

# *This isn't Excel, it's Magic!*

*Second Edition*

*Tips and tricks  
for getting the most  
out of Microsoft® Excel*

*Bob Umlas, Microsoft MVP*



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*Features / Formulas / Keyboard Shortcuts / Printing / Miscellaneous Tricks / VBA*

***This isn't Excel,  
it's Magic!***

**NOTE:** All the tips in this book will work in Excel 2000, 2002, 2003, and 2007. Most will also work with Excel 1997. All the screen shots are from Excel 2007, and the detailed descriptions of how to access many of them are via Excel 2007's new Ribbon. There are also descriptions for accessing the same tips using versions earlier than Excel 2007, and these all begin with the italicized text, "[Excel 2003:...]"

Tips 27, 28, 68, 69, and 90 have no equivalent in versions other than Excel 2007.

# ***This isn't Excel, it's Magic!***

Tips and Tricks for getting  
the most out of Microsoft® Excel

**Bob Umlas**  
Microsoft® Excel MVP

**SECOND EDITION**



**IIL PUBLISHING**

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I'd like to thank my wife, Judy, for her continued support while I pursue my Excel "studies," including trips to Redmond for the MVP Summits, as well as spending time answering people's questions on the newsgroups.

I also want to thank Will Tompkins, my fellow Excel MVPs, my co-workers, and the many other contributors to the online newsgroups—David Hager, John Walkenbach (who has put many of my excel "oddities" discoveries on his website), Bill Manville, Jim Rech, Jan Karel Pieterse, Tom Chester, Reed Jacobson, Eric Wells, Bob Greenblatt, Tim Aurthur, Monika Weber, Bill Jelen ("Mr. Excel"), Jim Janssen, and Joe Sorrenti for their contributions to my knowledge.

I want to acknowledge my best friend, Jerry Goldin, Ph.D., for his ongoing support of everything I do and of my entire family. I want to thank my sister, Marilyn Umlas Wachtel, for being there when I have most needed her.

My wonderful children, Stefanie and Jared Umlas, have put up with me as I remained at the computer, writing this book, instead of watching Alias or The Simpsons with them. They have been terrific!

I would especially like to thank E. LaVerne Johnson, President and CEO of International Institute for Learning (IIL), for believing that I am one of the top three Excel gurus in the world, no matter what I tell her. I also thank her for supporting my love of teaching by offering the Mastering Microsoft® Excel course through IIL all these years.

Bob Umlas, Microsoft® Excel MVP

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## Praise for **THIS ISN'T EXCEL, IT'S MAGIC!**

"I was astonished reading this book. The tips are excellent and well worth knowing—you won't want to miss even one of them! Although English is my second language, I got through it effortlessly. Bob Umlas is a magician—thanks for sharing this immense knowledge with us!"

— Monika Weber, Excel MVP  
Project Manager, Corporate IT  
AMCOR Rentsch Ltd.

"I carry *This isn't Excel, It's Magic!* in my car and read tips while stopped at traffic lights. The book is already full of post-it flags for all the tips I didn't know. I think I've flagged all but the title page."

— Melanie Beck, technical training specialist,  
Grant County Public Utility District

"I thought I knew a lot about Excel; but I now realize how little I did know. There are so many great head spinning, jaw dropping tips and tricks. It makes unlocking the power of Excel an amazing experience. A must have for (Excel) users everywhere. Mr. Umlas (is) a true magician."

— Alesa Lambert, corporate accountant, CM Foods

"I love this book and highly recommend it to all Excel users. Whether you are looking for some simple techniques to make you more productive in Excel, or if you are ready for some sophisticated how-to's, you will learn valuable information from *This isn't Excel, it's Magic!*"

— Bob Schuster, partner of ExcelMagic and  
RWS Information Systems

"*(This isn't Excel, it's Magic!)* is a simple, but amazingly useful book. Very clever! Bob has produced a compact, but brilliantly useful book of shortcuts, formula secrets and tricks. One thing I loved about this book is it tackles 'real world' problems. This is not a book for Excel beginners. However, if you use Excel professionally or for fun then you absolutely should consider grabbing a copy of this highly useful and informative book. It will save you many hours of work and delight you at the same time."

— Darryl Collins, Excel/VBA developer

**“Nobody willing to use Excel efficiently should be without a copy.”**

– Miguel Fischman, systems analyst programmer

**“What a handy little book chock full of hints, tips and techniques. I have been studying Excel for longer than I care to admit yet I consider my knowledge of the subject minuscule compared to the author’s breadth of skill.”**

– Chris Curtis, desktop publisher, [bellaonline.com](http://bellaonline.com)

**“Bob Umlas is a Microsoft® Most Valuable Professional (MVP) who put his nearly 20 years of Excel experience into a book called: This isn’t Excel, it’s Magic! Bob shares many excellent tips for the experienced Excel user that will save time and energy when working with spreadsheets. A beginner may be a little daunted by some tricks, but will appreciate them once they get to know Excel. The book is well illustrated and narrated.”**

– Rick Castellini, host of Castellini on Computers

**“One of the biggest perks of attending the MVP conference in Redmond was the opportunity to chat with folks from all over the world. I had the unique opportunity to chat with Bob Umlas, an expert in Microsoft® Excel. If you have questions about how to use Microsoft® Excel then Bob probably has the answers.”**

– David Ciccone, founder, [mobilitytoday.com](http://mobilitytoday.com)

**“The first time I read it was in the middle of the night during a blackout. I had to use a flashlight under the covers. Thanks again for your help.”**

– Debi Morrison, B2B Support Coordinator,  
“the Excel Queen”

**“Despite the large selection of accounting software programs for businesses, Microsoft® Excel is the tried-and-true spreadsheet option for most, especially for small businesses. A new book by Bob Umlas, a Microsoft® Excel MVP and author of 300 articles on Excel, shares tips on how to get the most out of the software.”**

– Accounting Smartpros.com

**“You just have to buy this book!”**

– Jack Imsdahl, co-host, On Computers  
radio show with Alaska Joe

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I actually learned Microsoft Excel on the Macintosh in 1986 or so, using version 0.99! When the real version (1.00?) shipped, I read the manual (yes, Excel came with manuals then) from cover to cover. Six times. Especially in order to learn Data Tables. I just didn't get it. (Okay, so I'm a geek. Actually, I once heard that you're a geek if you double-click the TV remote)!

Around 1993 I received the nickname "Excel Trickster" from one Will Tompkins, a real Excel Guru. I got that because during a seminar he was hosting in Washington, I believe, for what he called the Excel SWAT team, he was showing his then famous Tompkins methodology – a macro structure using Excel 4 style macros (before VBA existed in Excel) which was quite sophisticated. It may have been Excel 3, I really don't remember!

In any case, he showed a line of code which used a range name, a label, and he wanted to show us the code at that label. So he used Edit/Goto, and we saw literally many hundreds of defined names which he had to laboriously scroll through to get to the one he was looking for. After he had done this about 4-5 times, I raised my hand and said, "You know, you can get to that label directly. Just press Ctrl/[." He tried it and was flabbergasted! So he tried it again. Then he remarked that I just saved him about 2 hours every day scrolling through his defined names!

When I also told him you could return to the location you were just at by using Ctrl/], he called me the Excel Trickster, and that nickname has stuck with me ever since. So thank you, Will.

I've been the contributing editor to Excellence and The Expert magazines, monthly 16-page publications for about 8 years (they no longer publish), and I've led a few sessions at Microsoft's Tech-Ed on tips & tricks and on array formulas. I've also been an Excel MVP for Microsoft since that program's inception – this is an acknowledgement for people who contribute answers on the online newsgroups, and I currently lead an online Master Class in Excel which is twelve 3-hour sessions (details can be found at <http://www.iil.com> and clicking on "Live Elearning").

So, over the years, I've gathered many tricks and I decided to put them together in this book. And in no particular order! I hope you enjoy them!

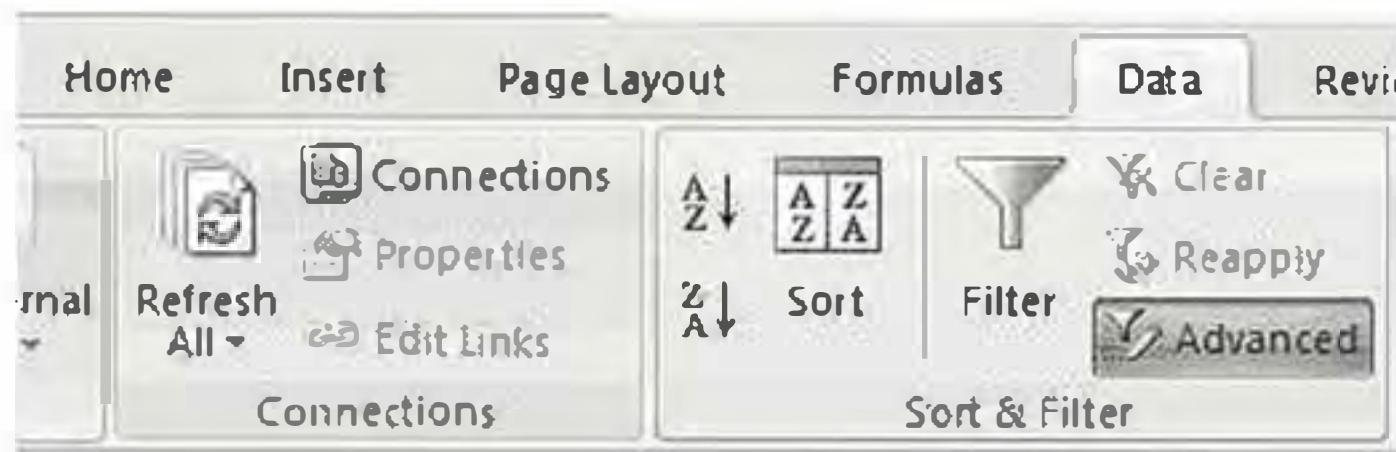
# 1. Using Advanced Filter to another sheet

Advanced filter can only filter to the active sheet.

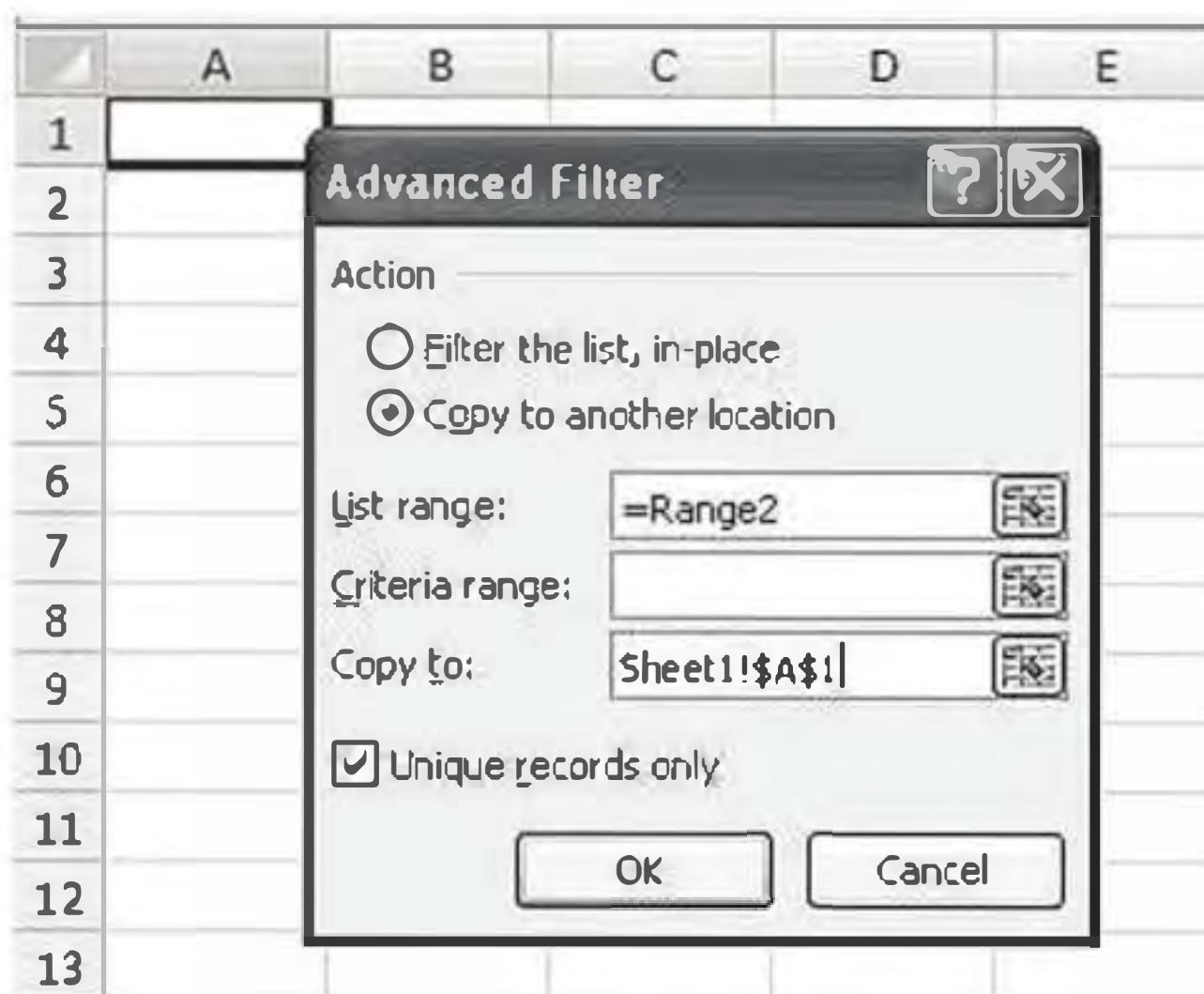
The active sheet can “pull” information from another sheet, but it cannot “push” information to another sheet. You’d get this message:



But by using the Advanced Filter on the Data tab: {Excel 2003: Data|Filter|Advanced Filter}



you can pull information to the active sheet:



Range2 is a range defined on another sheet. The sheet we're filtering to is currently empty.

After clicking OK (notice the "Unique records only" is checked, above):

	A	B
1	Jared	
2	Fred	
3	Stefanie	
4	Bob	
5	Judy	
6	Alice	
7	Jared	
8	Kate	
9		

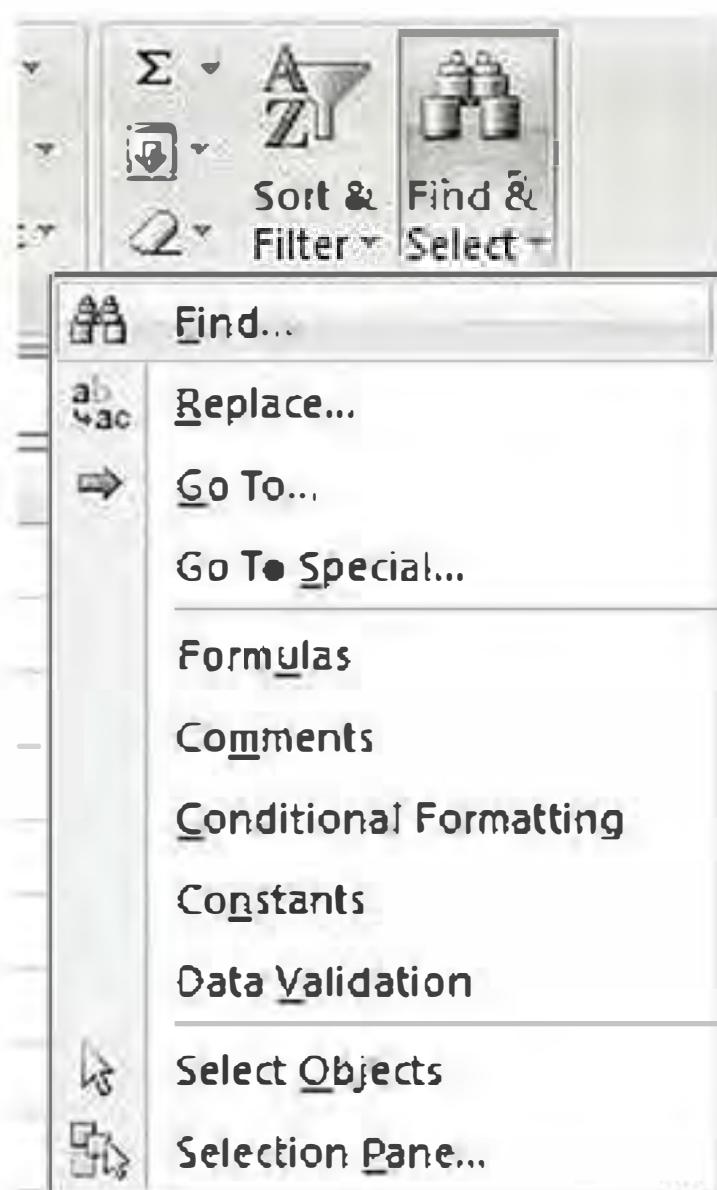
## 2. Select all 0's or Select all specific keyword

Suppose you had a worksheet which looked something like the following, and you wanted to select all the cells containing the word "amounts":

A	B
1	Description
2	m35-c summary input
3	m35-c gl account#
4	m35-c gl description
5	m35-c amounts
6	m35-d description
7	m35-d summary input
8	m35-d gl account#
9	m35-d gl description
10	m35-d amounts
11	m80 gl account#
12	m80 gl description
13	m80 ye balance
14	m80 amounts paid after
15	m81 gl account#
16	m81 gl description
17	m81 ye balance
18	m81 amounts paid after
19	m82 gl account#
20	m82 gl description
21	m82 ye balance
22	m82 amounts paid after
23	m83 gl account#
24	m83 gl description

You can't do it with F5/(Goto) Special and use features there, but you can use Excel 2007's Find All, with a twist...

If you use Home tab, Find and Select from the Editing section, then Find (or, simply press Ctrl/F): [Excel 2003:Edit|Find]



type in “amounts” (without the quotes), then click the Find All button, you’ll see:

The screenshot shows the 'Find and Replace' dialog box in Microsoft Excel 2003. The 'Find' tab is selected, and the 'Find what:' field contains the text 'amounts'. Below the dialog is a table showing the results of the search. The table has columns: Book, Sheet, Name, Cell, and Value. There are 44 rows found, all corresponding to the 'amounts' in the 'Name' column. The 'Value' column shows various cell addresses like \$B\$5, \$B\$10, etc. The last row shows a partial entry starting with '\$B\$100'. At the bottom of the table, it says '44 cell(s) found'.

Book	Sheet	Name	Cell	Value
hydradientorganizermap2.xls		client organizer to ewp	\$B\$5	m35-c amounts
hydradientorganizermap2.xls		client organizer to ewp	\$B\$10	m35-d amounts
hydradientorganizermap2.xls		client organizer to ewp	\$B\$14	m30 amounts paid after
hydradientorganizermap2.xls		client organizer to ewp	\$B\$18	m81 amounts paid after
hydradientorganizermap2.xls		client organizer to ewp	\$B\$22	m82 amounts paid after
hydradientorganizermap2.xls		client organizer to ewp	\$B\$26	m63 amounts paid after
hydradientorganizermap2.xls		client organizer to ewp	\$B\$30	m84 amounts paid after
hydradientorganizermap2.xls		client organizer to ewp	\$B\$34	m85 amounts paid after
hydradientorganizermap2.xls		client organizer to ewp	\$B\$38	m86 amounts paid after
hydradientorganizermap2.xls		client organizer to ewp	\$B\$42	m87 amounts paid after
hydradientorganizermap2.xls		client organizer to ewp	\$B\$46	m88 amounts paid after
hydradientorganizermap2.xls		client organizer to ewp	\$B\$50	m89 amounts paid after
hydradientorganizermap2.xls		client organizer to ewp	\$B\$54	m90 amounts paid after
			\$B\$100	m91 amounts paid after

Here's the twist: instead of selecting the items in the found list, you can use **ctrl/A** (or shift click the last item in order to select from the already-selected item through the item you're now selecting, or even **ctrl/click** to select specific items), and all items selected in the list will also be selected in the worksheet:

The screenshot shows a Microsoft Excel spreadsheet with column A containing various text entries. Overlaid on the spreadsheet is the 'Find and Replace' dialog box. The 'Find what:' field contains the text 'amount'. The 'Find All' button is highlighted with a red box. Below the dialog box, a list of found cells is displayed in a table with columns: Book, Sheet, Name, Cell, and Value. The table shows 44 cells found, all corresponding to the text 'amount' in the spreadsheet.

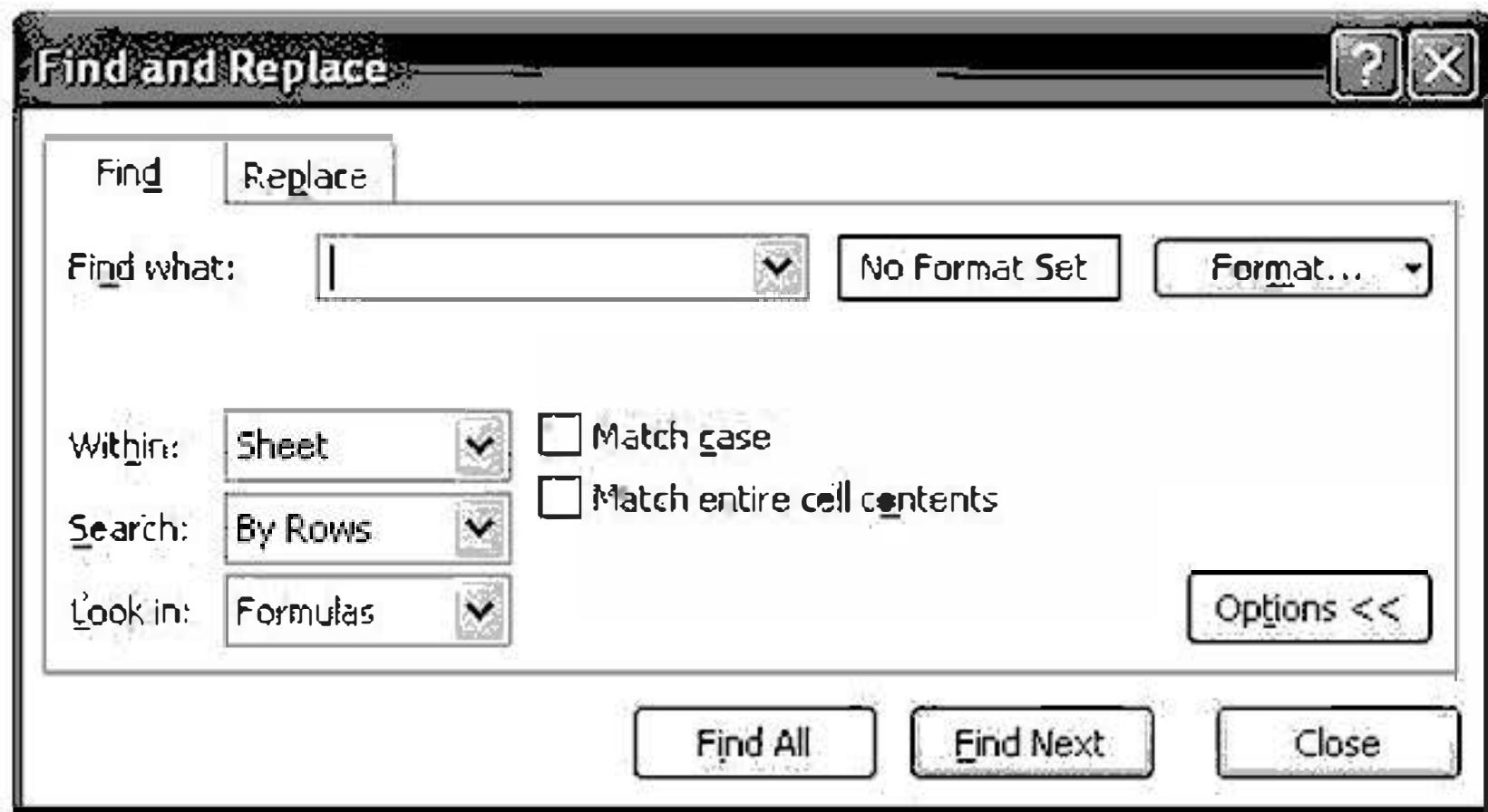
Book	Sheet	Name	Cell	Value
hydraclientorganizermap2.xls	client organizer to exp		\$B\$5	m05-c amounts
hydraclientorganizermap2.xls	client organizer to exp		\$B\$10	m05-d amounts
hydraclientorganizermap2.xls	client organizer to exp		\$B\$14	m06 amounts paid after
hydraclientorganizermap2.xls	client organizer to exp		\$B\$18	m01 amounts paid after
hydraclientorganizermap2.xls	client organizer to exp		\$B\$22	m02 amounts paid after
hydraclientorganizermap2.xls	client organizer to exp		\$B\$26	m03 amounts paid after
hydraclientorganizermap2.xls	client organizer to exp		\$B\$30	m04 amounts paid after
hydraclientorganizermap2.xls	client organizer to exp		\$B\$34	m05 amounts paid after
hydraclientorganizermap2.xls	client organizer to exp		\$B\$38	m06 amounts paid after
hydraclientorganizermap2.xls	client organizer to exp		\$B\$42	m07 amounts paid after
hydraclientorganizermap2.xls	client organizer to exp		\$B\$46	m08 amounts paid after
hydraclientorganizermap2.xls	client organizer to exp		\$B\$50	m09 amounts paid after
hydraclientorganizermap2.xls	client organizer to exp		\$B\$54	m10 amounts paid after
hydraclientorganizermap2.xls	client organizer to exp		\$B\$58	m11 amounts paid after

Now, when you close the dialog box, the cells will still be selected!

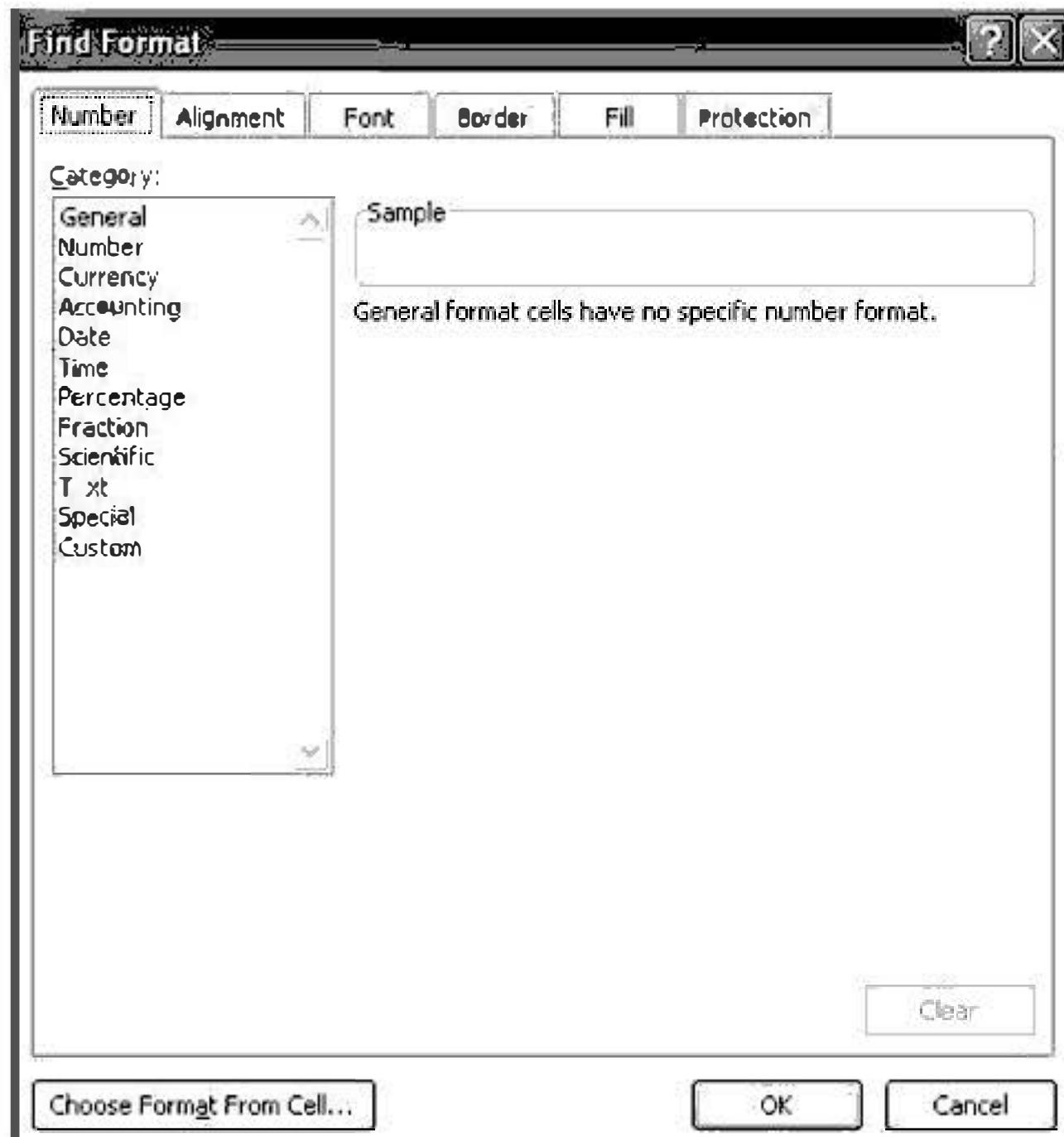
Now, suppose your worksheet looks something like the following, and you want to change all the yellow cells to be bold (and still yellow):

A
1 Form Name
2 FORM 5471
3 FORM 5471
4 FORM 5471
5 FORM 5471
6 FORM 5471
7 FORM 5471
8 FORM 5471
9 FORM 5471
10 FORM 5471
11 FORM 5471
12 FORM 5471
13 FORM 5471
14 FORM 5471
15 FORM 5471
16 FORM 5471
17 FORM 5471
18 FORM 5471
19 FORM 5471
20 FORM 5471
21 FORM 5471

Selecting by text now won't do, but there's another feature of Excel's Find command: Find by Format. Note the Format button at the top, (you may need to click the Options button):

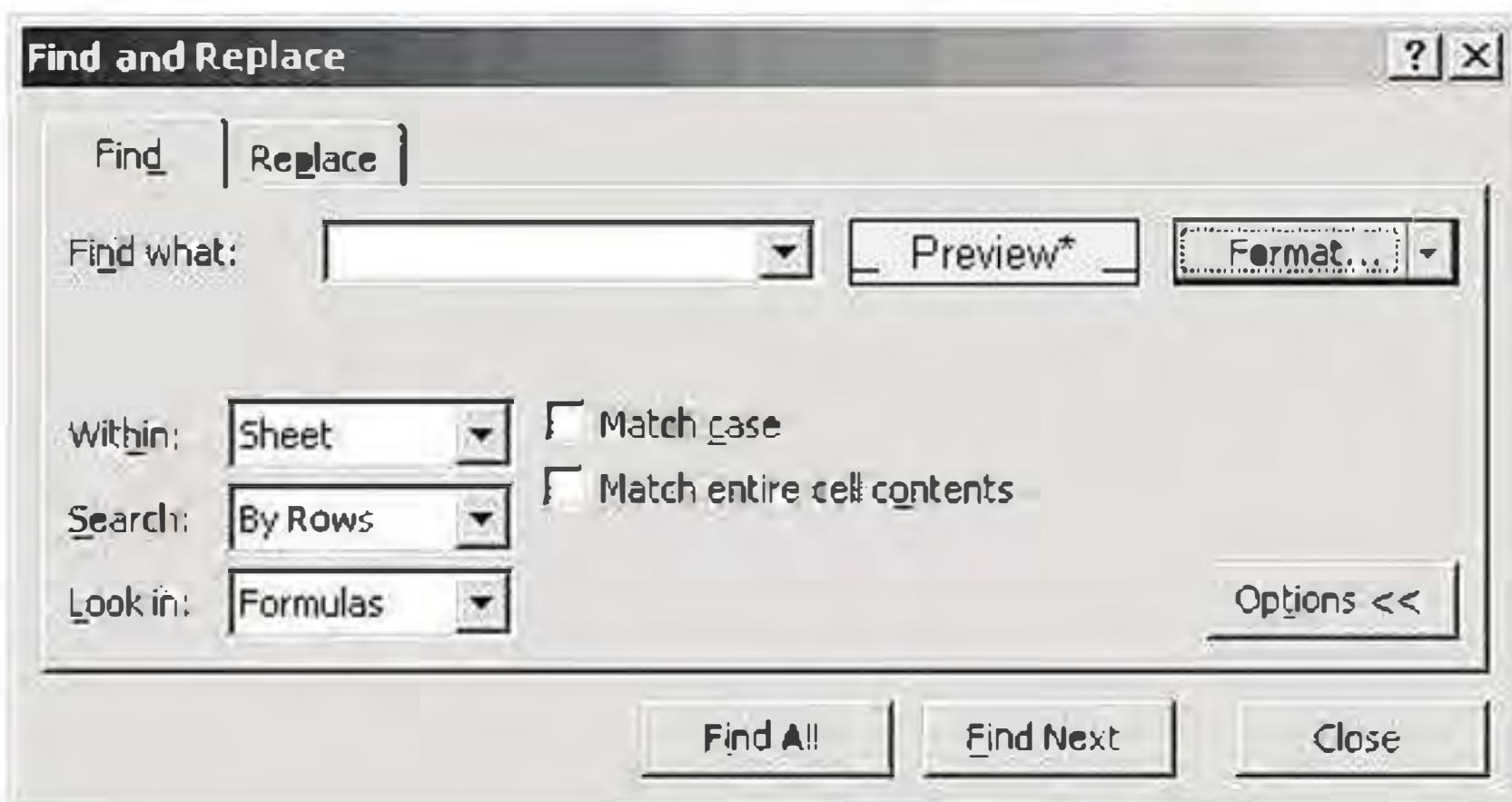


When you click this, you'll see:



In this dialog, you can enter all the properties of the formatting you're going to want to find, but there's also an easier way: click the bottom button, "Choose Format From Cell..." When you do this, you'll see a special cursor which looks like the regular cell-selection cursor but with an eye-dropper next to it!

When you click on the cell containing the format you want to find, you'll then see a preview of the formatting in the dialog box, and you can combine this with text to find as well!



Here's the result:

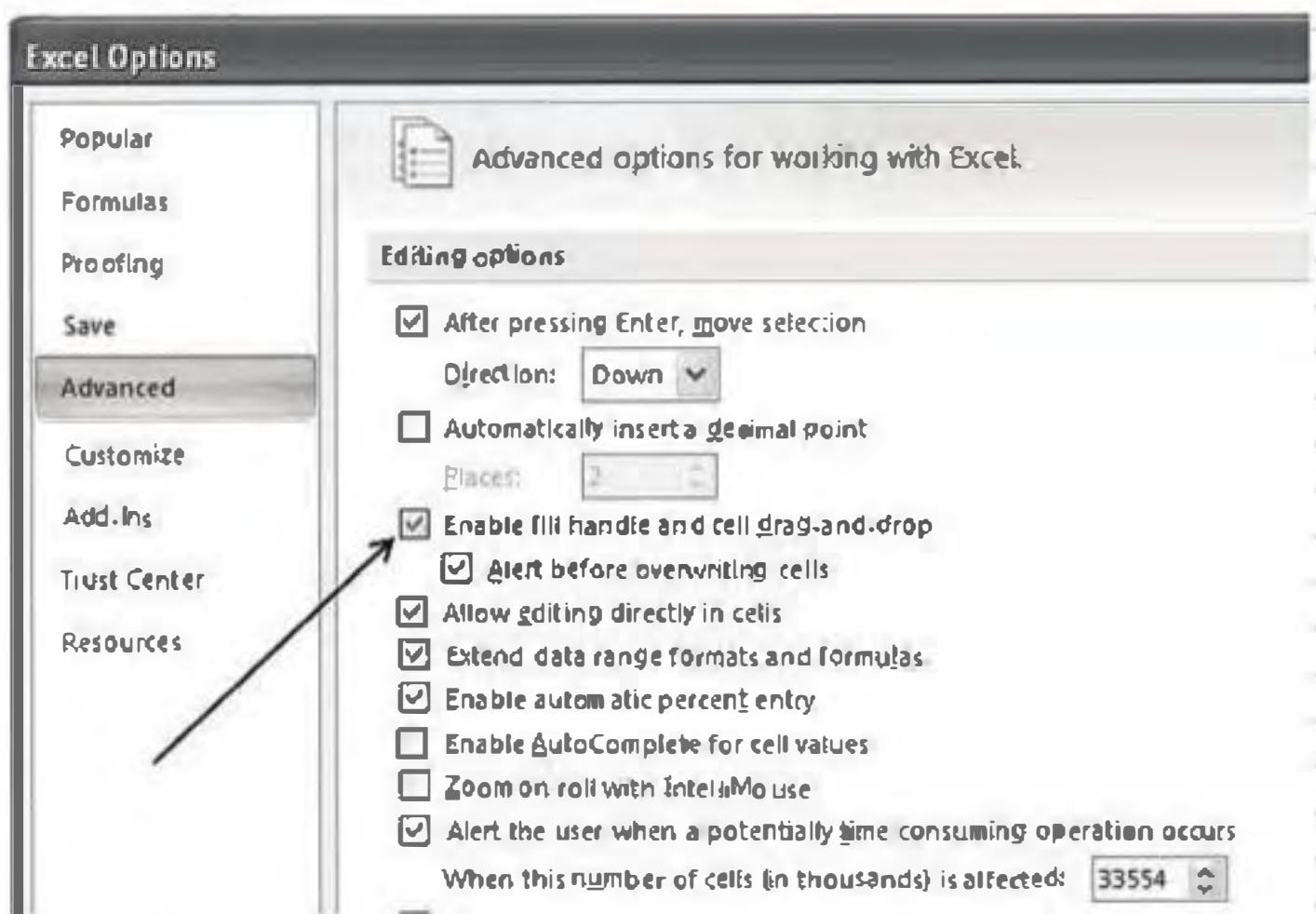
The screenshot shows an Excel spreadsheet with data in columns A and B. Column A contains row numbers from 1 to 21, and column B contains text entries mostly consisting of 'FORM 5471'. Row 17 is highlighted with a yellow background. A 'Find and Replace' dialog box is overlaid on the spreadsheet. It has the same settings as the previous screenshot: 'Find' tab selected, 'Find what:' empty, 'Within: Sheet', 'Search: By Rows', 'Look in: Formulas', and both checkboxes unchecked. At the bottom of the dialog are 'Find All', 'Find Next', and 'Close' buttons. Below the dialog, a table displays the search results:

Book	Sheet	Name	Cell	Value	Formula
Book1	Sheet2		\$A\$3	FORM 5471	
Book1	Sheet2		\$A\$8	FORM 5471	
Book1	Sheet2		\$A\$12	FORM 5471	
Book1	Sheet2		\$A\$15	FORM 5471	
Book1	Sheet2		\$A\$17	FORM 5471	
Book1	Sheet2		\$A\$18	FORM 5471	
Book1	Sheet2		\$A\$19	FORM 5471	

At the bottom of the table, it says '7 cell(s) found'.

### 3. Cut/Copy, Insert Paste by dragging borders!

In order for this tip to work, you need to have the setting checked for Enable fill handle and cell drag-and-drop turned on (which is the default setting anyway). Office button, Excel Options, Advanced section, as shown here: {Excel 2003: Tools|Options>Edit|Allow cell drag and drop}



To cut and paste a range, select it and drag the border (the cursor will change to a cursor with a 4-headed arrow).

To cut and insert paste a range, drag a range by its border and the shift key held down. You will see an indication of where the range will be inserted:

	A	B	C
1	36	45	1/1/2003
2	40	50	2/1/2003
3	44	55	3/1/2003
4	48	60	4/1/2003
5	52	65	5/1/2003
6	56	AS:C6	

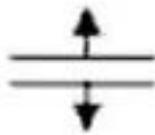
The grey line indicates where A1:C2 will be cut and insert-pasted. The intellicsense shows that the new location will be at AS:C6.

If you hold the ctrl key down with either of the two actions above, the cut becomes a copy.

## 4. Use Fill-handle to insert or delete rows

Did you know that holding the shift down while using the fill handle will shift cells? Well, now you do! Let's take a look.

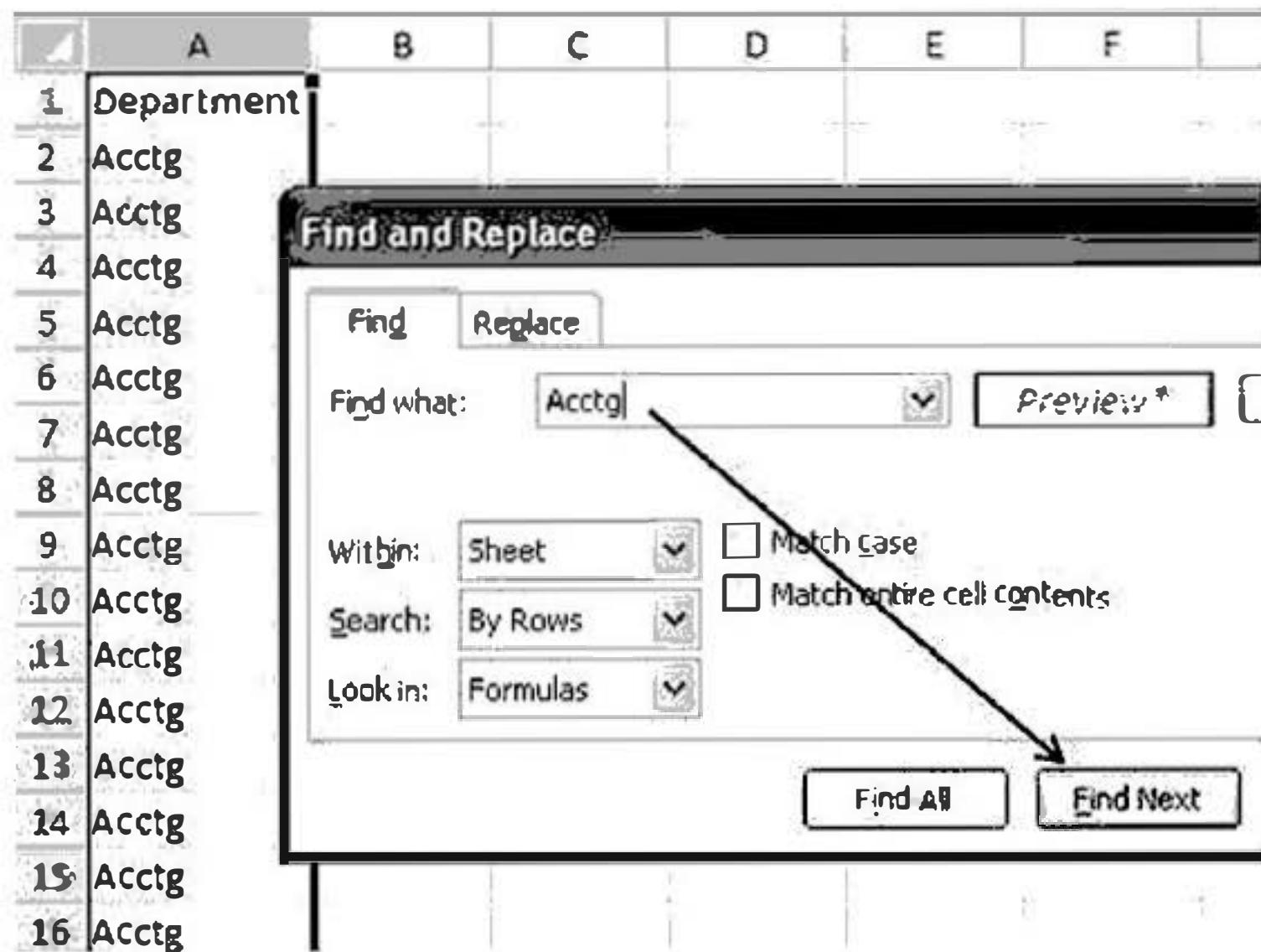
1. Hold shift key while dragging Fill Handle. You will see a new shape to the fill handle, a split vertical 2-headed arrow.



2. If drag down you will insert rows
3. If drag up you will delete rows
4. If drag right you will insert columns
5. If drag left you will delete columns

## 5. Shift/find finds backwards

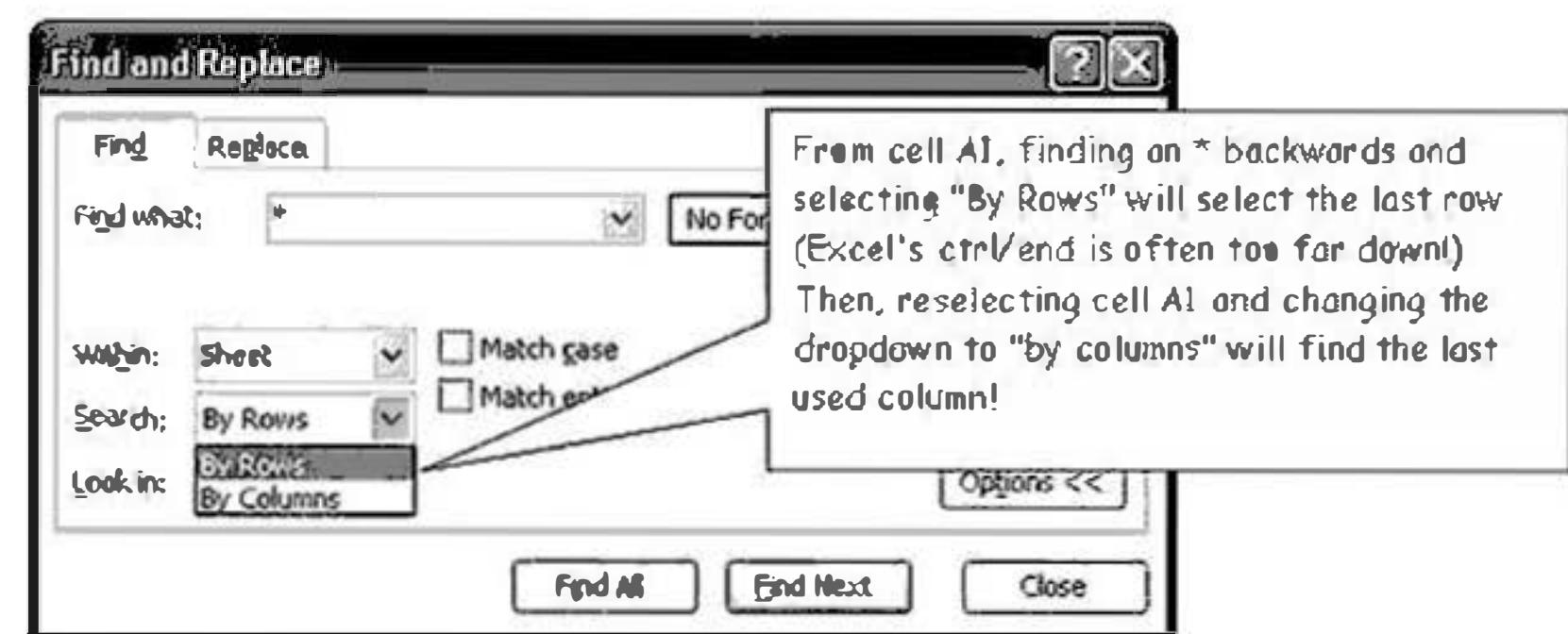
This is great for finding the last department in a list, for example:



How can you tell where the last Acctg department is? Use Find & Select from the Home Tab (or **ctrl/F**), and before clicking Find Next, hold the shift key, and you're there in one click!

	A	B	C	D	E
263	Acctg				
264	Acctg				
265	Acctg				
266	Acctg				
267	Acctg				
268	Acctg				
269	Acctg				
270	Acctg				
271	Acctg				
272	Acctg				
273	Acctg				
274	Acctg				
275	Acctg				
276	Bowling Department				
277	Bowling Department				

## Features



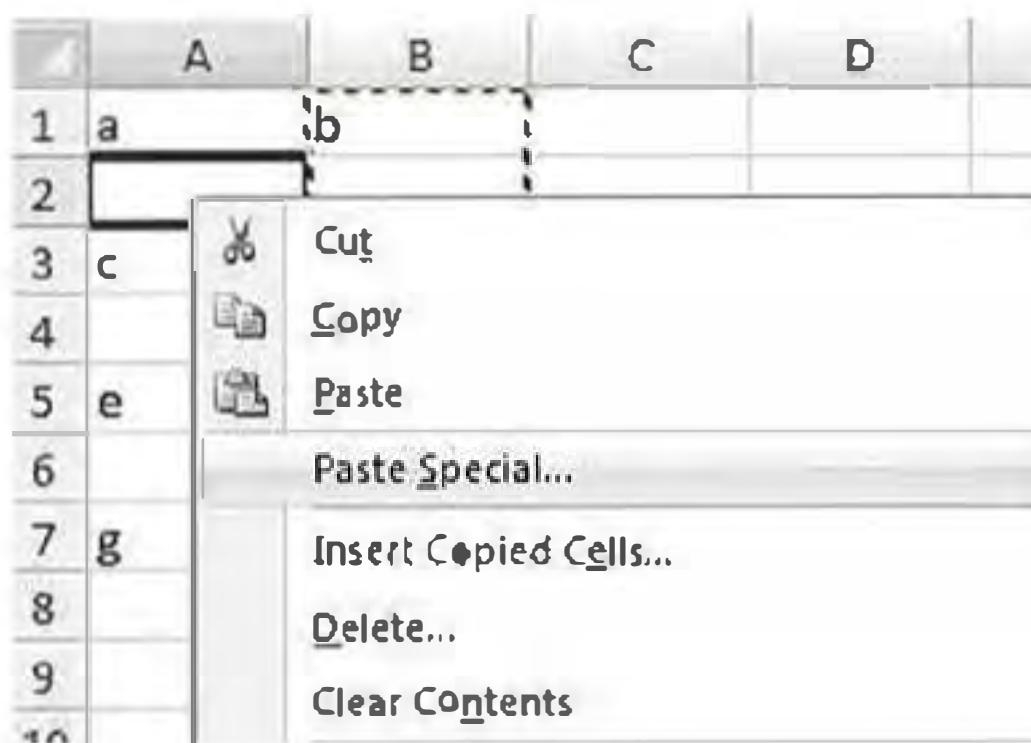
## 6. Combining cells with Paste Special/Skip Blanks

You've seen the Skip Blanks feature in the Paste Special dialog, but do you know how to use it? It refers to the range being copied—blank cells in the source won't erase cells in the receiving range.

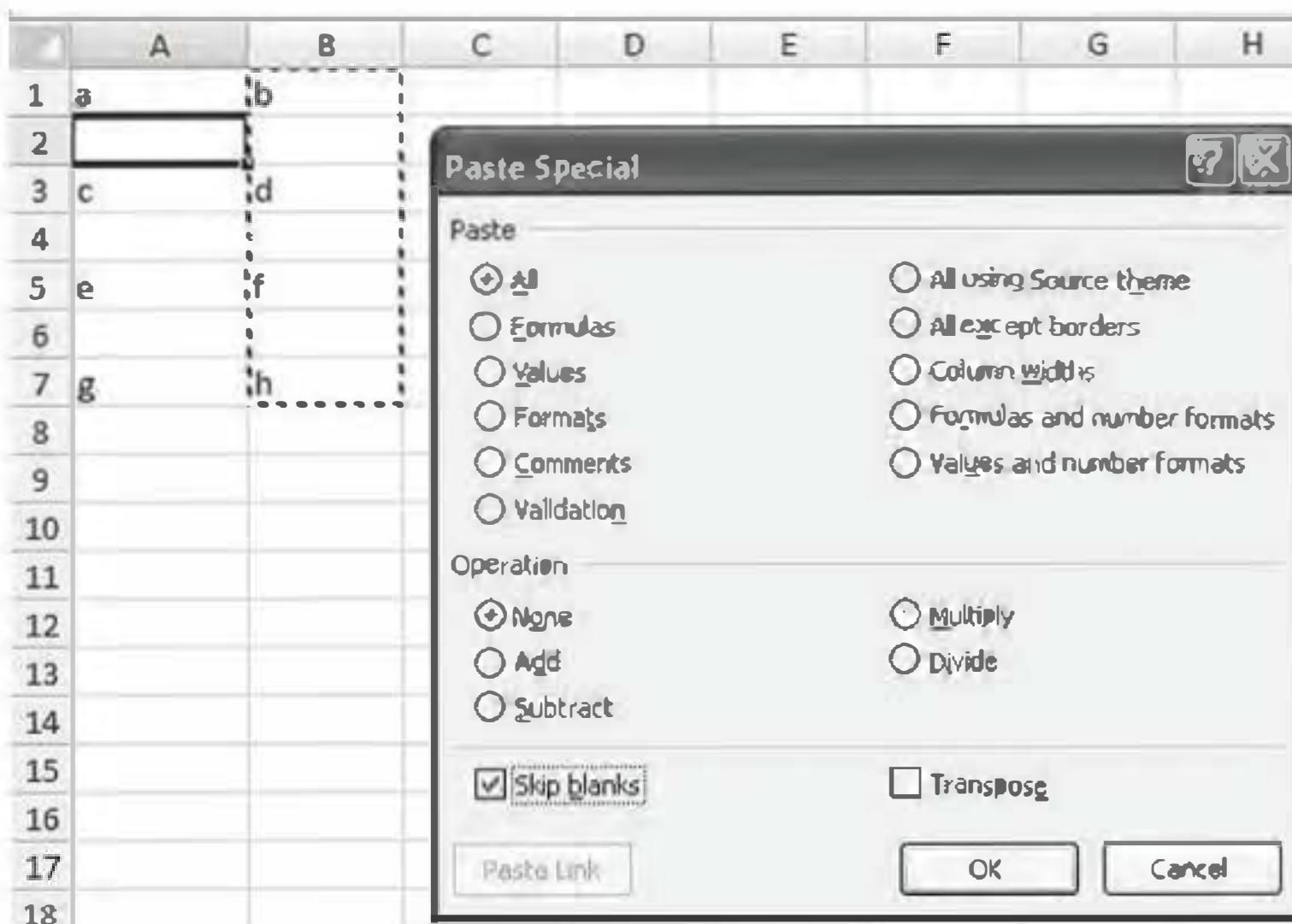
Example:

A1:A7 has a,,c,,e,,g and B1:B7 has b,,d,,f,,h:

Copy B1:B7, select A2, Right/Click, Paste Special



with Skip blanks:



Here's the result:

	A	B	C
1	a	b	
2	b		
3	c	d	
4	d		
5	e	f	
6	f		
7	g	h	
8	h		
9			
10			

## 7. Right-click drag the Fill Handle for several options

If you use the fill handle and drag with the right-mouse button down, you will be presented with a dialog containing several options when you let go:



What the original selection contains will determine what options are available in the dialog:

A	B	C	D
1 36	45	1/1/2003	
2 40	50	2/1/2003	
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

A context menu titled "Copy Cells" is open over the selected range from B2 to C2. The menu includes the following options:  
Fill Series  
Fill Formatting Only  
Fill Without Formatting  
Fill Days  
Fill Weekdays  
Fill Months  
Fill Years  
Linear Trend  
Growth Trend  
Series...

Notice that in the first example, dates were selected, so the middle section of the dialog (filling dates) is available, but the second example has the middle section disabled because dates weren't selected. The Fill Weekdays option with dates selected can be quite useful:

A	B	C
1 36	45 1/6/2005	
2 40	50 1/7/2005	
3		1/10/2005
4		1/11/2005
5		1/12/2005
6		1/13/2005
7		1/14/2005
8		1/17/2005
9		1/18/2005

Cell C1's fill handle was dragged down to cell C9 with the right mouse used, and Fill Weekdays was chosen. Notice 1/8, 1/9, 1/15, and 1/16 are missing, because they're weekends.

## 8. Defining names for large non-contiguous ranges

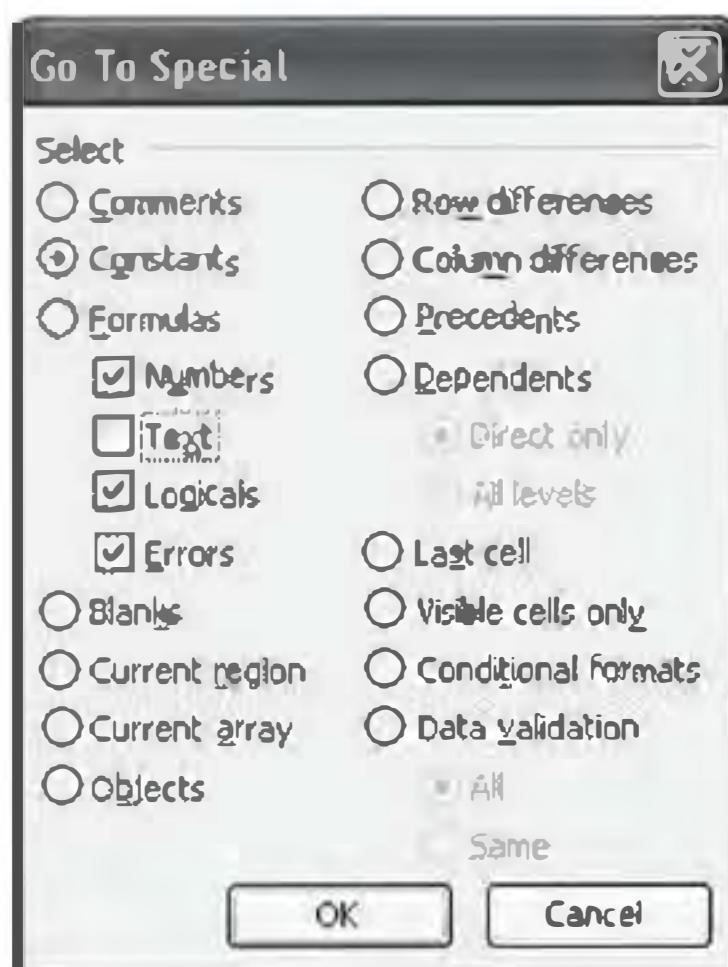
If you need to name a multi-area range, you're limited to about 255 characters in the definition. This can cause problems as seen here.

In this worksheet we want to give a name to all the cells containing values so that it's easy to clear them or add them up, or refer to them in some way.

	A	B	C	D	E	F	G	H	I
1	Data:	2							
2									
3					Data:	21	Data:	27	
4									
5				Data:	25				
6	Data:	12							
7	Data:	14							
8					Data:	89			
9					Data:	63	Data:	81	
10				Data:	50	Data:	70		
11		Data:	33						
12				Data:	88				
13									
14									
15	Data:	30			Data:	105			

Also notice the tab's name is quite long.

Okay, we want to name the cells, so we select them first (it's easiest using F5, Special, and making this selection):



That is, we're selecting constants which are numbers (not text). Then we use Define Name from the Formulas tab. [Excel 2003:Insert|Name|Define]. But you'll find that if the resulting name was too long, then Excel won't even bring up the dialog! You can name these cells most easily, though, by using VBA! Press Alt/F11, getting you to the VBE (Visual Basic Environment), then Ctrl/G (the immediate pane), then type this exactly, and press enter:  
Selection.Name = "MyData"  
Then Alt/Q will bring you back to Excel. Now the name MyData will accurately refer to the desired cells.

## 9. What is that :1, :2... I see in the workbook title?

The New Window button from the Window section of the View tab creates another “view” of the same workbook: [Excel 2003:Window|New Window]

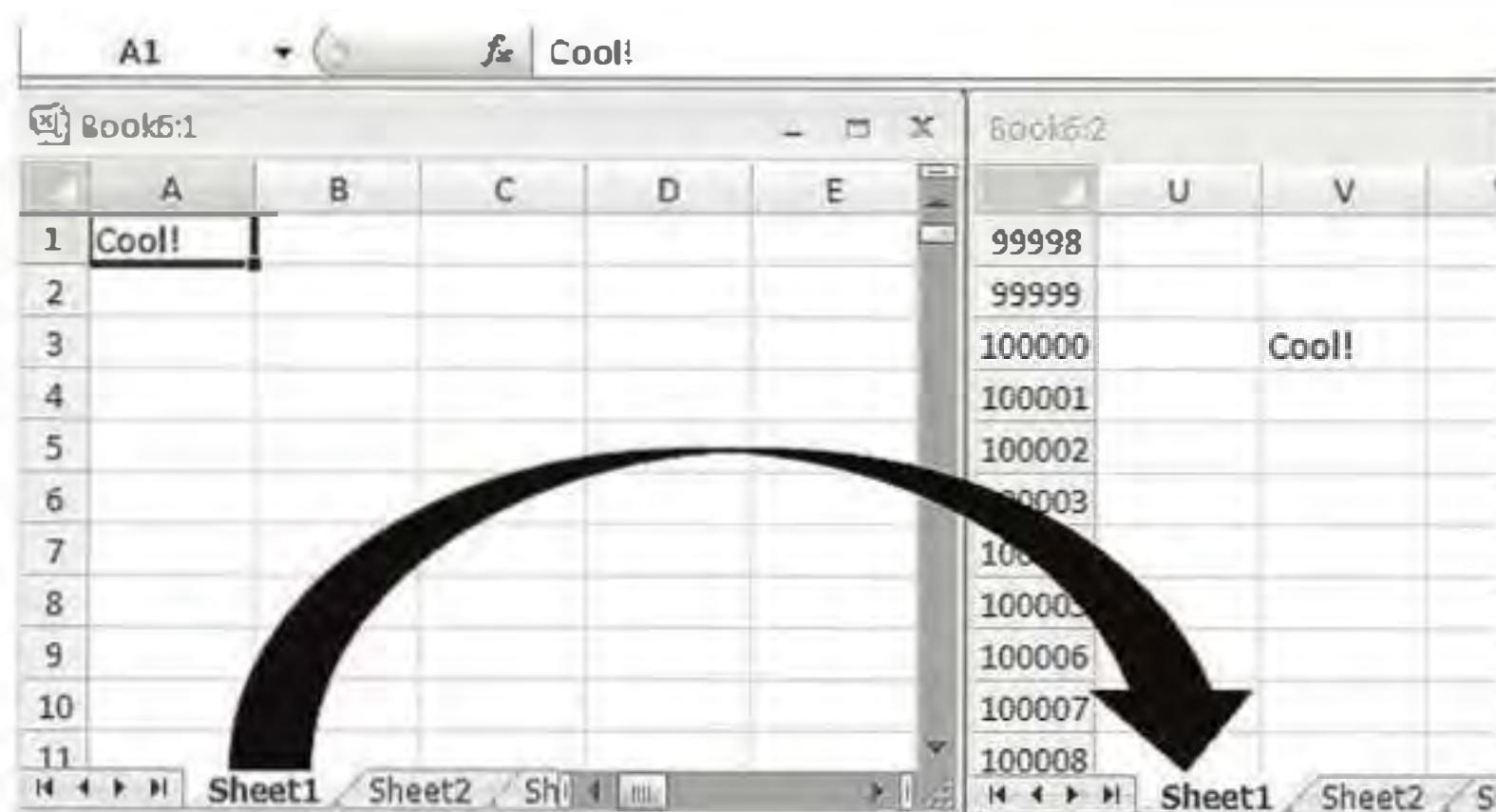


You can use it to:

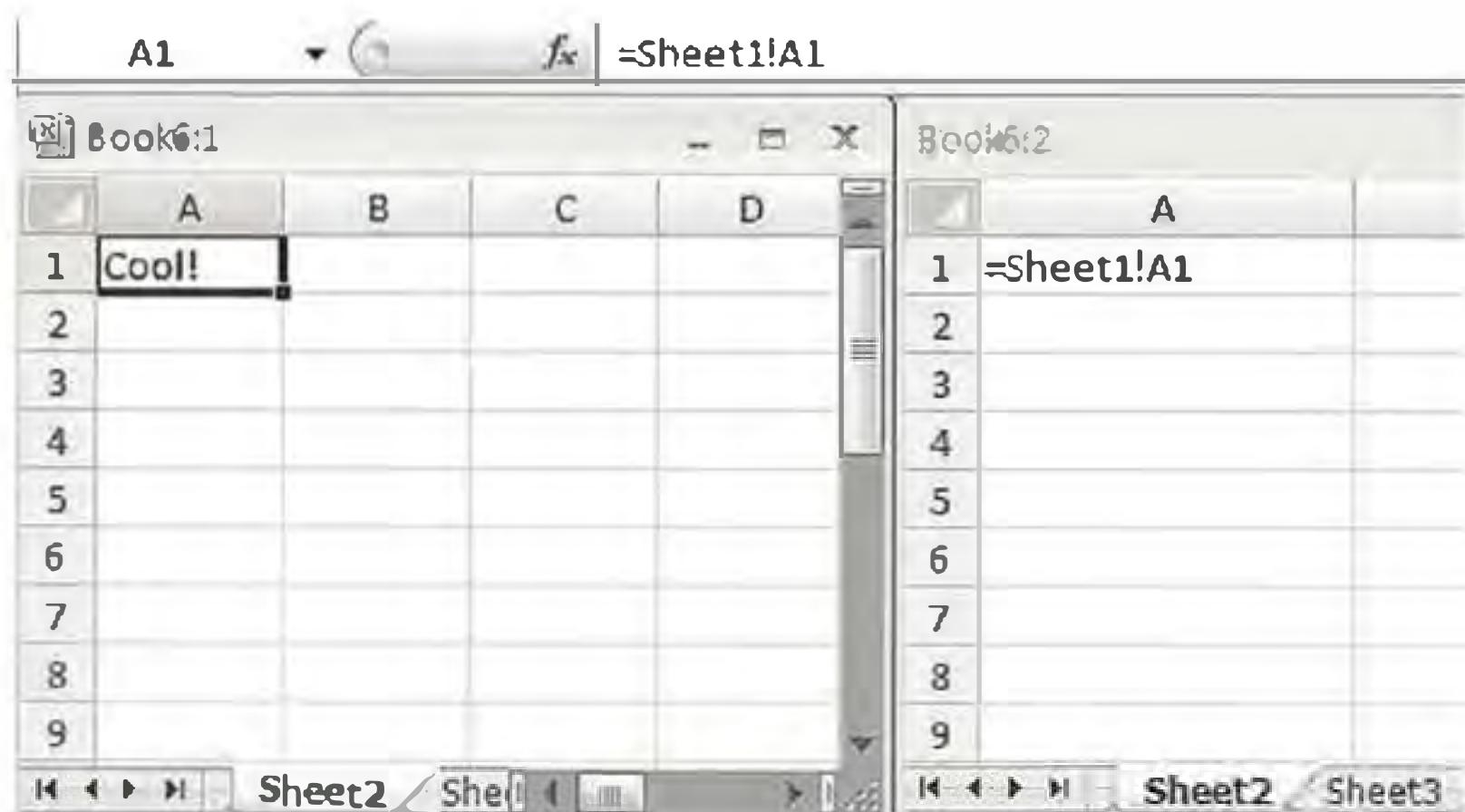
- View separate sheets of the same workbook at the same time:

A screenshot showing two separate windows of the same Excel workbook, 'Book6:1'. Both windows have the title bar 'Book6:1' and show the same data in Sheet1. In both windows, cell A1 contains the text 'Cool!'. The windows are side-by-side, demonstrating how the 'New Window' feature allows you to view different parts of the same workbook simultaneously.

- View the same sheet but remote areas simultaneously:



- View formulas and values simultaneously:



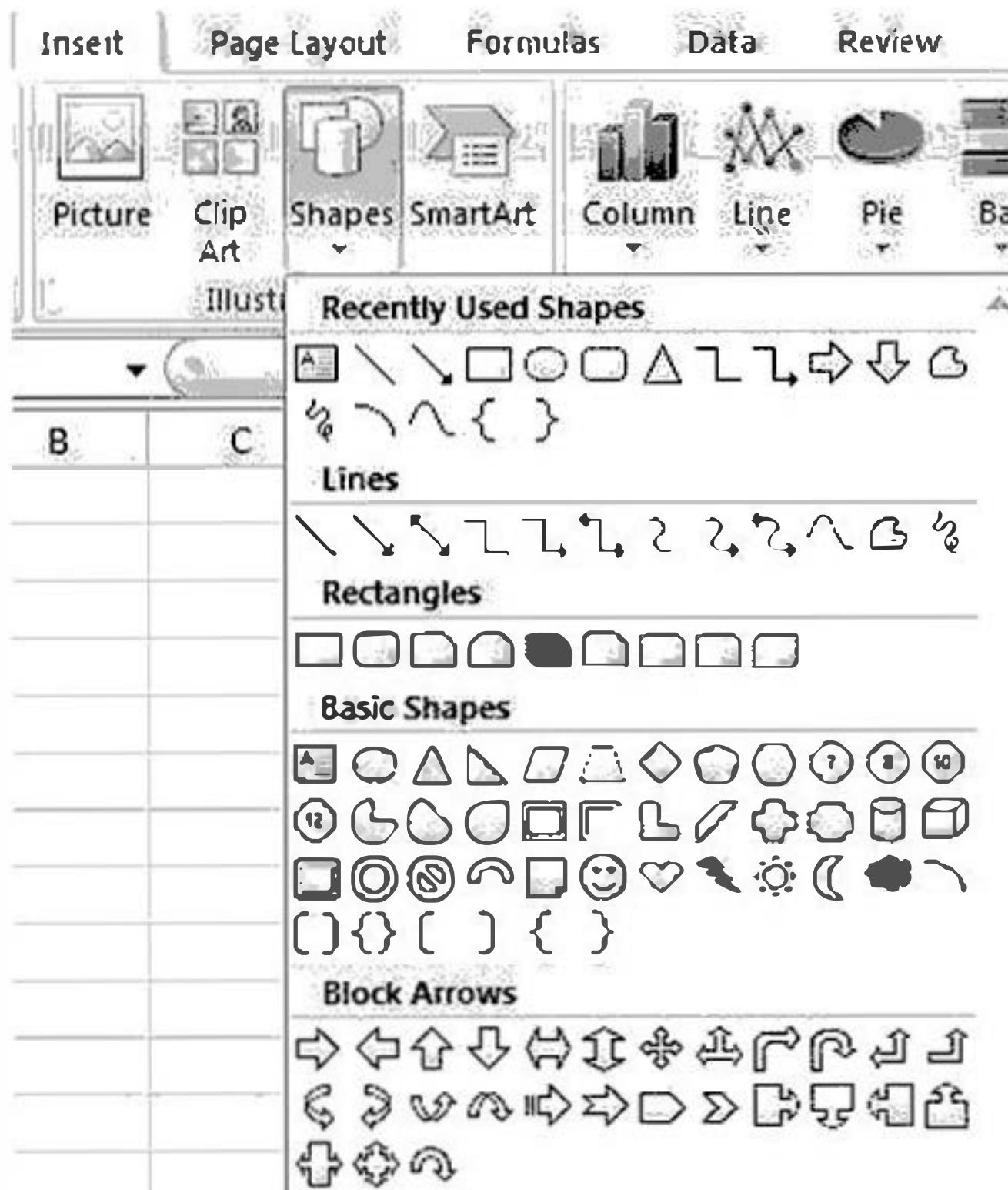
To rejoin the windows, close the window by the "x" in the upper right, not by Office button/Close, [Excel 2003:File|Close] because the separate windows would save and reopen that way. You can use New Window many times and get as many windows as you wish of the workbook.

Think of it as if you were looking out your physical window and seeing parked cars. Now move to another window and look at the same cars. You have a slightly different perspective of the same object. That's kind of what's going on here.

## 10. Double-clicking tools

Double-click the format painter keeps it “alive” to click on several cells without having to click it again.

You can no longer double-click Shape tools – But if you right-click a tool, you’ll see an option to “Lock Drawing Mode”, then you can draw several of the same shape without revisiting the tool [Excel 2003:Doubleclick the shape from the drawing toolbar] (From the Shape button on the Insert tab):



Press the esc key to stop that feature or click the tool again!

## 11. AutoSum Tool features

Suppose you have a block of cells like in this illustration, containing numbers which you want to enter the totals both on the right and below; that is, in E1:E7 and A8:E8. You'd probably do it something like this:

	A	B	C	D	E	F	G
1	65	54	30	46	=SUM(A1:D1)		
2	84	85	87	74	SUM(number1, [number2], ...)		
3	14	69	78	97			
4	88	42	71	6			
5	5	32	71	62			
6	57	47	65	2			
7	50	5	63	92			
8							

Click in E1 and click the Sum tool (on the Editing section of the Home tab)  
[Excel 2003:Sum toolbar button on Standard Toolbar]



1. and press enter, or double-click the Sum tool.
2. Click the fill handle in E1 and drag to E7, or double click the fill handle in E1.
3. Select cell A8, click the sum tool, enter the formula, select the fill handle, drag to E8.

Hold on to your hats. It can be done in one click:

Make this selection as shown in the illustration:

	A	B	C	D	E
1	65	54	30	46	
2	84	85	87	74	
3	14	69	78	97	
4	88	42	71	6	
5	5	32	71	62	
6	57	47	65	2	
7	50	5	63	92	
8					

Select an extra blank column and row.  
Click AutoSum Tool once and you're done!  
I know... you have to try it!

Next, if you have a multi-cell selection, as in this illustration:

	A	B
1	60	60
2	54	66
3	5	28
4	57	16
5	9	14
6		91
7	34	29
8	7	16
9	62	
10	70	7
11	66	68
12	95	77
13	76	13
14	46	81
15	32	70
16		18
17		

A single click of the sum tool will put the correct totals in!

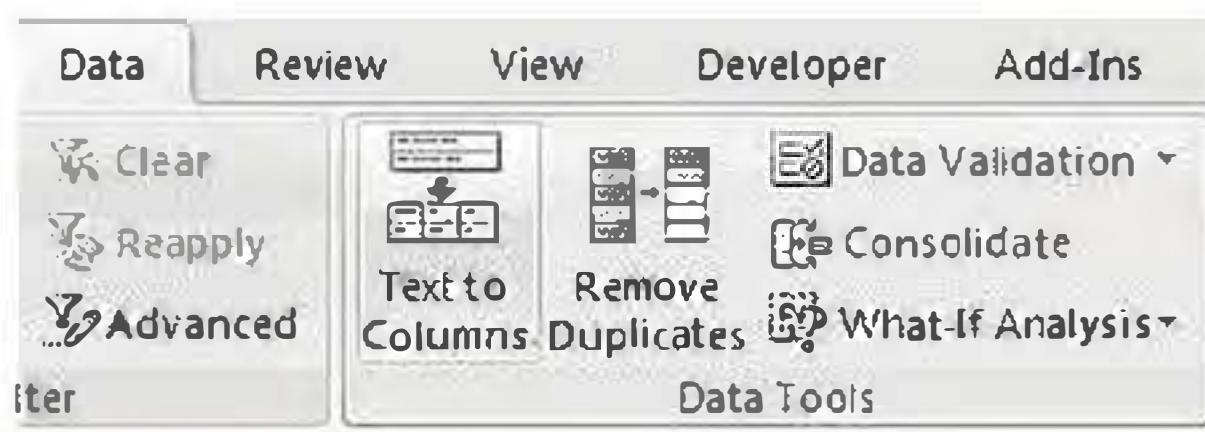
	A	B
1	60	60
2	54	66
3	58	28
4	57	16
5	9	14
6	238	91
7	34	29
8	70	16
9	62	320
10	7	7
11	66	6
12	9	77
13	76	13
14	46	81
15	32	70
16	51	18
17		334

## 12. Change dates like 20050923 to one Excel can “understand”

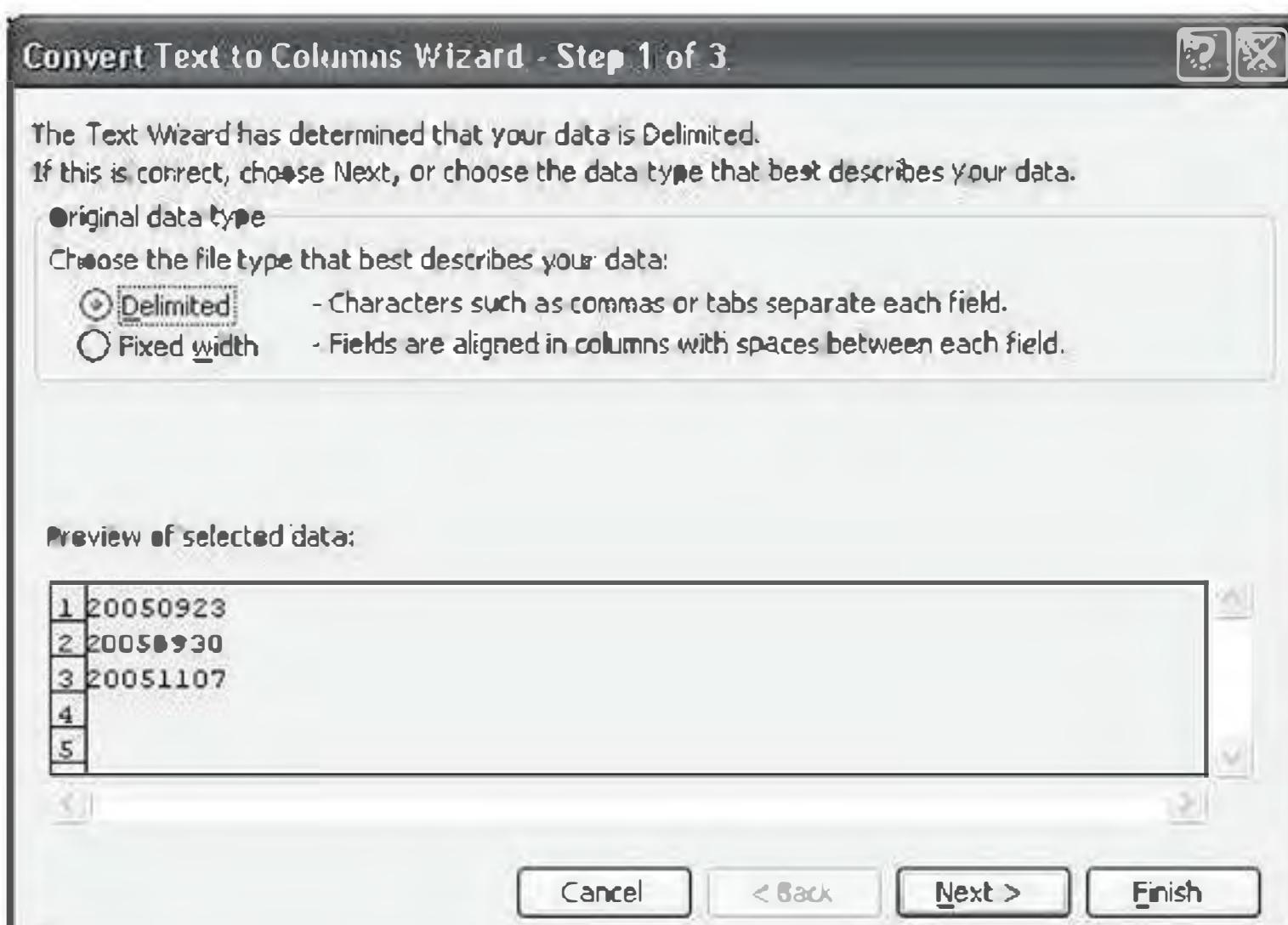
Suppose you are looking at a worksheet which contains dates which can't be formatted as "real" dates because of their structure:

	A
1	20050923
2	20050930
3	20051107
4	

Select the date(s), and use Data tab, Text-To-Columns, [Excel 2003:Data|Text to Columns]

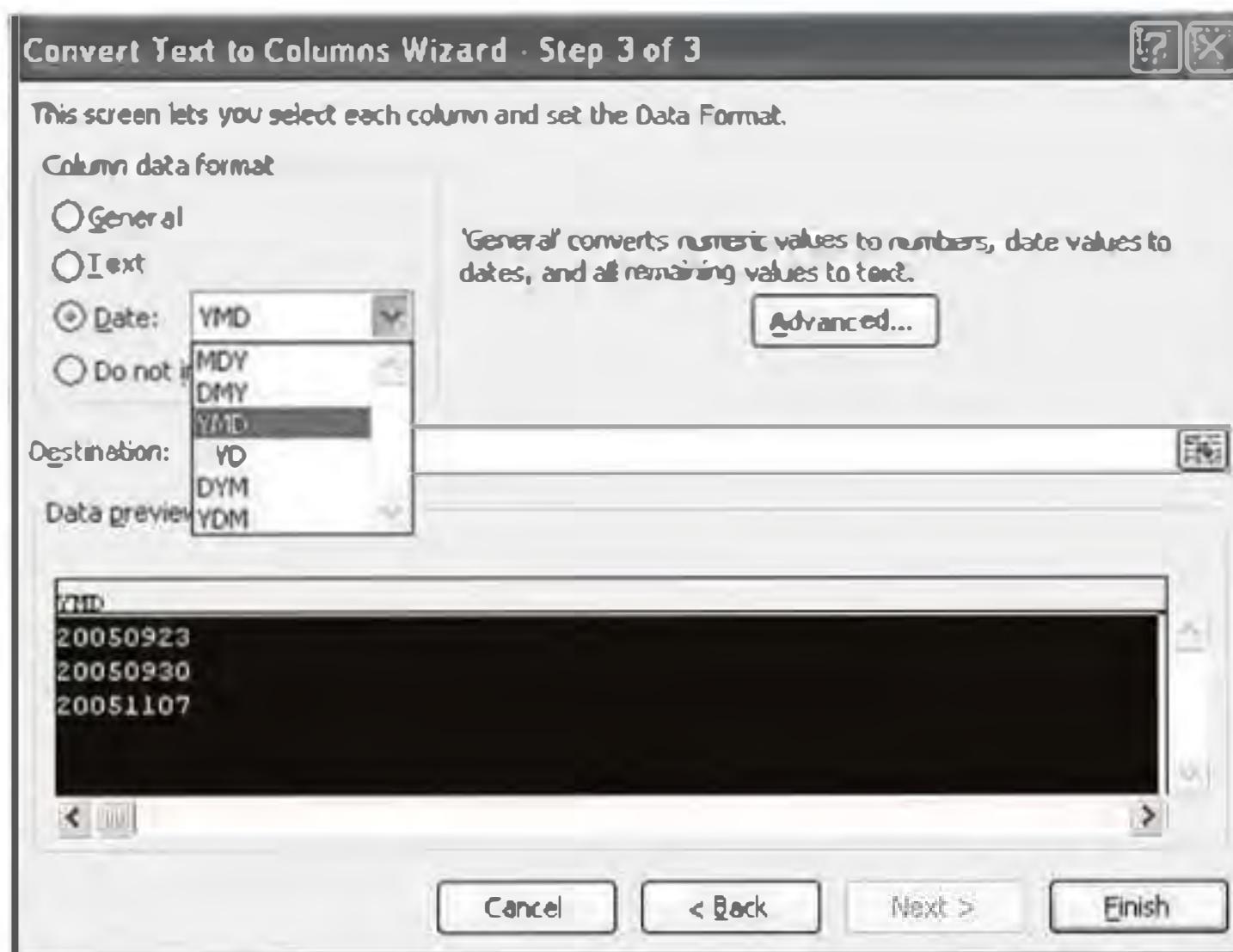


which brings up the Text-to-Columns wizard:



Even though the dates are fixed width, in this case you can simply click "Next" twice.

In step 3 of wizard Select Date, YMD:



If you click Finish now, the result will replace the dates. You can select another destination cell:



Here's the result:

	A	B
1	20050923	9/23/2005
2	20050930	9/30/2005
3	20051107	11/7/2005
4		
5		

## 13. Allow only unique entries in a column

Use Data Validation from the Data tab: [Excel 2003:Data|Validation]

The screenshot shows the Microsoft Excel 2003 ribbon with the 'Data' tab selected. The formula bar displays the text 'Can contain only unique values'. The spreadsheet area shows a single row with the header 'Can contain only unique values' in cell B1, followed by five rows (B2 to B6) containing the numbers 1, 2, 3, 4, and 5 respectively.

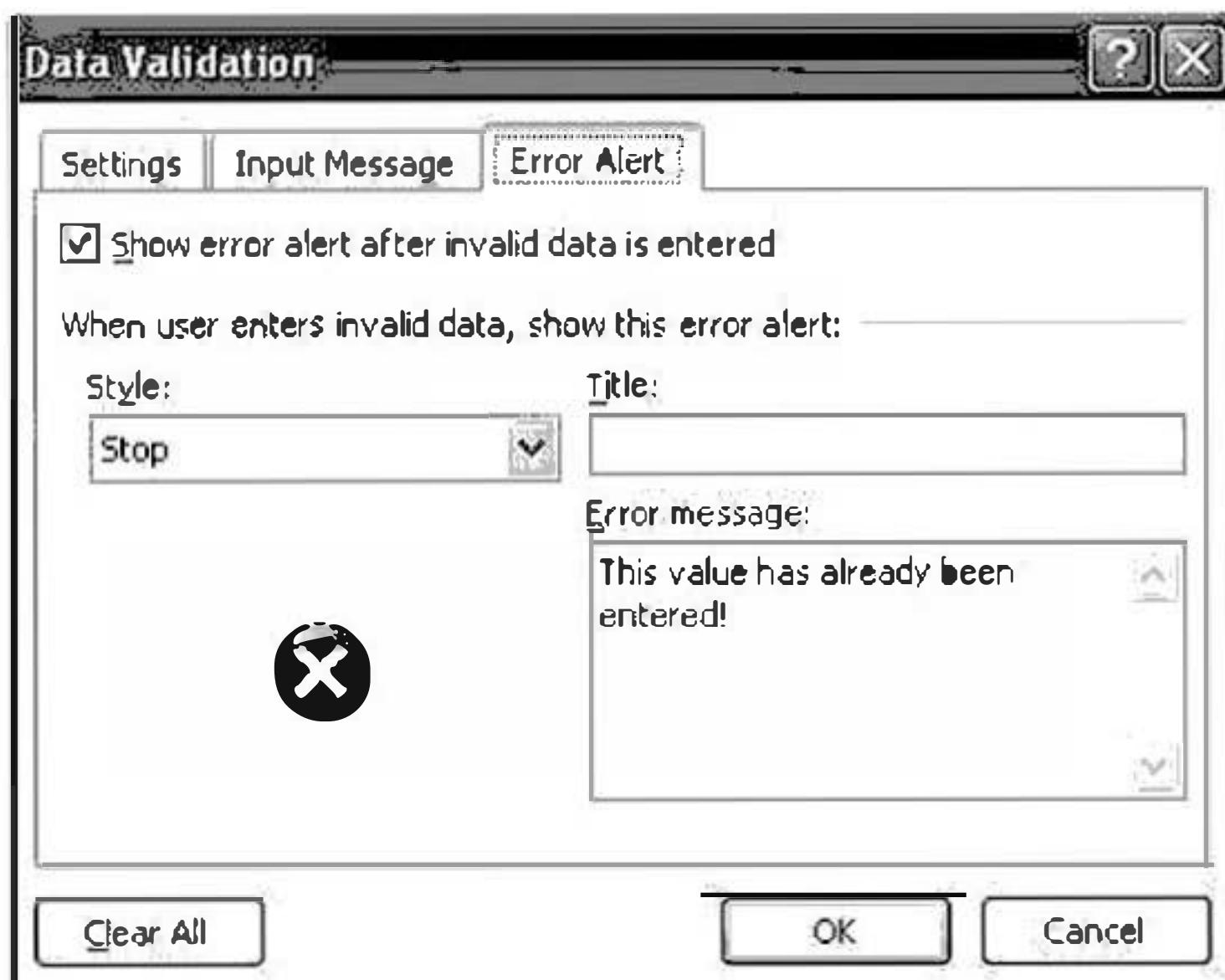
with a custom formula like  
=COUNTIF(B:B,B1)=1:

The screenshot shows the 'Data Validation' dialog box in Microsoft Excel. The 'Settings' tab is active. In the 'Allow:' dropdown, 'Custom' is selected. The 'Formula:' field contains the formula '=COUNTIF(B:B,B1)=1'. The 'OK' button at the bottom right of the dialog box is highlighted.

Remember the COUNTIF function—its syntax is =COUNTIF(Range,criteria). With all the cells in column B selected, this formula returns TRUE only if the COUNTIF for all of column B (the range) contains only 1 value of “Can contain only unique values.” If you were to select B2 at this point and reexamine the data validation formula, you’d see =COUNTIF(B:B,B2)=1. Let’s enter 1 in cell B7 and see what happens:

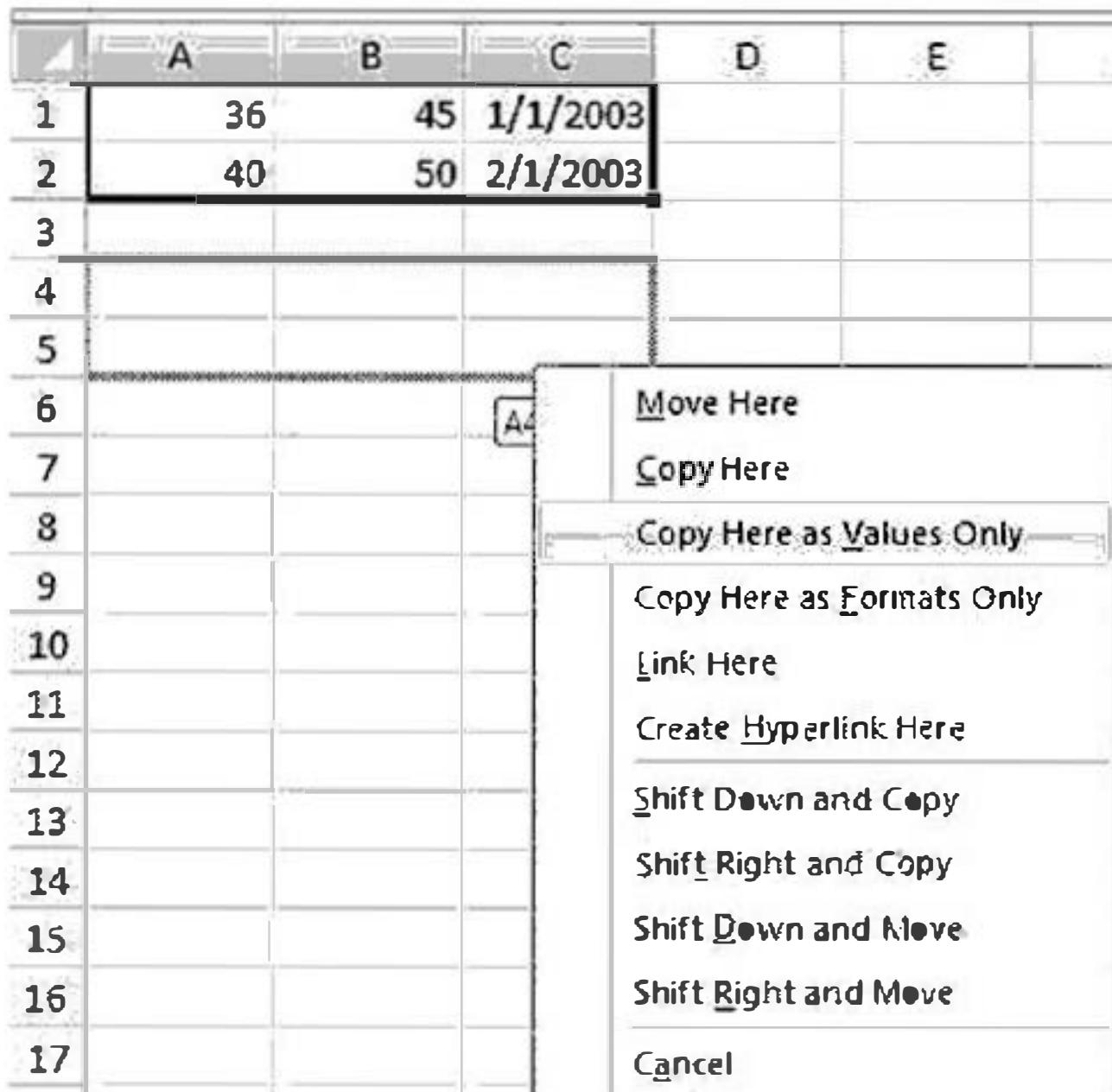


The message appears because the data validation for cell B7 is `=COUNTIF(B:B,B7)`, which returns 2. The message comes from the error alert tab of the Data Validation dialog:



## 14. Right-mouse/drag the border of a range for several new options

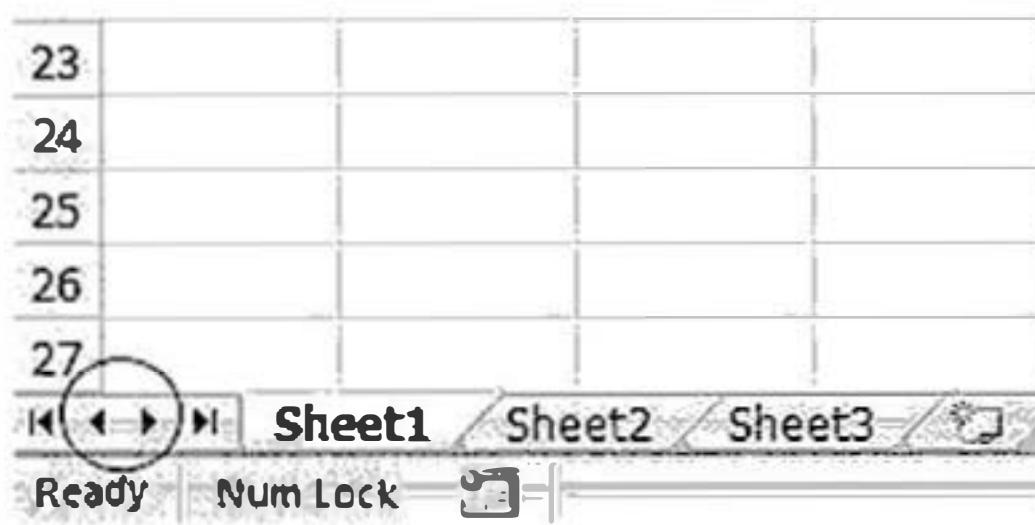
If you right-mouse drag & drop the border of a range to a new location, then when you let go of the right-click you're presented with a dialog containing many options:



If you drag a range this way and before letting go you drag it right back to the original location, you will still be presented with the above dialog, and this way you can copy/paste special values in place with the mouse.

## 15. Shift/click inner VCR controls

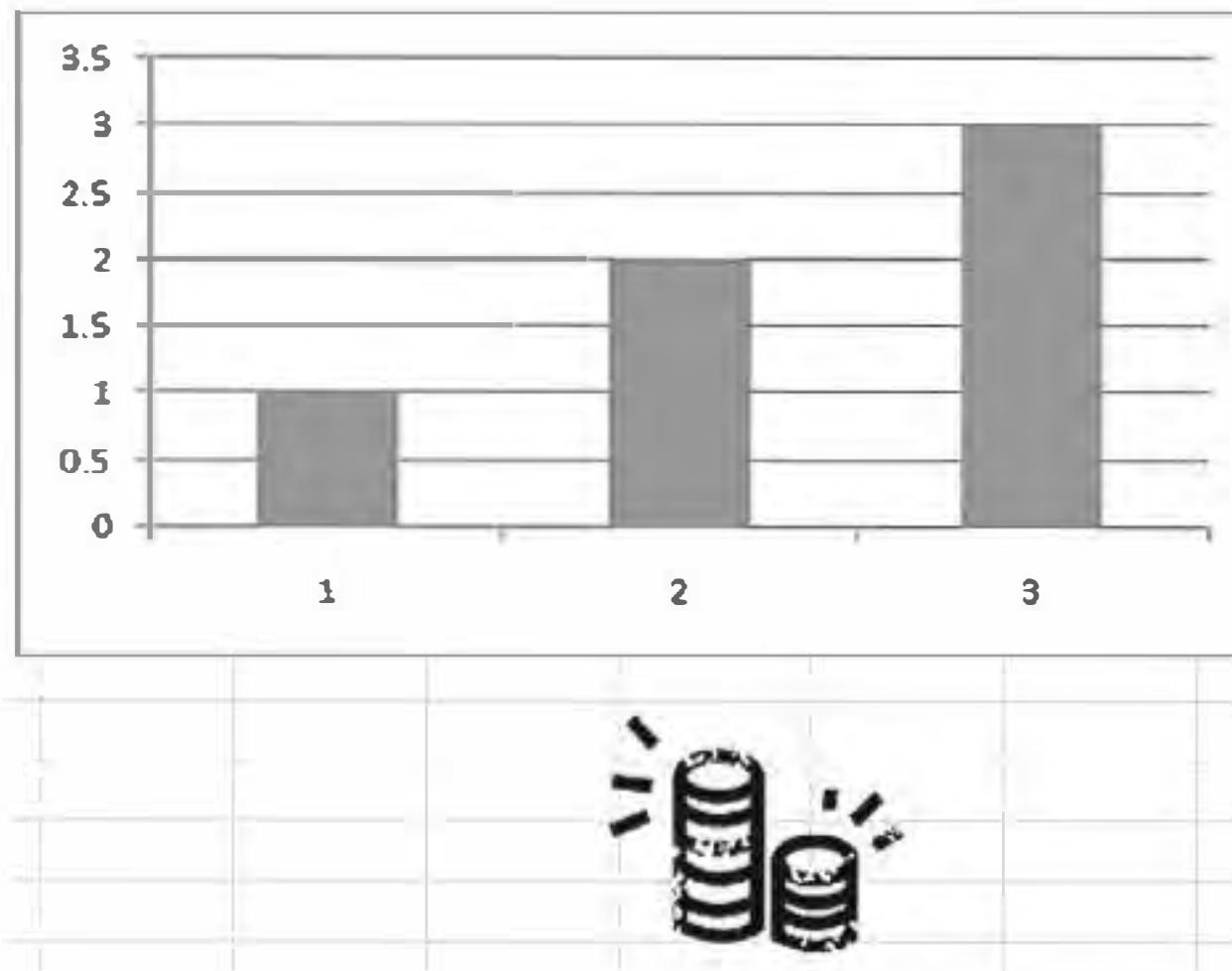
In the tab VCR-type scrolling controls,



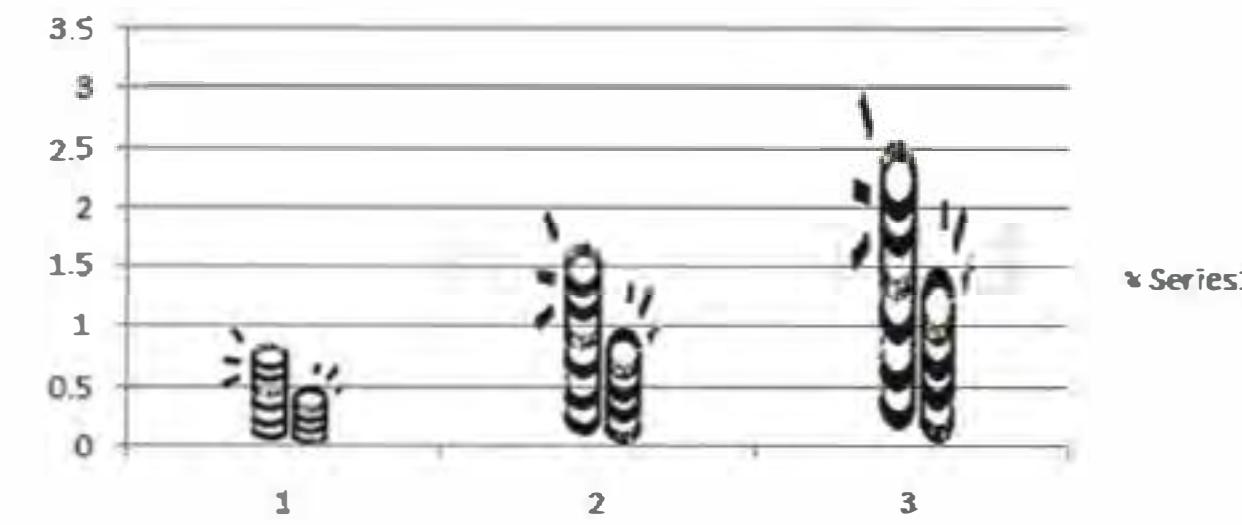
If you hold the shift key down while clicking one of the inner two controls, you will scroll a "page" of tabs (all the tabs that are viewable) at a time instead of one sheet at a time.

## 16. Using Pictographs

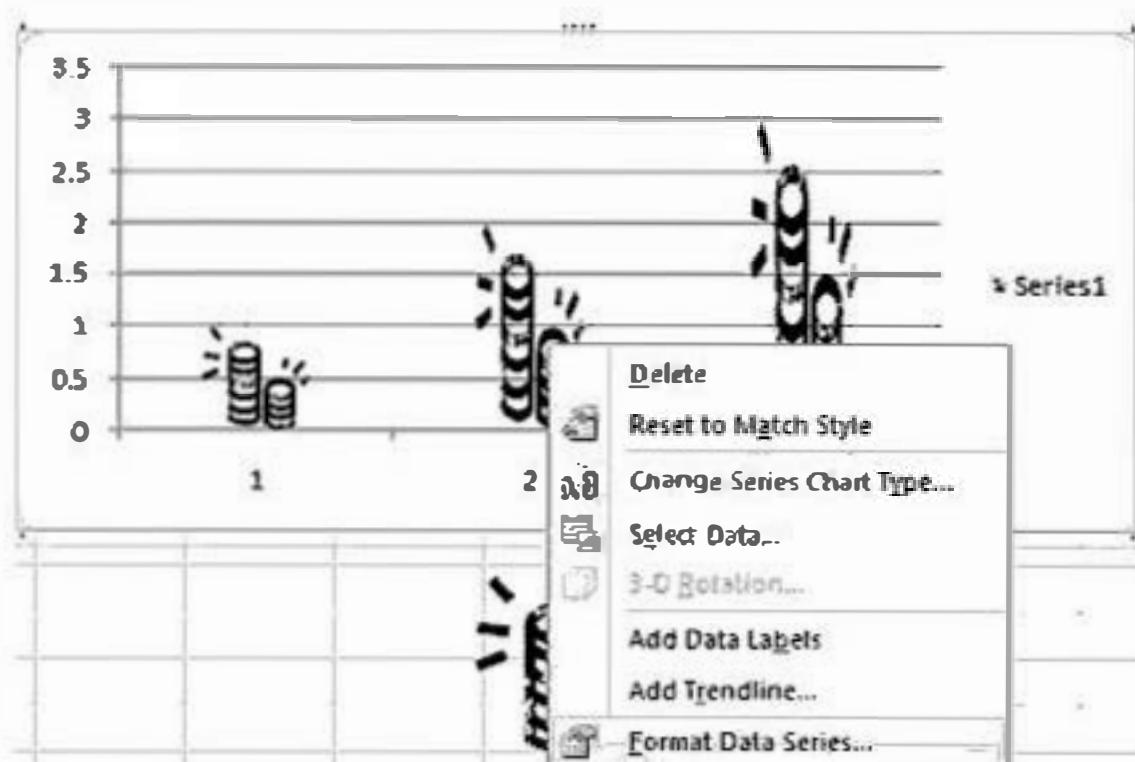
Anything in the clipboard can be pasted onto a chart



Clicking on the coins, copy (ctrl/c), click on a series, Home/paste (or ctrl/v):



Right-click on the series, use Format Data Series:



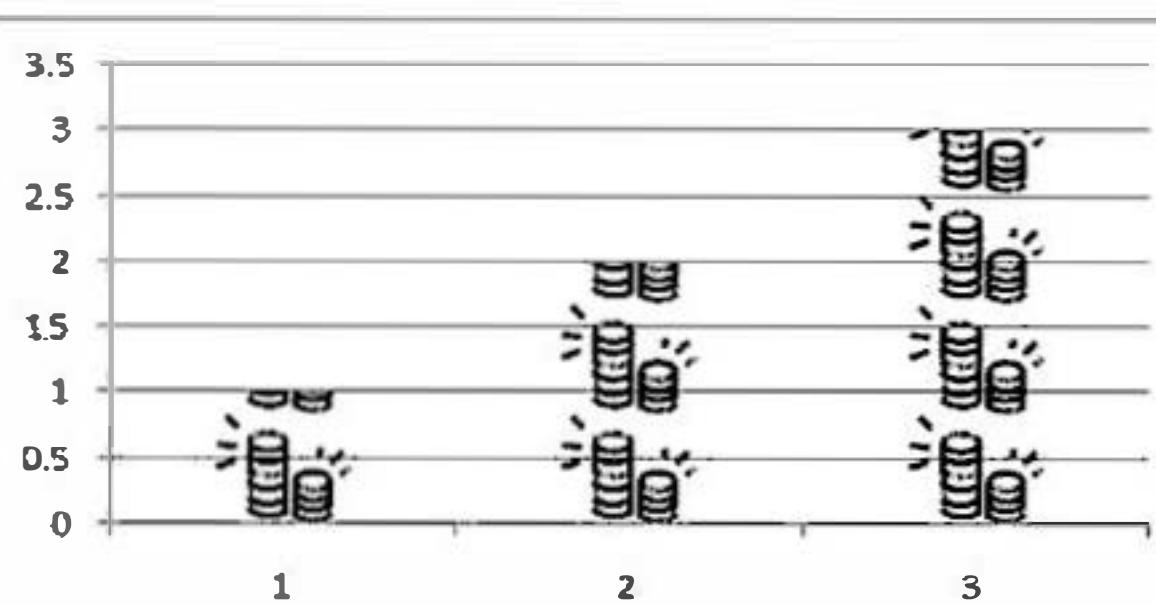
Click these options: [Excel 2003:Patterns tab|Fill Effects]



There are 3 format options:

1. Stretch (default)
2. Stack
3. Stack and scale to

If we select Stack, we see:

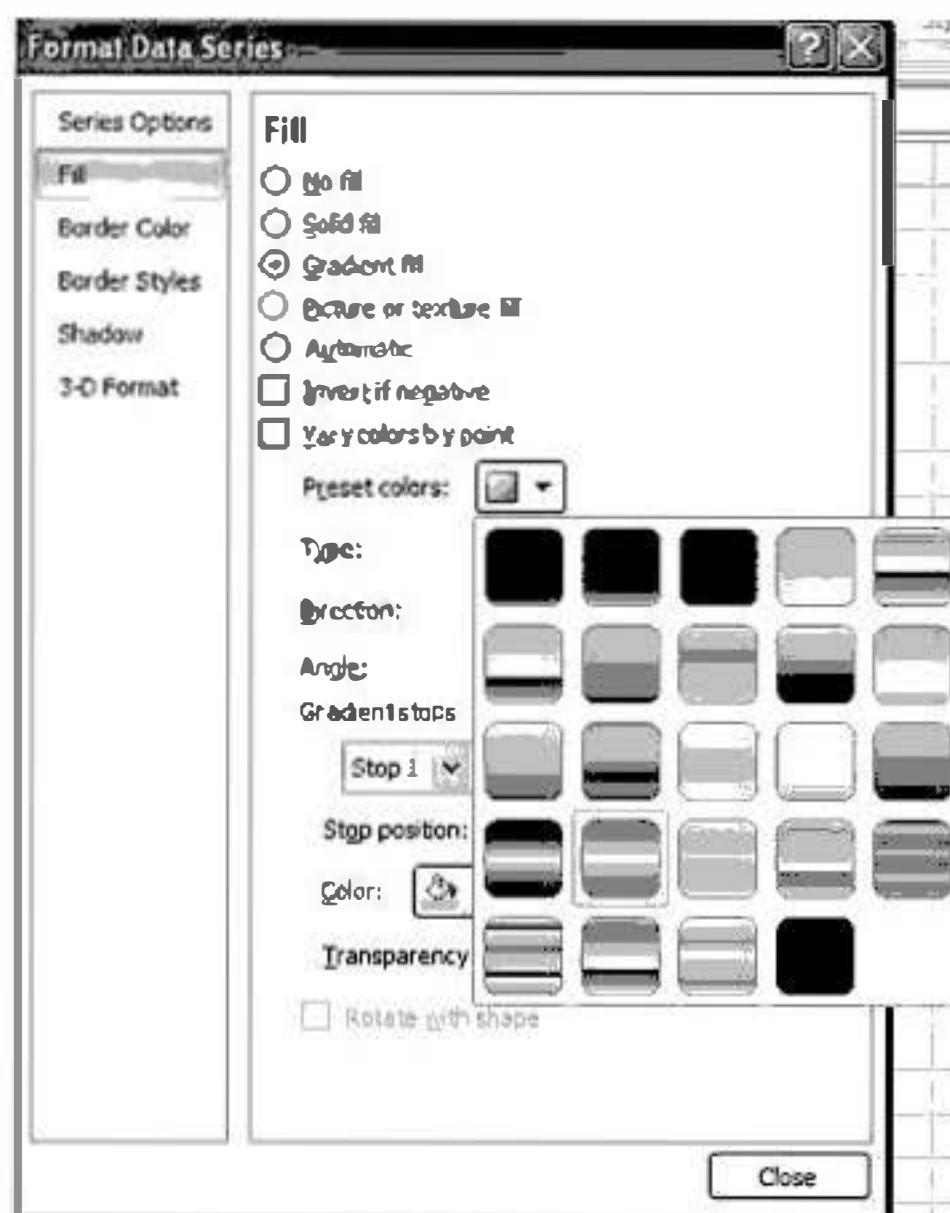


If we select Stack and scale, we can enter a number into the Unit/Picture box. Again, this is something you can experiment with.

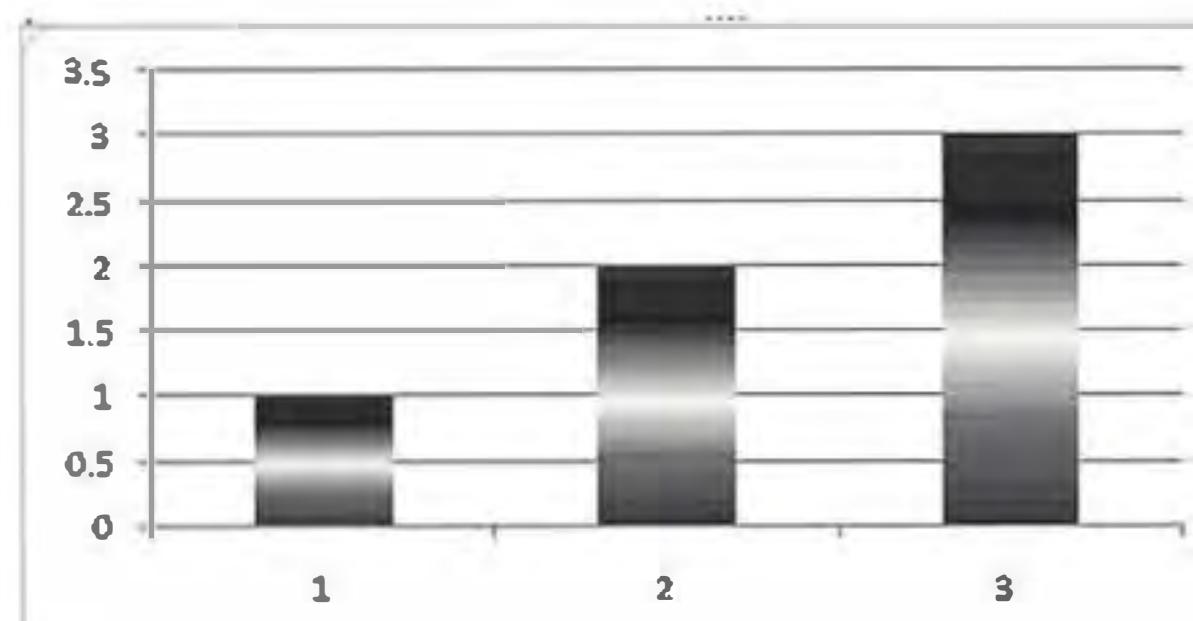
You also may have noticed these options in this dialog:

- Gradient fill
- Picture or texture fill
- And others

Here's the gradient option selected and the Preset colors dropdown:



The new chart:

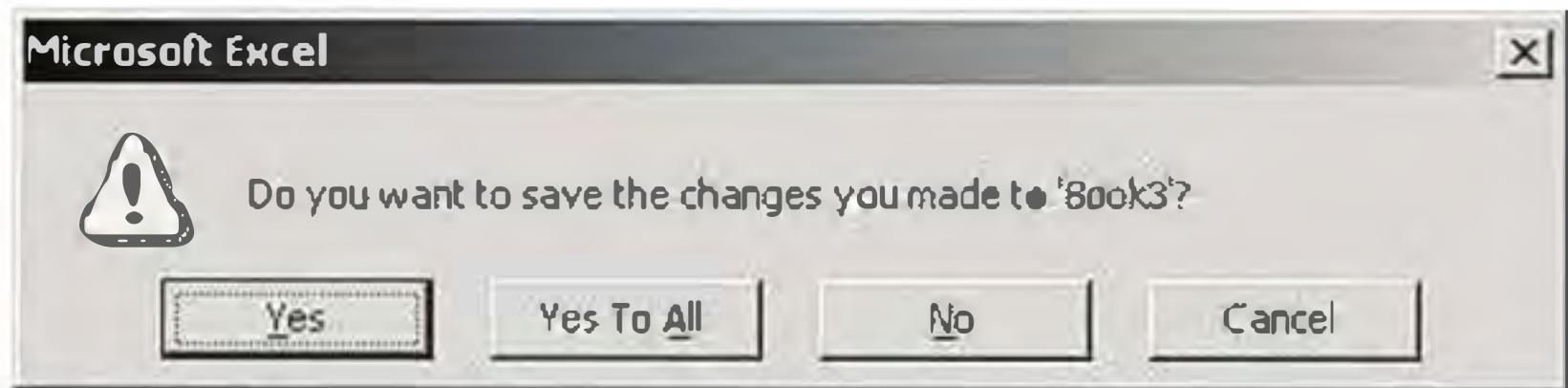


On the picture tab there was a button to select a picture—you can use any picture you have on your computer! You can experiment with the other tabs as well.

## 17. Wish there were a “No to All” when closing many files?

There is!

Hold the Shift key when clicking the No button and you won't be prompted to save changes on any workbook!

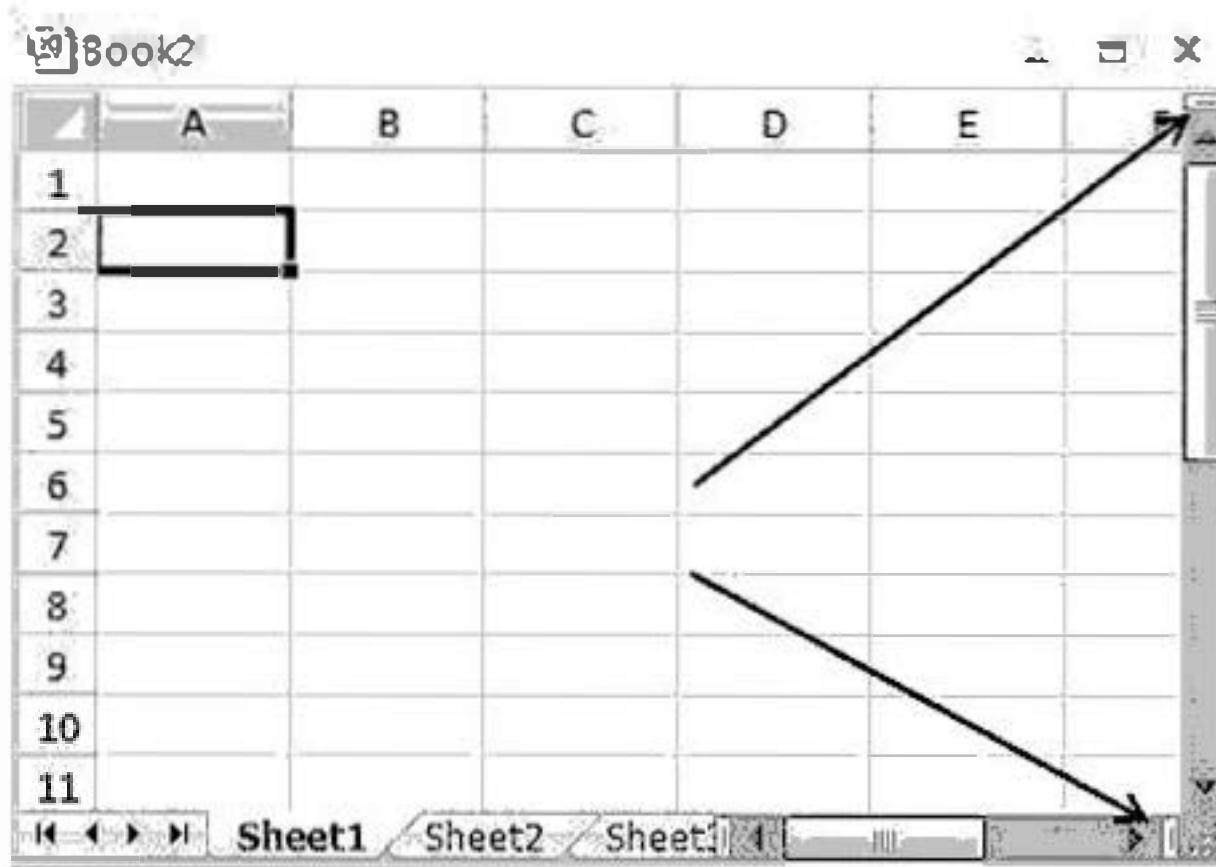


## **18. Quick return from F5(Goto)...**

The "return" address of the last range you visited via another F5/Goto is stored in the Goto dialog, so to return quickly, use the F5 key and press Enter. Actually, the last 4 addresses you've gone to are kept.

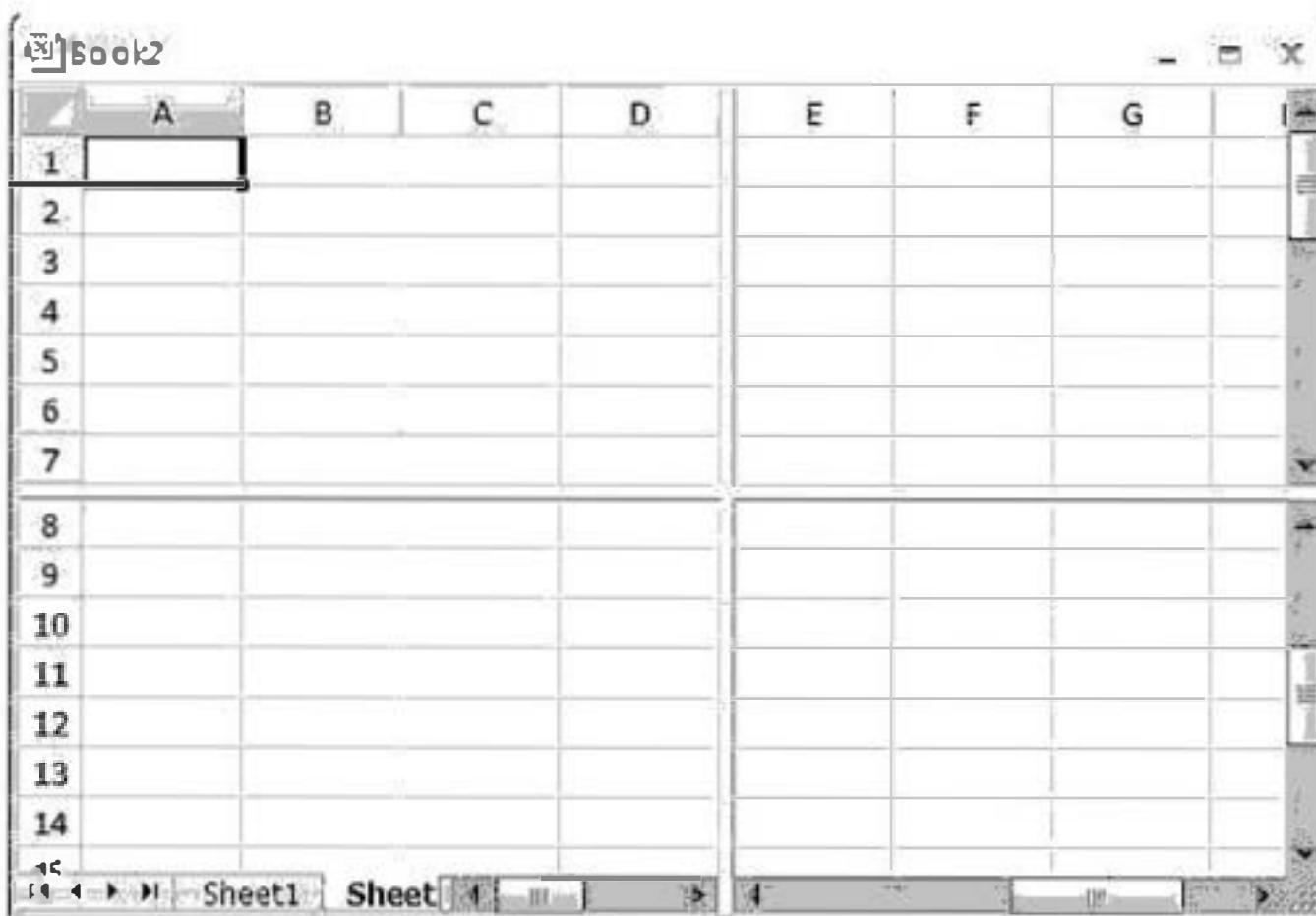
## **NEW** 19. Split Bars

Did you know there are split bars in Excel? They're here:

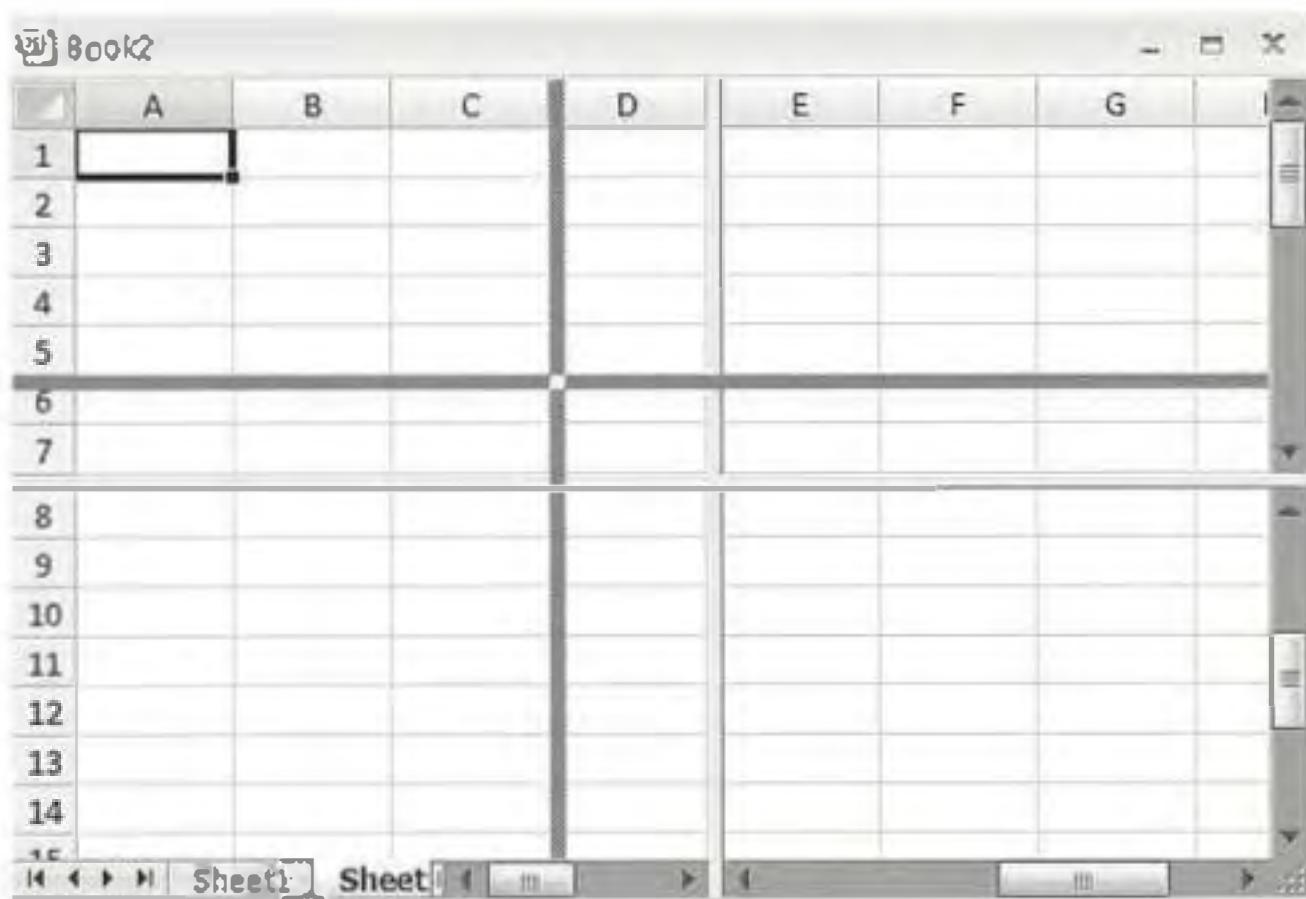


You can click and drag them into the workbook or you can double click either one to split the window in half.

Here's what it looks like when both split bars were double clicked:



Here's what it looks like when the intersection of the 2 split bars are dragged up and to the left (before letting go of the mouse button!):

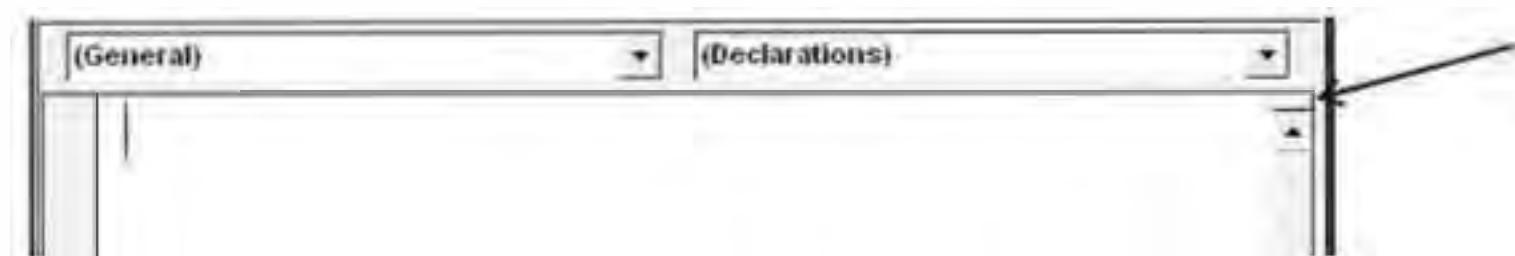


Of course, you can also do this from the Split button in the Window group of the View tab:

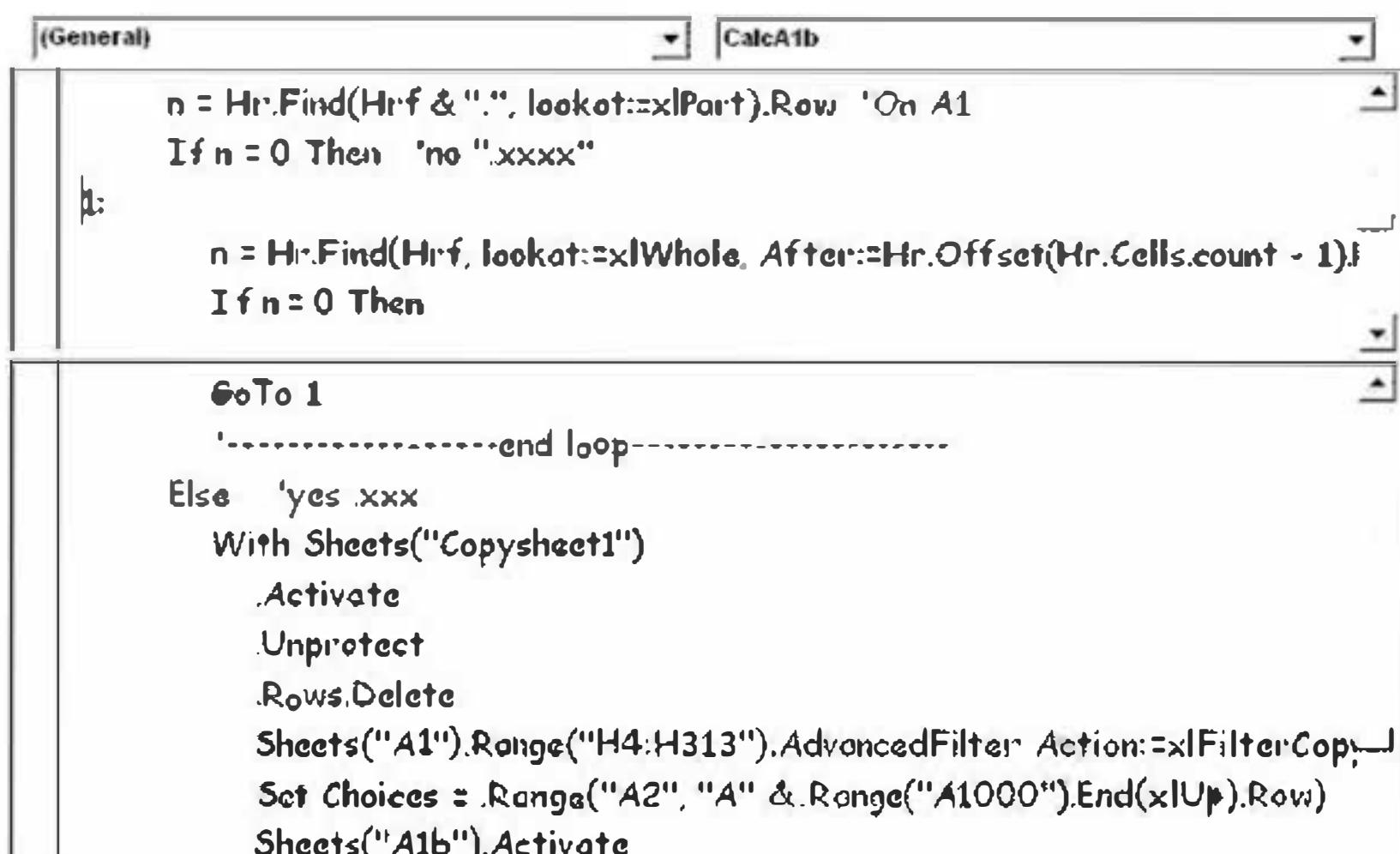


If the cursor is anywhere other than column A or row 1, the splitting will occur to the left or above where the cursor is. If you double-click the intersection of both split bars if they're both present, they will both disappear.

All of the above you may have known. But did you know that the VBE also has split bars?



Here's an excerpt from a very long routine and where the split bar was used to help align the If statement with the Else statement since there was a lot of nesting of statements:



The screenshot shows a Microsoft Word document window with a title bar '(General)' and 'CalcA1b'. The document contains VBA code. A vertical split bar is positioned on the left side of the code area, helping to align nested If statements. The code is as follows:

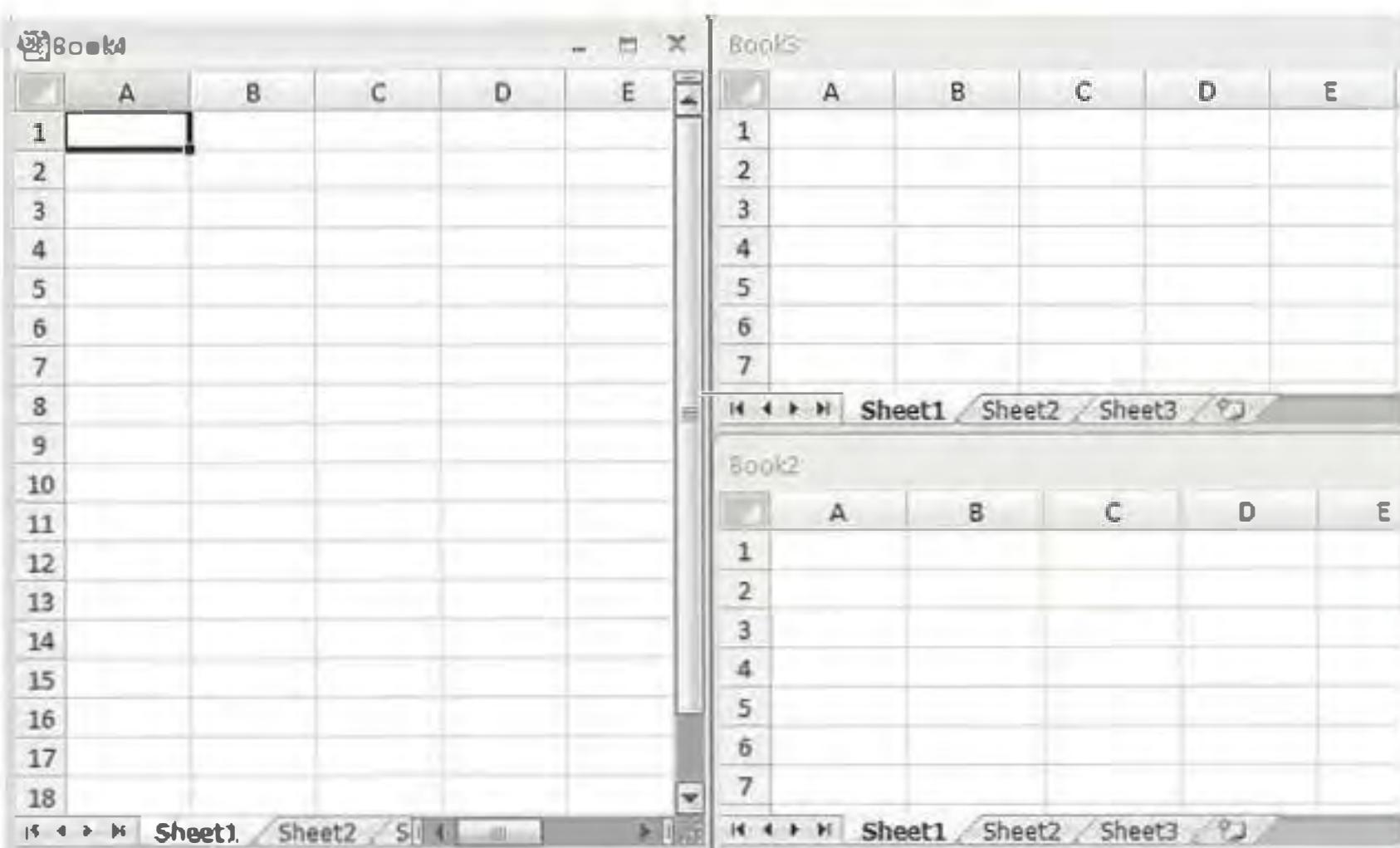
```
n = Hr.Find(Hrf & ".", lookat:=xlPart).Row 'On A1
If n = 0 Then "no xxxx"
    :
    n = Hr.Find(Hrf, lookat:=xlWhole, After:=Hr.Offset(Hr.Cells.count - 1))
    If n = 0 Then
        GoTo 1
        '-----end loop-----
    Else 'yes .xxx
        With Sheets("Copysheet1")
            .Activate
            .Unprotect
            .Rows.Delete
            Sheets("A1").Range("H4:H313").AdvancedFilter Action:=xlFilterCopy
            Set Choices = .Range("A2", "A" & .Range("A1000").End(xlUp).Row)
            Sheets("A1b").Activate
```

You can see that the split bar makes the alignment (since this author indents code to align the statements!) easier to see!

**NEW**

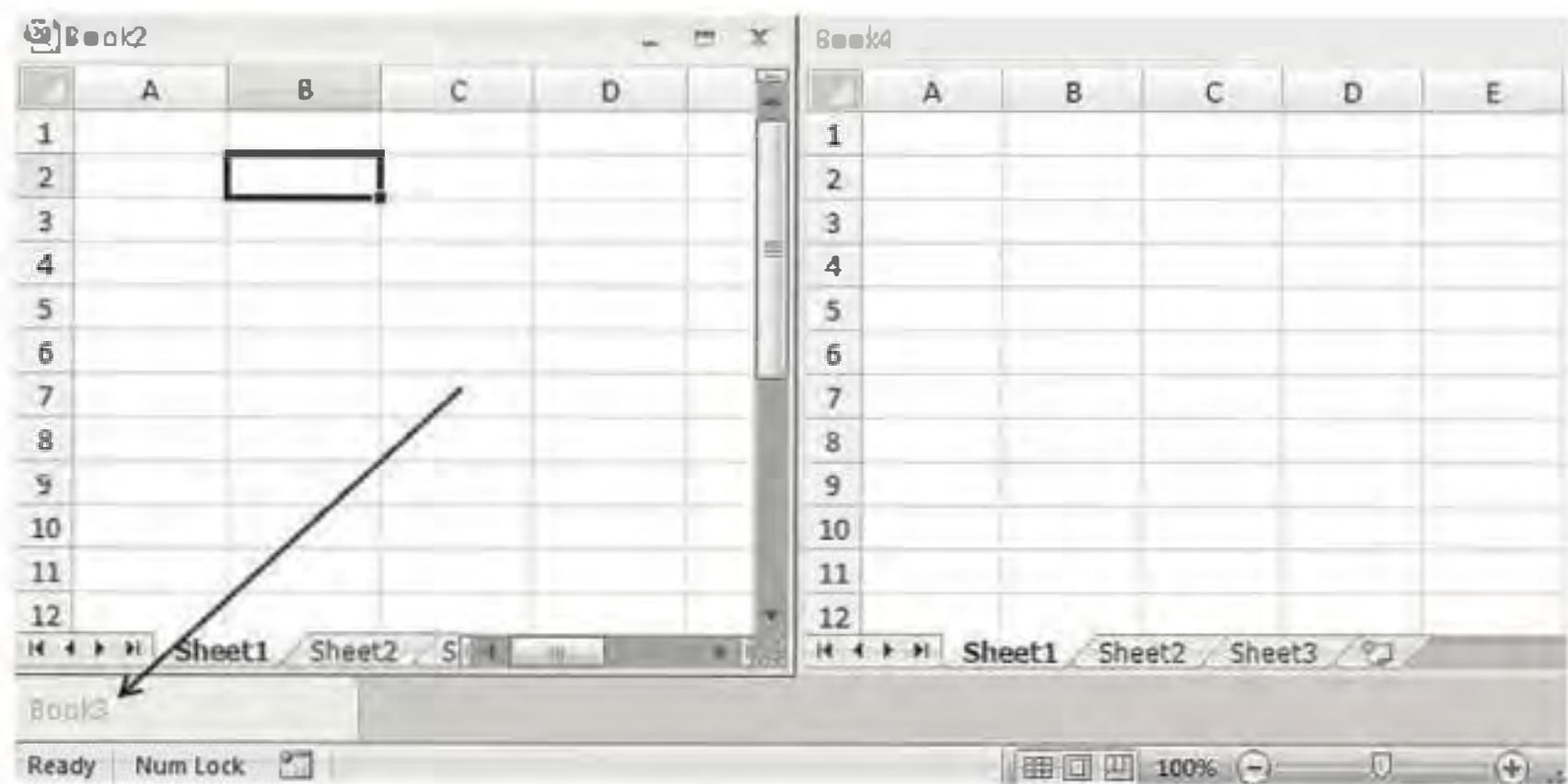
## 20. Window/Arrange Tiled (except this one!)

Here's the result of using View/Window/Arrange All/Tiled with 3 open workbooks: {Excel 2003:Window/Arrange/Tiled}



But suppose you didn't want to include Book3 in the arrangement? Do you have to close it or hide it? No, you can minimize it (click the leftmost tool in the upper-right corner of the workbook: and it won't be included in the arrangement:





Notice Book3 is at the bottom left, not included!

**NEW**

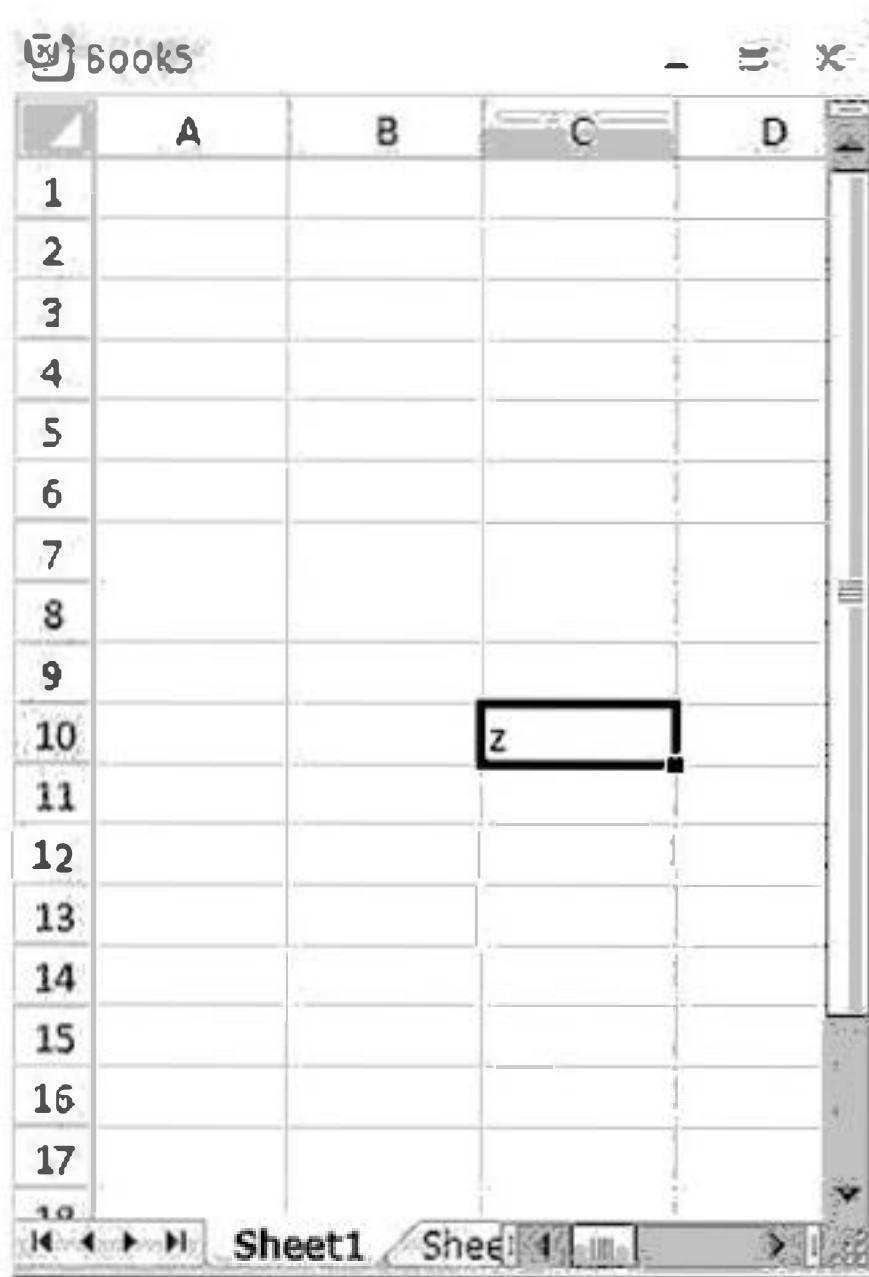
## 21. Adjusting Row Heights for Merged cells

Excel has a bug when you merge cells and try to adjust the row height by double-clicking the row separator. To see this, merge cells A1:C1, and also mark it as Word wrap. Now enter lots of text, then double-click the row border between rows 1 and 2. Nothing happens. The solution is to make some remote area as wide as A1:C1 is, say cell AA1, and in there, give it the formula =A1, and also mark this is wrap-text (merge cells isn't necessary because it's only one cell!). Now, when you double-click the border, the cell AA1 is being used as the one to make the adjustment, and it looks like you've got it working!

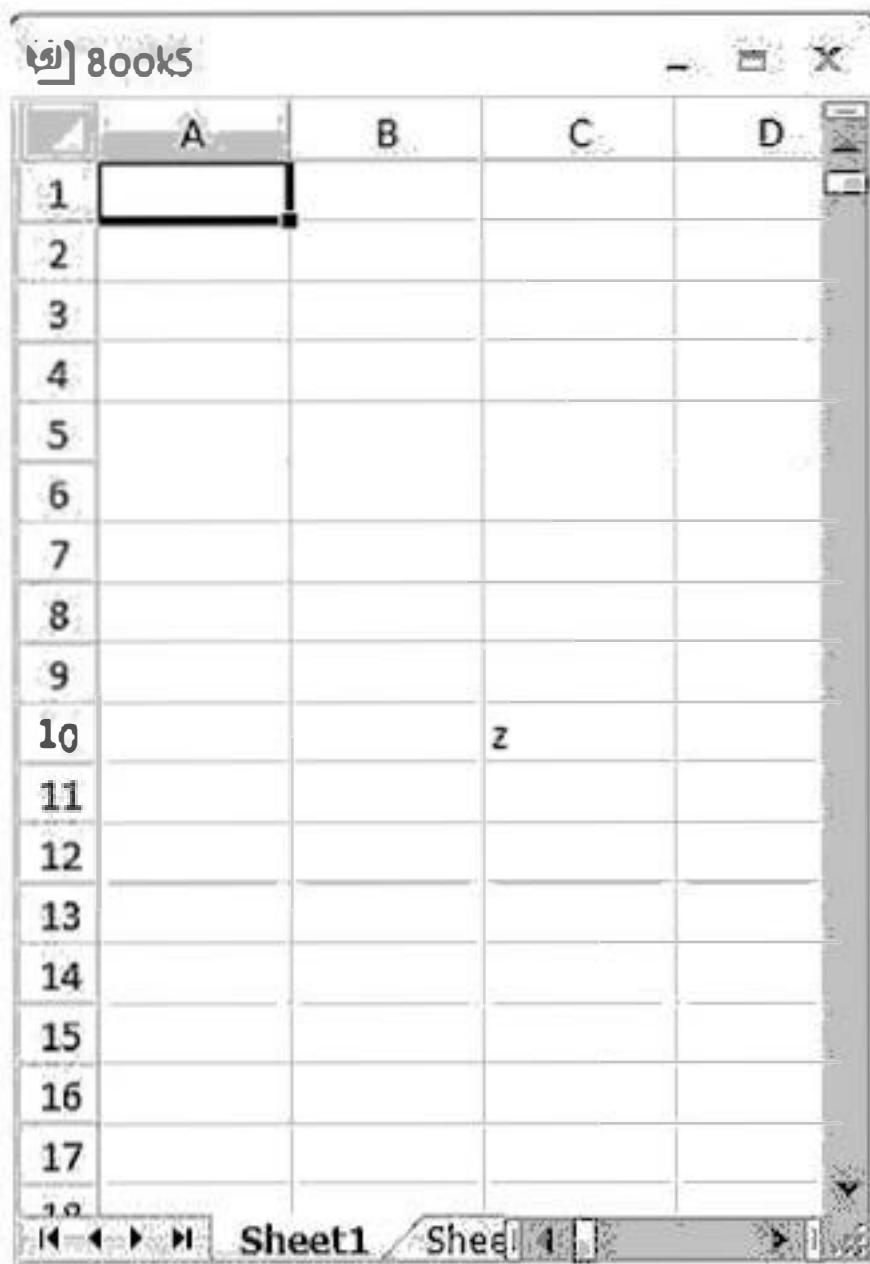
NEW

## 22. More Scrolling

You probably know that scrolling is "localized". If your entire worksheet goes from A1:C10, the scrollbar looks like this:



But if your last cell was XX200000, it'd look like this:



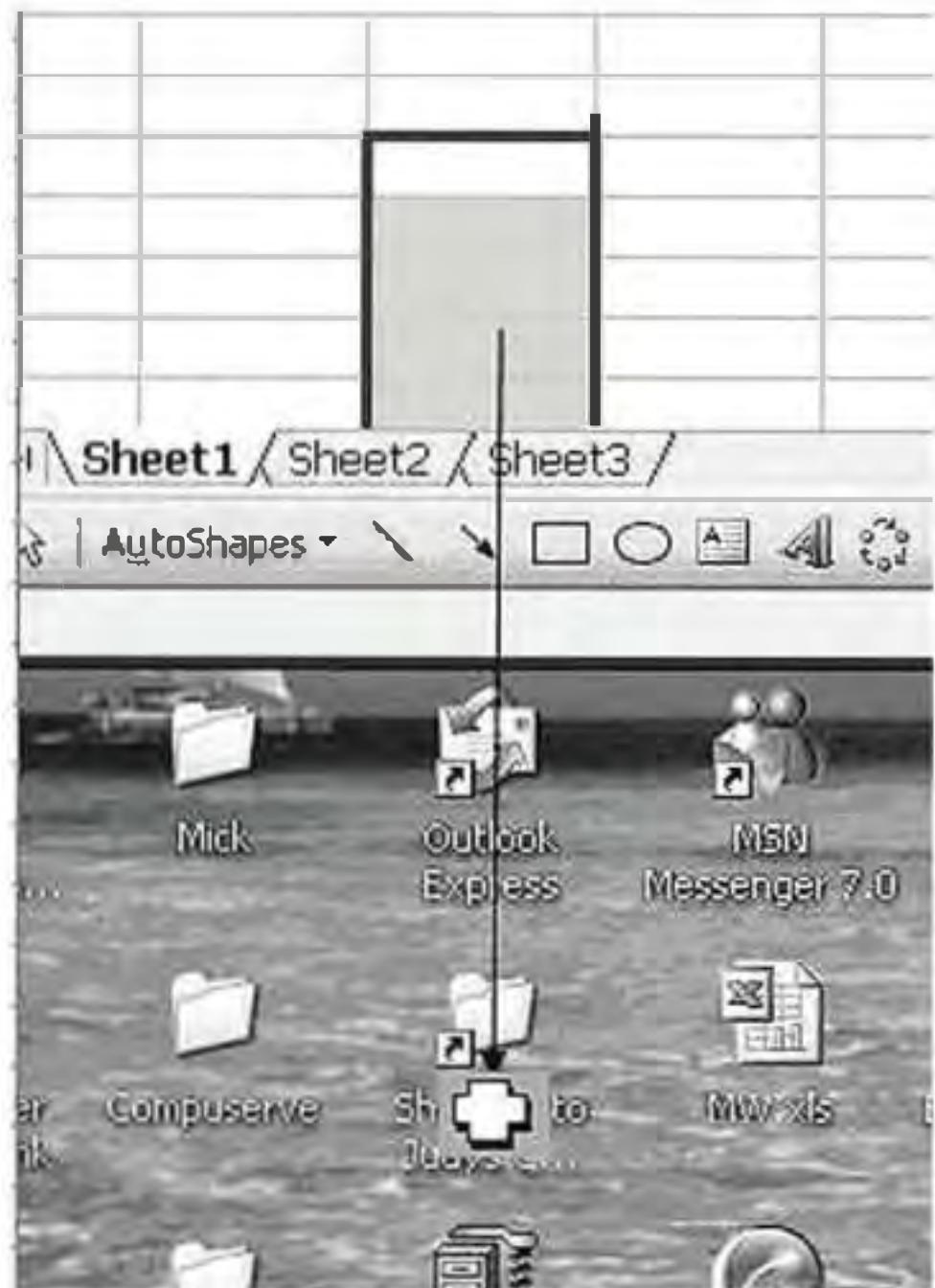
Notice the difference in the sizes of both the vertical and horizontal scroll-bars between the two diagrams. It gives you a hint as to the size of the worksheet (a cute tip in itself, if you didn't know it).

If you simply scroll, you're somewhat restricted to the range where there is data. This makes sense. However, if you do want to scroll faster, and outside the range of the data, simply hold the shift key down as you scroll. You'll get to row 1048576 or column XFD pretty quickly!



## 23. Drag/Scrolling

Did you know that if, in a large worksheet, you drag the cursor—that is, you click in cell A20, for example, hold the mouse button down and then drag the cursor beyond the bottom of the worksheet, into the area of the tabs or over the scrollbars—the worksheet scrolls. But did you know that the farther away the cursor is from the window the faster is scrolls?



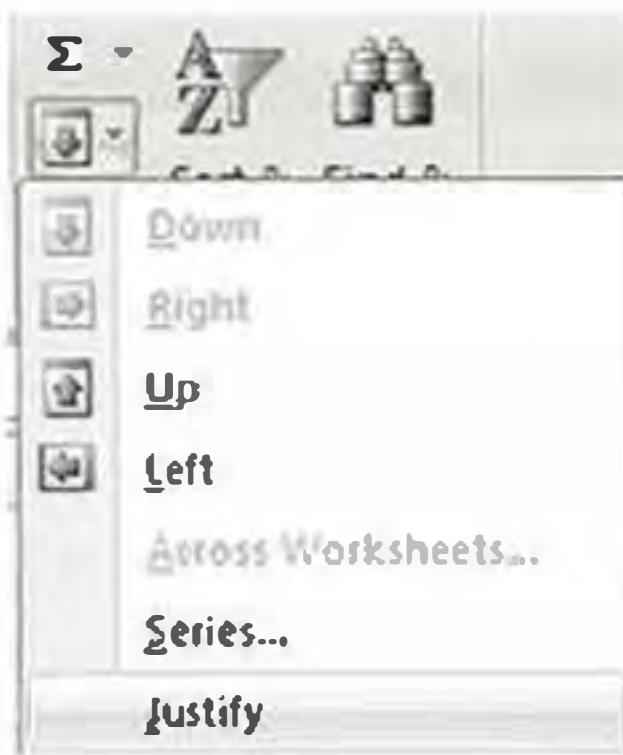
If you resize the Excel application window (here you see part of my desktop) and drag totally outside the window, Excel's worksheet will scroll very fast.

Did you also know that Excel slows down the scrolling (when dragging the mouse) as you approach the end of the used range and pauses momentarily when it reaches the end?

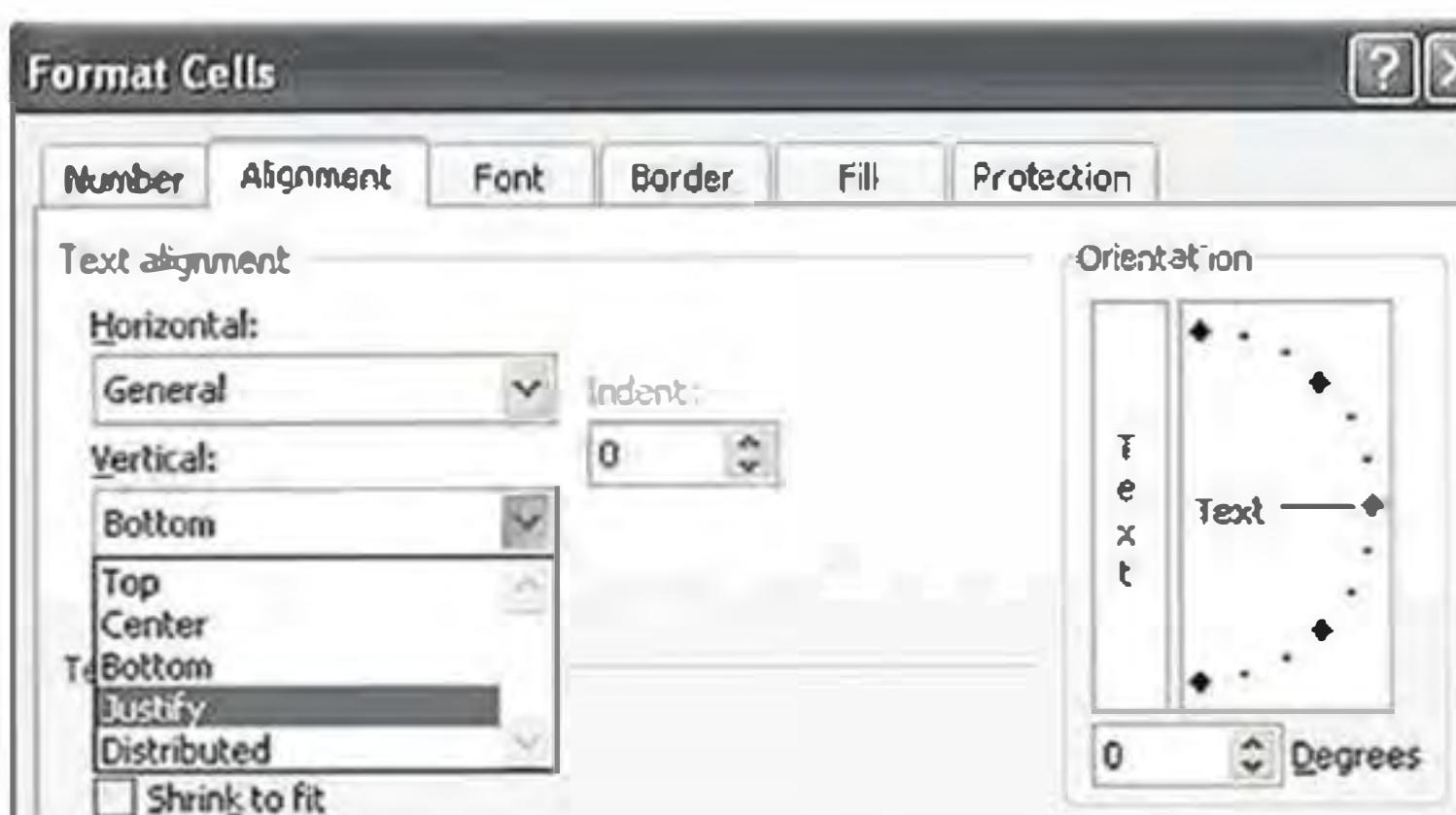
**NEW**

## 24. Using the Justify command

What is this command, anyway? It's a way of reflowing text. You can get it from the Editing section of the Home tab: [Excel 2003: Edit/Fill/Justify]:



Or from the Vertical section of the Alignment tab:



Suppose you have text like this...

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Now is the time for all good men to come to the aid of their party. Now is the time for all good men to come to the aid of their party.												
2													

...and you want to fit it all from columns A:E, not A:K. Make the selection as this:

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Now is the time for all good men to come to the aid of their party. Now is the time for all good men to come to the aid of their party.												
2													
3													
4													

purposely selecting a few extra rows, then issuing the Justify command:



and the result is:

	A	B	C	D	E
1		Now is the time for all good men to come to the aid			
2		of their party. Now is the time for all good men to			
3		come to the aid of their party.			
4					

just what you wanted. If you selected A1:C2 first, you would see an excel warning message:

A screenshot of Microsoft Excel. A warning dialog box is displayed in the foreground, reading: "Text will extend below selected range." with "OK" and "Cancel" buttons. In the background, a table is shown with data in cells A1 and A2. The data in A1 is "Now is the time for all good men to come to the aid of their party. Now is the" and the data in A2 is "of their party. Now is the time for all good men to come to the aid of their party".

which means all the text won't fit inside A1:C2. If that's ok with you, then you'd see:

	A	B	C
1	Now is the time for all good		
2	men to come to the aid of		
3	their party. Now is the time		
4	for all good men to come to		
5	the aid of their party.		
6			

You can also use Justify to flow the text into a longer string, rather than shorter strings. If you select A1:D5 from the above and use the Justify command, then you'd see the text reflowed to:

A	B	C	D
1 Now is the time for all good men to			
2 come to the aid of their party. Now is the			
3 time for all good men to come to the aid			
4 of their party.			
5			

And if you selected A1:M3, it would reflow back to the original:

A	B	C	D	E	F	G	H	I	J	K	L	M
1 Now is the time for all good men to come to the aid of their party. Now is the time for all good men to come to the aid of their party.												
2												

Just to be complete, if instead of A1:M3 being just selected you tried A1:M2, (leaving out row 3):

A	B	C	D	E	F	G	H	I	J	K	L	M
1 Now is the time for all good men to												
2 come to the aid of their party. Now is the												
3 time for all good men to come to the aid												
4 of their party.												
5												

Then the justify would leave rows 3 and 4 out of the result:

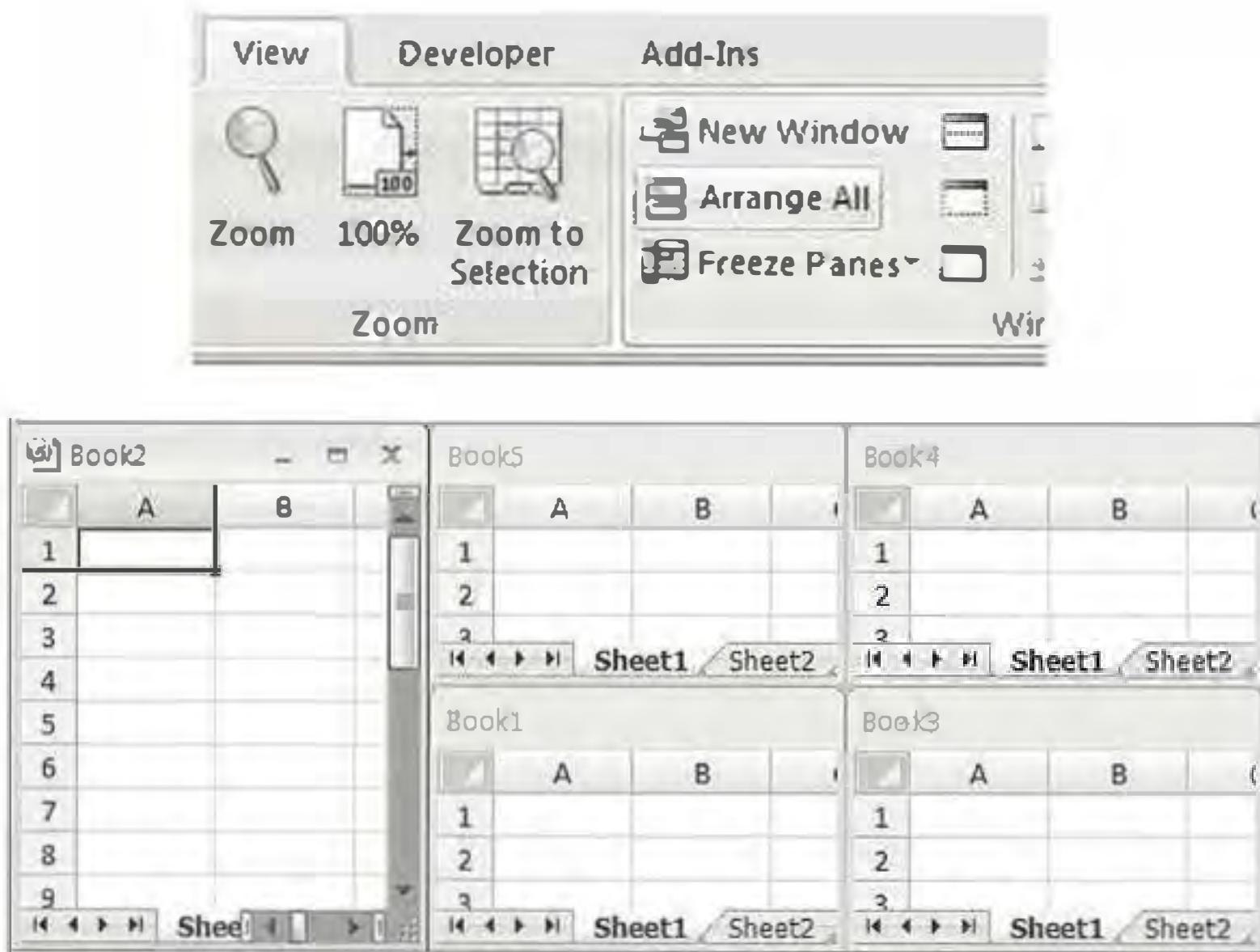
A	B	C	D	E	F	G	H	I
1 Now is the time for all good men to come to the aid of their party. Now is t e								
2								
3 time for all good men to come to the aid								
4 of their party.								
5								

probably not what you want!

**NEW**

## 25. Understanding the order of Window/Arrange

Suppose you have 5 workbooks open and you use View tab/Arrange All from the Window group [Excel 2003: Window/Arrange]:



The top/left window will always be the active window. But what is the order of the rest of them? Probably seemed sort of random, didn't it? Well, this author recently learned the "secret" of how to determine the sequence. If I wanted to see it in this order:

Book1	Book2	Book4
	Book3	Book5

all I need do is click the workbooks in the reverse order, from bottom right (book5) and up (book4, then book3, then book2, then book1). Yes, just click! The result after clicking Arrange All:



So, it turns out, that Excel's order always was the LIFO (Last in, first out) sequence you activated the windows. Go figure!

**NEW**

## 26. Creating names

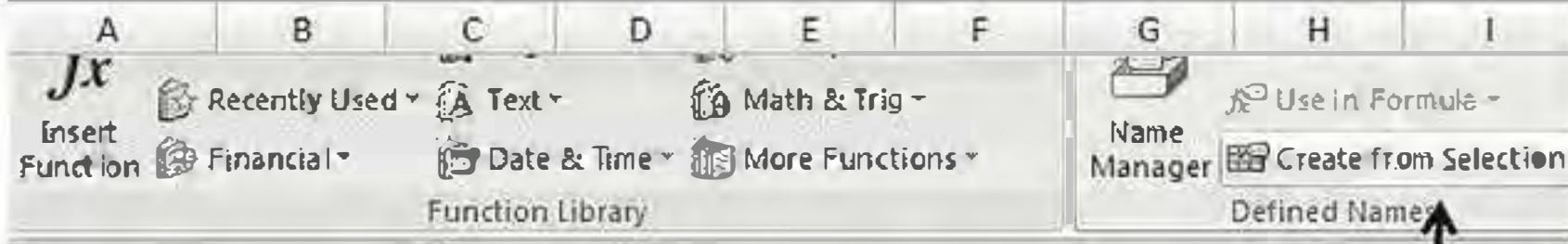
Suppose you have a worksheet which looks like this:

	A	B	C	D	E	F	G
1	Cars	Data...					
2	Toyota		204	613	846	680	780
3	Oldsmobile		734	72	202	411	436
4	Honda		961	847	749	461	89
5	Ford		876	340	857	171	262
6	Lincoln		797	480	616	254	919
7	Mercury		53	676	801	410	728
8	BMW		63	922	568	405	981
9	Chevrolet		933	420	720	172	326
10	Alfa Romeo		139	120	837	77	232
11	Mustang		241	17	722	889	989
12	Volkswagen		516	534	908	917	498

and you wanted to name each of the ranges in columns C:G. That is, you want C2:G2 to be named “Toyota”, C3:G3 to be named “Oldsmobile”, etc. You can't simply select A2:G12 and use the Create names feature because Toyota would be B2:G2, not C2:G2, etc. How about using an intermediate step? Select A2:A12, use the fill handle to drag to B12:

	A	B
1	Cars	Data...
2	Toyota	Toyota
3	Oldsmobile	Oldsmobile
4	Honda	Honda
5	Ford	Ford
6	Lincoln	Lincoln
7	Mercury	Mercury
8	BMW	BMW
9	Chevrolet	Chevrolet
10	Alfa Romeo	Alfa Romeo
11	Mustang	Mustang
12	Volkswagen	Volkswagen

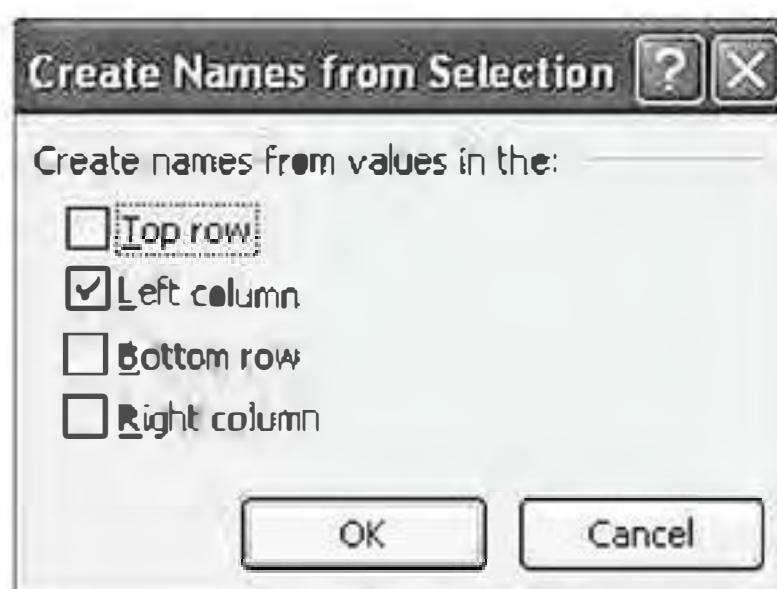
then selecting B2:G12 and using Create from Selection command in the Defined Names group of the Formulas tab (or Ctrl/Shift/F3): [Excel 2003: Insert|Name|Create]



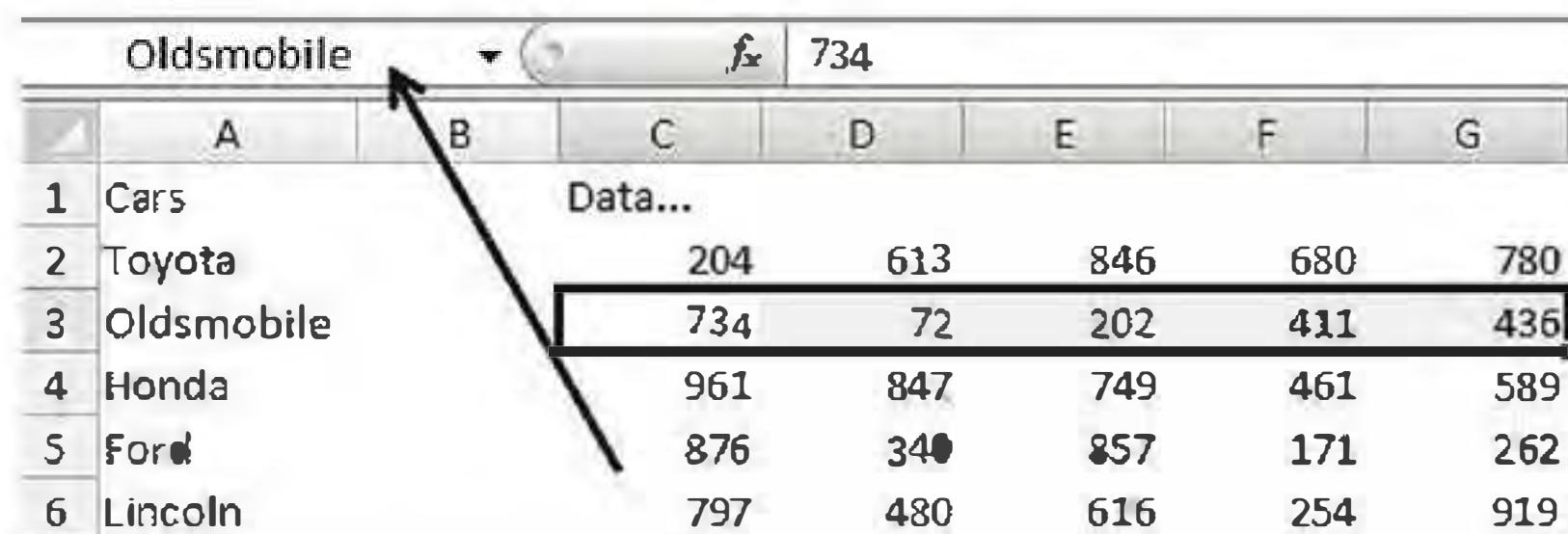
A screenshot of the Microsoft Excel 2003 ribbon. The 'Formulas' tab is selected. In the 'Defined Names' group, the 'Create from Selection' button is highlighted with a red arrow pointing to it.

The worksheet shows a table of car sales data. Row 1 contains headers 'Cars' and 'Data...'. Rows 2 through 12 contain car names and their corresponding sales figures. The range B2:G12 is selected.

	A	B	C	D	E	F	G	H	I
1	Cars		Data...						
2	Toyota	Toyota	204	613	846	680	780		
3	Oldsmobile	Oldsmobi	734	72	202	411	436		
4	Honda	Honda	961	847	749	461	589		
5	Ford	Ford	876	340	857	171	262		
6	Lincoln	Lincoln	797	480	616	254	919		
7	Mercury	Mercury	53	676	801	410	728		
8	BMW	BMW	63	922	568	405	981		
9	Chevrolet	Chevrolet	933	420	720	172	326		
10	Alfa Romeo	Alfa Rome	139	120	837	77	232		
11	Mustang	Mustang	241	17	22	889	989		
12	Volkswagen	Volkswagi	516	534	908	917	498		



Then simply clear B2:B12!



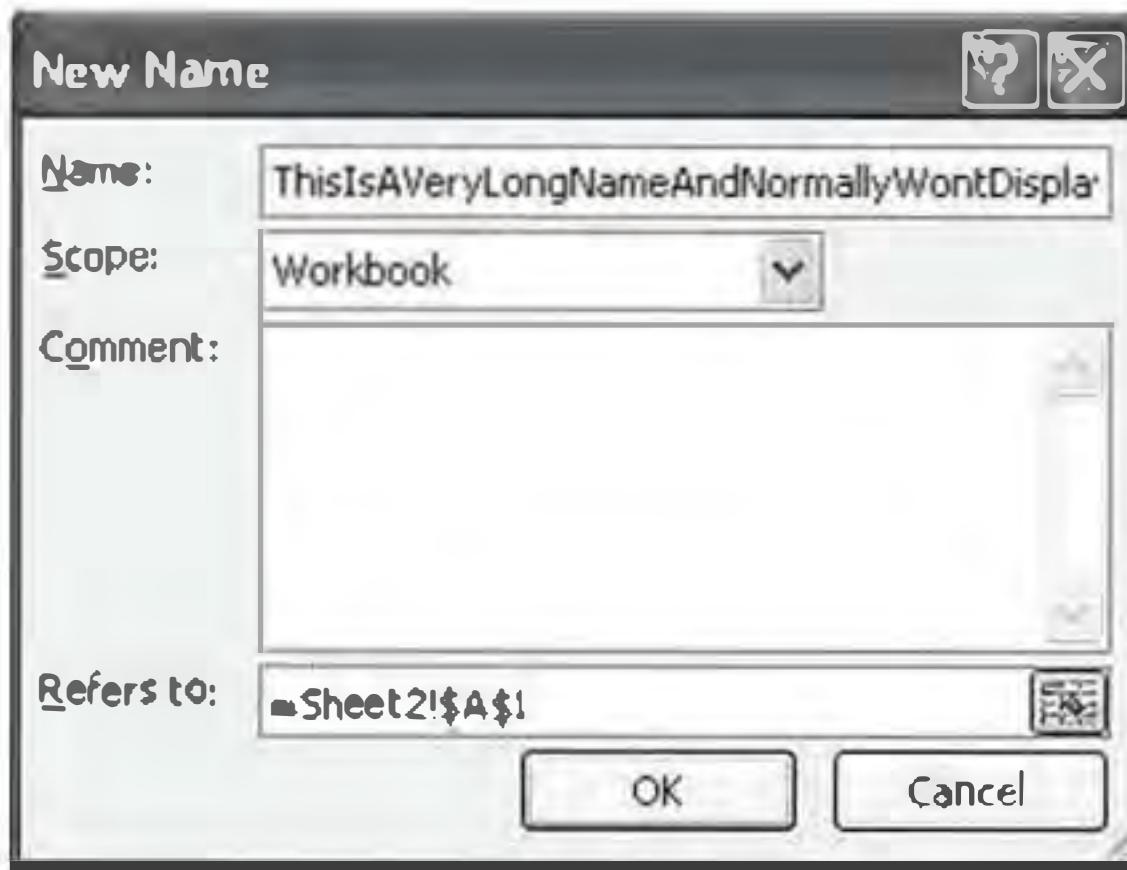
A screenshot of the Excel worksheet after clearing the range B2:B12. Only the first column of data ('Cars') remains, while the rest of the columns show the original sales figures. The formula bar shows 'Oldsmobile' and the value '734'.

	A	B	C	D	E	F	G
1	Cars		Data...				
2	Toyota		204	613	846	680	780
3	Oldsmobile		734	72	202	411	436
4	Honda		961	847	749	461	589
5	Ford		876	340	857	171	262
6	Lincoln		797	480	616	254	919

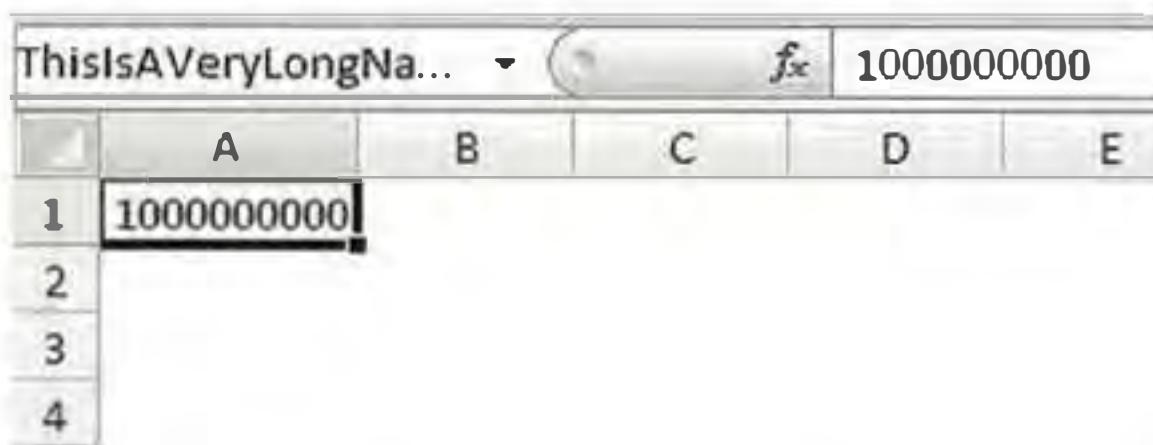
**NEW**

## 27. Long Names

If you create a very long name for a range:



then it doesn't display the entire thing in the name box:

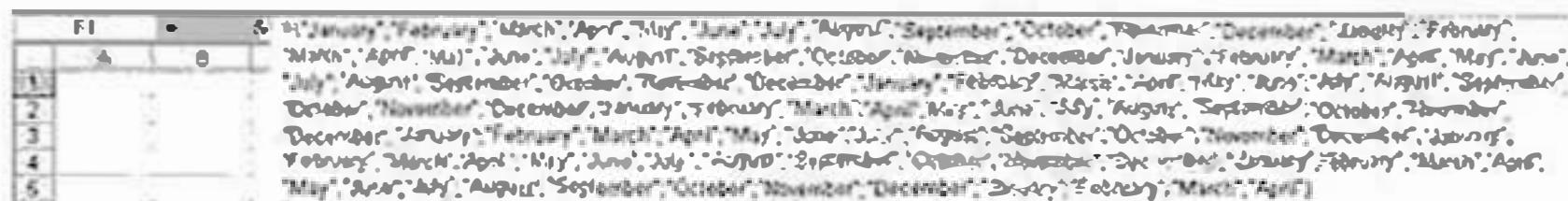


New to 2007 is the ability to widen the name box by simply dragging the little circle indicator as shown (double-clicking restores it to its default position):

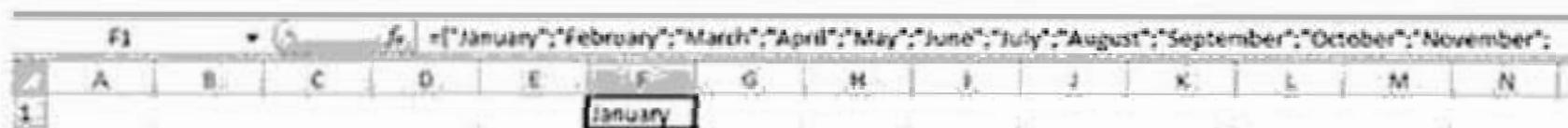


# **NEW** 28. Long Formulas

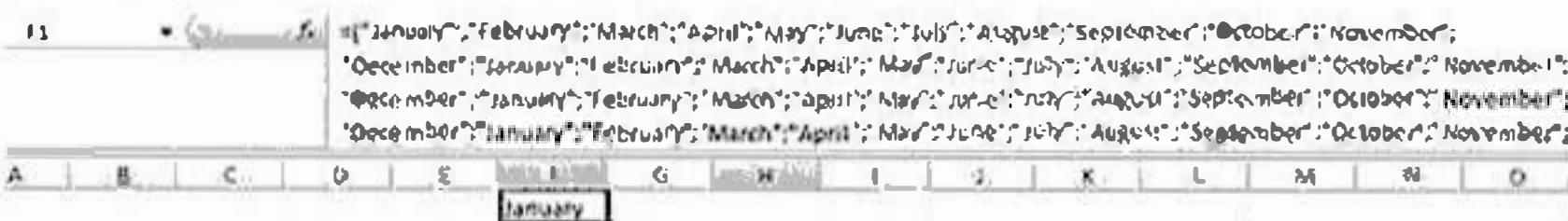
If you create a very long formula, previous versions of Excel often made it hard to see both the formula and the cell. Here's a screenshot from Excel 2003. Notice cell F1 is selected, but you can't see the cell:



Here's the same thing in Excel 2007:



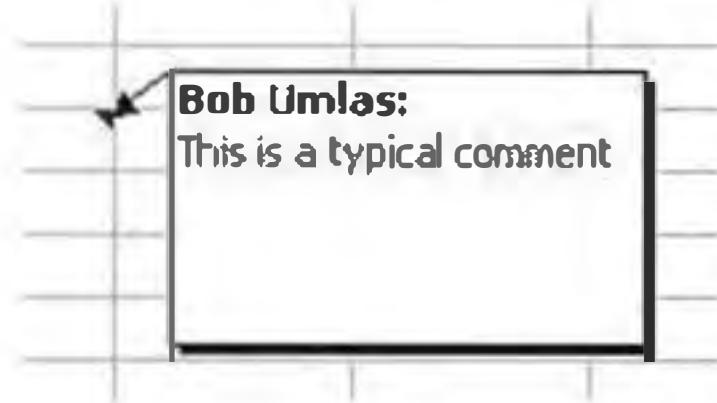
But you might wonder where's the rest of the formula? You can drag the formula bar down, or double click it to see both:



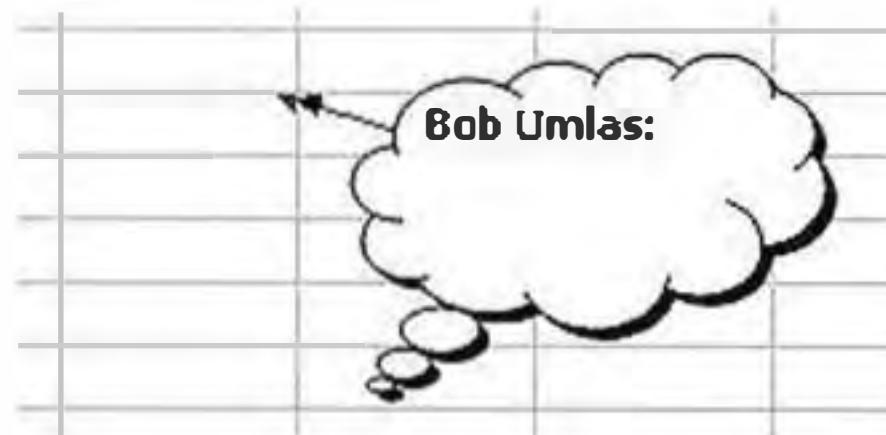
As you can see, when the formula bar is expanded the worksheet moves down to accommodate it. You can use Ctrl/Shift/U to open the formula bar to fit the active cell. And press it again to restore it to one line.

## 29. Formatting comments

When most people create a comment (Review Tab, New Comment, or Shift/F2), [Excel 2003: Insert|Comment], they accept the shape and color and just enter the information they want. So most comments look something like this:



But how about a comment like this?

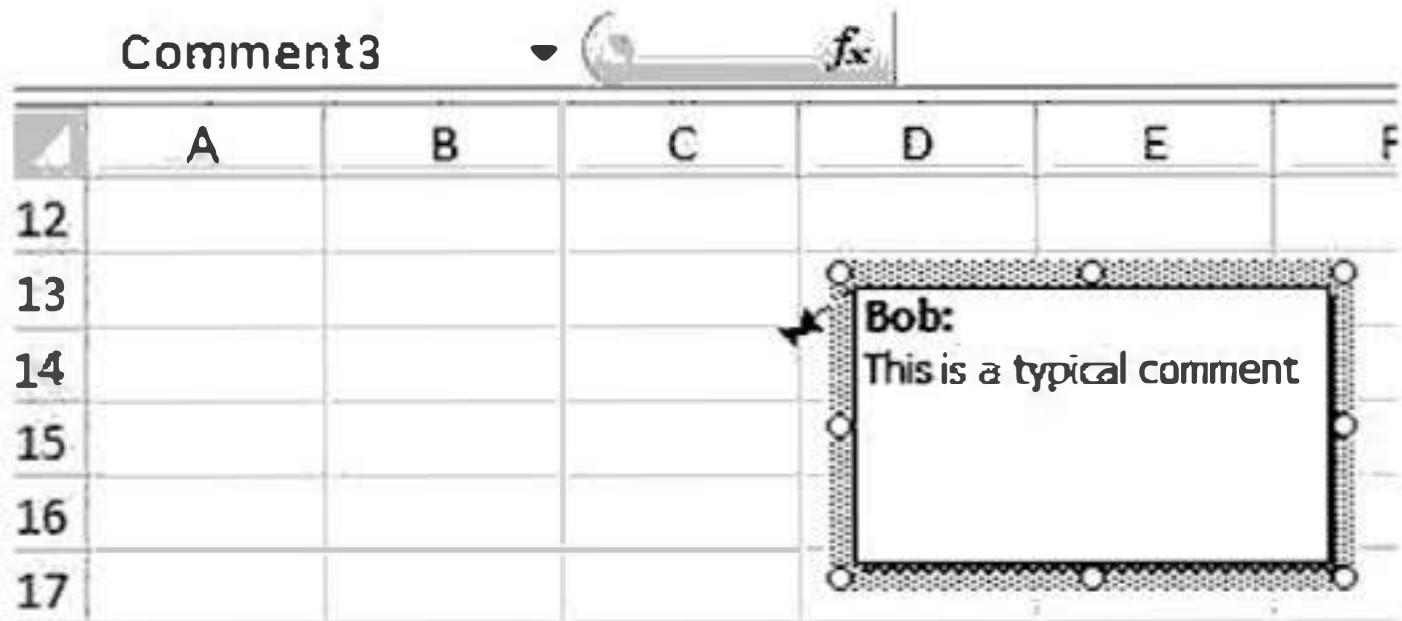


Or even this: (It's me!)

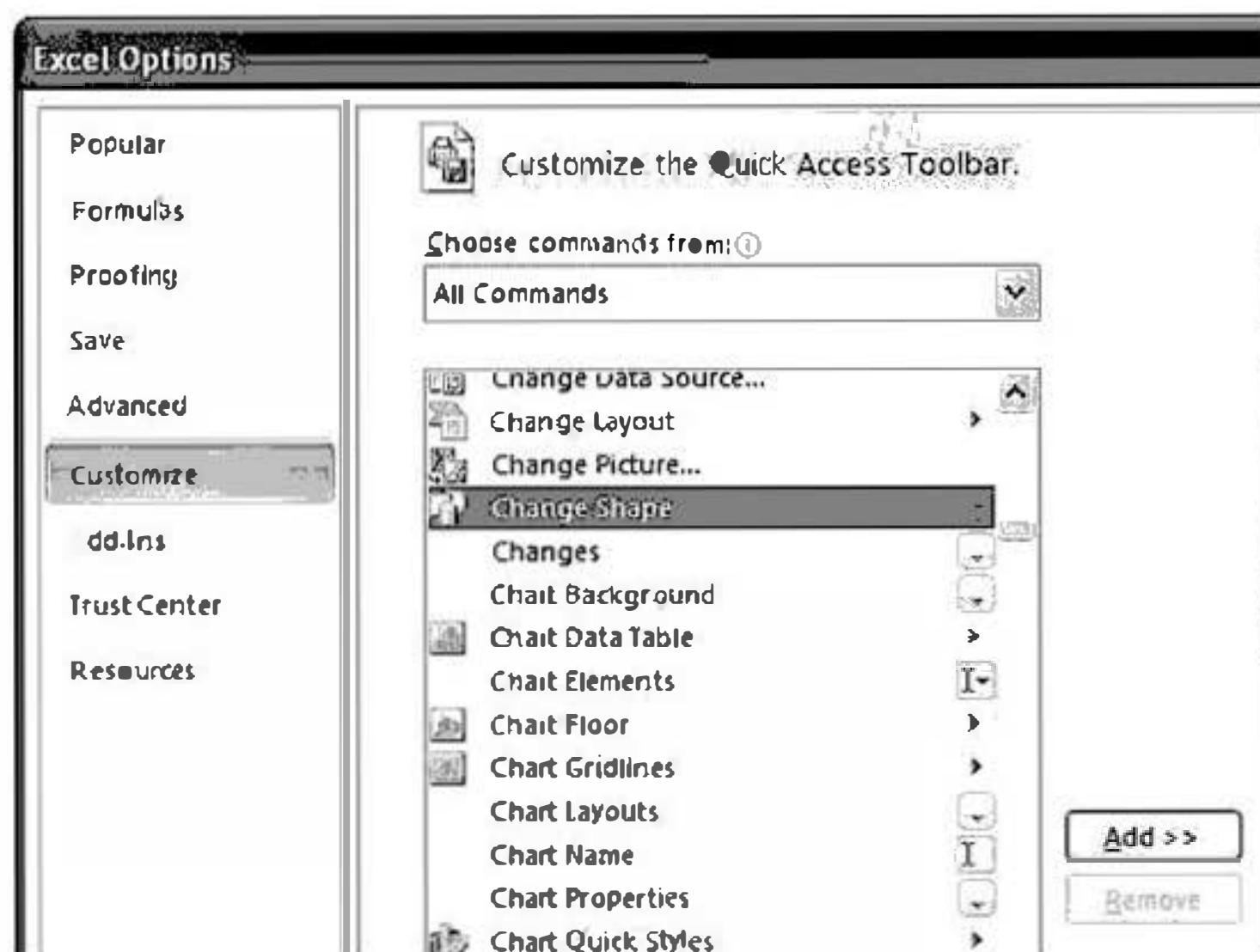


Here's how you can do it.

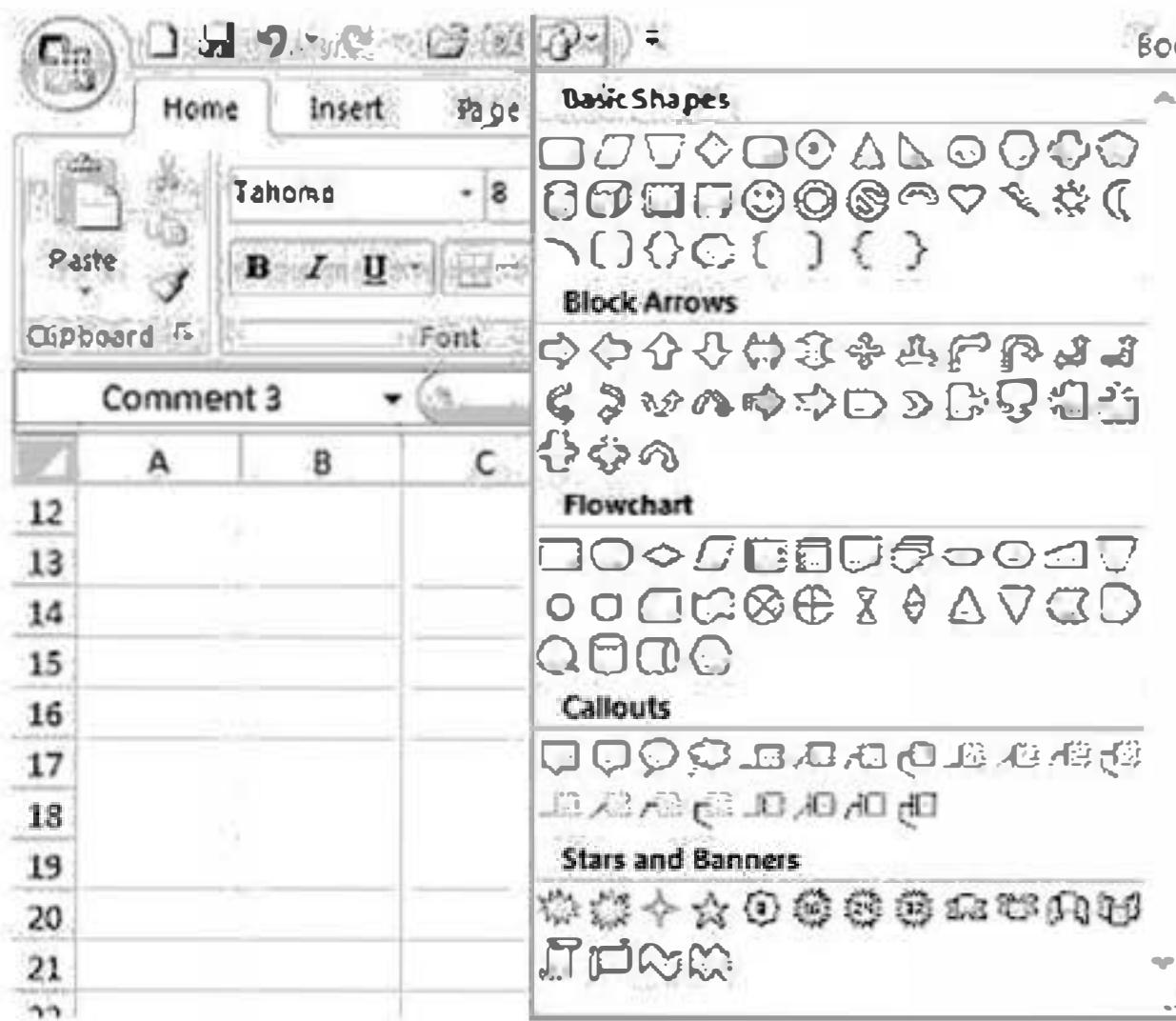
When you first create a comment, the cursor is right after whatever you typed. You need to select the comment itself, not the text inside. So, select the border of the comment:



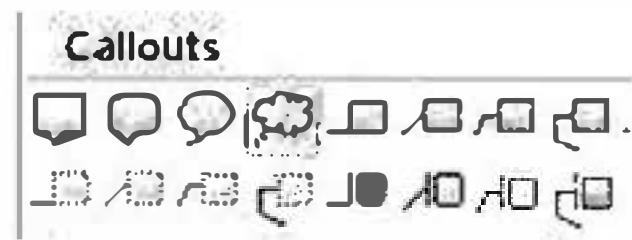
You need the "Change Shape" tool. This can be placed on the Quick Access Toolbar: {Excel 2003:View|Toolbars| Drawing|Draw Menu|Change AutoShape}



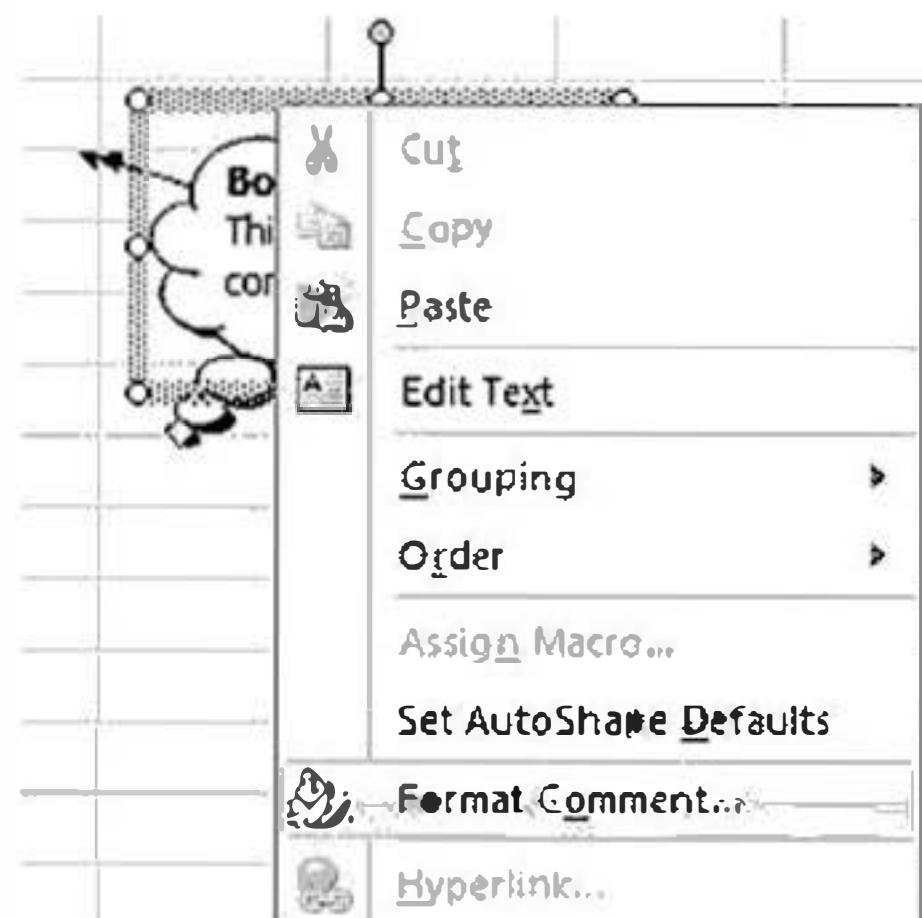
When the comment is selected by the border, click the new Change Shape tool.



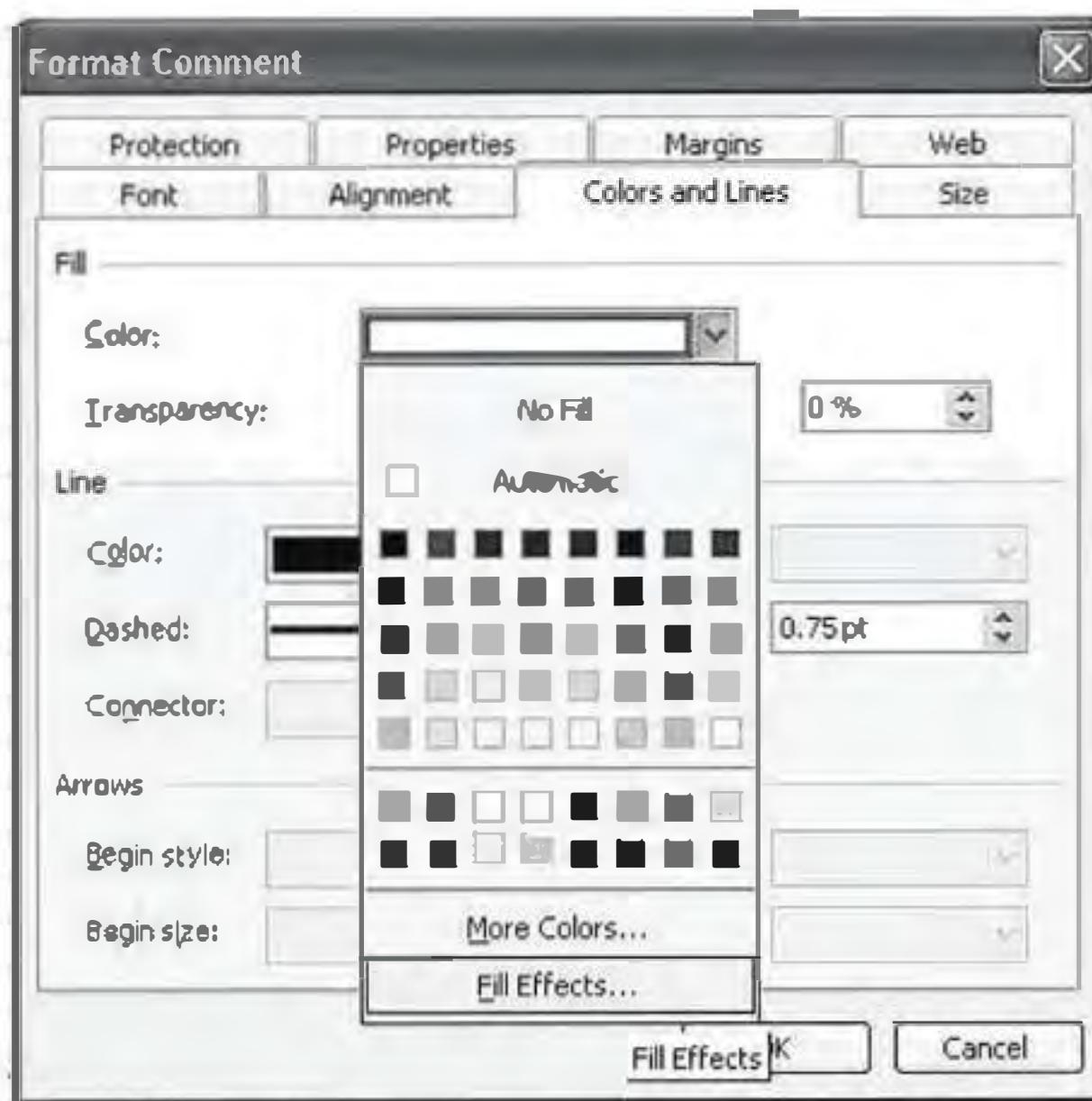
From that, you can select basic shapes, block arrows, flowchart, stars and banners, or callouts, each of which has yet another set of shapes to choose from. Shown here is the Cloud callout:



Once you have the new shape, (cloud, here), right-click the border once again and choose Format comment, as shown, if you wish to format this comment even further:



That will bring up yet another dialog, from which you can choose Fill Effects:



From this dialog box you can select the Picture tab and import any picture (I chose me!).



as you saw before.

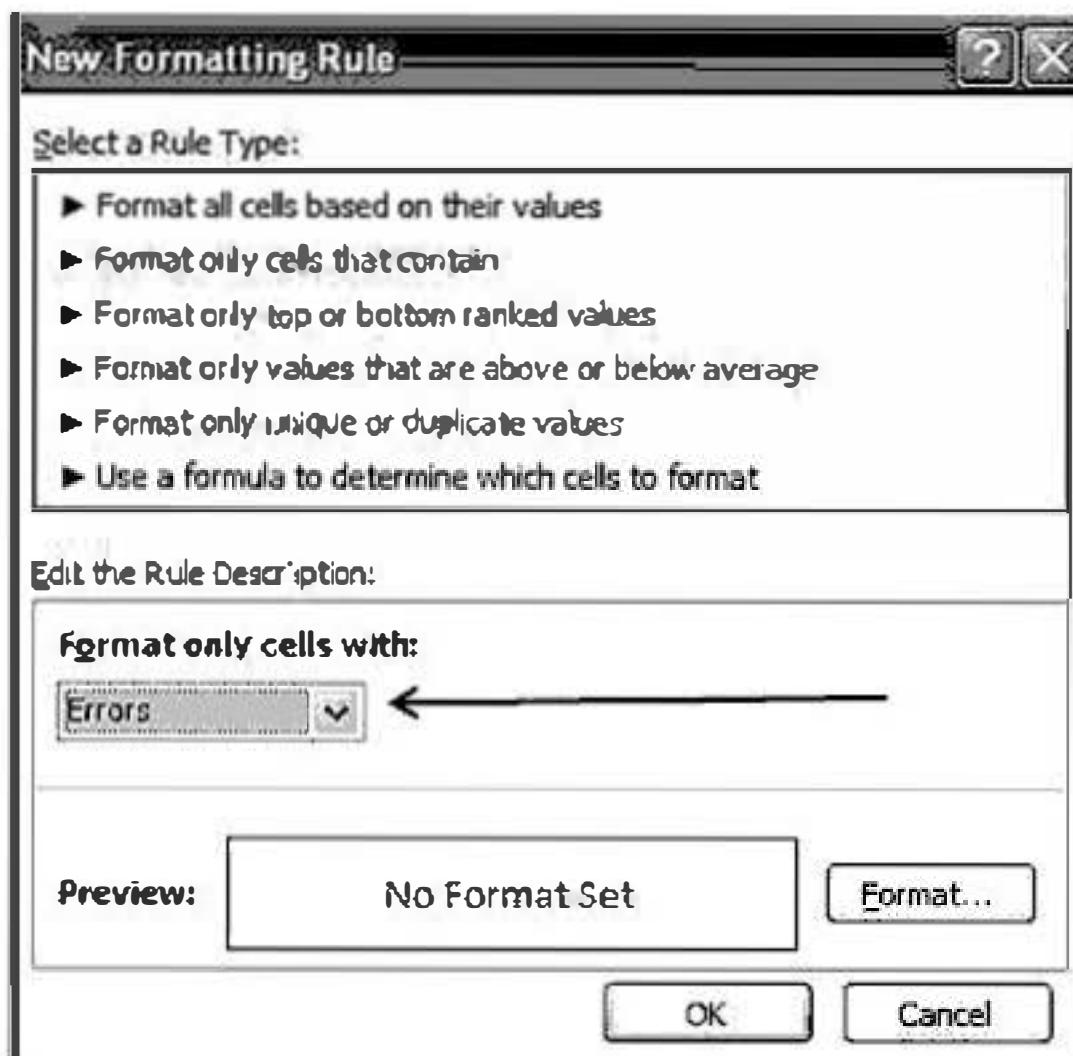
## 30. Format #VALUE! or any errors away

Probably the easiest way to not display errors like #VALUE! or #DIV/0! in an already existing worksheet is to use Conditional Formatting. Here's how:

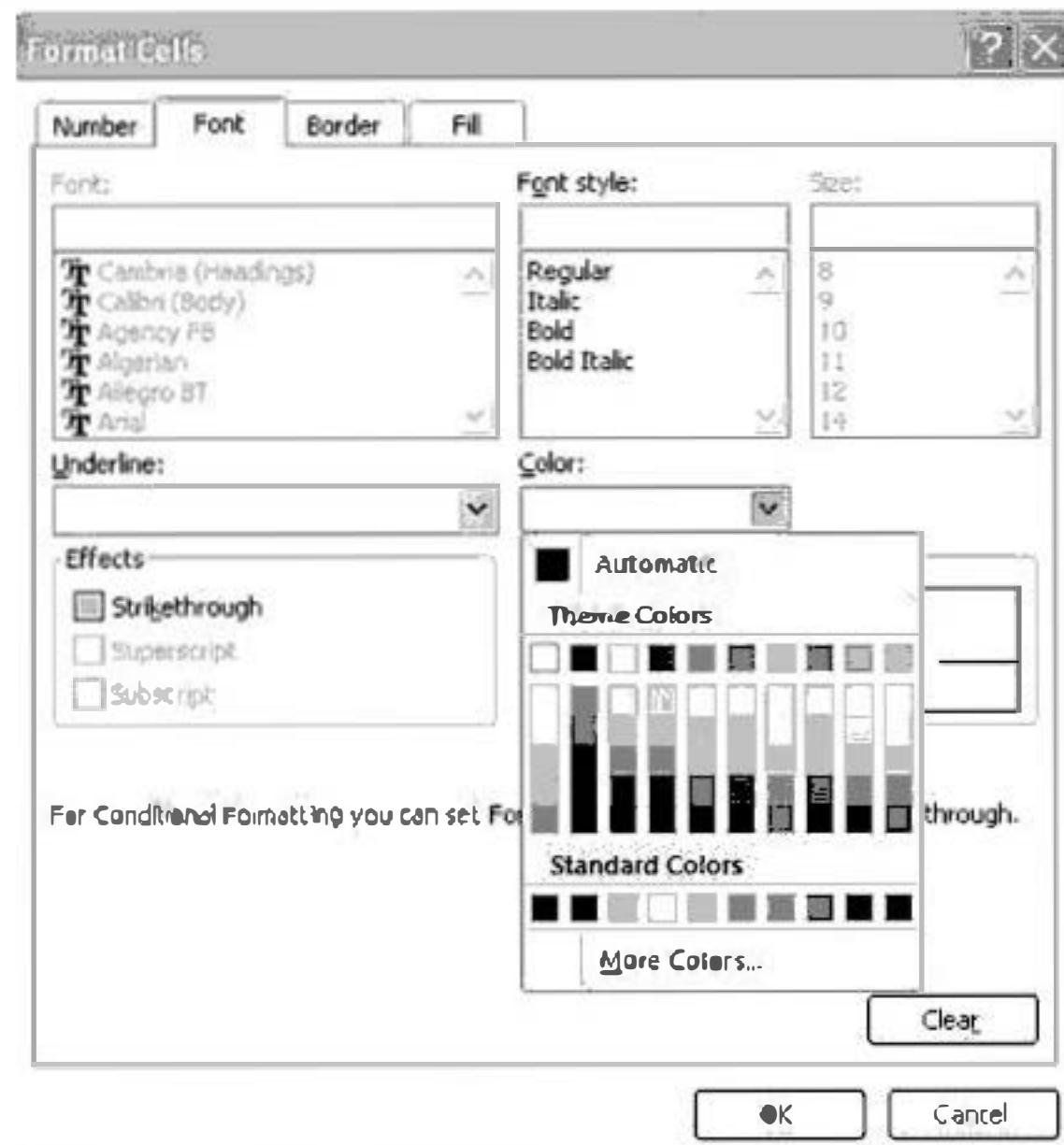
1. Select all the cells you want to hide these error values in.
2. Use Conditional Formatting from the Home tab, and select New Rule (there are other ways to get to the new rule, but this is the most direct) [Excel 2003: Format|Conditional Formatting]:



3. Select the Rule Type "Format only cells that contain," then pick the Errors rule from the dropdown:



4. Click the Format button, the font tab, and assign a white font!



## 31. Using [h] format for hours>=24

When you add times, anything over 23:59:59 will start over at 0. If you use a format of [h]:mm:ss then you will get the "true" number of hours:

	A	B	C	D
1		3:15		
2		4:15		
3		5:15		
4		6:15		
5		7:15		
6		2:15	26:15	
7				

The formulas in B6 and C6 are identical. However, B6 is formatted as h:mm:ss which will not permit the "h" to be above 23, and the format for cell C6 is [h]:mm:ss.

## 32. Advanced number formatting

You can specify formatting by value ranges. This format:

[Red][<80]"TOO LOW";[Blue][>120]"TOO HIGH";\$#.##0.00 says: if the value in the cell is <80, make it red and show the text "TOO LOW." If the value in the cell is >120, make it blue and display the text "TOO HIGH."

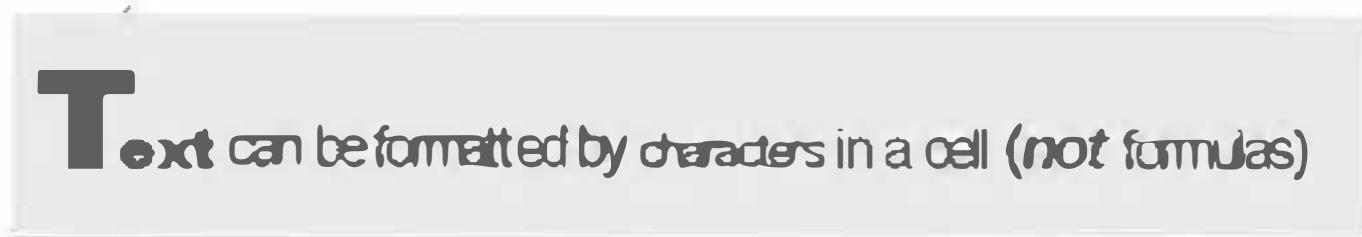
Otherwise, format it as currency.

Aside from [red], [blue], [cyan], [magenta], [white], [black], [blue], and [green], you can use [color1] thru [color56].

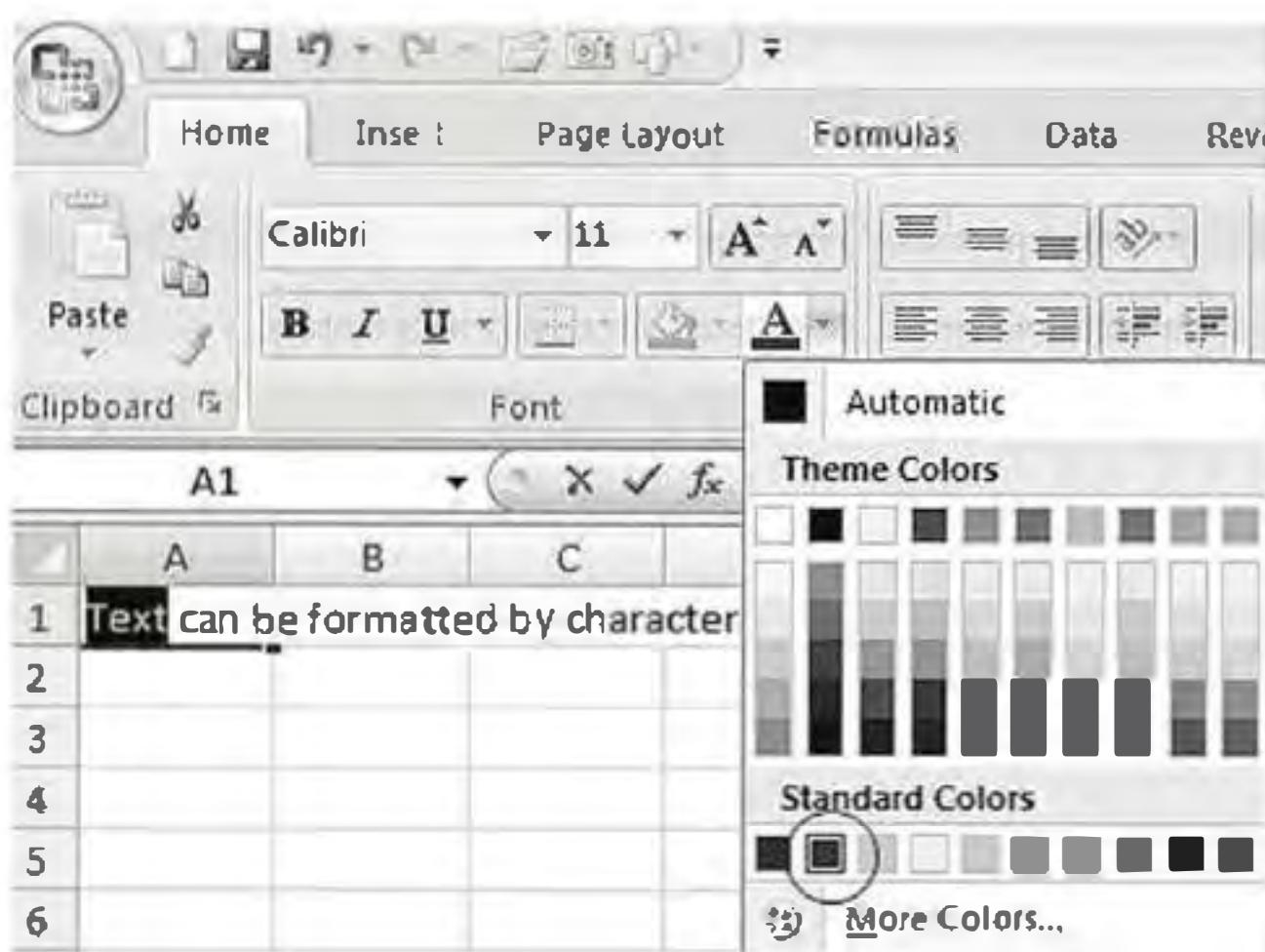
The rule is to place the color inside square brackets, followed by another set of square brackets for the condition, then the format if it meets that condition. You're limited to 2 conditions plus an "all other."

## 33. Formatting text

You can have parts of text constants in one cell be different sizes, fonts, color, by selecting the text and using the tools from the formatting features in the Home tab [Excel 2003: Formatting toolbar].



Here,



the word "Text" is selected, and the red font color is being applied. Only the word "Text" will be red. You can also access the font by right-clicking once the word is selected.

## 34. Using Fills

A number format which includes \* will fill the cell with the next character. A format of General\*, will fill the cell with periods. Enter 12 and you'll see 12.....as wide as the column is:

A1		f <sub>x</sub>	12
	A		B
1	12.....		
2			

Use a format of \$\*\*#.##0 to get asterisk-fill for currency. The first \* is the code indicating to use the next character to fill the cell. That next character is \*, so now 12 looks like this:

A1		f <sub>x</sub>	12
	A		E
1	\$*****12.00		
2			

**NEW**

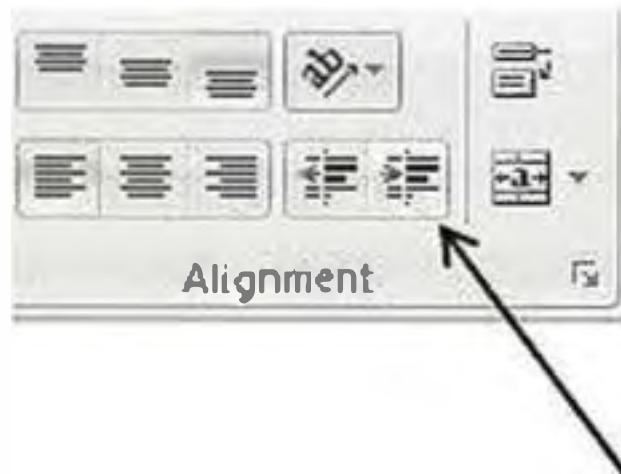
## 35. Indenting or distributing text

Suppose you have a worksheet which looks like this:

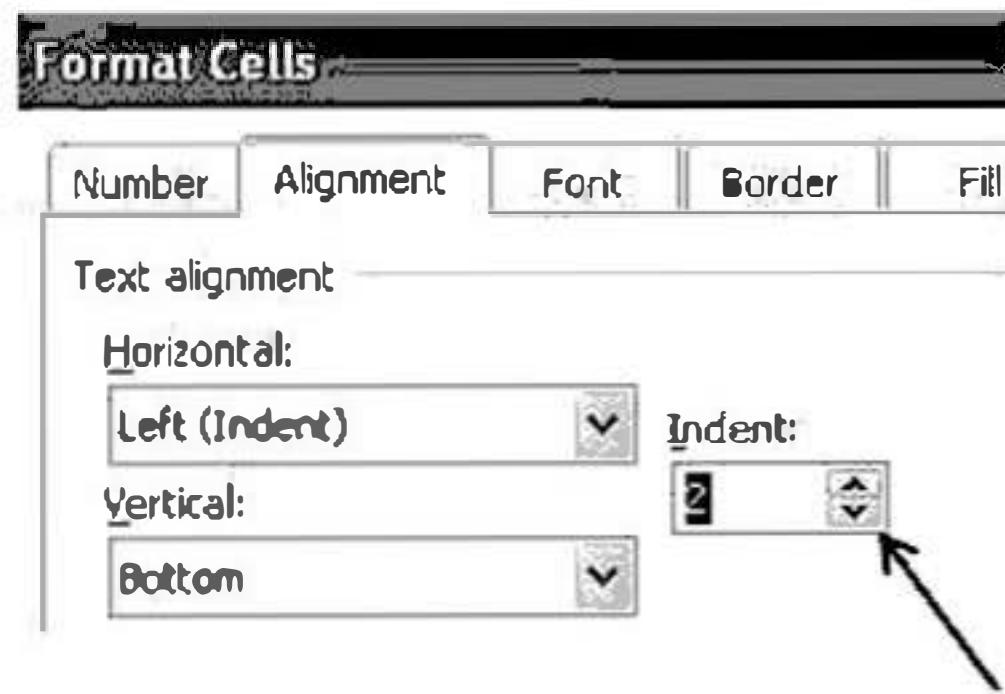
A	B
1	Main section
2	Sub Sections
3	Sub Sections
4	Sub Sections
5	Sub Sections
6	Sub Sections
7	Sub Sections
8	Main section
9	Sub Sections
10	Sub Sections
11	Sub Sections
12	Sub Sections
13	Sub Sections
14	Main section
15	Sub Sections
16	Sub Sections
17	Sub Sections
18	Sub Sections
19	Sub Sections

and you want to indent each Sub section a few cells. In this example, you could replace the word Sub with " Sub", but in reality, each of these cells would contain other text. What many people would do is laboriously click in each cell and type a few leading spaces! But what about this:

Two clicks of the indent button on the alignment section of the Home tab:  
[Excel 2003: Format|Cells|Alignment|Indent up-arrow twice]



works just fine. It's a command also found in the format cells dialog (ctrl/1, alignment tab or the bottom right arrow of the above illustration):



Distributing text is found in the same Format cells dialog. Here, cells A1 and A2 contain the text "This is a wide cell," but cell A2 was formatted as distributed:

The screenshot shows the 'Format Cells' dialog box with the 'Alignment' tab selected. Under 'Text alignment', the 'Horizontal' dropdown is set to 'Distributed (Indent)'. The 'Orientation' section shows 'Text' rotated 90 degrees counter-clockwise. An arrow points to the 'Distributed (Indent)' option in the dropdown menu.

## 36. Easily create custom list of a-z, A-Z

Instead of typing this all out and then importing to custom lists, you can enter:

=CHAR(ROW()+64) in row 1 and fill down to row 26 for A-Z.

	A	B	C	D
1	A			
2	B			
3	C			
4	D			
5	E			
6	F			
-	-			

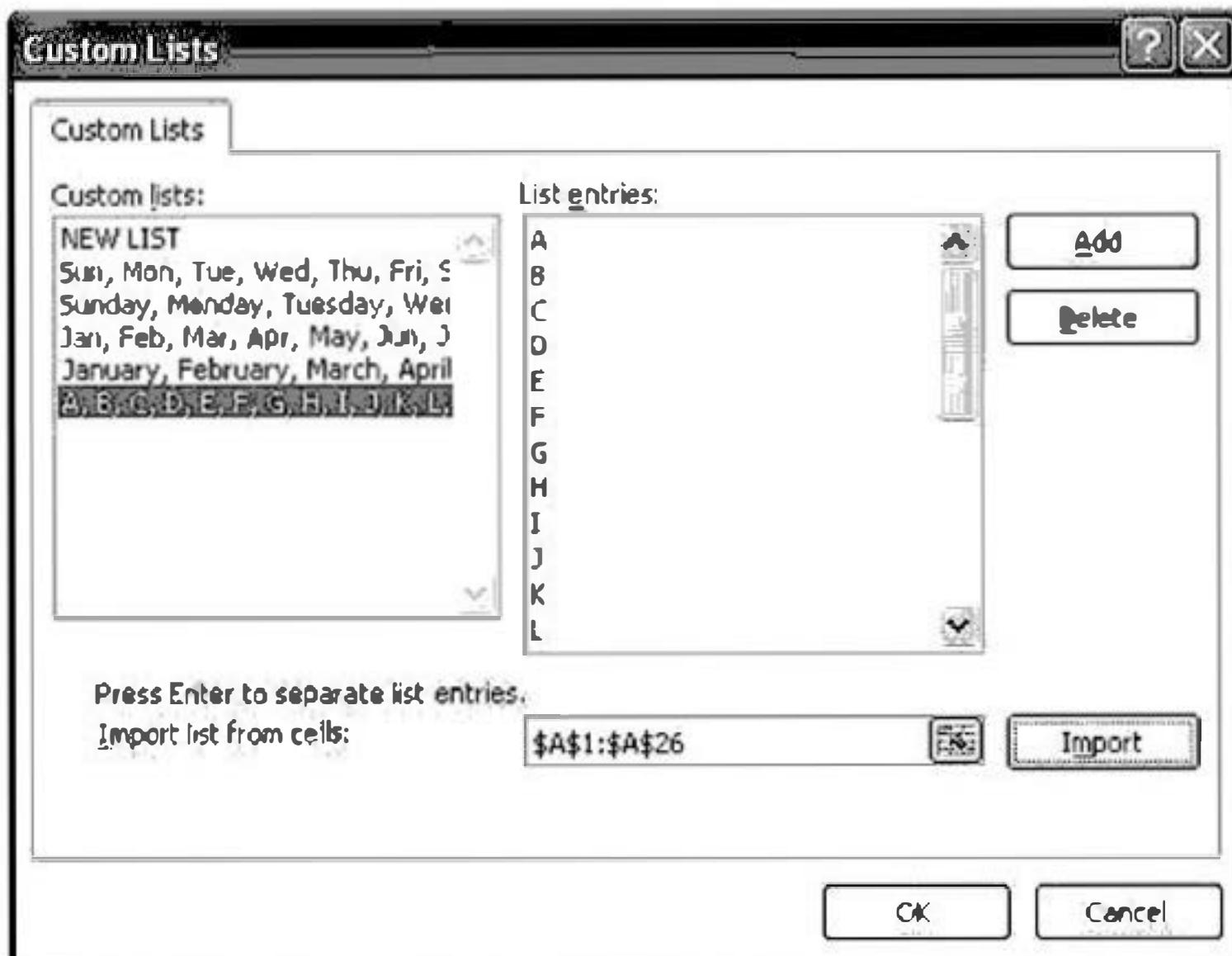
=CHAR(65) is the letter "A", thru =CHAR(90) is the letter "Z"

Copy the list and paste special Values (or you won't be able to import them into the Custom Lists).

Then select the range and use Office Button, Excel Options, Edit Custom Lists button: [Excel 2003:Tools|Options|Custom Lists]



and click Import:



Now, you can enter any letter (upper or lower case), and use the fill handle. If you entered upper case, it will fill with upper case letters. Lower case will fill with lower case letters.

## 37. Inner Series

Some functions take a parameter which changes, like =IPMT(rate,per,nper,pv,fv,type)

The “per” argument usually differs from one row to the next, making it difficult to fill down. Most people enter the series 1;2;3;... down a column for the sole purpose of being able to reference it in the formula! Instead, use ROW(A1) as the “per” argument:

	A	B	C	D	E	F
1	Rate	5.25%				
2	Nper	0:00				
3	PV	\$400,000				
4						
5						
6		\$1,750.00				
7		\$1,747.99				
8		\$1,745.98				
9		\$1,743.95				
10		\$1,741.92				
11		\$1,739.88				
12		\$1,737.82				
13		\$1,735.76				

When the formula in cell B6 is filled down, the part containing ROW(A1) becomes ROW(A2), etc. This is, of course, 1 in B6, 2 in B7, etc, giving the inner series.

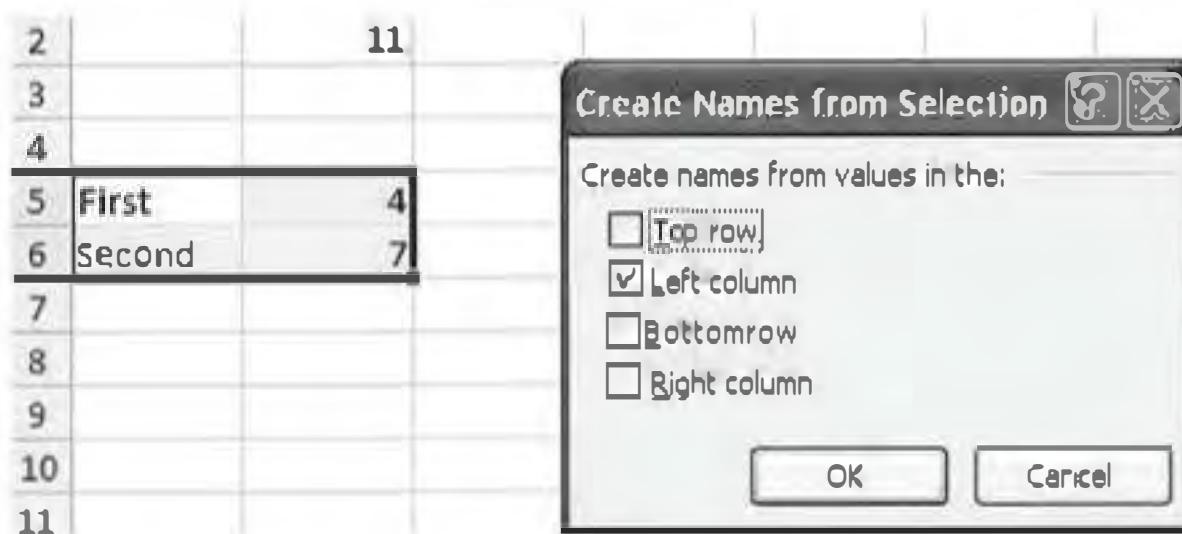
You can also use COLUMN(A1), of course, if the series needs to be filled right!

## 38. Using Apply Names

Immediately after naming ranges, you can easily apply these names to existing references. For example, if you have =B5+B6 in a cell

B2	A	B	C	D
1				
2		11		
3				
4				
5	First		4	
6	Second		7	
7				

and then name B5 "First" and B6 "Second."



then after naming them you can use Apply Names from the Define Name dropdown in the Formulas tab, [Excel 2003: Insert]Name[Apply] and these will already be selected in the dialog:



After you apply the names you will see =First+Second:



	A	B	C	D
1				
2		11		
3				
4				
5	First		4	
6	Second		7	
7				

## 39. Selecting a random sample of data

If you have a database with many records and you want to take a random sample of that data, here are a few techniques you can use.

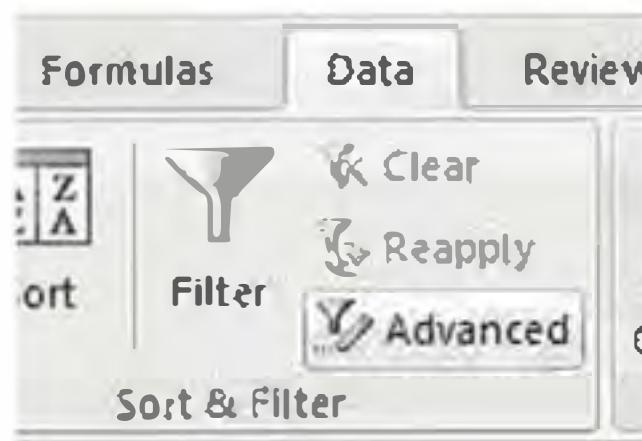
One way to get a random sample is to use a computed criteria and advanced filter.

Suppose you want to take a random 10% of the data. Enter the formula as shown in C2 (keep C1 blank). By entering the formula  $=RAND() < 0.1$ , every time this worksheet calculates, the  $=RAND()$  will return another random number. So  $RAND() < 0.1$  will return TRUE, about 10% of the time.

( $\text{Rand}()$  returns a random value between 0 and 1, not including 1).

	A	B	C
1	Database of 100 items		
2	Item1		TRUE
3	Item2		
4	Item3		
5	Item4		
6	Item5		
7	Item6		
8	Item7		
9	Item8		
10	Item9		

Using the Advanced button from the Data tab: [Excel 2003: Data|Filter|Advanced Filter]



you can filter like this:



and that will create a random selection:

	A
1	Database of 100 items
10	Item9
13	Item12
16	Item15
27	Item26
62	Item61
74	Item73
77	Item76
86	Item85
...	

This will be different each time. You may notice that there are only 9 items shown, not 10, and that's because the values RAND returns are random! It's best to use this on larger databases!

A second way to select a random 10% of your data is to still use the RAND function, but not use filtering. Look at this:

	A	B
1	Database of 100 items	
2	Item1	0.472988
3	Item2	0.754415
4	Item3	0.161792
5	Item4	0.236491
6	Item5	0.255978
7	Item6	0.786952
8	Item7	0.810523
9	Item8	0.227744
10	Item9	0.2444
11	Item10	0.170091
12	Item11	0.506724
13	Item12	0.073749
14	Item13	0.186336
15	Item14	0.498387

Cells B2 thru B101 contain =RAND(). All you need do is select A2:B101 and sort by column B! Take just the first 10 items, and you have your random 10% of the database!

## 40. How to change row height when a key field changes

Suppose you had a worksheet something like this (but more complicated!)

	A	B
1	Department	
2	Accounting	
3	Accounting	
4	Accounting	
5	Accounting	
6	Accounting	
7	Accounting	
8	Accounting	
9	Accounting	
10	Personnel	
11	Personnel	
12	Personnel	
13	Personnel	
14	Personnel	
15	IS	
16	IS	
17	IS	
18	IS	

If A1:A3000 contains departments (sorted) and you want a visual break between departments you can change row heights on the first row of each new one. How can you select the changed department?

In the above example, in cell B2, e.g., enter a formula such as  
`=IF(A1=A2,1,NA())`.

Or you could enter `=IF(A1=A2,TRUE,"X")`.

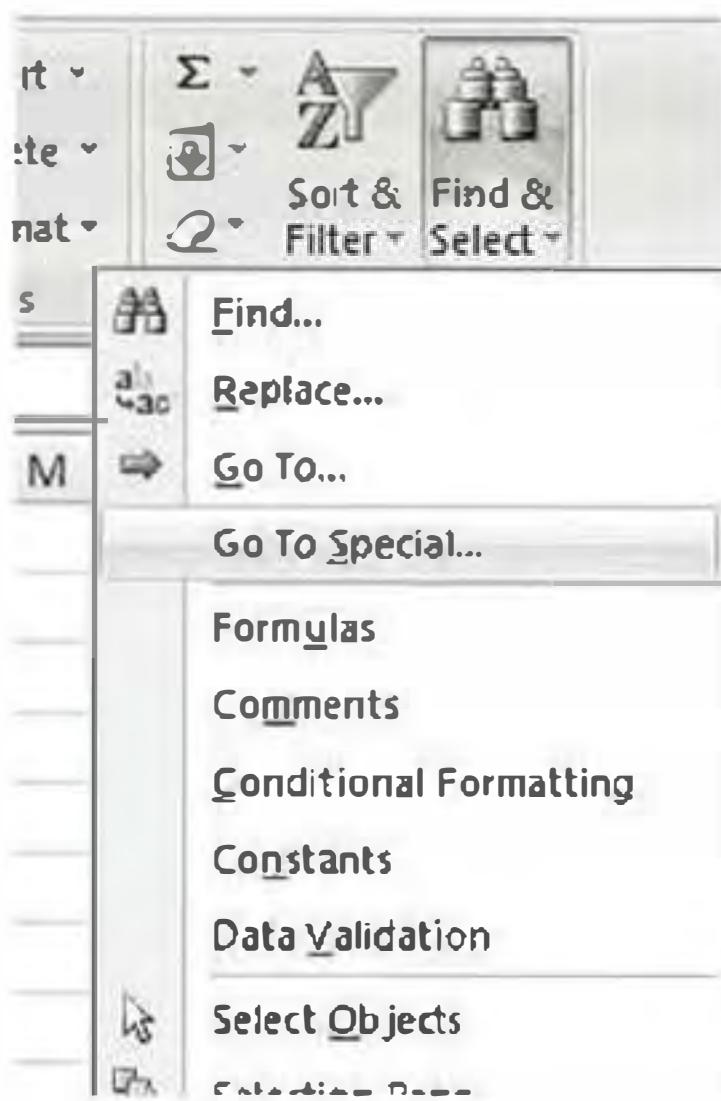
The choices I'm using are any two of Number, Text, Logical, Error because of this:



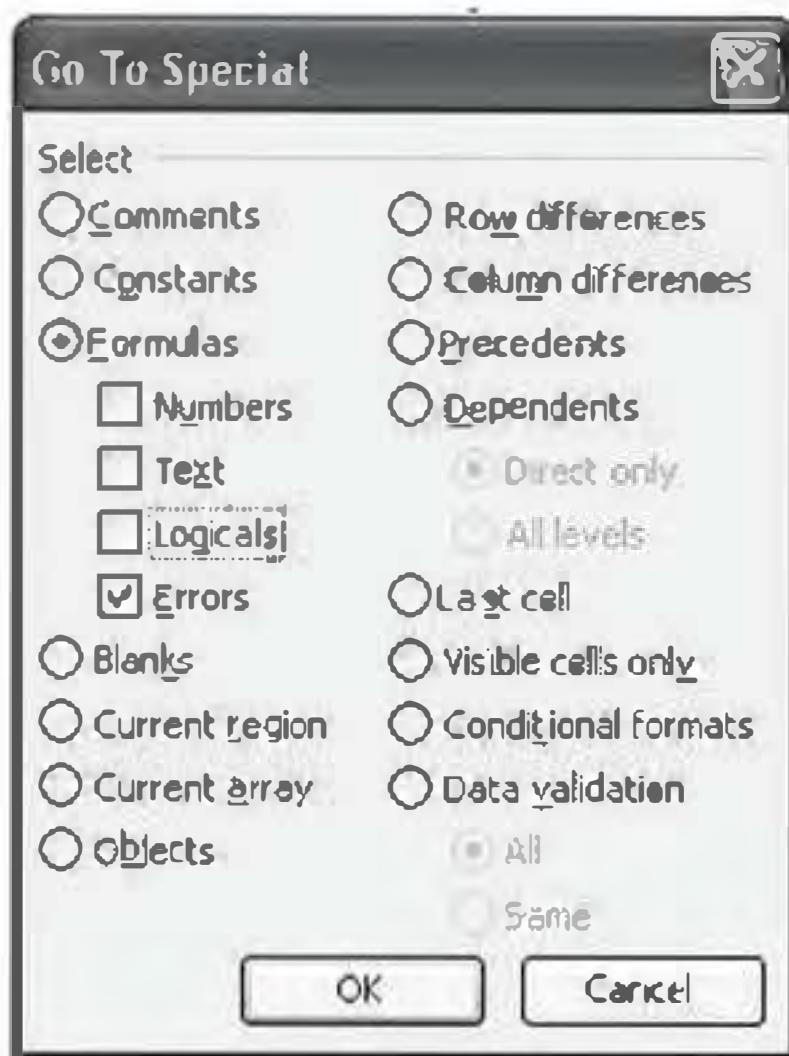
Assuming we choose the first formula, then the NA()'s will show on every new department:

	B2	f <sub>x</sub>	=IF(A1=A2,1,NA())	
1	A	B	C	D
2	Accounting	#N/A		
3	Accounting	1		
4	Accounting	1		
5	Accounting	1		
6	Accounting	1		
7	Accounting	1		
8	Accounting	1		
9	Accounting	1		
10	Personnel	#N/A		
11	Personnel	1		
12	Personnel	1		
13	Personnel	1		
14	Personnel	1		
15	IS	#N/A		
16	IS	1		
17	IS	1		
18	IS	1		

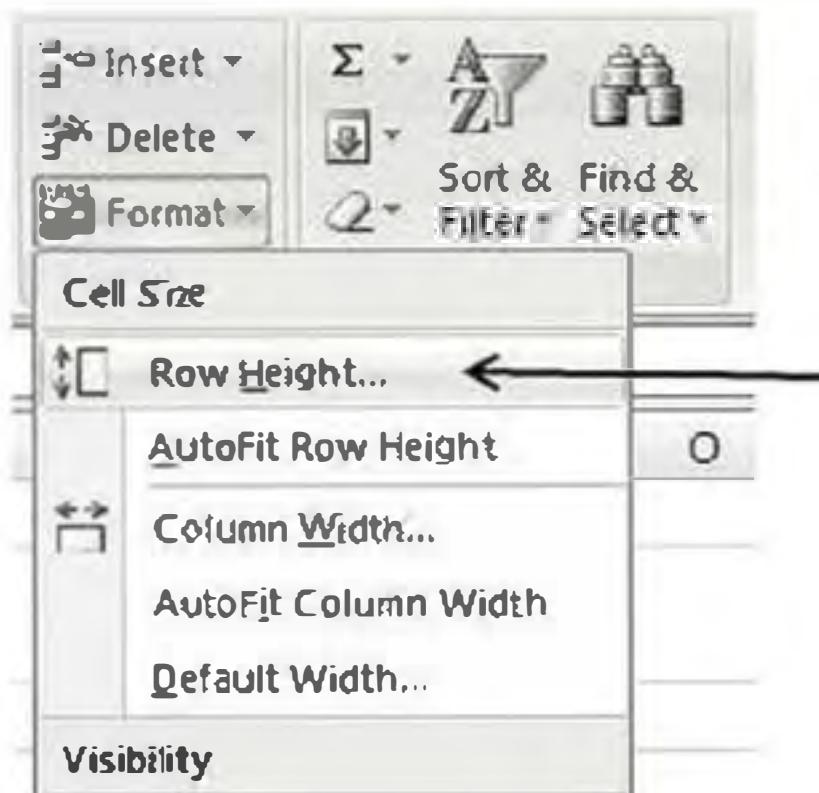
Select column B, Home tab, Find & Select, Goto Special (or simply press F5):  
[Excel 2003: Edit|Go To|Special]



select Formulas + Errors (you actually have to deselect Numbers, Text, and Logicals, leaving just Errors, or just deselect Numbers because you know the result is only numbers and errors):



Now only the #N/A cells are selected, so you can use Format Row Height from the cells group of the Home tab [Excel 2003:Format/Row/Height]:



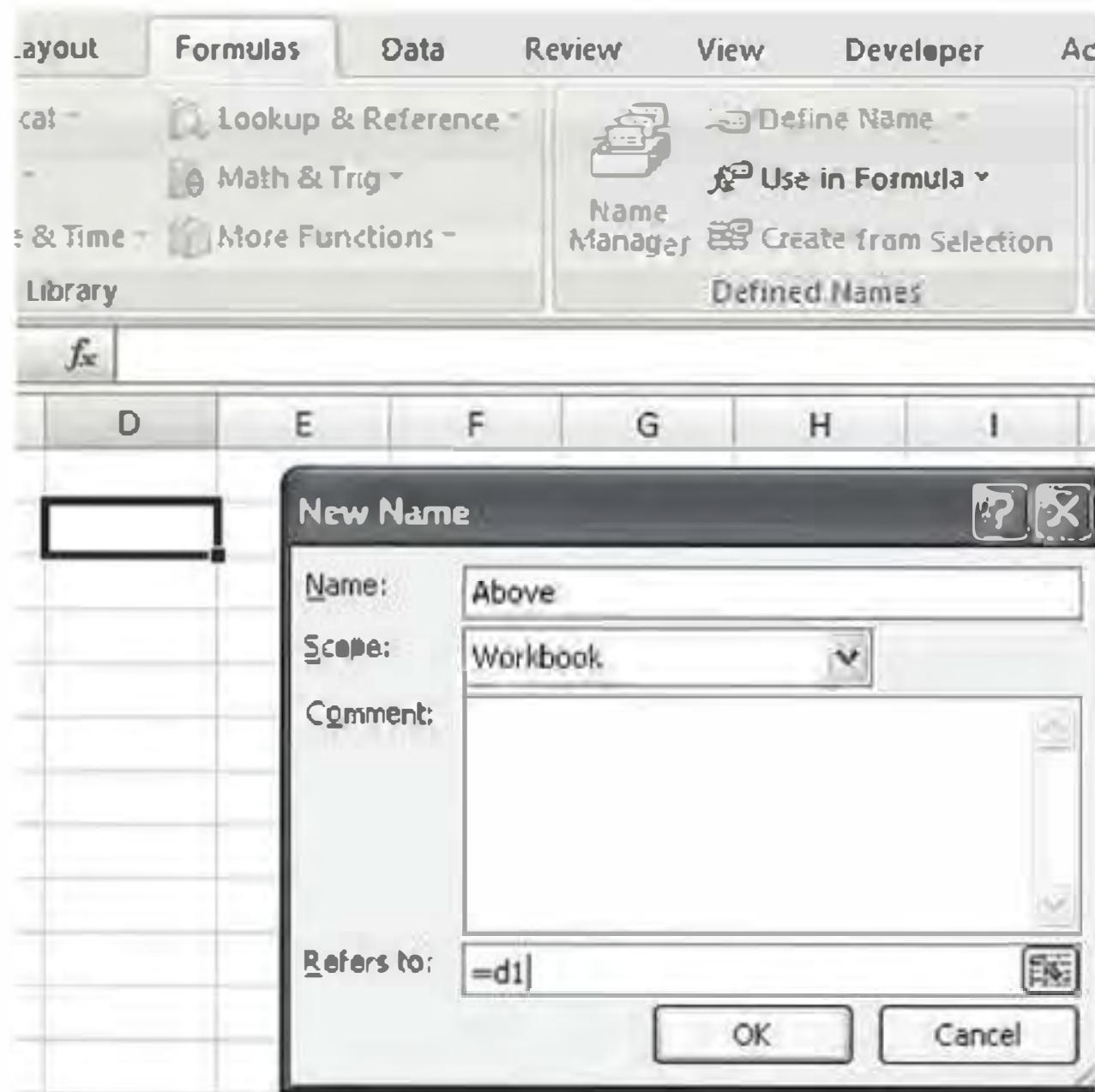
And change the row height to 30 to give this effect:

	A	B	C
1	Department		
2	Accounting	#N/A	
3	Accounting	1	
4	Accounting	1	
5	Accounting	1	
6	Accounting	1	
7	Accounting	1	
8	Accounting	1	
9	Accounting	1	
10	Personnel	#N/A	
11	Personnel	1	
12	Personnel	1	
13	Personnel	1	
14	Personnel	1	
15	IS	#N/A	
16	IS	1	
17	IS	1	

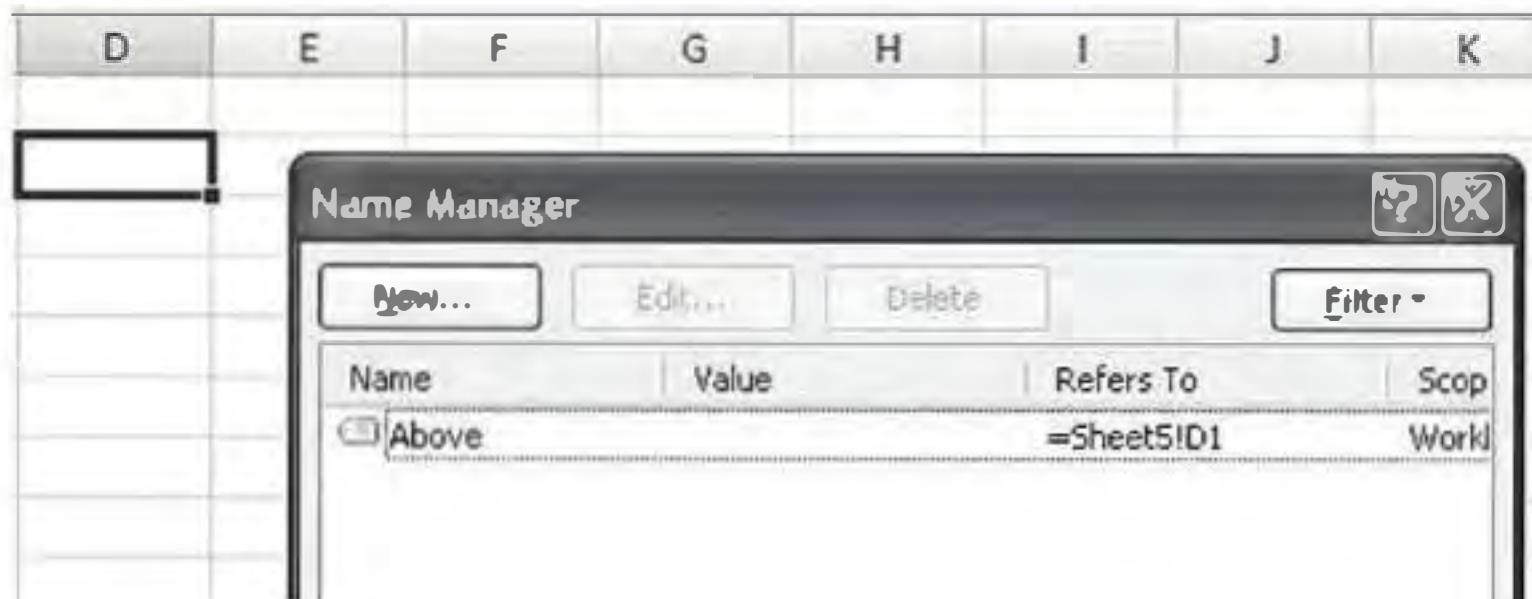
And finally you can clear column B.

## 41. Define “global/local” name

If you define a name to be the cell above, like from D2 you define “above” to be =D1, Excel puts the sheet name in front of it. Using Define Name from the Formulas Tab[Excel 2003: Insert/Name/Define]:



you get “above” to be =Sheet5!D1:

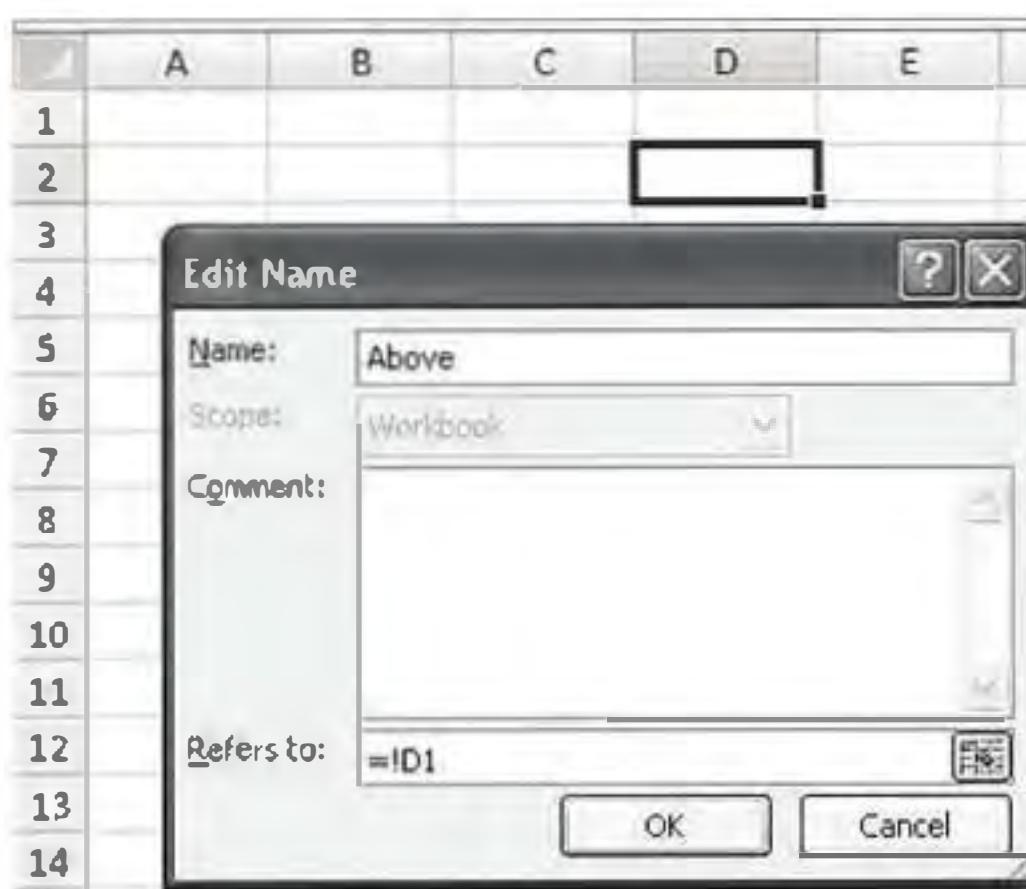


So any time I use =Above to reference the cell above the active cell, it will always pick the cell from Sheet5! That is, if on Sheet5, cell A1 I have “Bob,” then if I enter =Above from Sheet1 cell A2, I’d see “Bob.”

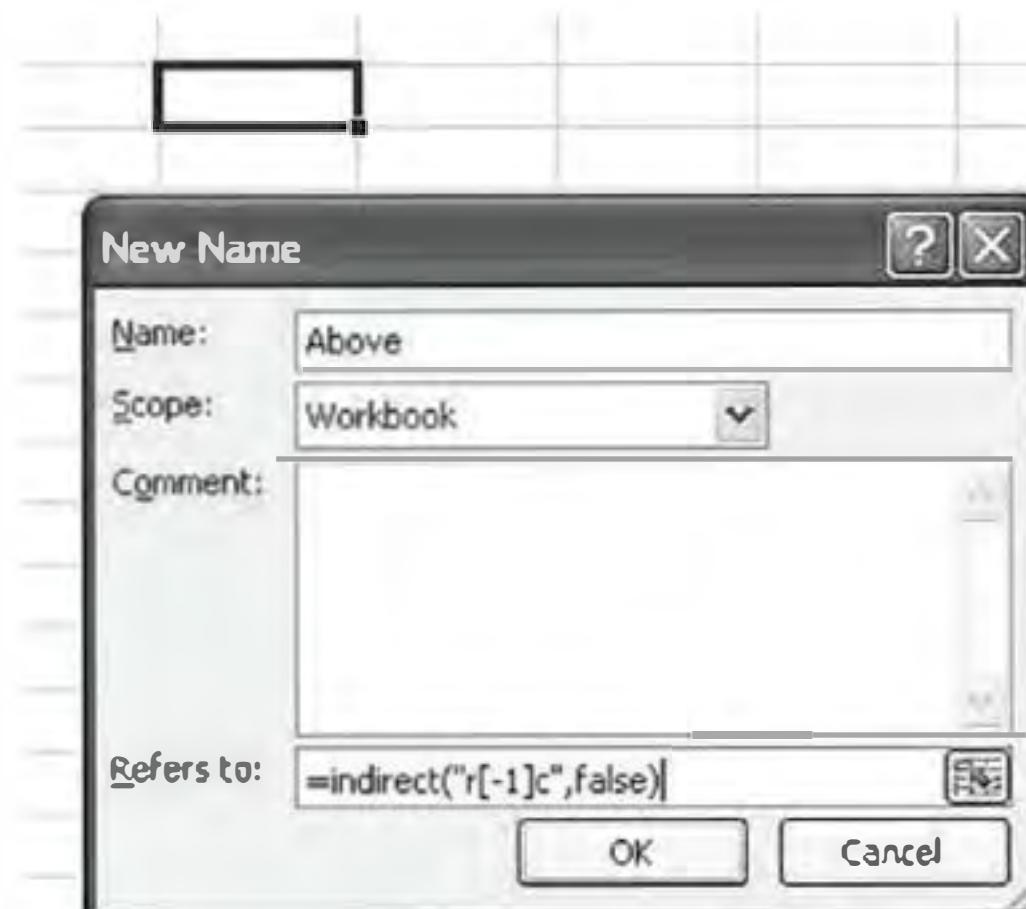
Interesting side note: if the active cell is in row 1 and you use Edit/Go To and type Above, the active cell will be in row 1048576!

To get “above” to be the cell above on any sheet, do one of the following:

1. Leave leading “!”. That is, define “above” to be =!D1:



2. Define “above” to be =INDIRECT("r[-1]c",FALSE)



The difference between the 2 choices is that the latter will calculate automatically, and the former won't (without forcing a calculation with the F9 key).

As a side note, you probably shouldn't use this technique if you're also using VBA because there's a bug that when VBA recalculates, all cells with that name refer to the active worksheet!

## 42. XLM-Names (not XML)

Old style Excel 4 macros ("XLM"=eXcel Macros) are still around and useful. They must be used as a defined name, not as a worksheet function. If you try to use these as worksheet functions Excel will give you an error. (Please note that prior to version 2003, copying a cell which uses this name to another sheet will crash Excel!)

For example, the LINKS function will return a list of the links in the workbook (and in a way that you can see the entire path!)

=LINKS()

This will return all the file names in the current directory.

=FILES()

This will return the names in the workbook

=NAMES()

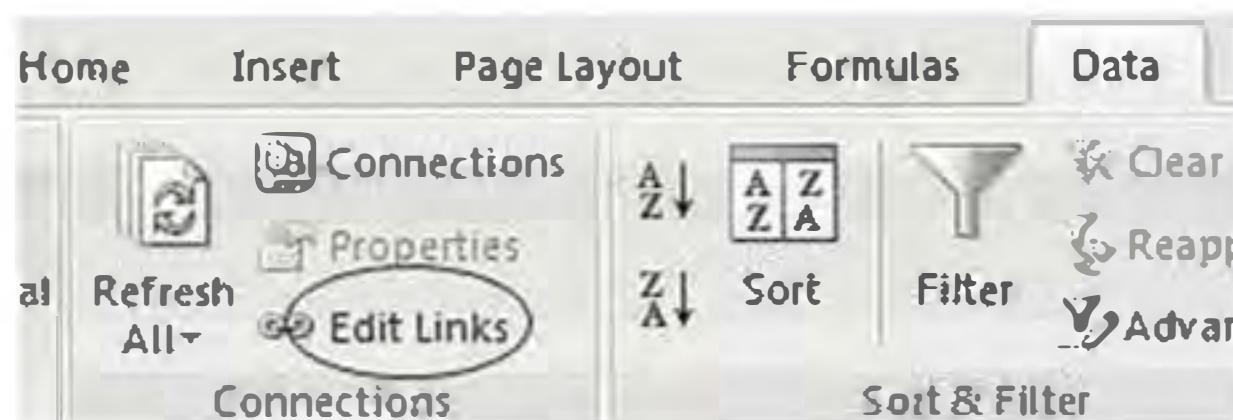
There are many more, and if you're interested, you can download them from <http://support.microsoft.com/kb/q128185/>

Example: Define lk as =LINKS(). Then use =INDEX(lk,1) to get first link, or =INDEX(lk,ROW()) in row 1 & fill down to get all the links:

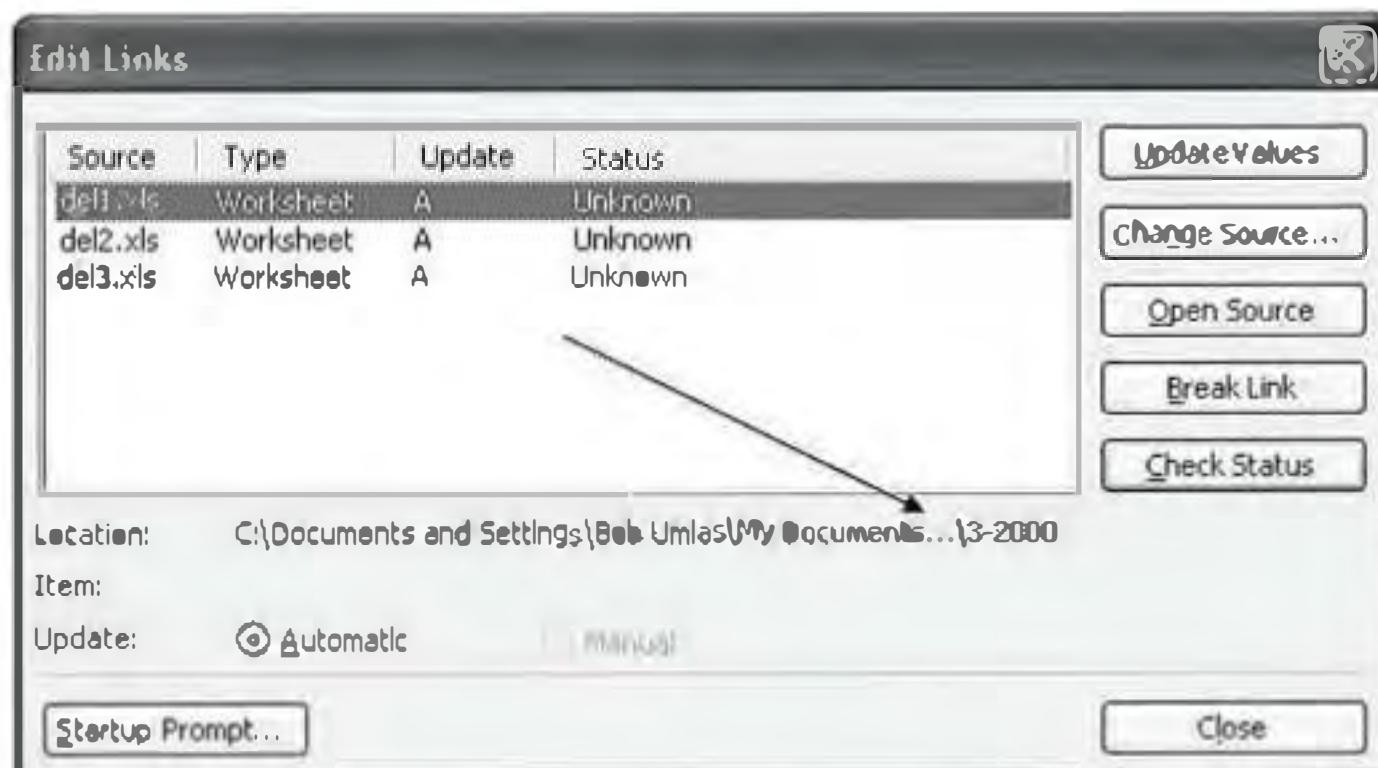
The screenshot shows a 'New Name' dialog box and a spreadsheet. The dialog box has fields for Name (lk), Scope (Workbook), Comment, and Refers to (=links()). The spreadsheet below shows column A with data: Row 1: C:\Documents and Settings\Bob Umlas\My Documents\Excel\SIG\3-2000\del1.xls, Row 2: C:\Documents and Settings\Bob Umlas\My Documents\Excel\SIG\3-2000\del2.xls, Row 3: C:\Documents and Settings\Bob Umlas\My Documents\Excel\SIG\3-2000\del3.xls. Cell A1 contains the formula =INDEX(lk,ROW()).

	A
1	C:\Documents and Settings\Bob Umlas\My Documents\Excel\SIG\3-2000\del1.xls
2	C:\Documents and Settings\Bob Umlas\My Documents\Excel\SIG\3-2000\del2.xls
3	C:\Documents and Settings\Bob Umlas\My Documents\Excel\SIG\3-2000\del3.xls
4	

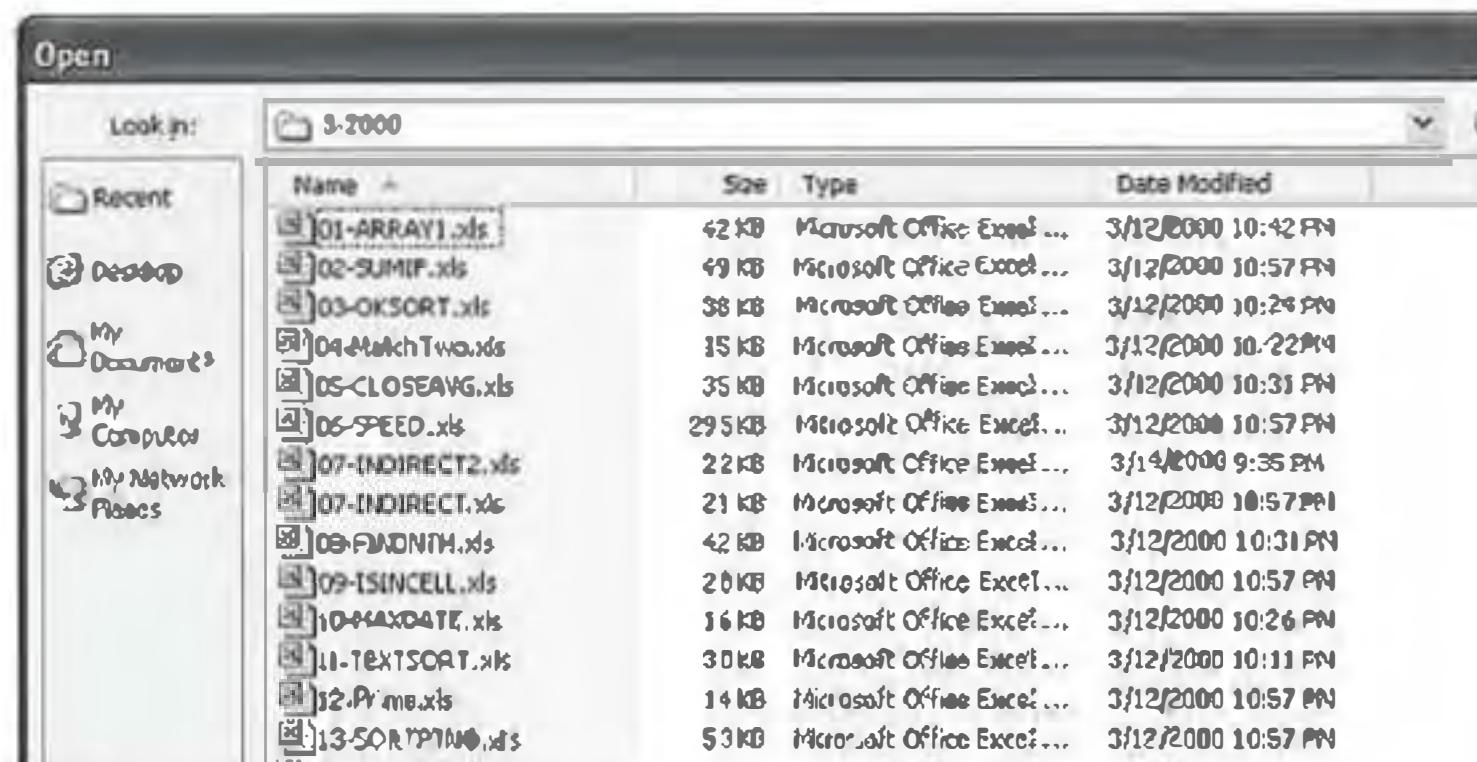
As you can see, cell A1 contains the formula as indicated, and it returns the entire link path to the first link document. The workbook is linked to 3 workbooks, named del1.xls, del2.xls, and del3.xls. But the Edit Links dialog (from the Connections section of the Data tab [Excel 2003: Edit|Links])



doesn't show the whole path:



Similarly, here's the file/open dialog:



By defining a name like FL, for example, to be =FILES(), you can get this directly into your worksheet:

	A	B	C
1	01-ARRAY1.xls		
2	02-SUMIF.xls		
3	03-OKSORT.xls		
4	04-MatchTwo.xls		
5	05-CLOSEAVE.xls		
6	06-SPEED.xls		
7	07-INDIRECT.xls		
8	07-INDIRECT2.xls		
9	08-FINDNTH.xls		
10	09-ISINCELL.xls		
11	10-M_XDATE.xls		
12	11-TEXTSORT.xls		
13	12-Prime.xls		
14	13-SORTPTNO.xls		

Another nice feature of this is that you can filter on the files. For example, if you wanted to return only those files which have an “O” in them, you can use =FILES("\*.O\*") where the asterisks are wildcards:

	A	B	C	D	E	F	G	H
1	03-OKSORT.xls							
2	04-MatchTwo.xls							
3	05-CLOSEAVG.xls							
4	11-TEXTSORT.xls							
5	13-SORTPTNO.xls							
6	14-WILDOX.xls							
7								

Name Manager

Name	Value	Refers To	Scope
f	=FILES("*.O*")	=FILES("*.O*")	Worksheet

## 43. Getting number of unique values

For this example, assume Rg is defined as A1:A10 and contains  
4;5;5;4;5;5;4;5;5;5

Array-enter (ctrl+shift+enter) =SUM(1/COUNTIF(Rg,Rg))

How it works:

First, a brief discussion of the COUNTIF formula. The syntax is =COUNTIF(Range,Criteria). It counts the number of items in the range which meet the criteria. So, in our example, =COUNTIF(Rg,4) would return 3, because there are 3 4's in the range. Similarly, =COUNTIF(Rg,5) would return 7 because there are 7 5's.

It turns out that if you use the range itself as the criteria, then each item in the range is used, one at a time, as the criteria.

So, COUNTIF(Rg,Rg) counts the number of 4's, then counts the # of 5's, then counts the # of 5's, etc. This returns ={3;7;7;3;7;7;3;7;7;7}. However, you will only see the first value, 3, in the cell. If you clicked in the formula bar and pressed the F9 key (calculate), you'd see all the values. (If you did this, don't forget to either press esc to cancel the calculation or click the X near the formula bar).

So now, 1/COUNTIF(Rg,Rg) returns ={1/3,1/7,1/7,1/3,1/7,1/7,1/3,1/7,1/7,1/7}. There are 3 "1/3", and 7 "1/7", each totaling 1.

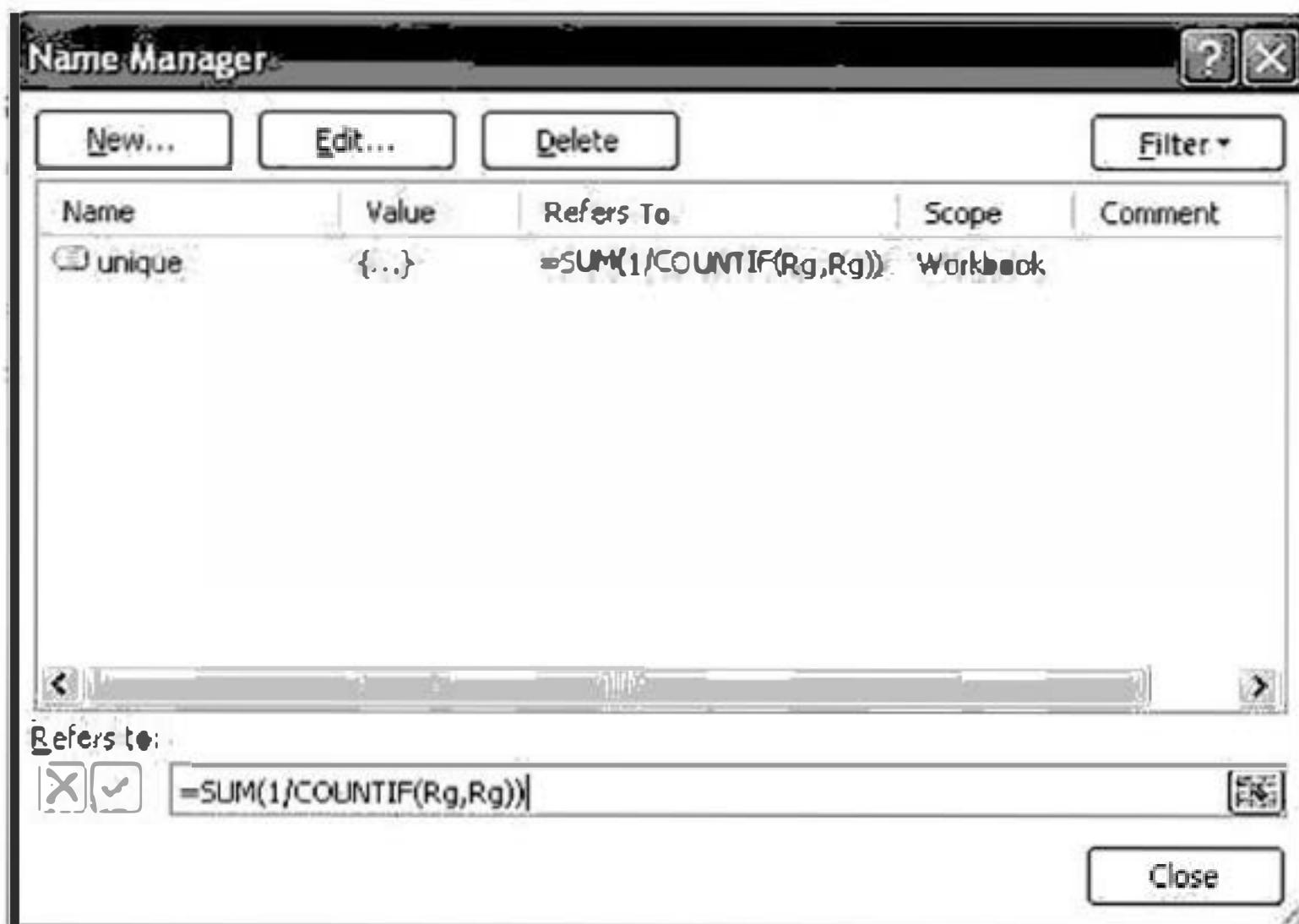
So the SUM returns the correct result: There are 2 unique values.

This needs to be ctrl/shift/entered or it will calculate as if that first 3 were the only value, and the answer would be 1/3, or .333333333.

## 44. Named formulas are array-entered

If the formula in the preceding tip were entered without **ctrl+shift**, the cell would contain .33333, as mentioned.

If a name (say “unique”) is defined to be =SUM(1/COUNTIF(Rg,Rg)) and you enter =unique, without pressing **ctrl+shift**, the cell would contain 2!



So it seems all named formulas are treated the same as if you entered it as an array-formula.

However, here's an oddity. If you enter =A1:A2 in cell A3, you'd see #VALUE!. If you array-enter it, you see whatever is in cell A1. If, while the cursor is in cell A3, you define a name to be =A1:A2, then entering that name in A3 still produces #VALUE! If you array-enter that name (like {=test}—the braces supplied by Excel) then it returns A1's value. So these techniques seem to contradict one another!

Just be aware that your named formulas may be different from what you expect only because it's likely interpreted as array-entered!

## 45. Getting End of Month

You don't need the Analysis Toolpak (an add-in which ships with Excel). If the date is in cell A1, then to get the date of the last day of that month, use =DATE(YEAR(A1),MONTH(A1)+1,0).

The DATE function takes 3 parameters: year, month, and day. The Year is the same year as cell A1's year, so we simply use YEAR(A1). MONTH(A1)+1 is one month past the month in cell A1.

The first day of next month is =DATE(YEAR(A1),MONTH(A1)+1,1), so the day before that is the last day of this month. Therefore, instead of using 1 as the day parameter, Excel has no problem with using 0.

The Month parameter for the DATE function doesn't need to be 1-12, and the Day parameter doesn't need to be 1-31!

Of course, you can also use =DATE(YEAR(A1),MONTH(A1)+1,1)-1 if you don't like using 0 for the day parameter!

## 46. How many Wednesdays between 1/1/05 and now?

(This is obviously not limited to Wednesdays!)

Use the INDIRECT function to turn the date into a range! (Hang in there!)

If A1 has 1/1/05 and A2 has =TODAY() (and let's assume for this example that today is 3/5/05)

=ROW(INDIRECT(A1&":"&A2)) is the same as

=ROW(INDIRECT("38353:38416")) which is the same as {38353;38354...38415;38416}.

These numbers are “serial” numbers, Excel’s way of numbering days since 1/1/1900.

The INDIRECT function changes text to a range, where possible.

The WEEKDAY function takes a date and returns the day of the week, where 1=Sunday, 2=Monday, etc. So, =WEEKDAY(ROW(INDIRECT(A1&":"&A2))) would return {7;1;2;3...} because 1/1/05 is a Saturday, and Saturday is 7, so it starts with 7.

Put another way, =WEEKDAY(38353), where 38353 is the serial number for 1/1/05, is 7.

Comparing this sequence of numbers—{7;1;2;3...}—to a 4 changes these numbers to a series of True/False values:

A	B	C	D	E	F	G
1	1/1/2005					
2	3/5/2005					
3	FALSE					
4						

expanding the formula bar shows:

	A	B	C	D	E	F	G
1	1/1/2005						
2	3/5/2005						
3	;FALSE}						

... the TRUE values correspond to Wednesdays.

The N function changes False to 0, True to 1.

Array-entering =SUM(N(WEEKDAY(ROW(INDIRECT(A1&"~":"&A2)))=4)) gives 9, meaning there are 9 Wednesdays between 1/1/05 and 3/5/05.

## 47. Looking up 2 (or more) values

Suppose you have a table of values looking something like this:

A	B	C
Master List		
2	First	Last
3	Bob	Smith
4	Fred	Williams
5	Bob	Devon
6	Bob	Williams
7	John	Smith
8	Bob	Clinton
9	Bob	Jones
10	Bob	McCarthy

and elsewhere in your workbook you have a first and last name for which you'd like to find the amount value. That is, you have Bob Williams in F2: G2 and you need to pick up the value from cell C6. You can't use any of the LOOKUP functions, and you can't directly use the MATCH function either. What to do? Here, an array formula comes to the rescue:

A	B	C	D	E	F	G	H
Master List							
2	First	Last	Amount		Bob	Williams	34
3	Bob	Smith	23		Fred	Williams	78
4	Fre	Williams	78		Bob	Clinton	67
5	Bob	Devon	45				
6	Bob	Williams	34				
7	John	Smith	89				
8	Bob	Clinton	67				
9	Bob	Jones	12				
10	Bob	McCarthy	56				
11							

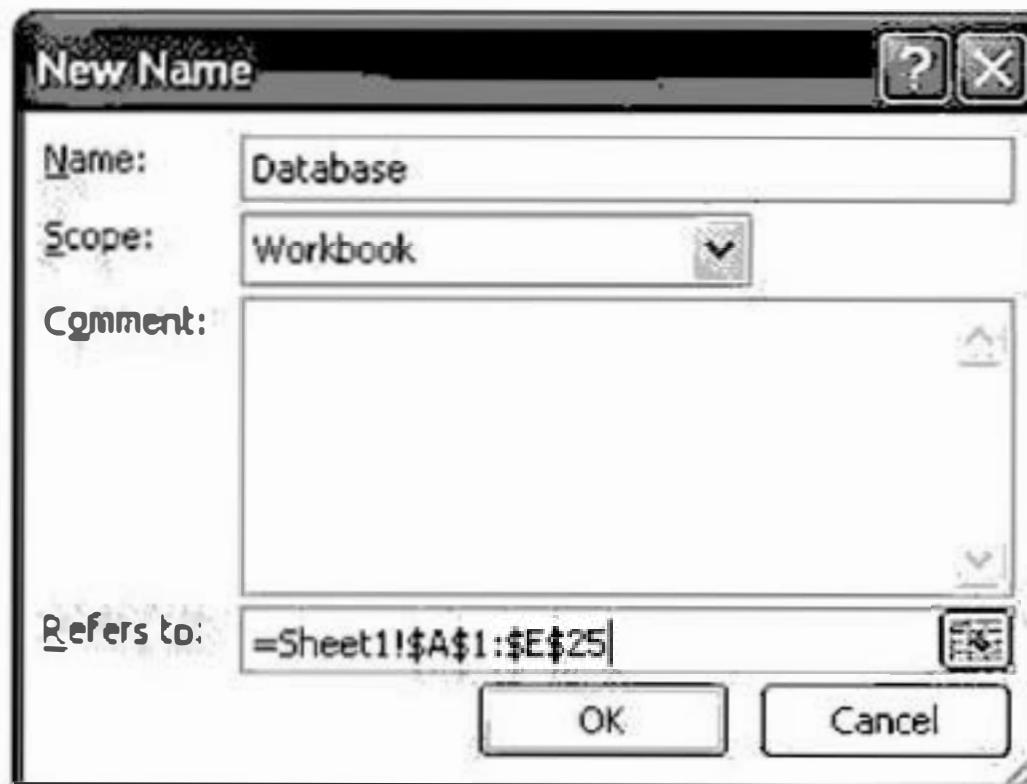
F2&G2 becomes the string "BobWilliams," and this is being matched against A1:A21&B1:B21 which, when selected in the formula bar and the F9 key is pressed, expands to:

```
=INDEX(C:C,MATCH(F2&G2,"Master List","First Last","BobSmith","FredWilliams","BobDevon","BobWilliams","JohnSmith","BobClinton","BobJones","BobMcCarthy",,0))
```

and you can see that the combination BobWilliams is the 6th item in the list, so this formula reduces to =INDEX(C:C,6), which is C6, so the result 34 is returned.

## 48. Named ranges which define themselves

Currently you have Database defined as \$A\$1:\$E\$25.



You add a record to row 26, and then need to redefine the range to include the new row.

Assuming there are no "holes" in the first column of the database, change the definition to be =OFFSET(\$A\$1,0,0,COUNTA(\$A:\$A),5).

This means starting with cell A1, 0 rows down and 0 columns over, in COUNTA(A:A) rows by 5 columns. (COUNTA returns the number of non-blank cells).

This automatically will include new rows added because the COUNTA result will change. If it were now A1:E25, then the COUNTA function returns 25. When you add a new record, the COUNTA returns 26, so the new definition is =OFFSET(A1,0,0,26,5), or A1:E26.

## 49. Using REPT for visual effects

You can easily use a variation on =REPT("A",500) for a nice effect. Shown below, you can see the effect of the formula entered in cell A1.

A1	fx	=REPT("A",500)
1		A
2		=
3		[ - ]
4		<>
5		

Cell A2 contains =REPT("=",500).

Cell A3 contains =REPT("[ - ]",500).

Cell A4 contains =REPT("<>",500).

Go be creative!

## 50. Using the Space as an operator

The space is as valid an operator as +,-,/ or \*.

=West Gizmos will pick up the intersection of the 2 ranges, West and Gizmos:

C9	A	8	C	D	E
1	North	West	South	East	
2	Things	24	51	92	91
3	Gizmos	37	85	39	98
4	Objects	53	74	58	8
5					
6					
7					
8					
9			85		
10					

Here, West is defined as C2:C4, and Gizmos as B3:E3. They intersect in C3, which is the result you see in cell C9. The space operator is an intersection operation.

## 51. Extracting the last part of a string

Suppose you have this in a cell: C:\MSOFFICE\EXCEL\LIBRARY\MSQUERY\MyFile.xls  
and you'd like to pick out the last piece, MyFile.xls. Here's how to do it.

The technique basically changes the last slash to some unique character, then finds where that character is, and returns from that position + 1 to the end.

First, there are a few things you need to know. There's a LEN function which returns the number of characters in a string, or cell. So if A1 contains ABCA, =LEN(A1) would return 4.

The SUBSTITUTE function substitutes one value for another in a cell. So =SUBSTITUTE(A1,"C","Q") would return ABQA in the above example.

Also, =SUBSTITUTE(A1,"A","Q") would return QBCQ, because it changes both A's. We're going to take advantage of another option in the SUBSTITUTE function, where we can change a particular occurrence.

=SUBSTITUTE(A1,"A","Q",1) would give QBCA, and

=SUBSTITUTE(A1,"A","Q",2) would give ABCQ. The 1 and 2 tells which one to change.

Okay, preliminaries are done. Let's go back to where A1 contains C:\MSOFFICE\EXCEL\LIBRARY\MSQUERY\MyFile.xls.

1. =LEN(A1) is 44.

2. =SUBSTITUTE(A1,"\"","") is C:MSOFFICEEXCELLIBRARYMSQUERYMyFile.xls—the same string without the backslashes.

3. That length (LEN(SUBSTITUTE(A1,"\","")) is 39.

4. =LEN(A1)-LEN(SUBSTITUTE(A1,"\","")) is 5, telling us there are 5 backslashes. If we use that as the 4th parameter in the SUBSTITUTE function, we will only change the 5th slash.

5. =SUBSTITUTE(A1,"\",CHAR(222),the value from step 4) changes the last backslash to a CHAR(222). (CHAR(222) is kind of arbitrary strange character... hang in there!)

6. =FIND(CHAR(222),the value from step 5) finds what position that character is in—that is, where the last slash is!

7. =MID(A1,the value from step 6+1,255) gives just MyFile.xls.

Putting it all together:

=MID(A1,SEARCH(CHAR(222),SUBSTITUTE(A1,"\",CHAR(222),LEN(A1)-LEN(SUBSTITUTE(A1,"\",""))))+1,255) will return MyFile.xls.

A2	=MID(A1,SEARCH(CHAR(222),SUBSTITUTE(A1,"\",CHAR(222),LEN(A1)-LEN(SUBSTITUTE(A1,"\",""))))+1,255)
1	C:\MSOFFICE\EXCEL\LIBRARY\MSQUERY\MyFile.xls
2	MyFile.xls

## 52. Using SUMPRODUCT

Instead of trying to make SUMIF or COUNTIF work on multiple conditions (you can't), use SUMPRODUCT. Or you can use the new functions SUMIFS or COUNTIFS, discussed in tip 69.

Look at the following worksheet:

	A	B	C	D	E	F	G	H	I
1	Years	Names	Amts						
2	2003	Fred		1					
3	2004	Bob		2					
4	2001	Fred		3	11				
5	2003	Fred		4	=SUMPRODUCT((A2:A11=2004)*(B2:B11="Bob")*C2:C11)				
6	2004	Fred		5					
7	2004	Fred		6	2				
8	2003	Bob		7	=SUMPRODUCT((A2:A11=2004)*(B2:B11="Bob"))				
9	2001	Fred		8					
10	2004	Bob		9	11				
11	2003	Fred		10	=SUMPRODUCT(--(A2:A11=2004),--(B2:B11="Bob"),C2:C11)				

Cell D4, which contains the formula shown in D5, returns 11. This is the sum of the amounts in column C which correspond to the year being 2004 and the name being Bob. That occurs only in rows 3 and 10. The formula works like this: The part of the formula which is A2:A11=2004 evaluates to (what you'd see if you selected that part of the formula and pressed F9):

{FALSE;TRUE;FALSE;FALSE;TRUE;TRUE;FALSE;FALSE;TRUE;FALSE}

where the TRUE's correspond to the 2004's. B2:B11="Bob" evaluates to:

{FALSE;TRUE;FALSE;FALSE;FALSE;TRUE;FALSE;TRUE;FALSE}.

Now these are being multiplied together. Only TRUE \* TRUE is 1, any other combination is 0. (You can try it in a cell—enter =FALSE\*TRUE, for example). So this produces {0,1,0,0,0,0,0,1,0}, where the 1's correspond to a pair of TRUE's. Now this in turn is multiplied by the range in C2:C11, or {1;2;3;4;5;6;7;8;9;10}. This multiplication yields {0;2;0;0;0;0;0;9;0}, and this is added up to produce the 11.

Cell D7 (formula shown in D8) only returns the {0;1;0;0;0;0;0;1;0} part of the multiplication, and this is added up to produce the 2—which represents a COUNT of the number of records for which the year is 2004 and the name is Bob.

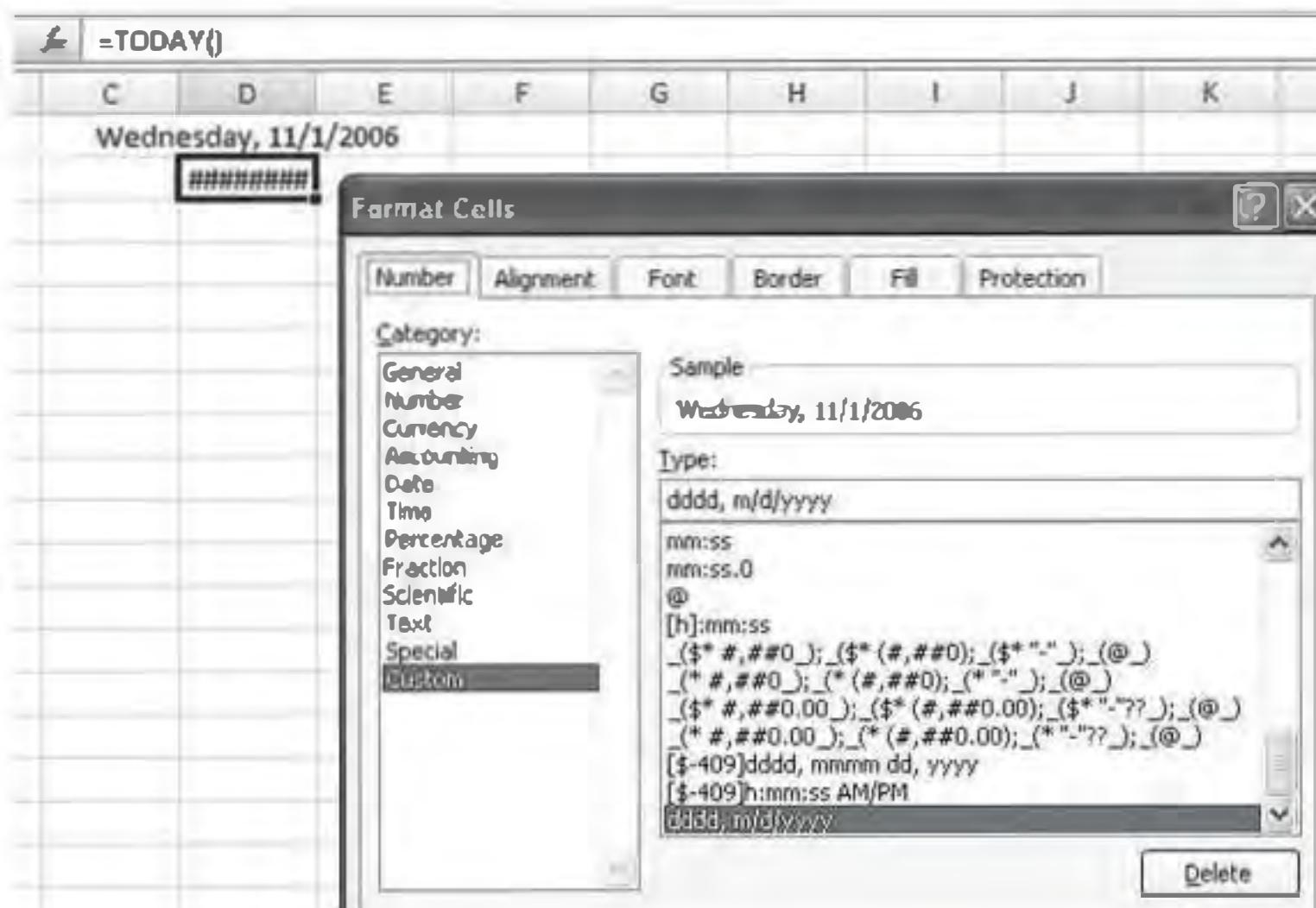
You may have seen another variation of the formula in cell D4. Cell D10 contains the formula shown in D11. What is the “—” before each set of parentheses? If you enter =-TRUE in a cell, you'll see -1, =-FALSE yields 0. So --TRUE yields 1, and --FALSE still yields 0. The

-- coerces the set of TRUE/FALSEs shown above to 1's & 0's (not -1's & 0's). so the formula really reduces to =SUMPRODUCT({0;1;0;0;1;1;0;0;1;0},{0;1;0;0;0;0;1;0;1;0},{1;2;3;4;5;6;7;8;9;10}) which again becomes SUMPRODUCT({0;2;0;0;0;0;0;9;0}), or 11.

A side note: you can also use the new function in Excel 2007, SUMIFS. The formula in cell D4 would be =SUMIFS(C2:C11,A2:A11,2004,B2:B11,"Bob"). The syntax for this function is =SUMIFS(sum\_range,criteria\_range,criteria,...)

## 53. Using the *TEXT* function

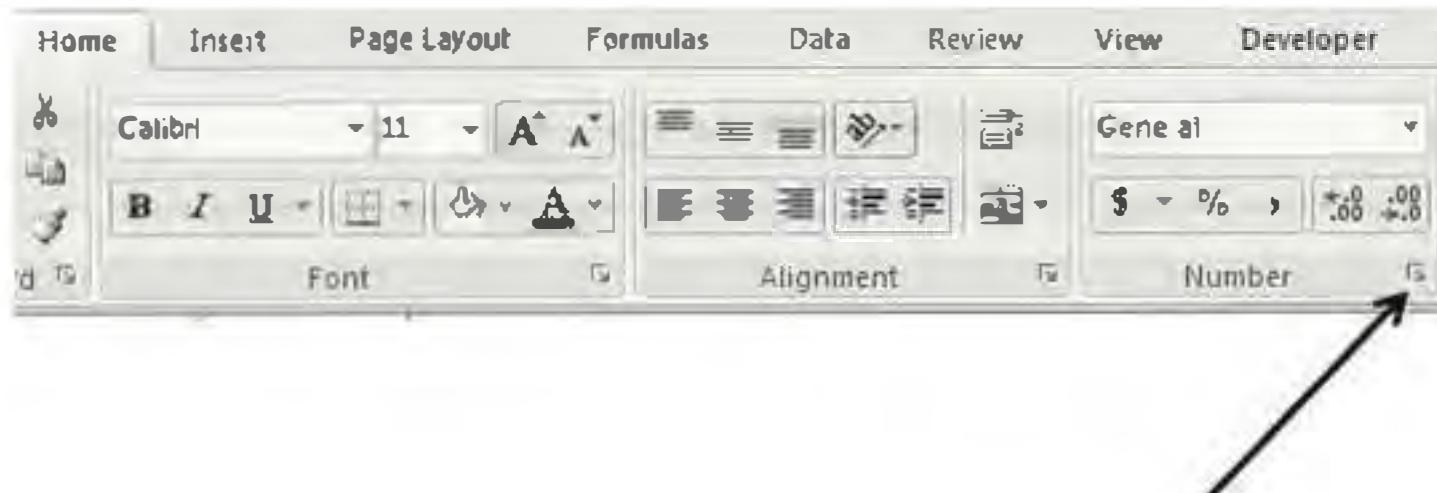
Date won't fit in the column?



Cell D2 contains =TODAY() and is formatted as shown: dddd, m/d/yyyy. Well, it won't fit. If you're restricted from changing the column width, what can you do? The solution is the TEXT function. Cell D1 contains this formula: =TEXT(TODAY(),"ddddd, m/d/yyyy")

Since this returns text, it will flow into the next column if there's not enough room to display in its own column!

By the way, you can bring up the Format Cells dialog with either Ctrl/1, or by the little arrow at the bottom right of the Number section of the Home tab. This arrow will bring up the same dialog (in the Home tab), in the Font, Alignment, or Number section, but with a different tab or the Format Cells dialog showing initially.



Wherever you see this little arrow, it means you will be presented with a dialog, very similar to what you saw in previous versions of Excel.

## 54. Use wildcards in MATCH function

Look at this worksheet:

	C2	f <sub>x</sub>	{=B2/INDEX(B:B,MATCH("*Total",OFFSET(A2,0,0,1000,1),0)+ROW()-1)}						
	A	B	C	D	E	F	G	H	I
1	Dept	Amt	% of Total						
2	Dept1	872	30%						
3	Dept1	869	30%						
4	Dept1	384	13%						
5	Dept1	794	27%						
6	Dept1 Total	2919	100%						
7	Dept2	340	10%						
8	Dept2	762	23%						
9	Dept2	426	13%						
10	Dept2	367	11%						
11	Dept2	207	6%						
12	Dept2	122	4%						
13	Dept2	564	17%						
14	Dept2	459	14%						
15	Dept2 Total	3247	100%						
16	Dept3	671	4%						

The formula in C2 is filled down as far as necessary (past C16) and yet it returns the percent each number in column B is to the total value for that department. It's based on the fact that the total is indicated in column A by text ending in the word "Total."

Part of the formula uses an asterisk inside the MATCH function:

=MATCH("\*Total will look for anything ending in the word Total (case insensitive). So, cell C2 is dividing B2 by that number in column B which corresponds to the next Total, or in this example, it's B2 divided by B6.

Let's examine the formula more closely. =B2/INDEX(B:B,MATCH("\*Total",OFFSET(A2,0,0,1000,1),0)+ROW()-1) in this case winds up being =B2/INDEX(B:B,6), which is B2/B6. The part we're interested in here is how the 6 is derived. And more specifically, how this same formula in C3 through C6 returns 6 and how in cells C7:C15 it returns 15.

Okay, back to cell C3. =MATCH("\*Total",OFFSET(A2,0,0,1000,1),0) is the same as =MATCH("\*Total",A2:A1001,0) because the OFFSET function as used here says to start with A2, go 0 rows down and 0 columns over, and use a shape of 1000 rows x 1 column, or A2:A1001. This part returns 5 because the MATCH function never returns 0—it's a value from 1 and up, or #N/A if not found. An adjustment needs to be made. We need 6, so we can just add 1! But that seems like cheating. And in C4, the MATCH would return 4 and adding 1 wouldn't be right; we'd need to add 2! In other words,

we need to add one less than the row the formula is contained in: in C2 add 1; in C3 add 2, in C4 add 3. So in cell Cn, add n-1. Now look at the formula. We're adding ROW()-1.

I've added a column in this next illustration which is simply the part of the formula from the MATCH on:

	A	B	C	D	E	F	G
1	Dept	Amt	% of Total				
2	Dept1	872	30%	6			
3	Dept1	869	30%	6			
4	Dept1	384	13%	6			
5	Dept1	94	27%	6			
6	Dept1 Total	2919	100%	6			
7	Dept2	340	10%	15			
8	Dept2	762	23%	15			
9	Dept2	426	13%	15			
10	Dept2	367	11%	15			
11	Dept2	207	6%	15			
12	Dept2	122	4%	15			
13	Dept2	564	17%	15			
14	Dept2	459	14%	15			
15	Dept2 Total	3247	100%	15			

What makes this formula interesting is that it can be filled down as far as necessary without knowing what row the total is in.

## 55. See all characters in font set

1. Enter =CHAR(ROW()) in row 1

a. =ROW() returns the row you're in. =ROW() entered in cell G23 returns 23.

b. =CHAR(97) returns the 97th character in the character set for that font, usually a lower-case "a" (picture fonts like Wingdings or Webdings return something else).

2. Fill down to row 255.

3. Easy to see things like •, ¢, £:

	A
147	"
148	"
149	•
150	-
151	—
152	~
153	™
154	š
155	>
156	œ
157	□
158	ž
159	ÿ
160	
161	í
162	¢
163	£

4. When you see that "•" is in row 149, you can then know that holding Alt while typing 0149 on the numeric keypad will create this character, as soon as you let go of the Alt key! And this holds true for all of Office, not just Excel! You can copy/paste special values for the character(s) you want, and you can then copy the resulting character from the formula bar.

## 56. Double-Spacing data

Here's a technique to double-space your data which is faster than any macro could do it (unless the macro utilizes this technique also!) Imagine being able to double-space thousands of rows in a split second. The secret? Sort them!

1. Number the rows. In this example the data is in A1:D9. We used column E for the row numbering:

	A	B	C	D	E	F	G	H	I
1	Data	Data	Data	Data	1				
2	Data	Data	Data	Data	2				
3	Data	Data	Data	Data	3				
4	Data	Data	Data	Data	4				
5	Data	Data	Data	Data	5				
6	Data	Data	Data	Data	6				
7	Data	Data	Data	Data	7				
8	Data	Data	Data	Data	8				
9	Data	Data	Data	Data	9				

# the rows – enter 1 in E1,  
2 in E2. Select E1:E9,  
double-click the fill handle

2. Copy and paste these numbers so there are 2 sets

	A	B	C	D	E
1	Data	Data	Data	Data	1
2	Data	Data	Data	Data	2
3	Data	Data	Data	Data	3
4	Data	Data	Data	Data	4
5	Data	Data	Data	Data	5
6	Data	Data	Data	Data	6
7	Data	Data	Data	Data	7
8	Data	Data	Data	Data	8
9	Data	Data	Data	Data	9
10					1
11					2
12					3
13					4
14					5
15					6
16					7
17					8
18					9

3. Sort the data by this column. This sorts the blank rows into their correct place.

	A	B	C	D	E
1	Data	Data	Data	Data	1
2					1
3	Data	Data	Data	Data	2
4					2
5	Data	Data	Data	Data	3
6					3
7	Data	Data	Data	Data	4
8					4
9	Data	Data	Data	Data	5
10					5
11	Data	Data	Data	Data	6
12					6
13	Data	Data	Data	Data	7
14					7
15	Data	Data	Data	Data	8
16					8
17	Data	Data	Data	Data	9
18					9

4. Clear the column, and you're done! You can use this technique to triple-space by pasting another set of row numbers before the sort!

## 57. Fill “=A1” right, have reference become =A2, =A3, ...

You've probably wanted to be able to fill a formula horizontally and have the resulting formula reference a vertical range. That is, you may have entered =A1, and wanted to fill that to the right but have the result become =A2, =A3, etc. Of course, Excel gives you =B1, =C1, etc.

This is not a substitute for either the Transpose function or copy/Paste Special and checking the Transpose checkbox. We want a dynamic and simple formula reference as a result.

Here's a technique that shows you how to do this.

1. Enter the first formula without “=”. Here, B2 was entered in cell B12. The B2 is used because that's where the data starts.

	A	B
1		
2		Here's
3		the
4		information
5		to
6		see
7		left
8		to
9		right
10		
11		
12		B2

## 2. Fill right with the fill handle (You'll have B3, B4, B5,...)

	A	B	C	D	E
1					
2		Here's			
3		the			
4		information			
5		to			
6		see			
7		left			
8		to			
9		right			
10					
11					
12	B2	B3	B4	B5	

## 3. Replace "B" with "=B":

B	C	D	E	F	G
Here's the information to see left to right					
Find and Replace	Find	Replace			
Find what:	B				
Replace with:	=B				
			Options >>		
	Replace All	Replace	Find All	Find Next	Close
B2	B3	B4	B5		

## 4. Here's the result:

	A	B	C	D	E
1					
2		Here's			
3		the			
4		information			
5		to			
6		see			
7		left			
8		to			
9		right			
10					
11					
12	Here's	the	information	to	

## 58. Fill “=C3” down, have reference become =D3, =E3, etc.

This is similar to the preceding tip but the orientation is the reverse. However, this is a lot trickier. If we enter C3 (without the equal sign) and fill down, we'd get C4, C5, etc, the same as if the equal sign were present. We really want the C to become D, E, etc. Here's how:

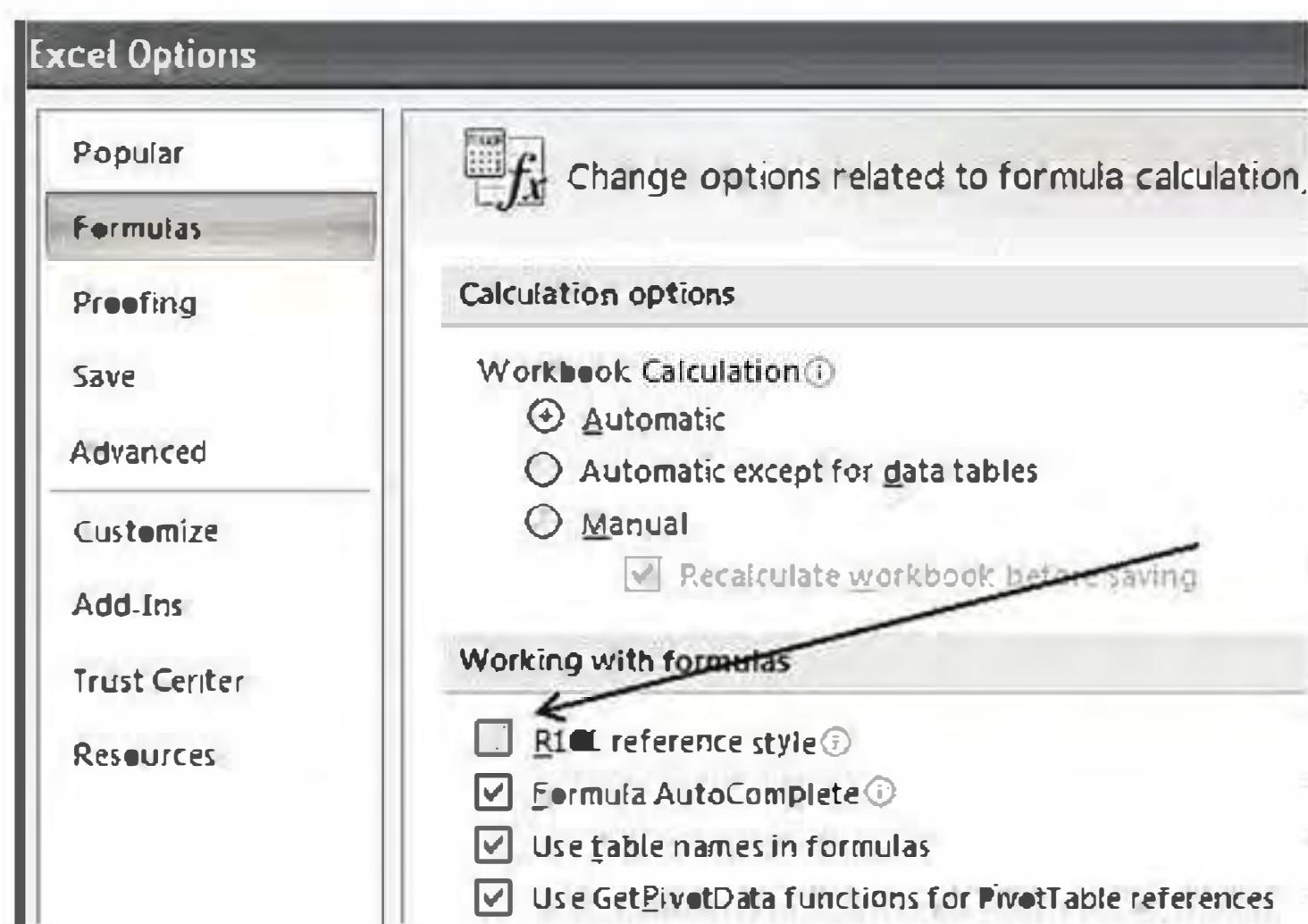
1. Enter first formula without “=” but in R1C1 notation so instead of =C3, use r3c3, which means row 3, column 3.

C	D	E	F	G	H	I	J
Here's the info to see left to right							

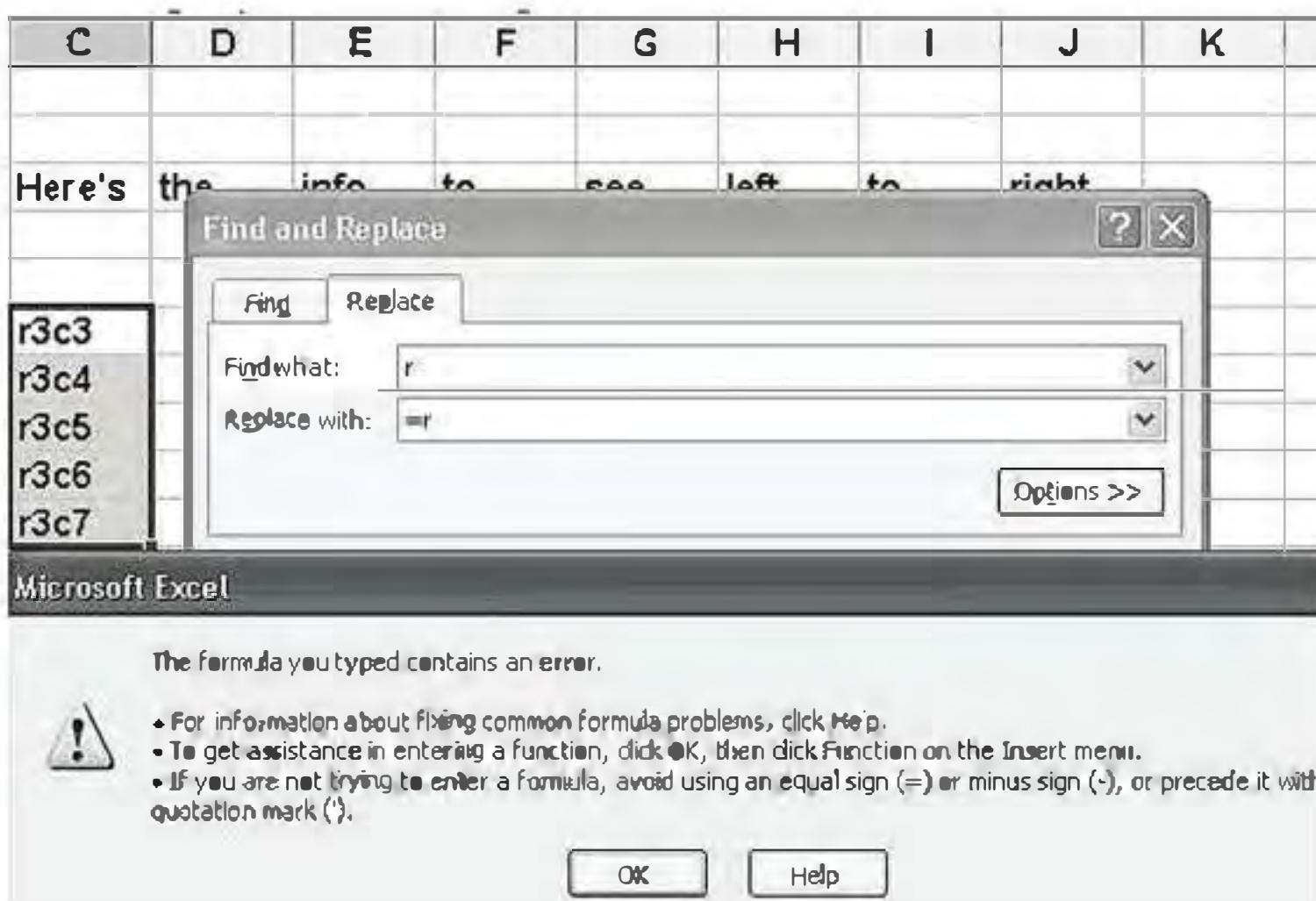
2. Fill down, giving r3c4, r3c5, etc.

C	D	E	F	G	H	I	J
Here's the Info to see left to right							
r3c3							
r3c4							
r3c5							
r3c6							
r3c7							

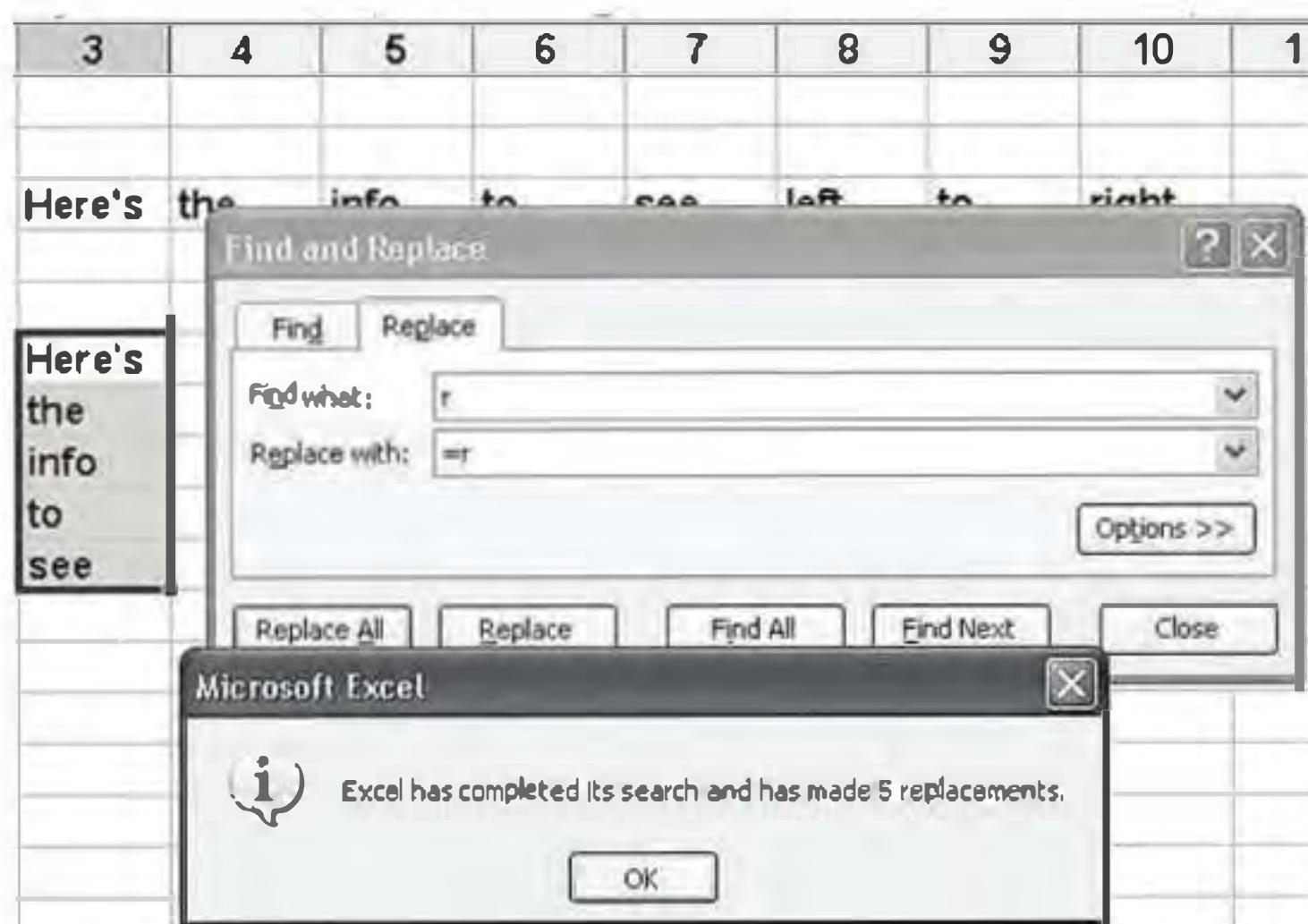
3. Switch to R1C1 notation via Office button/Excel Options, Formulas: [Excel 2003: Tools|Options|General|R1C1]



4. This step is necessary, because you can't replace r with =r in the above because Excel will give you an error message:



5. Replace "r" with "=r" (after switching to R1C1 notation as indicated above).



6. Switch back to A1 notation—uncheck the R1C1 notation box.

## 59. Using Define Names & scrolling

While the Formulas Tab, Define Name dialog is showing [Excel 2003: Insert|Name|Define] you can't scroll unless the cursor is in the refers-to box. Just thought you'd like to know!

## 60. Show a picture by typing its name?

First, let me demo what we're about to accomplish:  
I type the word "dog" in cell A1 and see:

	A	B	C	D
1	dog			
2				
3				
4				
5				
6				
7				
8				
9				
10	cat			
11	dog			
12	baby			
...				



I type cat and see:

	A	B	C	D
1	cat			
2				
3				
4				
5				
6				
7				
8				
9				
10	cat			
11	dog			
12	baby			
13				



I type baby and see:

	A	B	C	D
1	baby			
2				
3				
4				
5				
6				
7				
8				
9				
10	cat			
11	dog			
12	baby			
13				



The really neat part is that this is done without macros of any sort, just formulas! Imagine having a parts inventory and being able to type in the part number and get a picture!

Here's how it's done. The pictures need to already exist in the worksheet and be equally spaced (and out of sight)—here's a 50% view of the worksheet from cell U1:

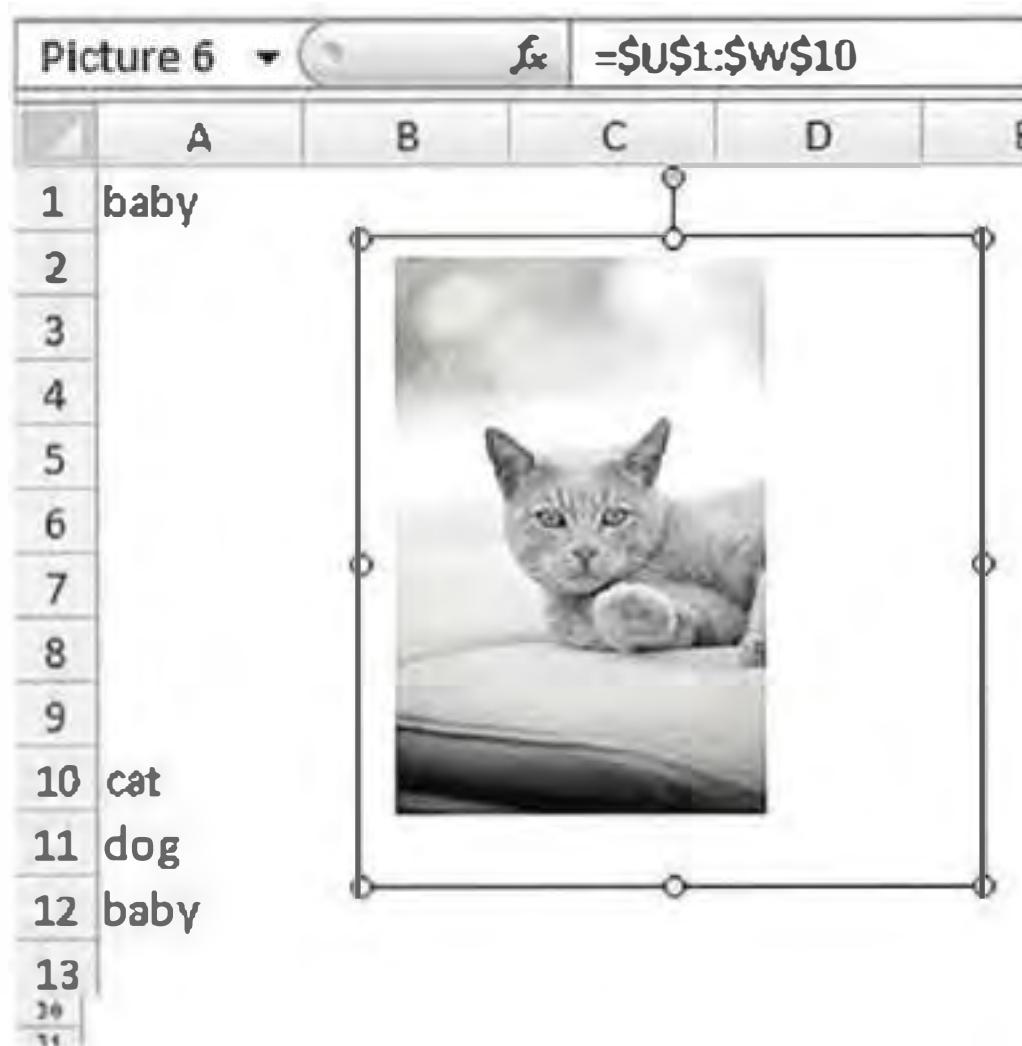
Picture 6				
	A	B	C	E
1	baby			
2				
3				
4				
5				
6				
7				
8				
9				
10	cat			
11	dog			
12	baby			
13				

The dog starts in U1, the cat starts in U11, and the baby picture in U21.

That is, all the pictures here are 10 rows apart.

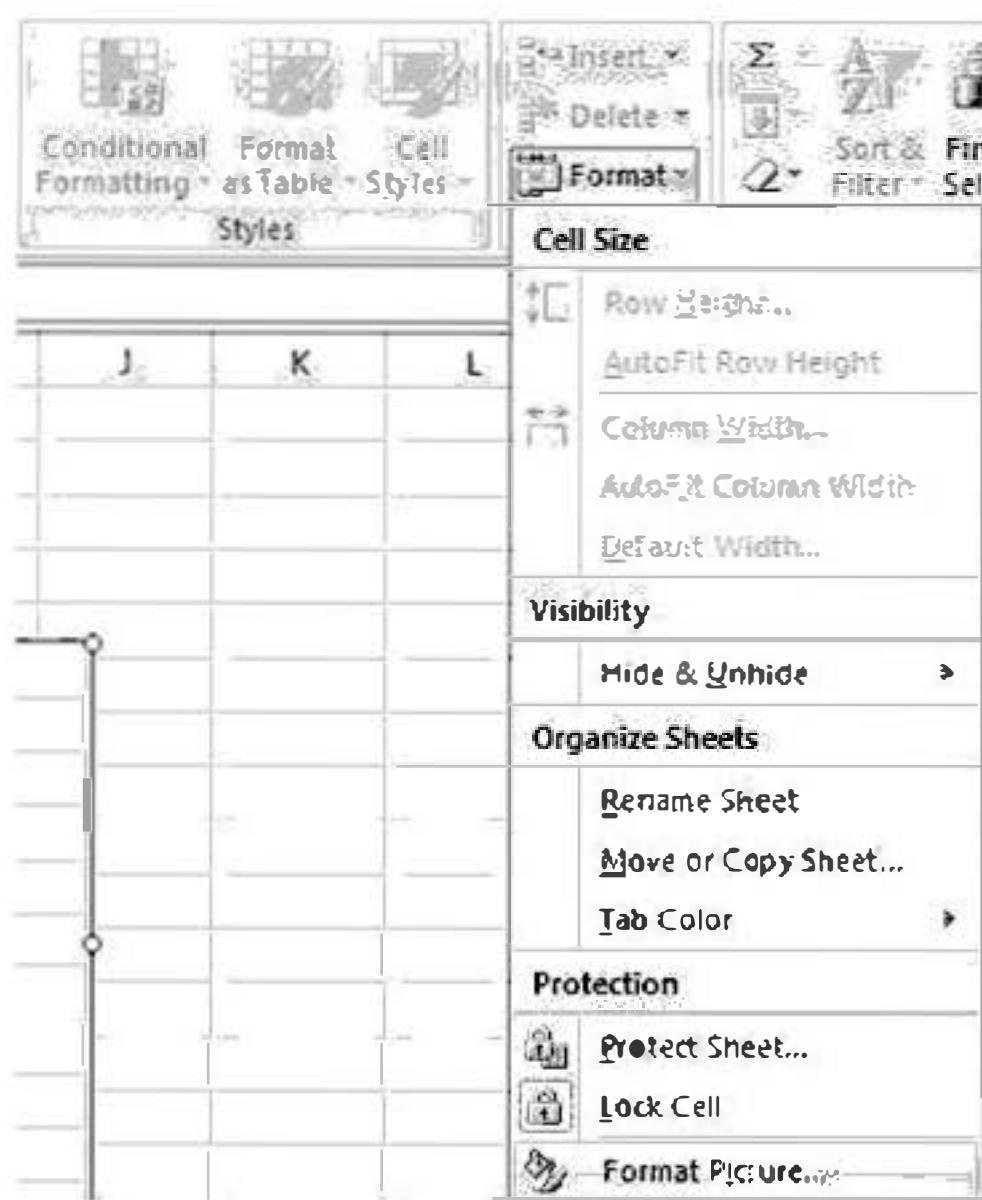
Next, you need a camera-tool type object whose reference is a defined name, like =pic. See how to get the camera tool into the Quick Access Toolbar in the tip about printing remote areas on the same page earlier in this book.

Then, select a 10 row x 3 column set of cells near column U—like U1:W10, then click the camera tool. Then click again near where you want the picture to show up. In our example, that was around cell B2. You should see something like this:

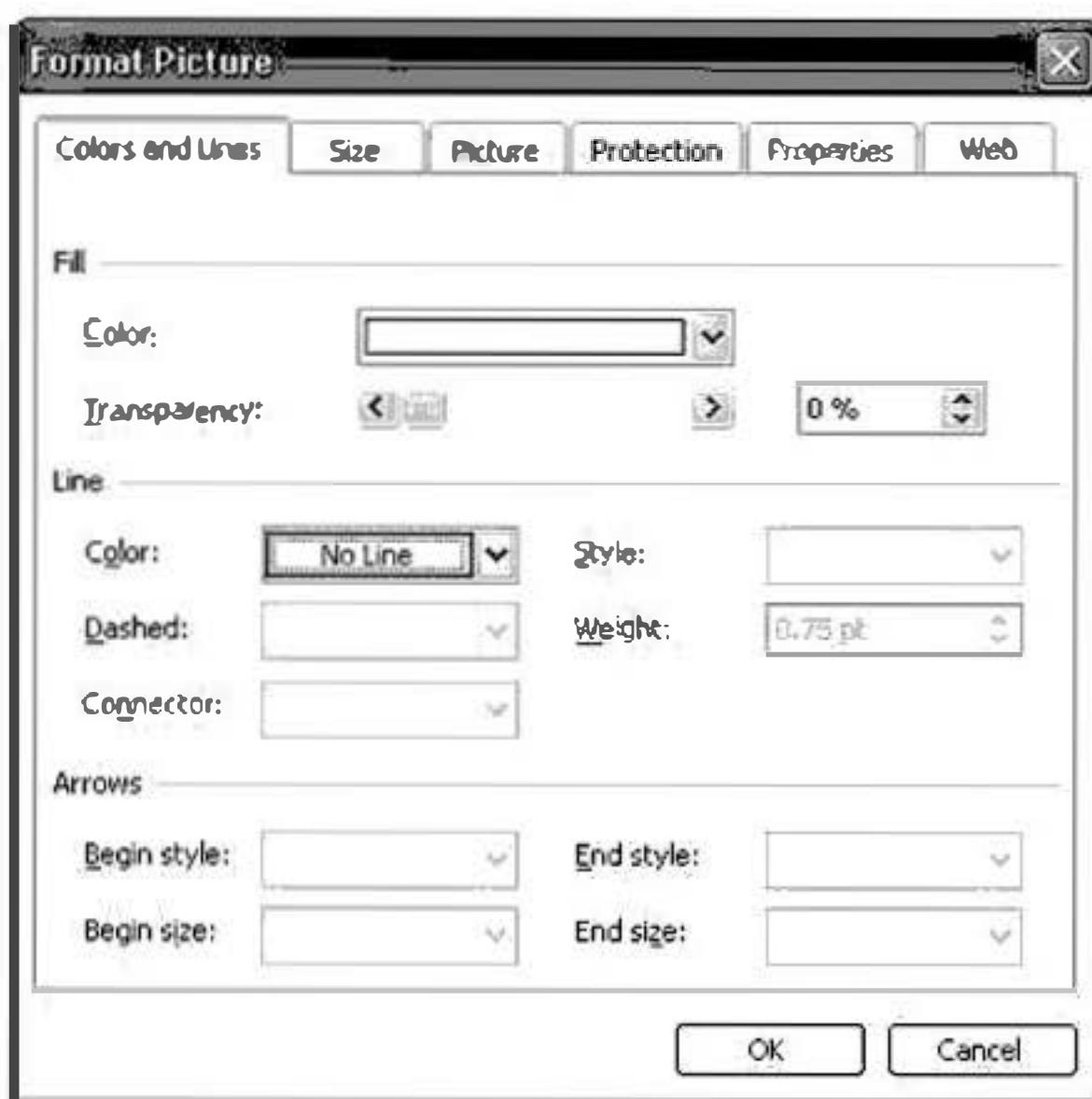


Notice the formula bar has a reference to the range originally selected when clicking the camera tool. By the way: this works much better with gridlines turned off, otherwise the gridlines are part of the picture. You also need to format the picture to have no border:

Select the picture, use Format picture from the Format button in the cells section of the Home tab: {Excel 2003: Format|Picture}



This shows:

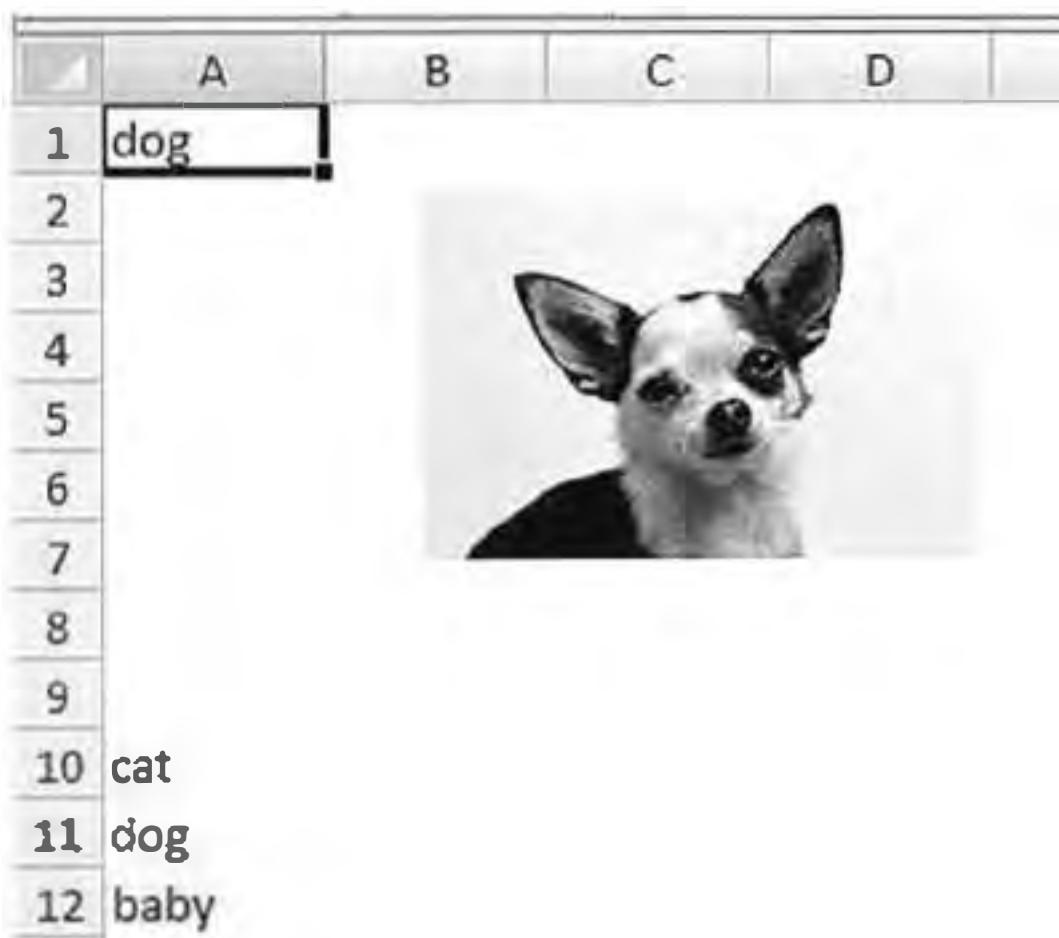


Now define Pic as =OFFSET(Sheet1!\$U\$1,which-1,0,30,15). The U1 is the top left cell for all the pictures; "which" we will define in a moment, the 0 means 0 columns away from column U, and the 30, 15 is the shape of the picture: 30 rows x 15 columns.

"pix" is the list of legitimate picture names—in this example, A6:A8.

"which" is defined as =MATCH(Sheet1!\$A\$1,pix,0)\*30-29. An example will help. To see the dog, we type dog in A1. The MATCH statement matches A1 against pix and that part of the formula returns 1 since dog is the first item in the range A6:A8. So,  $1*30-29$  is  $1:(30-29)$ . So, "which" is 1, which-1 is 0, and that makes Pic be OFFSET(U1,0,0,30,15), or the original range U1:A130.

So where are we using pic? Remember seeing \$U\$1:\$A1\$30 once we clicked the camera tool? Select that in the formula bar and type =pic:



One more example and we're done. If we type baby in A1, then the MATCH statement matches "baby" against pix and that part returns 3 since baby is the third item in the range A6:A8. So  $3*30-29$  is  $61:(90-29)$ . So, "which" is 61, and which-1 is 60. That makes Pic be OFFSET(U1,60,0,30,15), or the range U61:A190. That exactly covers the picture of the baby, so the picture switches!

This is involved, but the impact is great.

## 61. Protecting ranges from insertion of rows/columns

You can put an array formula to the left or on top of ranges to be protected from inadvertent insertions. Suppose you have a table of values in N33:R70 which isn't always in view, so you (or someone else) might accidentally insert a row at A44 and destroy the integrity of the table (if it were being used in a lookup formula, the blank row in it would likely create errors).

In M33:M70, a parallel 1-column range, array-enter =0 (that's hold **ctrl+shift**, when entering **=0**):

	M33			{=0}
	L	M	N	O
32				
33		0 Protected range	Protected range	Pr
34		0 Protected range	Protected range	Pr
35		0 Protected range	Protected range	Pr
36		0 Protected range	Protected range	Pr
37		0 Protected range	Protected range	Pr
38		0 Protected range	Protected range	Pr

You'll see **{=0}**, indicating the range is array-entered.

If you try to insert rows you get the "you cannot change part of an array" message:



Notice that the protected range is out of sight and we're trying to insert a row at row 37 which would put a blank into that remote range.

**NEW**

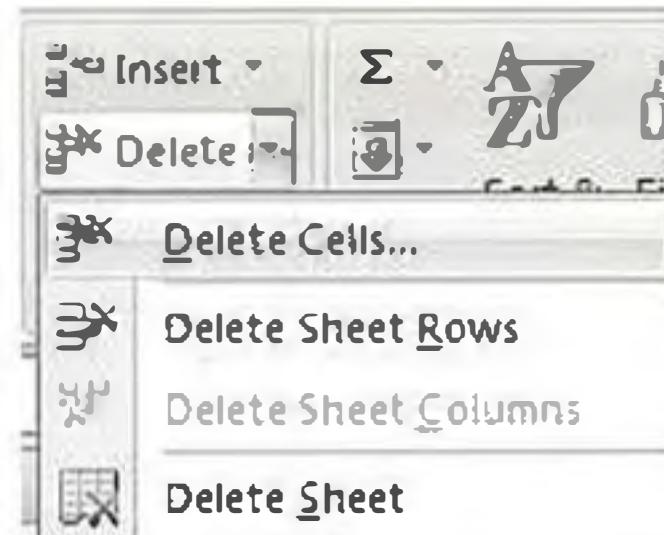
## 62. Numbering Questions tip

Take a look at the following:

	A	B	C	D	E	F
1	Number Tip					
2		1 Here's some text				
3						
4		2 Here's some more text				
5						
6		3 Perhaps this could be a question which takes				
7		more than one line to pose				
8						
9		4 And another question				
10						
11		5 And yet another				
12						
13						

You can see that the formula looks at all numbers from A1 (as an absolute reference) to the cell above (as a relative reference), and adds one to the largest number on that range. In this case, cell A4 has a formula which examines A1:A3 and takes the largest number (1) and adds 1 to it. So far no big deal. This formula is not being filled down, but is copy/pasted to the first line of each "paragraph." The nice feature with this formula, instead of simply entering the numbers wanted, is that if you decide to delete a question or add a new one, all the other numbers are re-numbered!

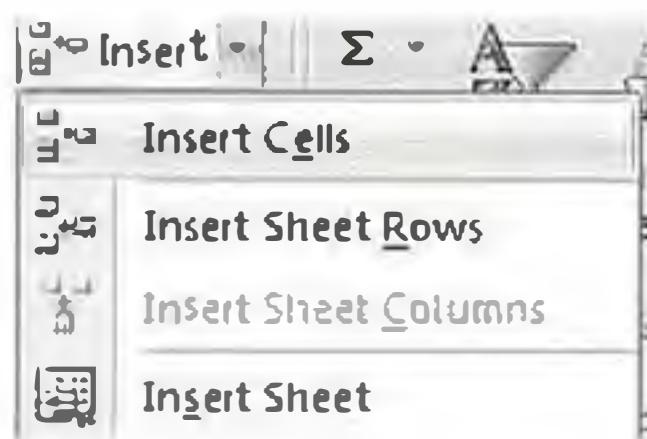
Let's see what happens when rows 6:8 are deleted, using the Delete Cells command from the Cells section of the Home tab: [Excel 2003: Edit>Delete]



The result is:

	A	B	C	D	E	F
1	Number Tip					
2		1 Here's some text				
3						
4		2 Here's some more text				
5						
6		3 And another question				
7						
8		4 And yet another				
9						

Notice that cell A6 has the same formula as it did before, but what were questions 4 and 5 are now 3 and 4! Suppose I wanted to insert a new question before question 4 (let's also assume there are 100 questions!) First select rows 7:9 and use the Insert Cells from the Cells section of the Home tab: {Excel 2003: Insert|Cells}



Now we have:

	A	B	C	D	E
1	Number Tip				
2		1 Here's some text			
3					
4		2 Here's some more text			
5					
6		3 And another question			
7					
8					
9					
10					
11		4 And yet another			
12					
13					

I type in the new statement and copy/paste any of the formulas in column A to cell A8:

A	B	C	D	E	F
1 Number Tip					
2	1 Here's some text				
3					
4	2 Here's some more text				
5					
6	3 And another question				
7					
8	4 The new statement				
9					
10					
11	5 And yet another				
12					

NEW

## 63. Mailing Label tricks - 1

Suppose you have a list of names and addresses arranged like this and you want to rearrange it like the textbox indicates:

	A	B	C
1	Address	City...	Company
2	Bob's Address	Bob's City, State, Zip	Bob's Company
3	Judy's Address	Judy's City, State, Zip	Judy's Company
4	Jane's Address	Jane's City, State, Zip	Jane's Company
5	Herman's Address	Herman's City, State, Zip	Herman's Company
6	Laird's Address	From this, we want Bob's Company Bob's Address Bob's City, State Zip Judy's Company Judy's Address Judy's City, State Zip etc Eli's City, State, Zip	Laird's Company
7	Curtis's Address		Curtis's Company
8	Jared's Address		Jared's Company
9	Stefanie's Address		Stefanie's Company
10	Peter's Address		Peter's Company
11	Alice's Address		Alice's Company
12	Joan's Address		Joan's Company
13	Reid's Address		Reid's Company
14	LaVerne's Address		LaVerne's Company
15	Eli's Address		Eli's Company
16	Don's Address		Don's Company
17			

If you tried to enter formulas like these in D2:D4 (showing formulas):

	A	B	C	D
1	Address	City...	Company	
2	Bob's Address	Bob's City, State, Zip	Bob's Company	=C2
3	Judy's Address	Judy's City, State, Zip	Judy's Company	=A2
4	Jane's Address	Jane's City, State, Zip	Jane's Company	=B2
5	Herman's Address	Herman's City, State, Zip	Herman's Company	
6	Laird's Address	From this, we want Bob's Company Bob's Address Bob's City, State Zip Judy's Company Judy's Address Judy's City, State Zip etc Eli's City, State, Zip	Laird's Company	
7	Curtis's Address		Curtis's Company	
8	Jared's Address		Jared's Company	
9	Stefanie's Address		Stefanie's Company	
10	Peter's Address		Peter's Company	
11	Alice's Address		Alice's Company	
12	Joan's Address		Joan's Company	
13	Reid's Address		Reid's Company	
14	LaVerne's Address		LaVerne's Company	
15	Eli's Address		Eli's Company	
16	Don's Address		Don's Company	

which results in:

	A	B	C	D
1	Address	City...	Company	
2	Bob's Address	Bob's City, State, Zip	Bob's Company	Bob's Company
3	Judy's Address	Judy's City, State, Zip	Judy's Company	Bob's Address
4	Jane's Address	Jane's City, State, Zip	Jane's Company	Bob's City, State, Zip
5	Herman's Address	Herman's City, State, Zip	Herman's Company	
6	Laird's Address	Laird's City, State, Zip	Laird's Company	
7	Curtis's Address	Curtis's City, State, Zip	Curtis's Company	
8	Jared's Address	Jared's City, State, Zip	Jared's Company	

which seems like a good start, filling this down (starting with selecting D2:D5, including a blank cell) produces a disaster:

	A	B	C	D
1	Address	City...	Company	
2	Bob's Address	Bob's City, State, Zip	Bob's Company	Bob's Company
3	Judy's Address	Judy's City, State, Zip	Judy's Company	Bob's Address
4	Jane's Address	Jane's City, State, Zip	Jane's Company	Bob's City, State, Zip
5	Herman's Address	Herman's City, State, Zip	Herman's Company	
6	Laird's Address	Laird's City, State, Zip	Laird's Company	Laird's Company
7	Curtis's Address	Curtis's City, State, Zip	Curtis's Company	Laird's Address
8	Jared's Address	Jared's City, State, Zip	Jared's Company	Laird's City, State, Zip
9	Stefanie's Address	Stefanie's City, State, Zip	Stefanie's Company	
10	Peter's Address	Peter's City, State, Zip	Peter's Company	Peter's Company
11	Alice's Address	Alice's City, State, Zip	Alice's Company	Peter's Address
12	Joan's Address	Joan's City, State, Zip	Joan's Company	Peter's City, State, Zip

—what happened to the intermediate companies like in row 3, 4, and 5? (Judy's company...)—notice the formula bar for the active cell has =C6 in it, not =C3. Here are the formulas for the next few rows:

	C	D
1	Company	
2	Bob's Company	=C2
3	Judy's Company	=A2
4	Jane's Company	=B2
5	Herman's Company	
6	Laird's Company	=C6
7	Curtis's Company	=A6
8	Jared's Company	=B6
9	Stefanie's Company	
10	Peter's Company	=C10
11	Alice's Company	=A10
12	Joan's Company	=B10

You begin to get the picture. The solution? Watch:

Enter these values (not formulas!):

	A	B	C	D
1	Address	City...	Company	
2	Bob's Address	Bob's City, State, Zip	Bob's Company	xc2
3	Judy's Address	Judy's City, State, Zip	Judy's Company	xa2
4	Jane's Address	Jane's City, State, Zip	Jane's Company	xb2
5	Herman's Address	Herman's City, State, Zip	Herman's Company	
6	Laird's Address	Laird's City, State, Zip	Laird's Company	
7	Curtis's Address	Curtis's City, State, Zip	Curtis's Company	
8	Jared's Address	Jared's City, State, Zip	Jared's Company	
9	Stefanie's Address	Stefanie's City, State, Zip	Stefanie's Company	
10	Peter's Address	Peter's City, State, Zip	Peter's Company	
11	Alice's Address	Alice's City, State, Zip	Alice's Company	
12	Joan's Address	Joan's City, State, Zip	Joan's Company	
13	Reid's Address	Reid's City, State, Zip	Reid's Company	

Now, when you select D2:D5 and double-click the fill handle, you get this:

	A	B	C	D
1	Address	City...	Company	
2	Bob's Address	Bob's City, State, Zip	Bob's Company	xc2
3	Judy's Address	Judy's City, State, Zip	Judy's Company	xa2
4	Jane's Address	Jane's City, State, Zip	Jane's Company	xb2
5	Herman's Address	Herman's City, State, Zip	Herman's Company	
6	Laird's Address	Laird's City, State, Zip	Laird's Company	xc3
7	Curtis's Address	Curtis's City, State, Zip	Curtis's Company	xa3
8	Jared's Address	Jared's City, State, Zip	Jared's Company	xb3
9	Stefanie's Address	Stefanie's City, State, Zip	Stefanie's Company	
10	Peter's Address	Peter's City, State, Zip	Peter's Company	xc4
11	Alice's Address	Alice's City, State, Zip	Alice's Company	xa
12	Joan's Address	Joan's City, State, Zip	Joan's Company	xb4
13	Reid's Address	Reid's City, State, Zip	Reid's Company	

Now you can change x to =:

	A	B	C	D
1	Address	City...	Company	
2	Bob's Address	Bob's City, State, Zip	Bob's Company	xc2
3	Judy's Address	Judy's City, State, Zip	Judy's Company	xa2
4	Jane's Address	Jane's City, State, Zip	Jane's Company	xb2
5	Herman's Address	Herman's City, State, Zip	Herman's Company	
6	Laird's Address	Laird's City, State, Zip	Laird's Company	
7	Curtis's Address	Curtis's City, State, Zip	Curtis's Company	
8	Jared's Address	Jared's City, State, Zip	Jared's Company	
9	Stefanie's Address	Stefanie's City, State, Zip	Stefanie's Company	
10	Peter's Address	Peter's City, State, Zip	Peter's Company	
11	Alice's Address	Alice's City, State, Zip	Alice's Company	
12	Joan's Address	Joan's City, State, Zip	Joan's Company	
13	Reid's Address	Reid's City, State, Zip	Reid's Company	

Find and Replace dialog box is overlaid on the table, showing:

- Find what: x
- Replace with: =
- Buttons: Replace All, Replace, Find All, Find Next, Close

This gives (formulas are showing)

A	B	C	D
Address	City...	Company	=C2
Bob's Address	Bob's City, State, Zip	Bob's Company	=A2
Judy's Address	Judy's City, State, Zip	Judy's Company	=B2
Jane's Address	Jane's City, State, Zip	Jane's Company	=C3
Herman's Address	Herman's City, State, Zip	Herman's Company	=A3
Laird's Address	Laird's City, State, Zip	Laird's Company	=B3
Curtis's Address	Curtis's City, State, Zip	Curtis's Company	=C4
Jared's Address	Jared's City, State, Zip	Jared's Company	=A4
Alice's Address	Alice's City, State, Zip	Alice's Company	=B4
Stefanie's Address	Stefanie's City, State, Zip	Stefanie's Company	=C5
Peter's Address	Peter's City, State, Zip	Peter's Company	=A5
Don's Address	Don's City, State, Zip	Don's Company	=B5

And without formulas showing, we have:

A	B	C	D
1 Address	City...	Company	
2 Bob's Address	Bob's City, State, Zip	Bob's Company	Bob's Company
3 Judy's Address	Judy's City, State, Zip	Judy's Company	Bob's Address
4 Jane's Address	Jane's City, State, Zip	Jane's Company	Bob's City, State, Zip
5 Herman's Address	Herman's City, State, Zip	Herman's Company	
6 Laird's Address	Laird's City, State, Zip	Laird's Company	Judy's Company
7 Curtis's Address	Curtis's City, State, Zip	Curtis's Company	Judy's Address
8 Jared's Address	Jared's City, State, Zip	Jared's Company	Judy's City, State, Zip
9 Stefanie's Address	Stefanie's City, State, Zip	Stefanie's Company	
10 Peter's Address	Peter's City, State, Zip	Peter's Company	Jane's Company
11 Alice's Address	Alice's City, State, Zip	Alice's Company	Jane's Address
12 Joan's Address	Joan's City, State, Zip	Joan's Company	Jane's City, State, Zip

Sneaky, eh?

But this was touted as mailing labels. The format is okay, but how can you make these fit on address label paper? Well, you can tweak the row height of the blank cells. First, you need to make column D be the print area, from the top label to the last line of the bottom label. Check how it would look now, using Print Preview. Make sure there are no labels which are split across pages. You can also adjust the top & bottom margins. If it needs adjustment, select column D, use F5(Goto), Special, select Blanks, and click OK. Now only the blanks are selected. Now use Home Tab, Cells Group, Format command, Row Height and make your adjustment, taller or smaller and print preview again. [Excel 2003: Format|Row|Height]



## 64. Mailing Label tricks - 2

OK, what about this set of addresses?

	A	B	C	D
1	Jones, Jim			
2	addr1			
3	City1, State1, Zip1			
4				
5	Smith, Bill			
6	A dr2			
7	Addr2 part 2			
8	City2, State2 Zip2			
9	emailaddr			
10				
11	Johnson, Alice			
12	addr3			
13	City3, State3 Zip3			
14	email1			
15	email2			
16	POBox 33333			
17				
18	Zedwich, Paul			
19	addr4			
20	City4, State4 Zip4			
21				
22	Bergman, Sylvia			
23	addr5			
24	City , State5 Zip5			

How can you possibly sort these by name?

It's already "arranged," but what if you need to sort them by name? Not only does this seem impossible, but the number of lines in each address is not the same, making it more difficult! Or so it would seem!

First, we need to insert a row at the top:

	A	B	C
1			
2	Jones, Jim		
3	addr1		
4	City1, State1, Zip1		
5			
6	Smith, Bill		
7	Addr2		
8	Addr2 part 2		
9	City2, State2 Zip2		
10	emailaddr		
11			

How can you possibly sort these by name?

This is so we can enter a very simple formula in B2:

	A	B	C
1			
2	Jones, Jim	Jones, Jim	
3	addr1		
4	City1, State1, Zip1		
5			
6	Smith, Bill		
7	Addr2		
8	Addr2 part 2		
9	City2, State2 Zip2		
10	emailaddr		
11			

The formula takes advantage of the blank between address-sets, hence the need to insert a row. It says that if the row above is empty, use the name (from A2), otherwise use the row above. Watch what happens when we fill this down (important—include one extra blank row at the bottom to keep the separation between addresses when we sort)

	A	B	C
1			
2	Jones, Jim	Jones, Jim	
3	addr1	Jones, Jim	
4	City1, State1, Zip1	Jones, Jim	
5		Jones, Jim	
6	Smith, Bill	Smith, Bill	
7	Addr2	Smith, Bill	
8	Addr2 part 2	Smith, Bill	
9	City2, State2 Zip2	Smith, Bill	
10	emailaddr	Smith, Bill	
11		Smith, Bill	
12	Johnson, Alice	Johnson, Alice	
13	addr3	Johnson, Alice	
14	City3, State3 Zip3	Johnson, Alice	
15	email1	Johnson, Alice	

Why, now we have a field to sort on!

	A	B
1		
2	Jones, Jim	Jones, Jim
3	addr1	Jones, Jim
4	city1, State1, Zip1	Jones, Jim
5		Jones, Jim
6	Smith, Bill	Smith, Bill
7	Addr2	Smith, Bill
8	Addr2 part2	Smith, Bill
9	City2, State2, Zip2	Smith, Bill
10	emailaddr	Smith, Bill
11		Smith, Bill
12	Johnson, Alice	Johnson, Alice
13	addr3	Johnson, Alice
14	City3, State3, Zip3	Johnson, Alice
15	email1	Johnson, Alice
16	email2	Johnson, Alice
17	POBox 33333	Johnson, Alice
18		

resulting in:

	A	B
1		
2	Johnson, Alice	Johnson, Alice
3	addr3	Johnson, Alice
4	City3, State3, Zip3	Johnson, Alice
5	email1	Johnson, Alice
6	email2	Johnson, Alice
7	POBox 33333	Johnson, Alice
8		Johnson, Alice
9	Jones, Jim	Jones, Jim
10	addr1	Jones, Jim
11	city1, State1, Zip1	Jones, Jim
12		Jones, Jim
13	Smith, Bill	Smith, Bill
14	Addr2	Smith, Bill
15	Addr2 part2	Smith, Bill
16	City2, State2, Zip2	Smith, Bill
17	emailaddr	Smith, Bill
18		Smith, Bill
19	Zedwick, Paul	Zedwick, Paul
20	addr4	Zedwick, Paul

All there is left to do is clear column B!

NEW

## 65. Bulk formula change

Suppose you have a worksheet with references to many sheets like this:

	A	B	C
1	=Sheet2!\$1:\$1048576		
2	=Sheet3!\$1:\$1048576		
3	=Sheet4!\$1:\$1048576		
4	=Sheet5!\$1:\$1048576		
5	=Sheet6!\$1:\$1048576		
6	=Sheet7!\$1:\$1048576		
7	=Sheet8!\$1:\$1048576		
8	=Sheet9!\$1:\$1048576		
9	=Sheet10!\$1:\$1048576		
10	=Sheet11!\$1:\$1048576		
11	=Sheet12!\$1:\$1048576		
12	=Sheet13!\$1:\$1048576		
13	=Sheet14!\$1:\$1048576		
14	=Sheet15!\$1:\$1048576		
15	=Sheet16!\$1:\$1048576		

And you want to put in column B these formulas corresponding to what's in column A: =COUNTA(INDIRECT("Sheet2!1:1048576")) in B1 through =COUNTA(INDIRECT("Sheet16!1:1048576")) in B16.

It could be done with a VBA routine, but here's a way to do it with formulas: Look at the formulas in B here (The cells are all selected from the result of a Fill/Down):

	A	B
1	=Sheet2!\$1:\$1048576	=COUNTA(INDIRECT("Sheet2!\$1:\$1048576"))
2	=Sheet3!\$1:\$1048576	=COUNTA(INDIRECT("Sheet3!\$1:\$1048576"))
3	=Sheet4!\$1:\$1048576	=COUNTA(INDIRECT("Sheet4!\$1:\$1048576"))
4	=Sheet5!\$1:\$1048576	=COUNTA(INDIRECT("Sheet5!\$1:\$1048576"))
5	=Sheet6!\$1:\$1048576	=COUNTA(INDIRECT("Sheet6!\$1:\$1048576"))
6	=Sheet7!\$1:\$1048576	=COUNTA(INDIRECT("Sheet7!\$1:\$1048576"))
7	=Sheet8!\$1:\$1048576	=COUNTA(INDIRECT("Sheet8!\$1:\$1048576"))
8	=Sheet9!\$1:\$1048576	=COUNTA(INDIRECT("Sheet9!\$1:\$1048576"))
9	=Sheet10!\$1:\$1048576	=COUNTA(INDIRECT("Sheet10!\$1:\$1048576"))
10	=Sheet11!\$1:\$1048576	=COUNTA(INDIRECT("Sheet11!\$1:\$1048576"))
11	=Sheet12!\$1:\$1048576	=COUNTA(INDIRECT("Sheet12!\$1:\$1048576"))
12	=Sheet13!\$1:\$1048576	=COUNTA(INDIRECT("Sheet13!\$1:\$1048576"))
13	=Sheet14!\$1:\$1048576	=COUNTA(INDIRECT("Sheet14!\$1:\$1048576"))
14	=Sheet15!\$1:\$1048576	=COUNTA(INDIRECT("Sheet15!\$1:\$1048576"))
15	=Sheet16!\$1:\$1048576	=COUNTA(INDIRECT("Sheet16!\$1:\$1048576"))

The formula in B1 is

=COUNTA(INDIRECT(" "&MID(A1,2,255)&""))

This is understood by Excel to simply be a bunch of text made to look like a formula, but it does not act like one. Since it looks like the right one, let's copy/paste special values (by the trick of dragging the border away & back to the same spot which gives a dropdown to choose values):

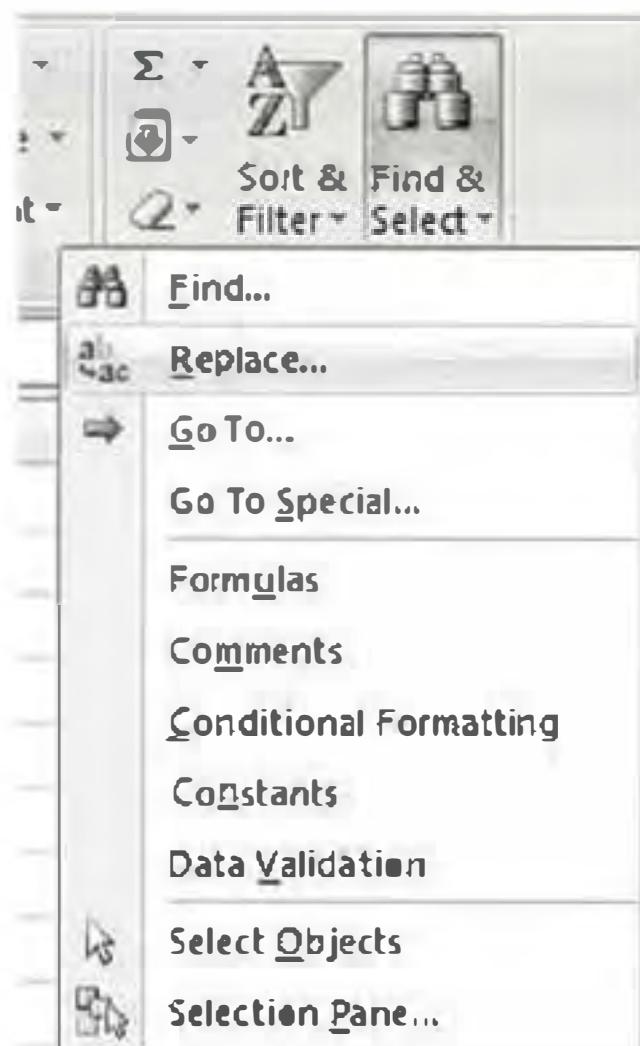
	=COUNTA(INDIRECT(""&MID(A1, , 55)&""))	C	D	E
	=COUNTA(INDIRECT("Sheet2!\$1:\$1048576"))			
	=COUNTA(INDIRECT("Sheet3!\$1:\$1048576"))			
	=COUNTA(INDIRECT("Sheet4!\$1:\$1048576"))			
	=COUNTA(INDIRECT("Sheet5!\$1:\$1048576"))			
	=COUNTA(INDIRECT("Sheet6!\$1:\$1048576"))			
	=COUNTA(INDIRECT("Sheet7!\$1:\$1048576"))			
	=COUNTA(INDIRECT("Sheet8!\$1:\$1048576"))			
	=COUNTA(INDIRECT("Sheet9!\$1:\$1048576"))			
	=COUNTA(INDIRECT("Sheet10!\$1:\$1048576"))			
	=COUNTA(INDIRECT("Sheet11!\$1:\$1048576"))			

- Move Here
- Copy Here
- Copy Here as Values Only
- Copy Here as Formats Only
- Link Here
- Create Hyperlink Here
- Shift Down and Copy

So now it looks like the formula we want, even in the formula bar:

B1	=COUNTA(INDIRECT("Sheet2!\$1:\$1048576"))
A	
1	=Sheet2!\$1:\$1048576
2	=Sheet3!\$1:\$1048576
3	=Sheet4!\$1:\$1048576
4	=Sheet5!\$1:\$1048576
5	=Sheet6!\$1:\$1048576
6	=Sheet7!\$1:\$1048576
B	
	=COUNTA(INDIRECT("Sheet2!\$1:\$1048576"))
	=COUNTA(INDIRECT("Sheet3!\$1:\$1048576"))
	=COUNTA(INDIRECT("Sheet4!\$1:\$1048576"))
	=COUNTA(INDIRECT("Sheet5!\$1:\$1048576"))
	=COUNTA(INDIRECT("Sheet6!\$1:\$1048576"))
	=COUNTA(INDIRECT("Sheet7!\$1:\$1048576"))

But it's not. We once again need to Replace "=" with "=":



And the final result is:

	A	B	C	D
1	=Sheet2!\$1:\$1048576	45		
2	=Sheet3!\$1:\$1048576	0		
3	=Sheet4!\$1:\$1048576	1		
4	=Sheet5!\$1:\$1048576	1		
5	=Sheet6!\$1:\$1048576	1		
6	=Sheet7!\$1:\$1048576	1		
7	=Sheet8!\$1:\$1048576	1		
8	=Sheet9!\$1:\$1048576	1		
9	=Sheet10!\$1:\$1048576	1		
10	=Sheet11!\$1:\$1048576	1		
11	=Sheet12!\$1:\$1048576	1		
12	=Sheet13!\$1:\$1048576	1		

**NEW**

## 66. Fun with relatively defined names

If, while on cell A1, you define a name, z, to be =!A1:Z100 like shown:



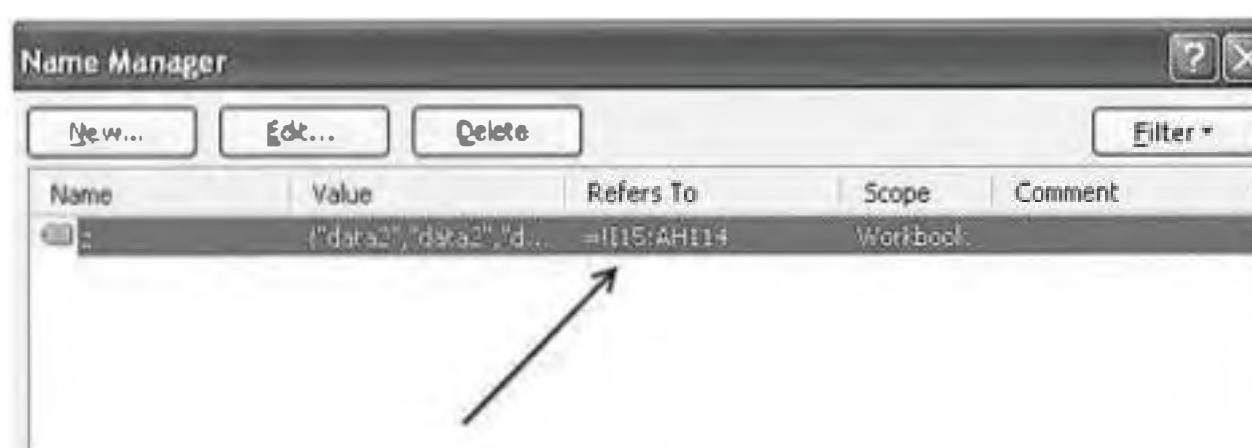
then you can use this name to scroll the active cell to the top left of the worksheet!

For example, suppose you have a worksheet which looks like this:

	A1	B	C	D	E	F	G	H	I	J	K	L	M	N
1	data													
2	data													
3	data													
4	data													
5	data													
6	data													
7	data													
8	data													
9	data													
10	data													
11	data													
12	data													
13	data													
14	data													
15	data													
16	data													
17														
18														
19														
20														
21														
22														
23														
24														

and you'd like to see more of the data starting in cell I15. Certainly you can scroll both horizontally and vertically, but you can also take advantage of this newly defined name, z. Click on cell I15, then use F5 and Goto z. The result will be this:

Notice that the cell has been scrolled to the top left. That's because, from cell I15, the definition of z is =I15;AH114 as in this illustration:



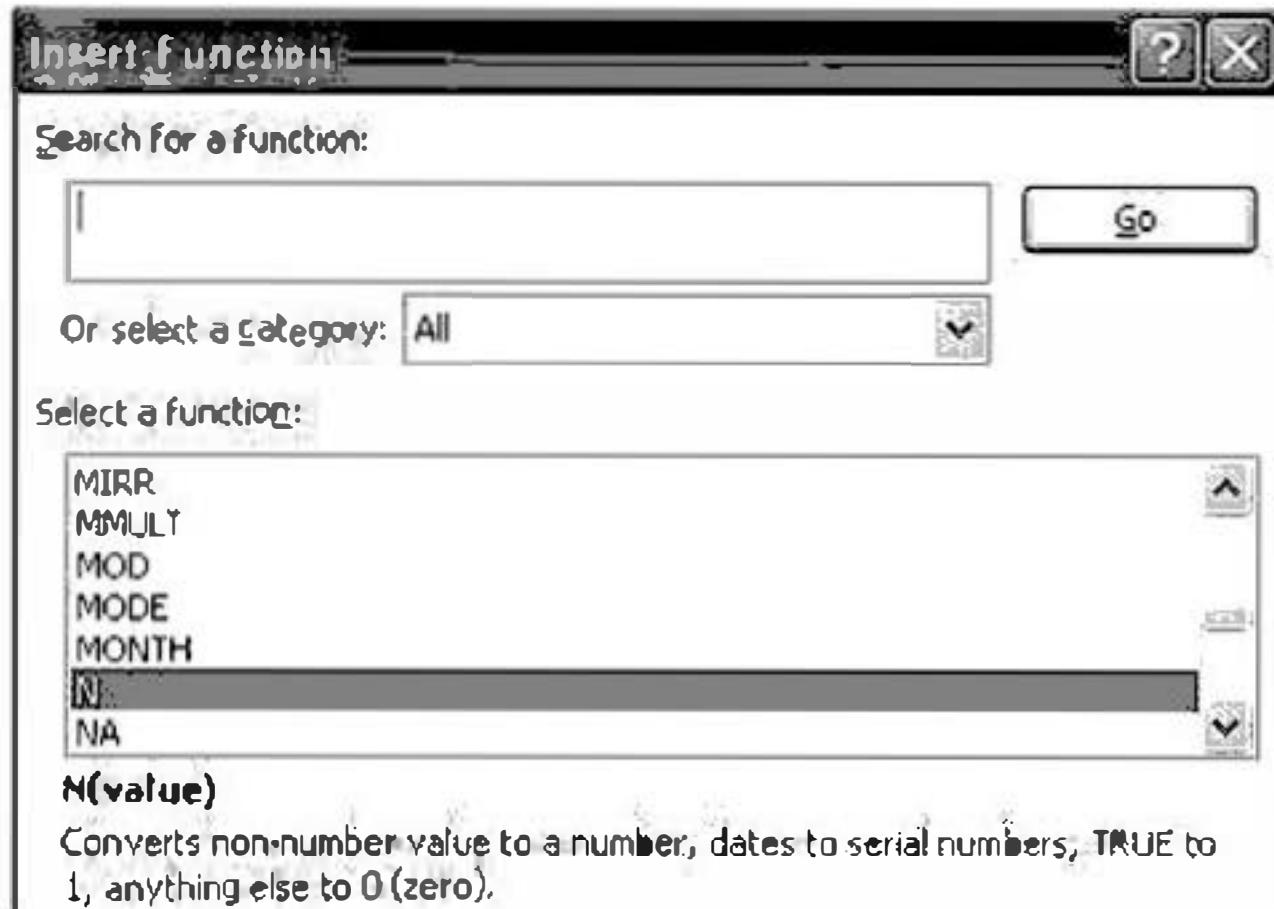
— a relative reference to the active cell resized by 100 rows and 26 columns. In order for Excel to show as much as it can of this range, it scrolls the worksheet!

Z is defined with a leading exclamation mark so that the sheet name is not appended to the name, and you can use z to be a 100x26 shape in any sheet!

**NEW**

## 67. Using notes inside formulas via the N-function

The N function, shown here:



converts non-number to a number, dates to serial numbers, True to 1, anything else to 0. Well, you can take advantage of this knowledge inside a formula. For example:

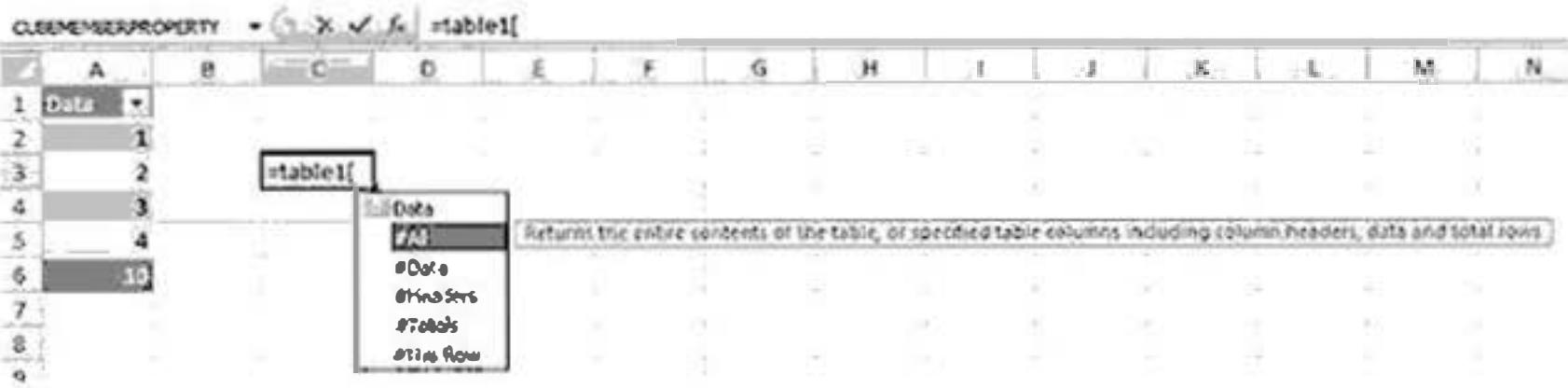
C	D	E	F	G	H	I	J	K
								0.018732

This formula now explains that the VLOOKUP is searching xyztable's third column for the occurrence of cell B22's value for the z-factor (whatever that is). The point being that the part of the formula, N ("This will search the table for the z-factor") will be zero, not effecting the result. So you can use the N-function inside formulas like this to document or comment on a part of the formula by effectively adding 0.

**NEW**

## 68. New Table features

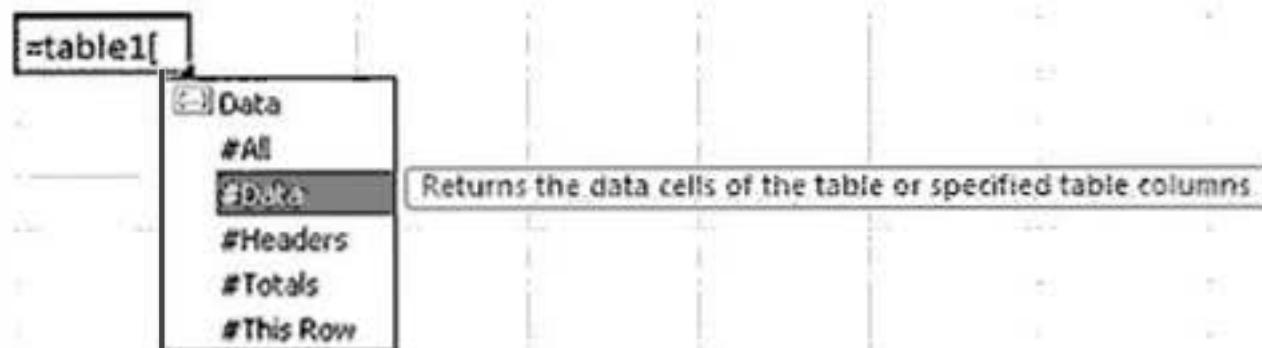
If you have entered a table (new to 2007), it is automatically assigned a name, like Table1, etc. You can reference parts of the table in formulas. Here is a list of some of the new features. If you enter the beginning of a formula for a table and include the opening bracket, like =table1[, Excel provides an intellisense tool tip:



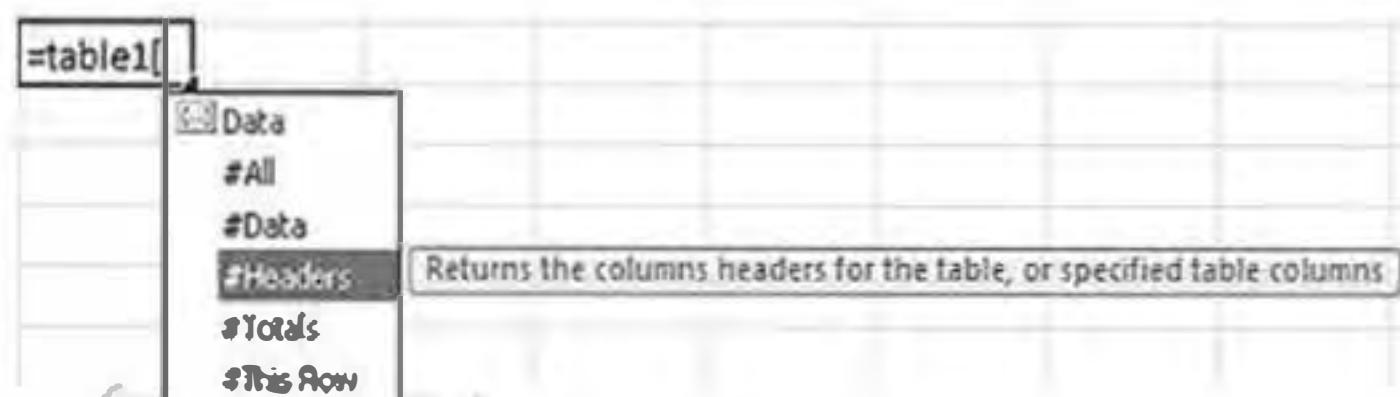
The small text says:

"Returns the entire contents of the table, or specified table columns including column headers, data and total rows"

It provides a reference to the entire table, so you can sum it, for example, without knowing the cell addresses. =SUM(Table1[#All]) might include a total row, if present, so the above illustration would give 20 in this example. Using =SUM(Table1[#Data]) would yield 10.

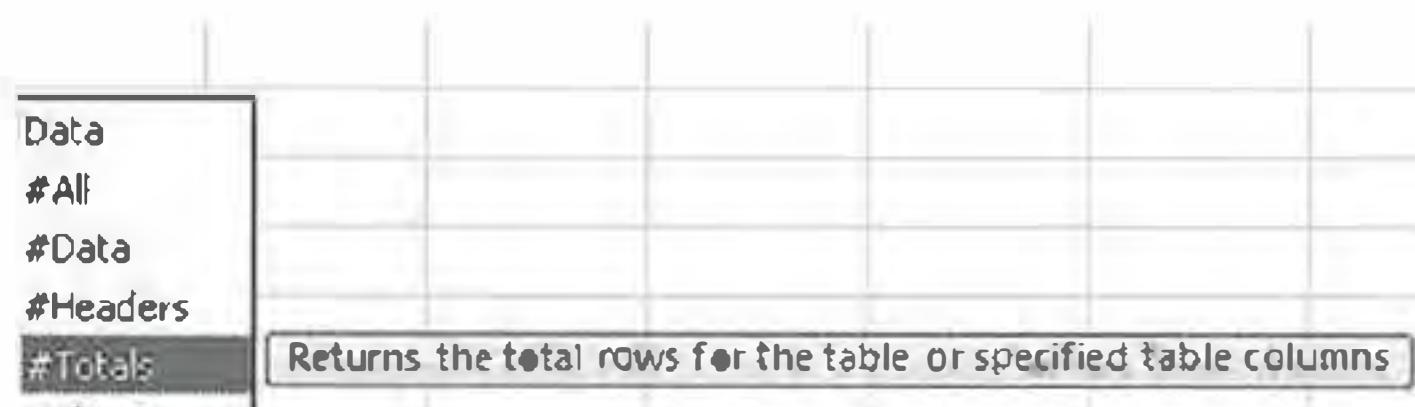


To get the headers, you could `ctrl/shift/enter =table1[#Headers]` if there were more than one column in the table, or simply enter the formula (without `ctrl+shift`) if there was only one column:



	A	B	C	D	E	F
1	Data	data2		Data	data2	
2	1	4				
3	2	3				
4	3	2				
5	4	1				

Here are the last 2:



	A	B	C	D	E	F
1	Data	data2				
2	1	5				
3	2	1				
4	3	2				
5	4	3				

**NEW**

## 69. New Excel functions

Excel 2007 comes with 5 new built-in functions (excluding the new CUBE functions):

SUMIFS, AVERAGEIFS, COUNTIFS, AVERAGEIF, and IFERROR. Let's take a brief look at them in action:

=SUMIFS(Amount,Region,"South",Date,"<4/06")			
A	B	C	D
1 Region	Amount	Date	
2 East	558	29-May-05	
3 North	43	14-Apr-07	11185
4 East	826	28-Oct-04	
5 West	765	3-Apr-09	508.4090909
6 South	271	14-Feb-10	
7 West	415	17-Jun-05	481.2837838
8 East	402	16-Mar-07	
9 South	633	15-Nov-05	22
10 South	16	9-Aug-05	
11 East	198	20-Jan-06	NotFound
12 West	741	26-Oct-10	
13 East	559	6-Dec-08	NotFound
14 East	263	30-Apr-08	
15 North	809	27-Nov-08	
16 South	884	23-Aug-07	
17 West	894	10-Dec-08	
18 North	942	13-Mar-11	

Here, we see the SUMIFS function. Its syntax is `SUMIFS(Sum_range,criteria_range1,criteria1,...)`, which basically states which range to sum based on pairs of criteria ranges and their criteria. This example uses Amount (column B) as the range to sum, and there are 2 pairs of criteria: the region (column A) must be "South," and the Date (Column C) must be prior to April, 2006. The next function we take a brief look at is the AVERAGEIFS, which is basically the same as the SUMIFS, but the Average is taken instead of the Sum:

=AVERAGEIFS(Amount,Region,"South",Date,"<4/06")			
A	B	C	D
1 Region	Amount	Date	
2 East	558	29-May-05	
3 North	43	14-Apr-07	11185
4 East	826	28-Oct-04	
5 West	765	3-Apr-09	508.4090909
6 South	271	14-Feb-10	

The AVERAGEIF function is like the AVERAGEIFS function, except there's only one pair of criteria:

	A	B	C	D	E	F
1	Region	Amount	Date			
2	East	558	29-May-05			
3	North	43	14-Apr-07		11185	
4	East	826	28-Oct-04			
5	West	765	3-Apr-09		508.4090909	
6	South	271	14-Feb-10			
7	West	415	17-Jun-05		481.2837838	
8	East	402	16-Mar-07			

The COUNTIFS function is like the SUMIFS and AVERAGEIFS functions, except the range to sum (or average) is not included. It's still pairs of criteria, but they're merely counted:

	A	B	C	D	E	F
1	Region	Amount	Date			
2	East	558	29-May-0			
3	North	43	14-Apr-07		11185	
4	East	826	28-Oct-04			
5	West	765	3-Apr-09		508.4090909	
6	South	271	14-Feb-10			
7	West	415	17-Jun-05		481.2837838	
8	East	402	16-Mar-07			
9	South	633	15-Nov-05		22	
10	South	16	9-Aug-05			

You can calculate that  $11185 / 22$  is 508.4090909, verifying that the SUM / COUNT is the AVERAGE!

The last new function is the IFERROR function, which basically shortens something like this:

=IF(IFERROR(VLOOKUP("Herman",A2:C50,2,FALSE)),"Not Found",VLOOKUP("Herman",A2:C50,2,FALSE))
Not Found

to this:

=IFERROR(VLOOKUP("Herman",A2:C50,2,FALSE),"Not Found")
Not Found

The syntax is `IFERROR(value, value_if_error)` which means that if it is NOT an error, it returns the value of the calculation, as in the first longer example above. In English, it's "If the VLOOKUP returns an error, show "Not Found." Otherwise, do the VLOOKUP."

But this requires you to code the same VLOOKUP formula twice in the same function. The IFERROR avoids that!

## 70. ***Ctrl/Shift/~,1,2,3,4,5,6*** ***for quick formatting***

These simple keyboard shortcuts can help with number formatting (here, the value 1.5 was entered in the cell):

<b>Ctrl+shift+:</b>	<b>Resulting Format:</b>	<b>Example:</b>
~	General	1.5
1	2 decimals	1.50
2	Time format	12:00 PM
3	Date format	1-Jan-00
4	Currency	\$1.50
5	Percent	150%
6	Scientific	1.50E+00

## **71. Borders from keyboard**

Ctrl/Shift/7 creates outline border

Ctrl/Shift/- removes border

## **72. Inserting Date & Time shortcuts**

Ctrl/Semicolon (Ctrl/;) will insert the date in m/d/yyyy format;  
Ctrl/Colon (Ctrl/:) will insert the time in h:mm AM/PM format.

## **73. Click the AutoSum button from the keyboard**

Alt/= is the same as clicking the AutoSum tool.

Alt/= twice (quickly) will also enter the result.

## 74. Bringing the selection into view

It's possible you've selected some area of cells and then scrolled away so you can't see it any more. Ctrl/Backspace brings that selection into view, and shift/Backspace brings selection into view as well but reduces the selection to the active cell. So, if this is the before picture:

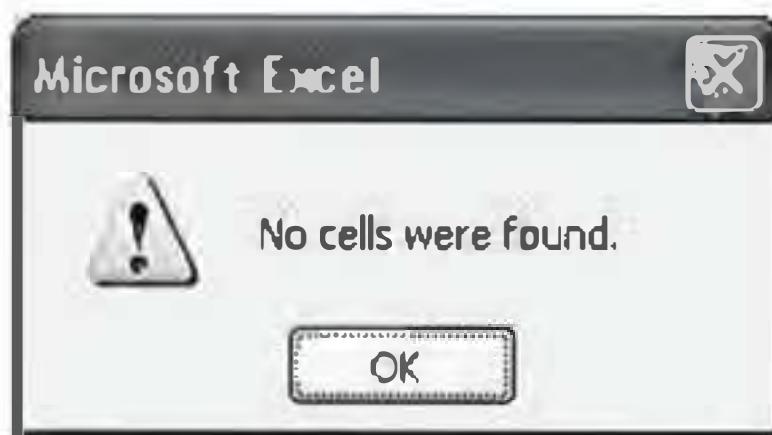
	A	B	C
1			
2			
3			
4			
5			
6			

then shift/backspace will simply have cell B3 selected.

## 75. Ctrl/[ more powerful than its “equivalent” Go To Precedents

If a cell has =SUM(B2:E4), then with that cell selected, use F5 (Goto) / Special and select Precedents. The result is that cells B2:E4 will be selected. Ctrl/[ does the same thing.

However, if a cell has a link to a cell in a closed workbook (the entire path would be shown in the cell), then using F5 (Goto)/Special/Precedents would give an error message:



whereas ctrl/[ would open the file, switch to the appropriate sheet, and select the cell!

The F5 (Goto) / Special dialog also has an “All levels” option button when you select Precedents (or Dependents). This means that if, in the first example above, cell C3 had a formula which referenced H12, the all-levels option would also select cell H12 (in addition to B2:E4).



The equivalent keyboard shortcut is ctrl/shift/[.

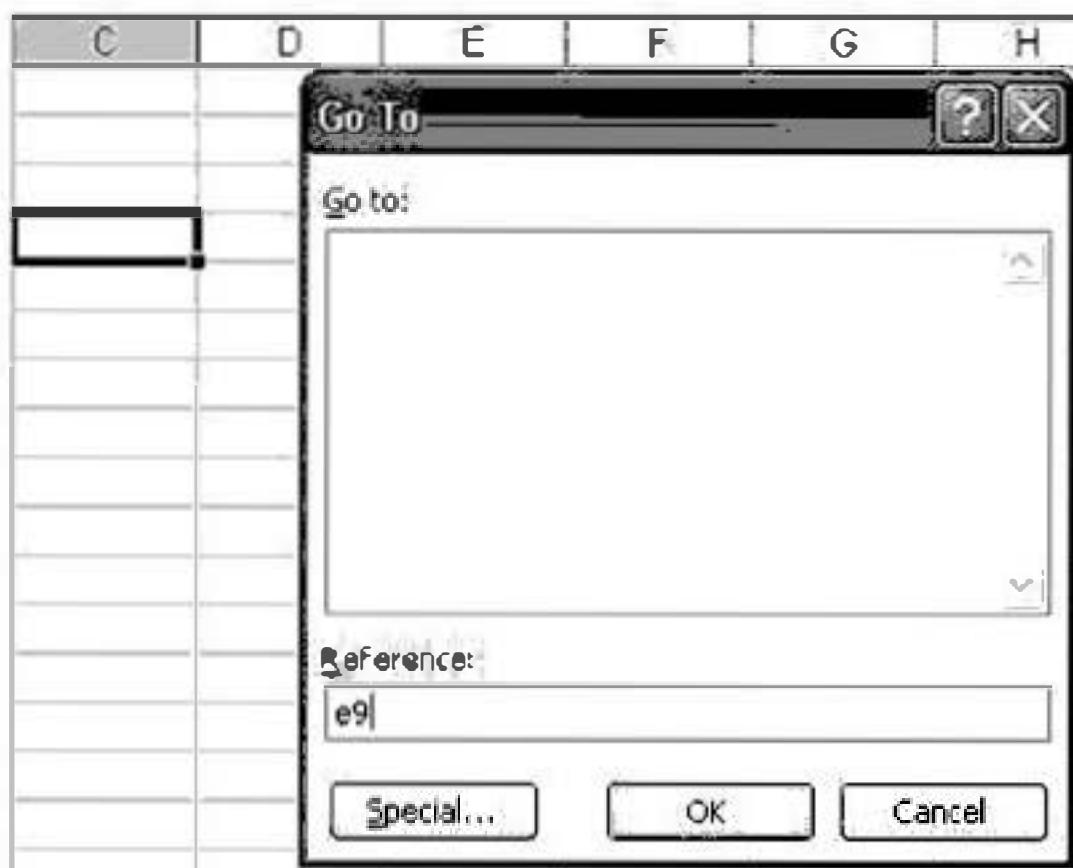
## **76. Show Corners of Selection Easily**

Ctrl/period successively selects corners of the selection, even if the entire selection is large, as in A1:DD799.

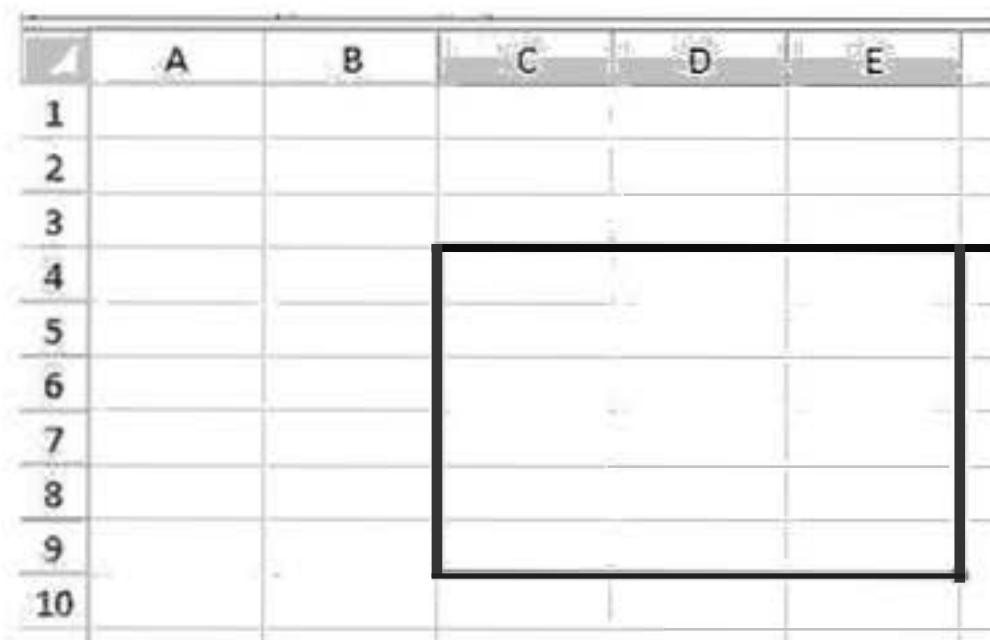
## 77. Anchoring the active cell

Holding the shift key down while you click a cell, or double-click a border, or even in the GoTo dialog (F5) will keep that cell as the active cell.

If cell C4 is active, as shown, and you use the GoTo (F5) dialog and enter e9 as the cell to go to:



then if you hold the Shift key down when you click the OK button, this will be your result:



In other words, the original active cell will still be the active cell.

If you shift click cell A2, now, the selection will be A2:C4, with C4 being the active cell.

Since Ctrl/down arrow (or right/left/up arrow) takes you to the end of a block, shift/ctrl/arrow will also take you to the end of the block, but the active cell won't change!

**NEW**

## 78. Finding after the Find dialog is closed

Shift/F4 repeats the Find command after a find was done; Shift/Ctrl/F4 repeats find backwards! That is, if you did a normal Find command to find something:



then if you close the find command and use Shift/F4, it will still find the same text, and Shift/Ctrl/F4 will find the same text backwards.

**NEW**

## 79. A few miscellaneous Shortcuts

- **Ctrl/'** (single apostrophe)—this copies the cell above exactly. So, if cell A1 has =SUM(\$B2:C7), then pressing Ctrl/’ from cell A2 will put =SUM(\$B2:C7) in cell A2.
- **Ctrl/”** (quote)—this copies the value from the cell above. So if cell A1 has =SUM(E1:E10) and its value is 350, then pressing Ctrl/“ from cell A2 will put the plain number 350 in cell A2.
- **Ctrl/;** will put in today's date.
- **Ctrl/:** will put in the time.
- If you press **Ctrl/;** followed by a space then **Ctrl/:**, you'll have the date and the time.
- **Shift/F2** will insert a Comment.
- **F9** will calculate the open workbooks; **Shift/F9** will calculate the active workbook.
- **Ctrl/T** or **Ctrl/L** will insert a Table.
- **Alt/T/O** will get you to 2003's equivalent of Tools/Options.
- **Alt/T/I** will get you to 2003's equivalent of Tools/Add-ins.
- **Alt/V/U** is Full Screen
- **Alt/F/<1-n>** is File/Open <last used file...>.

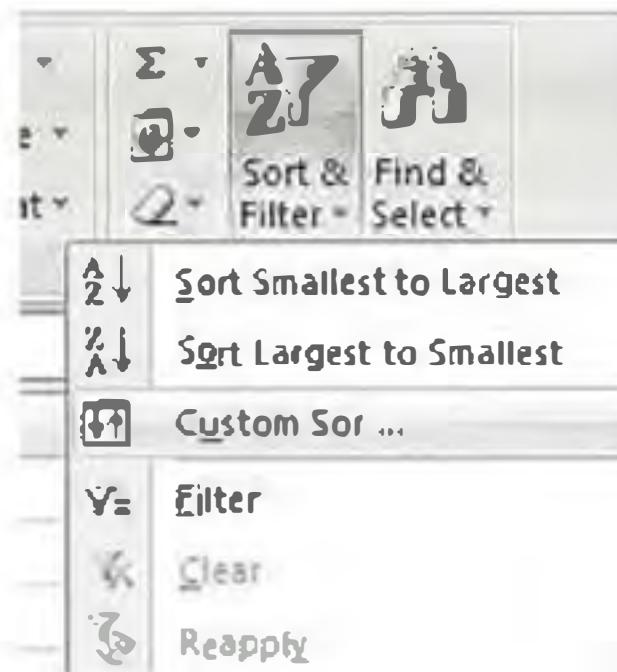
## 80. Sorting columns

This is useful for rearranging columns and is often easier than cut/insert/paste to move the columns around.

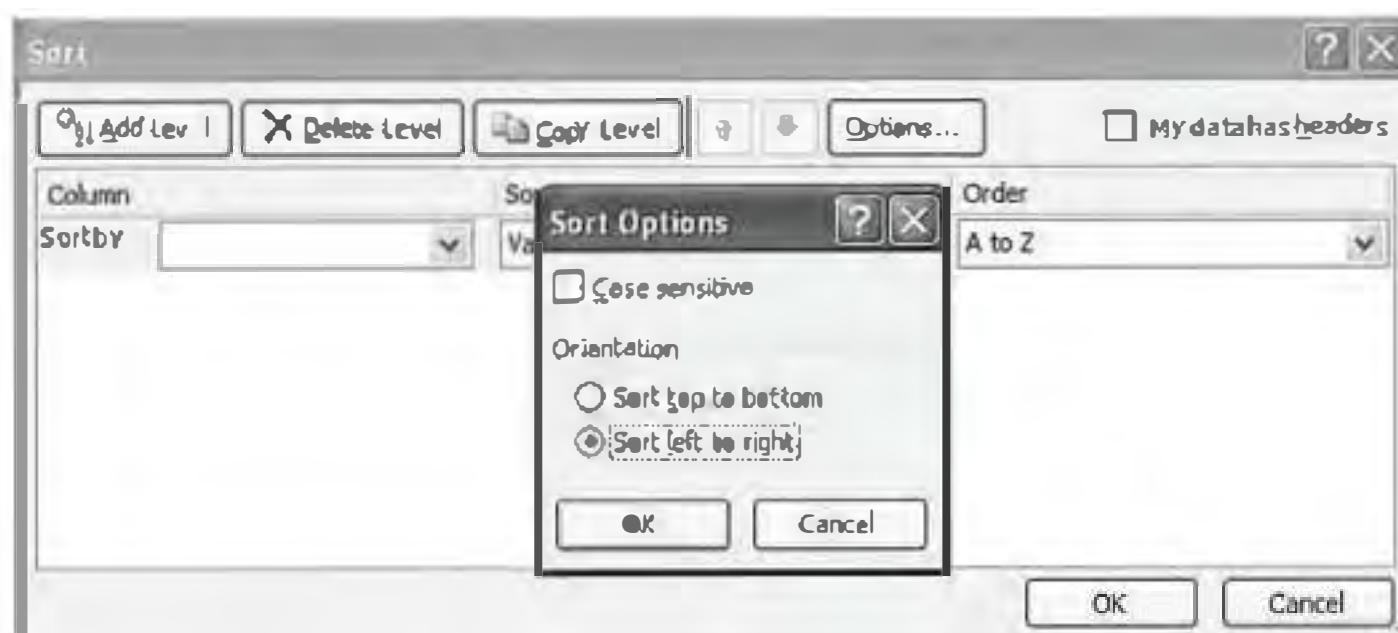
You may have to use a “dummy” row to enter the sort sequence. In this worksheet, a dummy row was inserted (row 1) to enter the sort sequence. We want Name, then Address, then City, State, and Zip:

	A	B	C	D	E
1	2	1	4	3	5
2	Address	Name	State	City	Zip
3	123 Main	Name1	FL	Orlando	12345
4	124 Main	Name2	NY	Albany	12346
5	125 Main	Name3	WA	Redmond	12347
6	126 Main	Name4	TX	Houston	12348
7	127 Main	Name5	CA	San Diego	12349
8	128 Main	Name6	FL	Tallahassee	12350

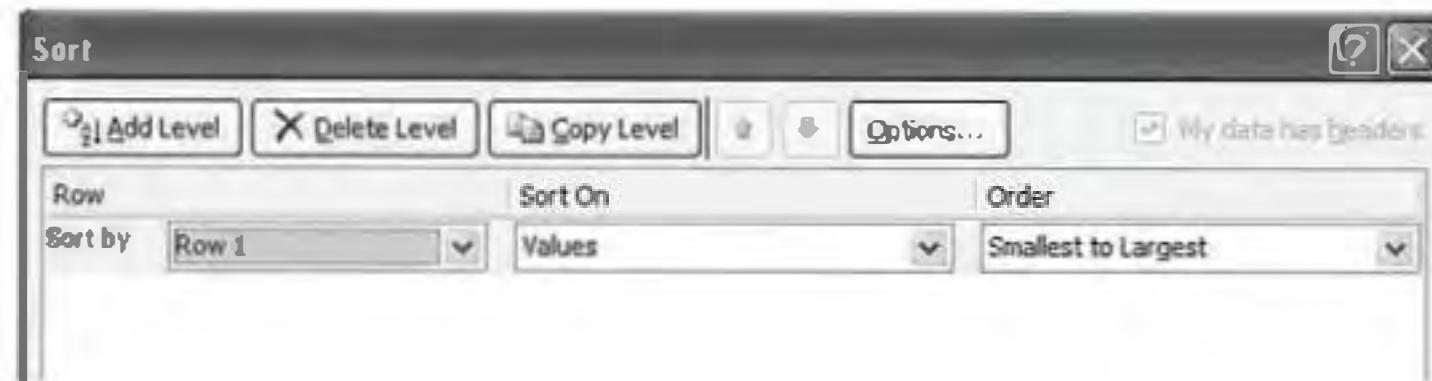
Use Home tab, Editing section, Sort & Filter, and Custom Sort [Excel 2003: Data/Sort]:



Click the “Options” button, click Sort Left-to-Right.



click OK.



then pick the row containing the desired column sequence (Row 1 in this case), and finally click OK:

	A	B	C	D	E
1	1	2	3	4	5
2	Name	Address	City	State	Zip
3	Name1	123 Main	Orlando	FL	12345
4	Name2	124 Main	Albany	NY	12346
5	Name3	125 Main	Redmond	WA	12347
6	Name4	126 Main	Houston	TX	123 8
7	Name5	127 Main	San Diego	CA	12349
8	Name6	128 Main	Tallahasse	FL	12350

## 81. Making exact copies of ranges with relative or mixed references

This technique is useful if you have many cells to copy—otherwise, it's pretty simple to copy the formula directly from the formula bar. Usually, if you copy a range which has relative or mixed references to a new range, the references will adjust. That is, if A1 contains =C7 and you copy A1:B2 to C2:D3, then C2 will contain =E8. Here's how you can have C2 still contain =C7. We'll use the above references as an example.

To copy A1:B2 to C2:D3 and not change any references in the resulting range:

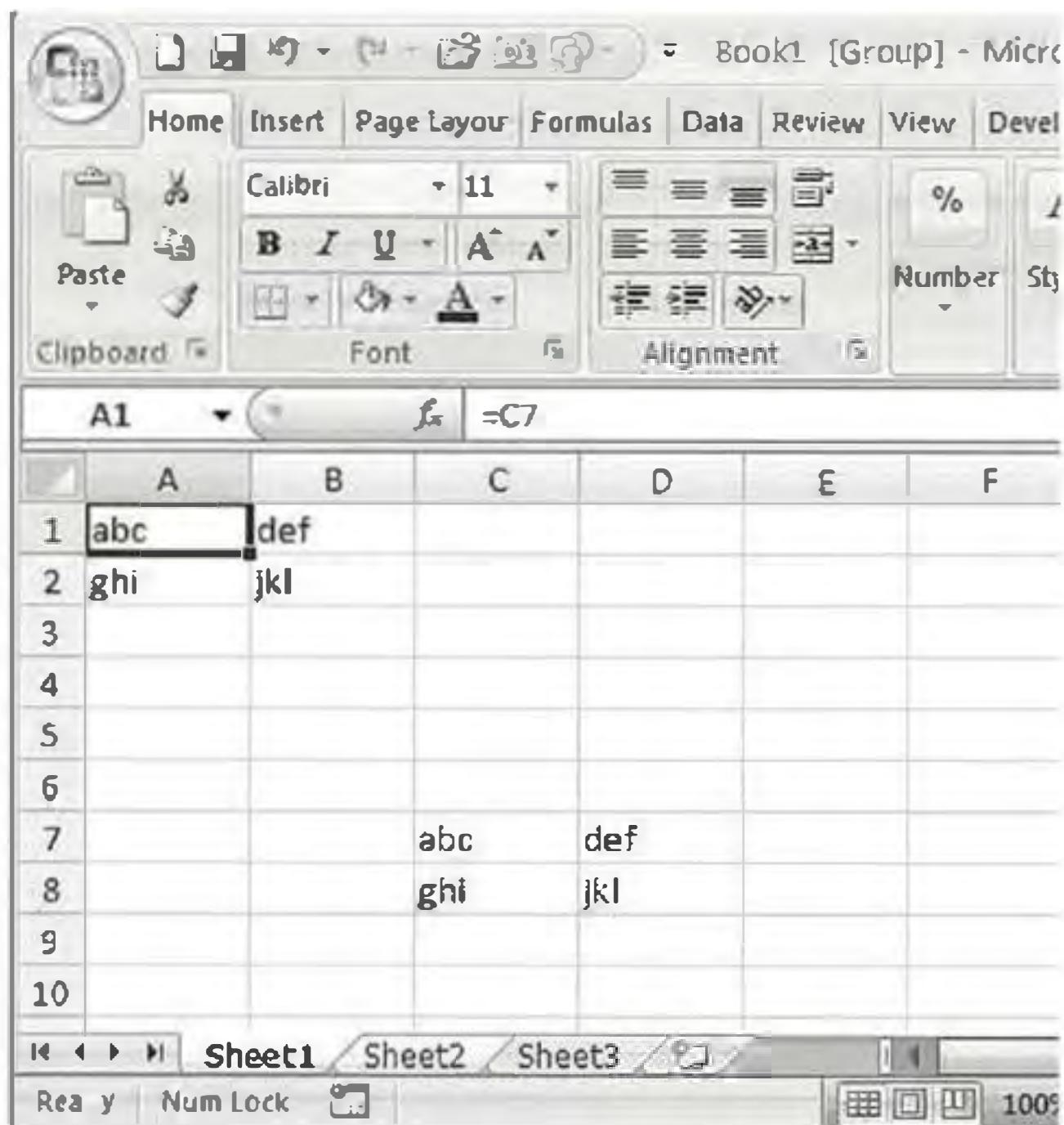
Here are the formulas we're starting with, using relative, mixed, and absolute references:

	A	B
1	=C7	=D\$7
2	=\$C\$8	=\$D\$8
3		

And here's the worksheet displayed normally:

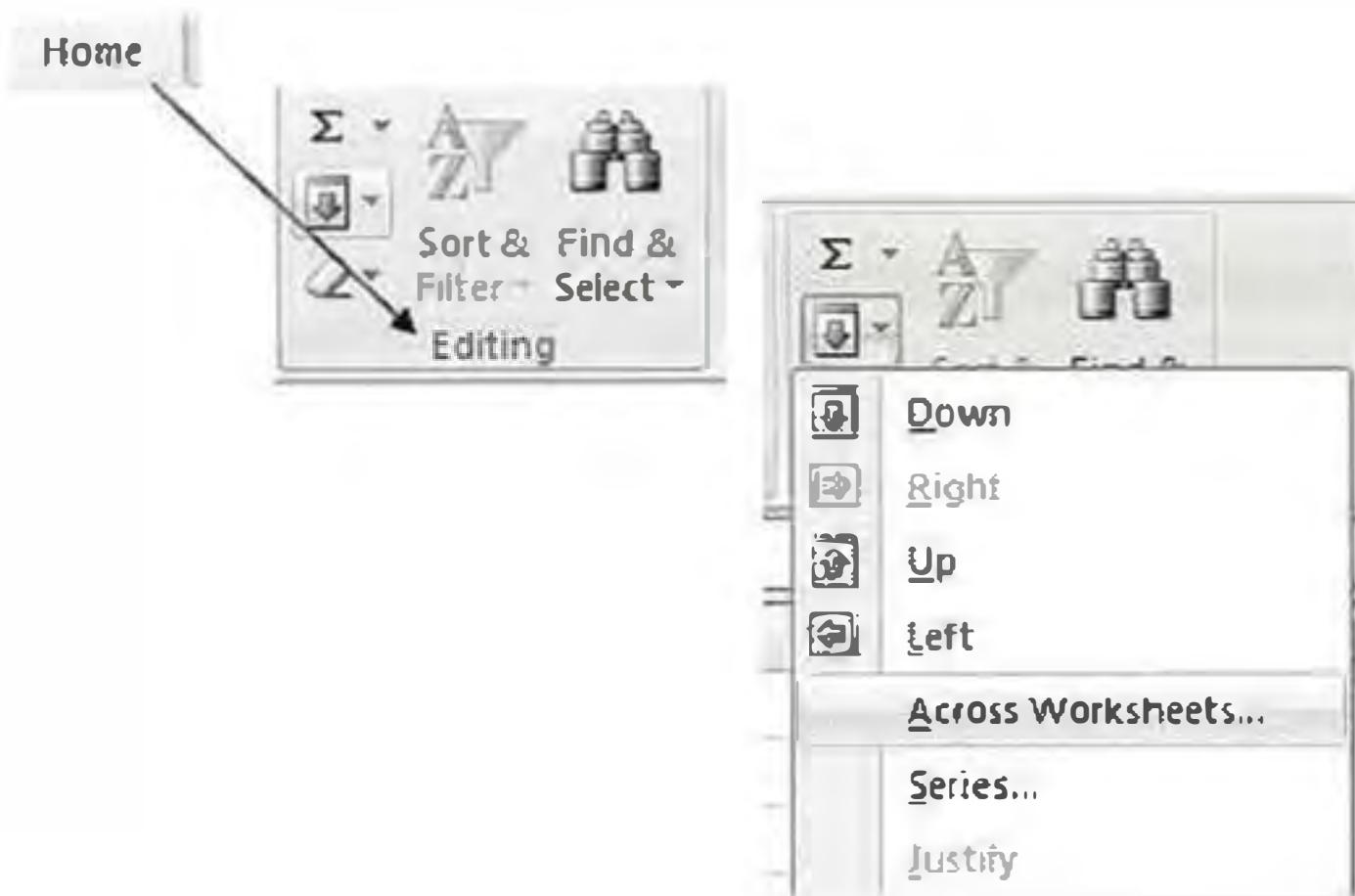
	A	B	C	D
1	abc	def		
2	ghi	jkł		
3				
4				
5				
6				
7		abc	def	
8		ghi	jkł	
9				

1. Use a 2nd worksheet in group edit mode. To do that. Ctrl/click a second (unused) sheet tab:



(Notice both sheets 1 and 2 are selected, and there's another indication you're in group mode—at the very top of the screen you can see “[Group].”

2. Select A1:B2, use Across Worksheets in the Editing section of the Home tab (this is dimmed when you're not in group edit mode) {Excel 2003: Edit/Fill/Across Worksheets}:



3. You're presented with this dialog



4. Now, Sheet2 contains the exact same references in A1:B2 as Sheet1 contains.

5. Activate the 2nd worksheet (not in group edit)—you do this by shift/clicking on Sheet2's tab. Since we didn't copy C7:D8 as well, you only see 0's in Sheet2, but that's fine.

6. In Sheet2, Cut A1:B2 and paste to C2:

	A1	B1	C1
A1	0	0	=C7
B1			
C1			
A2	0	0	
B2			
C2			
A3			
B3			
C3			

You can see in the formula bar that cell C2 still contains the reference to C7. This is because the references don't change in a cut/paste, only in copy/paste.

7. Back to group edit (with Sheet2 active, ctrl/click Sheet1), select C2:D3, use Across Worksheets from the Editing section of the Home tab. [Excel 2003: Edit|Fill|Across Worksheets]



filling the 2nd sheet back to first. Shift/click Sheet1 and you'll see:

	C2	A	B	C	D	E	F	G	H	I
1	abc		def							
2	ghi		jkI							
3		abc		def						
4		ghi		jkI						
5										
6										
7				abc		def				
8				ghi		jkI				
9										
10	the formulas are...									
11										
12	C2	A	B	C	D					
13										
14	1	=C7		=D\$7						
15	2	=\$C8		=\$D\$8		=C7		=D\$7		
16	3					=\$C8		=\$D\$8		
17	4									
18	5									
19	6									
20	7					abc		def		
21	8					ghi		jkI		

Another way (maybe easier) would be to replace the "=" in the formulas with something like "x=" (turning formulas to text), then copy/paste to the new location, then replace "x=" with "=" in both ranges!

## 82. Filling Holes

Suppose you have a worksheet something like this:

	A	B	C	State
1	State	Region	Amount	
2	PA	North	300	
3			104	
4			159	
5			749	S
6		South	700	
7			348	
8			508	
9			935	
10			582	
11	WA	North	377	
12			936	
13		South	831	
14			243	
15			344	
16	NY	North	97	
17			120	
18		South	577	
19			955	

And you'd like to sort it by state! Yikes. You KNOW it would be quite messed up because of the holes (empty cells). In this example it wouldn't take too long to fill PA down from A2:A10, then WA from A11 to A15, etc. and then it'd be easy to sort, but if this extended to row 6000, forget it!

Well, there's a pretty easy way:

1. Select cells, use F5 key, click Special, select Blanks:

	A	B	C	State
1	State	Region	Amount	
2	PA	North	300	
3			104	
4			159	
5			749	
6		South	700	
7			348	
8			508	
9			935	
10			582	
11	WA	North	377	
12			936	
13		South	831	
14			243	
15			344	
16	NY	North	97	
17			120	
18		South	577	
19			955	

2. Type “=,” press the up-arrow, then press Ctrl/Enter:

	B3	F&	=B2
1	A	B	C
2	PA	North	300
3	PA	North	104
4	PA	North	159
5	PA	North	749
6	PA	South	700
7	PA	South	348
8	PA	South	508
9	PA	South	935
10	PA	South	582
11	WA	North	377
12	WA	North	936
13	WA	South	831
14	WA	South	243
15	WA	South	344
16	NY	North	97
17	NY	North	120
18	NY	South	577
19	NY	South	955
20			

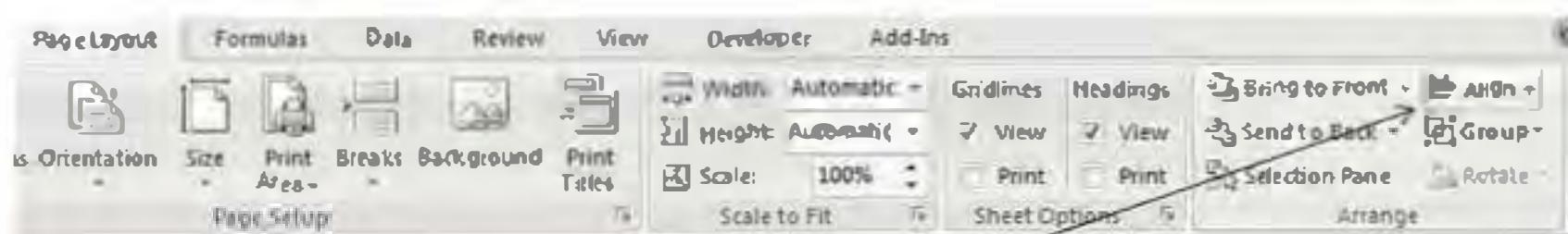
3. What? It can't be that easy! What happened? Look at cell B3: It says =B2, or the cell above. Ctrl-enter says “fill the selected cells with the formula,” so every blank cell references the cell above. So A12 says =A11, etc.

Now the sort is trivial. And if you want to clear the formulas after the sort, simply select 1 cell, use the F5 key, click Special, select Formulas & OK, then press the delete key to produce the sorted result.

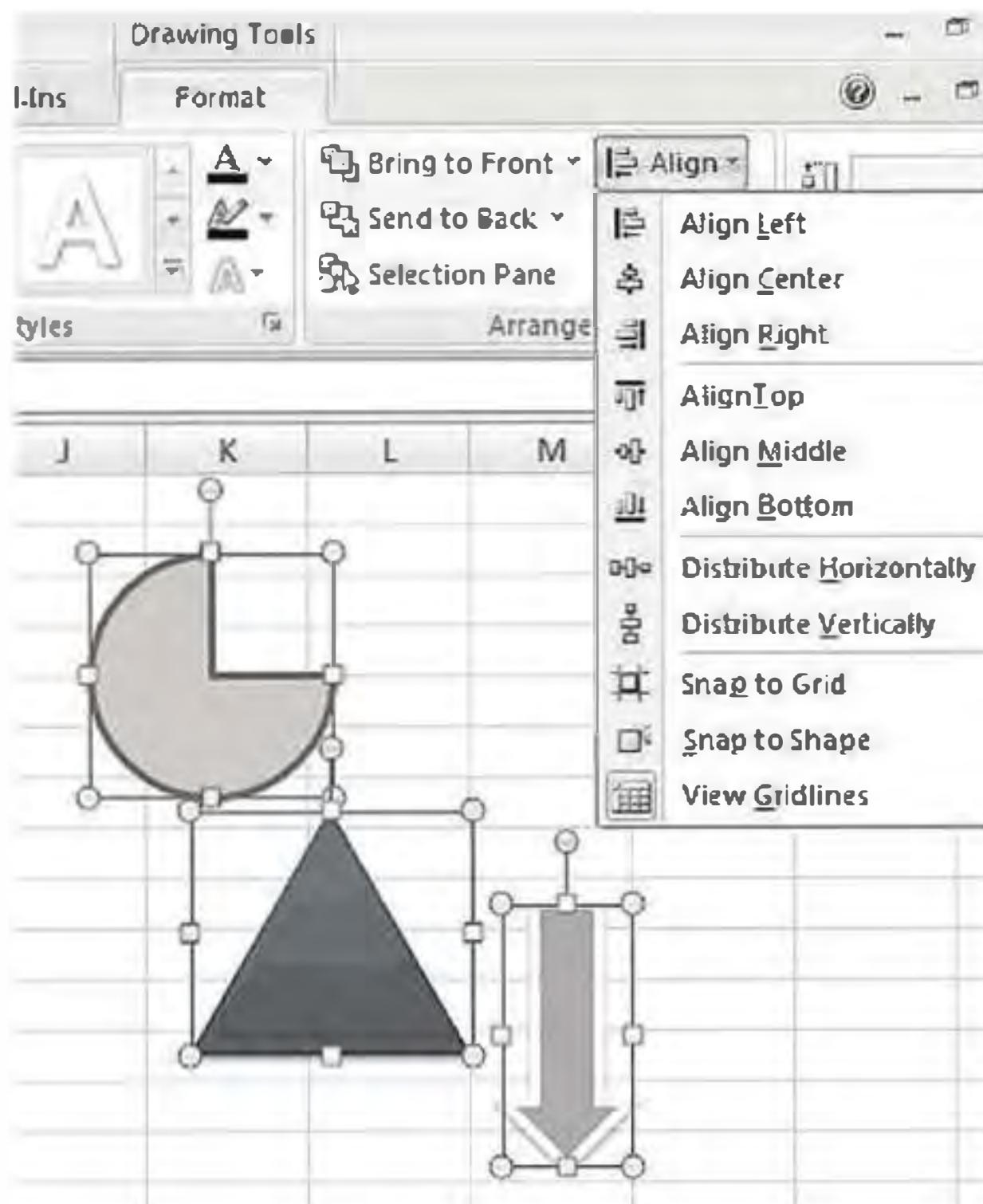
	A	B	C
1	State	Region	Amount
2	NY	North	97
3			120
4		South	577
5			955
6	PA	North	300
7			104
8			159
9			749
10		South	700
11			348
12			508
13			935
14			582
15	WA	North	377
16			936
17		South	831
18			243
19			344
20			

## 83. Aligning objects

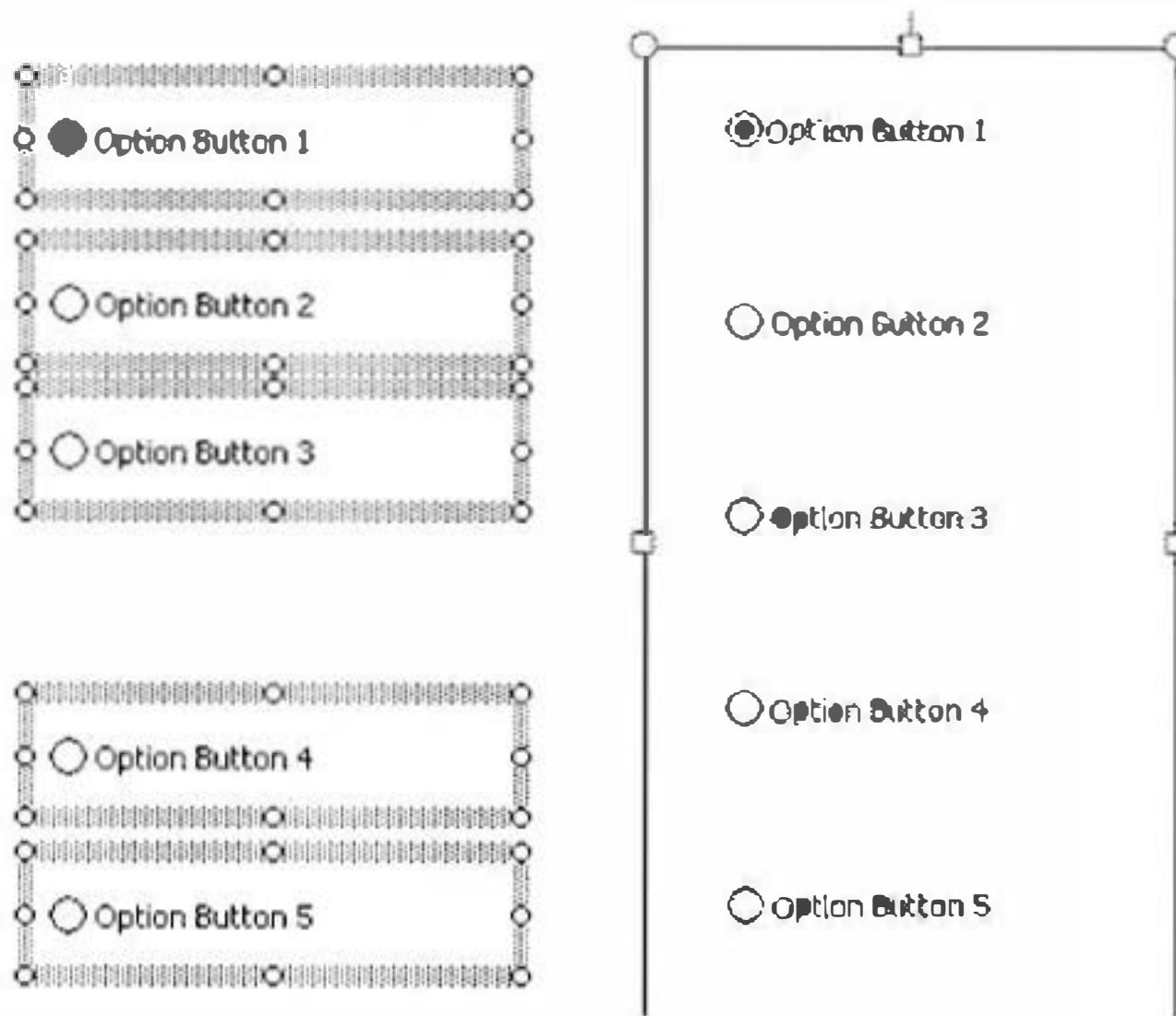
When a drawing object is selected, you will see the Drawing Tools context sensitive menu show up. If you've inserted buttons or option buttons, checkboxes and the like, then this isn't a "drawing object" so the context sensitive menu is not present, but you can still get the desired commands in the Page Layout tab, the Arrange group. In the Arrange group, is the Align button:



(by the way, if one object is selected, you can select all objects by **ctrl/shift/spacebar**—if an object is not selected when you press **ctrl/shift/spacebar**, you will first select the current region, and if you do it again, you will select all cells): [Excel 2003:View|Toolbars|Drawing Toolbar|Draw menu Arrow|Align or Distribute]



For example, if you use Distribute Vertically on the left worksheet with the objects selected... you'll see them as on the right:



## **84. Leaving cursor in the cell after pressing enter.**

If the cursor normally moves out of the cell when you enter a value and you temporarily want to keep it in the same cell, simply press **ctrl/enter** instead of **enter**!

This assumes you have only 1 cell selected, else all the cells will be filled!

## 85. Shortcut 3-D Formula

If you wanted to add up all the sheets' cell A1, you could enter this formula: =SUM(Sheet1:Sheet6!A1). But there's a shortcut where you can use a wild-card to do it and Excel will change what you type into the correct reference. One caveat: this shortcut excludes the sheet you're entering it on in the reference. Here's an Example. Enter =SUM("\*!A1) and when you press enter it will change:

The top screenshot shows the formula bar with the formula =sum("\*!a1") and the cell A1 containing the formula =sum("\*!a1"). The bottom screenshot shows the formula bar with the formula =SUM(Sheet2:Sheet6!A1) and the cell A1 containing the value 0.

But there's another advantage to the shortcut. If you enter it in Sheet3, for example, you'd see =SUM(Sheet1:Sheet2!A1,Sheet4:Sheet6!A1) in the formula bar after entering =SUM("\*!A1).

Another variety of this tip is to use parts of sheet names. For example, if your sheet tabs are named Sheet1, Bob1, Sheet2, MyBobDatabase, Bonbon, Sheet3, Bonfire, and on sheet2 you enter the formula =SUM("\*bo\*!A1), Excel will expand it to include all the sheets containing "bo" somewhere in the name:

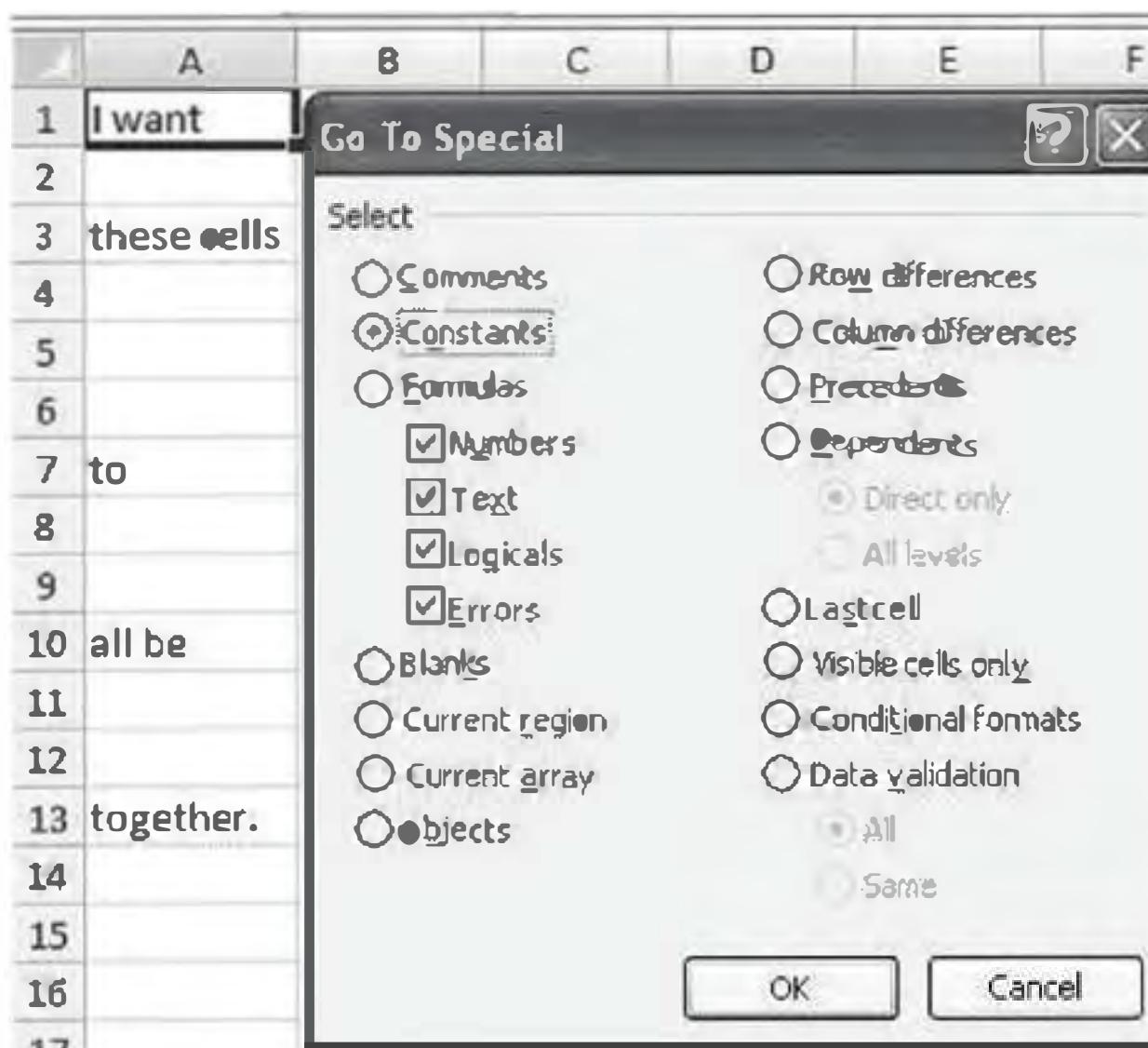
The screenshot shows the formula bar with the formula =SUM('Bob1'!A1,MyBobDatabase:Bonbon!A1,Bonfire!A1) and the cell A5 containing the value 0. The sheet tabs at the bottom are labeled Sheet1, Bob1, Sheet2, MyBobDatabase, Bonbon, Sheet3, and Bonfire.

## 86. Pulling cells together

If you have data separated by many rows that you want to put in a contiguous range of cells (see below), this will show you how you can do it easily.

	A	B
1	I want	
2		
3	these cells	
4		
5		
6		
7	to	
8		
9		
10	all be	
11		
12		
13	together.	
14		

1. Select the column containing the data
2. Use F5 (go to)/Special, selecting formulas or constants



3. Copy

	A	B
1	I want	
2		
3	these cells	
4		
5		
6		
7	to	
8		
9		
10	all be	
11		
12		
13	together.	
14		

4. Click in new location and paste

	A	B	C
1	I want		I want
2			these cells
3	these cells		to
4			all be
5			together.
6			
7	to		
8			
9			
10	all be		
11			
12			
13	together.		
14			

The results will always be constants, not formulas, even if they were originally formulas.

**NEW**

## 87. An oddity with the Camera Tool

In the following illustration, the gridlines were turned off, range A1:C12 was selected, the camera tool (See Print remote areas on same page, earlier in the book) was clicked, and the picture was “developed” in range E1.

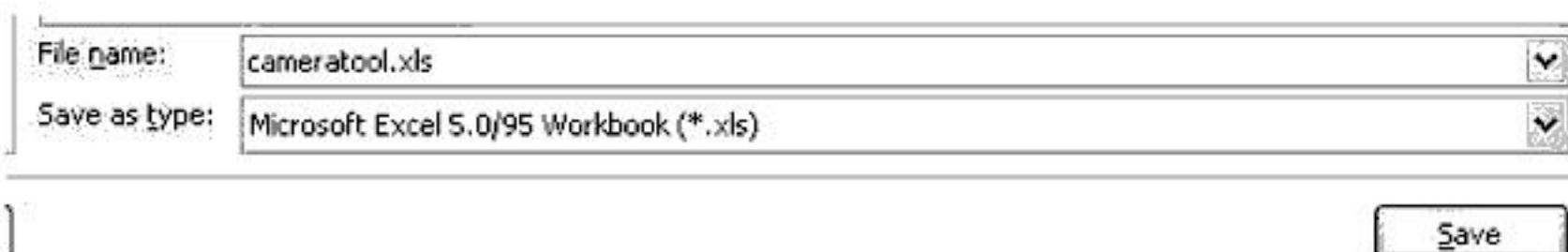
Picture 1			=\$A\$1:\$C\$12				
	A	B	C	D	E	F	G
1	info	info	info		info	info	info
2	info	info	info		info	info	info
3	info	info	Info		info	info	info
4	info	info	info		info	info	info
5	info	info	info		info	info	info
6	info	info	Info		info	info	info
7	info	info	Info		info	info	Info
8	Info	info	Info		info	info	info
9	info	Info	Info		info	info	info
10	info	info	Info		info	info	info
11	info	Info	Info		info	info	info
12	Info	Info	Info		info	info	info

If you were to format this picture and give it no line and no fill, it would look like this:

	E	F	G
	Info	info	info

However, the oddity is that even with no line and no fill, you can't select the cells underneath the picture. It's being treated as if the picture did have a fill. You can get to the cells underneath (by Edit/Go to, or select a cell outside the picture area and move the arrows), as shown here (cell F6 was entered and a bunch of dashes were typed):

But there is an odd solution to this problem. Save the file as Excel 5/95, then reopen it:



Even if you then save it again as normal Excel, you can still then select through the cells!



## 88. Quicker data entry

If you need to enter large numbers, like 1 billion, it's pretty easy to enter the wrong number of zeroes. Instead of slowly typing the string of 9 zeroes while mentally counting, you can simply type 1e9. That would go in as:

A1	B	C	D	E
A				
1	1.00E+09			
2				

because excel sees this as scientific notation (which it is):

The screenshot shows the Microsoft Excel ribbon with the 'Home' tab selected. The formula bar at the top displays 'A1' and '1000000000'. Below the formula bar, cell A1 contains the value '1.00E+09'. In the ribbon, an arrow points from the 'NumberFormat' dropdown in the 'Number' group of the 'Home' tab to the cell A1.

but a simple reformatting of the cell will fix that.

A1	B	C	D	E
A				
1	1000000000			
2				

**NEW**

## 89. Miscellaneous— Changing cell reference

If you have a reference such as =SUM(A500:A525) and need to change it to =SUM(A525:A535), you would most likely edit the formula and change the 500 to 525 and the 525 to 535. And of course, that would work. Did you know you can just change the 500 to 535 and get the same result? That is, you would see this before pressing enter:

B	C	D
=sum(A535:A525)		

but as soon as you entered the formula, you'd see:

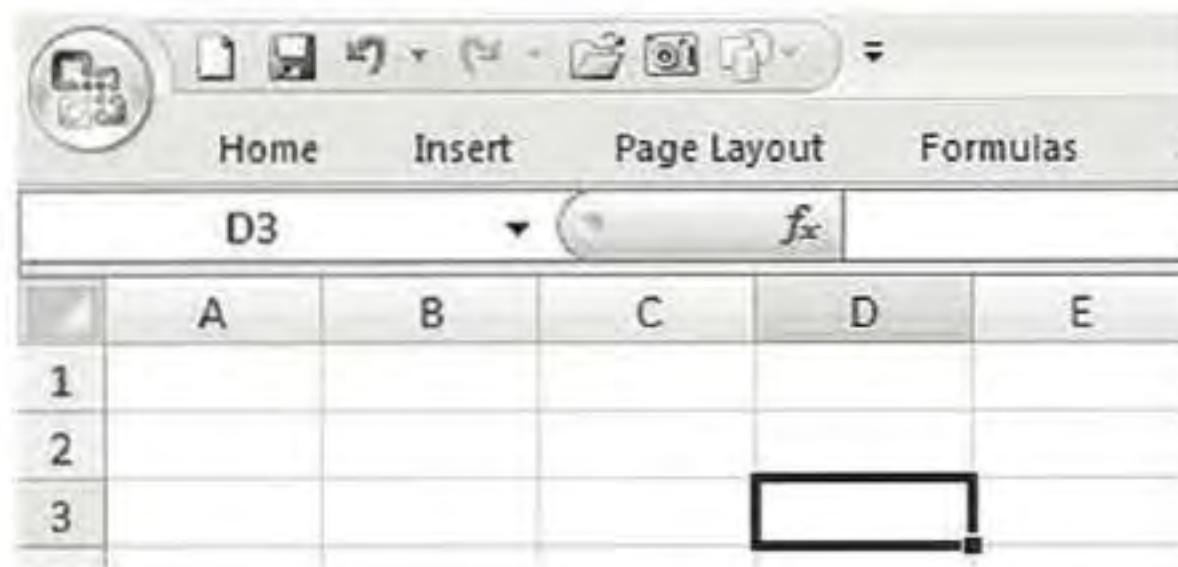
B	C	D
0		

– Excel would change it for you!



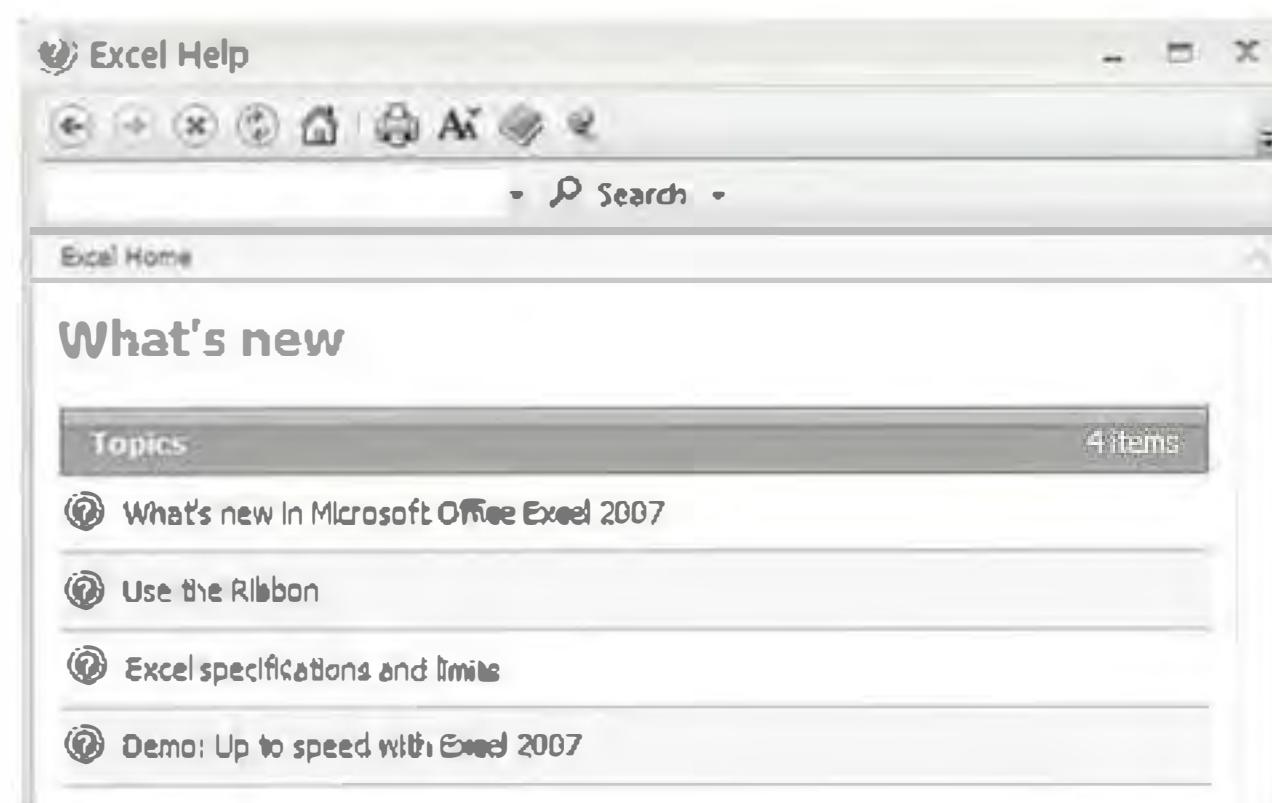
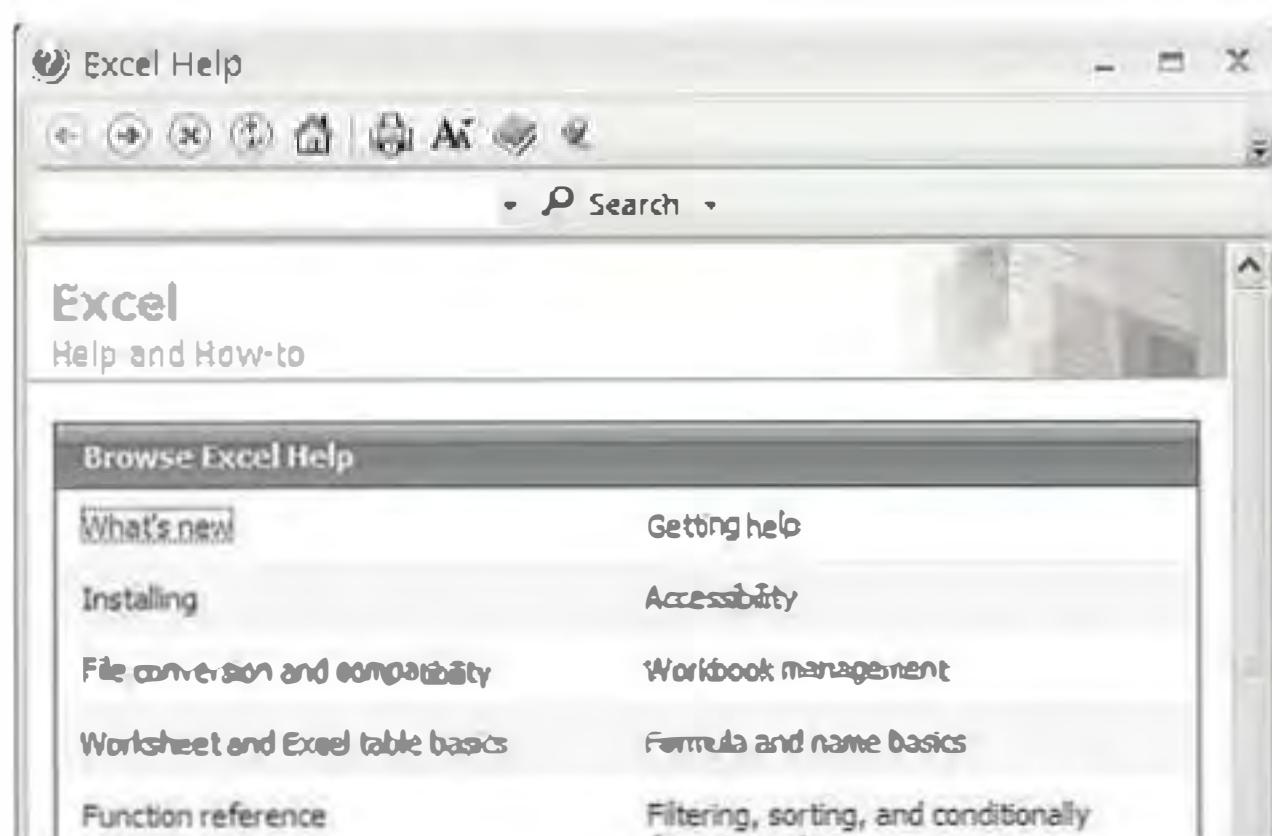
## 90. More miscellaneous info

You can double-click a tab name to hide the ribbon:



Double click it again and it's back.

Lastly, you should press F1 for help on all the new features of Excel 2007  
There are so many!

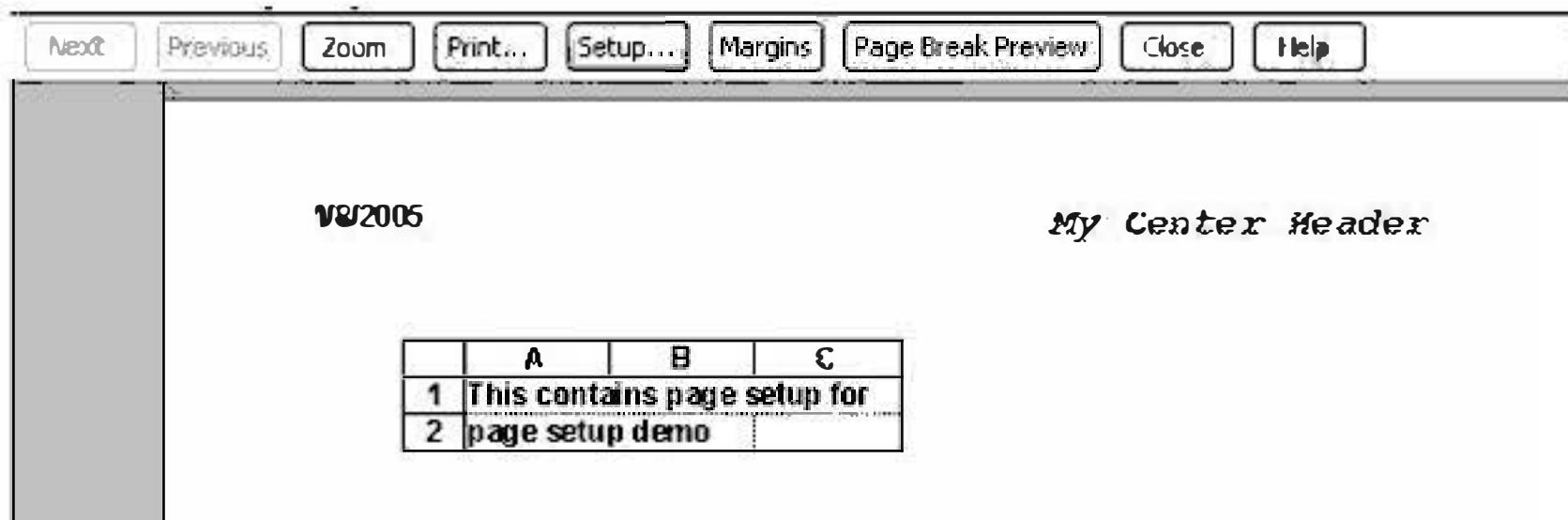


And don't forget to watch the demo!



## 91. Copy Page Setups to other sheets

If Sheet1 has the setup you want and Sheet2 is to receive the same settings:  
Here's what the print preview looks like for sheet1:



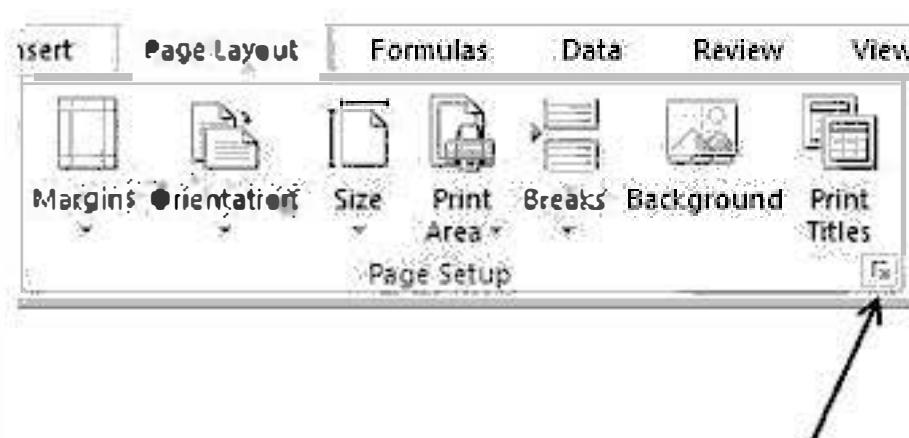
And sheet2:

The print preview window shows a portrait-oriented document. It contains a table with data from 1/1/2003 to 8/1/2003, with columns for dates, values, and percentages. There are no gridlines or headers present.

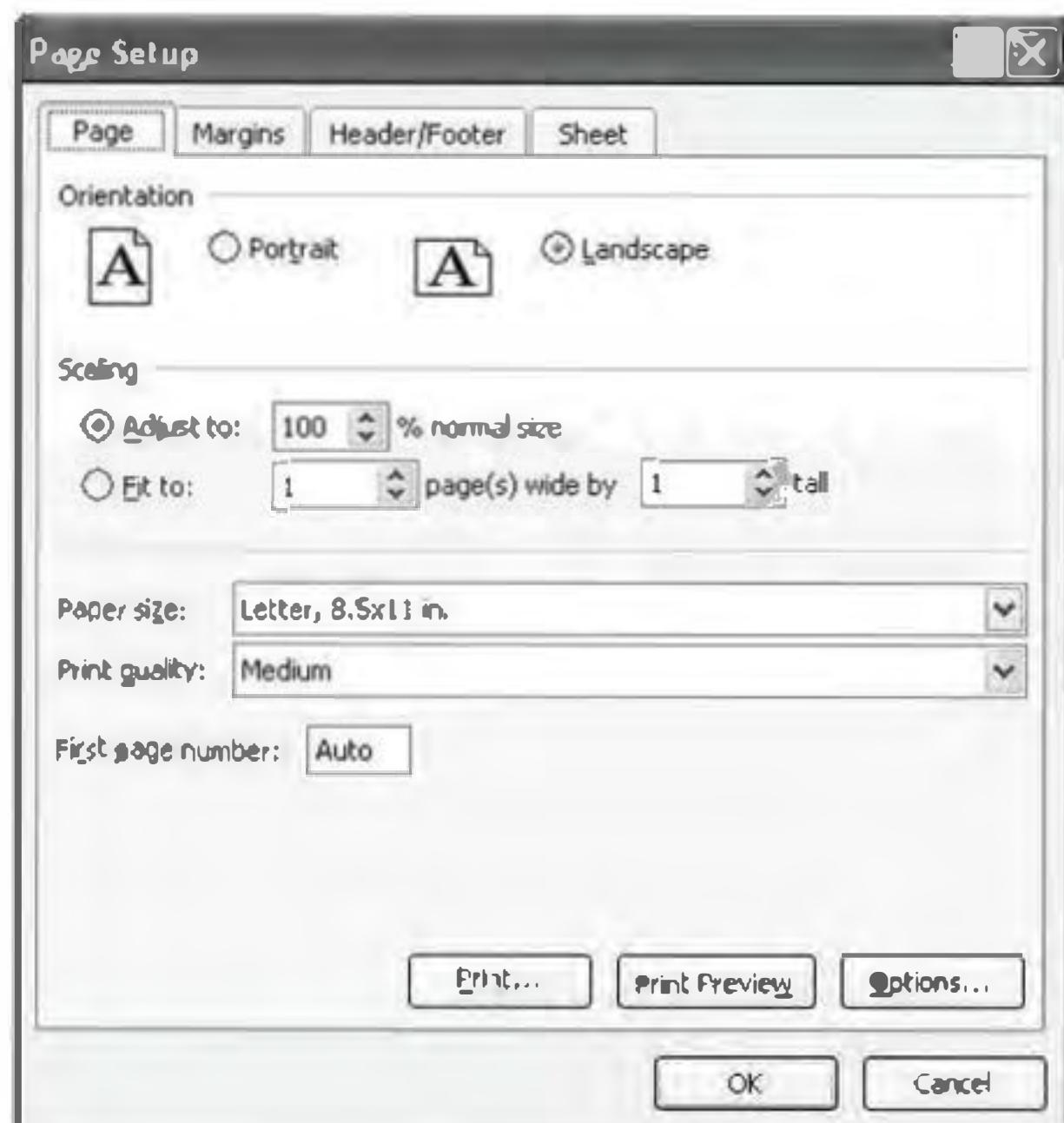
1/1/2003	63	72
2/1/2003	70	80
3/1/2003	77	88
4/1/2003	84	96
5/1/2003	91	104
6/1/2003	98	112
7/1/2003	105	120
8/1/2003	112	128

So, you can see that Sheet2 is portrait and has no left/center header, while sheet1 has landscape, has an italicized center header, a date for the left header, and the data is shown with gridlines and row & column headings. We'd like sheet2's settings to be the same as sheet1's settings. Here's how to do it:

1. Put both sheets in group edit (with Sheet1 active, ctrl/click Sheet2—you can also shift/click, but if you're using sheets which aren't next to each other, ctrl/click will only put the 2nd sheet in group mode, whereas shift/click will put all the sheets in-between in group mode).
2. Use dialog arrow in the Page Setup section of the Page Layout Tab to bring up the Page Setup dialog. [Excel 2003: File|Page Setup]



...which displays:



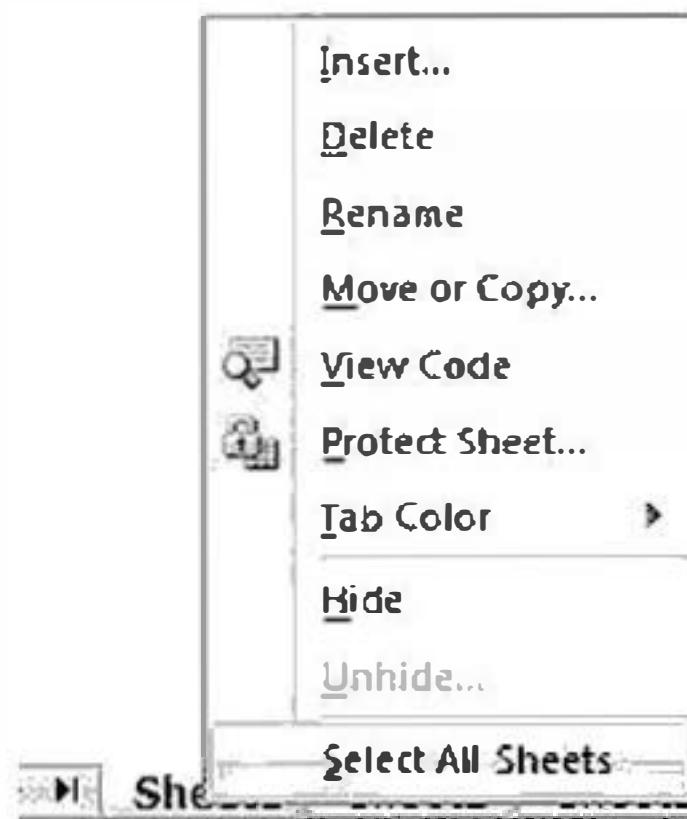
3. Click OK (you don't even have to look at the settings!)
4. Get out of group edit (shift click a sheet tab), or right-click a sheet tab and select Ungroup Sheets
5. That's it. Really! Here's Sheet2 now:

A Microsoft Word document window titled 'My Center Reader' is shown. The date '1/8/2005' is in the top left. The table data is identical to the one in the previous screenshot.

	F	G	H	I
7				
8				
9	1/1/2003	63	72	
10	2/1/2003	70	80	
11	3/1/2003	77	88	
12	4/1/2003	84	96	
13	5/1/2003	91	104	
14	6/1/2003	98	112	
15	7/1/2003	105	120	
16	8/1/2003	112	128	

You can do this with >1 sheet at a time, or even the entire workbook. To do it for more than 1 sheet, simply put all the sheets in group mode and have the sheet with the settings you want to copy be the active sheet. Then Page setup/OK/get out of group mode!

To do the entire workbook, right-click a sheet tab, select “Select All Sheets,” and repeat the process.



Don't forget to get out of group mode!

## 92. Copy Page Setups across workbooks

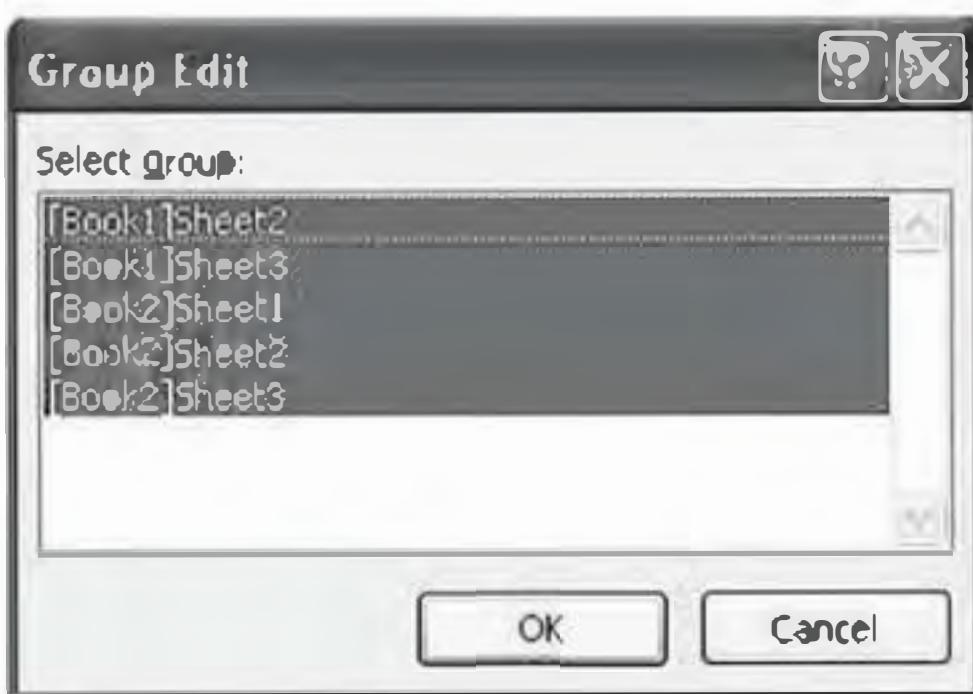
You can temporarily copy in the sheet from the desired settings to the second workbook and proceed as in previous tip.

But this method brings in names, styles, number formats, and links as well. Here's another approach which avoids that problem.

Using VBA, run this command:

`Application.Dialogs(xlDialogWorkgroup).Show.This` puts all open workbooks and worksheets in group edit mode.

With workbooks Book1 and Book2 open, that produces this dialog:

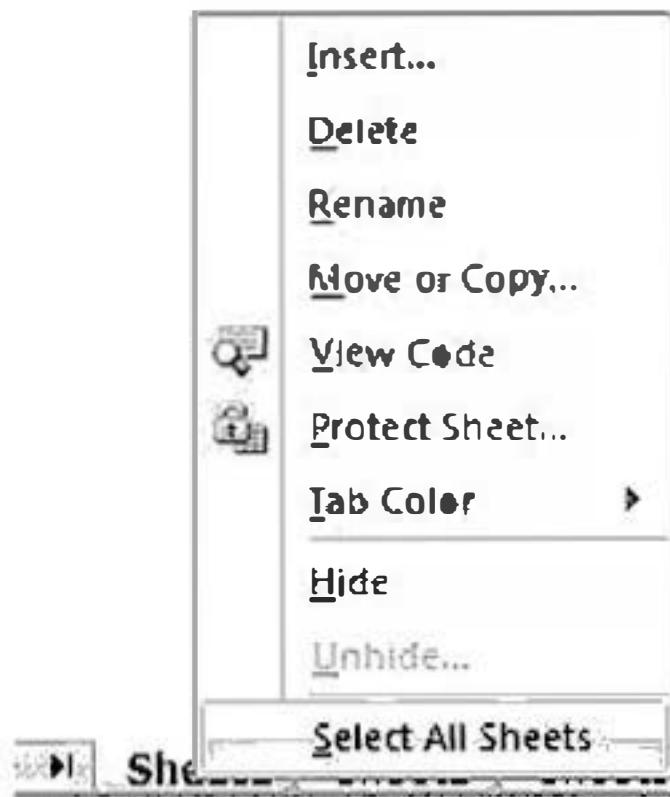


Selecting the sheets which contain the page setups to be copied, you can then simply issue the File/Page Setup command as before. Once again, make sure that the sheet with the proper Page Setup is the active sheet, because selecting any other sheet will take you out of group mode.

And, once again, don't forget to get out of group edit mode!

## 93. Print many worksheets at once

To do this, just put them in group mode:  
Right-click sheet tab & choose "Select All Sheets:"



Or ctrl/click specific sheets to print.

Then Print!

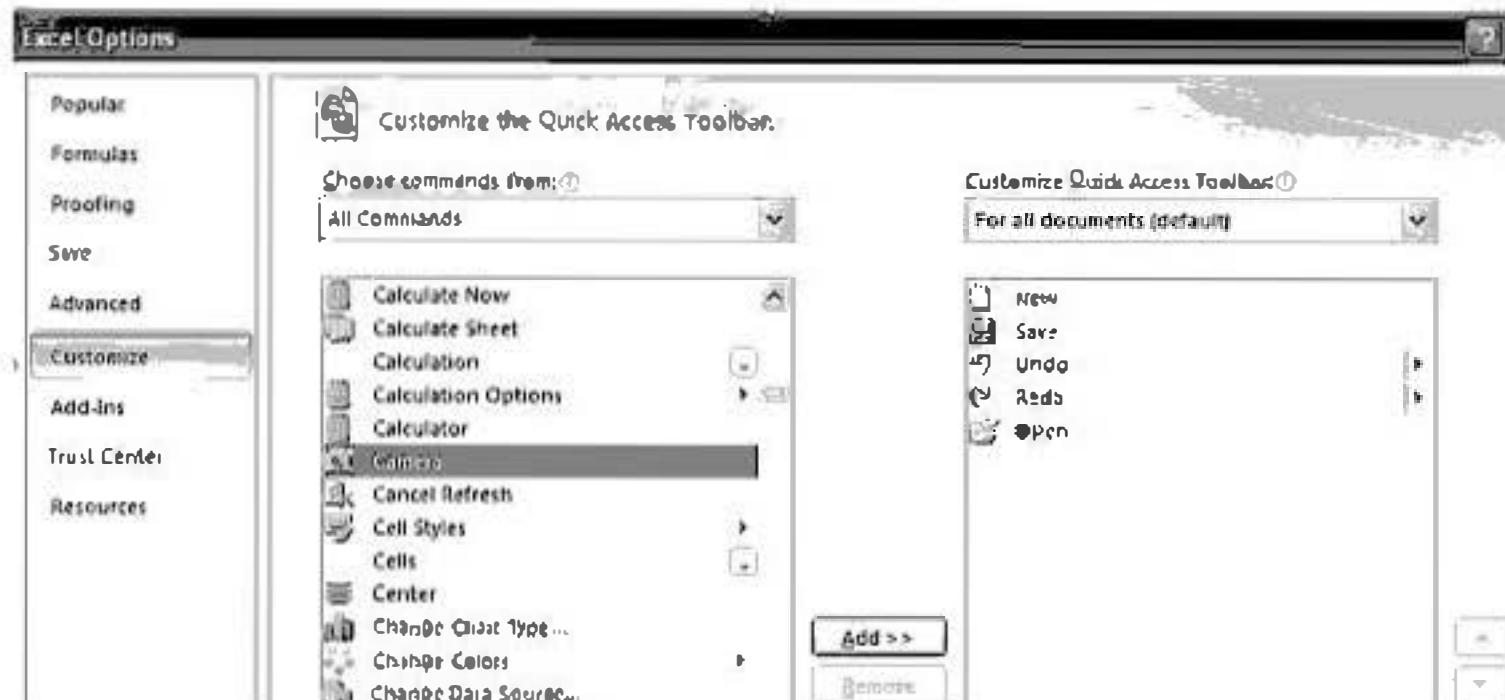
Don't forget to take the sheets out of Group Mode, which you can do by shift/clicking any sheet.

## 94. Print remote areas on same page

To do this, use the camera tool. You can get it by putting it into the Quick Access toolbar. Click the Office button, then Excel Options: [Excel 2003: View|Toolbars|Customize|Commands tab|Tools from Categories|Camera (~2/3 the way down) in Commands]



which brings up the following dialog. You will have to select the Customize option, then select All Commands from the "choose commands from" dropdown, then scroll down until you see Camera (they're alphabetical):



Next, select the remote cells, and click camera tool.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Area1	Area1	Area1	Area1	Area1											
2	Area1	Area1	Area1	Area1	Area1											
3	Area1	Area1	Area1	Area1	Area1											
4	Area1	Area1	Area1	Area1	Area1											
5	Area1	Area1	Area1	Area1	Area1											
6	Area1	Area1	Area1	Area1	Area1											
7	Area1	Area1	Area1	Area1	Area1											
8	Area1	Area1	Area1	Area1	Area1											
9	Area1	Area1	Area1	Area1	Area1											
10	Area1	Area1	Area1	Area1	Area1											
11	Area1	Area1	Area1	Area1	Area1											
12	Area1	Area1	Area1	Area1	Area1											
13						Area2	Area2	Area2	Area2	Area2						
14						Area2	Area2	Area2	Area2	Area2						
15						Area2	Area2	Area2	Area2	Area2						
16						Area2	Area2	Area2	Area2	Area2						
17						Area2	Area2	Area2	Area2	Area2						
18						Area2	Area2	Area2	Area2	Area2						

“Develop” the picture near the original range by clicking where you want the picture to go.

	A	B	C	D	E	F
1	Area1	Area1	Area1	Area1	Area1	Area1
2	Area1	Area1	Area1	Area1	Area1	Area1
3	Area1	Area1	Area1	Area1	Area1	Area1
4	Area1	Area1	Area1	Area1	Area1	Area1
5	Area1	Area1	Area1	Area1	Area1	Area1
6	Area1	Area1	Area1	Area1	Area1	Area1
7	Area1	Area1	Area1	Area1	Area1	Area1
8	Area1	Area1	Area1	Area1	Area1	Area1
9	Area1	Area1	Area1	Area1	Area1	Area1
10	Area1	Area1	Area1	Area1	Area1	Area1
11	Area1	Area1	Area1	Area1	Area1	Area1
12	Area1	Area1	Area1	Area1	Area1	Area1
13	Area2	Area2	Area2	Area2	Area2	Area2
14	Area2	Area2	Area2	Area2	Area2	Area2
15	Area2	Area2	Area2	Area2	Area2	Area2
16	Area2	Area2	Area2	Area2	Area2	Area2
17	Area2	Area2	Area2	Area2	Area2	Area2
18	Area2	Area2	Area2	Area2	Area2	Area2

If you hold the Alt key, the picture will exactly line up with the closest cell grid.

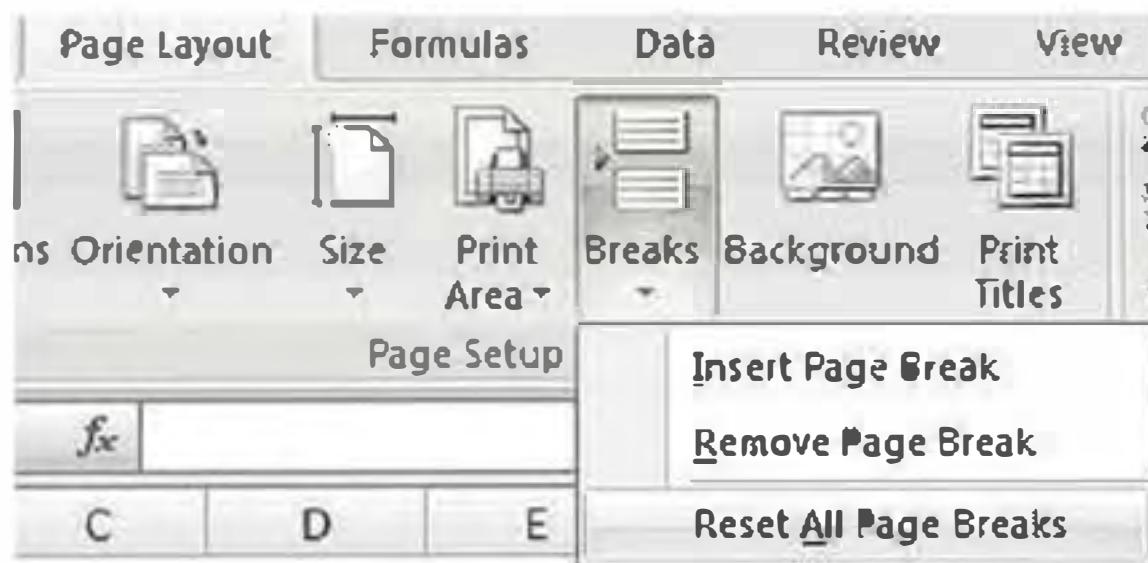
For best results, you want to turn off the gridlines and removing the border after the picture is shown. (Note the address in the formula bar).

	A	B	C	D	E
1	Area1	Area1	Area1	Area1	Area1
2	Area1	Area1	Area1	Area1	Area1
3	Area1	Area1	Area1	Area1	Area1
4	Area1	Area1	Area1	Area1	Area1
5	Area1	Area1	Area1	Area1	Area1
6	Area1	Area1	Area1	Area1	Area1
7	Area1	Area1	Area1	Area1	Area1
8	Area1	Area1	Area1	Area1	Area1
9	Area1	Area1	Area1	Area1	Area1
10	Area1	Area1	Area1	Area1	Area1
11	Area1	Area1	Area1	Area1	Area1
12	Area1	Area1	Area1	Area1	Area1
13	Area2	Area2	Area2	Area2	Area2
14	Area2	Area2	Area2	Area2	Area2
15	Area2	Area2	Area2	Area2	Area2
16	Area2	Area2	Area2	Area2	Area2
17	Area2	Area2	Area2	Area2	Area2
18	Area2	Area2	Area2	Area2	Area2
19					

Now select the cells to print, including the cells “behind” the picture and set the print area, then print! It will print on one page instead of one page for each remote area!

## 95. Reset all page breaks caution

If you have a Page Setup which includes a setting like Adjust to 80% normal size, this also gets reset to 100% by the Reset All Page Breaks command found in the Page setup section of the Page Layout tab: [Excel 2003: Select all cells|Insert|Reset All Page Breaks]

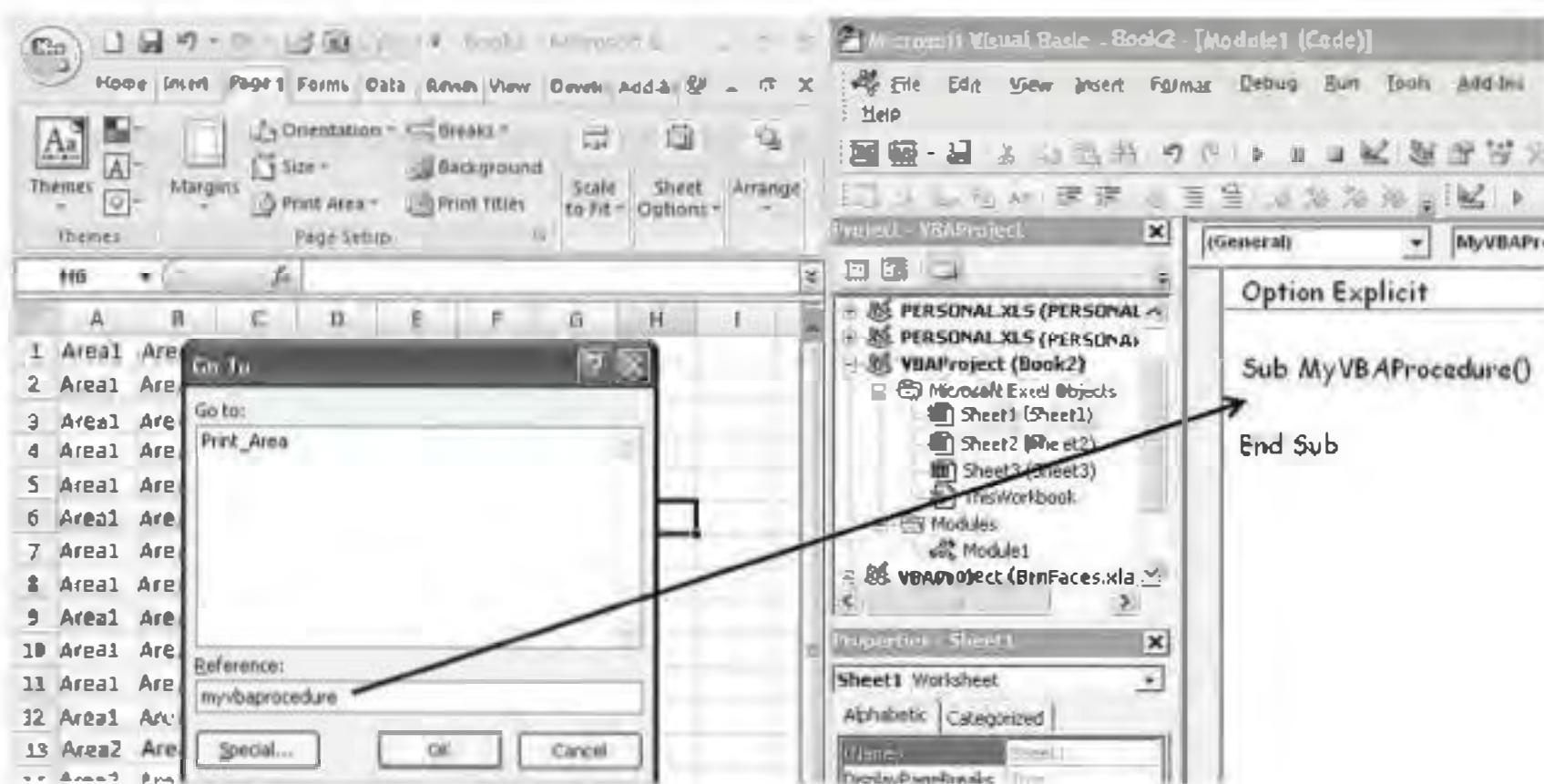


Not nice!

## 96. Getting to your Visual Basic routine by F5 (go to) from the worksheet

If you know the name of your Visual Basic subroutine you can get to it quickly just as if it were a range name! This assumes, of course, that the VBA project is not protected!

Edit/Goto (F5) and enter the name of the procedure! This is also true if you type the name in the Name box.

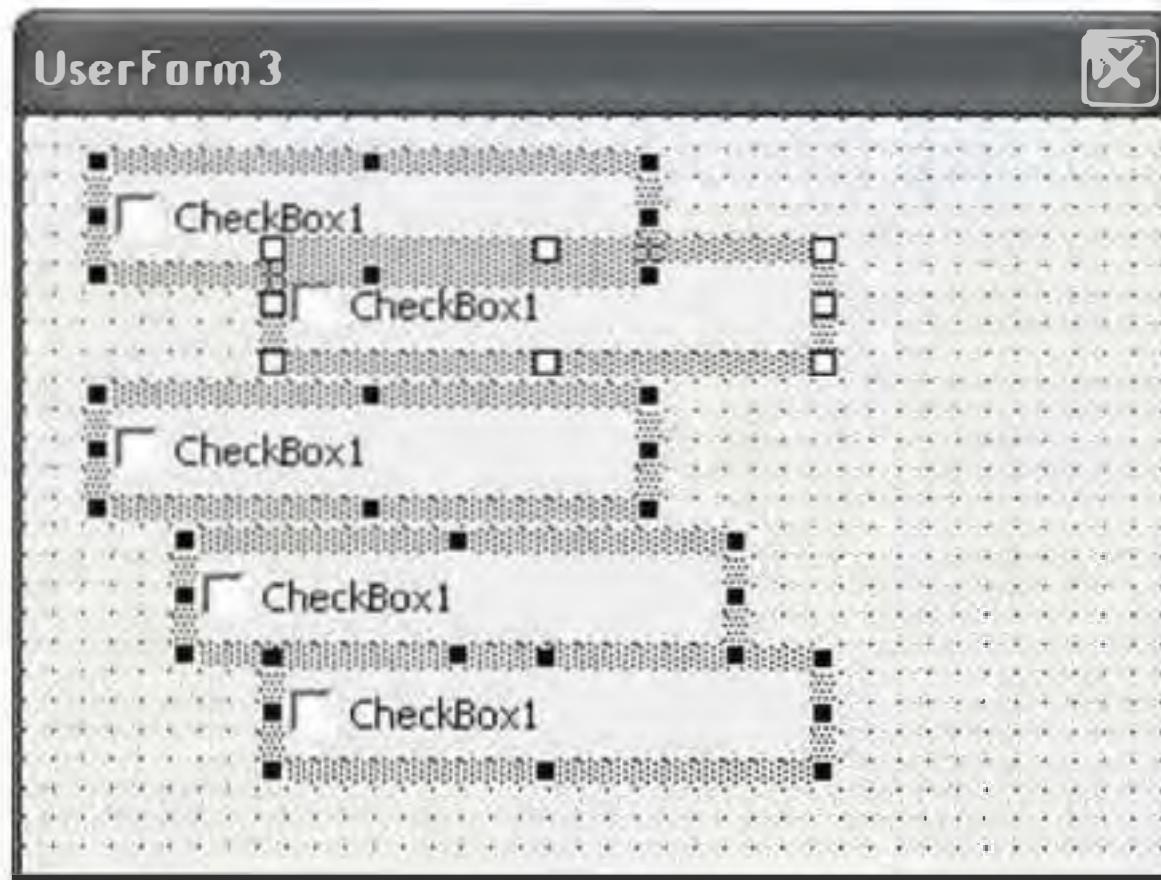


## **97. Can't find the old Excel 2003 commands? Use this feature!**

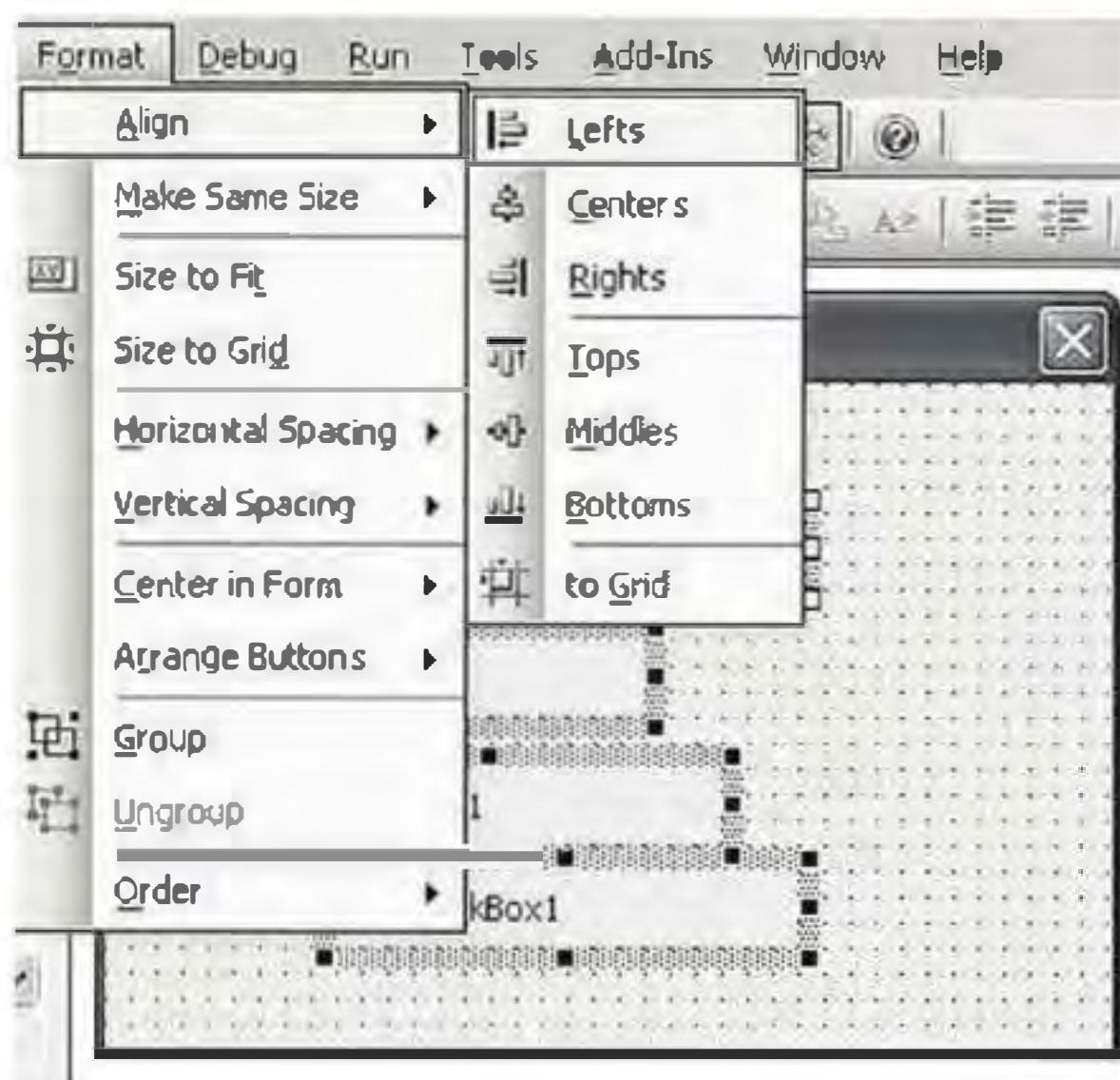
Press F1 (Help). Then click What's New. Then click "Reference: Locations of Excel 2003 commands in Excel 2007." Then scroll to the very bottom and click "Interactive: Excel 2003 to Excel 2007 command reference guide." Then click Start the Guide (requires Adobe Flash Player 7.0 or later). Then click Start. You'll see Excel 2003 commands. When you try one, you'll see how/where it's done in Excel 2007.

## 98. Aligning Userform objects

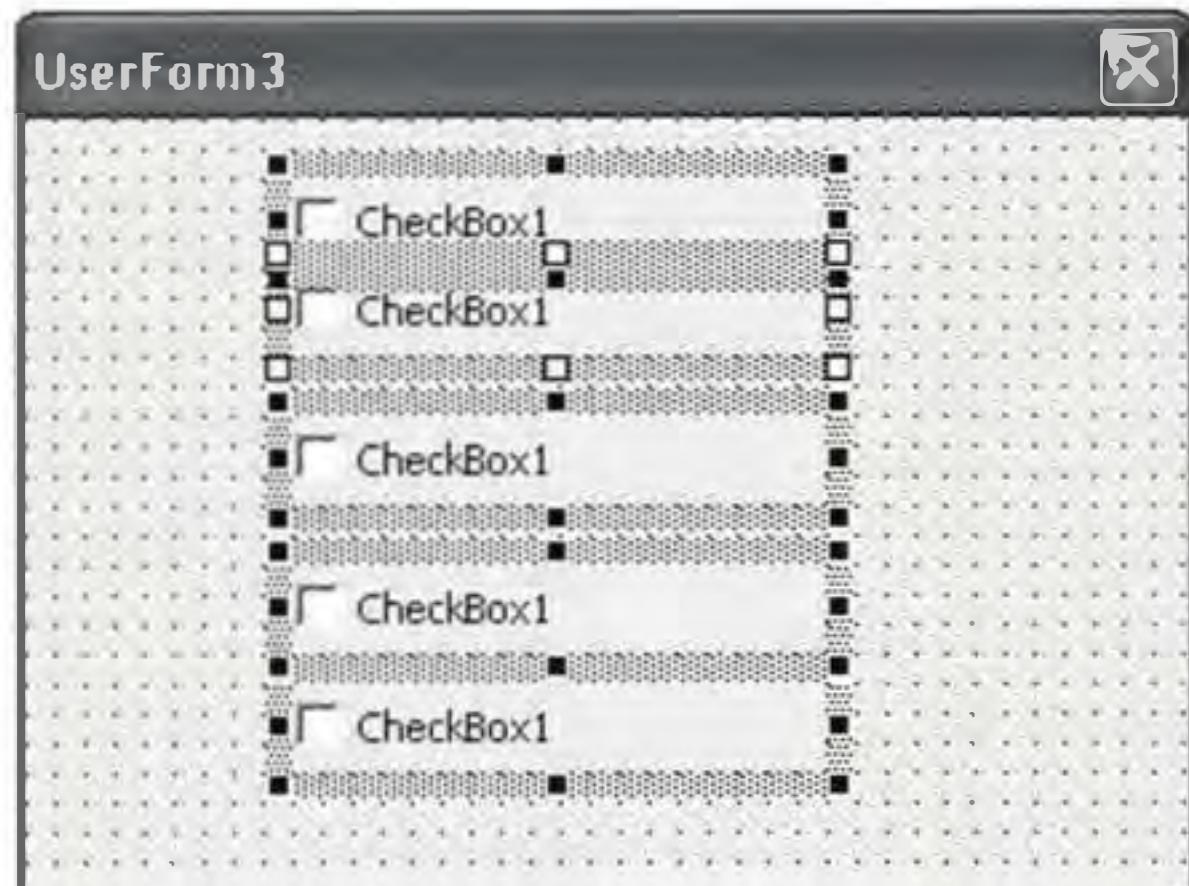
Selecting more than one object will show one with white handles, others with black handles.



Notice the 2nd one has white handles. This one is the one used for aligning:



This becomes:

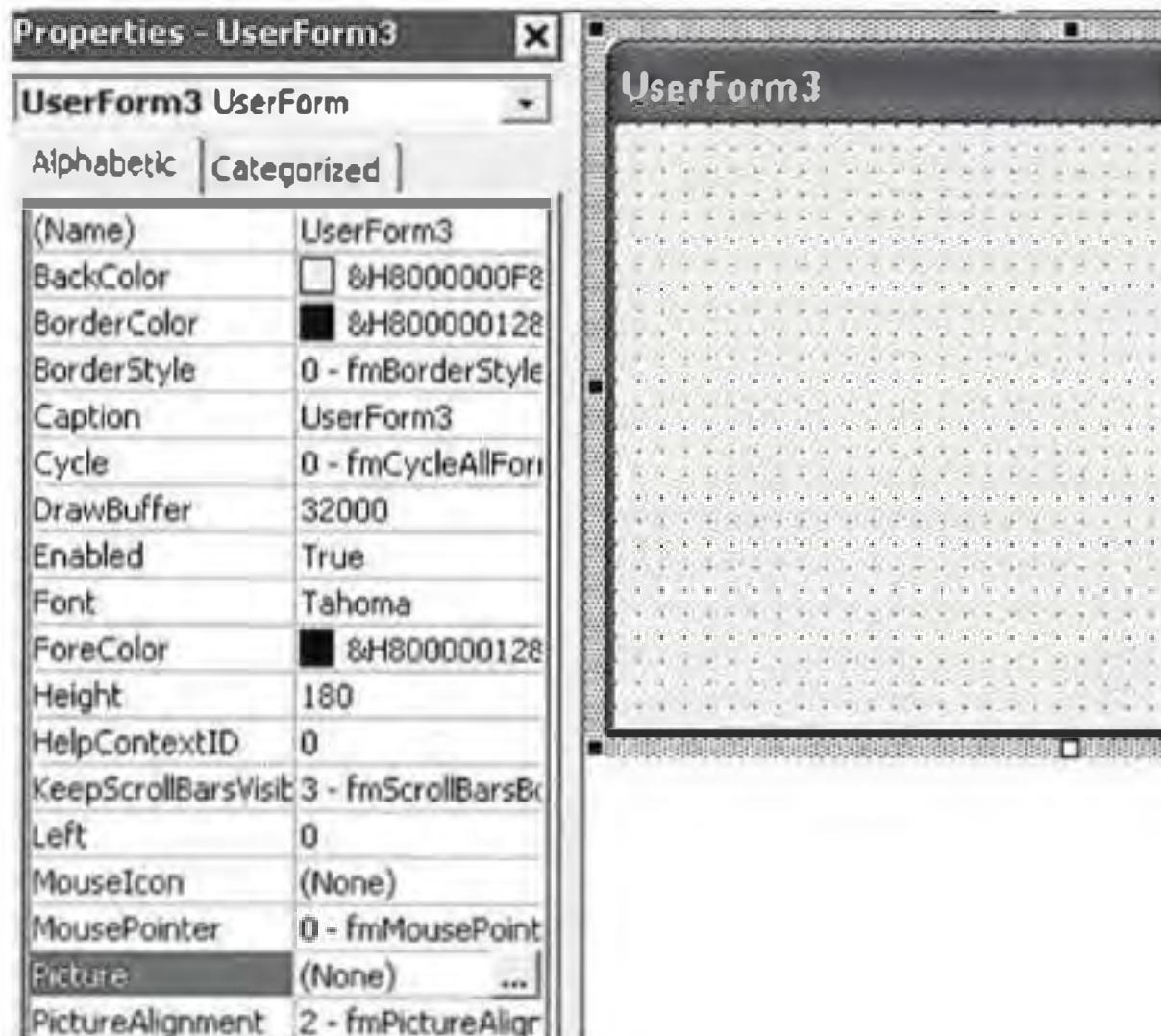


## 99. Put pictures in Userforms from the clipboard

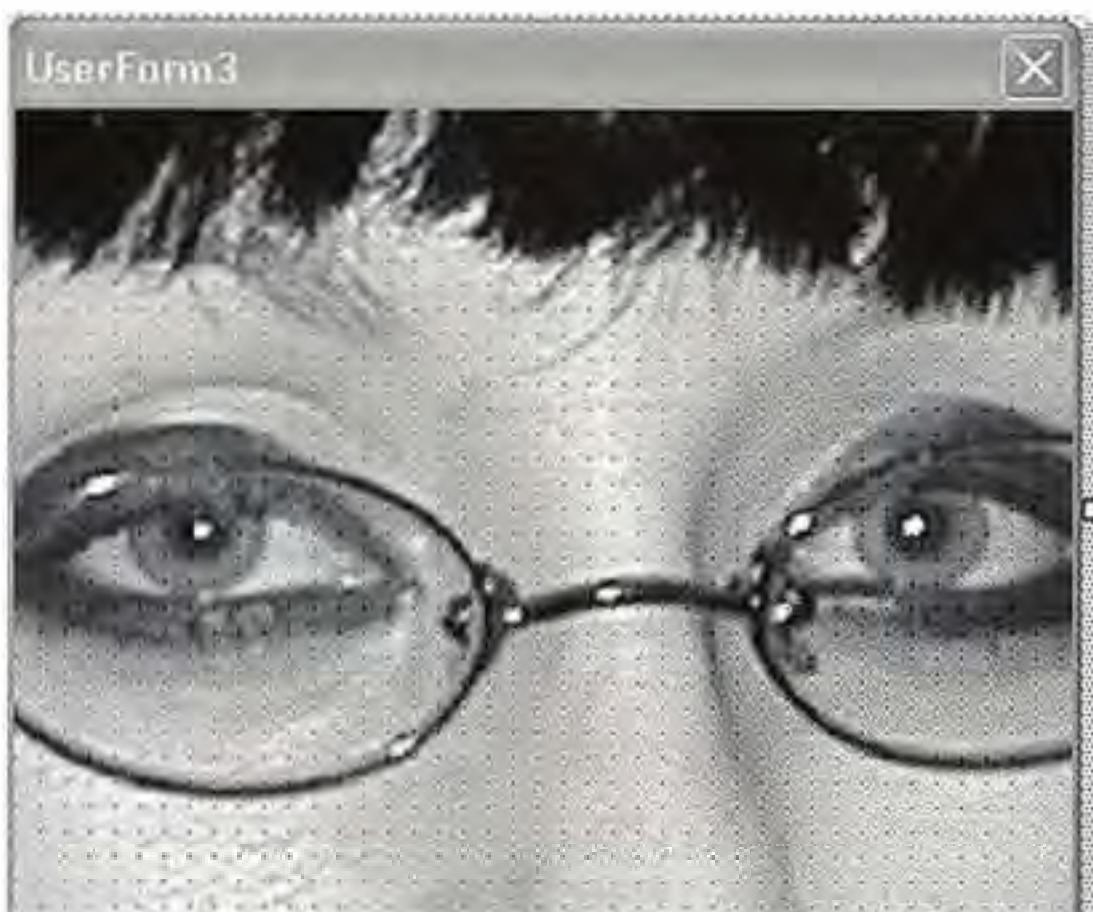
Copy any picture into the clipboard.

Access the Userform, and click in the Picture property.

Even though the picture you want is in the clipboard, the Paste command in the Edit menu is dim. But you can paste into the picture property with **ctrl/v!**



You can remove the picture via **ctrl/x**.



## 100. Make your own tools for forms

You're always creating an OK and Cancel pair of buttons, right? Well, you can save them! Select them both and drag directly onto the toolbox!



You can then use this new tool to drag both OK & Cancel buttons onto any new Userform.

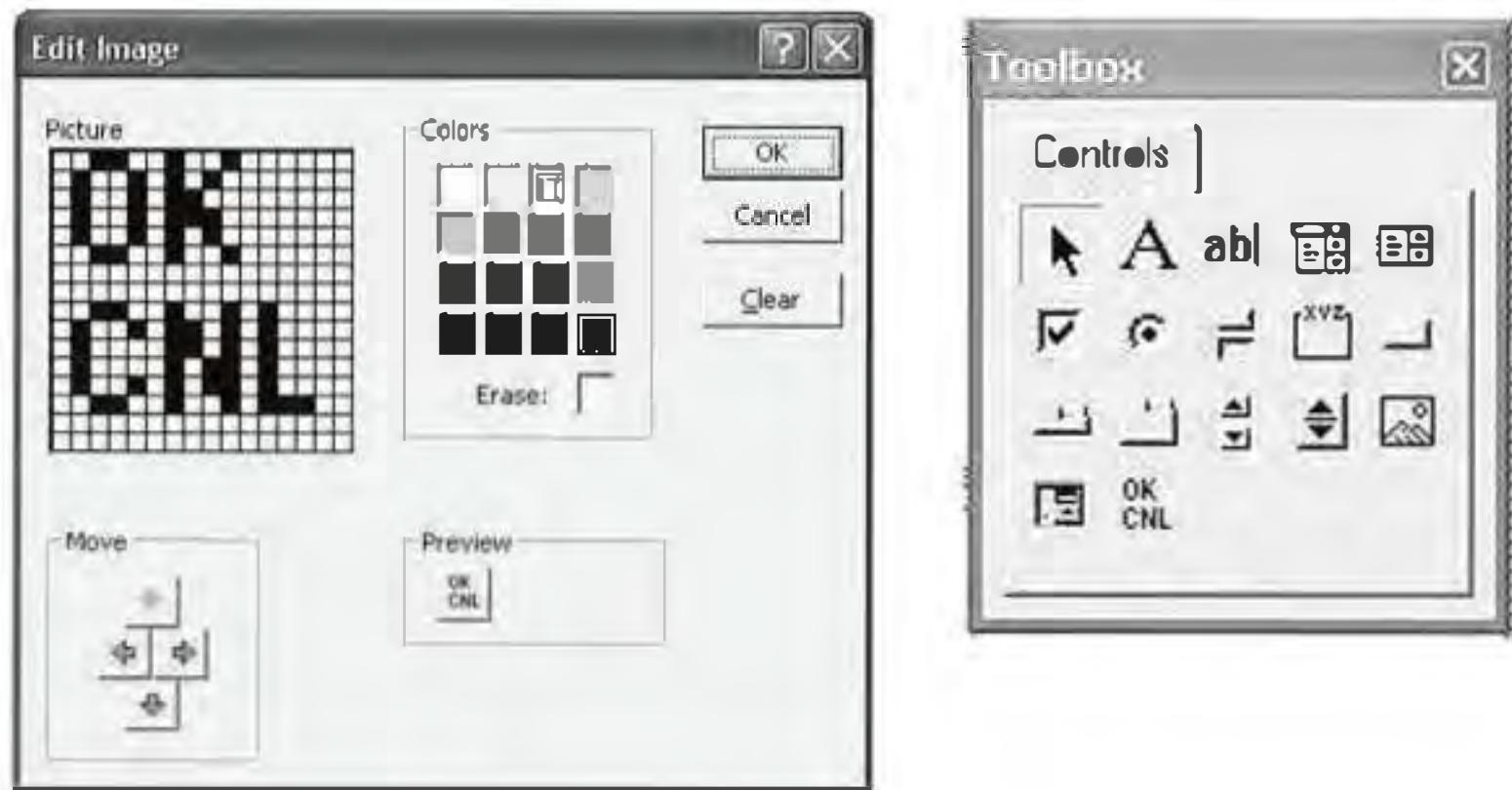
If you right-mouse click this new tool, you get



and by selecting “Customize New Group,” you will see these options:



which you can edit (Edit Picture) to become:



You can save any combinations for easy future development. And they're available in all future sessions of Excel to drag out of the toolbox onto your form. Only the design is kept, not any code behind the objects.

You can also place these on your own Controls "page"—if you right-click the Controls tab you'll see this:



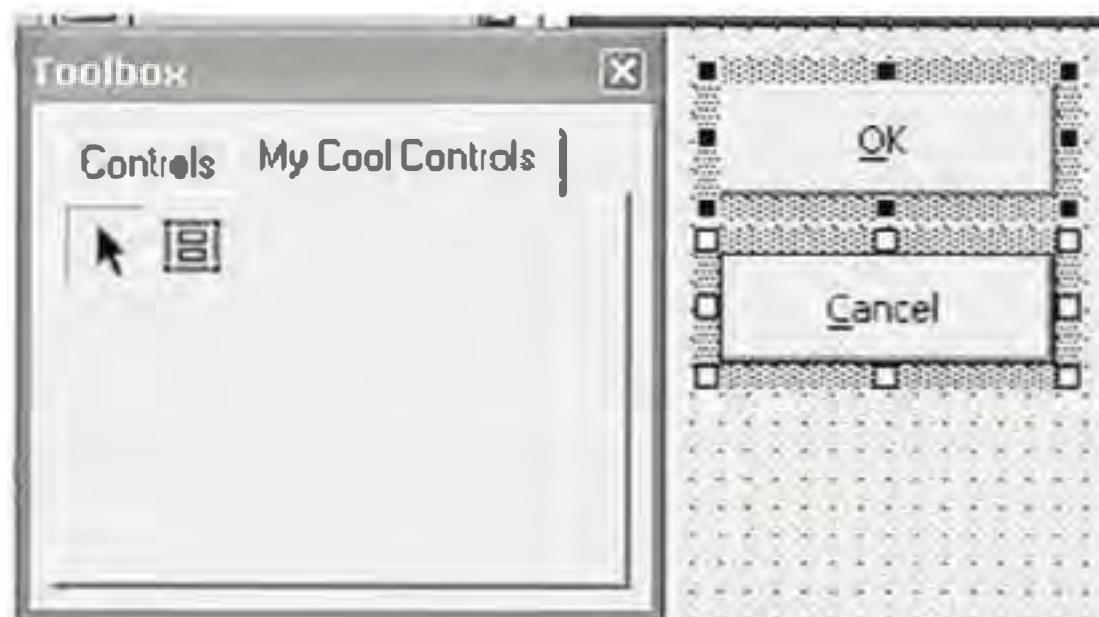
Selecting New Page and right-clicking this tab, you'll see:



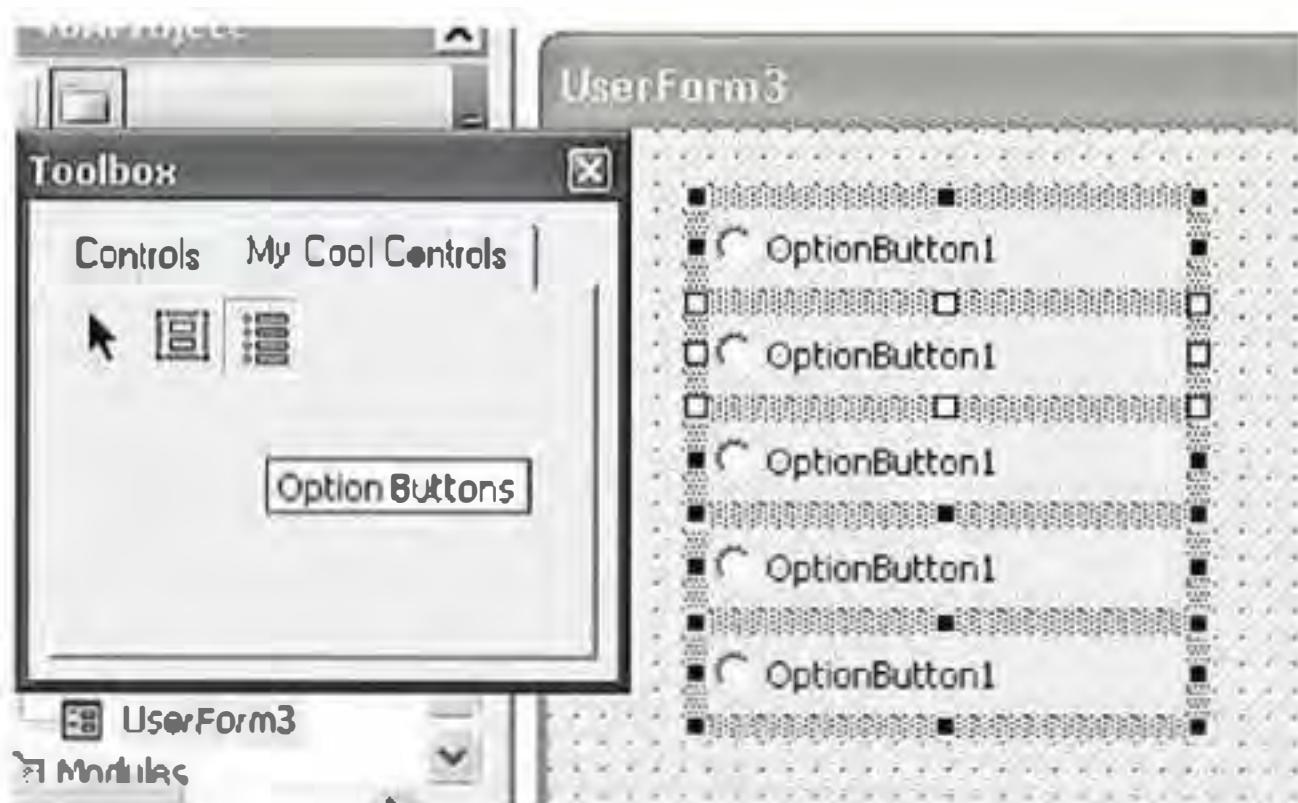
which yields:



or:



And now you can see you can store a whole library of controls:



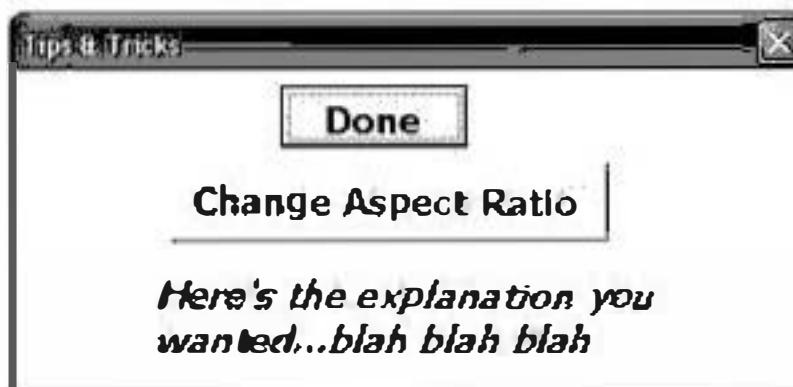
Just drag them from the control toolbox onto your userform!

# 101. Using invisible objects

Suppose you have this simple form:



Wouldn't it be cool to show text simply by hovering (no click necessary) the mouse over an object? We'll show how you can have "Here's the explanation you wanted...blah blah blah" when the cursor moves over the "Change Aspect Ratio" button:



Here's the "magic" code to do that. First, the label has its "visible" property set to False, so it doesn't show up when you first show the form. Here's the code for the MouseMove event over the Change Aspect Ratio button:

```
Private Sub CommandButton2_MouseMove(ByVal Button As Integer, ByVal Shift As Integer, ByVal X As Single, ByVal Y As Single)
    Me.Label1.Visible = True
End Sub
```

The "meat" of this command is simply to make the label ("Label1") visible. So whenever the mouse hovers over the button you see it. But you also need to make the label invisible when the mouse is no longer hovering over the button. There's no MouseNoLongerMove event! So, you need to place another mouse move event over the form itself:

```
Private Sub UserForm_MouseMove(ByVal Button As Integer, ByVal Shift As Integer, ByVal X As Single, ByVal Y As Single)
    Me.Label1.Visible = False
End Sub
```

Now, when the mouse is over the form the label disappears, and when it's over the button it shows up!

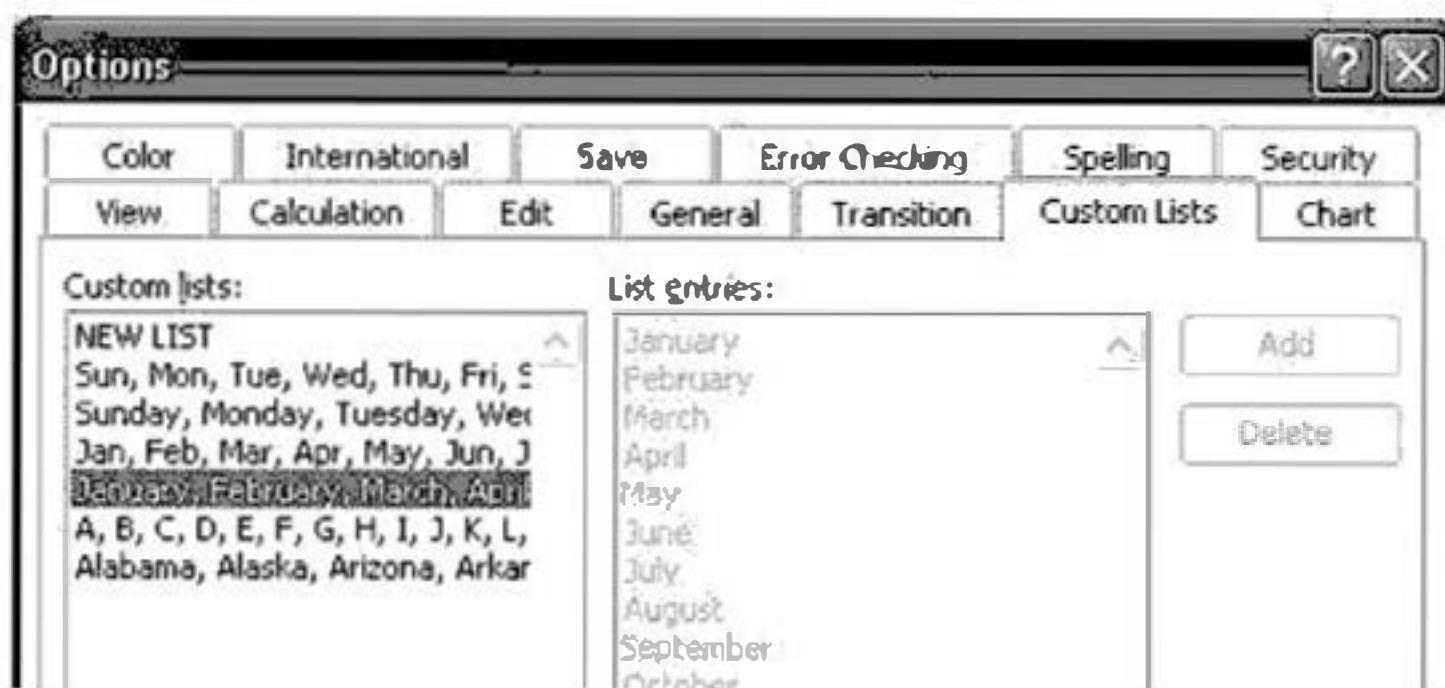
## 102. Initialize Listboxes, Comboboxes with Months via GetCustomListContents

Much more efficient than setting up some range containing the list of months, you can put this code into the initialize event of the form:

```
Private Sub UserForm_Initialize()
Me.ListBox1.List = Application.GetCustomListContents(4)
End Sub
```



Application.GetCustomListContents(4) refers to the 4th item in the Custom Lists (accessed from Office Button/Excel Options/Popular/Edit Custom Lists) [Excel 2003: Tools|Options|Custom Lists]



If you want to show days of the week, you'd use Application.GetCustomListContents(2)!

## 103. Using Microsoft Visual Basic bookmarks

Microsoft Visual Basic has an Edit Toolbar which has, among other things, the ability to put bookmarks into your code, temporarily (they won't save).



It makes getting to a location in code very easy to access. It shows up as a blue flag in the margin of the code:

The image shows a portion of VBA code in the editor. The code consists of two sub-procedures: 'CommandButton2\_MouseMove' and 'UserForm\_MouseMove'. The first procedure contains the line 'Me.Label1.Visible = True'. The second procedure contains the line 'Me.Label1.Visible = False'. A small blue flag icon, representing a bookmark, is positioned in the margin next to the start of the 'UserForm...' line. The 'VBA' logo is visible on the far right edge of the page.

```
Private Sub CommandButton2_MouseMove(ByVal Button As Integer, ByVal Shift As Integer, ByVal X As Single, ByVal Y As Single)
    Me.Label1.Visible = True
End Sub
Private Sub UserForm_MouseMove(ByVal Button As Integer, ByVal Shift As Integer, ByVal X As Single, ByVal Y As Single)
    Me.Label1.Visible = False
End Sub
```

You can mark code even across projects, and as you click the Next or Previous Bookmark button, it will immediately take you to that section of code. You can even bookmark the immediate window(!), but you won't see the indicator because the immediate window has no margin. But you'll see the cursor blinking in the immediate window!

 NEW

## 104. VBA Array

Suppose you needed to access a strange sequence of numbers, like 4,13,19,20,28,44,123. Perhaps these are rows you need to work on. You can get to them in a loop with this technique:

```
Sub AccessRows()
    For i = 0 To 6
        j = Array(4, 13, 19, 20, 28, 44, 123)(i)
        Rows(j).Font.Bold = True 'for example
    Next
End Sub
```

The statement `Array(4,13,19,20,28,44,123)` has 7 elements in it, numbered 0 through 6 (unless Option Base 1 is supplied at the top of the module). So the first element has a subscript of 0 and can be referenced by `Array(4,13,19,20,28,44,123)(0)`, which would be a 4. The 123 is `Array(4,13,19,20,28,44,123)(6)`. So, using `i` as a subscript, `j` takes on the successive values in the array list.

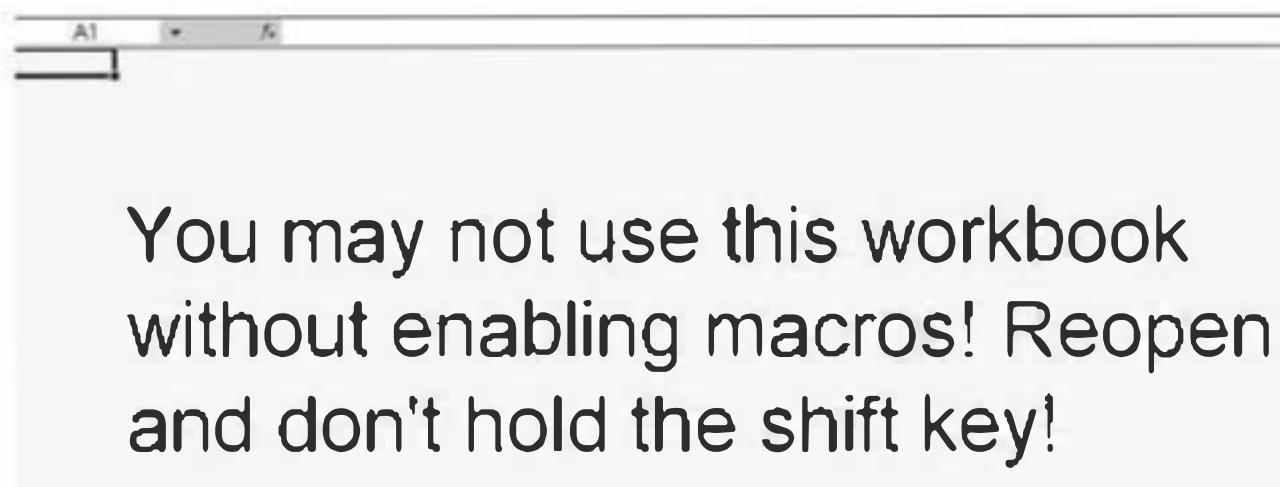
Here's another way to do the same thing. And since loops are so fast, you might simply prefer this way:

```
Sub AccessRows()
    For i = 4 To 123
        Select Case i
            Case 4, 13, 19, 20, 28, 44, 123
                Rows(i).Font.Bold = True
        End Select
    Next
End Sub
```

**NEW**

## 105. Ensuring users don't open your workbook with the shift key down to prevent your macros from kicking in!

Here's a simple technique to ensure they allow your macros to run. Save the workbook with only one sheet showing, and that sheet may look like this:

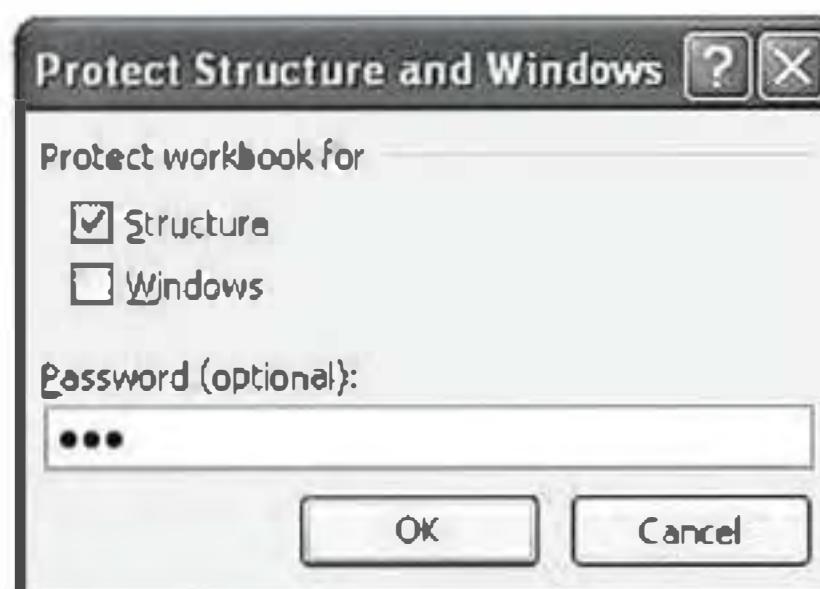


Prevent them from unhiding any other sheets by protecting the workbook's structure with a password.

Use Protect Workbook/Protect Structure and Windows from the Changes section of the Review tab [Excel 2003:Tools/Protection/Protect Workbook]:



Then supply a password:



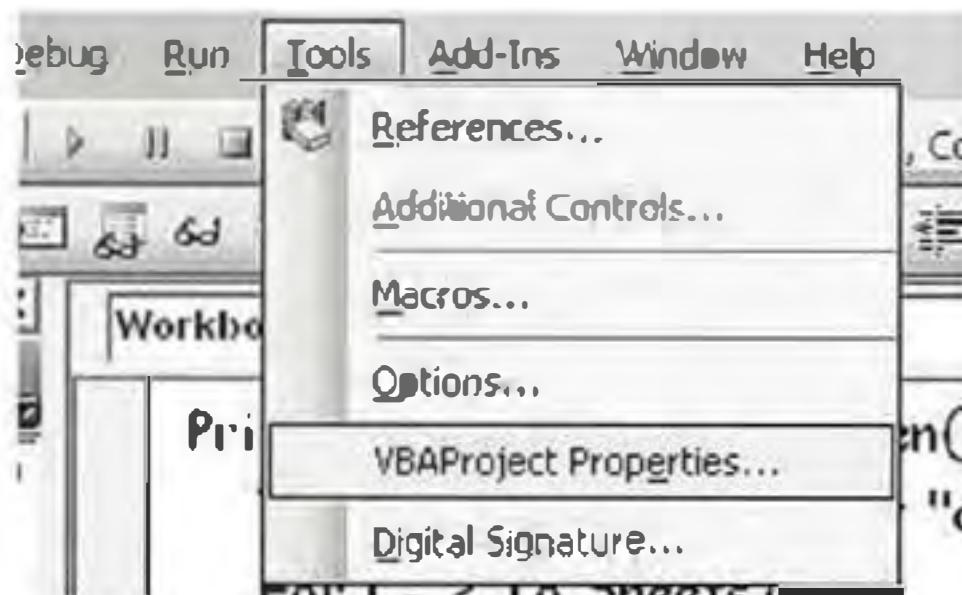
Your Workbook\_Open event procedure or Auto\_Open procedure has the code to hide the message sheet and unhide the other sheets by unprotecting the workbook and supplying the password:

```
Workbook Open
Private Sub Workbook_Open()
    ThisWorkbook.Unprotect "abc"
    For i = 2 To Sheets.Count
        Sheets(i).Visible = True
    Next
    Sheets(1).Visible = False
End Sub

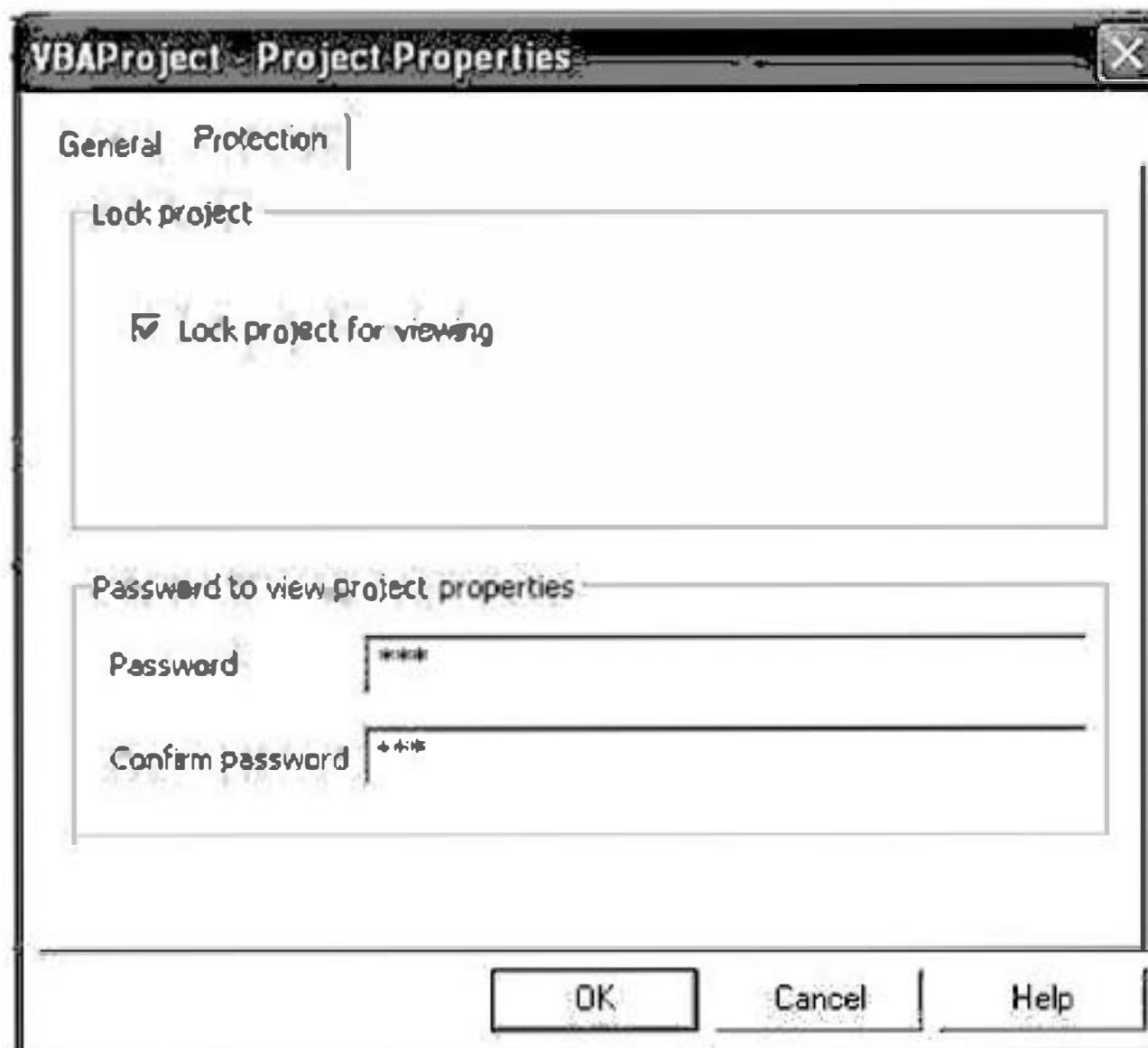
Private Sub Workbook_BeforeClose(Cancel As Boolean)
    Sheets(1).Visible = True
    For i = 2 To Sheets.Count
        Sheets(i).Visible = False
    Next
    ThisWorkbook.Protect "abc", Structure:=True
End Sub
```

Notice also that before the workbook is closed, it also resets the sheets back for the next time, hiding all sheets except the message sheet. It's turned to visible first because you can't hide all the sheets in a workbook!

Lastly, you can protect access to the VBA code by using this in the VBE:



And then:



So now, if the user opens the workbook with the shift key down, it's a fairly useless workbook!

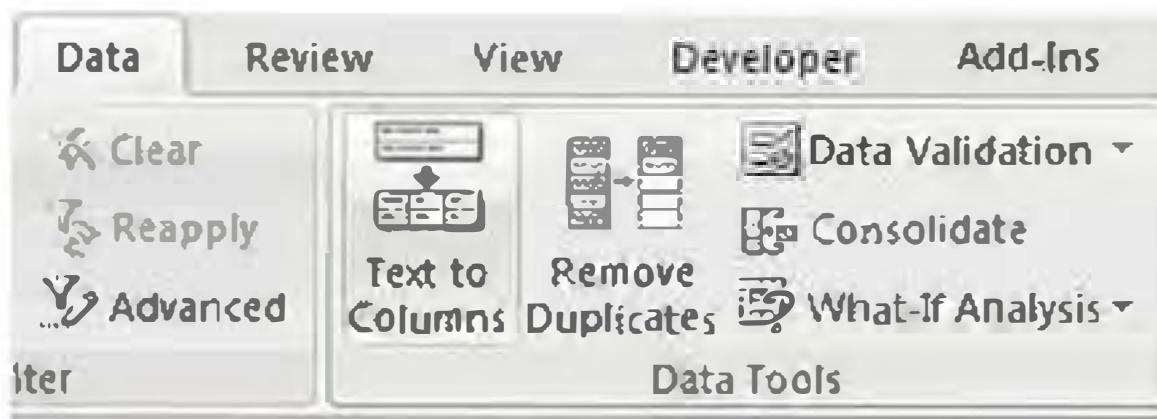
## 106. Bulk removal of leading apostrophe

When a cell's contents contains a leading apostrophe, it doesn't show up in the cell, only in the formula bar. This has the effect of making the cell be treated as pure text. That is, if you enter '=10/2, you would see =10/2, not 5. Getting rid of the ' by Find and Replace doesn't work because Excel treats the apostrophe as if it weren't there and would say it wasn't found! So removing it is a matter of editing the cell.

But what if you have many cells with the leading apostrophe? Each of the cells in A1:A10 contain a leading apostrophe:

	A1		f <sub>x</sub>	'=Sheet2!A1
	A	B	C	D
1	=Sheet2!A1			
2	=Sheet2!A2			
3	=Sheet2!A3			
4	=Sheet2!A4			
5	=Sheet2!A5			
6	=Sheet2!A6			
7	=Sheet2!A7			
8	=Sheet2!A8			
9	=Sheet2!A9			
10	=Sheet2!A10			

The way to remove them is via text-to-columns! Use this feature on the Data tab, the Data Tools section [Excel 2003: Data|Text to Columns]:



When you get the Text to Columns wizard, just click Finish!

**NEW**

## 107. Multi-select offset

Did you ever have an odd selection and wanted to have the same selection 2 columns over (or 1 or a few rows down, etc) to repeat some action? Here's an oddly shaped selection, all filled with 123:

A screenshot of Microsoft Excel showing a selection of cells. The selection consists of several non-contiguous cells: A1, A2, C3, C4, A5, C6, A7, C8, C9, C10, A11, A12, A13, and A14. All selected cells contain the value '123'. The status bar at the bottom shows '814' and '123'. The VBA tab is visible on the right side of the page.

	A	B	C
1	123		
2	123		
3		123	
4		123	
5	123		
6			123
7		123	
8		123	
9		123	
10		123	
11	123		
12	123		
13	123		
14		123	

Now you want the same shape beginning in D1. The easiest way to do it is using the VBE's immediate window to execute a simple one-liner command:

A screenshot of the VBE Immediate window. The title bar says 'Immediate'. The window contains the command 'selection.offset(0,3).select'.

```
selection.offset(0,3).select
```

The result:

	A	B	C	D	E	F
1	123					
2	123					
3		123				
4		123				
5	123					
6			123			
7		123				
8		123				
9		123				
10		123				
11	123					
12	123					
13	123					
14		123				
15						

**NEW**

## 108. VBA Boolean test

Instead of using this to turn a Boolean variable to True/False:

```
Sub BooleanTest()
    Dim MyBool As Boolean
    If Range("A12").Value > 12 Then
        MyBool = True
    Else
        MyBool = False
    End If
End Sub
```

You can use this to do the same thing:

```
Sub BooleanTest()
    Dim MyBool As Boolean
    MyBool = (Range("A12").Value > 12)
End Sub
```

The expression (Range("A12").Value > 12) will be evaluated and if it is greater than 12, MyBool will be set to True, else it will be set to False, the same as in the first example! Quite a bit shorter!

**NEW**

## 109. VBA Shortcut to fill ranges

Suppose you need to fill cells A1:D1 (using VBA) so it looks like this:

	A	B	C	D
1	Name	Account #	Date	Amount
2				

Most folk's VBA would look something like this:

```
Sub FillRange()
    Range("A1").Value = "Name"
    Range("B1").Value = "Account #"
    Range("C1").Value = "Date"
    Range("D1").Value = "Amount"
End Sub
```

...and that would work fine. But look at this version:

```
Sub FillRange()
    Range("A1:D1").Value = Array("Name", "Account #", "Date", "Amount")
End Sub
```

Not only is this shorter, but if the code needed to fill range A1:Z1, there'd be a lot less typing!

What if you wanted to fill A1:A4 with the same information? You might now be inclined to use this:

```
Sub FillRange()
    Range("A1:D1").Value = Array("Name", "Account #", "Date", "Amount")
End Sub
```

But that would surprisingly result in:

	A	B	C
1	Name		
2	Name		
3	Name		
4	Name		
5			

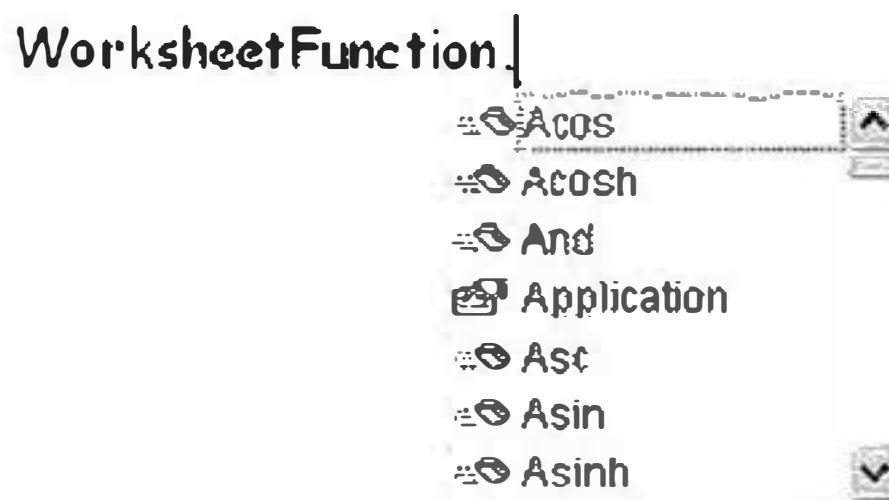
...not what you expect. You need to use this code to accomplish the vertical arrangement of the data:

```
Sub FillRange()
    Range("A1:A4").Value = Application.Transpose(Array("Name", "Account #", "Date", "Amount"))
End Sub
```

That is, you need to transpose the information. Since Transpose is a worksheet function, you need to use any of these combinations:

`Application.Transpose`  
`Application.WorksheetFunction.Transpose`  
`WorksheetFunction.Transpose`

The latter two will give the intellisense dropdown:



The reason I chose the first one (without the intellisense) is that it's the shortest amount of typing!

**NEW**

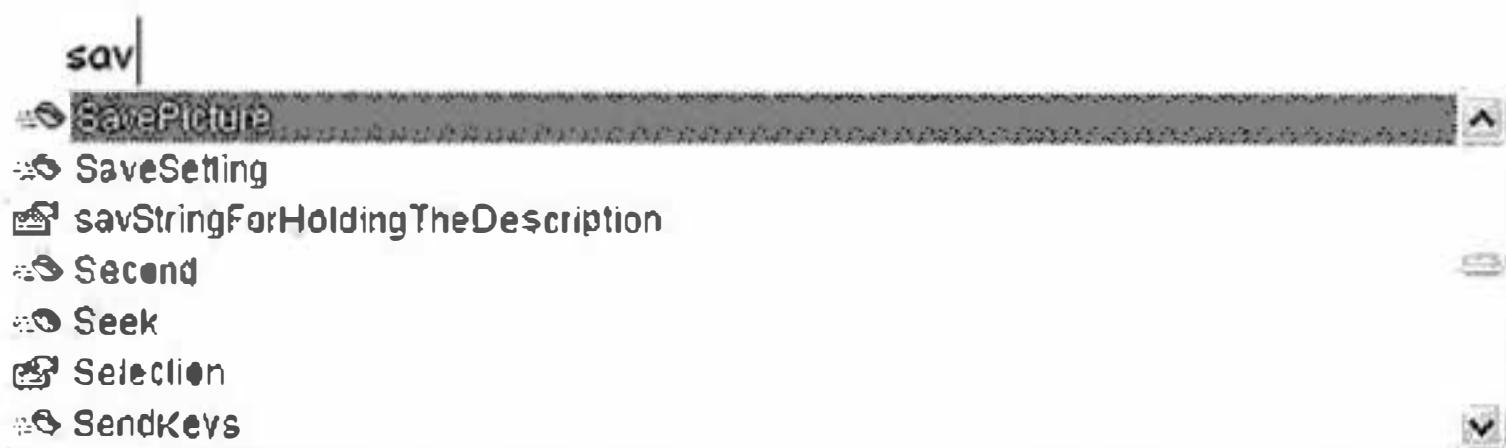
## 110. Some VBA Shortcuts

Suppose you have a variable defined as this:

```
Dim savStringForHoldingTheDescription As String
```

...and you wanted to use it, obviously, later in your code, you can simply start typing it, then press ctrl/Spacebar, which will give you this:

```
Dim savStringForHoldingTheDescription As String
```



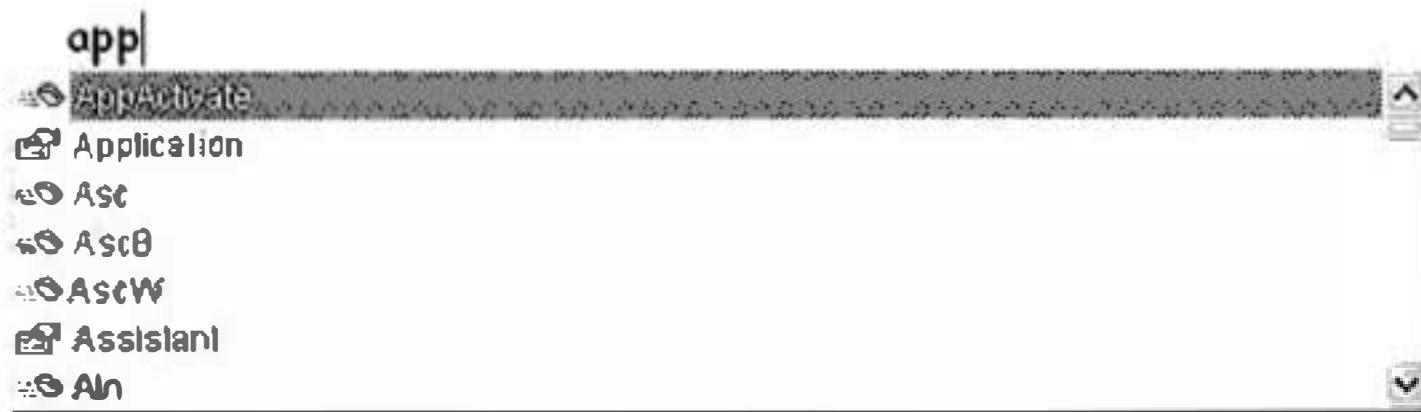
...and you can use the down arrow to select it, then the tab key (or enter key) to put in into your code:



If what you typed is unique enough so there's really no choice (like if you typed sabs then pressed ctrl/spacebar), Excel will simply put the entire variable right into the module.

As a matter of fact, it's not just for variables. How often do you type out Application? Simply typing Appl and pressing ctrl/spacebar will put Application right in the code!

"App" isn't quite enough for uniqueness:



And, if you have nothing on the line and press ctrl/spacebar, you will still get the beginning of the list:





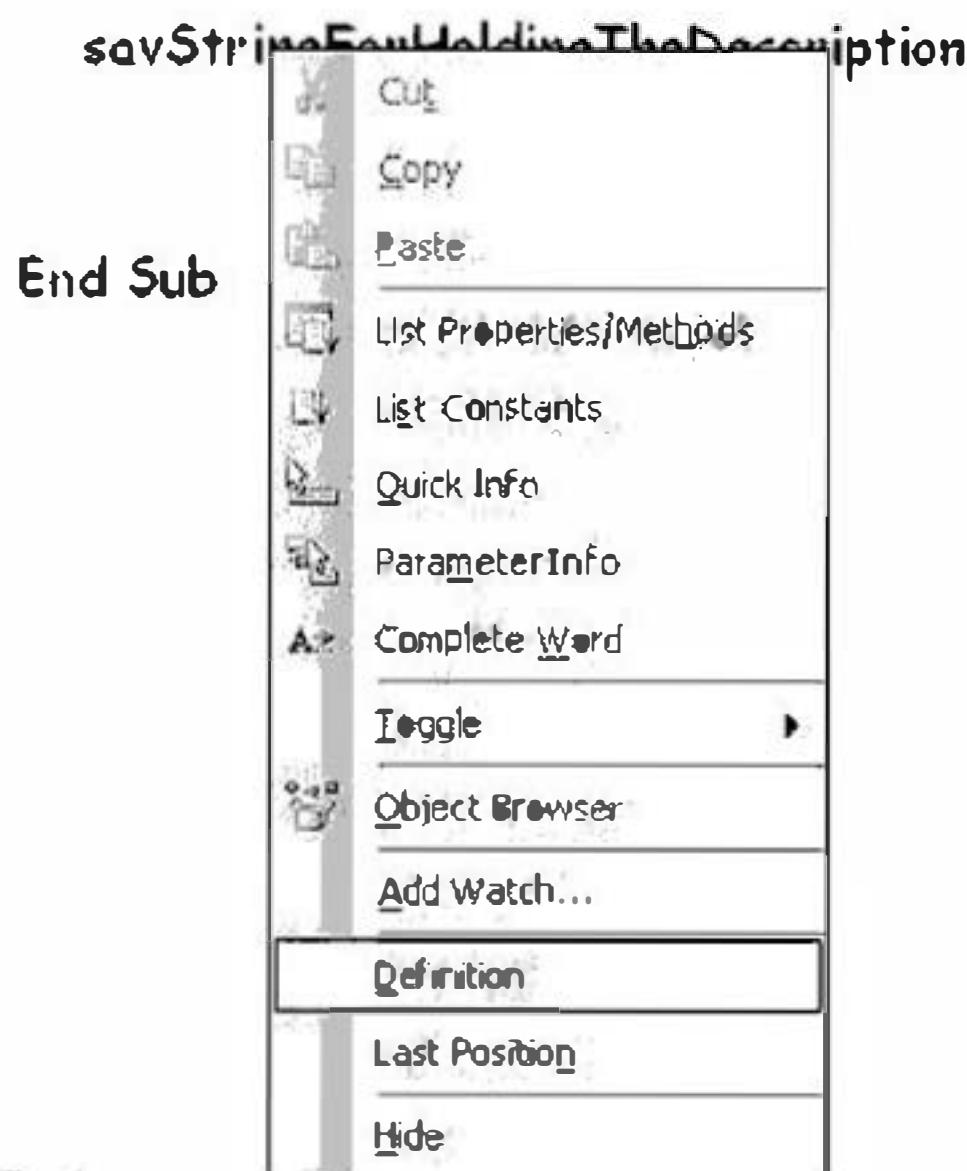
## 111. A few VBA Keyboard Shortcuts

Alt/Q will bring you from the VBE to Excel. However, Alt/F11 is a toggle back and forth from/to VBE and Excel, so I prefer that one!

Ctrl/G will bring up the Immediate Pane.

If the cursor is IN the immediate window, then Ctrl/A and then backspace will clear it.

If you right-click on a variable, you will see a dropdown where you can request the definition:



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- Easily find the last item in a row or column by a formula
- Fill the formula =A1 to the right and get =A2, =A3, =A4, ...!
- Find the last item in a row or column more easily and quickly
- Select all cells containing specific text quickly

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Bill Jelen, "Mr. Excel," independent Excel consultant



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Bob Umlas is a Microsoft® Excel MVP, a title given by Microsoft to only 22 people throughout the United States, for his ongoing contributions to the various online newsgroups. He was a contributing editor to the publication Inside Microsoft Excel and has written over 300 articles on all aspects of Excel. He is the former co-leader of New York City's PC Excel Special Interest Group. He is the author of several tips, tricks and array formula chapters in books on Excel, as well as technical editor of numerous Excel books.

He is the creator, author and lead instructor of the course Master's Certification in Microsoft Excel for International Institute for Learning, Inc. ([www.iil.com/excel](http://www.iil.com/excel)).

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