

# **Excel The Smart Way**

(51 Excel Tips Ebook)

by

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Hey there

My name is Sumit Bansal and I started TrumpExcel.com as an effort to learn and share amazing things about Microsoft Excel. It's a journey, where I aim for continuous learning, and at the same time, take you all with me.

In this Ebook, I share 51 Excel Tips that you can start using today and be more productive In your work. For more such tips and tricks, visit my blog — Trump Excel

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In case you wish to sell this or plan to customize/commercialize it, get in touch with me at sumitbansal@trumpexcel.com

Cheers
Sumit Bansal
Excel MVP

<u>Disclaimer</u>: I have tested these tips on Excel 2007, 2010, and 2013. I have <u>NOT</u> tested these on Excel 2003. All the snapshots in this e-book are from Excel 2010.

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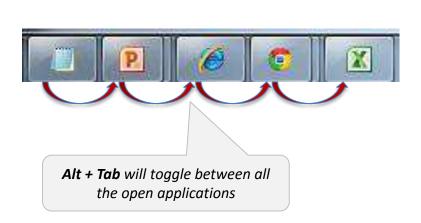
## Switch Between Excel Spread sheets Only

It very frustrating when you have multiple applications open (such as Excel, PowerPoint, Word, Chrome, and IE) and you want to switch between excel spread sheets only. No matter how efficient you are, this can get on to your nerves in a few minutes. In this tip, let me show you how to be more efficient

**Use Control + Tab to toggle between open spread sheets only** (Keep the Control button pressed while you press Tab button to switch)

That's it! It is simple and will save you a lot of time

Note: While most of the people are addicted to <u>Alt + Tab</u>, the drawback is that it does NOT differentiate between different applications. So if you have 2 excel workbooks open along with a Chrome/FireFox/IE browser window, it will toggle one by one through each of these. Control + Tab will toggle between open excel workbooks only.





Select any of the open worksheet. Now use **Control + Tab** to switch between all open excel worksheets



<u>Bonus Tip</u>: This technique works with any Microsoft application, including Power Point and Word

## **Quick Way to Move Rows and Columns**

This is an awesome trick. Its so simple, yet so overlooked. This efficiency tip will enable you to move data in rows and columns quickly, without any cutting/pasting and inserting/deleting of rows or columns. The best part is that this trick will let you move the selected data anywhere in the sheet, without messing with other rows/columns

You got to try it to believe it!!

- 1. Select the values in the column that you want to shift (works for contiguous selection only)
- 2. Keep the right button of your mouse pressed and also press the Shift Key from your keyboard
- 3. Move your cursor to the edge of the selection. It would display the move icon (a four directional arrow icon) 💠
- 4. Click on the edge (with left mouse button) while still holding the shift-key
- 5. Move it to the column where you want this to be shifted
  - When you bring the selection to the edge of any column you would see a vertical line (something that look like roman numeral 1 or alphabet Capital I)
- 6. Leave the mouse button at the edge of the column where you want the data to be shifted
- 7. Leave the Shift-key (remember to keep the Shift key pressed till the end)

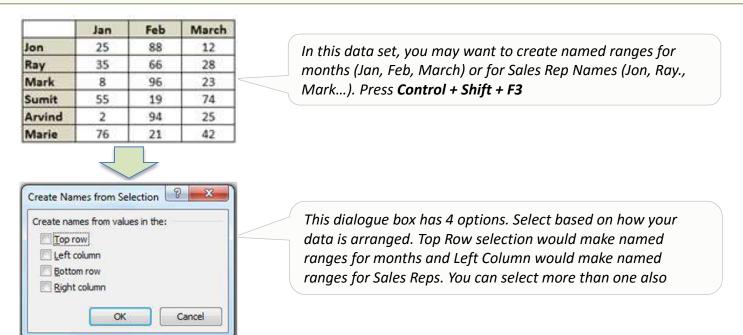
Product Name	Sales Rep	Geography	Sales (in \$ million)
Product 1	Anun	India	160
Product 2	Joe	US	115
Product 3	Karen	Canada	22
Product 4	Arjun	India	63
Product 5	Karen	Canada	74
Product 6	Arjun	India	167
Product 7	Jane	Brazil	40
Product 8	Santiago	Germany	46
Product 9	Arvind	India	141
Product 10	Sumit	India	82
Product 11	Joe	US	93
Product 12	Jane	Brazil	69
Product 13	Sumit	India	197
Product 14	Karen	Canada	98
Product 15	Arvind	India	27

## **Quickly Create Named Ranges from Data**

While this seems like a mere shortcut, it deserves its place in this Excel Efficiency Tips section.

This is particularly useful when you have huge data sets. For example, suppose you have the sales data in columns for the 12 months in 2013, and you want to create named ranges from the data for each month. Just use this shortcut – **Control + Shift + F3** 

- 1. Arrange your data in a way where you have headings (for which you need to create a named range) in Top/Bottom row or Top/Bottom column
- Press Control + Shift + F3
- 3. In the dialogue box, check the option for which you wish to create the named range
- 4. That's it!!



## Quickly Make a Copy of a Worksheet

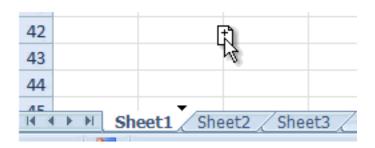
A lot of times we need to make a copy of the worksheet in which we have our data.

Normally one would right click on the tab and select move or copy, and then check the "Create a Copy" check box. Here is a super quick way to do this.

#### How to:

- 1. Select the tab for which you want to make a copy
- 2. Press Control Key
- 3. Click on the tab (an icon of plus sign in a worksheet will appear)
- 4. While still holding the Control key and the Left button of the mouse, drag the tab towards the worksheet
- 5. Leave the mouse Left-button followed by the Control Key

This would create a copy of the worksheet in the same workbook



## Copy Formula on Clipboard to be used Later

If you work with long formulas, this is a must know trick for you.

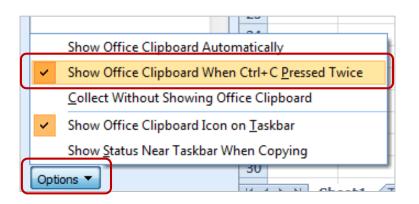
When you create long formulas, you often need to test multiple variations and sub-parts separately. It's a good practice to save those formulas somewhere so that you can use these later. You need not open a notepad to do this. This trick will empower you do to the same in Excel in clipboard

#### How to:

You need to first enable a feature to copy in clipboard

- 1. Go to Home tab
- 2. In the Clipboard category, click on the arrow at the bottom-right (shown in the pic). This will open the clipboard on the left
- 3. Click the options section (at the bottom) and select Show Office Clipboard When Ctrl+ C pressed Twice
- Close the clipboard section
- 5. Now when you wish to copy the content of any cell, get into edit mode (by pressing F2) and select the text (of formula)
- 6. With the text selected, press Control + C + C (with control key pressed, hit C twice); This will copy the text/formula in the clipboard
- 7. To use this copied text, go to any cell where you want to paste this, and double click on it from the Clipboard





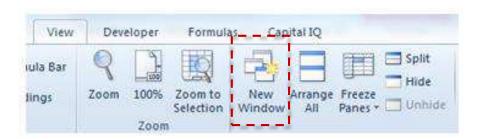
## Split Windows in Excel

I often work with a lot of open spreadsheets, where I have to refer to data in multiple open spreadsheets. No matter how patient you are, this gets frustrating. It wastes time (and we know time is money)

I will show you a simple & elegant way to deal with this

#### How to:

- Go to View Tab
- 2. Select **New Window** in the Windows group
- 3. That's It!!



#### What this does:

- Suppose you have a worksheet named Test.xlsx. When you click on **New Window** in the View tab, it replaces the Test.xslx spreadsheet with 2 replicas *Test.xlsx:* and *Test.xlsx:* Any changes made in one would be reflected in the other (real time). This is quite useful when you have multiple sheets within a workbook and need to refer to data in multiple worksheets
- You can choose to arrange them vertically/horizontally to view these side by side
  - To do this, go to View → Arrange All
  - In the Arrange Window dialogue box, select the way you want to arrange these

This could be particularly helpful when you need to refer various sheets in the same workbook.

## Multiply/Divide with a number using Paste Special

Ever faced a situation when you had to convert all the numbers into percentages or millions to billions (for example 10,000 million to 10 billion). The long way to do this is to first divide each number by 1,000 in a separate column and then copy paste the values.

I will show you a quicker way to do this using Paste Special technique

Millions	Billions
28,718	28.718
44,346	44.346
47,015	47.015
2,576	2.576
2,922	2.922
23,695	23.695
33,574	33.574

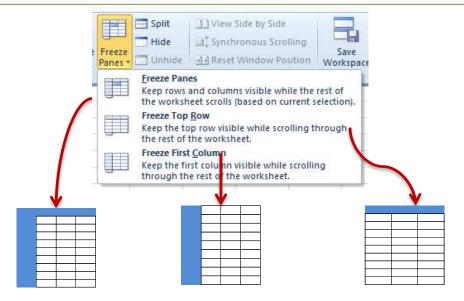
- 1. In any empty cell, type the number with which you want to divide these list of numbers (in this case we want to divide by 1000)
- 2. Select the cell that has 1000, and copy it (control + C)
- 3. Select the entire list of numbers that you want to convert to billions (from millions)
- 4. Right Click and Select Paste Special. This will open Paste Special dialogue box (Key board shortcut Alt + E + S)
- 5. In the Operations category select Divide
- 6. Click OK

## Freeze Panes to always Display Headers

While working with large data sets, its frustrating to come back again to the row/column that has the headers. Excel gives you this functionality to fix any number of contiguous rows or columns

It is called Freeze Panes

- Go to View Tab
- Select Freeze Panes
- 3. Select Freeze Panes/Freeze Top Row/Freeze First Column
  - **Freeze Panes:** This option freezes both rows and columns. Select a cell and then go to View → Freeze Panes → Freeze Panes. This will freeze the columns to the left of the cell and rows above it
  - o Freeze Top Row: Select the data set and choose this option to freeze the top row in the data set
  - o Freeze First Column: Select the data set and choose this option to freeze the first column in the data set

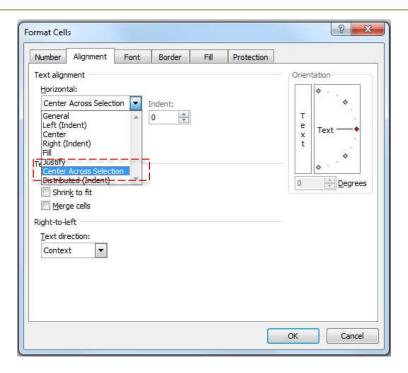


## Alternative to Merge and Center (Center Across Selection)

Merge and center is a necessary feature when you have a header and then sub-headers within it (as shown in the pic below). It, however, has its own complications. For example, you can have issues in sorting, filtering, selecting a single column, etc.

Here is an alternative to merge cells, and it works like a charm

- 1. Select the cells that you want to merge
- 2. Go to Home --> Font → Format Cells (Key board shortcut Control + 1)
- 3. Select the Alignment tab
- 4. In the Text Alignment Horizontal dropdown, select Center Across Selection
- 5. Click Ok



## Selective Clearing (format, content, comments, hyperlinks)

Excel gives you the flexibility to selectively clear contents from a cell. So you can choose to clear contents only (keeping the formatting intact). Similarly, you can choose to clear formatting only, while keeping the content as it is. Or you can choose to clear everything. Other alternatives include clearing comments or hyperlinks

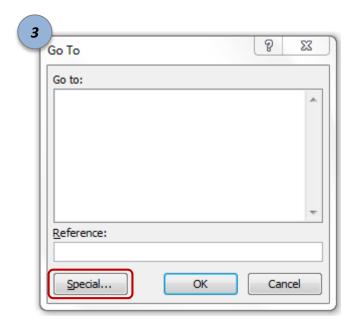
- 1. Select the cell(s) from which you wish to clear the contents/formatting/comments/hyperlinks
- 2. Go to Home → Editing Category → Clear → Clear (All/Formats/Contents/Comments/Hyperlinks)
- 3. Select the required option

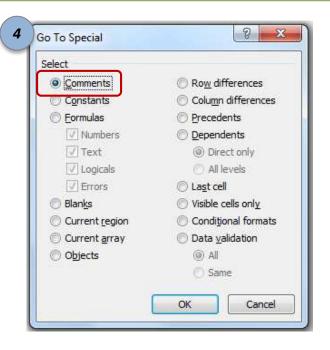


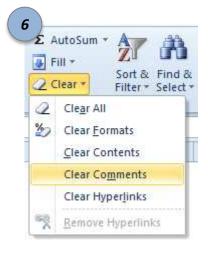
#### Select and Delete all Comments at Once

If you have a large data set and spreadsheet, this could be a good sanity check before you send out your spreadsheet. And now since you would know this trick, feel free to add as many comments as you want and then remove all of it within seconds

- 1. Select the entire worksheet (Keyboard Shortcut Control + A)
- 2. Press F5
- 3. In the Go To dialogue box, click Special
- 4. In Go To Special dialogue box, ensure that Comments is select
- 5. Click Ok (This would select all the cells that have comment in it)
- Go To Home → Editing → Clear → Clear Comments







## Use Control + Enter to Fill an Entire Range

This is an efficiency tip that can help you to speed up your work. A lot of times we have to use the same formula for a range of cells. Normally, we put it in one cell and then copy and paste the formula in all the other cells, or (if contiguous rows/columns), we drag the auto fill handle to apply the same formula for all the cells

Here is an alternative that save you a few seconds

	Sales (in	\$ million)		Average	
Q1	Q2	Q3	Q4	Average	
112	131	83	176	=AVERAGE(	B4:E4)
190	127	24	52		
39	182	33	54		Note that the active cell is lighter tha
148	70	56	30		rest of the selection. Once you have e
150	168	65	80		the formula, press <b>Control + Enter</b> a
95	183	59	79		will populate the entire selected ra
92	172	193	105		
38	145	43	189		
113	153	178	173		
47	189	173	71		

#### How to:

- 1. Select the entire data in which you wish to enter the formula. You will notice that the first cell is lighter in color when compared to the other selected cells.
- 2. Start typing the formula (or text) that you want in all the cells
- 3. Use **Control + Enter** instead of Enter (Keep Control key pressed when you hit Enter)

You will see that all the selected cells have been filled with the result of the formula

## Split your Worksheet to be more Efficient

Excel is made to handle large data sets, but this means that you might have to scroll a lot while going back and forth in your data set. This neat trick will enable you to get more efficient while you go back and forth in your data set

#### How to:

- Go to View Tab
- 2. In Windows category select Split

This will split will your worksheet into 4 parts. Don't worry, nothing changes. Now you can treat each of the four panes as a separate space and scroll up or down. This enables you to create a formula in the 100<sup>th</sup> column while you can still see the 1<sup>st</sup> column (or any column you wish)

If you only want a vertical split, just go to the horizontal split line and double click on it, and it will go away

1	1	2	3	4	10	11	12	1
1	Data 1	Data 2	Data 3	Data 4	Data 10	Data 11	Data 12	Data
2	70	797	194	600	523	260	826	
3	60	83	802	774	970	913	378	
4	331	844	388	346	492	627	492	
5	379	827	232	731	355	412	305	
6	86	850	64	344	850	578	307	
8	24	906	404	320	450	819	138	
9	102	372	422	749	33	858	500	
10	244	355	81	667	372	758	297	
11	375	862	119	436	62	506	585	
12	362	757	267	918	694	111	477	
13	251	880	526	550	203	276	720	
14	193	258	96	852	488	572	248	
15	269	722	383	22	310	835	744	

1	1	2	3	4		97	98	99	100
1	Data 1	Data 2	Data 3	Data 4		Data 97	Data 98	Data 99	Data 100
2	70	797	194	600		771	632	548	865
3	60	83	802	774		75	776	26	678
4	331	844	388	346		927	543	916	96
5	379	827	232	731		568	361	864	434
6	86	850	64	344		295	966	483	766
8	24	906	404	320		471	369	630	47
9	102	372	422	749		458	140	563	748
10	244	355	81	667		472	290	646	441
11	375	862	119	436		256	730	168	624
12	362	757	267	918		95	567	586	659
13	251	880	526	550		723	50	565	764
14	193	258	96	852		671	270	226	509
15	269	722	383	22		460	853	629	201

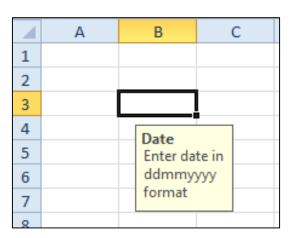
## Display a Message when a Cell is Selected

Let me make it clear upfront. I am not talking about inserting a comment here. I am assuming that you already know how to do it. The drawback in a comment is that it gets displayed ONLY when you hover mouse over the cell that contains that comment (It's sometime irritating as well)

In this trick, I will show you how display a message when a cell is selected either by mouse or by keyboard. This could be useful for someone who creates a report that need some inputs from the user. A message on how or what needs to be input could be of great help

#### How to:

- 1. Select any cell and then go to Data tab -> Data Validation
- 2. In Data Validation dialogue box, select Input Message tab
- 3. Ensure that "Show input message when cell is selected" check box is selected
- 4. In the Input message tab, enter Title (max 32 characters, optional) and Input Message (max 256 characters)
- 5. Click ok



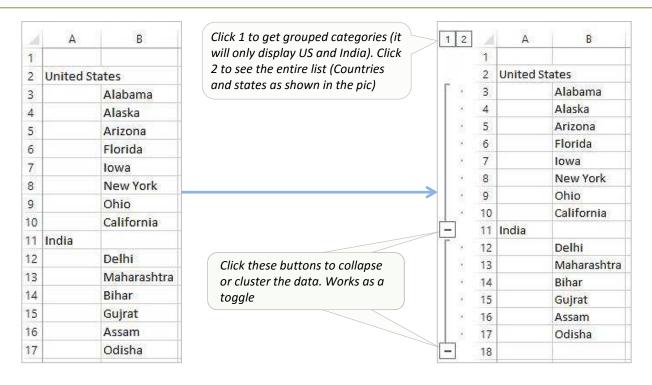
Read more about this trick <u>here</u>

## **Group and Ungroup data**

A lot of times we have categories and sub-categories. For example, we can have a country category say the US, and it further has subcategories of its states. Similarly we have multiple countries and their states.

It might be desirable to temporarily hide the states and only display the countries. While hiding of rows/columns could be one way, there is an easier and quicker way through grouping data

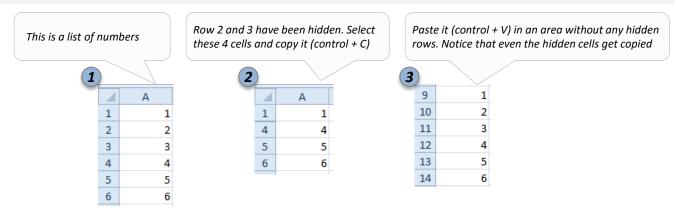
- 1. Select the data that you want to group
- 2. Go to Data → Group
- 3. Select Group by Rows or Columns



## Select Visible Cells only

Life could have been easier had excel been used by bots. Fortunately (sometimes unfortunately) it is not the case. People often make excel spread sheets and hide some rows/columns to display relevant data only. The issue arises when they either share it with someone or use it themselves without remembering this.

If you have some rows hidden, and you copy the old fashioned way (control + C), it copies the cells that are visible as well as the cells that are hidden. And this causes havoc when you copy it somewhere else (as shown below). What you need is a way to copy visible cells only, and I will show you how to do this.



#### How to deal with this:

- 1. Select the data which has hidden rows and where you only want to copy only visible cells
- 2. Go to Home  $\rightarrow$  Find & Select  $\rightarrow$  Go To (Keyboard Control + G)
- 3. In the Go To dialogue box, click on Special
- 4. In the Go To Special dialogue box, select Visible cells only
- 5. Click Ok
- 6. Now when you copy and paste, this will paste visible cells only



<u>Bonus Tip:</u> Instead of following these many steps, select the data and use the keyboard shortcut **Alt +**; This would automatically select visible cells only

## Remove Blank Cells from a List

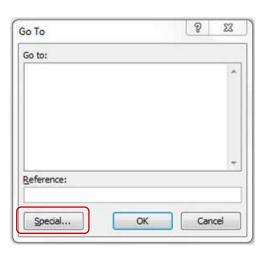
I find this trick very helpful. More often than not, you end up with useless blanks in the data set that need to be eliminated. Here I show you a simple and quick way to identify and select all the blank cells. Once selected, its up to you to deal with these (delete it, color it, or type something into it)

#### How to:

- 1. Select the entire data set
- Press F5 (this will open Go To dialogue box)
  - You can also access it from Home → Find & Select → Go To
- 3. In the Go To dialogue box, select Special (This will open Go To Special dialogue box)
- 4. Select Blanks
- 5. Click ok (this will select all the blank cells)

Now you can do whatever you want with these cells. Below are some examples:

- Delete blank cells or the entire row that has the blank cell
- Color these cells differently
- Type some text in all of the blank cells (such as NA or Not Available); To do this, type the text in the active cell and press Control + Enter





## Angle Cell Text to make Column's Width Narrow

Sometimes when you have long text in headers, it is better to format these (as shown below). These also save you some column width, so you can view more data at once on your screen

	\ <b>\$</b>	Mary Fe	oruary	ard Ar	ril M	at ju	ne ju	A A	elst ce	prembe	adber Mc	werther De	cember
Ron	223	765	928	911	844	168	983	717	272	500	252	107	
Christie	321	727	916	404	443	187	471	983	131	686	721	175	
Arvind	489	679	669	425	310	207	181	630	138	704	638	359	
Sumit	759	564	618	847	409	590	920	954	966	394	561	253	
Karen	992	837	425	337	953	312	162	613	665	425	890	149	

#### How to:

- Select the headers (January, February..)
- 2. Go to Home → Alignment → Orientation → Angle Counterclockwise
  - o This will align your text at a 45° angle
- 3. With the headers selected, go to Home  $\rightarrow$  Font  $\rightarrow$  Borders  $\rightarrow$  All Borders
  - O This will give a border to the headers. You can apply border to the entire data set if you wish
- 4. Now you can resize your column width and you are done



Bonus Tip: You can access all these options from Format Cells Dialogue box (Key board shortcut – Control + 1)

## Split a Cell by a Diagonal Line to get 2 Headers

This technique enables you to split a cell by a diagonal, and then you can have 2 headers in the same cell (one each for row and column of headers). Something as shown below

Months Sales Rep	January	February	March	April	May
Ron	223	765	928	911	844
Christie	321	727	916	404	443
Arvind	489	679	669	425	310
Sumit	759	564	618	847	409
Karen	992	837	425	337	953

- 1. Select the cell
- 2. Go to Home  $\rightarrow$  Format Cells (key board shortcut Control + 1)
- 3. Select Border tab and select the diagonal split option at the bottom of the dialogue box
- 4. Enter into edit mode (by pressing F2)
- 5. Type **Months** (or the heading you want to be at the top-right)
- 6. Press Alt + Enter This takes you to the next line within the same cell
- 7. Type Sales Rep (or the heading you want to be at the bottom-left)
- 8. Put some spaces before the **Months** to push it to the right (adjust accordingly)

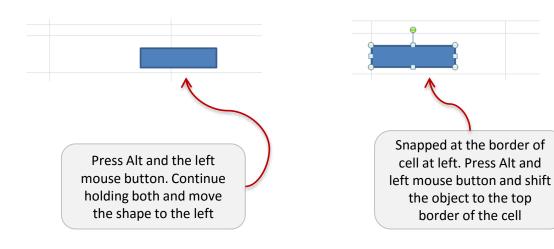
## Snap Objects/Pictures to Cell Borders

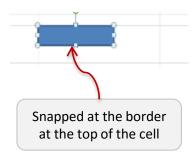
This technique will enable you to quickly snap a shape/picture/charts to the border of any cell in Excel. This is most required in situation where you need to put a picture/shape in a cell

#### How to:

- 1. Select the shape/picture/chart that you want to align with a cell
- 2. Press **Alt** and move the shape/picture/chart (keep the Alt pressed)

You will notice that the object will snap to the border of the cell where you moved it.





## Highlight every Nth row/column

Conditional Formatting can be a great ally in creating amazing spreadsheets. A trick as simple as highlighting every Nth row could immensely increase the readability of your data set. And its as easy as pie

#### How to:

- 1. Select the data set
- 2. Open the Conditional Formatting dialogue box (Home-> Conditional Formatting-> New Rule) [Keyboard Shortcut Alt + O + D]
- 3. In the dialogue box, select "Use a Formula to determine which cells to format" dialogue box
- 4. Write the following formula =MOD(ROW(),2)=1
- 5. Click on the Format button to set the formatting
- 6. Click OK

#### How it works:

The entire magic is in the formula =MOD(ROW(),2)=1. [MOD formula returns the remainder when the Row number is divided by 2]

This evaluates each cell and checks if it meets the criteria. Suppose the data is in B4:D15. So it first checks B4. Since the Row number of B4 is 4, MOD(4,2) gives 0, which does not meet our specified criteria.

So it moves on to the other cell in next row. Here Row number of B5 is 5 and MOD(5,1) gives 1, which meets the condition. Hence, it highlights this cell.

## Read more about this <u>here</u>

## Search and Highlight Cells using Conditional Formatting

Suppose you have a data set as shown below, with Products Name, Sales Rep and Geography. The idea is to type a string in cell C2, and if it matches with the data in any cell(s), then that should get highlighted. Something as shown below

4	А В	C	D
L			
8			
ř.			
4	Product Name	Sales Rep	Geography
5	Product 1	John	India
6	Product 2	Joe	China
7	Product 3	Mike	Japan
8	Product 4	Racheal	US
9	Product 5	Arvind	India
10	Product 6	Xin	China
11	Product 7	Harry	US
12	Product 8	Tom	India
13	Product 9	Paul	Indonesia
14	Product 10	Stephen	Philippines



4 .	A B	C	0
L			
2		India	6
3			
1	<b>Product Name</b>	Sales Rep	Geography
5	Product 1	John	India
5	Product 2	Joe	China
7	Product 3	Mike	Japan
3	Product 4	Racheal	US
9	Product 5	Arvind	India
.0	Product 6	Xin	China
1	Product 7	Harry	US
2	Product 8	Tom	India
3	Product 9	Paul	Indonesia
4	Product 10	Stephen	Philippines

#### How to:

- 1. Go to Home -> Conditional Formatting -> New Rule (Keyboard Shortcut Alt + O + D)
- 2. In the New Formatting Rule dialogue box, select the option Use a formula to determine which cells to format
- 3. Now type this formula =AND(\$C\$2<>"",\$C\$2=B5), and then click on 'Format..' button to set the formatting. Now type anything in cell C2 and press enter. It will highlight the cells that contain the string in C2

This works when the formula returns TRUE, and the formula returns TRUE when C2 is not empty (by \$C\$2<>"") and exactly matches the searched string

Read more about this **here** 

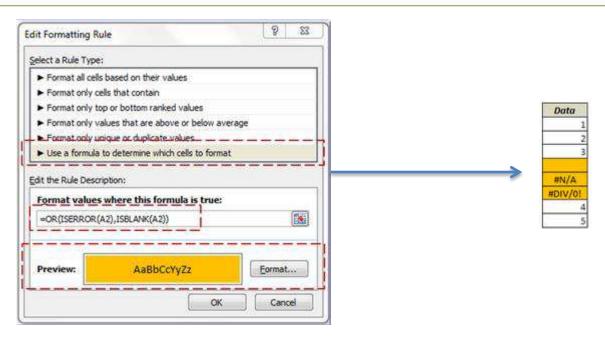
## Highlighting Errors/Blanks using Conditional Formatting

I often work with a lot of financial data. It is absolutely important that I figure out the errors/blanks and eliminate them early on to avoid any surprises in the calculation. Conditional Formatting has been my ally in figuring this out quickly. Let me first show you how to highlight these two with a single formula

#### How to:

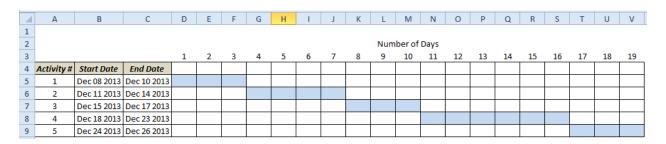
Assuming that the data is in A2:A8

- 1. Go to Home -> Conditional Formatting -> New Rule
- 2. In the New Formatting Rule dialogue box select Use a formula to determine which cells to format
- Type the formula =OR(ISBLANK(A2),ISERROR(A2))
- 4. Set the formatting and Click Ok

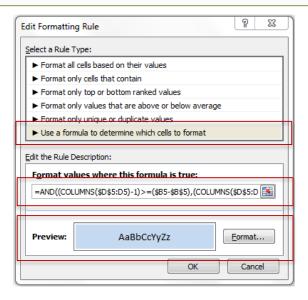


## Create a Simple Gantt Chart Using Conditional Formatting

Conditional Formatting can be a good way to create quick Gantt Chart (as shown below). All you need is to put the right formula in the right place

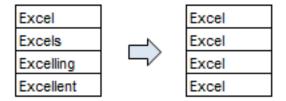


- Go To Home → Conditional Formatting → New Rule
- 2. Select Use a Formula to determine which cells to format and type the following formula
  - =AND((COLUMNS(\$D\$5:D5)-1)>=(\$B5-\$B\$5),(COLUMNS(\$D\$5:D5)-1)<=(\$C5-\$B\$5))</p>
- 3. Select the format and click OK



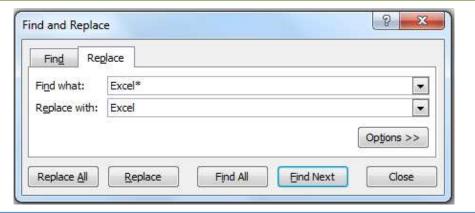
## Find and Replace Partial Matches (Using Wildcard Characters)

Wildcard character in excel are quite versatile. You can use it in complex formula as well as in basic functionality such as Find and Replace. Suppose you have a data set as shown below, and you want to change all the different words (Excel, Excels...) to Excel



#### How to:

- Select the data set
- 2. Press Control + H (Opens find and replace dialogue box)
- 3. Enter the text that you want to find along with the wildcard characters (Excel\* in Find what: field)
- 4. Enter the text you want to replace this with (Excel in Replace with: field)





Bonus Tip: You can use wildcard character at the beginning and end of your text (for example, \*excel\*), and it will find and replace any text that contains the text (excel) anywhere in the cell

You can do so much more with Wildcard Characters. Read about it <a href="here">here</a>

#### Put a comment in an Excel Formula

It often happens that I can not decode my own excel formulas if I look at it again after a few days. This trick is a potential solution to this problem.

In this tip I will show you a simple method to put a comment in your formula, so that you can refer back to the logic

#### How to:

- Using N("Your comment")
  - For example, if I have a formula =A1+A2, I can write =A1+A2+N("This adds cells A1 and A2")

**Logic:** N() formula converts text to 0, and does not impact the original formula

## Create Custom Sorting Criteria

Sorting is one of the most frequently used features in Excel. Some common examples include sorting alphabetically, by value (largest to smallest or smallest to largest), by the day of the week (Mon, Tue, Wed..), or by month names (Jan, Feb..)

While these are in-built sorting criteria, you can create new criteria according to your data (such as High-Low)

#### How to add Custom Criteria:

- 1. Go to File -> Options
- 2. In the Excel Options Dialogue Box, select Advanced from the list in the left pane. Within Advanced selected, scroll down and select Edit Custom List
- 3. In the Custom Lists dialogue box, type your criteria in the box titled List Entries. Type your criteria separated by comma (High, Medium, Low) [you can also import your criteria if you have it listed]
- 4. Click Add and then click OK

## How to sort you data based on Custom Criteria

- 1. Select the data set
- 2. Go to Data -> Sort
- 3. In the Order drop-down list, select Custom List
- Select the criteria and click OK

#### Enter Bullets in Excel

If you have a list in the same cell, this could be THE life saver trick for you. Use this tip to insert bullets to make your list look good

- 1. If you have a numeric keyboard:
  - Go to the cell and double click (or F2) to get into edit mode
  - Press Alt + 7 or Alt + 9
- 2. If you do not have a numeric Keyboard (as in my laptop), activate the NumLock
  - Go to the cell and double click (or F2) to get into edit mode
  - Press Alt + 7 or Alt + 9

Alt + 7	•
Alt + 9	0

## Display Negatives values in Red using Number formatting

The company is in Red. From being a figure of speech, this phrase has seeped into our excel practices as well. More often that not, your bosses would want you to highlight the negative numbers in red. And custom formatting is the quickest and easiest of all the methods to do this

#### How to:

- 1. Select the data set where you want to highlight the negatives numbers in red
- 2. Open Format Cells dialogue box (Key Board Shortcut Control + 1)
- 3. Select **Custom** number format category
- 4. In the Type field write
  - o 0.00;[Red]-0.00;

#### How it Works:

The number formatting in excel is divided into four parts (in the given order)

<POSITIVE>;<NEGATIVE>;<ZERO>;<TEXT>

You can specify the format for each of these categories separately. In this above case, I have used the format 0.00, which would represent every number with 2 decimal places

While I should have specified the custom formatting code for all the four sections, when you only mention first 2 custom format codes, Excel takes the first code for positive numbers and Zeros, and second for negative numbers

Excel allows you to use various colors for the text in the cell (as I have used Red here in square brackets)

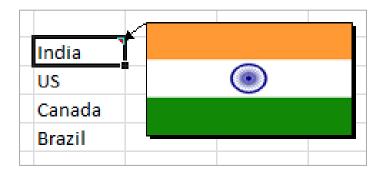
## Some Examples

- o **0.00;[Red]-0.00;** Highlights negative numbers in Red, with a negative sign
- o **0.00;[Red]0.00;** Highlights negative numbers in Red, without a negative sign
- o [Green]0.00; [Red]-0.00; Highlight positive numbers and zero in green and negative numbers in red

## **Insert Picture into a Comment Box**

I used this trick when I had a list of countries and I wanted to insert its flag's image in the comment. Its such a simple trick, yet impresses big time!!

- 1. In a worksheet, insert a comment (Keyboard Shortcut Shift + F2)
- 2. In the comment, delete any existing text (if any)
- 3. Right Click on the border of comment and click 'Format Comment'
- 4. Select 'Color and Lines' tab
- 5. In the Color Drop down menu select 'Fill Effects'
- 6. In 'Fill Effects' dialogue box, select 'Picture' tab
- 7. Click on 'Select Picture'
- 8. Browse and select the picture you want in the comment and click OK
- 9. That's it!!



## Keep the Headers at the Top while Printing

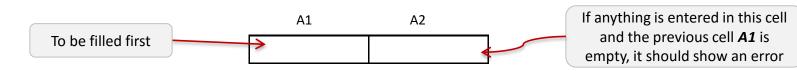
If you have large data set and you print it, it gets printed in a way where the headers of your data set is on the first sheet only. Rest all the sheets do not get the header printed.

Here is a way to get headers on all the sheets that get printed

- 1. Go to Page Layout  $\rightarrow$  Page Setup  $\rightarrow$  Print Titles (Key Board Shortcut Alt + PSP)
- 2. In the Page Setup dialogue box, go to the Sheet Tab
- 3. In the Sheet tab, set the Print Area
- 4. In the **Rows to repeat at the top** field, type the rows that should appear at the top of each printed page

## Enable Data Entry only when the Previous Cell is Filled

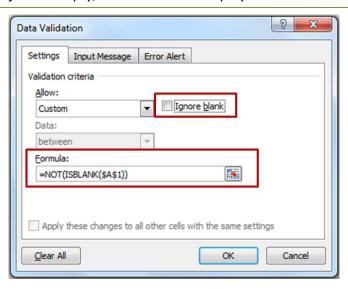
You would have seen this in a lot of online forms that you fill. It mandates you to first fill a particular field before you can enter something in the next field. You can create the same setting in Excel as well. For example, if A1 is empty, then the user should not be able to put anything in A2



#### How to:

- Select cell A2
- 2. Go To Data → Data Tools → Data Validation → Data Validation
- 3. In the Settings tab go to the **Allow** drop down and select **Custom**
- 4. In the Formula field, type =NOT(ISBLANK(\$A\$1))
- Ensure that the Ignore Blank is <u>Unchecked</u>
- 6. Click Ok

Now when you enter something in cell A2, and if A1 is empty, an error will be displayed

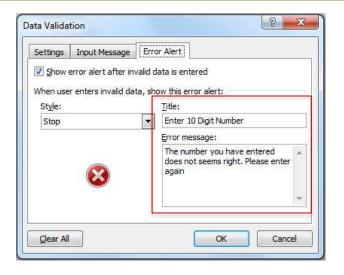


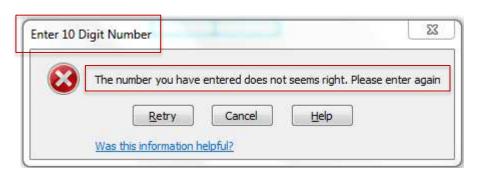
**Excel The Smart Way (51 Tips)** 

## Create your Own Error Messages in Data Validation

This is a useful trick when you have a sheet where you seek inputs from users. For example you may want them to enter their 10 digit phone number, and display an error if they enter a number lower or higher than 10 characters

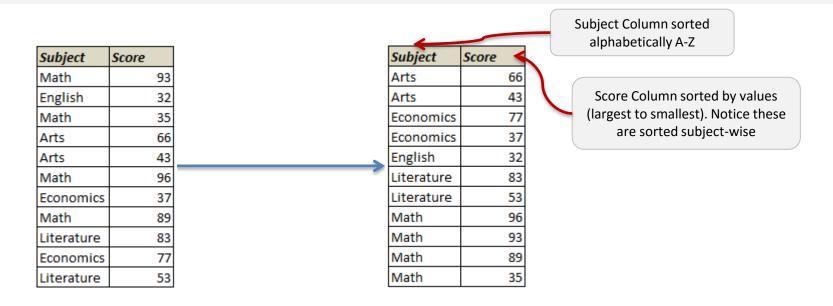
- 1. Select the cell where you want the data validation rule
- 2. Go To Data → Data Tools → Data Validation → Data Validation
- 3. In the Settings tab go to the Allow drop down and select Text Length
- 4. Set the Length to 10
- Go to Error Alert Tab
- 6. Ensure Show error alert after invalid data is entered is checked
- 7. In the Style drop down, ensure Stop is selected
- 8. In the Title field type Enter 10 Digit Number
- 9. In the Error message field type The number you have entered does not seems right. Please enter again
- 10. That's It!! If now you enter a number less than or more than 10 character, it will show an error that you scripted



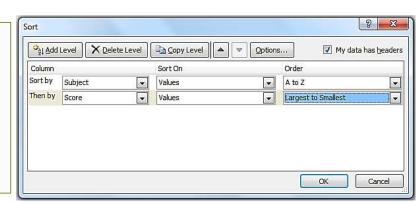


# **Perform Multi-level Sorting**

A multi-level sorting helps you sort one column, and then the second one in such a way that the first one is still sorted. The pic below might make it more clear



- 1. Select the entire data set
- Go to Data → Sort and Filter → Sort
- 3. In the Sort dialogue box, Select Column Sort by, Sort On and Order values from drop downs [for the subject column, i.e., the first level sorting]
- Now click on the Add Level option at the top. This will add another sorting level
- 5. Again select the sort criteria [for the score column, i.e., the second level sorting]



# Disguise Numbers as Text Using Custom Number Formatting

This trick is nothing short of magic. And to add to it, this also has a practical use in our daily work. The idea is to have a cell where you type a particular number, but as soon as you hit enter, it displays a predefined text.

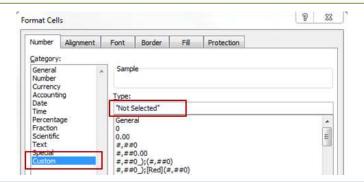
I recently used this when I wanted to display the text "Not Available" whenever there was a 0 in the data. The best part is, this doesn't change the value of that cell. So it remains 0 and you can use it in calculation (precisely the reason why I used the word DISGUISE!!)

#### How to:

- 1. Select the data set
- Press Control + 1 (this opens the Format Cells dialogue box)
- 3. In the Number tab go to Custom Category
- 4. Or the right panel type [=0]"Not Available"
- 5. That's it!! Note that if there are any 0's in your data they would get displayed as Not Available

#### How it Works:

1. In this case we have specified a number format only to be used when a condition is met. Hence, whenever there is a 0, Not Available is displayed. If there is anything other that 0, General Formatting kicks in



There are many more cool things you can do using Custom Formatting. <u>Click here</u> to know more.

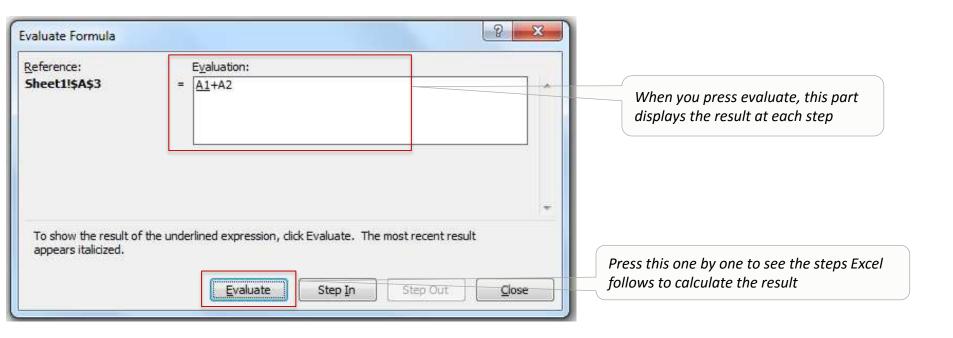
# Evaluate a formula Step by Step

Yes. You can do this in excel. You can evaluate your formula step by step, which is often the need during debugging a formula or trying to understand it

#### How to:

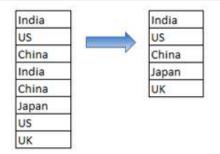
Let me show you a simple formula evaluation. I have 1 in A1 and 2 in A2. In A3 I have a formula =A1+A2. Now I want to evaluate this formula

- 1. Click on Formula Tab
- 2. Click on Evaluate Formula (Keyboard Shortcut Alt + TUF)
- 3. This will open the Evaluate formula dialogue box
- 4. In this formula, press evaluate one by one to sift through the steps



# Get a Unique List (2 Methods)

"How do I get a unique list from this data set". This is a very common question that I hear. And it has a very common and easy answer. I will show you 2 methods to do this. Suppose you have a data se t as shown below (on left), and you want to get a unique list (on the right)



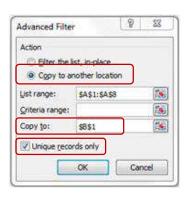
## Method 1 - Remove Duplicates

- 1. Select the data set
- Go to Data → Remove Duplicates (in Data Tools). This will open the Remove Duplicates dialogue box
- 3. In the Remove Duplicates dialogue box, select the column in which you want to remove duplicates. If your data has headers, select My Data has Header box
- 4. Click OK



## Method 2 – Advanced Filter Technique

- Select the data set
- 2. Go To Data  $\rightarrow$  Sort and Filter  $\rightarrow$  Advanced (Key board shortcut Alt + A + Q). This will open the advanced filter dialogue box
- 3. In the advanced filter dialogue box, select Copy to another location
- 4. Go to Copy to: field bar and select the cell where you want to copy this unique list
- 5. Select Unique Records Only checkbox at the bottom
- 5. Click Ok



## **Intersect Operator in Excel**

Excel has an Intersect Operator that can be used to find the intersecting value(s) of two lists/ranges

#### How to:

Suppose there is a data set as shown below.

• Now if use **=C2:C9 B5:H5** (Note there is a single space in between the ranges, which is also our intersect operator), it will give you 45 (the value in cell C5), which is the intersection of these 2 ranges

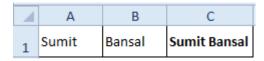
<b>1</b>	А	В	С	D	Е	F	G	Н
1								
2		65	17	48	49	69	29	66
3		10	27	15	12	66	80	98
4		96	51	67	44	28	35	49
5		15	45	45	46	34	25	17
6		78	14	25	93	69	52	45
7		25	76	33	30	13	39	56
8		11	74	18	25	78	80	64
9		37	46	17	77	28	90	21

Click <u>here</u> to see a practical example on how to use Interesect Operator.

## Join Contents in 2 or more Cells - Concatenate

In excel you can join the content of various cells. For example, suppose you import a list which has First Name in one column and Last Name in second, and you want to combine these to be displayed together (as shown in the pic)

Here are two ways to do this in Excel (take your pick)



## Method 1 - Concatenate Formula

- 1. Go to C1 and type the formula
  - o =CONCATENATE(A1," ",B1)

Note that I have used " " (space in double quotes) in between A1 and B1, as that is how I needed it. If you don't use it, you will get SumitBansal as the output

## Method 2 – Using Ampersand (&)

- Go to C1 and type the formula
  - o =A1&" "&B1

This formula works exactly like the concatenate method

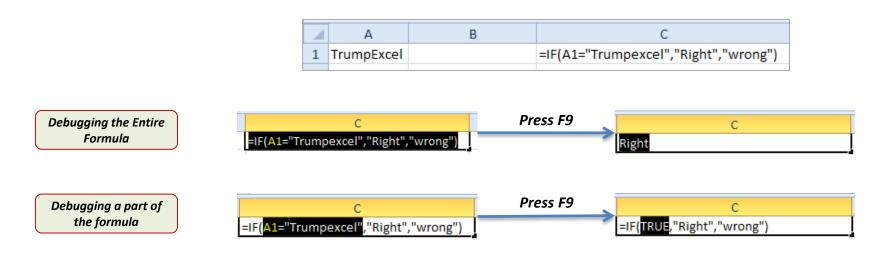
# Debug Formula using F9

Its frustrating when you write a long formula and get an error at the end. Spotting an error in a formula could be a pain.

This technique will help you revisit the formula and identify the part that is causing the error.

#### How to:

- 1. Go to the cell which has the formula
- 2. Enter into edit mode (press F2)
- 3. Select the entire formula and press F9 this will give you the result of the entire formula
  - You can also select a sub part of the formula and do this (see illustration below)





<u>Caution:</u> Do not press Enter after pressing F9. This would hardcode the value and you would lose the formula. A good practice is to select the part of formula you want to debug, press F9 (note the result), and then press Control + Z

## Handle Errors in Excel Formula

Errors are not bad, we should just know how to handle it.

Sometimes errors are the inbuilt factor in your formula construct (for example, suppose you are using a Vlookup and it is unable to find a value, then it returns the #N/A error). Here is a method that can handle that error for you

#### For Excel 2007 and above

MS Excel team added a new formula in Excel 2007 – the IFERROR function

Syntax - IFERROR(value, value if error)

Suppose you have a Vlookup formula **=Vlookup(A1,B1:B10,1,False)** and it returns an error (as the value in A1 is not there in B1:B10). You want to display Not in the List instead of the ugly #N/A. Here is the formula you should use

=IFERROR(Vlookup(A1,B1:B10,1,False,"Not in List"))

Instead of "Not in List", you can use any other text, 0, or blank ("") if you want

## For Excel 2003

Life isn't so easy with Excel 2003, as it does not have the IFERROR function, but there is a way around. You can use a slightly longer version of the same formula. Here it is

=IF(ISERROR(Vlookup(A1,B1:B10,1,False)),"Not in List", Vlookup(A1,B1:B10,1,False))

# Work with Imported Data - Some useful Tips

There are some issues that most of us face when we import a list in Excel. Here are some tips that might be helpful in getting the data in usable format

## #1 - Change the Case of Text

- 1. To convert all text into UPPER CASE Use Upper(A1) formula. This will change trump excel to TRUMP EXCEL
- 2. To convert text into Proper Case (first alphabet of every word is capitalize) Use Proper(A1) formula. This will change trump excel to Trump Excel
- 3. To eliminate unwanted spaces Use Trim(A1). This will remove all the spaces except single spaces between words

## #2 - Separate Text using Text-to-Column

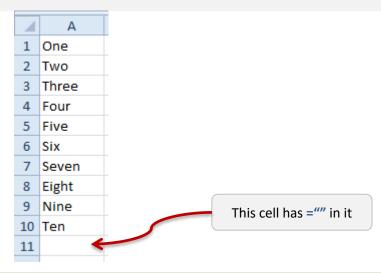
This is a useful functionality if the text is imported in a single cell and you want to separate it to different cells. For example, you may get a list US, Canada, India, Brazil, China in a single cell and you wish to separate these in different cells

- Go to Data → Text to Column
- 2. In the Dialogue box (step 1 of the wizard), select Delimit (this uses a specified Delimiter to separate texts)
- 3. Click Next
- 4. In the step 2 of the wizard, select the delimiter (such as a comma, dot, space, dash, etc.). In this case it is a comma(,). You can specify your own delimiter as well depending on your data
- 5. Click Next
- 6. In the step 3 of the wizard, you can specify the format of each column that will be created. Then click Finish

# Count Non-blank Cells (Fool-proof method)

If you are thinking that Excel already has an in-built function to do exactly this, then you are absolutely right!!. This can be done using the CountA() function.

There is only one small problem. A lot of time when you import data or use other people's worksheet, you will notice that there are empty cells, while they are not. They are blank but have ="" in it. The trouble is that CountA does not consider this as an empty cell (it counts it as text). See the example below. Try using =CountA(A1:A11) here. It will give you 11 instead of 10. The reason is, it doesn't consider A11 as empty (while it should, because it is). But that is how excel works.



### How to:

Here is the fix – use wildcard characters. Below is a fool-proof formula:

=CountA(A1:A11) + Countif(A1:A11,"?\*")

This formula tells excel to count only if the cell either has a number or atleast one text character. In the ?\* combo, ? (question mark) ensures that at least one character is present, and \* (asterisk) makes room for any number of additional characters.

Similarly, you can use wildcards in many other formula such as IF(), Sumif(), Averageif(), and Match()

# **Enable Fill Handle to auto-complete lists**

One day, suddenly, my fill handle feature got disabled. And to be honest, I had no clue what had happened. I did not even know that I could enable it in seconds. So I kept going for months before discovering the way to enable it. Stupid me!!

In this tip I will let you know how enable it

- 1. Go to File -> Options
- 2. Select **Advanced** from the left pane in the dialogue box
- 3. In the Editing Options section, ensure that you have the Enable fill handle and cell drag-and-drop option checked
- 4. Click **OK**

#### Create a Scrollable List in Excel

Scroll bar

A scrollable list is what you need when you have huge data sets and you don't want it to hijack your entire screen's real estate

## List of 28 States of India

S No	State	Area in Sq Km	Population	
1	Andhra Pradesh	275,045	76,210,007	
2	Arunachal Pradesh	83,743	1,097,968	
3 Assam		78,438	26,655,528	
4	Bihar	94,163	82,998,509	
5 Chhattisgarh		135,191	20,833,803	
6	Goa	3,702	1,347,668	
7	Gujarat	196,024	50,671,017	
8	Haryana	44,212	21,144,564	
9	Himachal Pradesh	55,673	6,077,900	
10	Jammu & Kashmir	222,236	10,143,700	
11	Jharkhand	79,714	26,945,829	
12	Karnataka	191,791	52,850,562	
13	Kerala	38,863	31,841,374	
14	Madhya Pradesh	308,245	60,348,023	
15	Maharashtra	307,713	96,878,627	

## A scrollable list that displays 10 states at a time

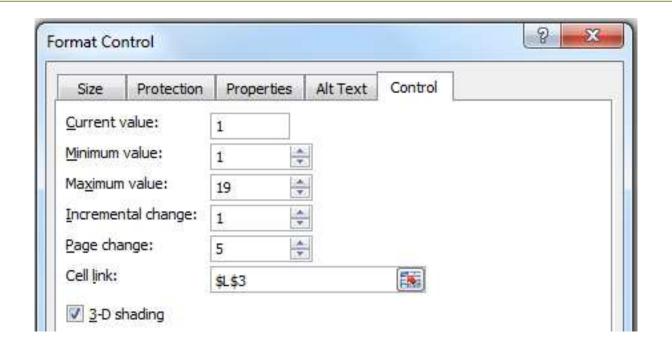
State	Area in Sq Km	Population	
Andhra Pradesh	275045	76210007	
Arunachal Pradesh	83743	1097968	
Assam	78438	26655528	
Bihar	94163	82998509	
Chhattisgarh	135191	20833803	
Goa	3702	1347668	
Gujarat	196024	50671017	
Haryana	44212	21144564	
Himachal Pradesh	55673	6077900	
Jammu & Kashmir	222236	10143700	

- 1. The first step is to get your data. For the purpose of this post, I have used census 2001 data of 28 Indian States with its Area and Population.
- 2. Now Go to Developer Tab -> Insert -> Scroll Bar (Form Control)
- 3. Click on Scroll Bar (Form Control) button and click anywhere on your worksheet. This will insert a Scroll Bar in the worksheet.



## How to: (continued..)

- 4. Right click on the Scroll Bar and click on 'Format Control'. This will open a Format Control dialogue box
- 5. In Format Control dialogue box go to 'Control' tab, and make the settings as shown in the pic below. L3 is the cell that is linked to the scroll bar, and its value varies from 1 to 19. This is the cell value that we use to make the scrollable list.
- 6. Resize the Scroll Bar so that it fits at the side of 10 columns (this is just to give it a good look, as shown in the pic earlier)
- 7. Now enter the following formula in the first cell (H4) and then drag it to fill all the other cells =OFFSET(C3,\$L\$3,0)



Some people feel uncomfortable using Offset, as it is a volatile formula. You can use the following formula instead: =INDEX(\$C\$4:\$E\$31,\$L\$3+ROWS(H\$4:H4)-1,COLUMNS(\$H4:H4))

Click here to download the data set and experiment with these formulas.

### Get Camera Tool in Excel

This one is for all the photography enthusiasts. Yes, excel has its own camera and its pretty amazing.

By default, you would not have camera tool activated and visible in the excel ribbon/menu. You can enable it by using the following steps

## How to Enable Camera Tool

- 1. Go to File
- 2. Select **Options** → **Quick Access Toolbar** → **Command Not in the Ribbon** from the drop down
- Select Camera Tool
- 4. Click Add
- 5. Click **OK**



#### How it works

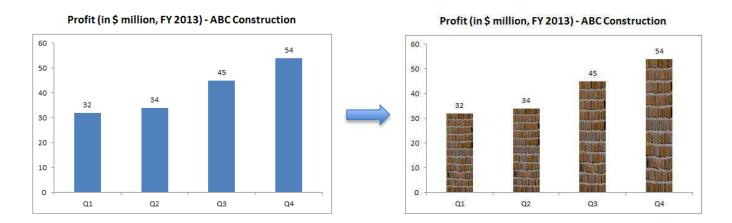
- 1. Select the data for which you want to create an image
- Select the camera tool icon
- 3. Press anywhere in the sheet and it will create the image
  - By default, it adds a border to the image. You can remove this Right clicking and then going into Format Picture options

## Some Examples where Camera Tool could be Helpful

- 1. While creating Pictures dynamic charts that update on selection
- 2. When working with dependent data in multiple sheets. You could take a picture of the cell, and see how it changes when you change its dependent cell

# Custom design in the bars of a charts

You can customize the way the bars look in a bar chart in Excel. I have seen this trick being used by a lot of business articles by reputed newspapers and websites. Used sparingly, this could add a bit of glamour and context to your charts. Look at the example below (this example is a complete figment of my imagination, but I hope it does a good job in demonstrating what I mean)



- 1. Create a bar chart as usual
- 2. Right-click on any of the bars and select Format Data Series
- 3. In the Format Data Series dialogue box, select Fill
- 4. In Fill category, select Picture or texture fill
- 5. Select Insert from File
- 6. Select the picture you want to display and Click Insert

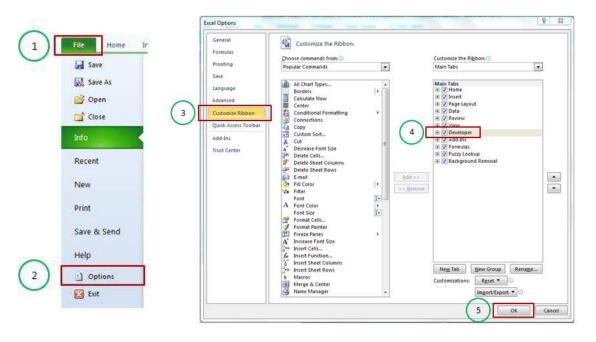
## Get the Developer Tab Displayed in Excel Ribbon

Developer Tab is the part that enables you to create cool scroll bars and check boxes. But it is not displayed by default in excel. Here are the steps using which you can enable the developer tab to get displayed in the ribbon

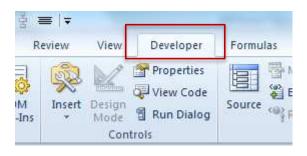
#### How to:

- Go to File
- 2. Click Options
- 3. In Excel Options dialogue box, click Customize Ribbon
- 4. On the right side panel, In the Main Tabs section, check the Developer option
- 5. Click ok (Now you will have 'Developer' displayed as one of the tabs)

To get the developer tab in Excel 2007 Goto Options -> Popular -> Show Developer tab in the Ribbon







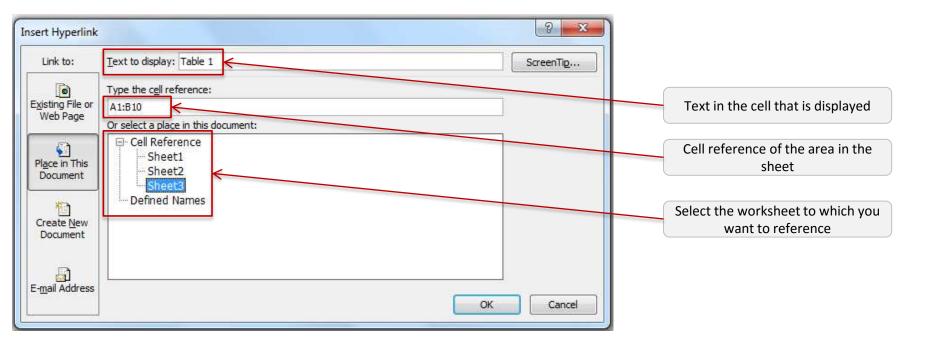
# Reference to an area in a Worksheet

You can create a reference to an entre area in a worksheet. This is a good way when you have various tables in your data and you want to give a link to direct the user to a particular table

#### How to:

- 1. Go to the cell where you want to create the reference link
- 2. Right click and select Hyperlink
- 3. In the Insert Hyperlink Dialogue box, select Place in this Document
- 4. In the right-side pane, select the Sheet and type the cell reference

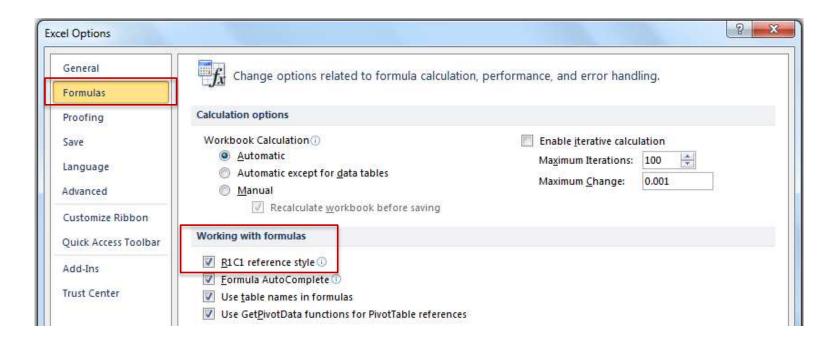
Now when you click on the cell, it will take you to the sheet area that you referenced



## Display Columns Headers as Numbers (instead of alphabets)

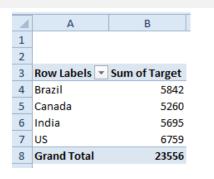
You can change the columns headers from alphabets to number. You may want this when you either work with R1C1 reference style or you work with macros where most of the time the column is also reference by its number (for example in Offset formula).

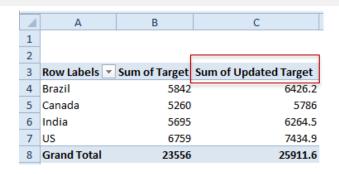
- Go to File → Options
- 2. In the Excel Options dialogue box, select Formulas
- 3. In the Working with formulas category, select R1 C1 reference style checkbox
- 4. Now check you worksheet. The column headers would have changed



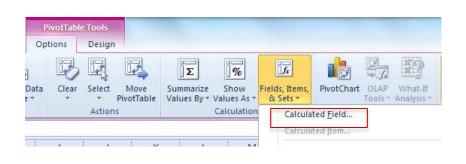
## Create your own Calculated Field in Pivot Tables

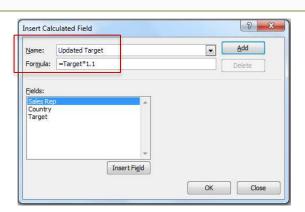
Pivot table is a great way to summarize data. And it also enables you to play with the summarized data by adding your own field with your own calculation. For example, you may want to add 10% to the targets for each region. Here is how you can do it





- Select the Pivot Table
- 2. Go to Pivot Table Tools  $\rightarrow$  Options  $\rightarrow$  Fields, Items, & Sets
- 3. Select Calculated Fields
- 4. In the Insert Calculated Field dialogue box
  - O Name Field: Type the name that you want to appear. In this case I selected Updated Target
  - Formula: Type the formula. In this case I used =Target\*1.1
- 5. Click Ok





# Some Additional Excel Resources

- 70+ Excel Functions (with examples and videos)
- Free Excel Templates
- Excel Course (Basic to Advanced)
- Excel Dashboard Course
- Excel VBA Course
- Free Excel Tutorials





Hey there

My name is Sumit Bansal and I started TrumpExcel.com as an effort to learn and share amazing things about Microsoft Excel. It's a journey, where I aim for continuous learning, and at the same time, take you all with me.

In this Ebook, I share 51 Excel Tips that you can start using today and be more productive In your work. For more such tips and tricks, visit my blog — Trump Excel

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Cheers
Sumit Bansal
Excel MVP

<u>Disclaimer</u>: I have tested these tips on Excel 2007, 2010, and 2013. I have <u>NOT</u> tested these on Excel 2003. All the snapshots in this e-book are from Excel 2010.