

EXCEL 2003 - MEDIUM

A SELECTIVE OVERVIEW - SCOTT HASTINGS



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MICROSOFT EXCEL 2003

- () Brackets
- ^ Exponents
- / Division
- * Multiplication
- + Addition
- Subtraction

A1
Reference to Cell A1. Column A, Row 1

A1, D6
Indicates Cells A1 and D6 only

A1:D6
Indicates the range of cells from A1 through D6. Ranges are indicated through a colon since the dash/hyphen is the subtract symbol.


A series of number signs indicates that there is not enough width in the column to properly display the data. Correct this by increasing the width of the column.



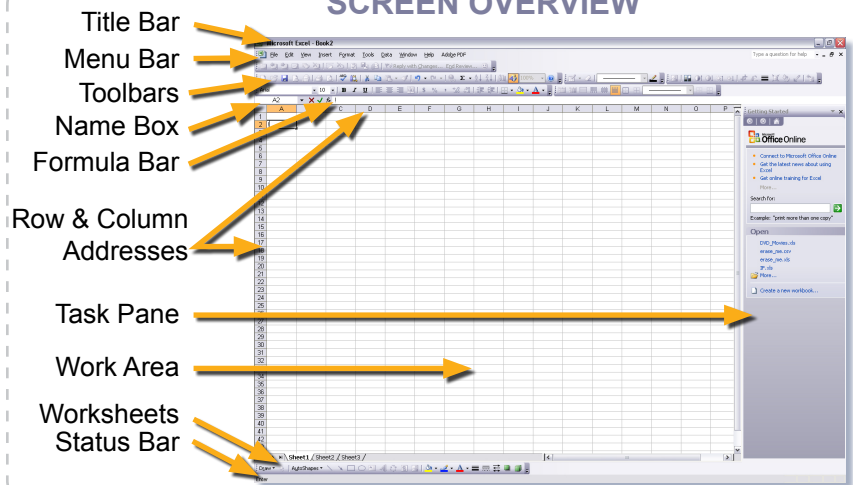
FORMAT PAINTER

Quickly Copy Formatting Attributes

Copy attributes (like alignment, font and style) from a selected cell and Paint it onto other cells.

1. Select the cell with the desired formatting.
2. On the Standard toolbar, click the  Format Painter button.
3. Select the cells you want to apply the formatting to. The cells take on the new formatting as if the brush painted it on.
4. To use the Format Painter once, click the button once. For multiple uses, Double click it!
5. When finished, press ESC to stop applying formatting, or click the Format Painter button again.

SCREEN OVERVIEW



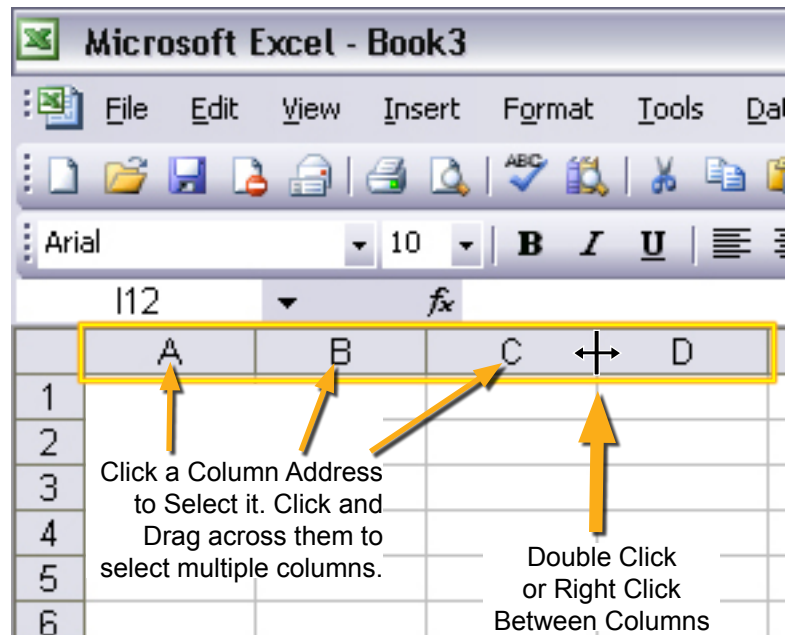
Double click between Column Addresses to Automatically adjust the width of a Column to the largest entry within that column, or Click and Drag to manually set the width.

Select Multiple Columns by Clicking and dragging across the Column Addresses

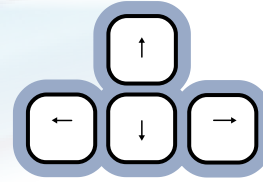
Double Click between any columns when multiple columns are selected to Auto-Adjust all selected columns. Manually adjusting any one column within a selection of multiple columns will adjust all selected columns to the same width.

Right Click on Column Headings for Formatting, Deleting, Inserting or modifying Columns.

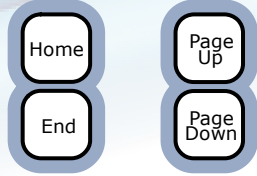
The same rules apply to the rows.



KEYBOARD SHORTCUTS:



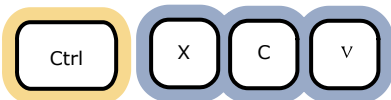
NAVIGATION



Press	To get	Add CTRL to increase effectiveness
Arrows	Move 1 Cell	Skip groups of filled/unfilled cells
Home	Move to Beginning of a Row	Move to Top Left of Worksheet
End	Not applicable	Move to End of Active Area
Pg Up	Scroll 1 screen up	View Next Worksheet
Pg Down	Scroll 1 screen down	View Previous Worksheet
Wheel	Scroll Up & Down	Zoom in/out of Document

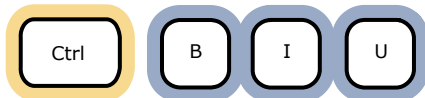
EDITING

CTRL + X	Cut
CTRL + C	Copy
CTRL + V	Paste
CTRL + Drag	Quick Copy



FORMATTING

CTRL + 1	Format Cell(s)
CTRL + B	Bold
CTRL + I	Italic
CTRL + U	Underline



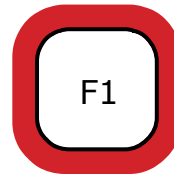
EXCEL SPECIFIC

CTRL + 1	Format Cell
CTRL + *	Select Table
CTRL + ~	Show Formulas
F11	Create Chart
CTRL + Space	Select Column
SHIFT + Space	Select Row

MODIFIER KEYS:



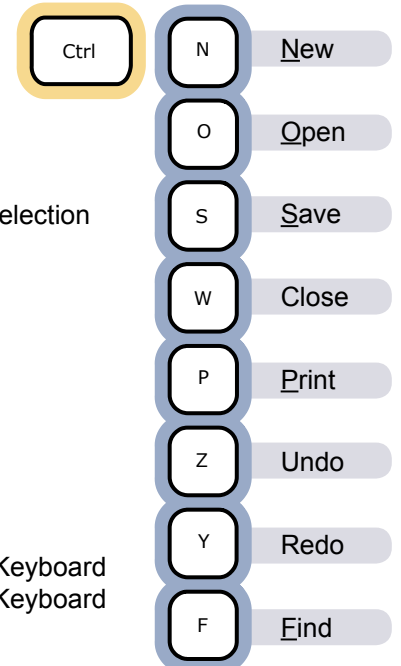
These Keys, individually or together, combined with other keys or mouse actions are the fundamental system behind keyboard shortcuts.



Type the keywords: "Keyboard Shortcuts" in Word's Help Menu to look up additional shortcuts. Press the F1 key to quickly access the Help Menu.

FUNDAMENTALS

F1	Help
F7	Spell Check Selection
ESC	Cancel
ENTER	OK or Down
CTRL + N	New
CTRL + O	Open
CTRL + S	Save
CTRL + W	Close
CTRL + P	Print
CTRL + Z	Undo
CTRL + Y	Redo
CTRL + F	Find
SHIFT + F10	Right Click w/Keyboard
Right Click Key	Right Click w/Keyboard



EXCEL (MED.)

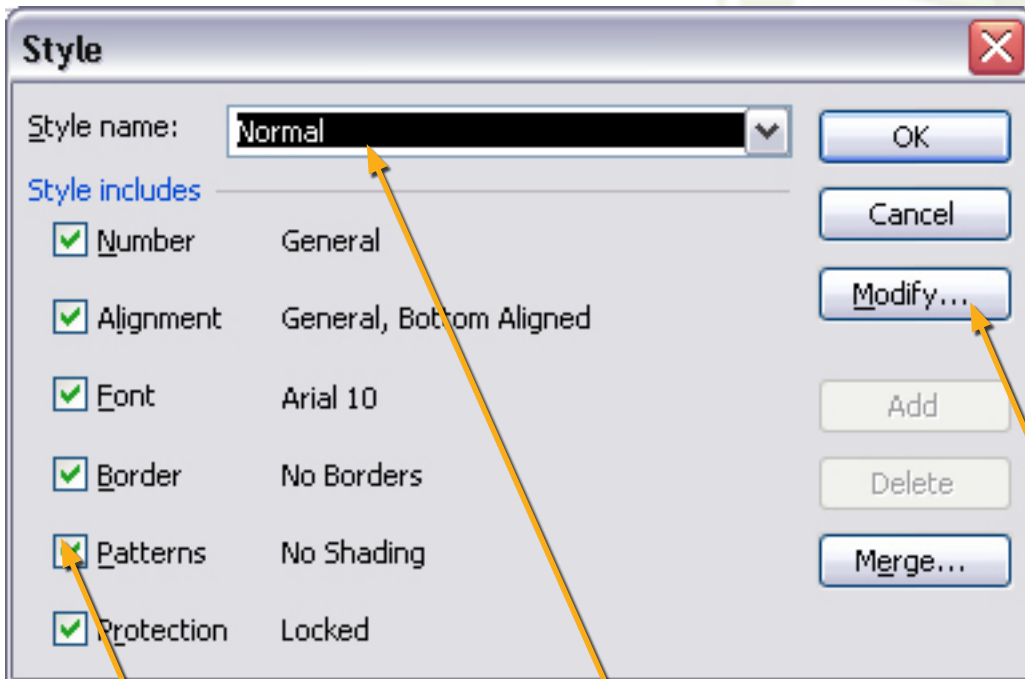
Customizing the work area

CREATING AND USING STYLES

Styles allow for greater ease in applying multiple formatting changes at once, as well as a system to quickly update all instances of the applied style simultaneously.

For example, once a Style is applied to Totals, any changes made to a Totals Style will automatically update all Totals throughout the document.

Format > Style...



APPLY A STYLE

Opens the Style Dialogue Box, Select a Style from the Dropdown list and Click OK to apply to any selected cells.

See Customizing Toolbars to learn how to add a Styles Dropdown to a Toolbar for fast access to Styles.

EDIT A STYLE:

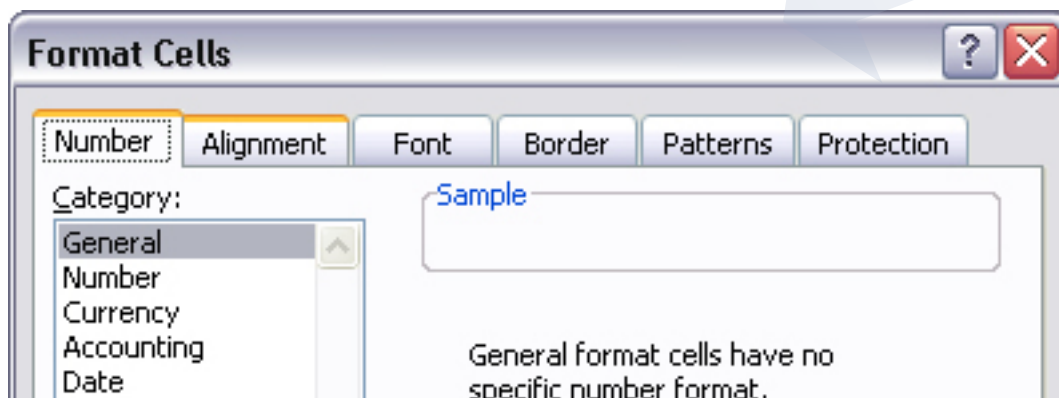
Choose the Style from the Dropdown to be edited and click on the Modify Button. Excel's Standard Format Cell dialogue Box opens.

CREATE A NEW STYLE:

Type a unique name into the Drop Down area and click Add.

Note that only the checked categories will be included in the Style. Any area not checked will not be affected when this Style is applied.

For Example: If one is creating a Style that dictates that the number is Currency, but doesn't affect the colour, size or alignment of the text, then one could check the Number Checkbox and not Alignment, Font, Border, Patterns, or Protection.



Using templates

Saving templates can save much time and energy if similar documents are being created on a regular occasion. In essence a Template is not very different from a regular file, except that it has been created to be an advanced starting point, with certain layout and formatting already provided.

For Example: A document in Excel may be set up with formulas ready to calculate data, print areas defined and headers and footers set up. All a user has to do is add the data and the document is finished!

File > Save as...

To create a Template simply choose Template (*.xlt) from the Save as Type dropdown menu in the Save as... window.

Templates will default to save in Microsoft Office's Template folder and often make accessing Templates much easier.

These templates would be lost if Windows was re-installed, and it may be a good idea to backup the Templates in a second location like a Network Drive or on CD. The Microsoft Templates folder can be found at:

C:\Documents and Settings\UserName\
Application Data\Microsoft\Templates

File > New...

ACCESS THE TEMPLATES VIA THE NEW WORKBOOK TASK PANE

To start a document from a template, open the New Workbook Task Pane by choosing New under the File menu.

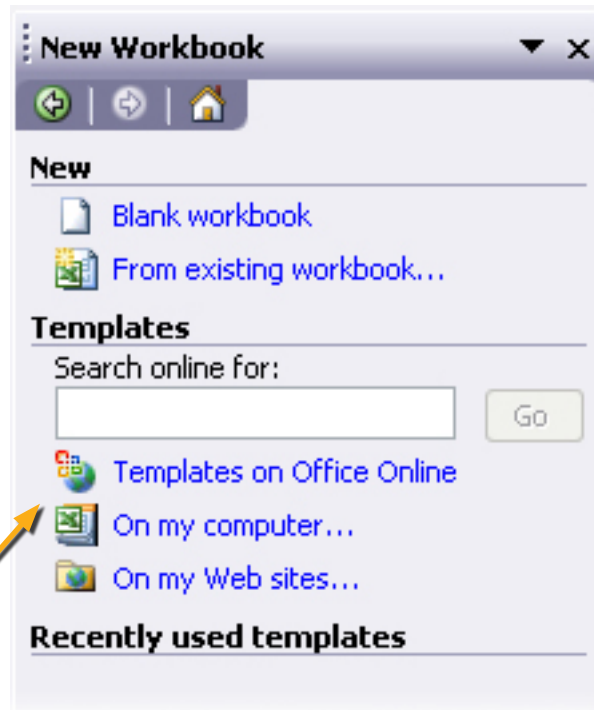
From the Title Area Dropdown choose New Workbook (click the Black Triangle at the top right of the Task Pane) this is especially useful if the Task Pane is already open. If closed, one can access the Task Pane via the View menu and choosing Task Pane (CTRL +F1).

In the New Workbook Task Pane choose from Templates Online or on the Computer to browse for Templates.

TITLE					
	Monday	Tuesday	Wednesday	Thursday	Friday
Staff 1					
Staff 2					
Staff 3					
Staff 4					
Staff 5					
	\$ -	\$ -	\$ -	\$ -	\$ -

If a table is being re-used on a regular basis it may be useful to delete the data and replace specific headers with generic ones (where applicable) and save as a template. That way the document is primed and ready and all the user need do is fill it out.

Open Taskpane:



CUSTOM TOOLBARS

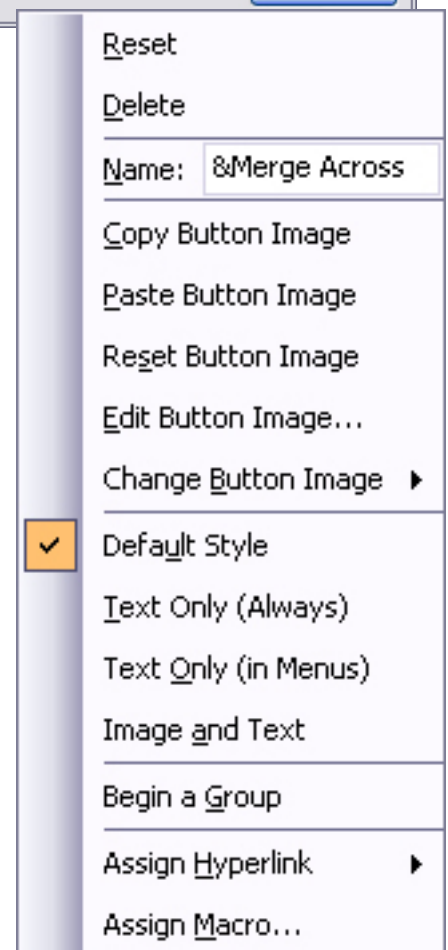
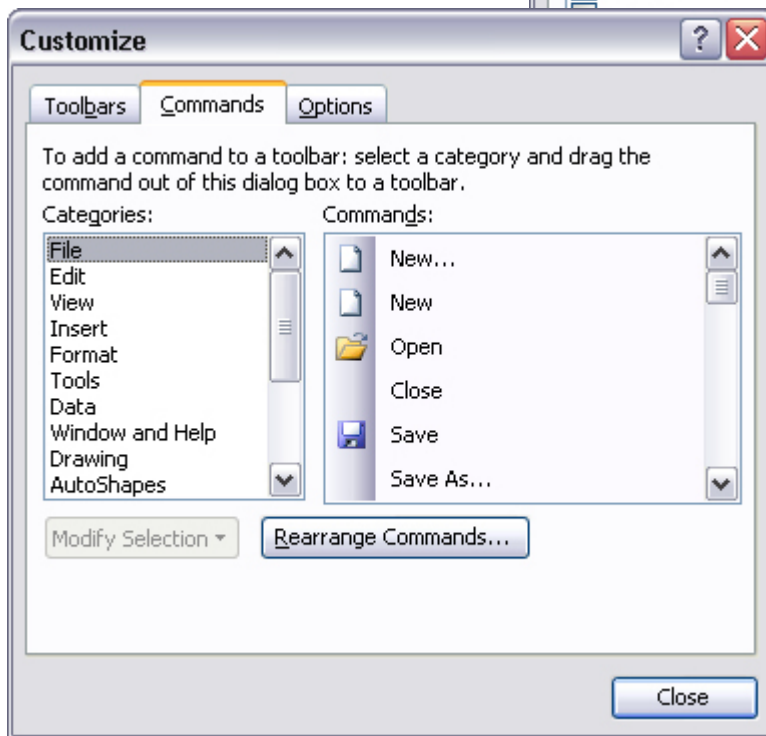
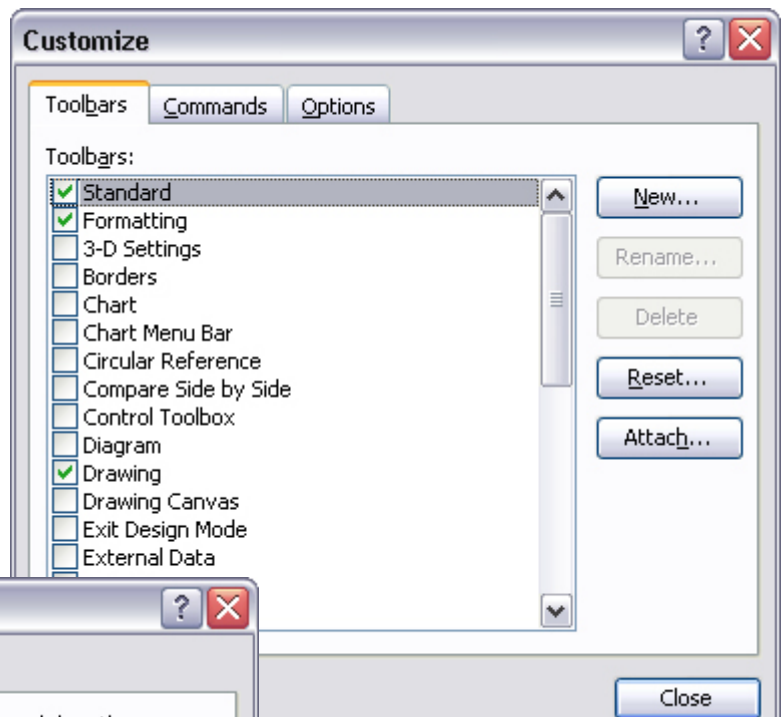
View > Toolbars > Customize...

Opens the Customize Dialogue Box

Tools > Customize...

Adding Custom Toolbars can greatly increase workflow and frustration by reducing the amount of clicking needed to access commonly used functions. This helps prevent repetitive stress syndrome by minimizing the amount of clicking necessary.

Create New Toolbars to add commands to Under the Toolbars Tab if desired, or alter existing Toolbars using the Commands Tab in the Customize Window.



To add Commands locate the desired Tab in the List of Commands, use the Categories & Command areas to find the desired Command and then Click and Drag it from the Dialogue box onto the destination Toolbar.

Drag to alter it's position and Right click on the Command in the Toolbar for various Options like it's appearance or name.

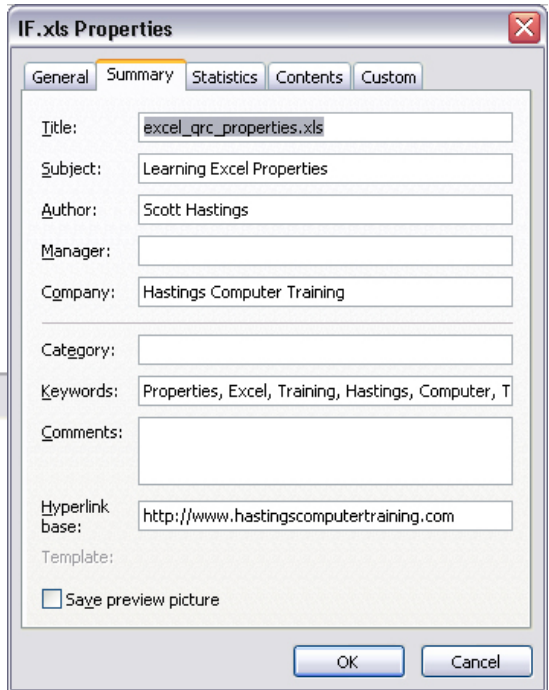
To remove a command, drag it out of the Toolbar so an X appears in front of the Cursor and let go of the mouse button while the Customize window is open. The tool button are always available to be re-added to any Toolbar in the Commands Tab of the Customize Dialogue Box.

Working with Multiple Worksheets

WORKBOOKS

File > Properties

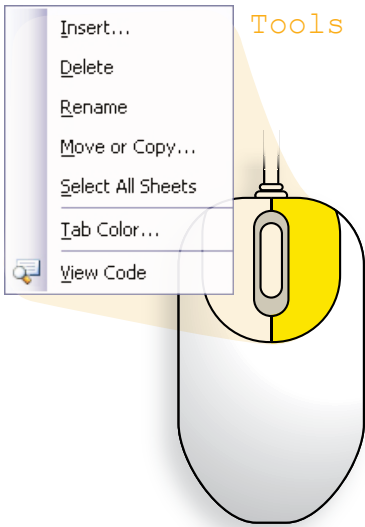
Workbooks are Excel's Standard Default Documents. Each Workbook contains its own Properties that can be altered through File > Properties. By adding information like Author, Subjects, and Keywords to the document it becomes easier to find using search features.



WORKSHEETS

Workbooks default with 3 worksheets, which act like pages in a book. The default number of Sheets in New Workbook can be altered in the

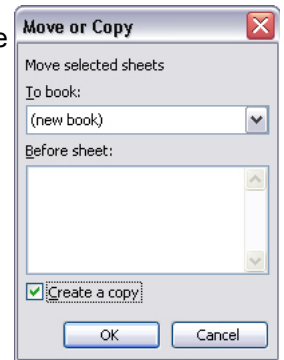
Tools > Options > General



The best way to alter Worksheets is to Right Click on their Tabs to see all of the various commands that may be applied to them. Otherwise the commands are scattered throughout the Edit, Insert, and Format Menus.

Worksheets can be moved by using the Edit > Move or Copy Sheet... command or by Clicking and Dragging them in the main Window. To Copy a Worksheet Click and Drag while holding down CTRL.

Worksheets can be quickly copied to new workbooks through the Right Click Menu > Move or Copy... command. Under To Book: choose (new book) and make sure Create a Copy has been checked.



LINKING CELLS IN DIFFERENT WORKBOOKS & WORKSHEETS

Excel Formulas and function can calculate or access data from any worksheet or workbook of an accessible Excel file (The file is best located on a local or network hard drive). The referencing system looks like this:

= [workbook.xls] Sheet1! \$A\$1



A dollar sign before a Row or Column address dictates that that reference is Absolute. Cells referenced this way are always referred to at that location even if the formula is copied to another cell. This is different from the standard Relative References that will change relatively if a formula is copied.



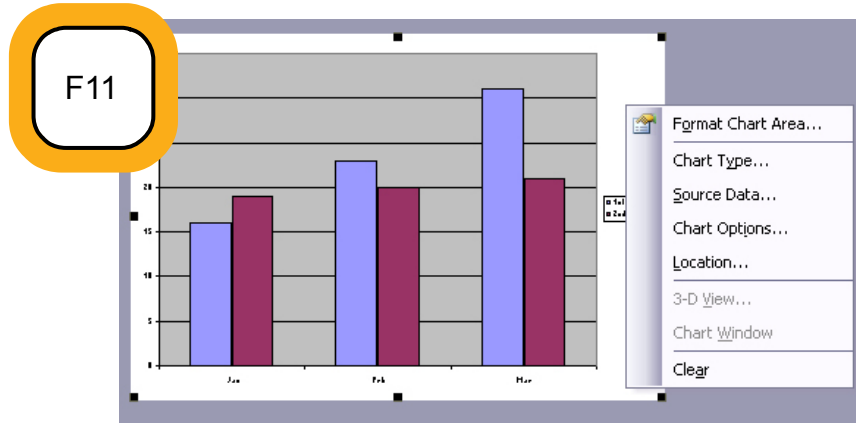
A simpler way to reference cells in other workbooks is to open all Workbooks involved, and then start writing the formula as one normally would. When the formula is ready to have the reference added, switch to the to desired workbook (click on the Workbook in the Windows Taskbar or use CTRL + Tab to toggle to it), locate the worksheet and click on the desired cell. This will add the cells reference from another book to the formula but the operation isn't complete yet. Next, either add another operator, comma, or bracket to the formula to return to work on the formula or Press Enter (or click the Green Check in the Formula Bar) to finish writing the formula.

Creating and Modifying Charts

CREATE A CHART

To create a chart begin by adding the data to a Worksheet in Excel. Select the Data to be added to the Chart and press F11 on the Keyboard. This will automatically create the chart and is now ready to be edited.

	A	B	C	D
1	1st Quarter Bi-Monthly Attendance			
2		Jan	Feb	Mar
3	1st Session	16	23	31
4	2nd Session	19	20	21
5				



FORMAT CHART ITEMS

Right Click in an unused area of the Chart (above the Legend) to access a drop down menu allowing changes to the Chart Type, Source Data, and Chart Options. Right Click on various parts of the Chart to modify them.

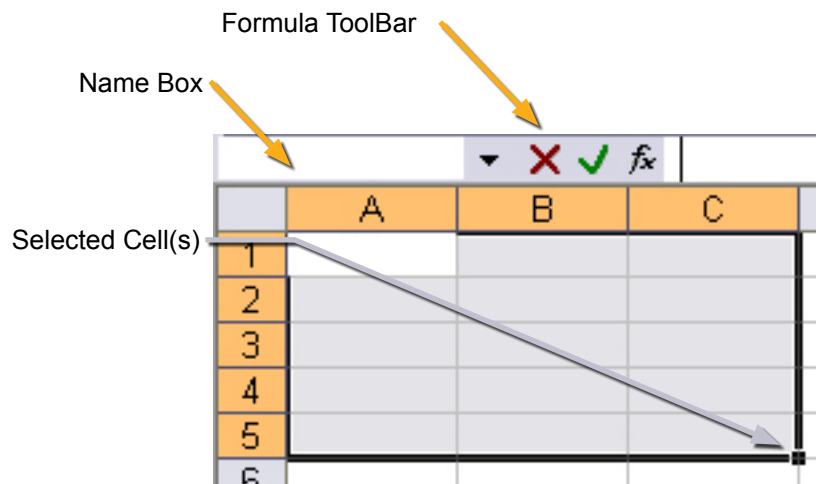
For instance, Right Click on a Scale Axis to alter the Scale, Tick Marks and Font or Right Click the Walls to change the grey backgrounds of the Chart.

Calculating with Formulas

CREATE AND APPLY A NAME FOR A RANGE OF CELLS

Insert > Name > Define

By defining cells or ranges of cells with names you can then easily refer to them using their names rather than coordinates. Names are absolute references by default, meaning they can be referenced from any formula or copy of a formula and will always refer to the same cell. They can also be referenced from any sheet within a workbook. Using the Name box dropdown one can also navigate quickly to any named range or cell.



1. Select a Cell or Range of Cells to be named. Cells must be adjacent.
2. In the Name box type in the new name for the Cell or Range
3. Press ENTER to have Excel add the Defined Name.
4. To edit, check or delete a Name go to Insert > Name > Define

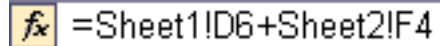
fx =SUM(cell_name)

- The first character of a name must be a letter, an underscore character (_), or a backslash (\). Remaining characters in the name can be letters, numbers, periods, 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 periods may be used as word separators — for example, Sales_Tax or First.Quarter.
- A name can contain up to 255 characters.
- If a name defined for a range contains more than 253 characters, you cannot select it from the Name box.
- 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.

CALCULATE ACROSS WORKSHEETS

Formulas that calculate within a workbook spanning multiple sheets are called 3D formulas.



Create a formula and when ready to have the reference from another sheet (or workbook) added, switch to the to desired worksheet (Click the Sheet Tab or use CTRL + Pg Up/Dn to Navigate the Sheets), and click on the desired cell, this will add the cells reference from another sheet using something like 'Sheet Name!' to the formula.

Single quotes are needed for Sheet names that contain Spaces only, and an Exclamation Point is always added to indicate that it is a Worksheet.

To continue adding to the formula add another operator to the formula or Press ENTER (or click the Green Check in the Formula Bar) to finish writing the formula.

ABOUT DATE AND TIME FUNCTIONS

An interesting note regarding Time and Date functions in Excel is how it references each day and time using a serial number or a fraction thereof to indicate hours in a day.

Excel considers January 1, 1900 to be the serial number 1

And that my birthday this year was on the 39178 day since January 1, 1900.



This means that 1.5 is 12 o'clock noon on Jan. 1, 1900

This also means I'm usually up around .27 in the morning.

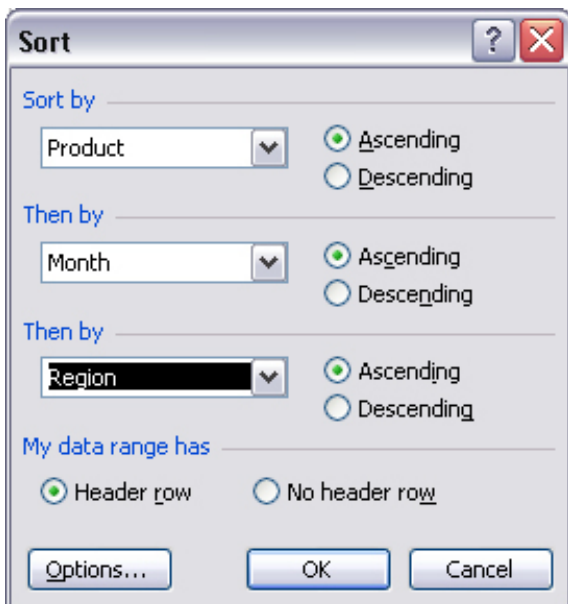
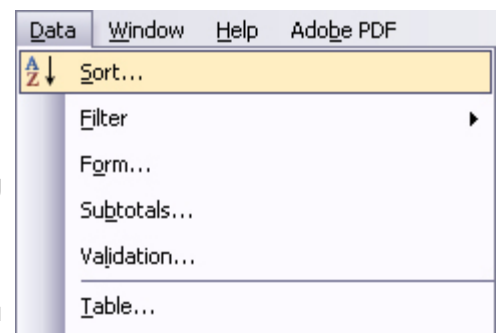
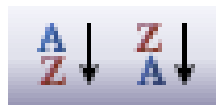
Fortunately by Formatting a Cell to a Time or Date amount makes is easy to enter and understand using standard methods like 10/10/2007 or October 10, 2007. Select a Row, Column or Cell to format and from the Format menu choose Cell (CTRL +1).

Sorting and Filtering Data

SORT DATA LISTS

Data > Sort

Select ONE Cell within the column to sort the data by.



Sort ascending or descending alphabetically using the Sort button on the toolbar or Sort up to 3 Criteria using the Sort option in the Data Menu

Click the A/Z Button on the Standard Toolbar to sort the surrounding table by that column only. To Sort a Specific Range of Cells within a table without Sorting the entire table, Select the Specific Range of Cells to be Sorted and Click the A/Z Button, Excel will ask if this was intended, Click Continue with Current Selection to arrange only the selected cells.

If there was a need to sort by rows, Copy the Table, choose the destination for the data and choose Paste Special in the Edit Menu. In the Paste Special Menu Check Transpose to swap the columns for the rows.



FILTER DATA LISTS

Data > Filter > Auto Filter

Excel's Auto-Filter System makes it simple to view just the data you need by temporarily hiding the data you don't.

Select a Cell in the table to be filtered and choose Filter > Auto Filter in the Tools Menu. Drop Down Arrows will appear at the top of each column as the Column Heading.

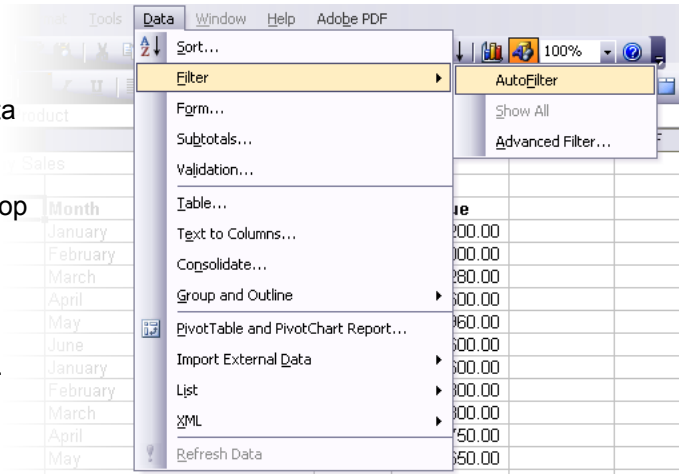
Choose an entry from the drop down menus to filter all other entries in that column out.

Data can be edited, formatted, sorted and copied while filtered.

Reset the filters by clicking Data > Filter > Show All.

Remove the filters by un-checking Data > Filter > Auto Filter.

All the data will show when the Filter is turned off.



Filter Drop Down Button Columns being filtered are indicated with a blue triangle Filter Drop Down Menu

3	Product	Month	Region	Revenue
4	Brazilian Coffee	January		\$ 43,200.00
10	Brazilian Coffee	January		\$ 39,600.00
16	Brazilian Coffee	January		\$ 39,600.00
22	Brazilian Coffee	January		\$ 41,280.00
28	Turkish Coffee	January		\$ 35,000.00
34	Turkish Coffee	January		\$ 22,100.00
40	Turkish Coffee	January		\$ 26,200.00
46	Turkish Coffee	January		\$ 23,400.00
52	French Coffee	January	North	\$ 50,700.00

Row Addresses turn blue when filters are in effect

ADD SUBTOTALS TO A WORKSHEET

Data > Subtotal

Quickly Subtotal every change within a column with the Subtotals Feature in the Data Menu.

It's a good idea to Sort the Data in the column to be used as a reference for where the Subtotals are being calculated. For example, if creating subtotals for each Department of a business, Sort the Dept. column to collect all departmental info together before using the Subtotal feature.

SUBTOTAL

Place the cursor within a table to be subtotaled and click Subtotal... in the Data Menu.

At each Change in: Choose the column that was sorted to indicate to Excel the column to base the Subtotals on (Department in the above example)

Use Function: Pick the Function to occur (SUM, COUNT)

Check the columns to have the Subtotal Command applied.

Choose Page Breaks or Grand Totals (Summary Below Data) if desired and click OK

The Subtotal feature also auto-groups the subtotals allowing the document to collapse showing only the Total, Subtotals, or all of the data.

3	Product	Region	Revenue
4	Brazilian Coffee	North	\$ 43,200.00
5	Brazilian Coffee	North	\$ 45,000.00
6	Brazilian		
7	Brazilian		
8	Brazilian		
9	Brazilian		
10	Brazilian		
11	Brazilian		
12	Brazilian		
13	Brazilian		
14	Brazilian		
15	Brazilian		
16	Brazilian		
17	Brazilian		
18	Brazilian		
19	Brazilian		
20	Brazilian		
21	Brazilian		
22	Brazilian		
23	Brazilian		

Subtotal

At each change in:
Product

Use function:
Sum

Add subtotal to:
 Product
 Region
 Revenue

Replace current subtotals
 Page break between groups
 Summary below data

Remove All OK Cancel

	A	B	C
1	Volcano Coffee Company Sales		
2			
3	Product	Region	Revenue
28	Brazilian Coffee Total		\$ 1,001,740.00
53	French Coffee Total		\$ 1,175,800.00
78	Turkish Coffee Total		\$ 652,500.00
79	Grand Total		\$ 2,830,040.00
80			

Please send any questions or comments to Scott Hastings

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