Microsoft®

Excel 2007

Quick Reference Guide
Foundation Level

Nazareth COLLEGE

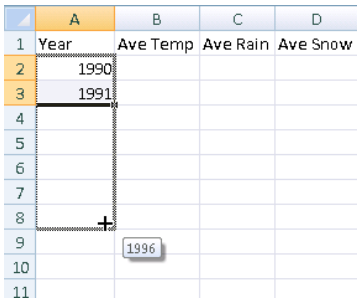
Keyboard Shortcuts

Alt + Page Down	Move right one screen
Alt + Page Up	Move left one screen
Ctrl + 0 (zero)	Hide Columns
Ctrl + Shift +)	Show hidden Columns
Ctrl + 1	Launch **Format cells** dialog box
Ctrl + 9	Hide rows
Ctrl + Shift + (	Show hidden rows
Ctrl + A	Select all (entire block of data)
Ctrl + C	Copy selected cells
Ctrl + Up Arrow	Move to the top of column data
Ctrl + Down Arrow	Move to the bottom of column data
Ctrl + End	Move to the bottom right cell in the used area of a worksheet
Ctrl + F	Find
Ctrl + H	Replace
Ctrl + G	Show Go To dialog box
Ctrl + Home	Move to the top left cell of a worksheet
Ctrl + Left Arrow	Move to the beginning of row data
Ctrl + Right Arrow	Move to the end of row data
Ctrl + N	New workbook
Ctrl + O	Open an existing workbook
Ctrl + P	Print
Ctrl + Shift + $	Apply Currency formating
Ctrl + Shift + %	Apply Percent formating
Ctrl + Shift + 8	Select a range
Ctrl + V	Paste
Ctrl + W	Close workbook
Ctrl + X	Cut
Ctrl + Z	Undo
Ctrl + ;	Enter the current date
Ctrl +S	Save existing workbook
F1	Help
F11	Create a chart
F12	Save as
F4 or (Ctrl + F)	Repeat
F7	Spell Check
F9	Recalculate worksheets
Page Down	Move down one screen
Page Up	Move up one screen

Excel Basics

AutoFill

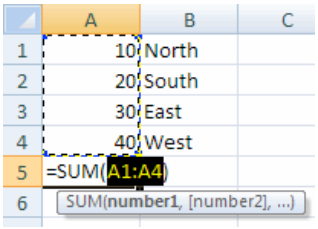
Excel's AutoFill feature can help you enter repeated or incremental text or numbers quickly. If you wanted to fill in the years 1990 to 1996 in a spreadsheet, enter 1990 in one cell and 1991 in the cell directly beneath. Select both cells, move your mouse to the small black box in the lower-right corner of the selection, then click and drag down:



AutoSum

This technique will work for two adjacent data items.

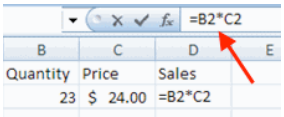
To apply a quick sum to a column of data, make the next empty cell under the column of data the active cell. Click the AutoSum command in the Formulas ribbon. You will see an animated border around the column of data and the formula already entered:



Simply press Enter to apply this formula to display the result (100) in the active cell (A5 in the picture above).

Basic Formulas

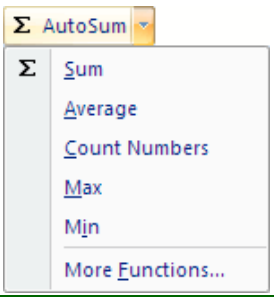
Formulas are mathematical expressions that operate on cell contents. When cells contain numerical data, you can add, subtract, multiply, and divide the cell contents as your worksheet requires. Formulas can contain cell references (like A1) or raw numbers (like 23) or even functions (like Sum (B2:B9)).



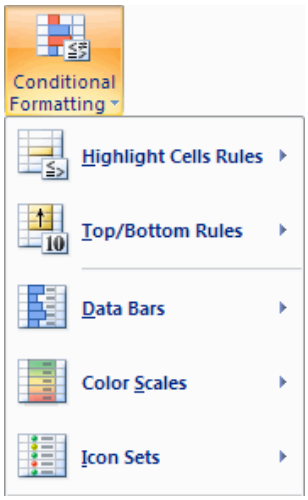
Frequently Used Functions

Click the AutoSum button in the Formulas ribbon to see frequently used functions:

Sum	Compute the sum of a group of numbers
Average	Compute the average of a group of numbers
Count Numbers	Find the total number of objects in a group
Max	Find the largest value
Min	Find the smallest value



Conditional Formatting



To help make the data easier to read, you can apply different conditional formatting options to a block of data. For example, you can get a quick idea of how sales are going in each division by applying a conditional format – all profit areas will be in black and all loss areas will be in red. The more black you see at a glance, the better the overall report will be!

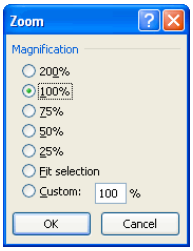
Highlight some data and then click the Conditional formatting command in the Home ribbon:

Highlight Cells Rules	This will highlight cells that are greater than, less than, between or equal to values that you can specify.
Top/Bottom Rules	This option will allow you to highlight the top or bottom numbers or percent in the selected cells.
Data Bars	Will display colored bars that are indicative of the value in the cell. The higher the value compared to the rest of the data in the group, the 'taller' the data bar.
Color Scales	Will use different shades of color to represent different values, from low to high.
Icon Sets	Will use sets of similar icons that will visually indicate a cell's value.

Zoom Slider

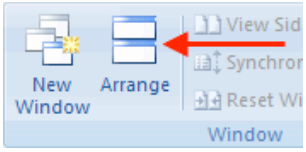
Use Excel's Zoom feature to change the viewing scale of a work sheet. By default, a workbook opens at 100% zoom. To adjust this, use the zoom slider switch. You can drag the slider with your mouse toward the negative (-) sign to decrease the zoom level, or toward the (+) sign to increase the zoom level:

You can also left click on the current zoom amount (100% in the preceding image) to display preset magnification options, or to enter your own custom level of magnification:



Managing Multiple Windows

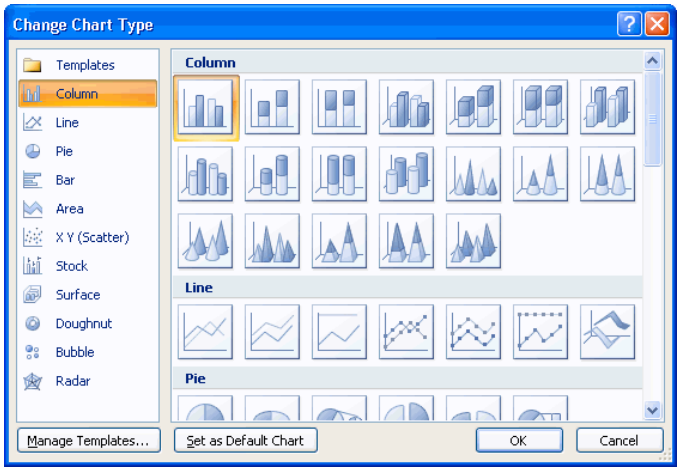
If you find yourself working with many workbooks at once, you can easily arrange how the windows will be displayed on your screen. Click the Arrange all command in the View ribbon.



Tiled	Workbooks will be arranged adjacently over the screen area (like tiles).
Horizontal	Workbook windows will be arranged lengthways (like long strips) across the screen.
Vertical	Workbooks will be arranged lengthways up and down your screen, rather than across.
Cascade	Workbooks will be layered one in front of the other, with the title bar of each workbook visible.

Changing Your Chart Type

To change the chart type, highlight your chart, click the Design ribbon, and then click the **Change Chart Type** command. Select your type/style from the dialogue box:



Excel File Extensions

Nearly every file on your computer ends in a three or four letter file extension. These suffixes indicate what type of file is being used. The following table summarizes some of the file types associated with Excel 2007.

xlsx	File extension for an Excel 2007 workbook file (earlier Excel versions used an xls extension.)
xlsm	Extension for a macro enabled workbook.
xltx	Extension for an Excel 2007 Template File (earlier Excel versions used xlt.)
xltm	Extension for a macro enabled Excel 2007 template file.
xlsb	Extension for an Excel 2007 binary workbook.
xlam	Extension for an Excel 2007 add-in. (An Add-in is a small program that adds extra features or functionality to the base Excel 2007 program.

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Quick Reference Guide Intermediate Level

Functions

Financial Functions

- **DB** finds the depreciation of an asset based on the fixed declining balance method
- **DDB** finds the depreciation of an asset using the double declining balance method
- **FV** calculates a future value based on constant payments and constant interest rate
- **IPMT** finds the interest payment based on constant payments and constant interest rate
- **ISPMT** finds the interest paid on an investment over a specific period
- **NPER** finds the number of periods for an investment based on constant interest and payments
- **NPV** calculates the net present value of an investment
- **PMT** calculates loan payments based on a constant interest rate
- **PPMT** calculates the payment on the principle for an investment based on constant payments and interest rate
- **PV** gives the present value of an investment
- **RATE** finds the interest rate per period on a loan or investment

Date and Time Functions

- **DAY** returns the number of the day from 1 to 31
- **DAYS360** calculates the number of days between two dates based on 360 day years
- **HOUR** gives the hour as a number from 0 to 23
- **MINUTE** gives the minute as a number from 0 to 59
- **MONTH** gives the month as a number from 1 to 12
- **NOW** gives the current date and time
- **SECOND** gives the second as a number from 0 to 59
- **TIME** converts hours minutes and seconds to an Excel serial number time
- **TODAY** provides the current date
- **WEEKDAY** gives the day as a number from 1 to seven
- **YEAR** gives the year of a serial number date, from 1900 to 9999

Mathematical and trigonometric functions

- **ABS** Gives the absolute value of a number
- **ACOS** calculates the arc cosine of a number in radians
- **ASIN** calculates the arc sin
- **ATAN** calculates the arc tangent of a number in radians
- **CEILING** rounds a number up to the nearest integer
- **COMBIN** calculates the number of possible combinations
- **COS** calculates the cosine of a given angle
- **EVEN** rounds a number up to the nearest even integer
- **EXP** raises the mathematical constant **e** to a given power
- **FACT** calculates the factorial of a number
- **FLOOR** rounds a number down to the nearest significant number
- **INT** rounds a number down to the nearest integer
- **LN** finds the log to the base e of a given number
- **LOG** finds the log to any given base for a given number

Lookup and Reference Functions

- **COLUMN** finds the column number for a reference
- **COLUMNS** tells you the number of columns in a given range
- **HLOOKUP** finds a specified value in the top row of a range, and from the same column, returns a value from a specified row
- **HYPERLINK** creates a hyperlink to a document stored locally, on your network, or the internet
- **INDIRECT** returns the value associated with a given text reference.
- **LOOKUP** looks up a specified value in a one row or one column range of data
- **ROW** finds the row number for a given reference
- **ROWS t**ells you the number of rows in a given range
- **VLOOKUP** finds a specified value in the far left column of a table and returns from the same row, a value from a column you specify

Database Functions

- **DAVERAGE** averages values in a column according to conditions you specify
- **DCOUNT** count cells that contain numbers matching conditions you specify
- **DGET** gets a record from an Excel database matching conditions that you specify
- **DMAX** gets the largest number from a column in your Excel database where the number satisfies conditions you specify
- **DMIN** retrieves the smallest number that meets your conditions from a column in the database
- **DSUM** sums numbers in a database that satisfy conditions you specify

Text Functions

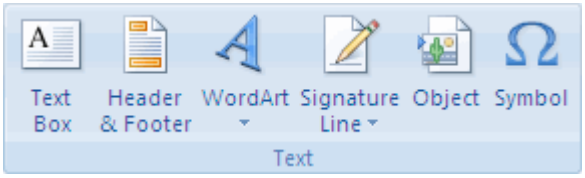
- **CLEAN** removes all characters that cannot be printed from the text
- **CONCATINATE** joins together strings of text into one larger string
- **DOLLAR** converts a number to currency formatted text
- **EXACT** will test two text strings to see if they are exactly the same
- **FIND** will find the starting location of a string of characters within a larger string
- **LEFT** returns a specified number of characters from the start (left) of a string
- **LEN** gives the number of characters in a text string
- **LOWER** converts any uppercase letters in a string to lowercase
- **REPLACE** will replace a part of a string with another string
- **RIGHT** will give you the specified number of characters from the end or right of a string
- **T** tests if a cell value is text or not
- **TEXT** converts a value to number formatted text
- **TRIM** removes all extra spaces from a text string (spaces between words will stay)
- **UPPER** converts a text string to uppercase

Logical Functions

- **AND** will return the logical value true if all of the arguments you specify are true, and will return a logical value of false otherwise
- **FALSE** will return the logical value false
- **IF** will test if a condition that you set is true, and return a specified value if it is, and another specified value if it isn't
- **NOT** will change logical values from true to false or false to true (**not** true is false, and **not** false is true)
- **OR** will return a logical value of true if any of the arguments are true and a value of false if both all arguments are false
- **TRUE** returns the logical value of true

Enhancing your Workbook

Use the Text section of the Insert Ribbon to add visual and functional enhancements to your workbook.



Text Box	Text boxes are more versatile than simply typing and formatting text in a cell.
Header/Footer	Add a company logo or contact information in a header or footer.
WordArt	Add attractive titles and attention-getting references.
Signature Line	Add a signature line to use if a hard copy will be given to someone for approval.
Object	Embed some object like a PDF or PowerPoint to a spreadsheet.
Symbol	Choose from many different symbols: currency, mathematical, Cyrillic, Greek, Basic Latin, superscripts and subscripts, and many more.

Using the Total Row

The Total Row is a special Excel component that can automatically calculate certain things in a table for you without having to manually enter formulas:

620	-229	-21
750	-460	-65
880	-691	-109
Total		-26

None	Nothing displayed.
Average	Average of numerical values in the column.
Count	Number of items in the column.
Max	Maximum value in the column.
Min	Minimum value in the column.
Sum	Sum of numerical data in the column.
StdDev	Standard deviation for numerical data in the column.
Var	Variance of numerical data in the column.

Fixing Formula Errors

Excel is capable of using very complex functions. However, something like an incorrect cell reference or missing parenthesis can be hard to trace. Understanding the error will help you track down the problem.

#NAME?	Something in the formula is interpreted as incorrect cell reference, range, or function name.
#REF!	Might have relocated or deleted a cell referenced in a formula.
#VALUE!	Indicates a given formula argument is of incorrect type (such as adding text to a number field).
#DIV/0!	Occurs when a formula divides by 0 or references an empty cell.
#NUM!	Occurs when an incorrect argument type is passed to a function (such as adding text to a number field).
######	Cell contents are too wide to fit in the cell. Double-click the column separator to automatically fix this.

Basic Mathematical Operators

^	**Exponent**	(10^2 = 100)
*	**Multiplication**	(10*2 = 20)
/	**Division**	(10/2 = 5)
+	**Addition**	(10+2 = 12)
-	**Subtraction**	(10-2 = 8)
=	**Equivalence**	(x=8)
>	**Greater than**	(10>2)
<	**Less than**	(2<10)

Examples:

(3+2)*2=10

3+2*2=7

(10+20)/2=10

10+20/2=20

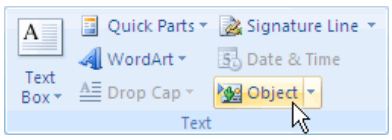
((4+6)*2)^2=400

4+6*2^2=27

Inserting Excel Data into Word

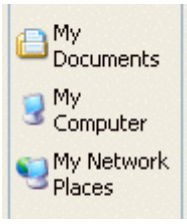
1. In Excel, copy the data you need (can be data, charts, etc)
2. In Word, place your cursor where the data will go.
3. Right-click and click Paste Special or click the Object command on the Insert ribbon..
4. When you see the Paste Special dialog box in Word, click the **Paste** radio button and select **Microsoft Office Excel Worksheet Object**.

   If inserting an Object, decide if you want only a link to the file by clearing the Link to File check box.
5. Click OK.
6. Edit any inserted Excel data by double-clicking the data in the Word document. This will essentially 'open' Excel inside Word and allow you to edit information.



Using the My Places Toolbar

My Recent Documents	A list of recently used, completed, or accessed files.
Desktop	A list of navigable links that can also be found on your desktop.
My Documents:	Provides access to the folders and files in your My Documents folder.
My Computer	Provides access to the disk drives on your computer.
My Network Places	If you are on a network, this button can display the remote locations accessible via your network.



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Quick Reference Guide Advanced Level

Keyboard Shortcuts

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Ctrl + C	Copy selected cells
Ctrl + Down Arrow	Move to the bottom of data in a column
Ctrl + End	Move to the bottom right cell in the used area of a worksheet
Ctrl + F	Find
Ctrl + G	Show **Go To** dialog box
Ctrl + H	Find & Replace
Ctrl + Home	Move to the top left cell of a worksheet
Ctrl + Left Arrow	Move to the beginning of data in a row
Ctrl + Right Arrow	Move to the end of data in a row
Ctrl + N	New workbook
Ctrl + O	Open an existing workbook
Ctrl + P	Print
Ctrl + Shift + $	Currency format
Ctrl + Shift + %	Percent format
Ctrl + Shift + (	Show hidden rows
Ctrl + Shift +)	Show hidden Columns
Ctrl + Shift + 8	Select a range
Ctrl + Up Arrow	Move to the top of data in a column
Ctrl + V	Paste
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Ctrl + X	Cut
Ctrl + Z	Undo
Ctrl + ;	Enter the current date.
Ctrl +S	Save existing workbook
F1	Help
F11	Create a chart
F12	Save as
F4 or (Ctrl + F)	Repeat
F7	Spell Check
F9	Recalculate worksheets
Page Down	Move down one screen
Page Up	Move up one screen

Creating Subtotals

If you have numeric data organized with clear column and row headings, you can use Excel to create automatic subtotals and grand totals for the data.

	A	B	C	D
1	Region	Product	Units sold	Price per unit
2	East	TypeA	23	$ 2,000.00
3	East	TypeB	7	$ 1,500.00
4	East	TypeC	13	$ 2,350.00
5	West	TypeD	12	$ 4,000.00
6	West	TypeC	12	$ 2,350.00

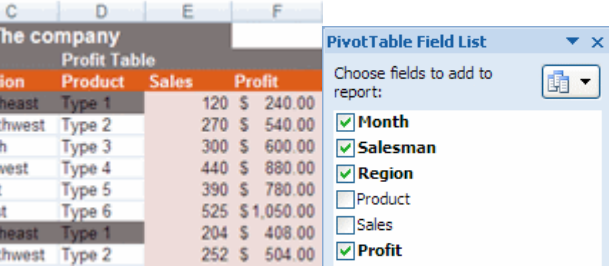
To use Excel's subtotal feature, select the range of data you want to apply subtotals to and click the Subtotal button on the Data Ribbon. Be sure to include the column labels in your selection so Excel will be able to discern what numbers to total.
The drop list under the "At each change in" heading gives you options as to the number of rows that will be totaled. (Totals will be applied every time the values under the chosen column label changes.)
The "Use function" drop list lets you choose from a list of functions including SUM, AVERAGE, COUNT, PRODUCT, and STDEV to apply to your data. The function you choose (normally SUM) will be used to calculate the totals.
If you choose to apply totals to each change in the region column while using the Sum function for the profit column, and with no page breaks, the resulting worksheet will look like this.

	A	B	C	D	E
1	Region	Product	Units sold	Price per unit	Profit
2	East	TypeA	23	$ 2,000.00	$ 46,000.00
3	East	TypeB	7	$ 1,500.00	$ 10,500.00
4	East	TypeC	13	$ 2,350.00	$ 30,550.00
5	East Total				$ 87,050.00
6	West	TypeD	12	$ 4,000.00	$ 48,000.00
7	West	TypeC	12	$ 2,350.00	$ 28,200.00
8	West	TypeA	12	$ 2,000.00	$ 24,000.00
9	West Total				$100,200.00
10	South	TypeE	12	$ 5,450.00	$ 65,400.00
11	South	TypeC	10	$ 2,350.00	$ 23,500.00
12	South	TypeB	8	$ 1,500.00	$ 12,000.00
13	South Total				$100,900.00
14	Grand Total				$288,150.00
15					

Creating a Basic PivotTable

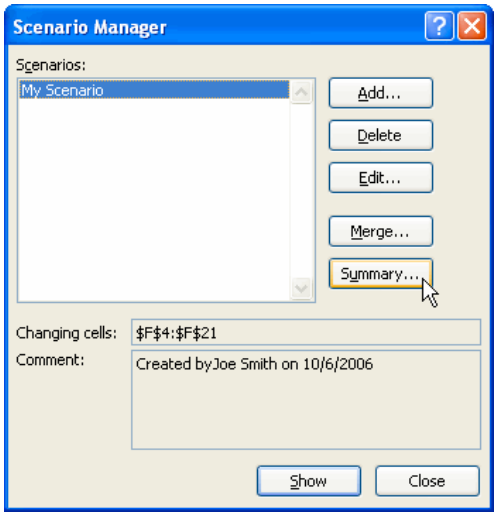
1. Select a range of cells containing column and row headers to use and click the PivotTable command in the Insert Ribbon.
2. Choose where to place the PivotTable, either on a new or existing worksheet.
3. A PivotTable list will appear on the right with the names of fields defined by the row and column headers.
4. Place checkmarks beside the fields you want to use in the PivotTable. Excel automatically sorts the data in a way it feels is best.
5. Right-click the PivotTable and add a check mark to "Classic PivotTable Layout" to enable the ability to physically pivot the table fields in the table.

	A	B	C	D	E	F
1		The company				
2		Profit Table				
3	Month	Salesman	Region	Product	Sales	Profit
4	Month 1	A.Smith	Northeast	Type 1	120	$ 240.00
5	Month 1	J.Adams	Southwest	Type 2	270	$ 540.00
6	Month 1	B.Doe	North	Type 3	300	$ 600.00
7	Month 1	M.Parker	Midwest	Type 4	440	$ 880.00
8	Month 1	A.Smith	East	Type 5	390	$ 780.00
9	Month 1	J.Adams	West	Type 6	525	$ 1,050.00
10	Month 2	A.Smith	Northeast	Type 1	204	$ 408.00
11	Month 2	J.Adams	Southwest	Type 2	252	$ 504.00



Creating a Scenario

Use scenarios to experiment with data in a spreadsheet. To create a scenario in Excel, begin with the worksheet that you want to add scenarios to, and click What If Analysis → Scenario Manager in the Data ribbon. Specify the changing values on your spreadsheet.
Scenario results are available by clicking the Summary button.



Using Goal Seek

Goal Seek is a useful what-if analysis tool. With Goal Seek, Excel will find a value for a specified cell that makes a given worksheet formula equal to a value that you define.

Set a formula to a value (goal) that you would like to attain, and then specify one of the cells that the formula references as a cell that Excel can adjust in order to reach the goal.

In the diagram, Excel has determined that 300 units (B2) need to be sold in order to reach even. Therefore, selling over 300 will result in a profit.

	A	B	
1	Manufacturing Budget		
2	Units sold		300
3	Price per unit	$	5.00
4	Total income	$	1,500.00
5	Cost per unit	$	4.75
6	Overhead	$	75.00
7	Total expenses	$	1,500.00
8	Profit	$	-

All About Hyperlinks

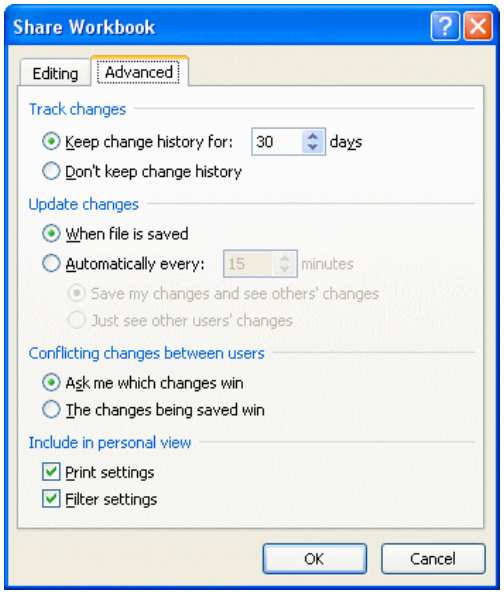
A hyperlink is an item in a file that links to another location in the same file, or to another file altogether. Excel makes use of hyperlinks just like a Web browsing program. Here are some things to remember about hyperlinks:

- A hyperlink is used as a clickable link to another object.
- A URL (Uniform Resource Locator) is associated with a hyperlink to provide information on how to retrieve the linked object.
- You can create hyperlinks to locations within the same file, to local or remote files, to Web pages, to media objects, and to e-mail recipients.
- Hyperlinks can be created in the form of a word, phrase, symbol, picture, or graphic.
- Web pages in the World Wide Web are often linked together with hyperlinks.
- When you retrieve a remote file or object (like a Web page) by clicking a hyperlink, the information is transported to your computer via the hardware infrastructure of the Internet.
- Hyperlinks should link to publicly available files or Web pages. If Sue sends me a workbook with a hyperlink to a file on her computer, I am probably not going to be able to access that file (unless we are on the same network and that file or folder is shared).

To insert a hyperlink in Excel; click the Hyperlink command and enter the URL of the object/location you want to link to. Click the link in the Excel workbook to follow its path.

Share a Workbook with Others

1. Click Share Workbook on the Review Ribbon.
2. Click the checkbox in the Editing tab to allow simultaneous changes to be made by two or more users.
3. Click the Advanced tab for more options.



Using VLOOKUP to Find Data

1. Click an empty cell to make it the active cell.
2. Enter =VLOOKUP(value to match, lookup table name or range, number of the column from left side of table, true/false)
3. The data you are looking for (the value in the third argument), if found, will be displayed in the active cell.

HLOOKUP works in much the same way as VLOOKUP, only data is found in a table in a horizontal manner. The third argument becomes the number of the row from the top of the table.

Saving WorkBook as PDF or XPS

1. Visit http://office.microsoft.com to download the PDF/XPS add-in.
2. Click Office Menu → Save As → PDF or XPS.
3. Save as type PDF (Portable Document Format, small size and good quality) or XPS (XML Paper Specification, easy to use in nearly every Office 2007 suite).
4. To view a PDF, download the free Adobe Acrobat reader from http://www.adobe.com.
5. PDF and XPS files can be easily e-mailed to other users. You can also create a hyperlink in an Excel file to view either type.

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Quick Reference Guide Expert Level

Keyboard Shortcuts

Alt + Page Down	Move right one screen
Alt + Page Up	Move left one screen
Ctrl + 0 (zero)	Hide Columns
Ctrl + 1	Launch **Format cells** dialog box
Ctrl + 9	Hide rows
Ctrl + A	Select all (entire worksheet)
Ctrl + C	Copy selected cells
Ctrl + Down Arrow	Move to the bottom of data in a column
Ctrl + End	Move to the bottom right cell in the used area of a worksheet
Ctrl + F	Find
Ctrl + G	Show **Go To** dialog box
Ctrl + H	Find & Replace
Ctrl + Home	Move to the top left cell of a worksheet
Ctrl + Left Arrow	Move to the beginning of data in a row
Ctrl + Right Arrow	Move to the end of data in a row
Ctrl + N	New workbook
Ctrl + O	Open an existing workbook
Ctrl + P	Print
Ctrl + Shift + $	Currency format
Ctrl + Shift + %	Percent format
Ctrl + Shift + (	Show hidden rows
Ctrl + Shift +)	Show hidden Columns
Ctrl + Shift + 8	Select a range
Ctrl + Up Arrow	Move to the top of data in a column
Ctrl + V	Paste
Ctrl + W	Close workbook
Ctrl + X	Cut
Ctrl + Z	Undo
Ctrl + ;	Enter the current date.
Ctrl +S	Save existing workbook
F1	Help
F11	Create a chart
F12	Save as
F4 or (Ctrl + F)	Repeat
F7	Spell Check
F9	Recalculate worksheets
Page Down	Move down one screen
Page Up	Move up one screen

MOSTL XML Schema for SmartTag Usage

An XML Schema is a set of rules or constructs that defines what makes valid XML in a given context. MOSTL stands for Microsoft Office Smart Tag List, and the MOSTL Schema defines the structure that your XML must adhere to if you want to create a valid MOSTL Smart Tag.

Put another way, Office programs interpret XML for Smart Tags according to the MOSTL schema. If you want your Smart tag to be interpreted correctly by Microsoft Office, you must follow the rules of the MOSTL schema.

```
<ST:smarttaglist xmlns:ST="urn:schemas-microsoft-com:smarttags:list">
  <ST:name> SmartTagname</ST:name>
  <ST:description> Smart Tag description</ST:description>
  <ST:smarttag type="urn:schemas-microsoft-com:smarttags#SmartTagName">
  <ST:caption>Caption</ST:caption>
    <ST:terms>
     <ST:termlist>term1, term2, term3, term4</ST:termlist>
   </ST:terms>
    <ST:actions>
      <ST:action id="id number">
        <ST:caption>option name</ST:caption>
        <ST:url>URL to go to</ST:url>
     </ST:action>
      <ST:action id=" id number ">
        <ST:caption>option name</ST:caption>
        <ST:url>URL to go to</ST:url>
     </ST:action>
      <ST:action id=" id number ">
        <ST:caption>option name</ST:caption>
        <ST:url>URL to go to</ST:url>
     </ST:action>
   </ST:actions>
  </ST:smarttag>
</ST:smarttaglist>
```

Macro Security Settings

For macros in documents not in a trusted location, choose one of the following four options. These options are located in Excel Options → Macro Settings:

Disable all macros without notification	This setting will prevent macros in files that are not in trusted locations from being run. (Trusted locations are normally on your own hard drive or shared folders on your network.) If you select this option, macros that are not in a trusted location will be disabled. Any alert boxes or messages associated with macro security will also be disabled.
Disable all macros with notification	This is Excel 2007's default macro security setting. With this setting, macros in files that are not in trusted locations will be disabled, but you will still see security alerts if a workbook from a non trusted location contains a macro.
Disable all macros except digitally signed macros	This setting is like the first option in that it will disable all macros unless they contain a valid digital signature. Macros can have a digital signature applied to them when a programmer attaches his/her signature as part of the code.
Enable all macros	Excel will enable all macro code no matter what the content or source. This is not a recommended setting because any macro made by a malicious user could be executed and cause you to lose data or otherwise harm your computer.

Form Controls

A form control is a kind of user interface component that can be added to a worksheet. You can add a single control or a group of form controls.

The label control allows you to add a text label to a worksheet.

The button control allows you to add a button to a worksheet. (The button could be assigned to a macro if you wish.)

The check box control allows a user to make selections based on true or false values.

The option (radio) button control can enable a selection from mutually exclusive items.

The list box control can provide options based on a list of worksheet data.

The combo box control can provide options based on worksheet data.

The scroll bar control allows you to scroll through a selection of data.

The spin button control allows you to increase or decrease a numeric value for input.

PMT Financial Formula

The PMT function is a good example of the capabilities of Excel's financial functions. If you have a loan at a constant interest rate and fixed periodic payments, the PMT function will calculate the amount of a single loan payment. Consider a loan of $10,000 with 6% annual interest over 4 years:

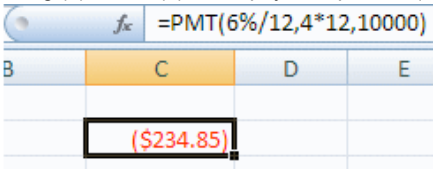
Rate The Rate argument is the interest rate per payment period. This means that if you have a 6% annual interest rate, and your payments will be once a month, the rate will be 6%/12.

Nper The Nper argument is the number of payment periods required for the loan. If you are repaying the loan over 4 years, the Nper argument would be 4*12, for four years of 12 monthly payments.

Pv The Pv argument is the present value of the loan, $10,000.

Fv You can use an Fv argument to specify an amount that is left outstanding after the loan payments are made for all payment periods. (Default is 0.)

Date The Type argument will specify if the payment is made at the beginning (1) or end (0) of the payment period. (Default is 0.)



The monthly payment needs to be $234.85.

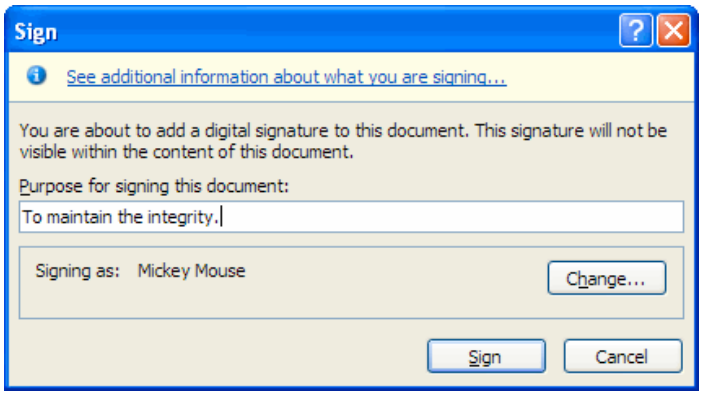
VBA Operators

Operator	Definition	Example
Not	Inverses a logical value	Not True equals False, and Not False equals True
=	Tests for equality	X = Y will evaluate to true if X has the same value as Y
<>	Not equals	X <> Y will evaluate to true if X does not equal Y
<	Less than	X < Y evaluates to true if X is less than Y
>	Greater than	X > Y evaluates to true if X is greater than Y
>=	Greater than equal to	5 >= 5 is true 5 >= 6 is false
<=	Less than or equal to	5 <= 5 is true 5 <= 4 is false

The equality operator (**=**) serves a dual purpose in VBA. It can be used as a logical test for equality, i.e. **If *myValue* = *10* Then *statement***. Or it can be used as an assignment operator as in **myValue = someNumber + 10**, where the variable **myValue** is assigned the value on the right hand side of the equals sign (**someNumber + 10**).

Digitally Signing your Workbook

1. Click Office Menu → Prepare → Add a Digital Signature.
2. Choose to view digital signature providers on the Internet or Click OK to proceed with making your own signature.
3. Click the Create your own digital ID radio button in the Get a Digital ID dialogue box
   Click OK
4. Enter your own information in the dialogue box.
5. After entering your personal info, you will be asked to confirm the purpose of creating the signature.
6. Click Sign to complete the process.



Installing Add-Ins

1. Open Excel Options.
2. Click the Add-In tab on the left side of the screen
3. At the bottom of the Add-In page, select Excel Add-Ins from the Manage combo box.
4. Select the Add-In you want to install by placing a check mark beside it.
5. Click OK to install the Add-In or click the Automation button to set some background properties for this Add-In.

VBA Data Types

String Strings of text data.

Double Large numbers with or without decimal places.

Integer Small to moderately large whole numbers.

Long Large numbers with no decimal places (sometimes referred to as a long integer).

Date Contains a date like an integer holds a whole number.

Variant Will hold any data type.