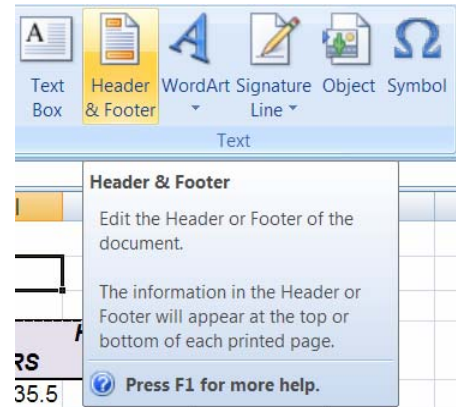
Insert Specific Elements In A Header Or Footer
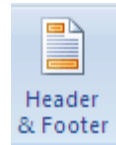
For worksheets, you can work with headers and footers in Page Layout view. For other sheet types, such as chart sheets, or for embedded charts, you can work with headers and footers in the **PAGE SETUP** dialog box.

➢ **Add or change the header or footer text for a worksheet in Page Layout view**

Mouse

i. Click the worksheet to which you want to add headers or footers, or that contains headers or footers that you want to change.

ii. On the **INSERT** tab, in the **TEXT** group, click **HEADER & FOOTER**.
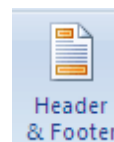
iii. Excel displays the worksheet in Page Layout view. You can also click Page Layout View on the status bar to display this view.

iv. To add a **HEADER** or **FOOTER**, click the **LEFT**, **CENTER**, or **RIGHT HEADER OR FOOTER** text box at the top or at the bottom of the worksheet page. And either:
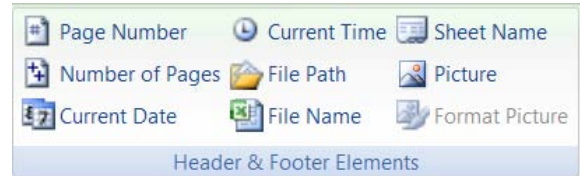
v. Type the text that you want.

vi. Insert a header or footer element if you from the **HEADER AND FOOTER ELEMENTS** group on the **DESIGN** ribbon.

vii. To change a **HEADER** or **FOOTER**, click the **HEADER** or **FOOTER** text box at the top or at the bottom of the worksheet page that contains header or footer text, and then select the text that you want to change.

viii. To start a new line in a **HEADER OR FOOTER** text box, press **RETURN**.

ix. To delete a portion of a **HEADER OR FOOTER**, select the portion that you want to delete in the header or footer text box, and then press **DELETE** or **BACKSPACE**. You can also click in the text and then press **BACKSPACE** to delete the preceding characters.

x. To return to **NORMAL** view, click on the worksheet and then click on on the **NORMAL VIEW** button on the **VIEW** tab, in the **WORKBOOK VIEWS** group. You can also click **NORMAL** on the status bar.
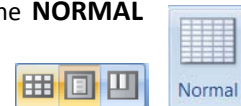
> *To include a single ampersand (&) within the text of a header or footer, use two ampersands.*
>
> *E.G., to include "Subcontractors & Services" in a header, type Subcontractors && Services.*

xi. To close the **HEADERS OR FOOTERS**, click anywhere in the worksheet, or press **ESC**.

Header Or Footer For A Chart

> ### Add or change the header or footer text for a chart

Mouse

i. Click the chart sheet or embedded chart to which you want to add headers or footers, or that contains headers or footers that you want to change.

ii. On the **INSERT** tab, in the **TEXT** group, click **HEADER & FOOTER.** Excel displays the Page Setup dialog box.

iii. Click **CUSTOM HEADER** or **CUSTOM FOOTER.**

iv. Click in the **LEFT SECTION, CENTER SECTION**, or **RIGHT SECTION** box, and then click the buttons to insert the header or footer information that you want in that section.

v. To add or change the header or footer text, type additional text or edit the existing text in the **LEFT SECTION, CENTER SECTION**, or **RIGHT SECTION** box.

vi. To start a new line in a section box, press **RETURN**.

vii. To delete a portion of a header or footer, select the portion that you want to delete in the section box, and then press **DELETE** or **BACKSPACE**. You can also click in the text and then press **BACKSPACE** to delete the preceding characters.

To base a custom header or footer on an existing header or footer, click the header or footer in the Header or Footer box.

Add A Predefined Header Or Footer

For worksheets, you can work with headers and footers in Page Layout view. For other sheet types, such as chart sheets or for embedded charts, you can work with the headers and footers in the **PAGE SETUP** dialog box.

➢ **Add a predefined header or footer to a worksheet in Page Layout view**

Mouse

i. Click the worksheet to which you want to add a predefined header or footer.

ii. On the **INSERT** tab, in the **TEXT** group, click **HEADER & FOOTER**.

iii. Excel displays the worksheet in **PAGE LAYOUT** view. You can also click **PAGE LAYOUT VIEW** on the **STATUS BAR** to display this view.

iv. Click the left, center, or right header or footer text box at the top or at the bottom of the worksheet page.

v. Clicking any text box selects the header or footer and displays the **HEADER AND FOOTER TOOLS**, on the **DESIGN** tab.

vi. On the **DESIGN** tab, in the **HEADER & FOOTER** group, click **HEADER** or **FOOTER**, and then click the predefined header or footer that you want.

vii. To return to **NORMAL** view, on the View tab, in the Workbook Views group, click Normal. You can also click Normal on the status bar.

➢ **Add a predefined header or footer to a chart**

i. Click the chart sheet or embedded chart to which you want to add a predefined header or footer.

ii. On the **INSERT** tab, in the **TEXT** group, click **HEADER & FOOTER**.

iii. Click the predefined header or footer in the **HEADER** or **FOOTER** group.

iv. Excel displays the **PAGE SETUP** dialog box.
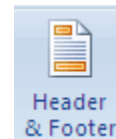
Choose The Header And Footer Options

For worksheets, you can work with headers and footers in Page Layout view. For other sheet types, such as chart sheets or for embedded charts you can work with headers and footers in the **PAGE SETUP** dialog box.

➢ Choose the header and footer options for a worksheet
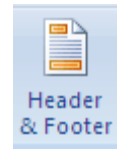
<u>Mouse</u>

i. Click the worksheet for which you want to choose header and footer options.

ii. On the **INSERT** tab, in the **TEXT** group, click **HEADER & FOOTER**.

iii. Excel displays the worksheet in Page Layout view. You can also click Page Layout View on the status bar to display this view.

iv. Click the **LEFT, CENTER**, or **RIGHT** header or footer text box at the top or at the bottom of the worksheet page.

v. Clicking any text box selects the **HEADER OR FOOTER** and displays the Header and Footer Tools, adding the Design tab.

vi. On the **DESIGN** tab, in the **OPTIONS** group, **SELECT ONE OR MORE OF THE FOLLOWING:**

vii. To insert a different header or footer for odd pages on an odd page and for even pages on an even page, select the **DIFFERENT ODD & EVEN PAGES** check box.

viii. To remove headers and footers from the first printed page, select the **DIFFERENT FIRST PAGE** check box.

ix. To use the same font size and scaling as the worksheet, select the **SCALE WITH DOCUMENT** check box. To make the font size and scaling of the headers or footers independent of the worksheet scaling for a consistent display on multiple pages, clear this check box.

x. To make sure that the header margin or footer margin is aligned with the left and right margins of the worksheet, select the **ALIGN WITH PAGE MARGINS** check box. To set the left and right margins of the headers and footers to a specific value that is independent of the left and right margins of the worksheet, clear this check box.

xi. To return to **NORMAL** view, on the **VIEW** tab, in the **WORKBOOK VIEWS** group, click **NORMAL**. You can also click **NORMAL** on the status bar.

➢ Choose the header and footer options for a chart

<u>Mouse</u>

i. Click the chart sheet or embedded chart to which you want to add a predefined header or footer.

ii. On the **INSERT** tab, in the **TEXT** group, click **HEADER & FOOTER.**

iii. Excel displays the Page Setup dialog box.
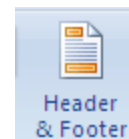
iv. To insert a different header or footer for odd pages on an odd page and for even pages on an even page, select the **DIFFERENT ODD & EVEN PAGES** check box.

v. To remove headers and footers from the first printed page, select the **DIFFERENT FIRST PAGE** check box.

vi. To use the same font size and scaling as the worksheet, select the **SCALE WITH DOCUMENT** check box. To make the font size and scaling of the headers or footers independent of the worksheet scaling for a consistent display on multiple pages, clear this check box.

vii. To make sure that the header margin or footer margin is aligned with the left and right margins of the worksheet, select the **ALIGN WITH PAGE MARGINS** check box. To set the left and right margins of the headers and footers to a specific value that is independent of the left and right margins of the worksheet, clear this check box.

CUSTOM HEADER AND FOOTER

If none of the predefined headers and footers are what you want, you can customise them using the **CUSTOM HEADER** and **CUSTOM FOOTER** buttons. When you click either of these buttons, Excel gives you a dialog box representing either the top (**CUSTOM HEADER**) or bottom (**CUSTOM FOOTER)** edge of your page.

You can type text into the left, centre and right sections, but if you want information to change dynamically according to alterations you make to filenames, sheet names or you want to always display the current date and time in the header (useful for seeing when a worksheet was printed),the dialog has buttons that generate codes. The codes instruct Excel to include information where you have positioned them and will update if the information that they generate changes. The diagram below details what each of the buttons do.

OTHER HEADER AND FOOTER SETTINGS

To insert a different header or footer for odd pages on an odd page and for even pages on an even page, select the **DIFFERENT ODD & EVEN PAGES**
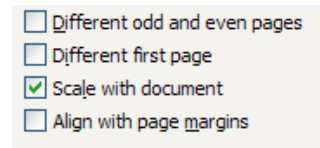
check box.

To remove headers and footers from the first printed page, select the **DIFFERENT FIRST PAGE** check box.

To use the same font size and scaling as the worksheet, select the **SCALE WITH DOCUMENT** check box. To make the font size and scaling of the headers or footers independent of the worksheet scaling for a consistent display on multiple pages, clear this check box.

To make sure that the header margin or footer margin is aligned with the left and right margins of the worksheet, select the **ALIGN WITH PAGE MARGINS** check box. To set the left and right margins of the headers and footers to a specific value that is independent of the left and right margins of the worksheet, clear this check box.

Sheet Tab

The Sheet tab has many settings that you can use to select what appears on the printed sheet. You can also use this tab to set a print area, (useful if you do not want the whole worksheet to print) and print titles.
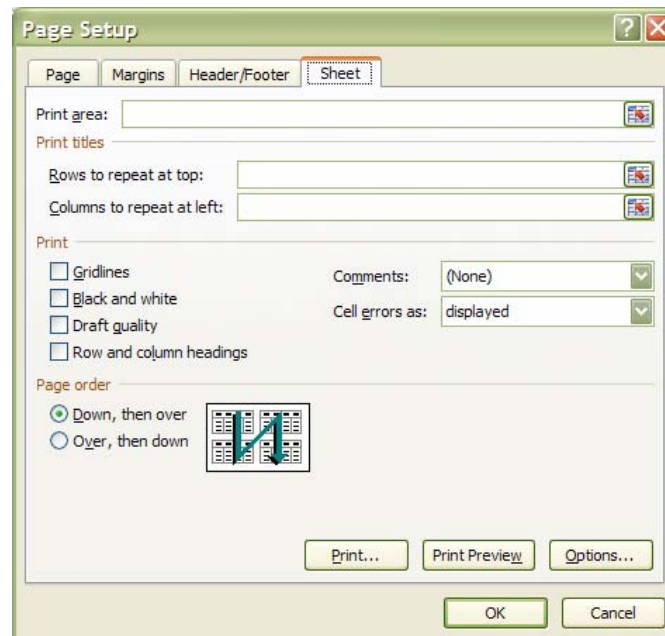
Some settings on the Sheet tab are only available when you access the Page Setup dialog from the LAYOUT ribbon. If you are accessing it from the Print Preview window, you will not have access to the Print Area and Print Titles settings.

PRINT AREA

Use this to set the range of cells that you want to print. If you do not set a Print Area, Excel will print all the data on the active worksheet.

➢ **To set a Print Area:**

Mouse

i.   Click the **DIALOG BOX LAUNCHER**. From **PAGE SETUP** group on the **PAGE LAYOUT** ribbon, select the **SHEET** tab ,

OR

i. Click on **PRINT AREA** From **PAGE SETUP** group on the **PAGE LAYOUT** ribbon and select **SET PRINT AREA.**

ii. Click the button on the right of the **PRINT AREA** box to collapse the **PAGE SETUP** dialog so that you can see the worksheet (see below):

iii. Select the cells you want to print and click the **EXPAND** button to go back to the **PAGE SETUP** dialog (see below):

Click here to expand the

iv. The selected cells will appear listed in the **PRINT AREA** dialog. Click **OK** to close the dialog and save the settings – next time you access **PRINT PREVIEW**, the new settings will be displayed.
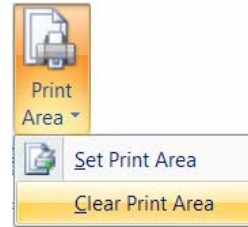
You can use the Set Print Area option to set the selected cells to the print area as an alternative to using the Page Setup dialog.

➢ **To clear the Print Area:**

Mouse

i. Click the **DIALOG BOX LAUNCHER**. From **PAGE SETUP** group on the **PAGE LAYOUT** ribbon, select the **SHEET** tab , Click in the **PRINT AREA**, Delete the values.

OR

i. Click on **PRINT AREA** From **PAGE SETUP** group on the **PAGE LAYOUT** ribbon and select **CLEAR PRINT AREA.**
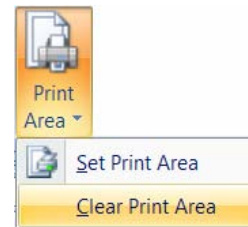
You can use the Set Print Area option to set the selected cells to the print area as an alternative to using the Page Setup dialog.

Print Titles

When your printouts run to several pages you may have column and row headings that you would like to print on each new page. The diagram below shows a four page printout where the months have been set up to print at the top of each page and the years at the left of each page. Excel allows you to specify any number of rows and columns to repeat when you have a multi-page printout.

➢ **To set print titles:**

Mouse

i. Access the **PAGE SETUP** dialog and click the **SHEET** tab.

OR
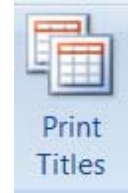
i. Go to the **PAGE SETUP** group on the **PAGE LAYOUT** ribbon, and select the **PRINT TITLES** button. This will open the **PAGE SETUP** dialog box at the **SHEET** tab

Print titles

Rows to repeat at top:

Columns to repeat at left:

ii. Click the button on the right of the **ROWS TO REPEAT AT TOP** box to collapse the Page Setup dialog so that you can see the worksheet (see diagrams) Select the rows you want by dragging over them with the selection pointer.

iii. Click the Expand button to return to the Page Setup dialog. The rows you selected will be referenced in the **ROWS TO REPEAT AT TOP** box.

iv. Repeat steps (selecting columns not rows) as above for the **COLUMNS TO REPEAT AT LEFT** box if required.

v. Click **OK** to close the dialog and save the settings – next time you access Print Preview, the new settings will be displayed.

Column titles

	Jan	Feb		Mar	Apr
1997			1997		
1998			1998		
1999			1999		
2000			2000		
2001			2001		
2002			2002		
2003			2003		

Row titles

	Jan	Feb		Mar	Apr
2004			2004		
2005			2005		
2006			2006		
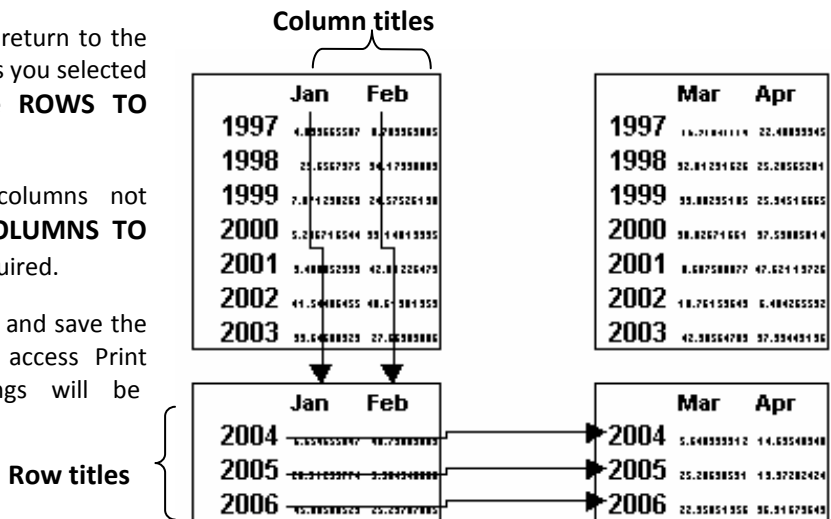
PRINT

The settings here allow you to choose whether to print gridlines, row and column headings and so on. If you choose not to print gridlines, Excel will print any borders you formatted your cells with the diagrams below illustrate some of the effects of activating certain settings.

Black and White

Worksheet with shading…

Would print like this.

Gridlines

Worksheet with borders and shading…

Would print like this.

Row headings

Worksheet with row and column headings.

> ➢ **To change Sheet tab Print settings:**

Mouse

i.   Access the Page Setup dialog and click the Sheet tab.

ii.   Check the boxes under the **PRINT** heading until you have the combination of settings that you require.

iii.   Click **OK** to close the dialog and save the settings – next time you access Print Preview, the new settings will be displayed.

PAGE ORDER

When you have multiple pages to print, each with a printed page number, you can control the order that the data prints on the pages using the Page Order settings.
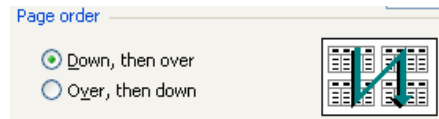
The diagram below shows how pages will have different numbers according to which setting you choose.
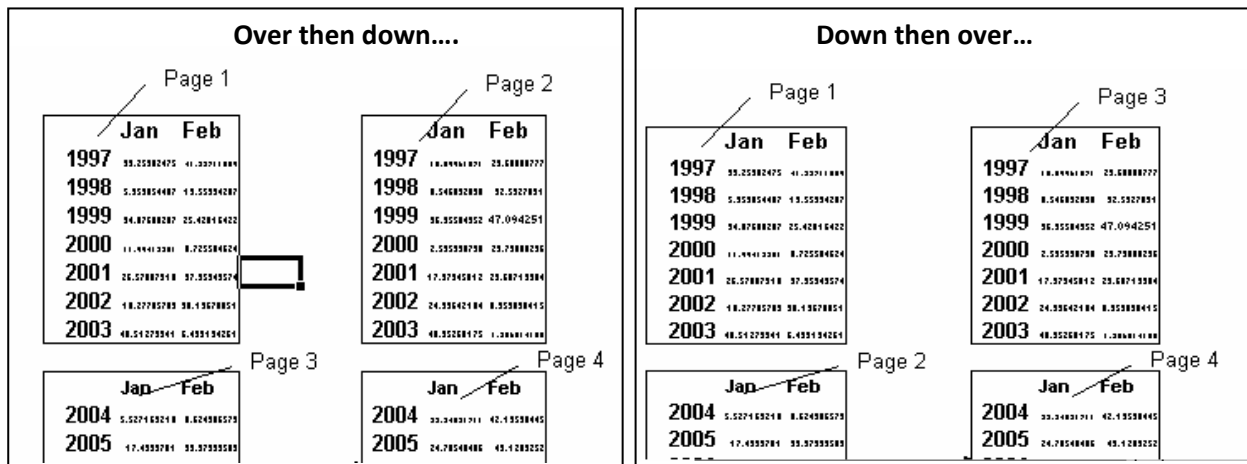
> ➢ **To change page order:**

Mouse

i.   Access the Page Setup dialog and click the **SHEET** tab.

ii.   Click the option button in the **PAGE ORDER** section for the order you want the pages numbered.

iii.   Click **OK** to close the dialog and save the settings – next time you access Print Preview, the new settings will be displayed.

The Page Setup dialog saves print settings for the active sheet only. If you want several sheets to have the same print settings, select them before you access the Page Setup dialog.

Page Breaks

If you do not get page breaks to fall where you want them with the scaling options, you can insert them manually. Excel lets you put in both horizontal and vertical page breaks.

➢ **To insert a horizontal page break:**

Mouse

i.   Select the cell in column A below where you want the page break.

ii. Choose breaks from the **PAGE SETUP** group on the **LAYOUT** ribbon then click **INSERT PAGE BREAK.** A dotted line will appear above the active cell – this represents the page break.
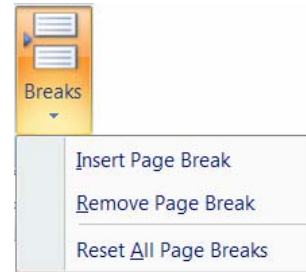
➢ **To insert a vertical page break:**

➢ **Mouse**

i.   Select the cell in row 1 to the right of where you want the page break.

ii. Choose breaks from the **PAGE SETUP** group on the **LAYOUT** ribbon then click **INSERT PAGE BREAK.** A dotted line will appear to the left of the active cell – this represents the page break.

If you insert a page break when you are not in either the first column or row, Excel will insert both a horizontal and vertical page break above and to the left of the active cell position.

➢ **To remove a page break:**

Mouse

i.   Select the cell immediately below and/or to the right of the page break.

ii. Choose breaks from the **PAGE SETUP** group on the **LAYOUT** ribbon then click **REMOVE PAGE BREAK.** The page break will be removed

iii. If **RESET ALL PAGE BREAKS** is selected then **ALL** page breaks will be removed

If the Fit To option is active in the page setup dialog, you cannot set manual page breaks.

Print Data

Excel will print all data on the selected worksheet (unless you tell it otherwise by setting a Print Area). If you want to print more than one worksheet, select the sheets you want first, before you click the Print button.

➢ **To print the active worksheet:**

Mouse

i. Click the worksheet that you want to print.

ii. Click the **MICROSOFT OFFICE BUTTON,** click the arrow next to **PRINT** and then click **QUICK PRINT** this will send everything on the sheet directly to the printer.

OR

i. Click the worksheet that you want to print.

ii. Click the **MICROSOFT OFFICE BUTTON,** click the arrow next to **PRINT**, and then click **PRINT** this will Launch a dialog box with settings for printing

OR

Keyboard

i. Press **[CTRL][P]**. The Print dialog will appear; press **[RETURN]** to confirm the settings and launch the print. Excel will display a dialog telling you what is printing.
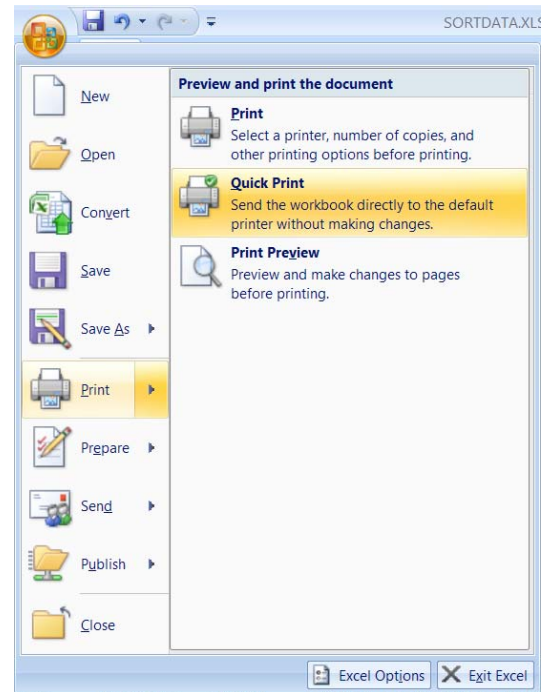
➢ **To print a specific worksheet page or range of pages:**

Mouse

i. Click the worksheet that you want to print.

ii. Click the **MICROSOFT OFFICE BUTTON,** click the arrow next to **PRINT**, and then click **PRINT** this will Launch a dialog box with settings for printing

OR

Keyboard

i. Press **[CTRL][P]**.

ii. The following dialog box will appear:

iii. In the **PRINT RANGE** section of the dialog, click the **PAGES** option button. A cursor will appear in the **FROM** box to the right.
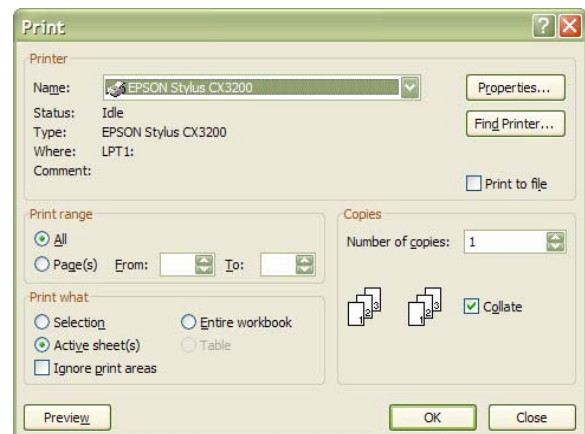
iv. Type in the page number that you want to start at in the **FROM** box and the end page number in the **TO** box. Click the **OK** button to launch the print.

> ➢ **To print the entire workbook:**

Mouse

i. Click the **MICROSOFT OFFICE BUTTON,** click the arrow next to **PRINT**, and then click **PRINT** this will Launch a dialog box with settings for printing

OR

Keyboard

i. Press **[CTRL][P].**

ii. Click the **ENTIRE WORKBOOK** option button in the **PRINT WHAT** section of the dialog.

iii. Click **OK** to launch the print.

> ➢ **To print the selection:**

Mouse

i. Select the cells you want to print.

ii. Click the **MICROSOFT OFFICE BUTTON,** click the arrow next to **PRINT**, and then click **PRINT** this will Launch a dialog box with settings for printing

iii. Click the **SELECTION** option button in the **PRINT WHAT** section of the dialog.

iv. Click **OK** to launch the print.

Copies

By default, Excel will print one copy of the item you have sent to print. You can print multiple copies by changing the Print dialog settings. When you print multiple copies of a document, Excel lets you choose whether the copies are collated (Excel prints each whole document before it starts on the next copy) or uncollated (Excel prints however many copies you have requested of each page).

> ➢ **To print multiple copies:**

Mouse

i. Click the **MICROSOFT OFFICE BUTTON,** click the arrow next to **PRINT**, and then click **PRINT** this will Launch a dialog box with settings for printing

ii. In the **COPIES** section of the dialog, use the up and down arrows to the right of the **NUMBER OF COPIES** text box to set the number of copies you require.

iii. Set the **COLLATE** check box by clicking in it to change the current setting.

iv. Click **OK** to launch the print.
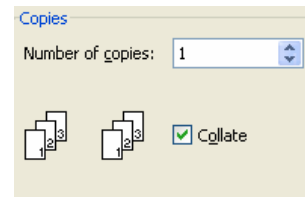
SECTION 10 MANIPULATING LARGE WORKSHEETS

Split Screen

The visible worksheet area is relatively small. If the data you are working with spans a large number of columns and rows, you may find it difficult to move and copy information between areas, or even to view data in non-adjacent columns or rows on the same screen. Splitting the screen gives you the ability to scroll the data one side of the split independently of the other side – so you could be viewing cells Z100 – AH116 on one side of your screen, and cells A1 – G16 on the other.
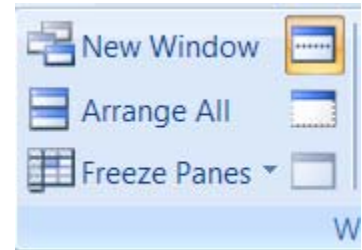
> ➢ **To split the screen horizontally:**

<u>Mouse</u>

i.   Position the mouse along the top edge of the upward pointing arrow at the top of the vertical scroll bar – your pointer should display as shown in the diagram above.

ii.   Drag down – you will see a fuzzy line that follows your mouse down. Release the mouse when the line is at the position you want to split the screen.

> ➢ **To split the screen vertically:**

<u>Mouse</u>

i.   Position the mouse along the top edge of the upward pointing arrow at the right of the horizontal scroll bar – your pointer should display as shown in the diagram on the previous page.

ii.   Drag left – you will see a fuzzy line that follows your mouse across. Release the mouse when the line is at the position you want to split the screen.

iii. When the screen is split, you get scroll bars in each horizontal or vertical section of your window which you can use to move the display for just that section.

> ➢ **To apply both splits at same time**

<u>Mouse</u>

i.   Go to the **WINDOW** group on the **VIEW** ribbon and click on the **SPLIT** button

ii.   Both horizontal and vertical splits will be applied at the same time. These can be adjusted by positioning the mouse over one and dragging in the desired direction

> ➢ **To remove a split:**

<u>Mouse</u>

i.   Position the mouse over the split.

ii.   Drag a split back up until it is flush with the column or row letters or numbers and release the mouse, **OR** Double click on the split

<u>OR</u>

i.   Go to the **WINDOW** group on the **VIEW** ribbon and click on the **SPLIT** button

Freeze Panes

When you want certain rows or columns to remain static on screen while you scroll down or across data on a worksheet, you can use freeze panes.

Freeze
Lines

> ➢ **To freeze panes:**

Mouse

i.   Select the cell below and to the right of the cells you want to freeze.

ii. Go to the **WINDOW** group on the **VIEW** ribbon and click on the **FREEZE PANES** button

iii. Make a selection

If you only want the freeze for rows, select the cell in column A below the rows you want to freeze. If you only want the freeze for columns, select the cell in row 1 to the right of the columns you want to freeze.
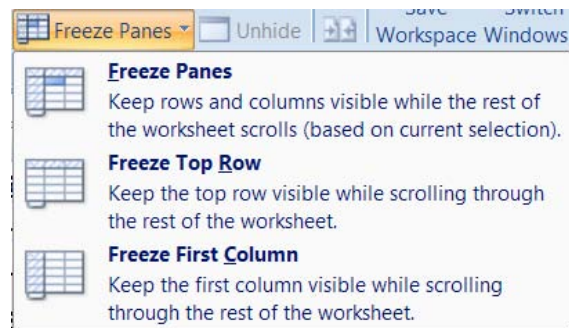
> ➢ **To unfreeze panes:**

Mouse

i.   Go to the **WINDOW** group on the **VIEW** ribbon and click on the **FREEZE PANES** button

ii. Select Unfreeze panes
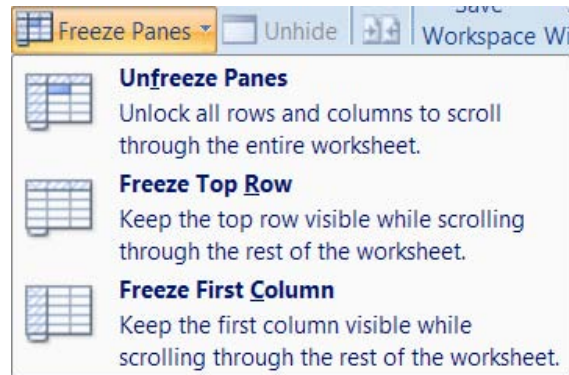
Zoom

You can adjust the scale of the on-screen display with the Zoom command. Excel allows you to specify any percentage between 1 and 100 for viewing on-screen data. If there is a particular range that you need to make visible on one screen without scrolling, you can use the Fit selection option.

➢ To zoom screen display:

<u>Mouse</u>

i. In the bottom right hand corner of the screen click on the **PLUS** or **MINUS** buttons to zoom in or out of your spreadsheet

OR

i. Click on the **PERCENTAGE** button on the bottom right hand corner of your screen and a dialog box will open.

EITHER

i. Choose a **PERCENTAGE** from the dialog box

ii. Click **OK** to apply the zoom and close the dialog.

OR

i. Highlight the **PERCENTAGE** figure currently displaying in the **CUSTOM** Zoom text box and type the figure you want to use.

ii. Click **OK** to apply the zoom and close the dialog.
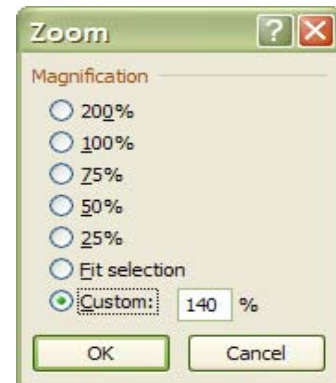
SECTION 11 SORTING & SUBTOTALLING DATA

LISTS

Excel's tabular layout makes it an ideal tool to use for managing lists of data. There are many commands that you can use to manipulate list data, which are described in this section, however, before discussing those, it is worth reviewing the best way to lay out a list in Excel.

Do

MAKE THE FIRST ROW OF YOUR LIST THE COLUMN HEADINGS THAT DESCRIBE THE DATA.

Do Not

USE AMBIGUOUS WORDS AS COLUMN HEADINGS (E.G. SUM, SUBTOTAL) AS EXCEL MAY CONFUSE THEM WITH FUNCTIONS OR NAMES THAT YOU HAVE DEFINED.

USE PUNCTUATION IN COLUMN HEADINGS.

LEAVE A GAP BETWEEN THE COLUMN HEADINGS AND THE FIRST ROW OF DATA.

LEAVE BLANK ROWS BETWEEN LIST DATA.

SORTING LIST DATA

Where you have lists with lots of columns and rows, you may need to sort by more than one column. For example the list of orders below has been sorted by customer, within the customer grouping, you may want to sort by Product and then by Salesperson.

Quick Sort

> ➤ **To use a quick sort**

Sort tools on the **DATA** ribbon

Mouse

i.   Click in the column you wish to sort by

II.   **DO NOT HIGHLIGHT ANY DATA**

iii.   Go to the **DATA** ribbon and the **SORT & FILTER** group.
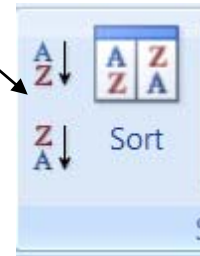
iv.   Click on the **QUICK SORT** buttons ascending   or descending

v.   Data should now be sorted
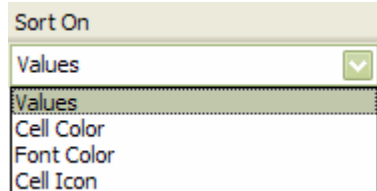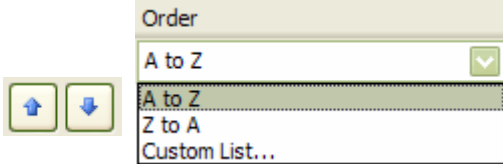
Multi Level Sort

 ➢ **To sort using the Sort dialog:**

Mouse

i. Click in the middle of the list you want to sort.

ii. Go to the **DATA** ribbon and the **SORT & FILTER** group. And click on the **SORT** button

iii. Excel recognises the column headings from your list and allows you to pick them from drop-down list boxes in the dialog.

iv. Choose the column you wish to sort by from the drop down box in the column section

v. If you have various formats on your cells you can sort on more than just the value click on drop down arrow to see further options

vi. Set **ASCENDING** or **DESCENDING** order for the sort by clicking the relevant option.

vii. Click on **ADD LEVEL**, level will be added to the main area

viii. Repeat previous procedure to add more levels of sort

ix. If you wish to change the order of sort. Select the level you wish to change and click on the movement arrows to move level up or down

x. To remove a level select it and click on the delete level button it will be removed

xi. Click **OK** to perform the sort.

SUBTOTALS

Excel can automatically add subtotals to a list of data. Your subtotals can sum numeric data or find highest and lowest values and averages. You can also count the number of rows in a group.

Organising The List For Subtotals

When you issue the subtotals command, Excel will need to know where to add the subtotals in. In the example below, if you wanted to see subtotals for the revenue generated per product, you would first need to sort the list into Product order. Similarly, if you wanted to see how much each salesperson had sold; you would sort the list by Salesperson before adding the subtotals in.

Date	Price	Product	Quantity	Customer	Salesperson	Total
01/01/97	1.75	Gimlet	25	Barkers	Tom	43.75
03/01/97	1.50	Widget	25	Barkers	Eleanor	37.5
05/01/97	1.50	Widget	55	Barkers	Carol	82.5
07/01/97	1.75	Gimlet	25	Barkers	David	43.75
13/01/97	1.75	Gimlet	50	Barkers	Tom	87.5
17/01/97	5.00	Ratchet	20	Barkers	Carol	100
19/01/97	0.40	Wing Nut	225	Barkers	Eleanor	90
26/03/97	5.00	Ratchet	65	Barkers	Caroline	325
03/04/97	4.75	Sprocket	20	Barkers	Caroline	95
07/04/97	5.00	Ratchet	70	Barkers	David	350
13/04/97	4.75	Sprocket	10	Barkers	Tom	47.5
23/04/97	5.00	Ratchet	40	Barkers	Sharon	200
25/04/97	4.75	Sprocket	30	Barkers	Elliott	142.5
29/04/97	1.75	Gimlet	25	Barkers	Elliott	43.75
11/01/97	1.75	Gimlet	70	Dingles	Eleanor	122.5
29/01/97	5.00	Ratchet	55	Dingles	Eleanor	275

➢ **To add subtotals to a list:**

Mouse

i. Once you have sorted the list, choose **SUBTOTALS** from the **OUTLINE** group on the **DATA** ribbon. The following dialog box will appear:

ii. Click the drop-down list arrow to the right of the 'at each change in' box to display your column headings. Pick the heading according to which column you have used to group the data.

iii. Click the drop-down list arrow to the right of the Use function box to display a list of functions you can use to summarise data in your list. Click the function that you want.

iv. Use the scroll arrows in the Add subtotal to list to set which columns you want to add the subtotals to. Check the box next to the column to subtotal. You can add subtotals to more than one column.

v. Set options for the new subtotals using the check boxes at the bottom of the dialog.

vi. If you want each subtotalled group on a separate page, check Page Break between groups.

vii. Summary below detail adds subtotals and an overall total **BELOW** the groups of data rather than above.
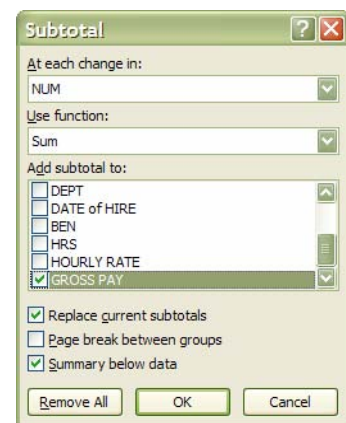
viii.   Replace current subtotals ensures that the new subtotals overwrite any existing ones.

ix.   Click **OK** to apply the subtotals.

Example:

➢ **To insert the subtotals shown above:-**

i.   Sort the list by **PRODUCT**. Choose **DATA** ribbon, **SUBTOTALS**.

ii.   At each change in **PRODUCT**, Use function **SUM**, Add subtotal to **TOTAL**

Summarising A Subtotalled List

Once you have added subtotals to a list, Excel gives you tools for collapsing the list so that you only see the grand total or subtotals. The outline symbols that appear to the left of the row numbers allow you to hide and   show   detail   rows   as   needed.

➢ **To hide detail for a group:**

<u>Mouse</u>

i. Click the minus symbol that appears to the left of the row number where the grand/subtotal sits. All bracketed rows will be hidden.

Outline symbol

	2	13/01/97	1.75	Gimlet	50	Barkers	Tom	87.5
	3	01/01/97	1.75	Gimlet	25	Barkers	Tom	43.75
	4	07/01/97	1.75	Gimlet	25	Barkers	David	43.75
	5	08/03/97	1.75	Gimlet	75	House of Fraser	Carol	131.25
	6	27/01/97	1.75	Gimlet	25	House of Fraser	Caroline	43.75
	7	28/03/97	1.75	Gimlet	15	House of Fraser	David	26.25
–	8			**Gimlet Total**				376.25
+	14			**Ratchet Total**				1000

You can see where the hidden rows are because the outline symbol displays a plus sign.

➢ **To show detail for a group:**

<u>Mouse</u>

i. Click the plus symbol that appears to the left of the row number where the grand total/subtotal sits. All hidden rows will reappear.

Show And Hide By Level

`1` `2` `3`

When you add subtotals to a list, Excel gives you an overall total and subtotals per groups of sorted data. In the outline, Excel numbers these levels 1 for the grand total, 2 for the subtotals and 3 for the detail.

The numbers appear above the outline symbols and can be used to collapse and expand the rows by level.

➢ **To show only an overall total:**

Mouse

i.   Click the button marked **1** above the outline symbols. To show only totals:

	A	B	C	D	E	F	G
1	Date	Price	Product	Quantity	Customer	Salesperson	Total
38			Grand Total				4519.8

Mouse

i.   Click the button marked **2** above the outline symbols.

	A	B	C	D	E	F	G
1	Date	Price	Product	Quantity	Customer	Salesperson	Total
8			Gimlet Total				376.25
14			Ratchet Total				1000
21			Sprocket Total				1757.5
30			Widget Total				1110
37			Wing Nut Total				276
38			Grand Total				4519.8

➢ **To show all:**

Mouse

i.   Click the button marked **3** above the outline symbols.

	A	B	C	D	E	F	G
1	Date	Price	Product	Quantity	Customer	Salesperson	Total
2	13/01/97	1.75	Gimlet	50	Barkers	Tom	87.5
3	01/01/97	1.75	Gimlet	25	Barkers	Tom	43.75
4	07/01/97	1.75	Gimlet	25	Barkers	David	43.75
5	08/03/97	1.75	Gimlet	75	House of Fraser	Carol	131.25
6	27/01/97	1.75	Gimlet	25	House of Fraser	Caroline	43.75
7	28/03/97	1.75	Gimlet	15	House of Fraser	David	26.25
8			Gimlet Total				376.25
9	07/04/97	5.00	Ratchet	70	Barkers	David	350
10	14/03/97	5.00	Ratchet	60	Dingles	David	300
11	20/02/97	5.00	Ratchet	35	House of Fraser	Eleanor	175
12	17/04/97	5.00	Ratchet	25	House of Fraser	Elliott	125
13	20/03/97	5.00	Ratchet	10	House of Fraser	Eleanor	50
14			Ratchet Total				1000
15	25/04/97	4.75	Sprocket	30	Barkers	Elliott	142.5

Remove Subtotals

If you want to remove subtotals from a list, you can use the Remove subtotals command.

➢ **To remove subtotals:**

<u>Mouse</u>

i. Click in the list with the subtotals

ii. Choose subtotals from the Data ribbon. From the resulting dialog box, click the **REMOVE ALL** button. Any totals and outlines will disappear.
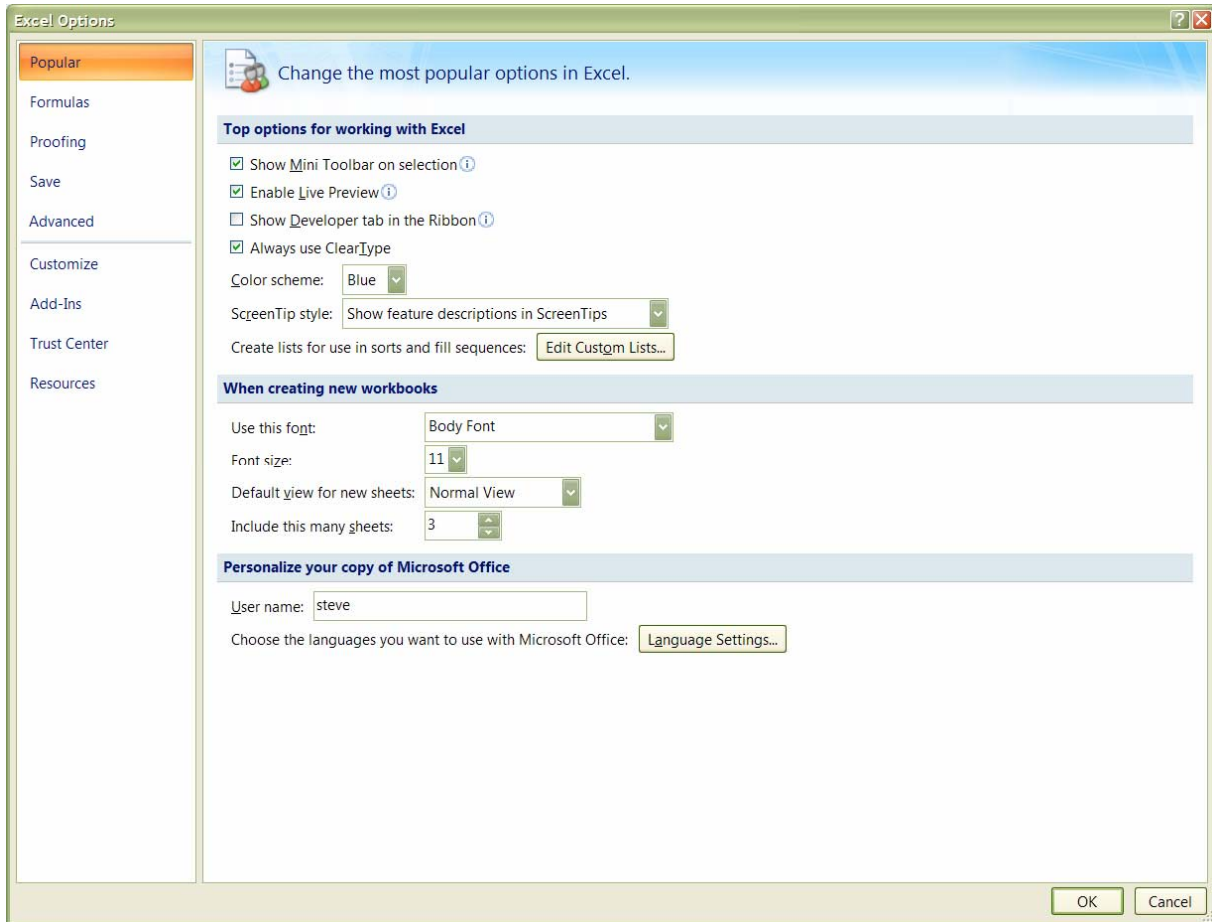
SECTION 12 CUSTOMISING EXCEL

SET EXCEL OPTIONS

OPTIONS ARE SET VERY DIFFERENTLY IN EXCEL 2007

Click the **MICROSOFT OFFICE BUTTON,** Click the **EXCEL OPTIONS** button to open the dialog box above

Popular

This sheet allows you to turn off the mini toolbar that appears whenever you right click on a cell or range plus other basic options

You may put in a different username which by default is the logon for windows

Clicking the language settings button allows the setting of the default language not just for excel but for all the office programmes

You may change the deault number of sheets from three to whatever you wish the limitations of excel will be in the next chapter

Editing custom lists for various usages such as drag fill, series and sorting can be done from this sheet

You may even change the colour scheme for excel windows (not dialog boxes)

Formulas Sheet

This sheet allows the setting of options that changes the way excel will calculate your sheets and workbook

Proofing

It is here on the Proofing sheet that the spell-check and grammar options are set for excel.

It also has the options for the autoformatting and autocorrection of entered text

Save

SAVE is an important sheet since excel 2007 saves in a completely different file format this sheet gives global options on what **FILETYPE** to save the file as and where to save files by default.This sheet also has the **AUTORECOVER** options for where and how your files will be **AUTOSAVED** should windows crash. This saves your work regularly and automatically and should recover work should the worst happen.

Resources

This sheet is useful to get updates for office (you do need to be online) and to run the office diagnostics if you encounter errors with the way office works (you will need your original installation disc)

ADVANCED OPTIONS

These are all the options on the advanced sheet there are to many to go into but should be useful for reference
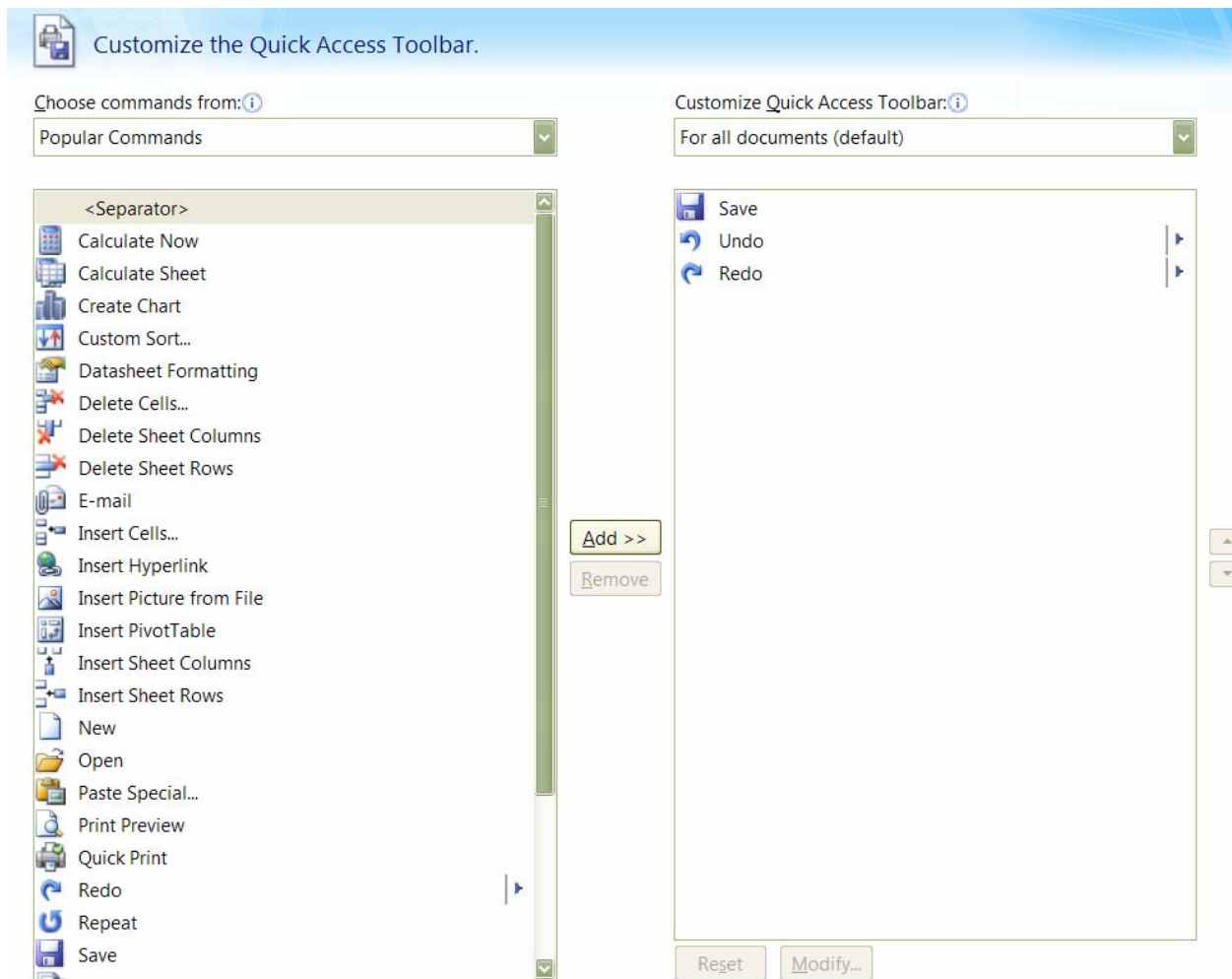
Customise Quick Access Toolbar

This is the location where you are able to customise the quick access toolbar (above the **OFFICE BUTTON**) and add your most often used buttons to it.

➢ **To customise quick access toolbar**

i.   From the drop down arrow on the top left on the box you may choose which group of commands you may wish to see.

ii. Select the buttons on the left and click on the add button in the middle to move them to the toolbar.

iii. If you make a mistake then select the button on the right and click remove.

iv. Once all the buttons you want are on the right hand side click ok to finalise your choices and apply them.

v.   You may click on rest at any time to return to the default quick access toolbar

EXCEL 2007 SPECIFICATIONS AND LIMITS

➢ Worksheet and workbook specifications and limits

Feature	Maximum limit
Open workbooks	Limited by available memory and system resources
Worksheet size	1,048,576 rows by 16,384 columns
Column width	255 characters
Row height	409 points
Page breaks	1,026 horizontal and vertical
Total number of characters that a cell can contain	32,767 characters
Characters in a header or footer	255
Sheets in a workbook	Limited by available memory (default is 3 sheets)
Colours in a workbook	16 million colours (32 bit with full access to 24 bit colour spectrum)
Named views (view: A set of display and print settings that you can name and apply to a workbook. You can create more than one view of the same workbook without saving separate copies of the workbook.) in a workbook	Limited by available memory
Unique cell formats/cell styles	64,000
Fill styles	32
Line weight and styles	16
Unique font types	1,024 global fonts available for use; 512 per workbook
Number formats in a workbook	Between 200 and 250, depending on the language version of Excel that you have installed
Names in a workbook	Limited by available memory
Windows in a workbook	Limited by available memory
Panes in a window	4
Linked sheets	Limited by available memory
Scenarios (scenario: A named set of input values that you can substitute in a worksheet model.)	Limited by available memory; a summary report shows only the first 251 scenarios
Changing cells in a scenario	32
Adjustable cells in Solver	200
Custom functions	Limited by available memory
Zoom range	10 percent to 400 percent
Reports	Limited by available memory
Sort references	64 in a single sort; unlimited when using sequential sorts
Undo levels	100
Fields in a data form	32
Workbook parameters	255 parameters per workbook
Filter drop-down lists	10,000

➢ Calculation specifications and limits

Feature	Maximum limit
Number precision	15 digits
Largest number allowed to be typed into a cell	9.99999999999999E307
Largest allowed positive number	1.79769313486231E308
Smallest allowed negative number	-2.2251E-308
Smallest allowed positive number	2.229E-308

Largest allowed negative number	-1E-307
Length of formula contents	8,192 characters
Internal length of formula	16,384 bytes
Iterations	32,767
Worksheet arrays	Limited by available memory
Selected ranges	2,048
Arguments in a function	255
Nested levels of functions	64
User defined function categories	255
Number of available worksheet functions	341
Size of the operand stack	1,024
Cross-worksheet dependency	64,000 worksheets that can refer to other sheets
Cross-worksheet array formula dependency	Limited by available memory
Area dependency	Limited by available memory
Area dependency per worksheet	Limited by available memory
Dependency on a single cell	4 billion formulas that can depend on a single cell
Linked cell content length from closed workbooks	32,767
Earliest date allowed for calculation	January 1, 1900 (January 1, 1904, if 1904 date system is used)
Latest date allowed for calculation	December 31, 9999
Largest amount of time that can be entered	9999:59:59

➢ Charting specifications and limits

Feature	Maximum limit
Charts linked to a worksheet	Limited by available memory
Worksheets referred to by a chart	255
Data series(Related data points that are plotted in a chart. Each data series in a chart has a unique colour or pattern and is represented in the chart legend. You can plot one or more data series in a chart. Pie charts have only one data series.) in one chart	255
Data points (Individual values that are plotted in a chart. Related data points make up a data series. Data points are represented by bars, columns, lines, slices, dots, and other shapes. These shapes are called data markers.) in a data series for 2-D charts	32,000
Data points in a data series for 3-D charts	4,000
Data points for all data series in one chart	256,000

➢ PivotTable and PivotChart report specifications and limits

Feature	Maximum limit
PivotTable reports (An interactive, cross tabulated Excel report that summarizes and analyzes data, such as database records, from various sources, including ones that are external to Excel.) on a sheet	Limited by available memory
Unique items per field	1,048,576
Row (A field that's assigned a row orientation in a PivotTable report. Items associated with a row field are displayed as row labels.) or column fields(A field that's assigned a column orientation in a PivotTable report. Items associated with a column field are displayed as column labels.) in a PivotTable report	Limited by available memory
Report filters in a PivotTable report	256 (may be limited by available memory)
Value fields in a PivotTable report	256
Calculated item (An item within a PivotTable field or PivotChart field that uses a	Limited by available memory

formula you create. Calculated items can perform calculations by using the contents of other items within the same field of the PivotTable report or PivotChart report.) formulas in a PivotTable report	
Report filters in a PivotChart report(A chart that provides interactive analysis of data, like a PivotTable report. You can change views of data, see different levels of detail or reorganize the chart layout by dragging fields and by showing or hiding items in fields.)	256 (may be limited by available memory)
Value fields in a PivotChart report	256
Calculated item formulas in a PivotChart report	Limited by available memory
Length of the MDX name for a PivotTable item	32,767
Length for a relational PivotTable string	32,767

➢ Shared workbook specifications and limits

Feature	Maximum limit
Users who can open and share a shared workbook (shared workbook: A workbook set up to allow multiple users on a network to view and make changes at the same time. Each user who saves the workbook sees the changes made by other users.) at the same time	256
Personal views (view: A set of display and print settings that you can name and apply to a workbook. You can create more than one view of the same workbook without saving separate copies of the workbook.) in a shared workbook	Limited by available memory
Days that change history (In a shared workbook, information that is maintained about changes made in past editing sessions. The information includes the name of the person who made each change, when the change was made, and what data was changed.) is maintained	32,767 (default is 30 days)
Workbooks that can be merged at one time	Limited by available memory
Cells that can be highlighted in a shared workbook	32,767
Colours used to identify changes made by different users when change highlighting is turned on	32 (each user is identified by a separate colour; changes made by the current user are highlighted with navy blue)