

Excel Tips & Tricks

Overview: Here are some tips and tricks to use in Excel to make you more productive.

- Worksheet and Workbook Specifications & Limits
- Keystrokes for Navigating a Document
- Keystrokes for Selecting Text
- Additional Keystrokes
- Paste Special Options
- Conditional Formatting
- Using Name Ranges
- Performing Calculations with Dates
- The Power of the IF Statement
- =PMT()
- Using the FormulaWizard for =PMT()

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)
Colors in a workbook	16 million colors (32 bit with full access to 24 bit color spectrum)

Keystrokes for Navigating

TO MOVE TO	KEYSTROKE
ONE CELL TO THE RIGHT	TAB
ONE CELL TO THE LEFT	SHIFT + TAB
CELL A1	CTRL + HOME
FIRST CELL IN CURRENT ROW	HOME
MOVES DOWN ONE WINDOW BY ROWS	PAGE DOWN KEY
MOVES UP ONE WINDOW BY ROWS	PAGE UP KEY
MOVES RIGHT ONE WINDOW BY COLUMNS	ALT + PAGE DOWN
MOVES TO THE NEXT SHEET IN WORKBOOK	CTRL + PAGE UP
GO TO COMMAND	F5 KEY CTRL + G
USING THE END KEY	
MOVES TO THE LAST CELL OF DATA IN THE WORKSHEET	CTRL + END
MOVES TO THE LAST CELL OF DATA IN THE COLUMN	END + ↓
MOVES TO THE LAST COLUMN OF DATA IN THE CURRENT ROW	END + →

Keystrokes for Selecting

Ctrl+ Shift +*	Select current region
Ctrl+A	Select all cells
Ctrl+Home Ctrl+End	Select A1, Select last cell in used range
Ctrl+Shift+End	Select from active cell to last cell in used range.
Ctrl+Shift+Home	Select from active cell to A1
Ctrl+Spacebar Shift+Spacebar	Select columns, Select rows

SELECTING CELLS


There are many different ways to select cells.

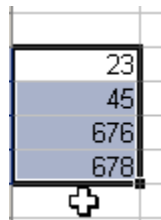
Selecting One Cell

To select one cell, click into it to make it the **Active Cell**. Your active cell is the one with the border around and it is going to be affected by the next set of actions you perform.

Selecting a Group of Adjacent Cells

With the mouse:

- Click the first cell in the group of cells you want to select.
- Place the Selection Face  on top of the Active Cell and hold down the mouse while moving over the area you want to select, then release the mouse as shown below:



With the keyboard:

- Click on the first cell in the group of cells you want to select.
- Then hold down the **SHIFT** key while using your Arrow keys.

Selecting a Group of Non-Adjacent Cells

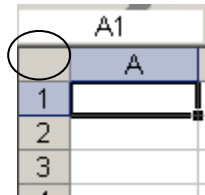
- Click on the cell.
- Hold down the **CTRL** key.
- Continue to click on cells you want to select.

Selecting The Entire Spreadsheet

To select the entire worksheet using the keyboard, press **CTRL + A**.

or

To select the entire worksheet you can use the **Select All Button**. Click on the empty box on the row and column indicators above the Row 1 and next to column A:



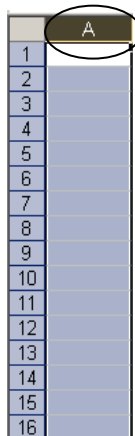
Selecting A Row

To select a row, click on the number box to the left of the row to be selected.



Selecting a Column

To select a column, click on the letter box above the column to be selected.



Additional Keystrokes

Ctrl+; Ctrl+shift+:	Current date, Current time
Ctrl + ~	To view formulas in the spreadsheet. Ctrl + ~ again to toggle back to viewing the results of the formulas.
Ctrl+F3, F3	Define name, Paste name

Paste Special Options

Excel allows you to paste only specific aspects of cell data by using the Paste Special feature. For example, if you want the results of a formula but no longer need the formula itself, you can choose to paste only the value found as a result of the formula. The Paste Special option does not apply to cut data; a cell must be copied in order to take advantage of this feature. A variety of data aspects can be pasted using the Paste Special command as follows:

- Copy the cell or cell range.
- Click into the cell where you want to copy to and from **Home Ribbon - Clipboard** Group, click the down arrow under **Paste** and select **Paste Special**.
- The following dialog box will appear:



All

Pastes all information in the copied cell (formulas, formatting, etc.). This is the default option and it is what happens when you do a “normal” paste. **NOTE:** Any relative cell references within the formula are changed to reflect its new location.

Formulas

Pastes only the formula from the selected cell. Use if you want to copy a bunch of formulas to a new range of cells. You can achieve the same effect by dragging the formula cell to a new range if the new range is adjacent. **NOTE:** Any relative cell references within the formula are changed to reflect its new location.

Values

Pastes only the result of the formula from the selected cell. This strips away existing formatting.

Formats

Pastes only the formatting applied to the cell, without the cell entry (i.e. number formatting, font for text).

Comments

Paste only the notes that you that were made to the cell you copied.

Validation

Pastes only the data validation rules into the cell range that you set up with the Data Validation command.

All except borders

Paste the formatting and contents of the cell, excluding all cell borders.

Column Width

Applies the column widths of the cells copied to the Clipboard to the columns where the cells are pasted.

Formulas and number formats

Pastes the formula from the selected cell and any formatting applied to numbers.

Values and number formats

Pastes the numerical result of the formula from the selected cell, as well as any formatting applied to numbers.

Operation:

None

The values that are being pasted override any data already in the destination cells.

Add

Adds the values that were copied from the data in the destination cells.

Subtract

Subtracts the values that were copied from the data in the destination cells.

Multiply

Multiplies the values that were copied from the data in the destination cells.

Divide

Divides the values that were copied from the data in the destination cells.

Skip blanks

Pastes the contents of all cells except for empty cells. **NOTE:** This option is only useful when pasting a range of cells into an area that already contains information. This will ensure that a blank cell will not be pasted in place of information that is already in place.

Transpose

Causes information that extended down a column to extend across rows and vice versa.

NOTE: If you select more space for the information being pasted into that you have cells to be pasted, the information will be repeated to fill the selected space.

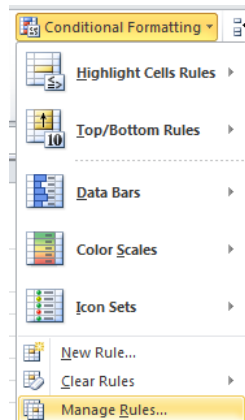
Paste Link button

Establishes a link between the cells you're pasting with the original cells. That way, changes to the original cells automatically update in the pasted cells.

Conditional Formatting

You can conditionally format data to help you visually explore and analyze data, detect critical issues, and identify patterns and trends. In general, the conditional formatting feature has been greatly expanded in Excel 2007. You can: format cells by using a two-color scale, three-color scale, data bars, and icon sets; format cells that contain specific text, number, date or time values, top or bottom ranked values, above or below average, unique, or duplicate values; and create many rules and manage rules more easily.

- From the **Home Ribbon - Styles Group**, select **Conditional Formatting**:



Data Bars

- Select a Data Bar to rate values:

Property ID	Yearly Income	Projected 2003 Income
1	\$40,000.00	\$42,000.00
3	\$45,000.00	\$47,250.00
4	\$50,000.00	\$52,500.00
10	\$75,000.00	\$78,750.00
5	\$7,500.00	\$7,875.00
9	\$11,500.00	\$12,075.00
2	\$400,000.00	\$420,000.00
6	\$105,000.00	\$110,250.00
7	\$116,000.00	\$121,800.00
8	\$97,000.00	\$101,850.00

Color Scales

- Select a Color Scale to show high, medium and low values in different colors:

Property ID	Yearly Income	Projected 2003 Income
1	\$40,000.00	\$42,000.00
3	\$45,000.00	\$47,250.00
4	\$50,000.00	\$52,500.00
10	\$75,000.00	\$78,750.00
5	\$7,500.00	\$7,875.00
9	\$11,500.00	\$12,075.00
2	\$400,000.00	\$420,000.00
6	\$105,000.00	\$110,250.00
7	\$116,000.00	\$121,800.00
8	\$97,000.00	\$101,850.00

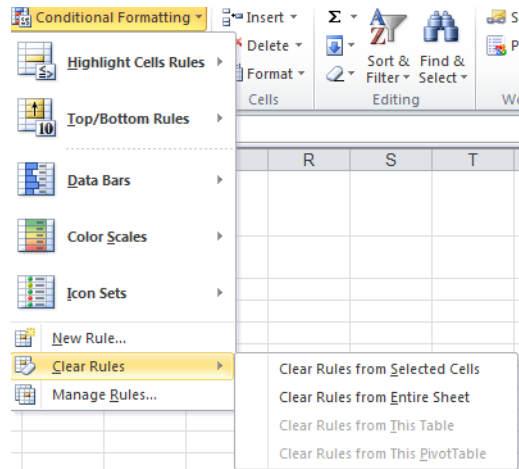
Icon Sets

- Select an icon set to have different icons represent high, medium and low values:

The screenshot shows the Microsoft Excel interface with the Conditional Formatting ribbon selected. The 'Icon Sets' dropdown menu is open, displaying various icon sets. The spreadsheet data is visible in the background, showing the same data as the previous tables. The status bar at the bottom indicates 'Average: \$94,700.00 Count: 10 Sum: \$941'.

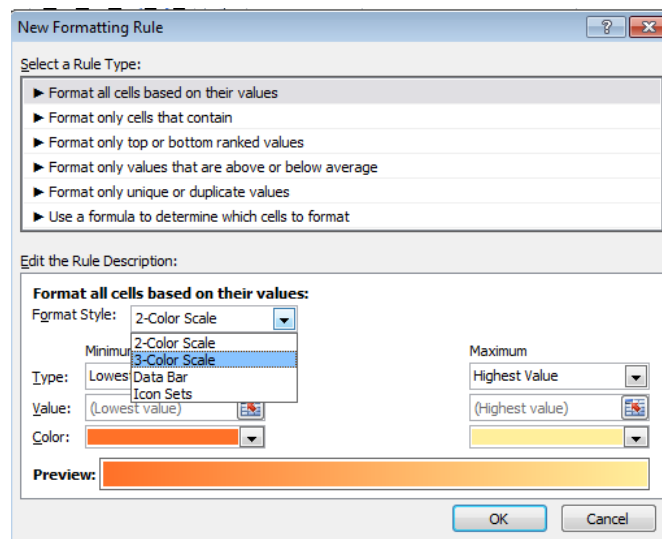
To clear a rule:

- From the **Home Ribbon - Styles Group**, select **Conditional Formatting - Clear Rules - Clear Rules from Selected Cells**:

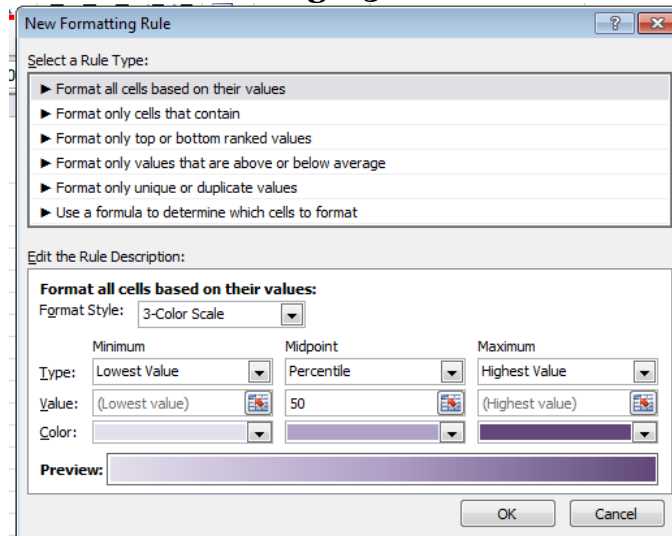


Creating a New Rule:

- From the **Home Ribbon - Styles Group**, select **Conditional Formatting - New Rule**:



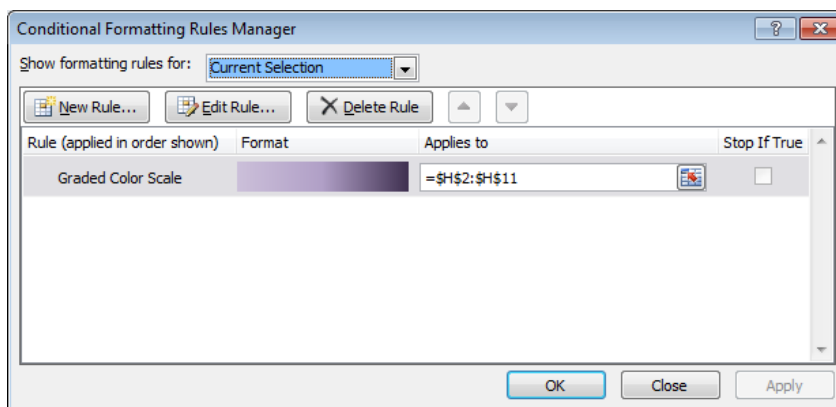
Format all cells on their values using a 3 color scale:



Property ID	Yearly Income	Projected 2003 Income
1	\$40,000.00	\$42,000.00
3	\$45,000.00	\$47,250.00
4	\$50,000.00	\$52,500.00
10	\$75,000.00	\$78,750.00
5	\$7,500.00	\$7,875.00
9	\$11,500.00	\$12,075.00
2	\$400,000.00	\$420,000.00
6	\$105,000.00	\$110,250.00
7	\$116,000.00	\$121,800.00
8	\$97,000.00	\$101,850.00

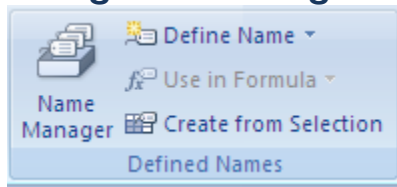
Managing Rules

- From the **Home Ribbon - Styles Group**, select **Conditional Formatting – Manage Rules**:



From this dialog box you can create a new rule, edit an existing rule or delete a rule.

Using Name Ranges



You can create descriptive names that represents a cell, range of cells, formula, or constant value. Labels can be used in formulas that refer to data on the same worksheet.

Naming Cells

To define a range Name, use one of the following:

Type the text directly in the Name box.

1. Select the range of cells.
2. In the Name box, type the text, and then press Enter.

Define a Name using the Define Name dialog box

1. Select the range of cells.
2. Press **Ctrl+F3**.

OR

On the **Formula Ribbon - Defined Names Group**, select **Define Name**.

3. Type the text in the Name box, and then click **OK**.

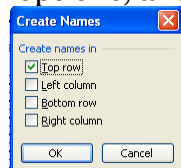
To automatically define Names according to the labels in the top row's cells and in the left column cell's:

1. Select any cell in the data area and select the Current Region by pressing Ctrl+Shift+*.
2. Press Ctrl+Shift+F3.

OR

From the **Formula Ribbon - Defined Names Group**, select **Create from Selection**.

3. Select the Top row and Left column options, and then click OK.



Each row and column range now defines its own range Name.

Inserting a Name Range into a Formula

- Start entering the formula, where you want to reference the name range, from the **Formula Ribbon - Define Names Group**, select **Use in Formula**. Select the name range you want to insert into the formula.

OR

- Start entering the formula, where you want to reference the name range, **press F3** and select the name range from the list you want to insert into the formula.

Editing

From **Formula Ribbon - Define Names Group**, select **Name Manager**. Select the named range you wish to modify. In the box at the bottom of the screen labeled **Refers to:** change the range.

Deleting

From the **Formula Ribbon - Define Names Group**, select **Name Manager**. Find the named range you wish to remove and click on it. Click the delete button.

Performing Calculations on Dates

Date and Time functions

FUNCTION	DESCRIPTION
DATE	Returns the serial number of a particular date
DATEVALUE	Converts a date in the form of text to a serial number
DAY	Converts a serial number to a day of the month
DAYS360	Calculates the number of days between two dates based on a 360-day year
EDATE	Returns the serial number of the date that is the indicated number of months before or after the start date
EOMONTH	Returns the serial number of the last day of the month before or after a specified number of months
HOUR	Converts a serial number to an hour
MINUTE	Converts a serial number to a minute
MONTH	Converts a serial number to a month
NETWORKDAYS	Returns the number of whole workdays between two dates
NOW	Returns the serial number of the current date and time
SECOND	Converts a serial number to a second
TIME	Returns the serial number of a particular time
TIMEVALUE	Converts a time in the form of text to a serial number
TODAY	Returns the serial number of today's date
WEEKDAY	Converts a serial number to a day of the week
WEEKNUM	Converts a serial number to a number representing where the week falls numerically with a year
WORKDAY	Returns the serial number of the date before or after a specified number of workdays
YEAR	Converts a serial number to a year

YEARFRAC

Returns the year fraction representing the number of whole days between start_date and end_date.

Example 1: Calculate the numbers of days (till Christmas):

	A
1	7/21/2011
2	12/25/2011
3	
4	157
5	
6	or
7	
8	157
9	

	A
1	=TODAY()
2	=DATE(2011,12,25)
3	
4	=A2-A1
5	
6	or
7	
8	=A2-(TODAY())

Example2: Calculate the number of years (given a birthdate):

	A
1	1/23/1992
2	19
3	

	A
1	33626
2	=YEAR(TODAY())-YEAR(A1)

The result (rounded): 19 Years

Power of the IF statement

COMPARATIVE OPERATORS	
Operator	Type of Operation
=	Equal to
<	Less than
<=	Less than or equal to
>	Greater than
>=	Greater than or equal to
<>	Not equal to

	A
1	50
2	FALSE

	A
1	50
2	=A1>100
3	

Syntax

IF(logical_test, [value_if_true], [value_if_false])

logical_test - Required. Any value or expression that can be evaluated to be TRUE or FALSE.

For example, A1>100 is a logical expression; if the value in cell A1 is greater than 100, the expression evaluates to FALSE. Otherwise, the expression evaluates to TRUE. This argument can use any comparison calculation operator.

value_if_true - Optional. The value that you want to be returned if the logical_test argument evaluates to TRUE.

• **value_if_false** - Optional. The value that you want to be returned if the logical_test argument evaluates to FALSE.

The IF function is used for comparison. The function returns one value if a condition you specify evaluates to TRUE, and another value if that condition evaluates to FALSE. For example, the formula =IF(A1>100,10,1) – if it is true that A1 is great than 100, return 10, if false, return 1.

	A
1	50
2	=A1>100
3	
4	=IF(A1>100,10,1)

	A
1	50
2	FALSE
3	
4	1

PMT

The PMT Function can be used to calculate the monthly payments of a loan as follows:

	A	B
1	Loan	10000
2	Yrs of Loan	5
3	Interest Rate	2.50%

PMT(rate,nper,pv)

Rate is the interest rate for the loan (B3).

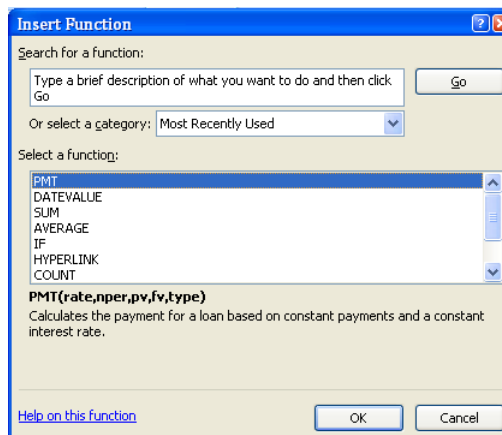
Nper is the total number of payments for the loan (B2).

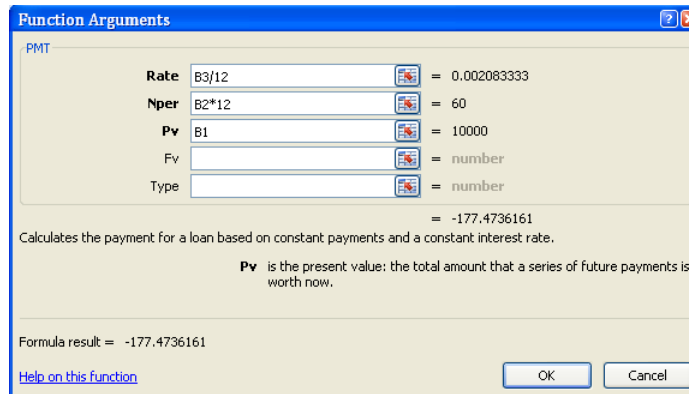
Pv is the present value, or the total amount of the loan (B1).

The Formula Wizard

You can use the formula wizard to help with the PMT function:

Click the fx in the Formula Bar:





NOTE: The rate needs to be divided by 12 to calculate the monthly payment over 12 months. The number of years of the loan needs to be multiplied by 12 to calculate the monthly payment by the total number of months of the loan.

	A	B
1	Loan	10000
2	Yrs of Loan	5
3	Interest Rate	2.50%
4		
5		(\$177.47)
6		

	A	B
1	Loan	10000
2	Yrs of Loan	5
3	Interest Rate	0.025
4		
5	=PMT(B3/12,B2*12,B1)	