Subtotal Tricks | **BY BILL JELEN**

I recently flew to Toronto to tape some guest appearances on Leo Laporte's "Call for Help" television show, where I demonstrated what many would consider to be a fairly mundane task: adding subtotals in Excel. After the show aired, some viewers e-mailed to say that they had been spending up to two hours every morning manually adding subtotals and that the technique I

demonstrated allowed them to perform the same trick in under a minute. If you aren't currently using the Subtotal feature in Excel, the techniques in this article have the potential to save you hours of manual Excel work.

Adding Subtotals

Excel's Subtotal command inserts a new subtotal row every time the value in a certain column changes. For example, if you want to add subtotals by store name, be sure that the data is sorted by store name first. To sort, select a cell in the column that contains the store name. Click the AZ (sort) button on Excel 2003's standard toolbar or on the Data tab of Excel 2007's ribbon. To add subtotals, select one cell in your data

and choose Data, Subtotal. Excel will display the Subtotal dialog box (see Figure 1). By default, the dialog box suggests adding subtotals at each change in the left-most column. Open the first dropdown and choose

Figure 1
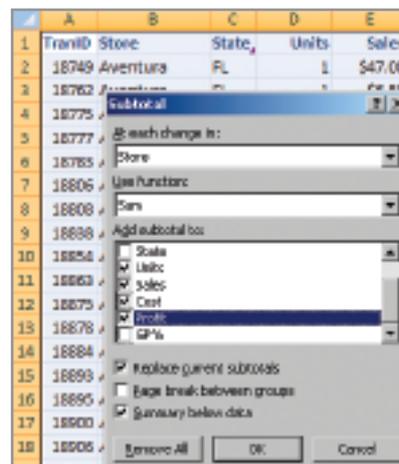
the appropriate column.

From the function dropdown, choose Sum. While this is often the default, text values in the right-most column of the data set can confuse Excel into choosing Count. By default, Excel plans to add the subtotal calculation to the right-most column. Feel free to check and uncheck columns as appropriate. To check many boxes, try alternating between pressing the spacebar and the down arrow to rapidly select adjacent fields.

Once you've checked off all the columns you want, select OK. Excel will spring to action, inserting new rows and writing =SUBTOTAL formulas. Within a few seconds, Excel adds subtotals throughout your data. At the bottom of the data set, a final SUBTOTAL formula is added to provide a grand total, as shown in Figure 2.

Collapsing to See Only Subtotals

Besides being a fast way to add many formulas in a single command, the Subtotal command also turns on the Group and Outline symbols. Look for the tiny 1, 2, 3 buttons to the left of Column A. Click the "2" button, and Excel will show only the subtotal rows, as shown in Figure 3. This is a

Figure 2

B	C	D	E	F	G
Store	State	Units	Sales	Cost	Profit
Richmond	VA	2	$42.50	$19.61	$22.89
Richmond	VA	2	$32.00	$14.67	$17.33
Richmond	VA	3	$73.50	$34.34	$39.16
Richmond	VA	4	$83.50	$38.58	$44.92
Richmond Total		222	$7,318.00	$3,499.80	$3,818.20
Grand Total		1525	$49,601.00	$23,694.27	$25,906.73

(Formula bar: =SUBTOTAL(9,D706:D826))

great way to produce a one-page summary from your data. Pressing the "1" button shows only the Grand Total, and the "3" button unhides all of the detail rows.

Copying Only the Subtotal Rows

Once you print the report from Figure 2, someone will likely ask you to send the summary in Excel. If you copied B1:G828 from Figure 2, you'd be disappointed to see that Excel brings along all of the hidden details rows when you paste the selection into a new worksheet. There's a simple solution. Select B1:G828. Press Alt+; to select only the visible cells within the selection. Now press Ctrl+C to copy, and you're ready to paste the subtotal rows to a new worksheet. Alt+; is the shortcut to choose Visible Cells Only from the Go To Special dialog. To see all of the options on this powerful dialog, use Edit, Go To, Special (in Excel 2003) or Home, Find & Select, Go To Special (in Excel 2007).

Formatting the Subtotal Rows

Excel bolds the subtotal labels (such as "Richmond total" in column B of Figure 2), but it doesn't bold the actual subtotal columns. The solution: Select D87:G828, press Alt+;, and then press Ctrl+B to bold the visible cells within the selection.

Totaling Some Columns, Counting Others

The Subtotal dialog box offers the standard 11 functions so you can calculate the Sum, Average, Count, Max, Min, and so on. But it might be useful to count one column while summing the others. In the current example, you would need a count of the transactions in column A in order to calculate Units per Transaction. Rather than adding subtotals twice, you can resort to a simple trick. Initially ask Excel to sum the TranID column (column A). Select all of column A, then use the Find and Replace function (Ctrl+H) to change every occurrence of =SUB TOTAL(9, to =SUBTOTAL(3,.

Figure 3

1 2 3		A	B	C	D	E	F	G	H
	1	TranID	Store	State	Units	Sales	Cost	Profit	GP%
+	87		Aventura Total		156	$4,796.50	$2,286.11	$2,510.39	
+	179		Bellevue Total		162	$5,588.50	$2,676.84	$2,911.66	
+	229		Bethesda Total		91	$2,668.50	$1,267.98	$1,400.52	
+	303		Chandler Total		138	$3,988.50	$1,896.52	$2,091.98	
+	345		Destin Total		79	$2,462.50	$1,173.44	$1,289.06	
+	440		El Paso Total		182	$5,757.00	$2,745.29	$3,011.71	
+	501		Huebner Oaks Total		110	$4,195.50	$2,016.48	$2,179.02	
+	551		Huntsville Total		102	$3,525.00	$1,687.29	$1,837.71	
+	634		Paramus Total		154	$5,017.50	$2,395.83	$2,621.67	
+	705		Perimeter Total		129	$4,283.50	$2,048.69	$2,234.81	
+	827		Richmond Total		222	$7,318.00	$3,499.80	$3,818.20	
−	828		Grand Total		1525	$49,601.00	$23,694.27	$25,906.73	

Adding Calculations to Subtotal Rows

Some calculations are too complex to calculate using the Subtotal command. For example, the GP% calculation (column H in Figure 3) needs to refer to cells in the subtotal row. You can't simply average the other GP% values, but you can add these calculations after the fact. Follow these steps:

1. Add subtotals to the other columns.

2. Click the "2" outline button to collapse the rows so only the subtotals are visible.

3. Select from the first GP% subtotal cell to the grand total. In the current example, this would be H87:H828. Note that the active cell is H87.

4. Press Alt+; to select only the visible cells within the selection.

5. Build a formula for the active cell. In this example, it is =G87/E87. Instead of pressing Enter after you've typed the formula, press Ctrl+Enter instead. This will enter similar formulas in each cell of the selection.

Filling in the State information in column C is a bit more difficult. Select C87:C827. Press Alt+;. Since the first subtotal row is in row 87, the formula for column C would be =C86. Remember to press Ctrl+ Enter after typing the formula.

Excel's Subtotal command makes it easy to summarize data. In next month's column, we'll use a pivot table to produce a similar report. ■

Bill Jelen is the host of MrExcel.com. To see a short preview of his IMA Annual Conference session, visit www.MrExcel.com/ima.html. Send questions for future articles to IMA@MrExcel.com.