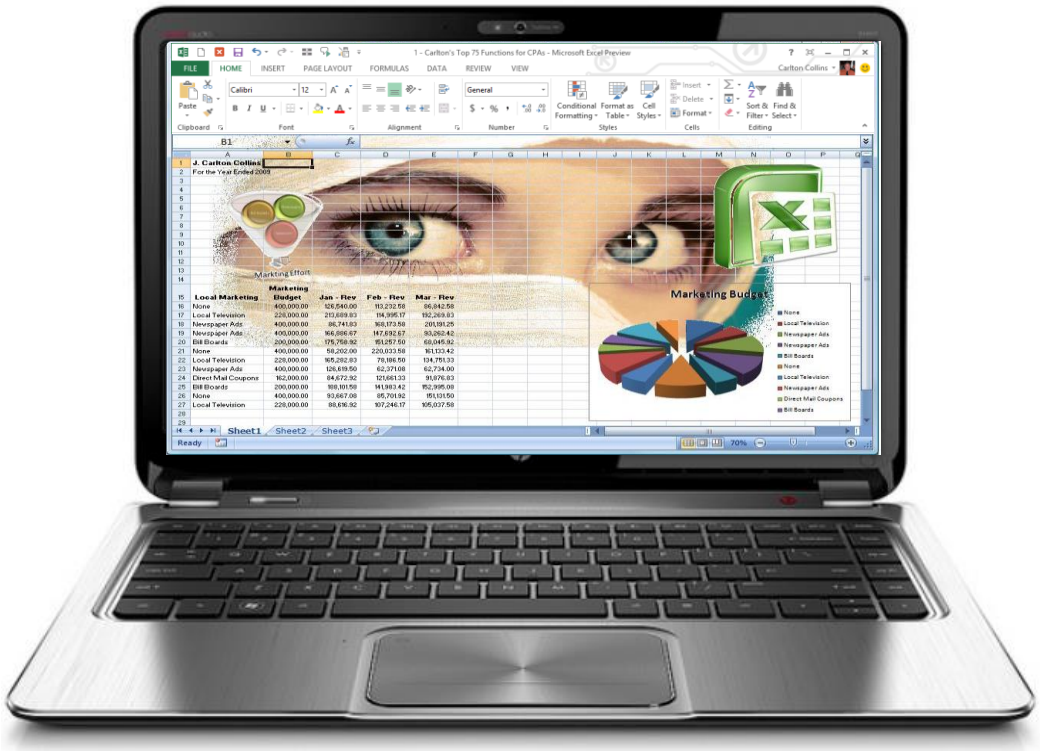
ASA Research

Excel Data Analysis & Financial Reporting



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Excel Data Analysis & Financial Reporting
Course Information

Learning Objectives	To increase the productivity of accountants and CPAs using Excel's data analysis and reporting tools and capabilities
Course Level	Intermediate
Pre-Requisites	Familiar with Microsoft Excel
Advanced Preparation	None
Presentation Method	Live lecture using full color projection systems and live Internet access with follow up course materials
Recommended CPE Credit	8 hours (8 hours A&A)
Handouts	Materials, Downloadable Templates
Instructors	J. Carlton Collins, CPA

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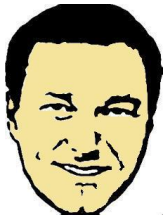

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Chapter 1

Data Analysis

Preparing Data for Data Analysis

Before you start to analyze data using Excel's various data commands such as **Sort**, **Autofilter**, **Subtotal**, **Grouping**, **Consolidate**, or **PivotTable**, you should first inspect your data to determine if it is in ***Analysis-Ready*** condition. In general, this means that the data must meet the following criteria:

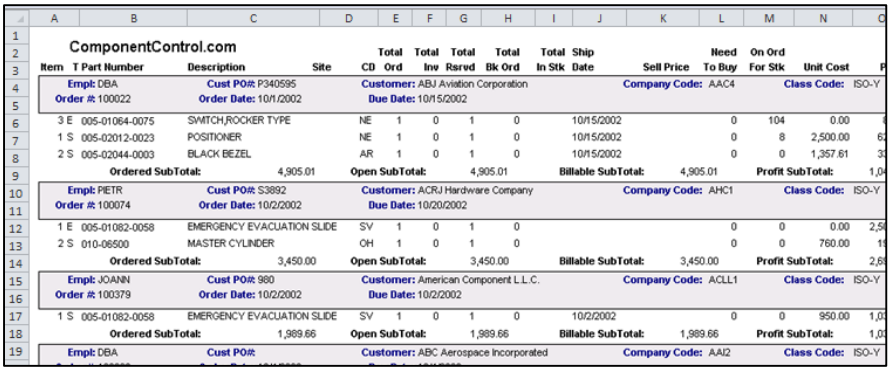
a. **Contiguous Data** – The data should contain no blank rows or blank columns. For example, the screen below shows blank rows (with solid lines). These rows should first be removed before proceeding with the creation of a PivotTable.

02/02/2003 16:08 **GENERAL LEDGER TRANSACTIONS BY DATE ENTERED** Page 1 of 3

01/01/2003 - 02/02/2003 23:59:59

Batch	Date	Account	Account Description	Debit	Credit	Description	Source	Reference	Curn Debit	Curn Credit
02/02/2003 3:09:26 AM										
03020210001	01.05/2003	2-1200	Accounts Payable		**25.00**	Vendor Bill WATER(	DEC-02	WATERCO	0.00	25.00
03020210001	01.05/2003	6-2940	Water	**25.00**		Water Bill For Dec -(	DEC-02	WATERCO	25.00	25.00
02/02/2003 3:10:47 AM										
03020210002	01.04/2003	2-1200	Accounts Payable		**130.00**	Vendor Bill TELCO -	T-Dec-02	TELCO	0.00	130.00
03020210002	01.04/2003	6-2910	Telephone	**130.00**		Telephone Bill Dec (	T-Dec-02	TELCO	130.00	130.00
02/02/2003 3:18:12 AM										
03020210003	01.05/2003	2-1200	Accounts Payable		**1,470.50**	Vendor Invoice ACC	VI-900002	ACCESS	0.00	1,470.50
03020210003	01.05/2003	1-1300	Inventory	**67.50**		64MB 800MHz NON	VI-900002	ACCESS	67.50	1,470.50
03020210003	01.05/2003	1-1300	Inventory	**319.00**		INTEL PENTIUM 4 1.5	VI-900002	ACCESS	386.50	1,470.50
03020210003	01.05/2003	1-1300	Inventory	**4.00**		Keyboard PS/2 BTC	VI-900002	ACCESS	390.50	1,470.50
03020210003	01.05/2003	1-1300	Inventory	**1,080.00**		HP XE3 P3 1.06G-15	VI-900002	ACCESS	1,470.50	1,470.50
02/02/2003 3:19:28 AM										
03020210004	02/02/2003	2-1200	Accounts Payable		**450.00**	Vendor Bill CARREP	VBILLS-1002	CARREP	0.00	450.00
03020210004	02/02/2003	6-2410	Vehicles, Mach. & Equipment	**450.00**		Vehicles, Mach. & E	VBILLS-1002	CARREP	450.00	450.00
02/02/2003 3:20:48 AM										
03020210005	01.03/2003	2-1200	Accounts Payable		**160.00**	Vendor Bill ELECTRI	E-Dec-02	ELECTRIC	0.00	160.00
03020210005	01.03/2003	6-2930	Electricity	**160.00**		Electricity Bill Dec - I	E-Dec-02	ELECTRIC	160.00	160.00

b. **Single Row Data –** Some accounting systems produce data that spans two or more rows per transaction. If this is the case, your will need to clean that data so that all related information for a single transaction or data is contained on a single row. For example, the following data contains multiple rows of data related to a single sales order. In this case, the user must move and paste the data to fall on a single row. This is an example of data that requires a great deal of clean up.



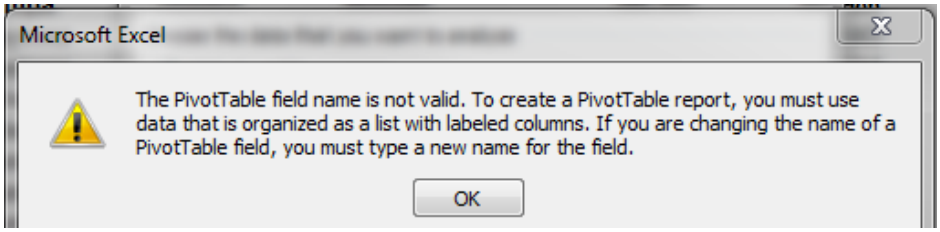
ComponentControl.com

Item	T	Part Number	Description	Site	CD	Total Ord	Total Inv	Total Rsrvd	Total Bk Ord	Total In Stk	Ship Date	Sell Price	Need To Buy	On Ord For Stk	Unit Cost	P
Empl: DBA		Cust PO#: P340595	Customer: ABJ Aviation Corporation									Company Code: AAC4			Class Code: ISO-Y	
Order #: 100022		Order Date: 10/1/2002	Due Date: 10/15/2002													
3	E	005-01064-0075	SWITCH,ROCKER TYPE		NE	1	0	1	0		10/15/2002		0	104	0.00	
1	S	005-02012-0023	POSITIONER		NE	1	0	1	0		10/15/2002		0	8	2,500.00	6
2	S	005-02044-0003	BLACK BEZEL		AR	1	0	1	0		10/15/2002		0	0	1,357.61	3
Ordered SubTotal:			4,905.01		Open SubTotal:			4,905.01			Billable SubTotal:		4,905.01		Profit SubTotal:	1,0
Empl: PIETR		Cust PO#: S3892	Customer: ACRJ Hardware Company									Company Code: AHC1			Class Code: ISO-Y	
Order #: 100074		Order Date: 10/2/2002	Due Date: 10/20/2002													
1	E	005-01082-0058	EMERGENCY EVACUATION SLIDE		SV	1	0	1	0				0	0	0.00	2,5
2	S	010-06500	MASTER CYLINDER		OH	1	0	1	0				0	0	760.00	1
Ordered SubTotal:			3,450.00		Open SubTotal:			3,450.00			Billable SubTotal:		3,450.00		Profit SubTotal:	2,6
Empl: JOANN		Cust PO#: 980	Customer: American Component L.L.C.									Company Code: ACLL1			Class Code: ISO-Y	
Order #: 100379		Order Date: 10/2/2002	Due Date: 10/2/2002													
1	S	005-01082-0058	EMERGENCY EVACUATION SLIDE		SV	1	0	1	0		10/2/2002		0	0	950.00	1,0
Ordered SubTotal:			1,989.66		Open SubTotal:			1,989.66			Billable SubTotal:		1,989.66		Profit SubTotal:	1,0
Empl: DBA		Cust PO#:	Customer: ABC Aerospace Incorporated									Company Code: AAI2			Class Code: ISO-Y	

c. **Column Headers** - The data should contain a unique header atop each column. For example, the following screen contains two columns labeled **Date**, while columns D and E contain no heading. These are both cases of data that should be cleaned before creating a PivotTable.

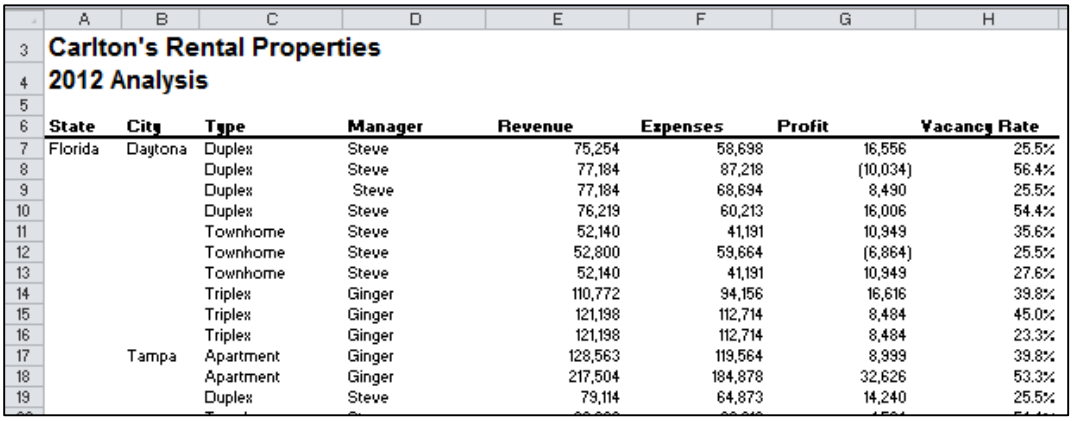
	A	B	C	D	E	F	G	H
1	Year	Date	Date			State	Attendanc	Type
2	2010	10	5-Oct	Tech Savvy CPA	Acworth, GA	GA	13	Course
3	2009	6	3-Jun	Excel Advanced	Alpharetta, GA	GA	19	Course
4	2011	11	9-Nov	QuickBooks for CPAs	Alpharetta, GA	GA	33	Course
5	2010	12	14-Dec	Communicating with Computers	Buckhead, GA	GA	29	Course
6	2010	6	10-Jun	Excel Functions, Macros and Data	Buckhead, GA	GA	29	Course
7	2010	9	24-Sep	Microsoft Office 2010 and Windov	Buckhead, GA	GA	0	Course
8	2010	6	8-Jun	Excel Hands On	Cobb Galleria, GA	GA	8	Course
9	2010	5	20-May	Accounting Software Expo	Atlanta, GA	GA	100	Conferen
10	2010	4	30-Apr	Property Management Conferenc	Atlanta, GA	GA	100	Conferen
11	2010	8	18-Aug	SEAS Conference	Atlanta, GA	GA	100	Conferen
12	2009	8	13-Aug	Excel Functions	Birmingham, AL	AL	63	Course
13	2009	9	8-Sep	Information Security	Birmingham, AL	AL	24	Course
14	2009	7	15-Jul	QuickBooks for CPAs	Birmingham, AL	AL	45	Course
15	2009	7	16-Jul	Tech Savvy CPA	Birmingham, AL	AL	42	Course
16	2010	4	23-Apr	Communicating with Computers	Bloomington, MN	MN	20	Course
17	2009	4	29-Apr	Excel for Intermediate	Bloomington, MN	MN	46	Course

If you attempt to analyze data that does not contain a column heading atop all columns, you will sometimes receive an error message, such as the example shown below.



If you have data with the same column heading used more than once, Excel will sometimes alter the column headings, for example when you create a PivotTable, so all headings will be unique.

d. **Row Descriptions** – Generally, your data should repeat row descriptions for each row. For example, the screen below shows that the state and city descriptions are not repeated for each row in columns A & B.



	A	B	C	D	E	F	G	H
3	**Carlton's Rental Properties**							
4	**2012 Analysis**							
5								
6	**State**	**City**	**Type**	**Manager**	**Revenue**	**Expenses**	**Profit**	**Vacancy Rate**
7	Florida	Daytona	Duplex	Steve	75,254	58,698	16,556	25.5%
8			Duplex	Steve	77,184	87,218	(10,034)	56.4%
9			Duplex	Steve	77,184	68,694	8,490	25.5%
10			Duplex	Steve	76,219	60,213	16,006	54.4%
11			Townhome	Steve	52,140	41,191	10,949	35.6%
12			Townhome	Steve	52,800	59,664	(6,864)	25.5%
13			Townhome	Steve	52,140	41,191	10,949	27.6%
14			Triplex	Ginger	110,772	94,156	16,616	39.8%
15			Triplex	Ginger	121,198	112,714	8,484	45.0%
16			Triplex	Ginger	121,198	112,714	8,484	23.3%
17		Tampa	Apartment	Ginger	128,563	119,564	8,999	39.8%
18			Apartment	Ginger	217,504	184,878	32,626	53.3%
19			Duplex	Steve	79,114	64,873	14,240	25.5%

A solution for quickly filling in the missing row descriptions is presented later in these materials.

e. **Transposing Headers and Rows** – In some cases, data may need to be transposed because many of Excel's Data tools use the column headings, not the row headings to crunch the data. To do this, copy the data, then select **Paste Special, Transpose, OK** to flip the data around.

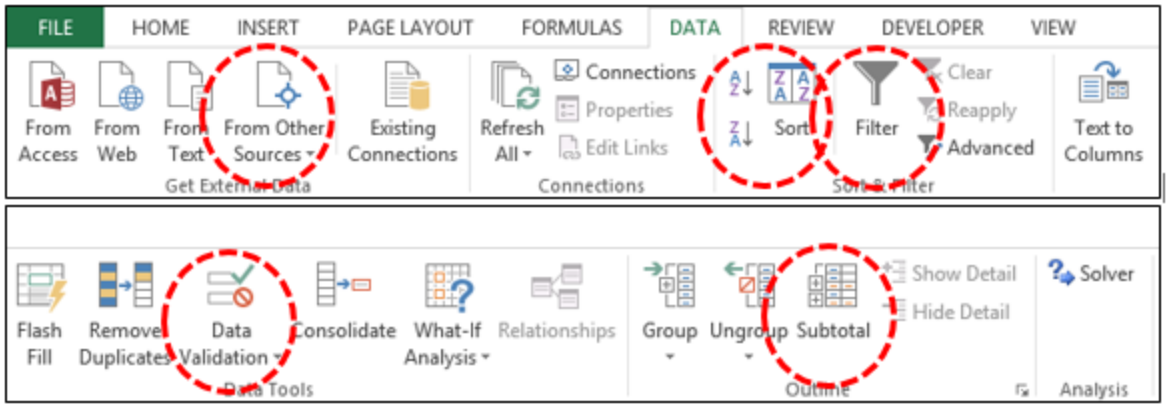
f. **Clean Data** – The data must be clean of empty text cells containing spaces, special characters, extra spaces within data, trailing spaces, trailing zeros, leading zeros, etc.

Data Analysis Tools

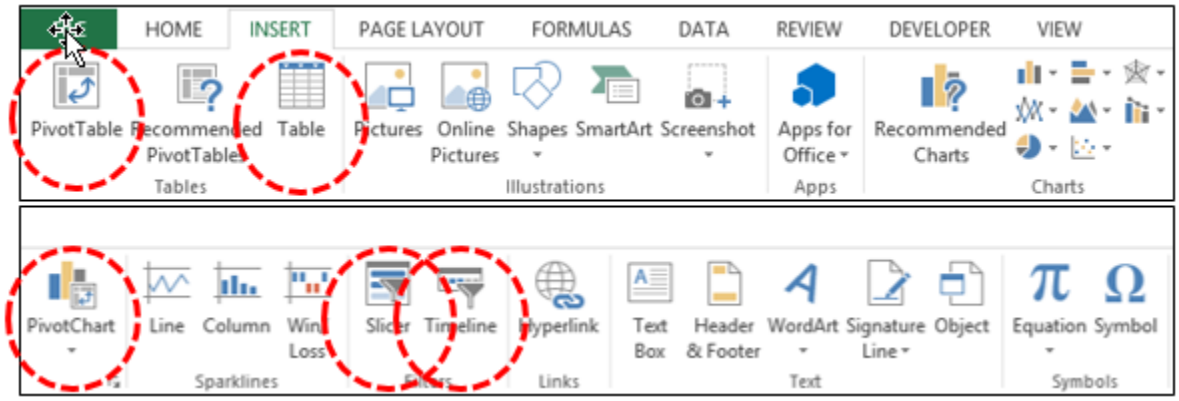
Excel provides specialized tools for analyzing data and generating financial reports, yet most CPAs are unaware of these tools or haven't tried using them before. Specifically useful are the **Subtotaling**, **Grand Totaling**, **Filtering**, **Consolidating**, **Grouping & Outlining**, **Drilling**, **OLAP Data Cubes**, **PivotTables**, **Sparklines**, **Data Bar Reporting**, **Conditional Formatting**, **Charting**, **Foot Notes and End Notes, Formula Auditing Tools, Error Checking, Functions,** and **Data Analysis Tools**.

The concepts discussed are intended to directly aide the CPA in summarizing, slicing, dicing and analyzing data, and generating related financial reports.

2013 Data Ribbon:



2013 Insert Ribbon:



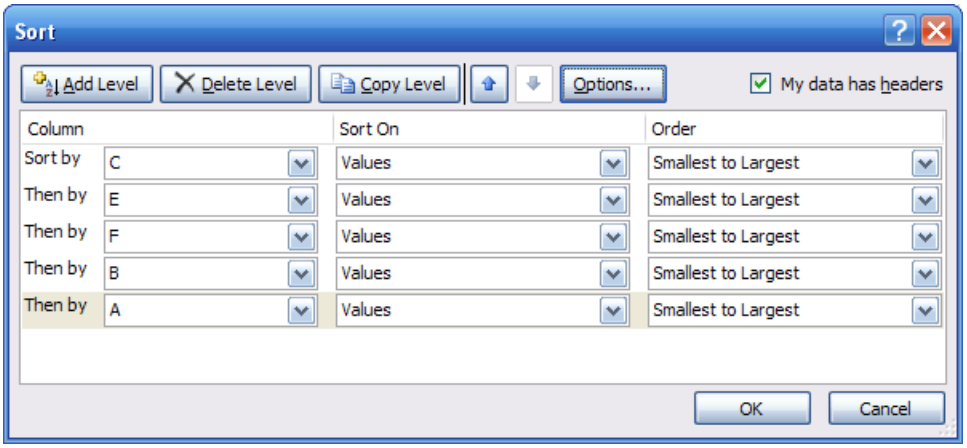
Data Sort

You would think that every Excel user would already know all about sorting data in Excel, but I am frequently surprised to find that many users have missed a few key points related to using this tool. I don't mean to belittle you or talk beneath you, but humor me a couple of paragraphs and let's make sure you are fully up to speed on the following key sorting points:

1. **Contiguous Data** - The "A to Z" sorting tool can sort a large matrix of data without having to highlight the area as long as the data is contiguous; that is to say that your data should contain no blank columns, no blank rows, and the columns must all be labeled with a column heading. When data is contiguous, all you need to do is place your cursor in a single cell in a given column and click the **Sort A to Z** or **Sort Z to A** buttons, and Excel will automatically select the entire matrix for sorting. Surprisingly many users waste a great deal of time highlighting sort ranges prior to sorting, but this step is often unnecessary.

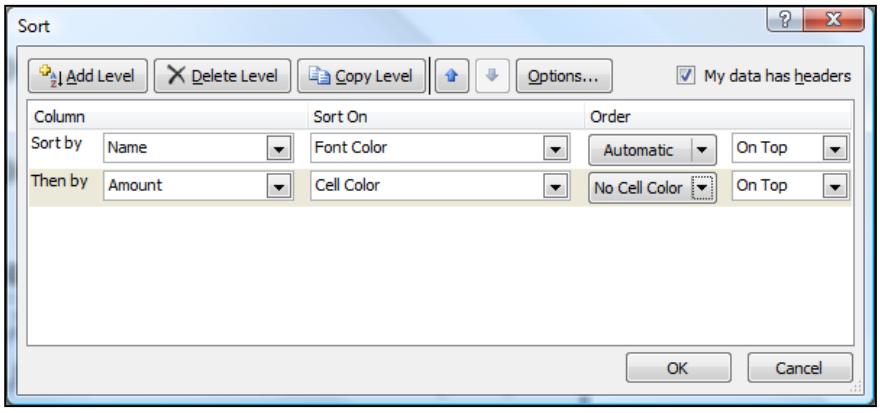
2. **A to Z Button** - Simply place the cursor in the desired column for sorting, and press the A to Z or Z to A button as the case may be. Excel will automatically sort all continuous columns that have headings and all contiguous rows from the top row under the heading labels down to the last row in the selected column that contains data. *(Note - If you accidently select 2 cells instead of just one, your results will not be correct.)*

3. **Sort by 64 Columns -** The "Sort" tool was enhanced beginning in Excel 2007 as it now provides the ability to sort by up to 64 columns, instead of just 3 columns. Presented below is a dialog box which shows this expanded functionality.



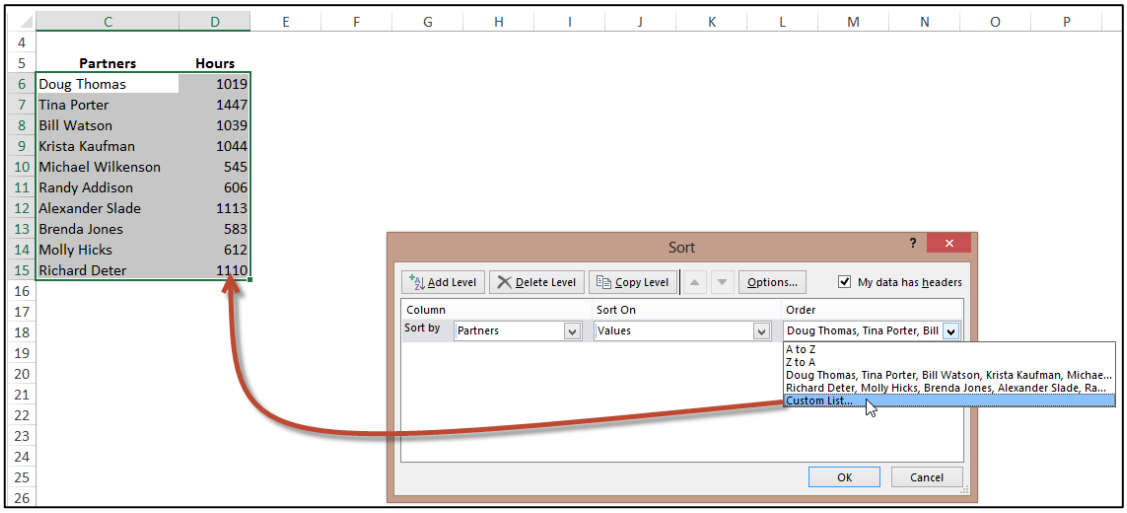
4. **Sort Left to Right** – Excel has always provided the ability to sort left to right. To do so, select the **Sort Options** box in the **Sort** dialog box and click the check box labeled **Sort Left to Right** as pictured below.

5. **Sort by Color** – beginning with Excel 2007, you can also sort by font color or by cell color, or both. This is handy in many ways. Sometimes CPAs use color to tag or mark certain cells - and later find it useful to be able to sort by those markings. In other situations CPAs use conditional formatting to apply color to cells using a wide variety of rules; and thereafter they can sort the data based on the resulting conditional colors. The two sort-by-color options are pictured below.



To be fair, it was sort of possible to sort by color in Excel 2003. To accomplish this task, you needed to use the **CELL** function in order to identify information about a given cell such as the cell color or font color. Thereafter, the results of that function could be used to sort rows – which effectively means that you can sort by color in Excel 2003 – but it takes a bit more effort.

6. **Sort By Custom List** – Another sorting capability in Excel is the ability to sort by **Custom List**. For example, assume a CPA firm has ten partners, and the Managing partner prefers to be shown at the top of the list, and the remaining Partners based on seniority. In this case, you could create a Custom List in the Excel Options dialog box listing the partners in the desired order, and then sort future reports based on that order.



To access the Custom List settings:

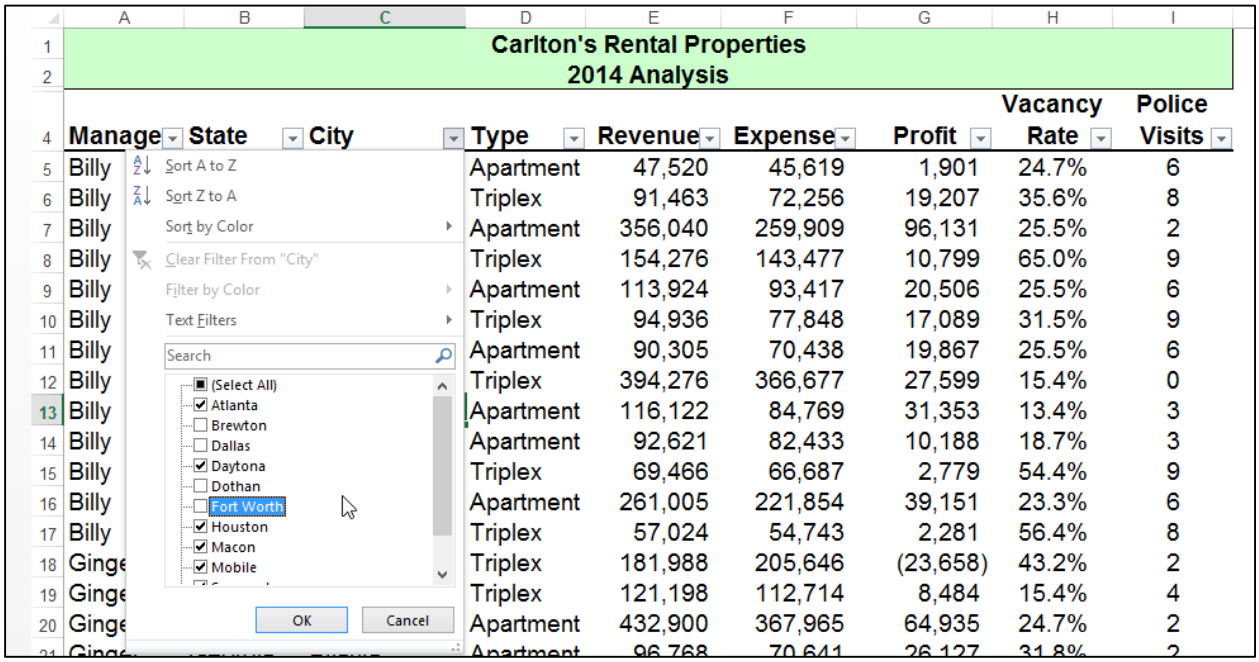
1. In Excel 2013 & 2010, select **File, Options, Advanced**, and scroll to the bottom, and then select **Edit Custom List**.

2. In Excel 2007, select **File, Options**, select **Edit Custom List** option a few inches down from the top.

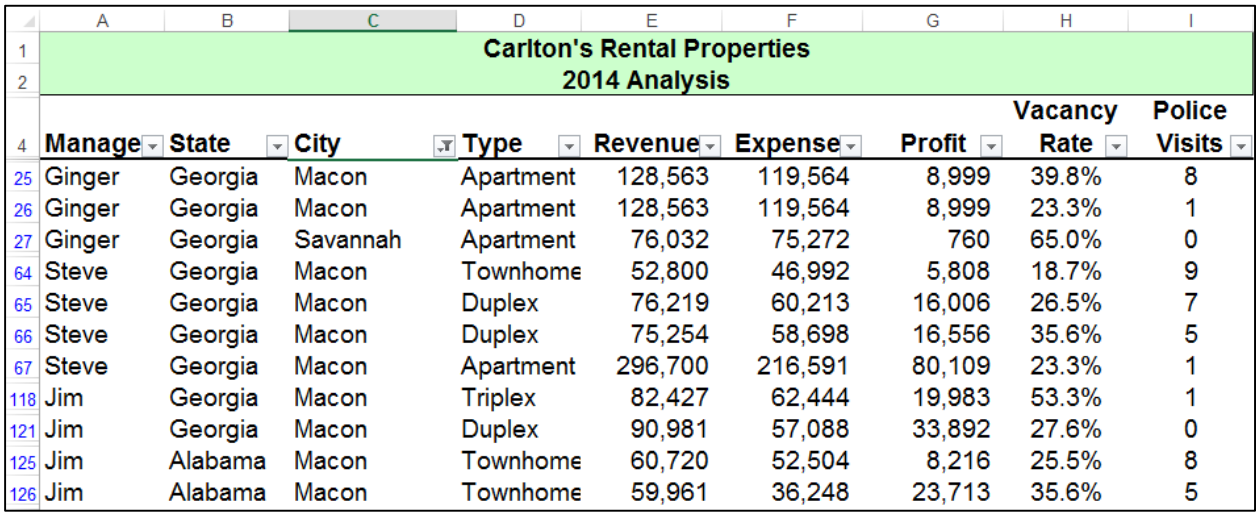
3. In Excel 2003, select **Tools, Options**, and click the **Custom Lists** tab.

Filtering Data

AutoFilter allows you to view a subset of your data and when you are done, you can clear the filters to once again redisplay all of your data. To use this tool, start with any list of data and turn on the AutoFilter tool. Then position your cursor in the column you want to filter and use the drop down arrows to apply your filters as suggested in the screen below.



Once the filters are applied, you will see a subset of your data. For example, the screen presented below shows filtered data for only Macon and Savannah properties.



Manage	State	City	Type	Revenue	Expense	Profit	Vacancy Rate	Police Visits
Ginger	Georgia	Macon	Apartment	128,563	119,564	8,999	39.8%	8
Ginger	Georgia	Macon	Apartment	128,563	119,564	8,999	23.3%	1
Ginger	Georgia	Savannah	Apartment	76,032	75,272	760	65.0%	0
Steve	Georgia	Macon	Townhome	52,800	46,992	5,808	18.7%	9
Steve	Georgia	Macon	Duplex	76,219	60,213	16,006	26.5%	7
Steve	Georgia	Macon	Duplex	75,254	58,698	16,556	35.6%	5
Steve	Georgia	Macon	Apartment	296,700	216,591	80,109	23.3%	1
Jim	Georgia	Macon	Triplex	82,427	62,444	19,983	53.3%	1
Jim	Georgia	Macon	Duplex	90,981	57,088	33,892	27.6%	0
Jim	Alabama	Macon	Townhome	60,720	52,504	8,216	25.5%	8
Jim	Alabama	Macon	Townhome	59,961	36,248	23,713	35.6%	5

As filters are applied, a small funnel icon appears in the drop down arrow button to indicate that a filter has been applied to that particular column.

Key Points Concerning the AutoFilter Command:

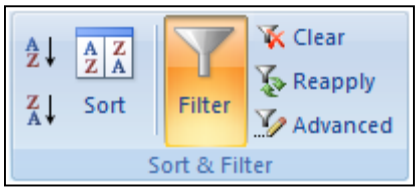
1. **Contiguous Data** – The AutoFilter tools work best when you are working with data that is contiguous. In other words, your data should contain no blank columns, no blank rows, and the columns must all be labeled.

2. **Column Headings** –Your columns need unique column headings in a single row, and if the column headings are not in row 1, then the row above the column headings should be blank so Excel will auto detect the correct range.

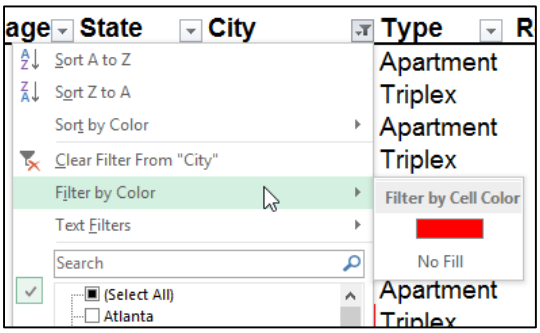
3. **Filter by Multiple Columns** - You can filter by more than one column.

4. **Filters are Additive** - Each additional filter is based on the current filter and further reduces the subset of data.

5. **Removing Filters** – In all editions of Excel, a fast way to remove multiple filters is to turn **AutoFilter** off and then turn **AutoFilter** back on. In Excel 2007 and later editions, you can also click the **Clear** button in the **Sort & Filter Group** as pictured below.



6. **Filter by Color** – You can filter based on colors. For example, you can filter by cell color or by a list of numbers, you can filter by icon or by a custom filter.

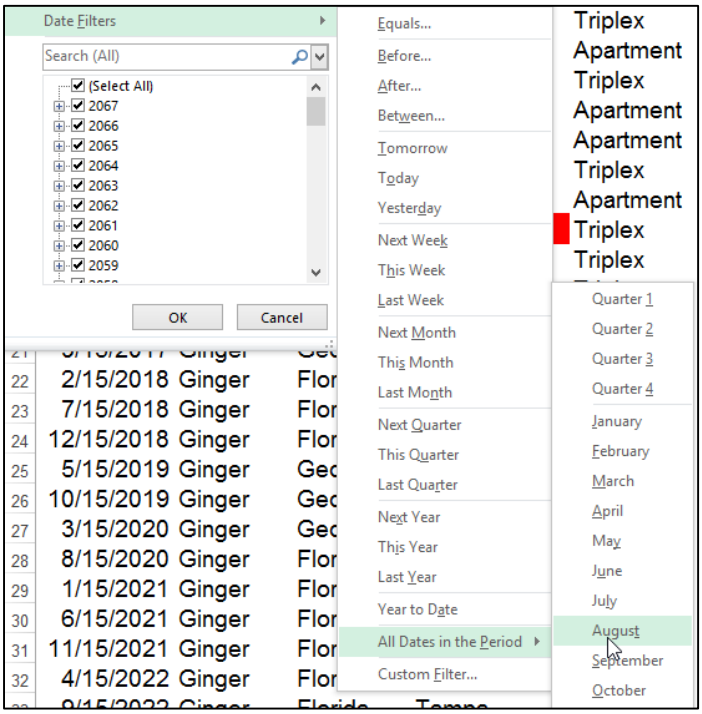


Note that the Color Filter is mutually exclusive as you cannot also filter by value or text when filter by color is applied, and vice versa.

7. **Filters Enabled -** A drop-down arrow means that filtering is enabled but not applied.

8. **Filter Applied -** A Filter button means that a filter is applied.

9. **Filter Spanning** - The commands under the **All Dates** in the **Date Filters** menu, such as January or Quarter 2, filter by the period regardless of the year. This can be useful, for example, to compare sales by a period across several years.

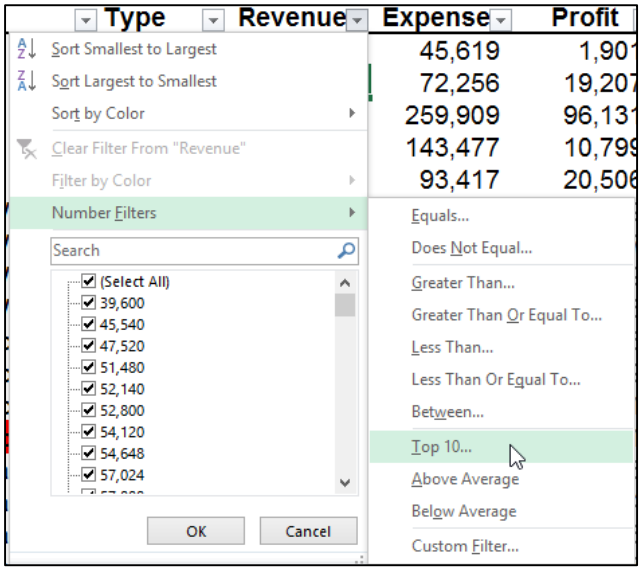


10. **This Year vs. Year-to-Date** - **This Year** and **Year-to-Date** are different in the way that future dates are handled. **This Year** filtering can return dates in the future for the current year, whereas **Year-to-Date** only returns dates up to and including the current date based on the computer's time clock.

11. **Filtering Dates** - All date filters are based on the Gregorian calendar as decreed by Pope Gregory XIII, after whom the calendar was named, on 24 February 1582. The Gregorian calendar modifies the Julian calendar's regular four-year cycle of leap years as follows: Every year that is exactly divisible by four is a leap year, except for years that are exactly divisible by 100; the centurial years that are exactly divisible by 400 are still leap years. For example, the year 1900 is not a leap year; the year 2000 is a leap year.

12. **Filtering By Days of Week -** If you want to filter by days of the week, simply format the cells to show the day of the week, or insert a new column and use the **WEEKDAY** function to calculate the week day, and then apply filters using this new column.

13. **Top & Bottom Filtering** - On the **Data** tab, in the **Sort & Filter** group, click **Filter**. Point to **Number Filters** and then select **Top 10**. To filter by number, click **Items**. To filter by percentage, click **Percent**. Note - Top and bottom values are based on the original range of cells or table column and not the filtered subset of data.

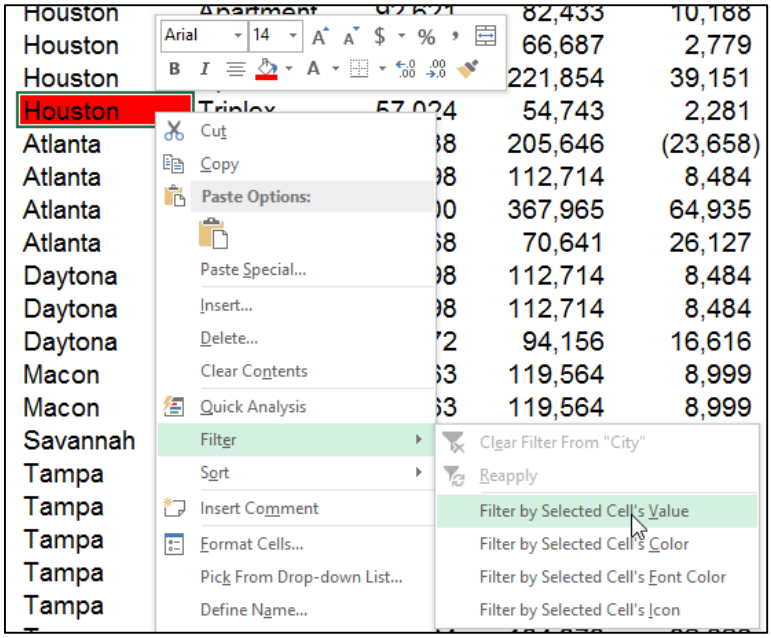


14. **Above & Below Average Filtering** - On the **Data** tab, in the **Sort & Filter** group, click **Filter**. Select **Number Filters, Above/Below Average**. Note – These values are based on the original range of cells or table column and not the filtered subset of data.

15. **Filtering Out Blanks** - To filter out blanks, in the **AutoFilter** menu at the bottom of the list of values, de-select the check box labeled **Blanks**.

16. **Filtering By Color** - Select **Filter by Color**, and then depending on the type of format, select **Filter by Cell Color**, **Filter by Font Color**, or **Filter by Cell Icon**. Note that these filter options only show up when there are actual cell colors, font colors or icons included in the data range.

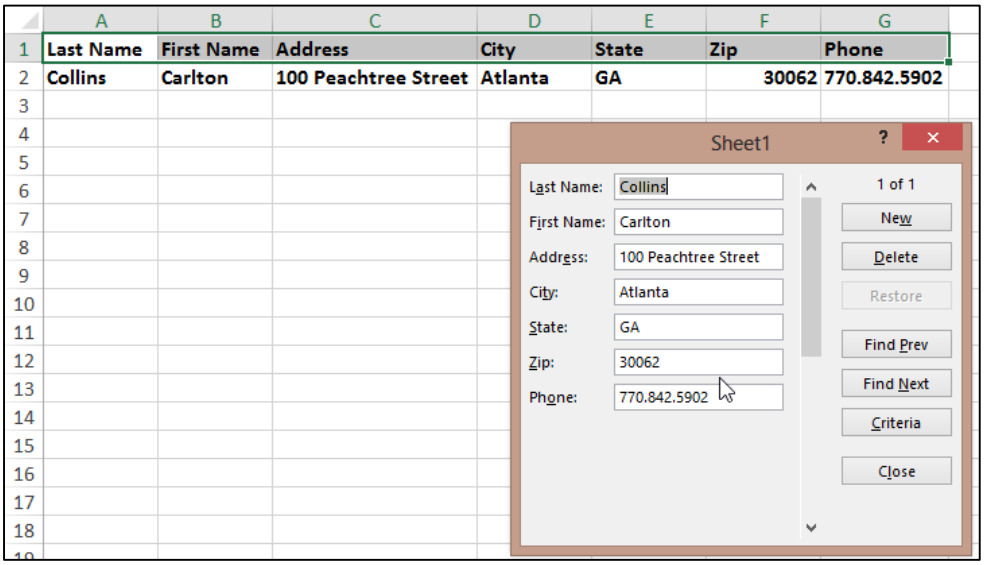
17. **Filter by Selection** - To filter by text, number, date, time, or color for selected cell(s), select the cells to be used as a filter basis and then right-click that selection, and from the popup menu select **Filter, Filter by Selected Cell's Value,** (or **Filter by Selected Cell's Color**, **Filter by Selected Cell's Font Color**, or **Filter by Selected Cell's Icon**).



18. **Refreshing Filters -** To reapply a filter after the data changes, click a cell in the range or table, and then on the **Data** tab, in the **Sort & Filter** group, click **Reapply**.

Data Form

Excel's Data Form tool provides a data input window which makes Excel look and behave more like a database, such as Microsoft Access. (Note that in Excel 2013, 2010 and 2007, the Form tool button has not been included on the Ribbon, so to use it you will first need to add the Form tool button to the Quick Access Toolbar.)



A data form provides a convenient means to enter or display one complete row of information in a range or table without scrolling horizontally. Some people, especially those who are used to using databases, find that using a data form can make data entry easier than moving from column to column when you have more columns of data than can be viewed on the screen.

Key Points using Data Form:

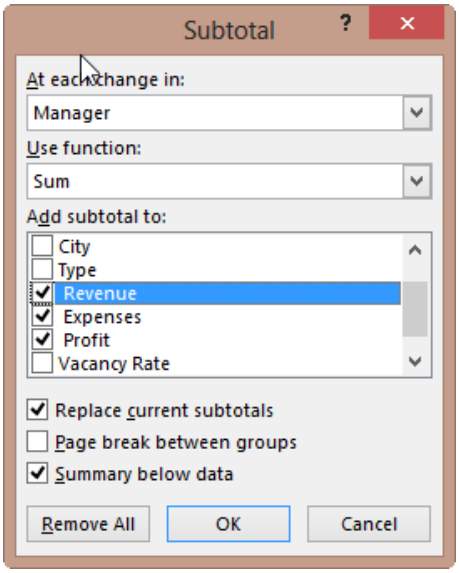
1. You cannot print data from a data form.

2. Because a data form is a modal dialog box, you cannot use either the Excel Print command or Print button until you close the data form.

3. You might consider using the Windows Print Screen key to make an image of the form, and then paste it into Microsoft Word for printing.

Data Subtotals

Excel's **Subtotal** command automatically calculates and inserts subtotals and grand totals in your list or table. Once inserted, Excel recalculates subtotal and grand totals as you enter and edit the detail data. The Subtotal command also outlines the list so that you can display and hide the detail rows for each subtotal. Examples of the **Subtotal** dialog box and a resulting subtotaled table are shown below.



	Manager State	Revenue	Expenses	Profit	Police Visits
	Carlton's Rental Properties 2014 Analysis				
18	Billy Total	1,938,977	1,640,126	298,851	75
36	Ginger Total	2,340,914	2,211,002	129,912	78
50	Jacob Total	3,128,030	2,763,405	364,625	79
53	Kathy Total	1,534,551	1,378,893	155,658	13
77	Steve Total	1,679,088	1,439,202	239,886	117
108	Erin Total	4,921,875	3,388,993	1,532,882	153
133	Jim Total	5,984,923	4,093,049	1,891,874	131
148	Ellen Total	1,307,997	818,672	489,325	78
149	Grand Total	22,836,355	17,733,341	5,103,014	724

To display subtotals and grand totals at the top instead of the bottom, deselect the checkbox labeled **Summary below data**.

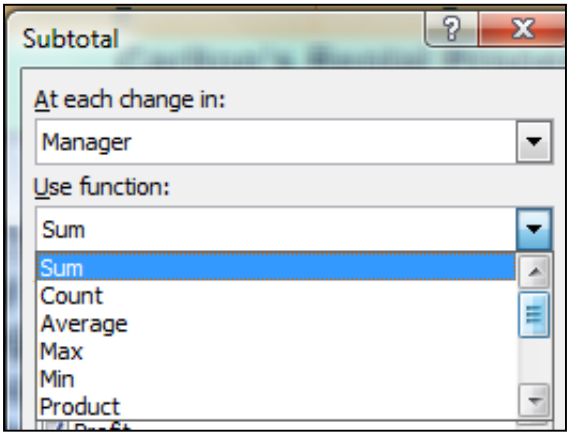
	Manager	State	City	Type	Revenue	Expenses	Profit
5	Grand Total				22,836,355	17,733,341	5,103,014
6	Billy Total				1,938,977	1,640,126	298,851
7	Billy	Texas	Dallas	Apartment	47,520	45,619	1,901
8	Billy	Texas	Dallas	Triplex	91,463	72,256	19,207
9	Billy	Texas	Dallas	Apartment	356,040	259,909	96,131

Key points to Consider When Using Subtotaling are as follows:

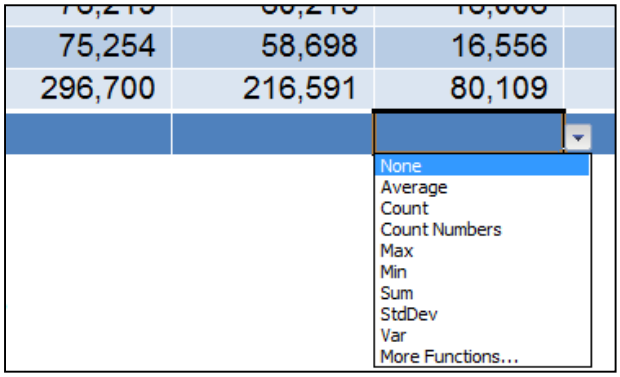
1. **Contiguous Data** – The Subtotal tools works best when you are working with data that is contiguous. In other words, your data should contain no blank columns, no blank rows, and the columns must all be labeled.

2. **Sort Before You Subtotal** - You must sort the data by the column you wish to subtotal by, else you will receive erroneous results.

3. **Other Mathematical Applications -** The Subtotal tool not only calculates subtotals, but it can also calculate minimums, maximums, averages, standard deviations, and other functions.



4. **Subtotals in 2013, 2010 & 2007 Tables** – Excel 2007 added a new **Table** tool which enables **Subtotals** a little differently; the Subtotal tool appears at the bottom of each column in each **Table**, as shown in the screen below.

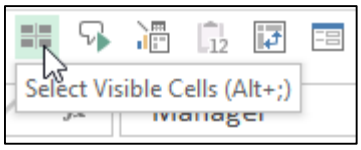


5. **Automatic Outlining** – The **Subtotal** tool automatically inserts **Outlines**, which allows you to collapse or expand your data.

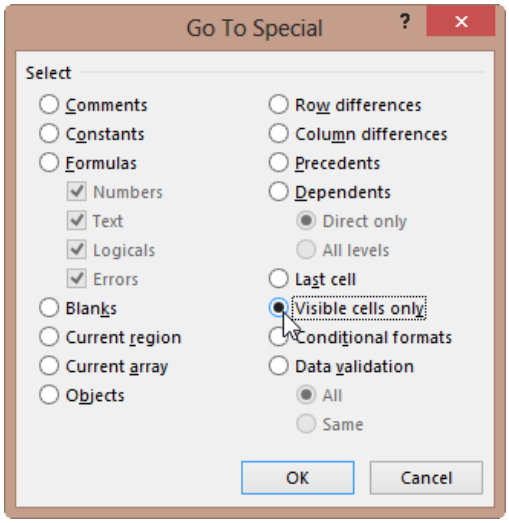
6. **Copying Outline Data** - Some CPAs also like to copy and paste collapsed subtotal data to another location, but they find this process copies and pastes all of the data – not just the summary data they desire. In this situation, there are two ways to achieve a clean copy and paste without grabbing all the hidden data as follows:

    a. **CTRL key** – Hold the **Control Key** down while you individually click to select individual rows; this action will enable you to copy and paste selected data. However, this approach can sometimes be problematic because if you miss-click, you have to start over.

    b. **Select Visible Cells** – A better approach is to use the **Select Visible Cells** tool. This tool will select on the data you can see, after which the copy and paste routine will yield the desired results. This option is better because it is faster and less error prone.



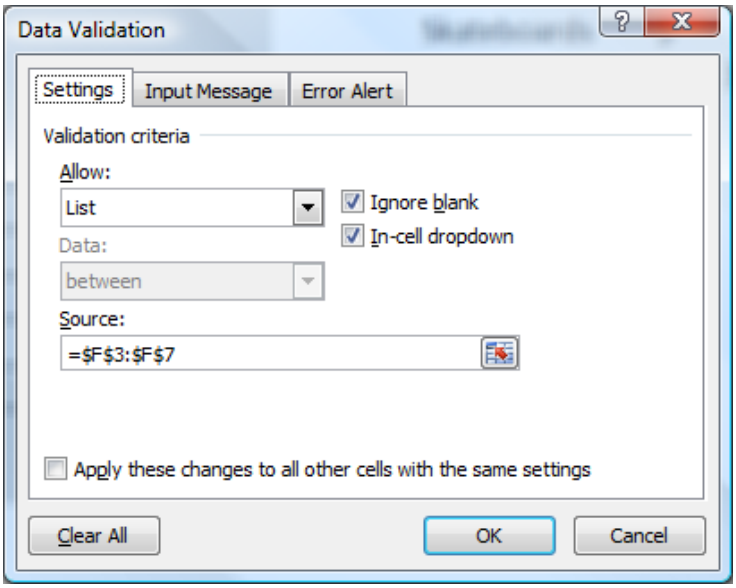
    c. **Go To** – You can also select visible cells using **Go To**. To do this**,** press **F5** to launch the **Go To** tool and then click **Special**. In the **Go To Special** dialog box, select the radio button labeled **Select Visible cells** and press **OK**.



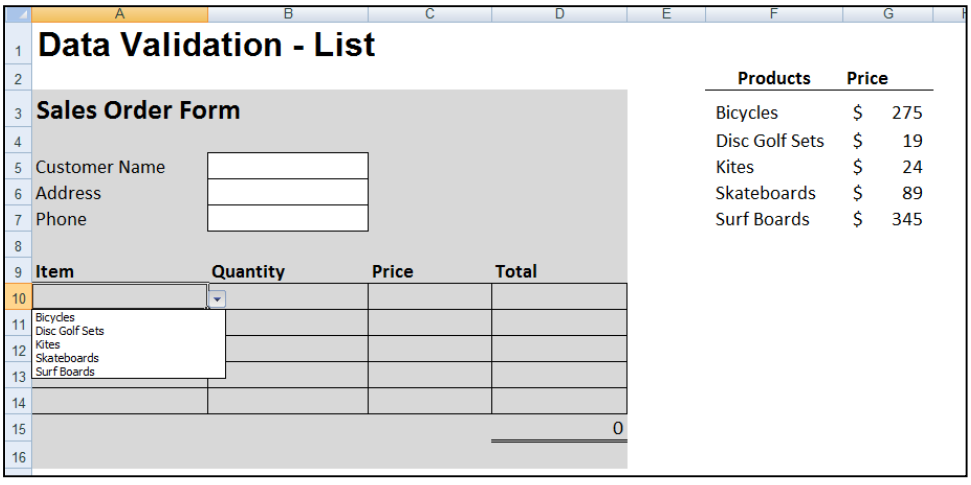
    d. **ALT + ;** - The **Alt + ;** key combination is the shortcut to using the Select Visible Cells Tool.

Data Validation

Data Validation can be used to limit the data that can be entered into a cell. For example, you might want the user to enter only values between 1% and 99%. You might also use this tool to enable data input to a drop down list which offers two advantages in that it can be faster and more accurate. To create a dropdown list, enter a list into sequential cells in Excel. Next, from the **Data** tab select **Data Validation**, **Data Validation** (yes, again), then in the dialog box (as shown below) select **List** from the **Allow** dropdown box and then indicate the data range for your list in the **Source** box.

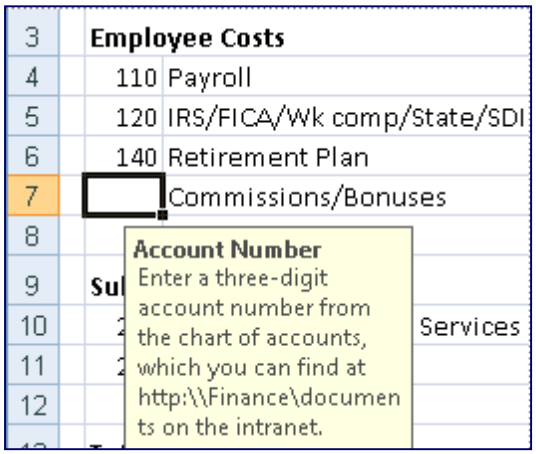


After making all the necessary selections in the validation list dialog box, your worksheet will produce a cell containing a drop down list (shown in cell A10 below) that behaves as shown.

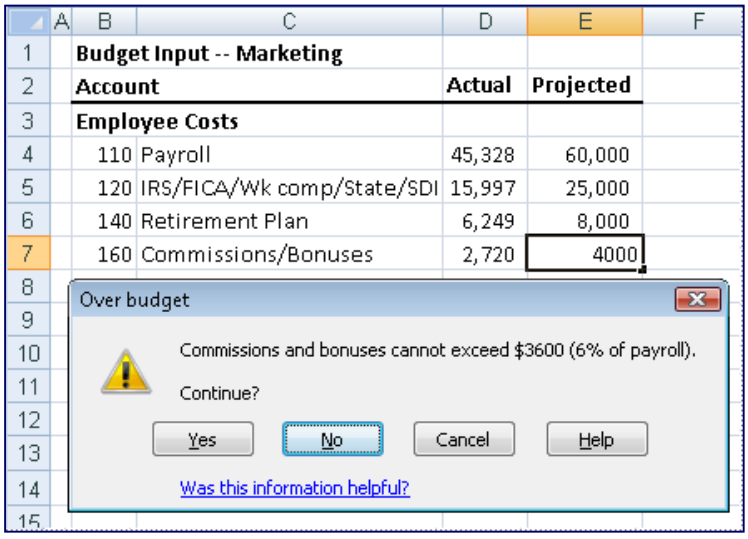


You can also provide messages to define what input you expect for the cell, and instructions to help users correct any errors. For example, on a worksheet, you can set up a cell to allow only

account numbers that are exactly three characters long. When users select the cell, you can show them a message such as this one:



If users ignore this message and type invalid data in the cell, such as a two-digit or five-digit number, you can display an actual error message. In a more advanced scenario, you might use data validation to calculate the maximum allowed value in a cell based on a value elsewhere in the workbook. In the following example, the user has typed $4,000 in cell E7, which exceeds the maximum limit specified for commissions and bonuses.



If the payroll budget were to increase or decrease, the allowed maximum in E7 would automatically increase or decrease with it.

Data Table ("What-if Analysis")

Data tables are part of the collection of what-if analysis commands, which include:

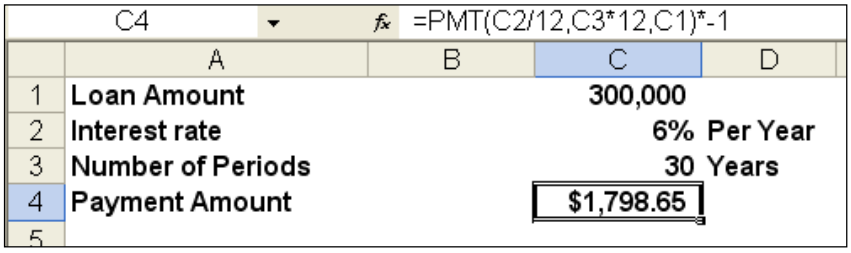
1. Data Tables
2. Goal Seek
3. Scenarios

The **Data Table** command enables the process of changing values in cells to see how those changes will affect the outcome. For example, you can use a data table to vary the interest rate and term length used in a loan to determine possible monthly payment amounts.

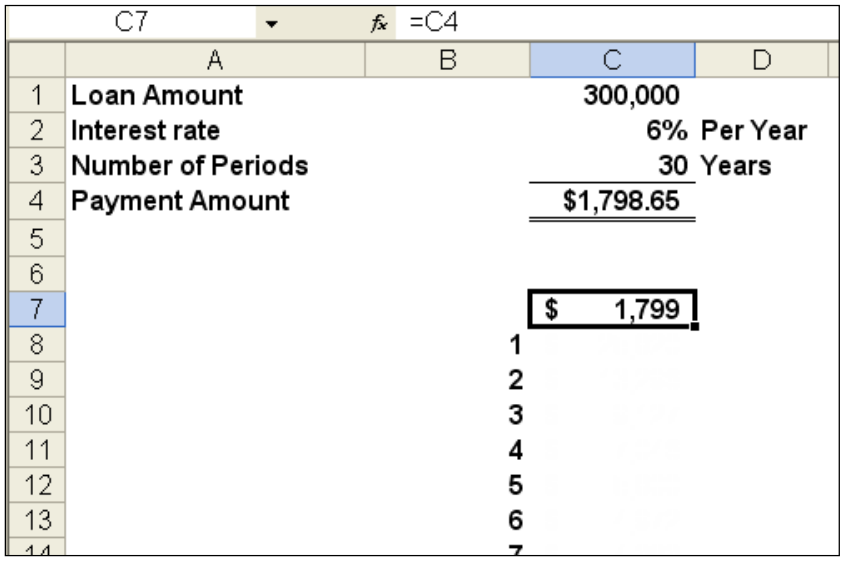
There are two types of **Data Tables** – **One Way** and **Two Way**. A data table cannot accommodate more than two variables. If you want to analyze more than two variables, you should use scenarios. Although it is limited to only one or two criterion (one for the row input cell and one for the column input cell), each criterion can include as many different variable values as you want. (In contrast, a **Scenario** can have a maximum of 32 different criterion, but you can create as many **Scenarios** as you want.)

Loan Analysis Example

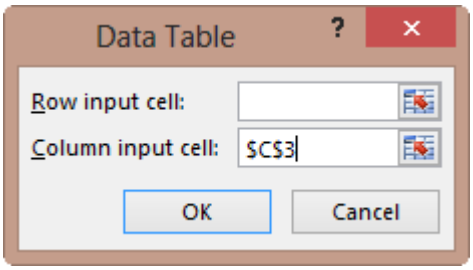
In this exercise, we start by creating a simple Payment function to calculate the payment amount of a loan given a loan amount, interest rate and number of periods.



The next step is to create a **Two-Way Data Table** displaying the resulting payment amount given a variety of lengths of the loan. This process is started by creating a list of the alternative loan amounts, as shown below in **B8, B9, B10**, etc. Cell **C7** must reference the results you want to be displayed in the table.



Next, highlight the data table range and use the **Data Table** command on the **Data** tab (as shown below) to generate the desired table.

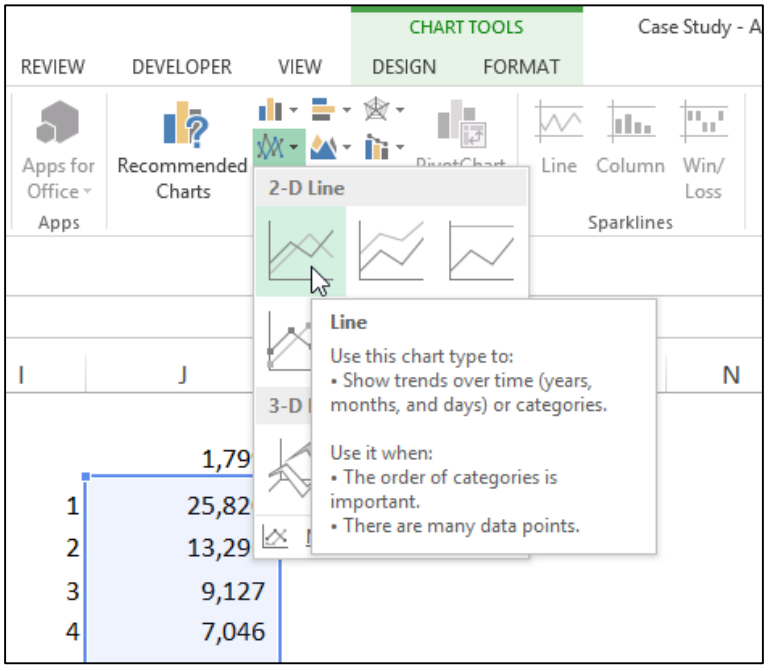


This process will generate the following table:

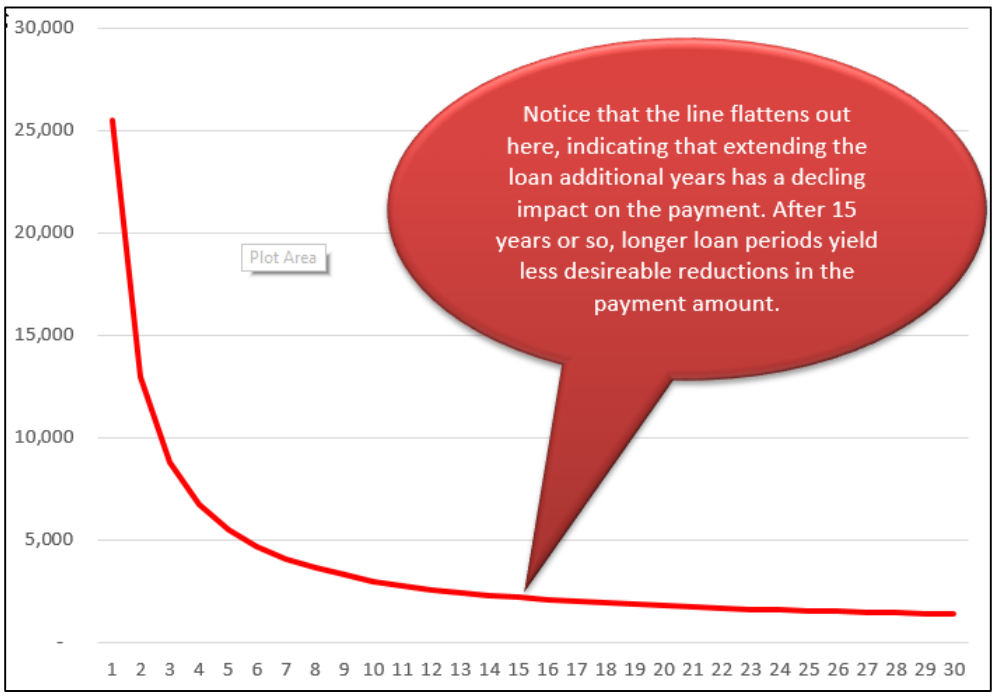
	A	B	C	D
1	Loan Amount		300,000	
2	Interest rate		6%	Per Year
3	Number of Periods		30	Years
4	Payment Amount		$1,798.65	
5				
6				
7			$ 1,799	
8		1	$ 25,820	
9		2	$ 13,296	
10		3	$ 9,127	
11		4	$ 7,046	
12		5	$ 5,800	
13		6	$ 4,972	

This table tells us that the same loan amount will require a monthly payment of $4,972 to pay the loan off in just 6 years, or a monthly payment of $5,800 to repay the loan in just 5 years.

The next step in this exercise is to generate a line chart based on the data table we just created. This line chart will provide some interesting observations regarding the benefits and detriments of paying off loans over longer periods.



The resulting chart is shown as follows:



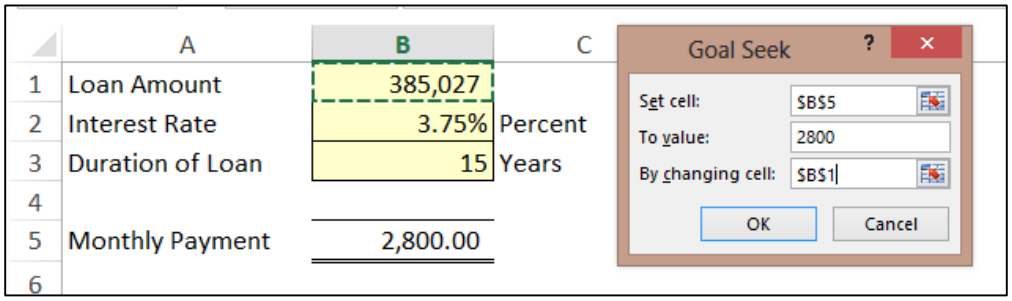
Based on this, no one should ever obtain a fair market loan for more than 15 years, the reduction in payments simply aren't worth the additional length of the loan. This same basic behavior is seen whether the interest rate is 1% or 100%, or whether the loan amount is $1,000 or $10,000,000. The only time you might be justified in obtaining a loan longer than 15 years might be when you are extended a favorable interest rate (perhaps from a rich uncle), better than a fair market interest rate.

Goal Seek

If you know the result that you want from a formula, but are not sure what input values are needed to produce your desired results, use **Goal Seek**. For example, suppose that you have decided to purchase a house, but you don't know how much house you can afford. In this case, you know how the interest rate (3.75%) and how long you want to take to pay off the loan (15 years), and the amount you can afford to pay each month ($2,800). In this case, you can use **Goal Seek** to work backwards to figure out how much house you can afford. Start by calculating the monthly payment based on any random home loan amount as pictured below.

	A	B	C	D	E
1	Loan Amount	300,000			
2	Interest Rate	3.75%	Percent		
3	Duration of Loan	15	Years		
4					
5	Monthly Payment	2,181.67			

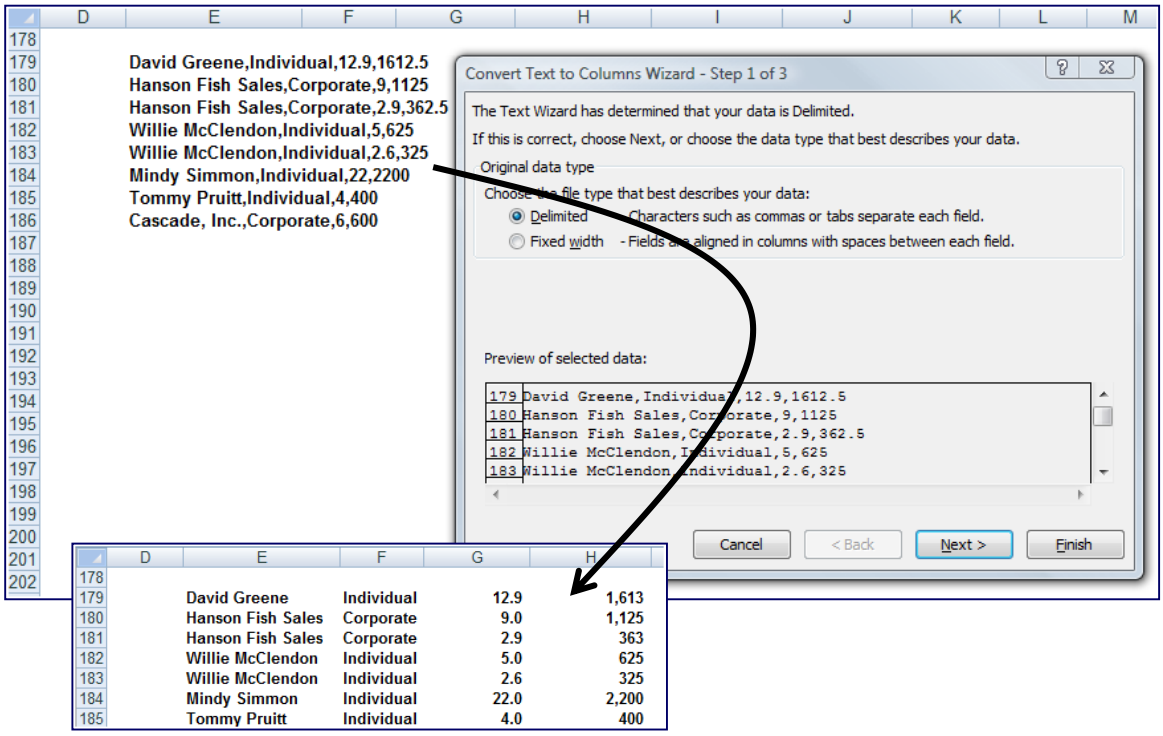
Next, from the **Data** tab, select **What-If Analysis, Goal Seek**. Fill in the parameters to set the payment amount to $2800 by adjusting the Loan Amount, as shown, and then click OK.



The result is that a person with $2,800 available to make monthly payments can afford to purchase a home costing up to $385,027 (assuming a 15 year loan and 3.75% interest rate) – as pictured above. (Keep in mind that anyone actually following this scenario would need to consider that homes also come with other monthly obligations including real estate taxes, insurance maintenance, etc.)

Data - Text to Columns

CPAs sometimes receive data from their clients or IT departments that is in text form. When this happens, Excel can split the contents of one or more cells in a column and distribute those contents as individual parts across other cells in adjacent columns. For example, the worksheet below contains a column of full names and amounts that you want to split into separate columns. The **Text to Columns** wizard parses the data automatically into separate cells. To use this tool, select the cell, range or entire column that contains the text values that you want to split.



David Greene	Individual	12.9	1,613
Hanson Fish Sales	Corporate	9.0	1,125
Hanson Fish Sales	Corporate	2.9	363
Willie McClendon	Individual	5.0	625
Willie McClendon	Individual	2.6	325
Mindy Simmon	Individual	22.0	2,200
Tommy Pruitt	Individual	4.0	400

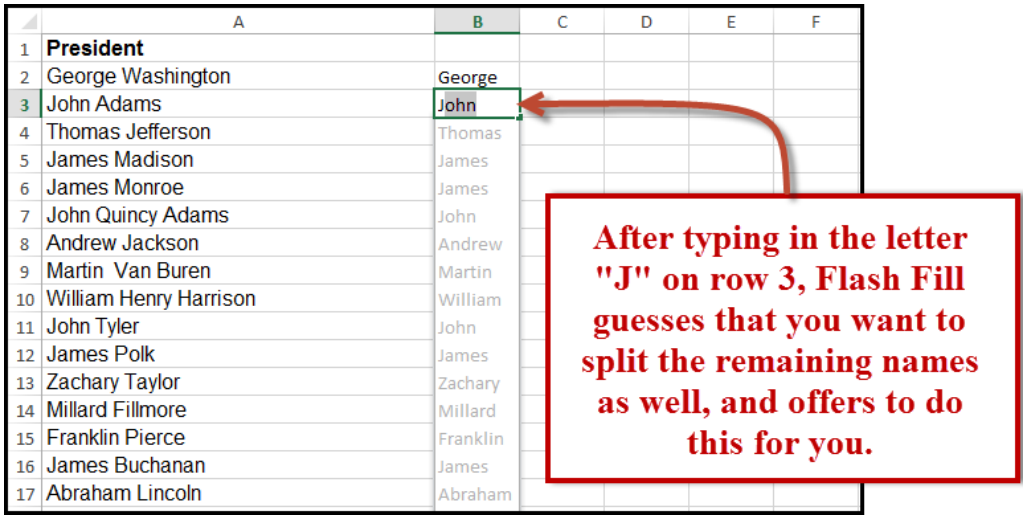
Notes:

1. A range that you want to split can include any number of rows, but it can include no more than one column.

2. You also should make sure there are enough blank columns to the right of the selected column to prevent overwriting existing data in those adjacent columns.

Flash Fill

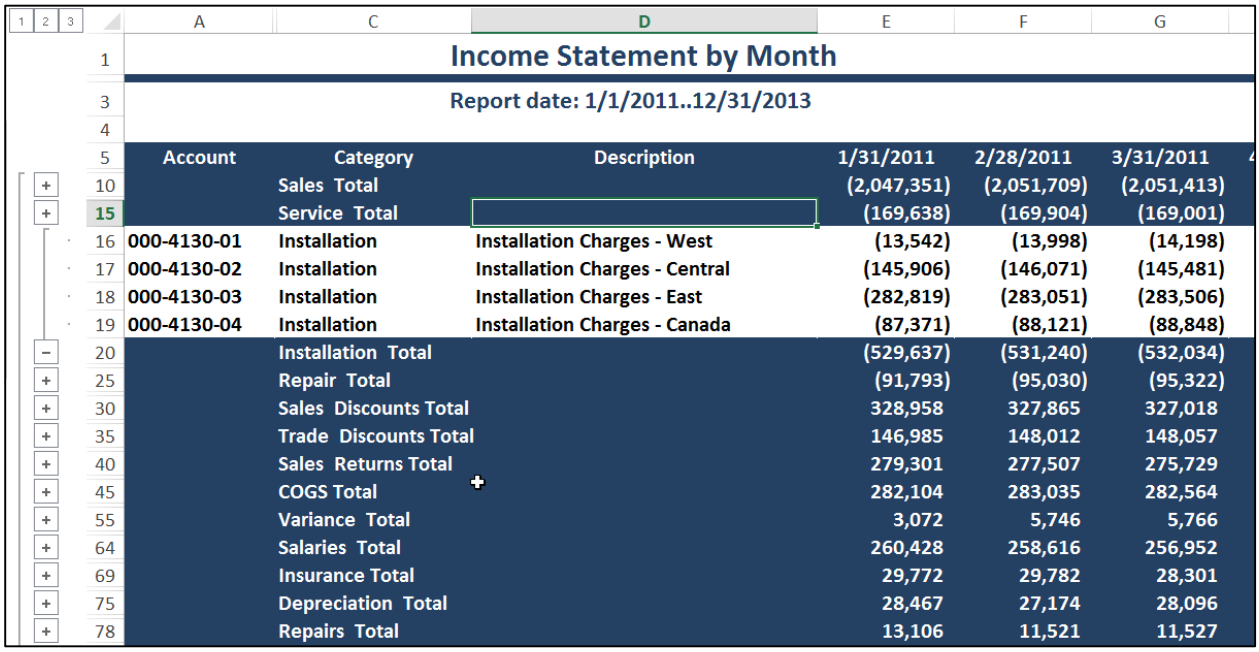
Of all the Office 2013 applications, Excel is the beneficiary of the most impressive enhancements. Excel's new **Flash Fill** watches you work and applies logic to help you complete your tasks. The example pictured below contains a list of 44 first and last names in Column A, which I want to separate into Columns B and C. As I start typing the first name of the second record in Column B; Excel's **Flash Fill** guesses what I'm trying to do and offers to fill in the remaining 42 first names *(as shown in grey text)*.



	A	B	C	D	E	F
1	**President**					
2	George Washington	George				
3	John Adams	John				
4	Thomas Jefferson	Thomas				
5	James Madison	James				
6	James Monroe	James				
7	John Quincy Adams	John				
8	Andrew Jackson	Andrew				
9	Martin Van Buren	Martin				
10	William Henry Harrison	William				
11	John Tyler	John				
12	James Polk	James				
13	Zachary Taylor	Zachary				
14	Millard Fillmore	Millard				
15	Franklin Pierce	Franklin				
16	James Buchanan	James				
17	Abraham Lincoln	Abraham				

Data Grouping & Outlining

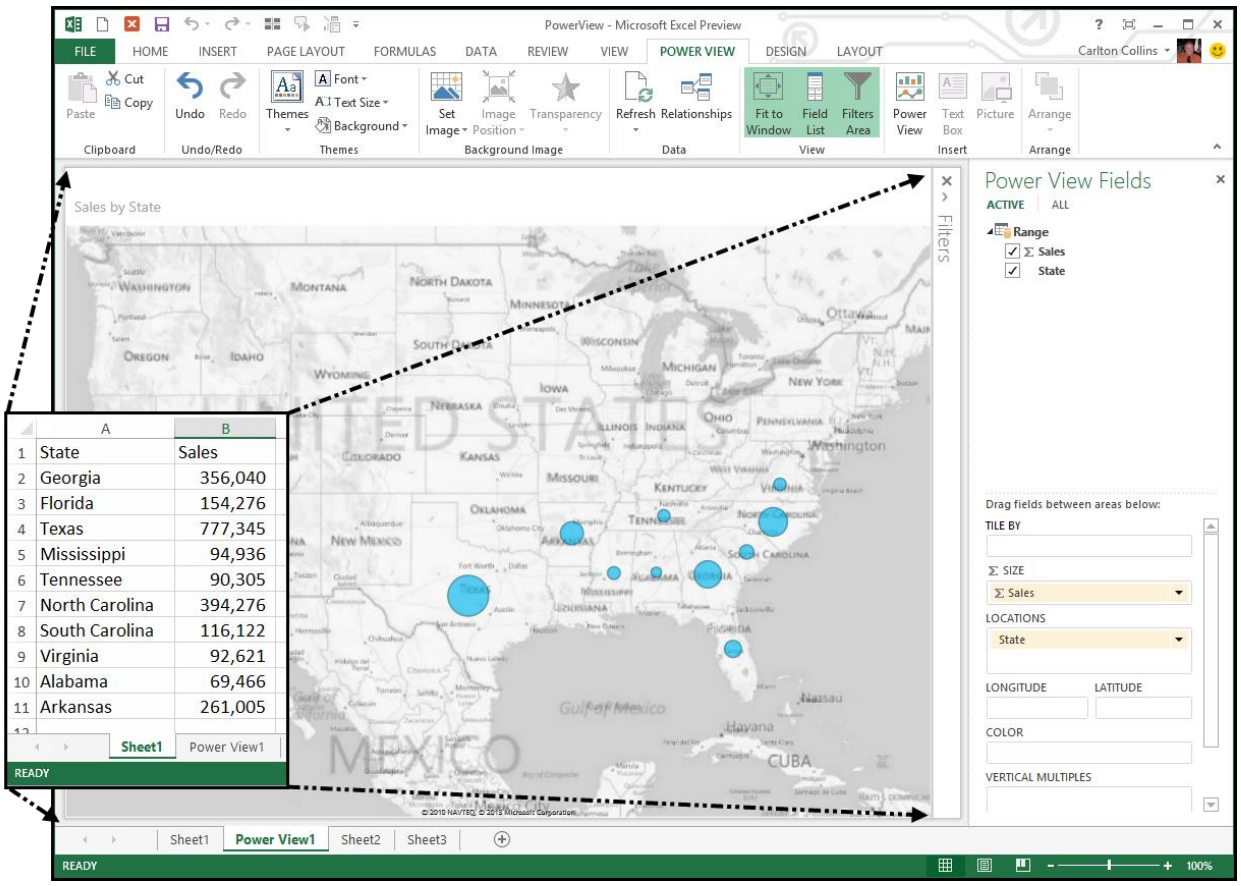
If you have a list of data that you want to group and summarize, you can create an outline of up to eight levels. Each inner level (represented by a higher number in the outline symbols) displays detailed data for the preceding outer level, represented by a lower number in the outline symbols. Use an outline to quickly display summary rows or columns, or to reveal the detail data for each group. You can create an outline of rows (as shown in the example below), an outline of columns, or an outline of both rows and columns.



	A	C	D	E	F	G
1	Income Statement by Month					
3	Report date: 1/1/2011..12/31/2013					
4						
5	Account	Category	Description	1/31/2011	2/28/2011	3/31/2011
10		Sales Total		(2,047,351)	(2,051,709)	(2,051,413)
15		Service Total		(169,638)	(169,904)	(169,001)
16	000-4130-01	Installation	Installation Charges - West	(13,542)	(13,998)	(14,198)
17	000-4130-02	Installation	Installation Charges - Central	(145,906)	(146,071)	(145,481)
18	000-4130-03	Installation	Installation Charges - East	(282,819)	(283,051)	(283,506)
19	000-4130-04	Installation	Installation Charges - Canada	(87,371)	(88,121)	(88,848)
20		Installation Total		(529,637)	(531,240)	(532,034)
25		Repair Total		(91,793)	(95,030)	(95,322)
30		Sales Discounts Total		328,958	327,865	327,018
35		Trade Discounts Total		146,985	148,012	148,057
40		Sales Returns Total		279,301	277,507	275,729
45		COGS Total		282,104	283,035	282,564
55		Variance Total		3,072	5,746	5,766
64		Salaries Total		260,428	258,616	256,952
69		Insurance Total		29,772	29,782	28,301
75		Depreciation Total		28,467	27,174	28,096
78		Repairs Total		13,106	11,521	11,527

PowerView

Excel's new **PowerView** inserts new worksheets connected to your data, and then enables you to create new report types, such as the interactive map chart presented below. The resulting PowerView Map report is zoomable, and filters can be applied to display partial data.



	A	B
1	State	Sales
2	Georgia	356,040
3	Florida	154,276
4	Texas	777,345
5	Mississippi	94,936
6	Tennessee	90,305
7	North Carolina	394,276
8	South Carolina	116,122
9	Virginia	92,621
10	Alabama	69,466
11	Arkansas	261,005

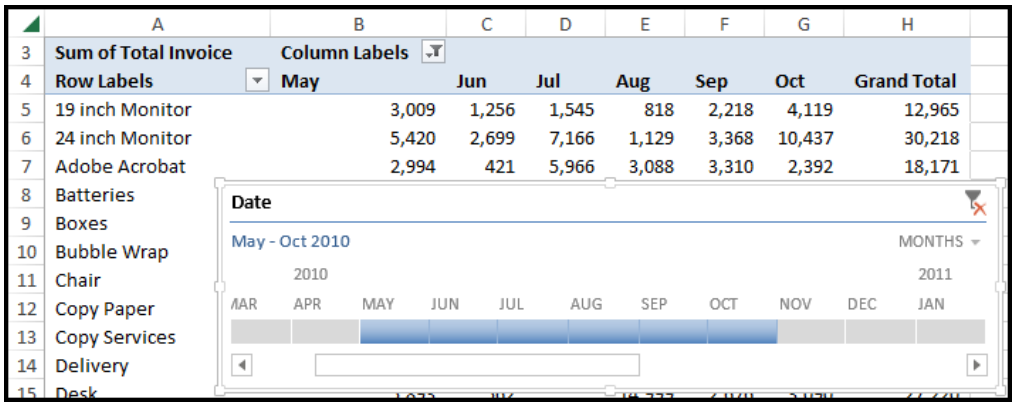
PowerView worksheets can be published as standalone, interactive reports to Microsoft SharePoint's PowerPivot Gallery or other reporting service destinations. Some of the tools provided by PowerView include the ability to create a dashboard containing multiple PowerViews, apply themes and backgrounds, insert pictures and text boxes, insert collapsible and expandable tiles, and add data slicers.

PowerView Learning Points

1. **Included** - PowerView isn't included in Office Home editions. Power View and PowerPivot are only available in the Office Professional Plus and Office 365 Professional Plus editions.
2. **Worksheet** - PowerView is another sheet in the workbook, and acts like a Dashboard.
3. **Fields** – Add data to the PowerView by selecting fields, much like you do for PivotTables.
4. **Play** - You can play charts to see how they change over time.
5. **PowerView uses PowerPivot -** Known to be extremely fast for retrieving and sorting data.
6. **Relationships** – PowerView can integrate multiple data sets via relationships.

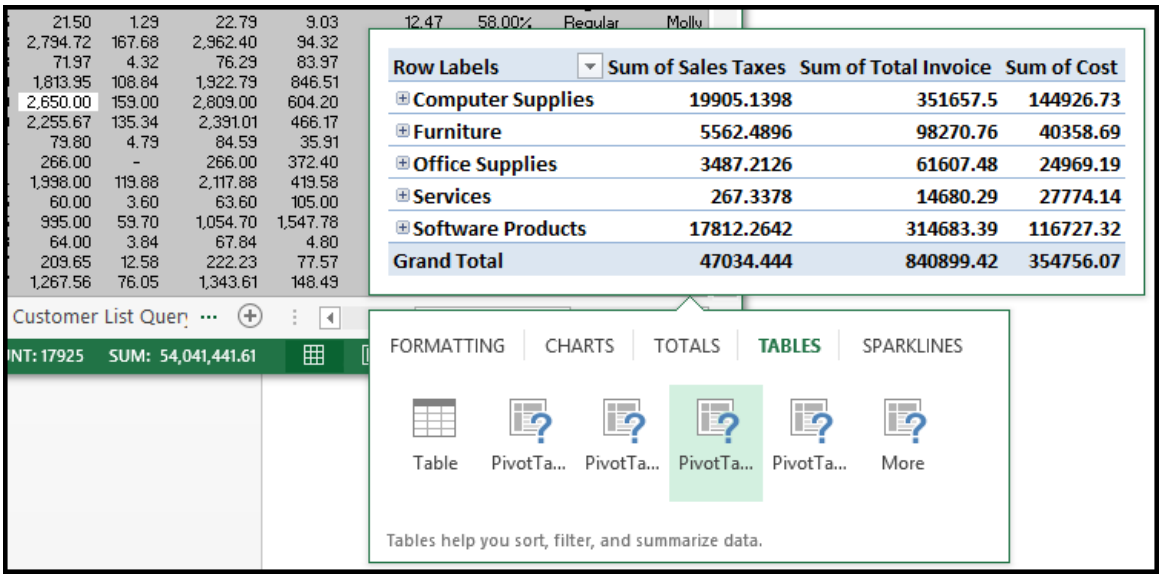
Timeline Slicer

CPAs who work with PivotTables will likely appreciate Excel's new **Timeline Slicer** which helps users *slice and dice* Pivot data that contain dates. As an example, selecting the dates May through October on the Timeline slicer pictured below adjusts the PivotTable to display May thru October data.



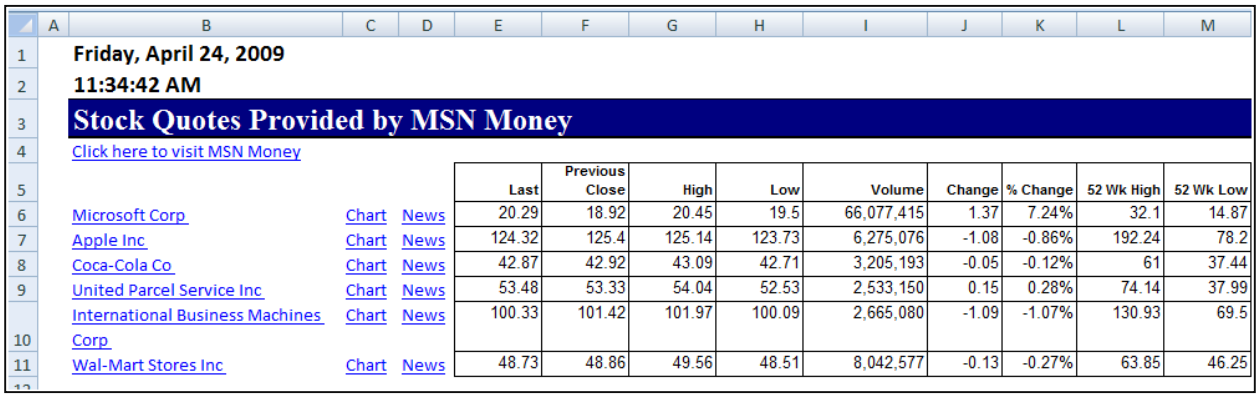
Quick Analysis

Excel's **Quick Analysis** tool also helps you analyze data by offering a variety of formatting, charts, totals, tables and sparkline layouts to instantly summarize large volumes of data *(see screen below)*. When using Quick Analysis to scrutinize text-only data, text specific options for highlighting duplicate or unique text items appear.



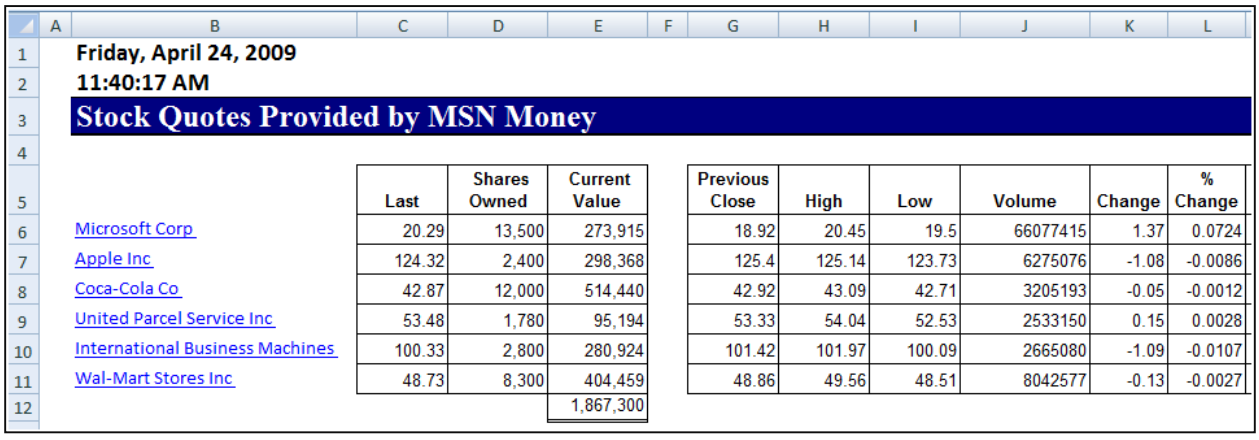
Queries

Excel 2010, 2007 & 2003 include pre-designed "queries" that can import commonly used data such as stock quotes for updating a stock portfolio. All you need is a connection to the internet and of course, some stock ticker symbols. In Excel 2010 or 2007 select **Data, Existing Connections, MSN MoneyCentral Stock Quotes** (or in Excel 2003 select **Data**, **Import External Data**, **Import Data Existing Connections, MSN MoneyCentral Stock Quotes)** and then walk through the web query wizard for importing stock quotes. In just a few seconds, Excel will retrieve Real-Time data for NYSE, NASDAQ & AMEX, and 20 minute delayed stock prices from other exchanges (during the hours when the stock market is open) and display a grid of complete up-to-date stock price information that is synchronized to the stock market's changing stock prices. With each click of the "Refresh" button, the stock price information in Excel is updated - this sure beats picking numbers out of the newspaper.



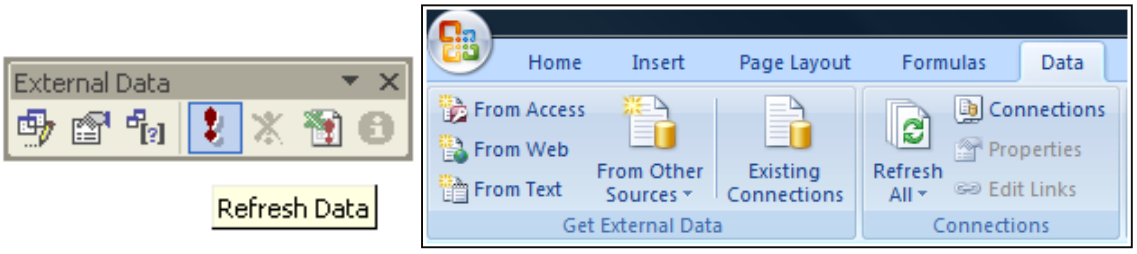
1	**Friday, April 24, 2009**											
2	**11:34:42 AM**											
3	**Stock Quotes Provided by MSN Money**											
4	Click here to visit MSN Money											
5				Last	Previous Close	High	Low	Volume	Change	% Change	52 Wk High	52 Wk Low
6	Microsoft Corp	Chart	News	20.29	18.92	20.45	19.5	66,077,415	1.37	7.24%	32.1	14.87
7	Apple Inc	Chart	News	124.32	125.4	125.14	123.73	6,275,076	-1.08	-0.86%	192.24	78.2
8	Coca-Cola Co	Chart	News	42.87	42.92	43.09	42.71	3,205,193	-0.05	-0.12%	61	37.44
9	United Parcel Service Inc	Chart	News	53.48	53.33	54.04	52.53	2,533,150	0.15	0.28%	74.14	37.99
10	International Business Machines Corp	Chart	News	100.33	101.42	101.97	100.09	2,665,080	-1.09	-1.07%	130.93	69.5
11	Wal-Mart Stores Inc	Chart	News	48.73	48.86	49.56	48.51	8,042,577	-0.13	-0.27%	63.85	46.25

***Completing the Stock Portfolio* –** Next link the grid data to another worksheet, and insert new columns containing the number of shares owned, as wells as an additional column to compute the total value based on shares owned, as shown below.



1	**Friday, April 24, 2009**										
2	**11:40:17 AM**										
3	**Stock Quotes Provided by MSN Money**										
4											
5		Last	Shares Owned	Current Value	Previous Close	High	Low	Volume	Change	% Change	
6	Microsoft Corp	20.29	13,500	273,915	18.92	20.45	19.5	66077415	1.37	0.0724	
7	Apple Inc	124.32	2,400	298,368	125.4	125.14	123.73	6275076	-1.08	-0.0086	
8	Coca-Cola Co	42.87	12,000	514,440	42.92	43.09	42.71	3205193	-0.05	-0.0012	
9	United Parcel Service Inc	53.48	1,780	95,194	53.33	54.04	52.53	2533150	0.15	0.0028	
10	International Business Machines	100.33	2,800	280,924	101.42	101.97	100.09	2665080	-1.09	-0.0107	
11	Wal-Mart Stores Inc	48.73	8,300	404,459	48.86	49.56	48.51	8042577	-0.13	-0.0027	
12				1,867,300							

Refreshing the Stock Prices **-** Once you have created your portfolio, simply click the Refresh Data button on the "External Data" Toolbar in Excel 2003 or on the "Data Ribbon" in Excel 2010 & 2007 shown below to update the current value of your Portfolio.



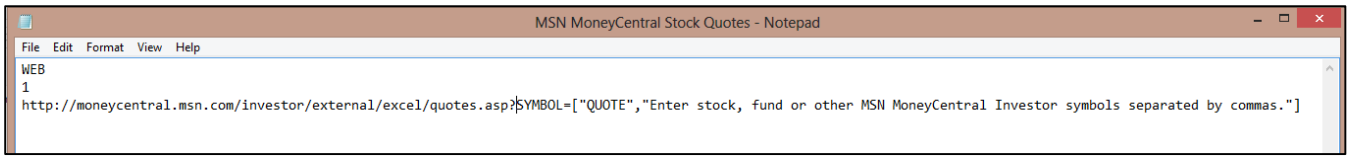
Query Parameters **-** There are numerous options to help you extract exactly the data you want the way you want it. The "Web Query Parameters Box", "Web Query Options Box" and "External Data Properties Box" provide numerous options for controlling your web query.

Excel 2013 Stock Quote Queries

In Excel 2013, for unknown reasons Microsoft has removed the stock quote query option, therefore below are instructions for restoring this option.

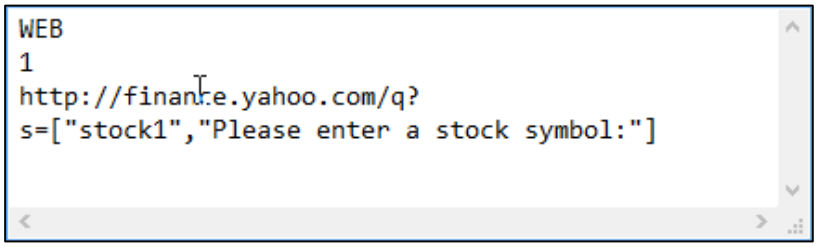
1. Launch Notepad (**Start, Programs, Windows Accessories, Notepad**)

2. Enter the following information exactly:

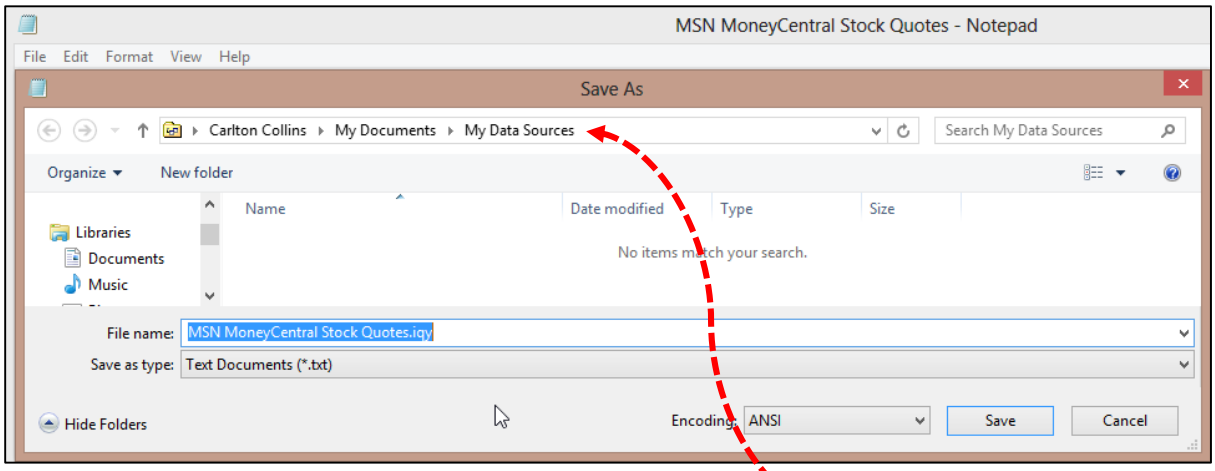


Web
1
http://moneycentral.msn.com/investor/external/excel/quotes.asp?SYMBOL=["QUOTE","Enter stock, fund or other MSN MoneyCentral Investor symbols separated by commas."]

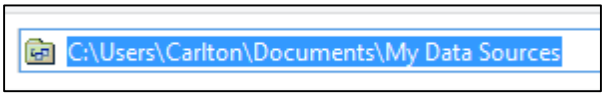
Or if you prefer, use this to query Yahoo's stock prices:



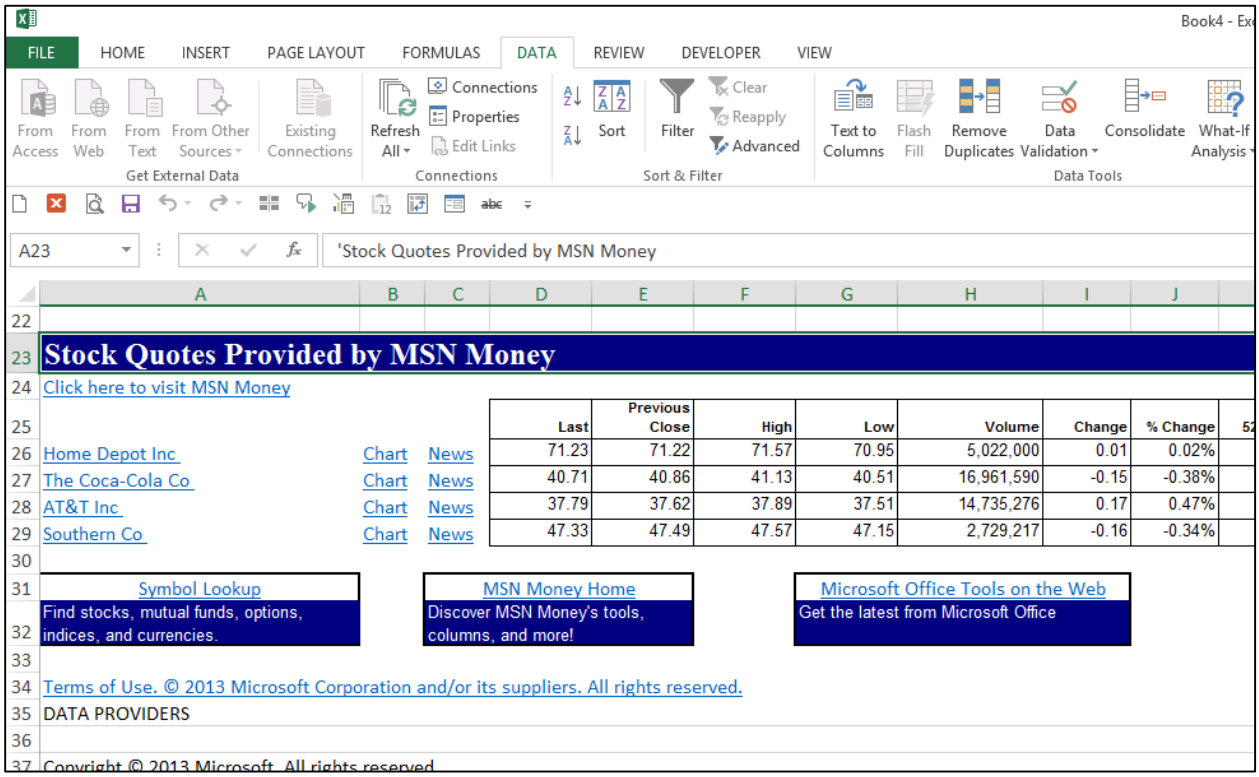
3. Save the file using any name you want, but be sure to include the extension **.igy** as pictured.



4. Make sure to save this file to the folder labeled **My Data Sources**.



5. Now in Excel, from the **Data** tab select **Existing Queries**, then scroll to and launch the new query you just created – it should work just like it did in Excel 2010, 2007 and 2003.



Database Queries

Microsoft Excel can also query and retrieve data you want from an external data source. For example, you can retrieve Microsoft Excel data about a specific product by region. You can create a simple query by using the Query Wizard, or you can create a more complex query by using the advanced features of Microsoft Query.

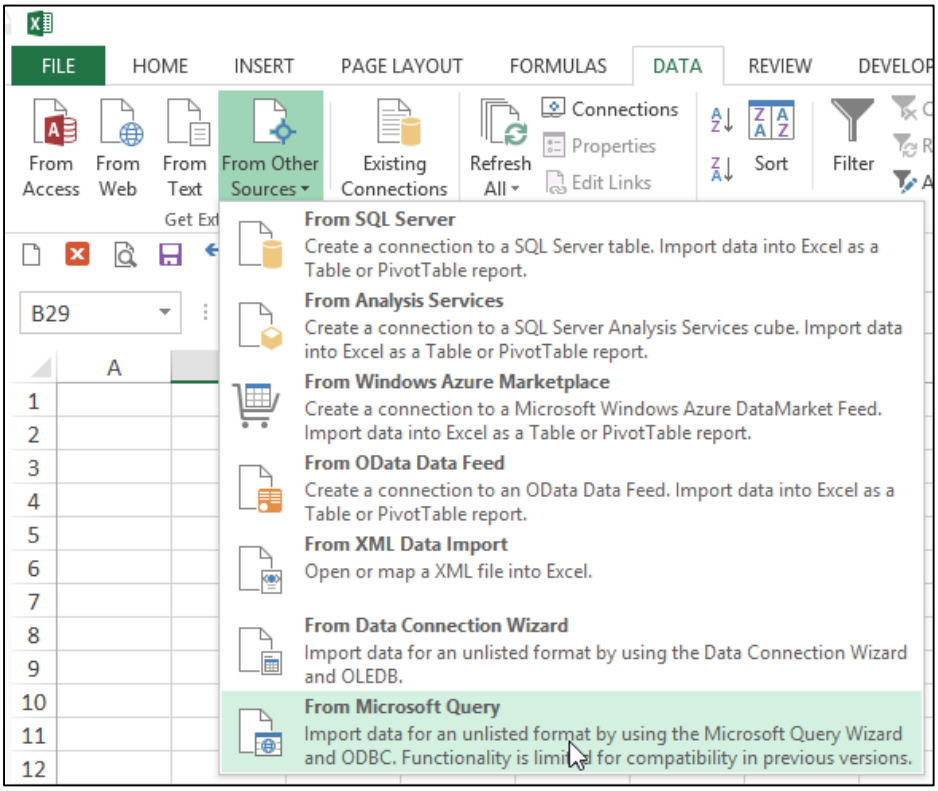
To use Microsoft Query to retrieve external data, you must:

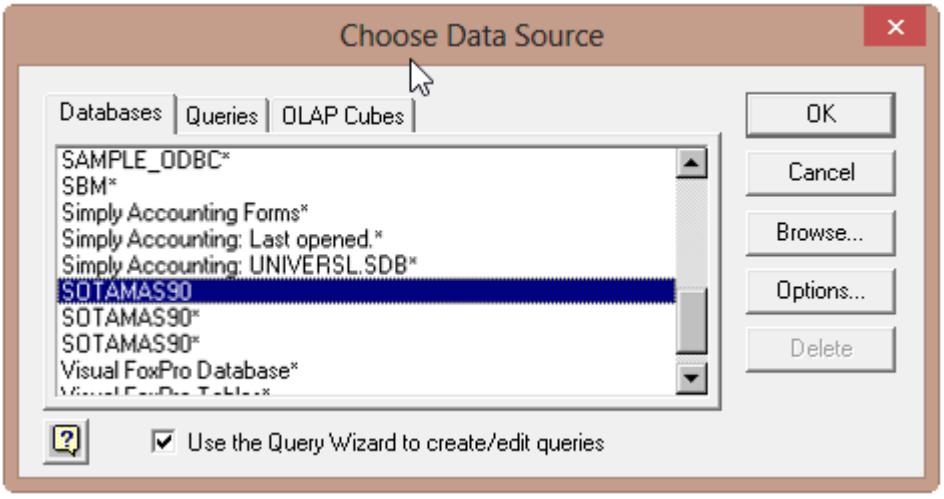
1. **Have access to an external data source -** If the data is not on your local computer, you may need to see the administrator of the external database for a password, user permission, or other information about how to connect to the database.

2. **Install Microsoft Query -** If Microsoft Query is not available, you might need to install it.

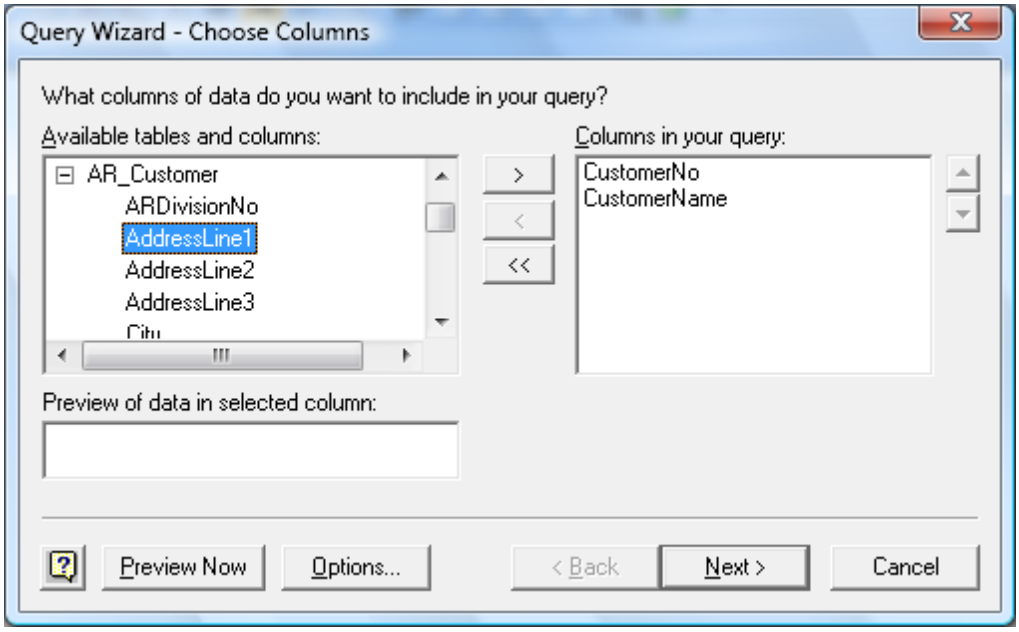
3. **Specify a source to retrieve data from, and then start using Microsoft Query** - For example, if you want to insert database information, display the Database toolbar, click Insert Database, click Get Data, and then click MS Query.

For example, suppose we have some data in our accounting system – Sage MAS 200 ERP that we would like to analyze in Excel. We can use the Database Query Wizard to build a query that will extract the data we need and place it in an Excel spreadsheet, as follows.

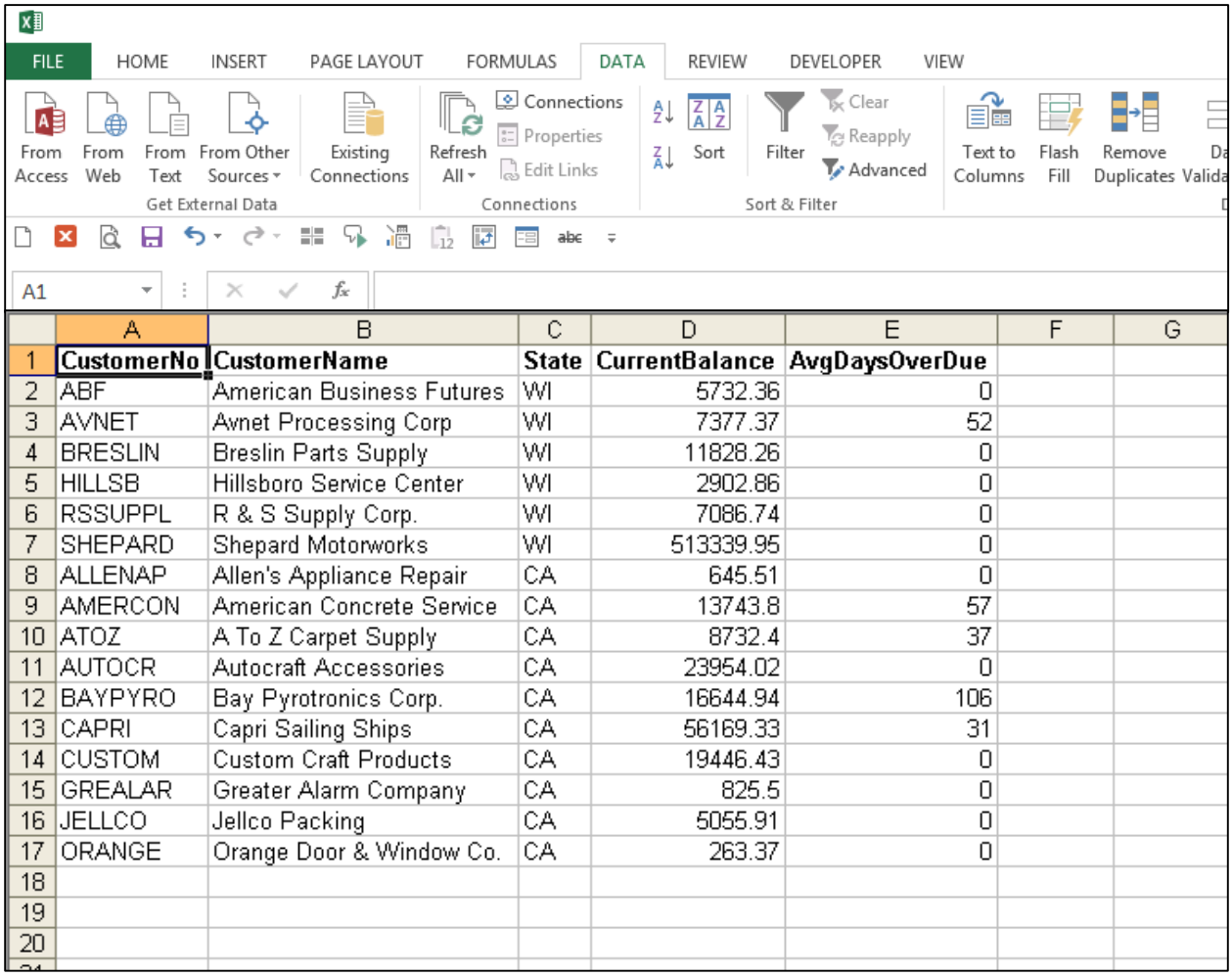




The first step is to select the type of database you want to query and to select the specific database.



Upon the selection of the desired database a list of tables will be presented. Choose the desired tables, and select the desired data fields to be imported. You will then have the option to filter and sort the data before it is imported. Finally you will be given the option to save the query so you can run it at a later date without having to start from scratch. Excel will then return a table full of the data you requested as shown in the screen below.



	A	B	C	D	E	F	G
1	**CustomerNo**	**CustomerName**	**State**	**CurrentBalance**	**AvgDaysOverDue**		
2	ABF	American Business Futures	WI	5732.36	0		
3	AVNET	Avnet Processing Corp	WI	7377.37	52		
4	BRESLIN	Breslin Parts Supply	WI	11828.26	0		
5	HILLSB	Hillsboro Service Center	WI	2902.86	0		
6	RSSUPPL	R & S Supply Corp.	WI	7086.74	0		
7	SHEPARD	Shepard Motorworks	WI	513339.95	0		
8	ALLENAP	Allen's Appliance Repair	CA	645.51	0		
9	AMERCON	American Concrete Service	CA	13743.8	57		
10	ATOZ	A To Z Carpet Supply	CA	8732.4	37		
11	AUTOCR	Autocraft Accessories	CA	23954.02	0		
12	BAYPYRO	Bay Pyrotronics Corp.	CA	16644.94	106		
13	CAPRI	Capri Sailing Ships	CA	56169.33	31		
14	CUSTOM	Custom Craft Products	CA	19446.43	0		
15	GREALAR	Greater Alarm Company	CA	825.5	0		
16	JELLCO	Jellco Packing	CA	5055.91	0		
17	ORANGE	Orange Door & Window Co.	CA	263.37	0		
18							
19							
20							

Introduction to PivotTables

The PivotTable report tool provides an interactive way to summarize large amounts of data. Use should use the PivotTable tools to crunch and analyze numerical data PivotTable reports are particularly useful in the following situations:

a. Rearranging rows to columns or columns to rows (or "pivoting") to see different summaries of the source data.
b. Filtering, sorting, grouping, and conditionally formatting your data.
c. Preparing concise, attractive, and annotated online or printed reports.
d. Querying large amounts of data.
e. Subtotaling and aggregating numeric data.
f. Summarizing data by categories and subcategories.
g. Creating custom calculations and formulas.
h. Expanding and collapsing levels of data.
i. Drilling down to details from the summary data.

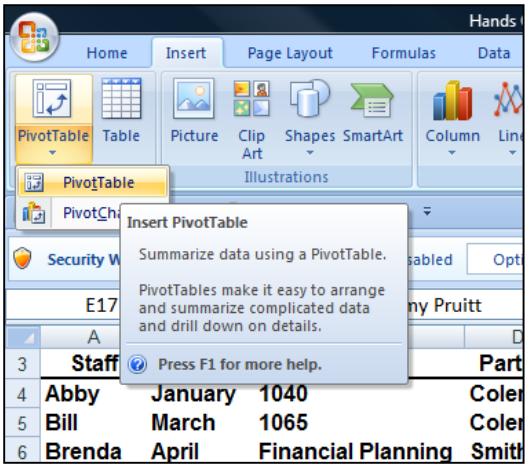
In essence, PivotTables present multidimensional data views to the user – this process is often referred to as "modeling", "data-cube analysis", or "OLAP data cubes". To re-arrange the PivotTable data, just drag and drop column and row headings to move data around. PivotTables are a great data analysis tool for management.

If you have never used a PivotTable before, initially the concept can be difficult to grasp. The best way to understand a PivotTable is to create a blank Pivot Table and then drag and drop field names onto that blank table. This way you will see the resulting pivot table magically appear and it will help you better understand the important relationship between the pivot pallet and the field name list.

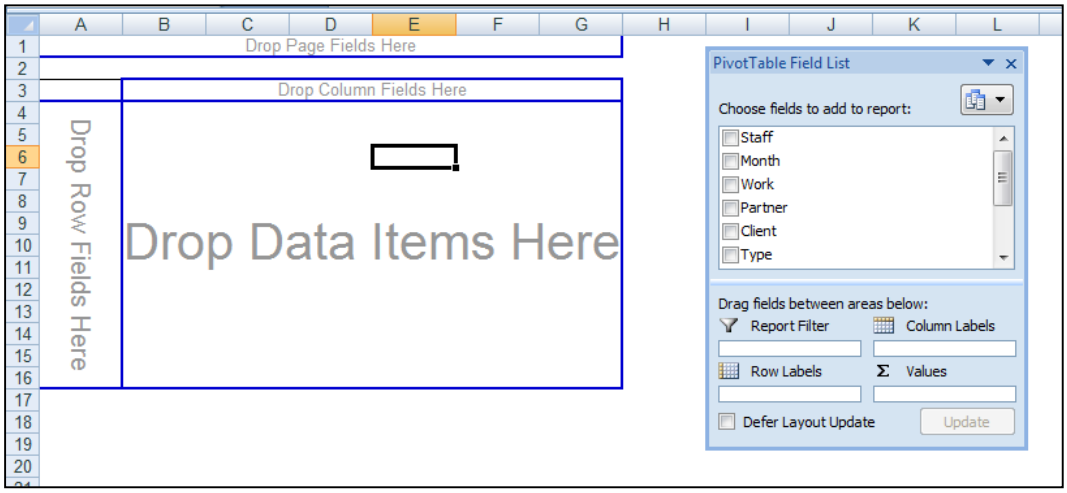
Let's create a simple PivotTable. Start with an Excel worksheet data that contains several columns of data – the data must include column and row headings and it helps if the data is contiguous. Place your cursor anywhere in the data and select PivotTable from the **Data** menu in Excel 2003 and click Finish; or from the **Insert** tab in Excel 2007. This process is shown below: Let's start with a page of data summarizing the results of tax season as all of the time sheet entries have been entered onto a single worksheet as shown below.

	A	B	C	D	E	F	G	H	I	J
3	Staff	Month	Work	Partner	Client	Type	Hours	Billings	Budget	Under/Over
4	Abby	January	1040	Coleman	Lisa Sullivan	Individual	19.0	1,425	1,311	114
5	Bill	March	1065	Coleman	Sam's Services	Corporate	22.0	1,650	1,848	(198)
6	Brenda	April	Financial Planning	Smith	Betty Harrington	Individual	10.2	1,020	1,377	(357)
7	Jennifer	March	1065	Coleman	Lisa Sullivan	Individual	18.4	630	706	(76)
8	Jennifer	January	1120	Coleman	Sam's Services	Corporate	32.0	2,400	2,208	192
9	Jennifer	March	1040	Coleman	Tony Davis	Individual	2.6	195	218	(23)
10	Jesseca	March	1040	Coleman	Betty Harrington	Individual	19.0	1,900	2,128	(228)
11	Jesseca	March	1120	Coleman	Course Concrete	Corporate	17.0	1,700	1,904	(204)
12	John	March	1040	Coleman	Mindy Simmon	Individual	16.0	1,600	1,792	(192)
13	Jesseca	January	1040	Coleman	Molly Francis	Individual	3.5	350	322	28
14	Jesseca	January	1040	Coleman	Robert Kennedy	Individual	3.7	370	340	30
15	Jesseca	March	1040	Coleman	Robert Kennedy	Individual	8.4	840	941	(101)
16	Jesseca	March	1040	Coleman	Tommy Pruitt	Individual	8.0	800	896	(96)
17	Jesseca	January	1040	Coleman	Tommy Pruitt	Individual	6.0	600	552	48
18	John	March	1120	Coleman	Camera Shot	Corporate	2.0	150	168	(18)
19	Kathleen	April	1040	Coleman	Robert Kennedy	Individual	2.0	200	270	(70)
20	Keith	February	1040	Coleman	Mindy Simmon	Individual	32.0	3,200	3,168	32
21	Martha	February	1120	Coleman	Course Concrete	Corporate	8.0	800	792	8
22	Martha	April	Fidiciary	Coleman	Molly Francis	Individual	6.0	600	810	(210)
23	Martin	April	Fidiciary	Coleman	Boris Tellman	Individual	6.0	750	1,013	(263)
24	Martin	February	1040	Coleman	Boris Tellman	Individual	3.5	438	433	4
25	Martin	February	1040	Coleman	Charlie Sullivan	Individual	2.0	250	248	3

Place your cursor anywhere in the data and select PivotTable from the Insert Ribbon as shown below:

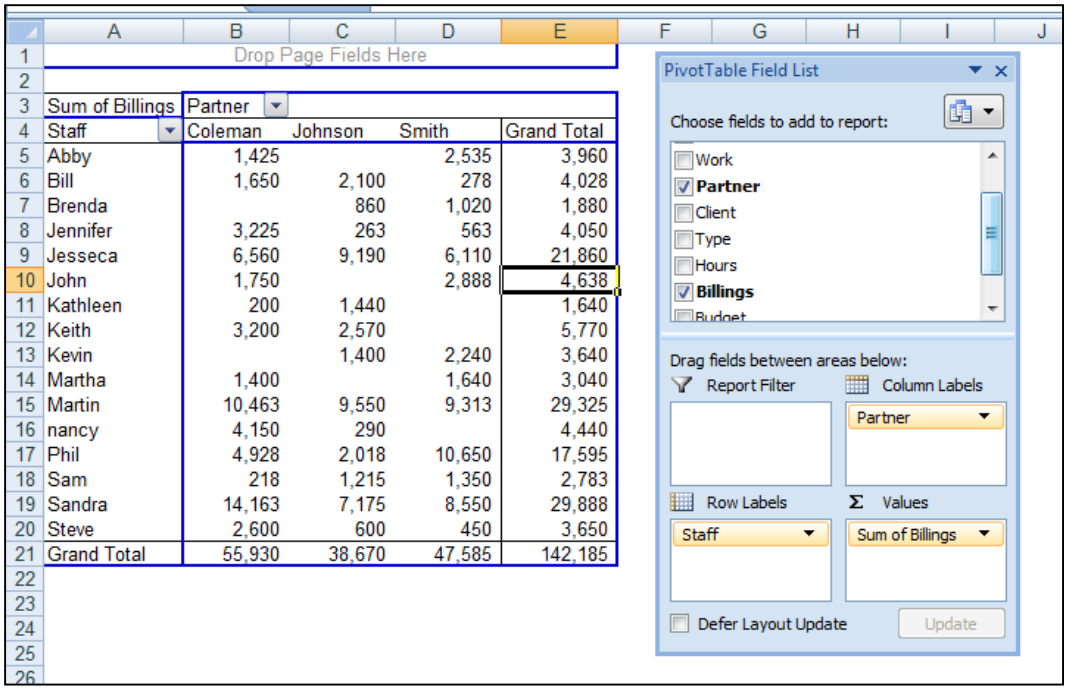


For learning purposes let's right mouse click on the PivotTable and select PivotTable Options, Display, Classic PivotTable Layout. Your screen will now appear as follows:



I like for CPAs to learn how to use Pivot Tables in this view because it visually helps them understand the all important relationship better the blank pivot palette and the PivotTable field List, both elements of which are shown in the screen above.

To proceed, simply drag and drop field names shown on the right onto the blank Pivot palette shown on the left. With each drop, your report grows larger. As an alternative you could use the check boxes next to field names – this functionality is new in Excel 2007. After adding some data to your blank Pivot Palette, your data will look something like this:



Sum of Billings	Partner			
Staff	Coleman	Johnson	Smith	Grand Total
Abby	1,425		2,535	3,960
Bill	1,650	2,100	278	4,028
Brenda		860	1,020	1,880
Jennifer	3,225	263	563	4,050
Jesseca	6,560	9,190	6,110	21,860
John	1,750		2,888	4,638
Kathleen	200	1,440		1,640
Keith	3,200	2,570		5,770
Kevin		1,400	2,240	3,640
Martha	1,400		1,640	3,040
Martin	10,463	9,550	9,313	29,325
nancy	4,150	290		4,440
Phil	4,928	2,018	10,650	17,595
Sam	218	1,215	1,350	2,783
Sandra	14,163	7,175	8,550	29,888
Steve	2,600	600	450	3,650
Grand Total	55,930	38,670	47,585	142,185

Next format and filter the Pivot Report. Very quickly your report comes together as shown below. Notice the filter button has been applied and a PivotTable style has also been applied for appearance.

Sum of Billings	Partner			
Staff	Coleman	Johnson	Smith	Grand Total
Brenda		860	1,020	1,880
Jennifer	3,225	263	563	4,050
Jesseca	6,560	9,190	6,110	21,860
John	1,750		2,888	4,638
Grand Total	**11,535**	**10,313**	**10,580**	**32,428**

Double clicking on any number in a Pivot Report will automatically produce a new worksheet complete with all supporting detail that comprises the summary number.

There are a multitude of PivotTable options that can be applied to alter the appearance or behavior of your PivotTable.

Key Points Concerning Pivot Tables are as Follows:

a. You can create as many Pivot Reports as you want from your initial raw data page. Your raw data remains unchanged as new PivotTables are created.

b. As your raw data changes, your PivotTables are updated each time you press the refresh button. Or if you prefer you can set your PivotTables to update themselves at regularly scheduled intervals – say every ten minutes.

c. A key to understanding PivotTables is understanding the relationship between the Blank Pivot palette and the PivotTable Field list. As data is selected in the list, it appears on the PivotTable Report.

d. You can alter the PivotTable simple by dragging and dropping the field names in different locations on the Pivot palette, or in different locations in the PivotTable Field list Box.

e. PivotTables can be pivoted.

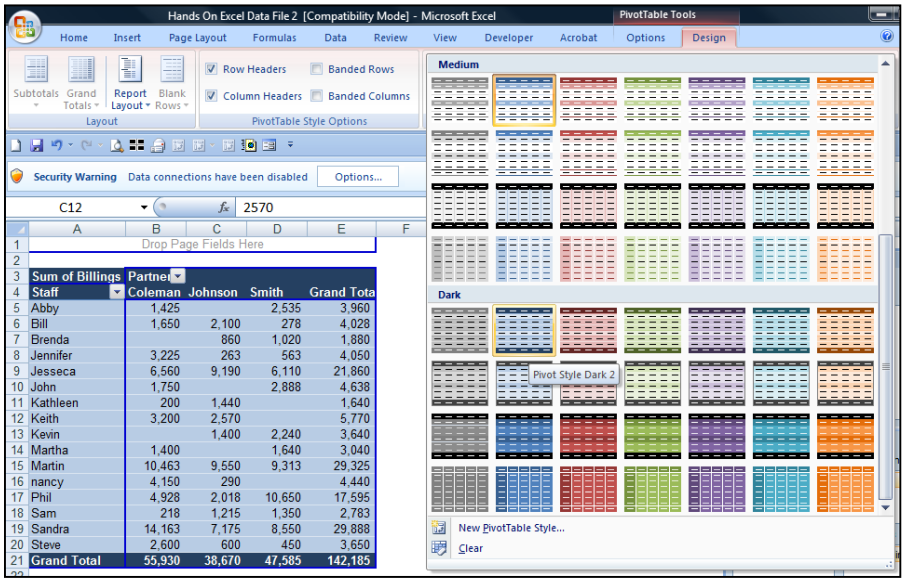
f. PivotTables can be sorted by any Column. (Or by any row when sorting left to right)

g. PivotTables can be Filtered.

h. PivotTables can be Drilled.

i. PivotTables can be copied and pasted.

j. PivotTables can be formatted using PivotTable Styles, as shown below.



k. Subtotals and grand totals can be displayed or suppressed at the users desire.

l. PivotTable Data can be shown as numbers or percentages at the users desire.

m. PivotTables can not only be summed, they can be averaged, minimized, maximized, counted, etc.

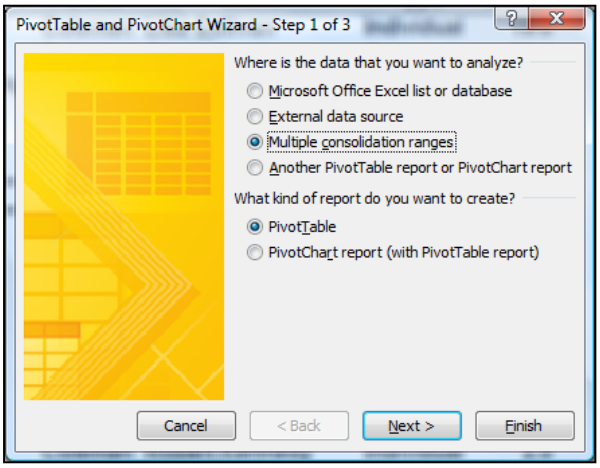
n. Blank rows can be displayed or suppressed at the users desire.

o. A new feature called “Compact Form” organize multiple column labels into a neatly organized outline which is easier to read.

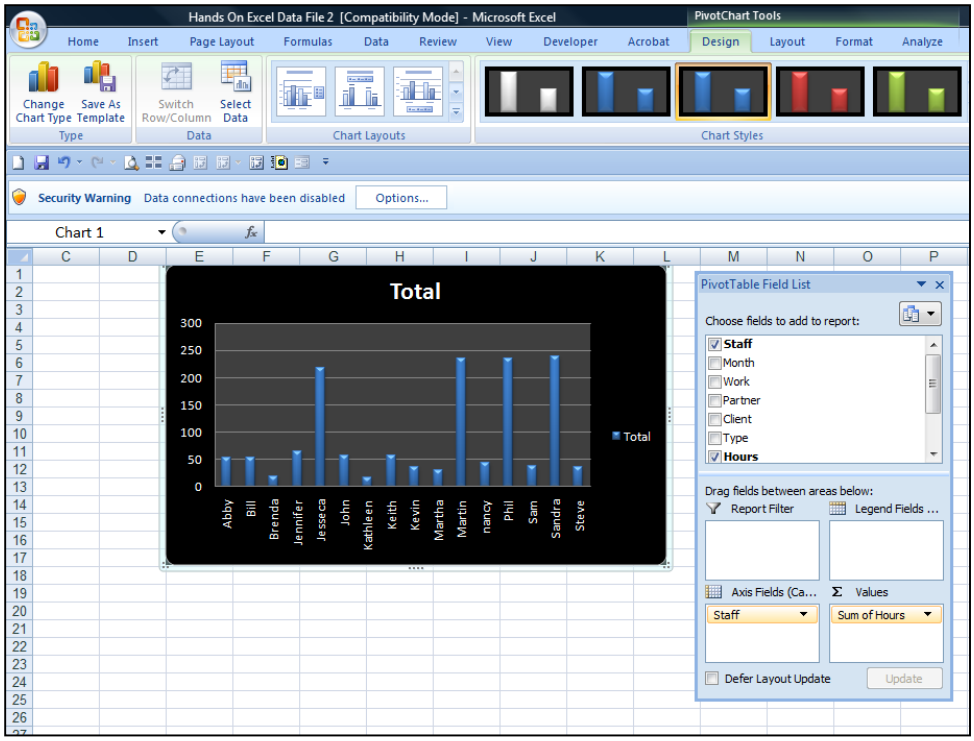
p. PivotTables can query data directly from any ODBC compliant database. The PivotTable tool for accomplishing this task is not included in the ribbon – you will find it by Customizing the Quick Access Tool Bar and searching the “Commands Not Shown in the Ribbon” tab to find the PivotTable and PivotChart Wizard Option.

q. Many accounting systems can push data out of the accounting system into an Excel PivotTable format – this is commonly referred to as an OLAP Data Cube. OLAP Data Cube is just a fancy word for PivotTable – and there is no difference.

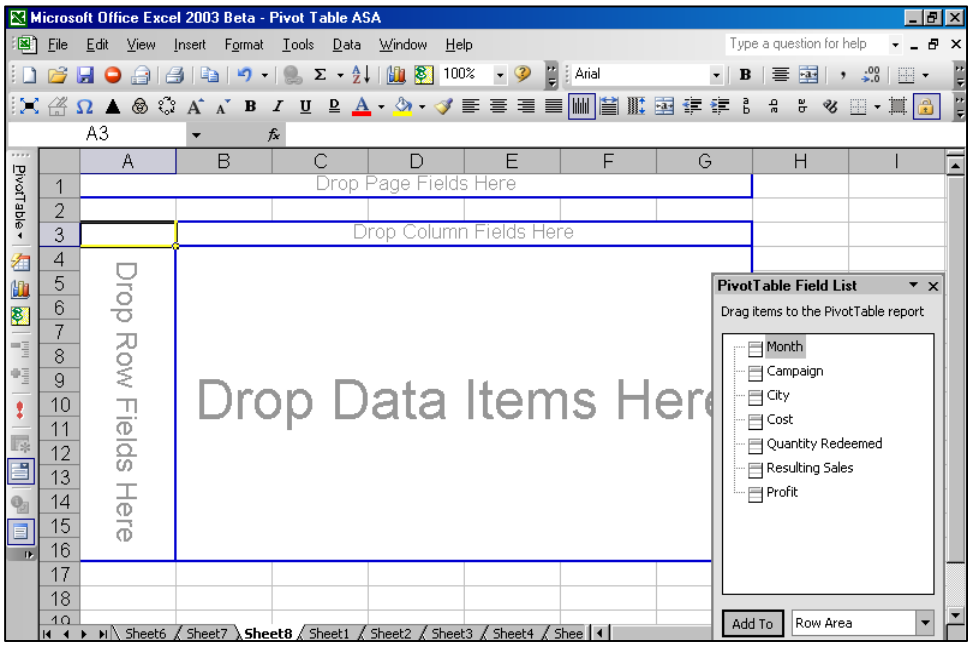
r. PivotTables can automatically combine data from multiple data sources. The PivotTable tool for accomplishing this task is not included in the ribbon – you will find it by Customizing the Quick Access Tool Bar and searching the “*Commands Not Shown in the Ribbon*” tab to find the PivotTable and PivotChart Wizard Option.



s. Excel also provides a PivotChart function which works similarly to PivotTables. Presented below is an example PivotChart.



Excel 2003 PivotTables work very similarly as shown below. Excel creates a blank PivotTable, and the user must drag and drop the various fields from the PivotTable Field List onto the appropriate column, row, or data section. As you drag and drop these items, the resulting report is displayed on the fly. Here is the blank Pivot Palette view.



Now drag and drop field names from the Pivot Table field list onto the Pivot pallet. This action will automatically create Pivot Table reports – and they will change each time you drop additional field

names, or move field names around. Presented below are but a few examples of hundreds of possible reports that could be viewed with this data through the PivotTable format.

Sum of Resulting Sales	Campaign				
Month	Coupon	Direct Mail	Local Ads	Radio Spot	Grand Total
January	37485	27846	67116	19992	152439
April	101507	45101	62713	117691	327012
July	64855	58072	77588	101150	301665
October	82943	115549	54264	61047	313803
Grand Total	286790	246568	261681	299880	1094919

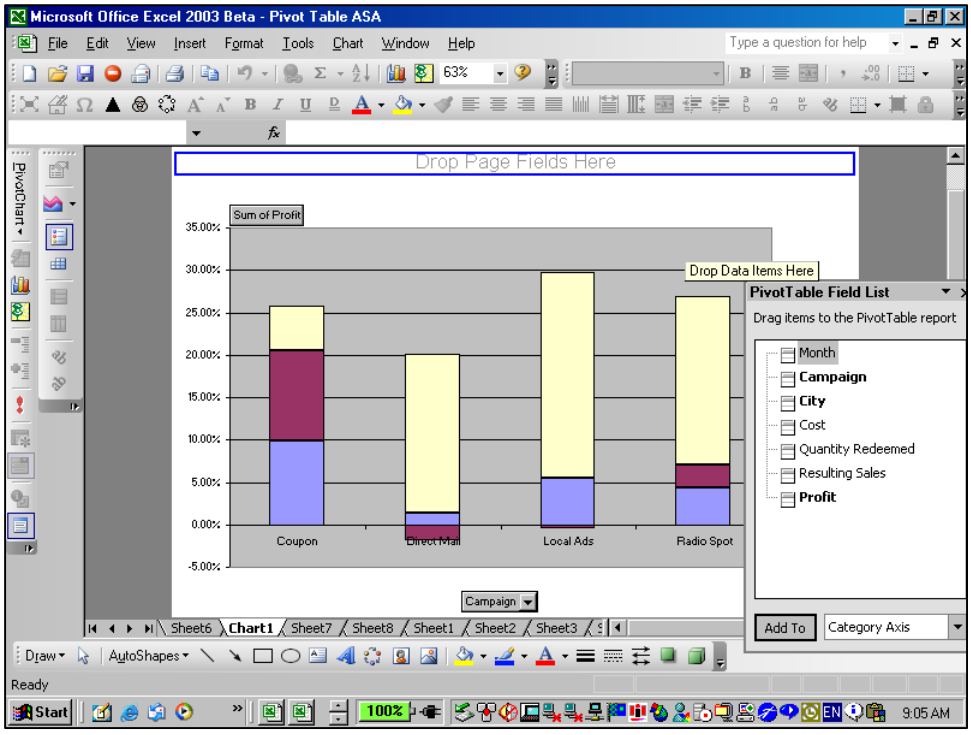
This report shown above shows the total resulting sales for each marketing campaign for each of the 4 months marketing campaigns were conducted.

Sum of Resulting Sales	Campaign				
Month	Coupon	Direct Mail	Local Ads	Radio Spot	Grand Total
January	3.42%	2.54%	6.13%	1.83%	13.92%
April	9.27%	4.12%	5.73%	10.75%	29.87%
July	5.92%	5.30%	7.09%	9.24%	27.55%
October	7.58%	10.55%	4.96%	5.58%	28.66%
Grand Total	26.19%	22.52%	23.90%	27.39%	100.00%

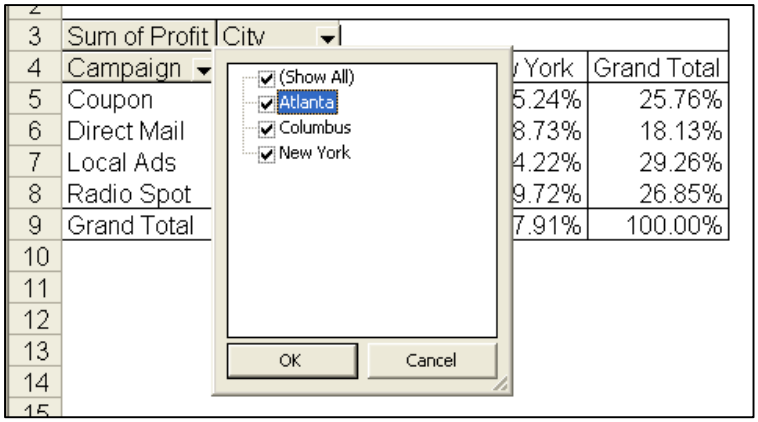
In this screen we see the same information is shown as a percentage of the total. A few observations include the fact that overall Radio Spots are the most profitable type of campaign, but only in April and July. In January and October, local ads and direct mail, respectively, produce better results. Further, April campaigns had the best response overall.

Sum of Resulting Sales	City			
Campaign	Atlanta	Columbus	New York	Grand Total
Coupon	6.25%	16.22%	3.73%	26.19%
Direct Mail	7.49%	3.21%	11.82%	22.52%
Local Ads	3.00%	1.27%	19.63%	23.90%
Radio Spot	3.25%	6.99%	17.15%	27.39%
Grand Total	19.99%	27.68%	52.33%	100.00%

Further analysis in the screen above tells us that our results vary widely from one city to the next. In New York, coupons were least effective, but coupons were most effective in Columbus. Pivot charts based on PivotTable data can be modified by pivoting and/or narrowing the data. They can also be published on the Internet (or on an Intranet) as interactive Web pages. This allows users to “play” with the data. The chart below provides a visual look at the data shown above.

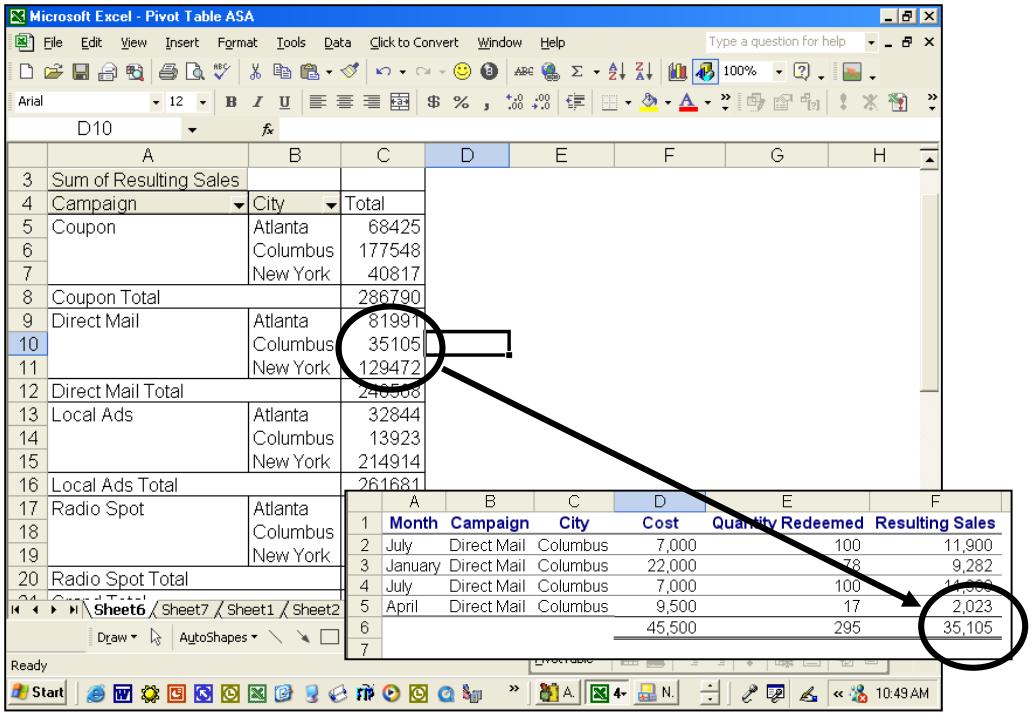


Filtering Pivot Tables - If you take a close look at your resulting pivot tables, you will notice that Excel automatically inserts a filter button on each field list as shown by the drop down arrows in the screen below:

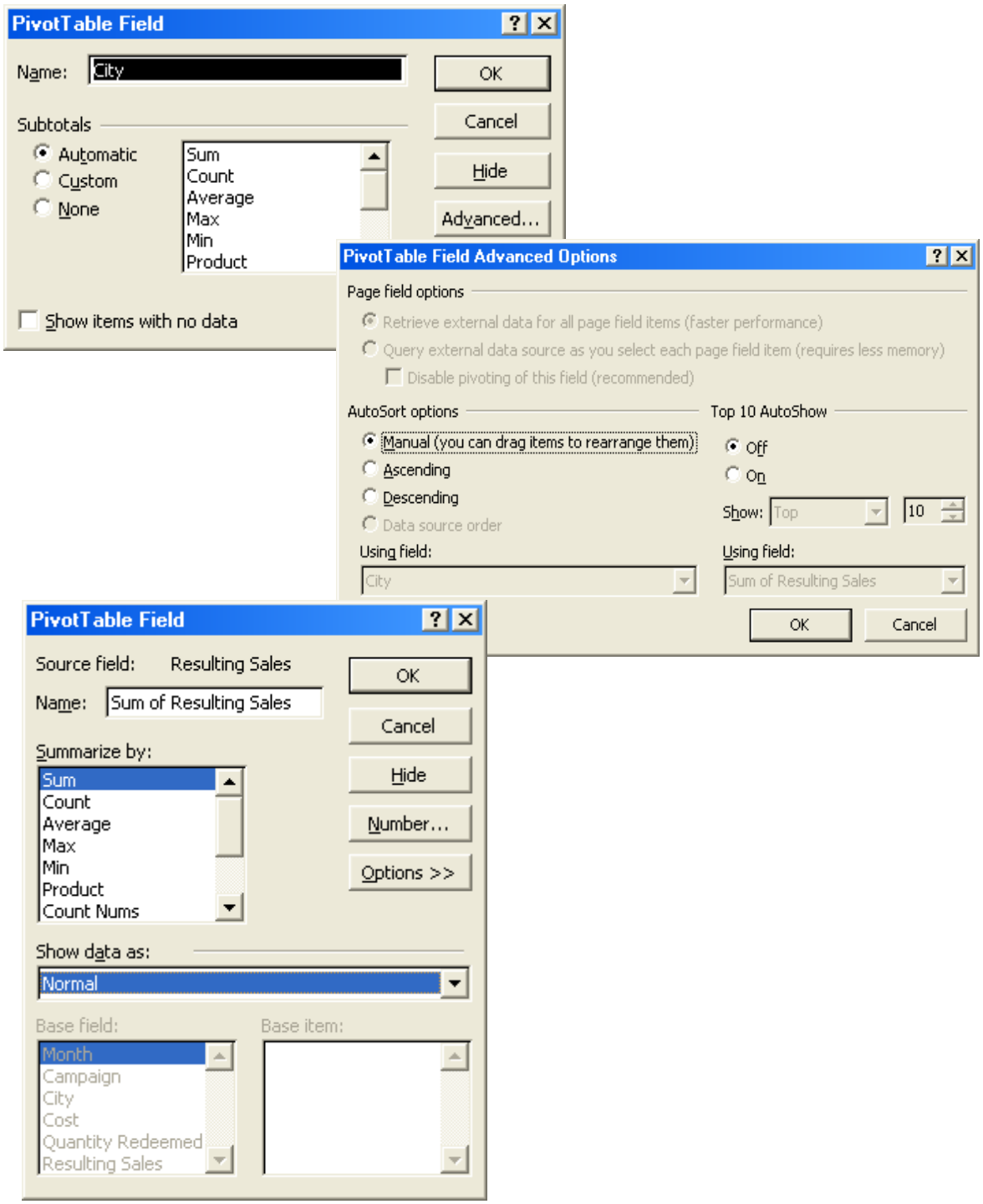


This drop down filter list makes it easy to refine your report to include just the data you want.

Drilling Pivot Tables - Another nice feature in pivot tables is that they are automatically drillable. Simply double click on any number in a pivot report to have Excel automatically insert a new sheet and produce the detailed report underlying the number you clicked on. An example of this is shown below:



Pivot Table Options - By right mouse clicking on your PivotTable you will reveal several option settings boxes as shown below. For example, these options boxes control the types of subtotals produced in your Pivot Reports. Excel also offers a PivotTable options box as well as a layout wizard that makes producing PivotTables a little easier.

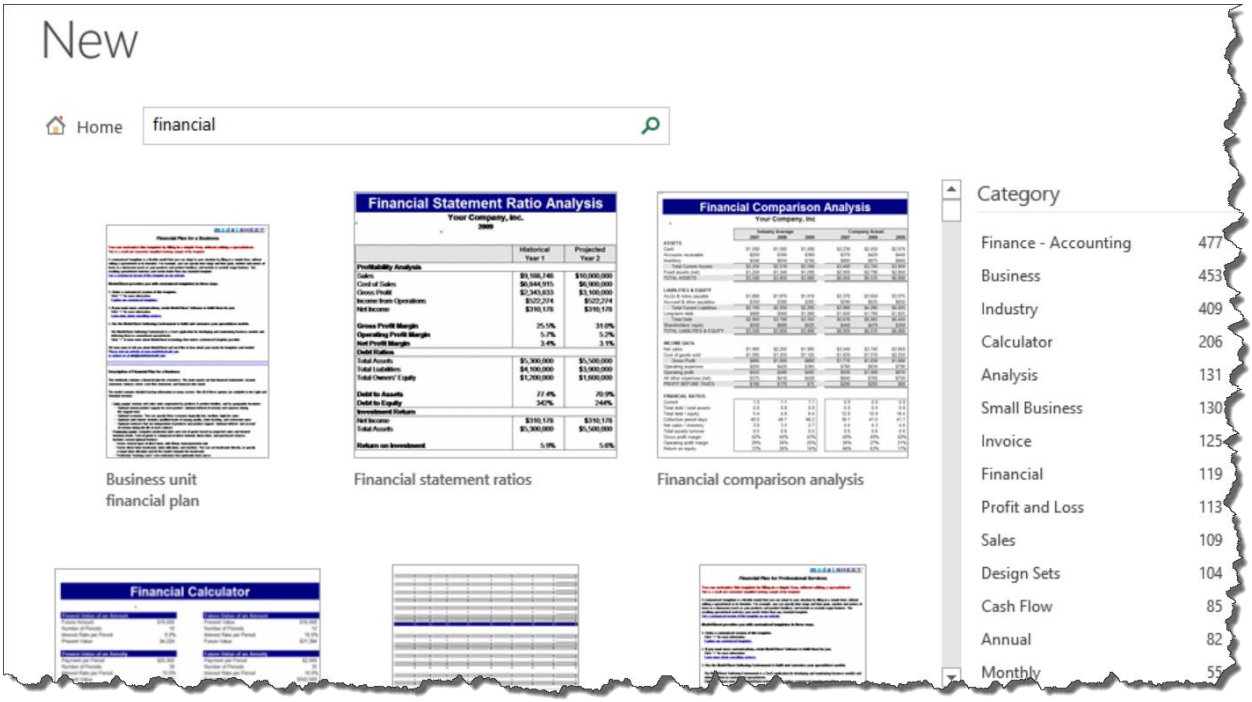

PivotTable Field
Name: City
OK
Cancel
Hide
Advanced...
Subtotals
Automatic
Custom
None
Sum
Count
Average
Max
Min
Product
Show items with no data
PivotTable Field Advanced Options
Page field options
Retrieve external data for all page field items (faster performance)
Query external data source as you select each page field item (requires less memory)
Disable pivoting of this field (recommended)
AutoSort options
Manual (you can drag items to rearrange them)
Ascending
Descending
Data source order
Using field:
City
Top 10 AutoShow
Off
On
Show: Top 10
Using field:
Sum of Resulting Sales
OK
Cancel
PivotTable Field
Source field: Resulting Sales
Name: Sum of Resulting Sales
OK
Cancel
Hide
Number...
Options >>
Summarize by:
Sum
Count
Average
Max
Min
Product
Count Nums
Show data as:
Normal
Base field:
Month
Campaign
City
Cost
Quantity Redeemed
Resulting Sales
Base item:

Chapter 2

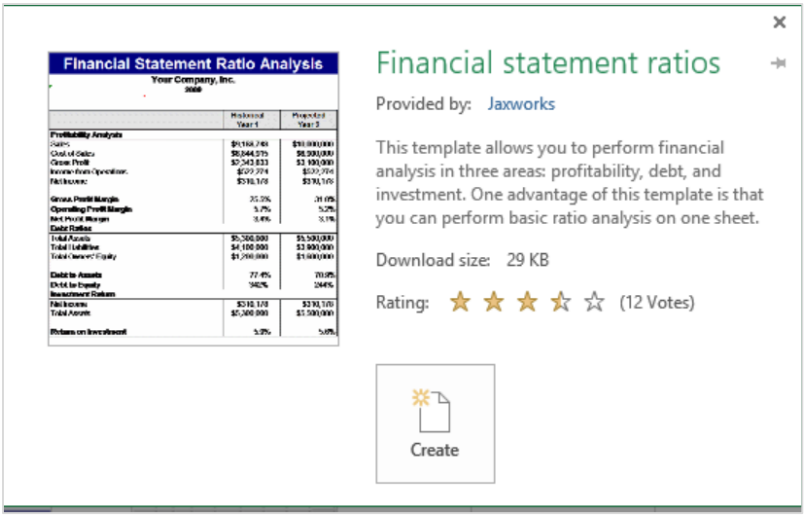
Excel Financial Reporting Tips & Tricks

Excel's Financial Templates

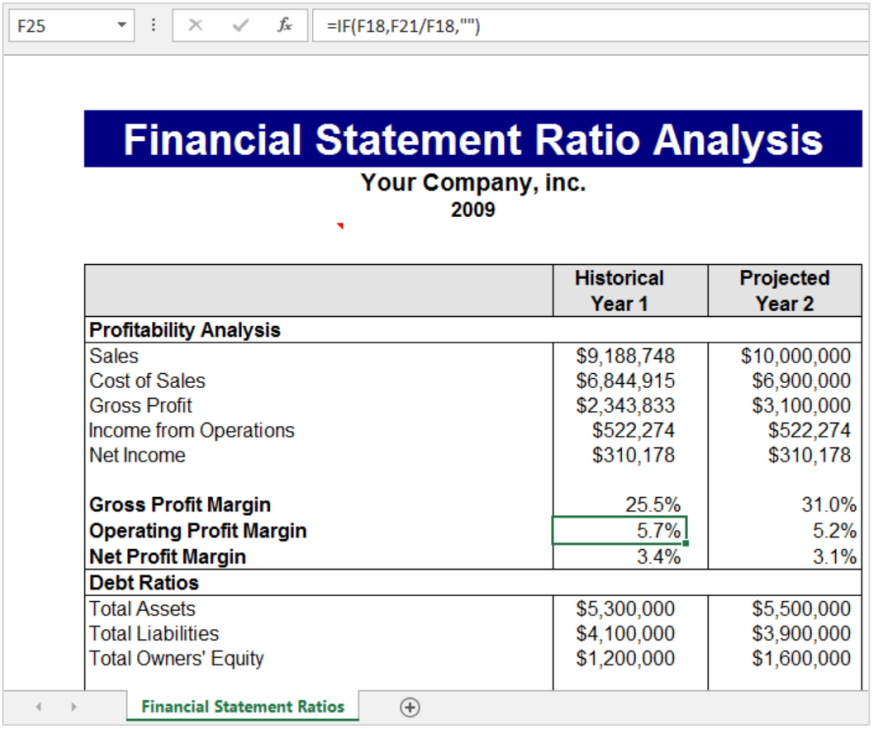
Microsoft Excel provides thousands of templates online so you don't have to start from scratch. To access these templates, select **File**, **New** and in the **Home** box type "*financial*", and click the search tool. Excel will display thumbnail images of dozens of workbooks that are ready for immediate download and use – free of charge.



Double-clicking a template displays a brief description of the template, along with the file size and its user rating. In the example Financial Statement Ratios template summarized below, you can see that 12 people have rated this template with 3.5 out of 5 possible stars.



Click the **Create** button located at the bottom of the dialog box to open it on your computer.

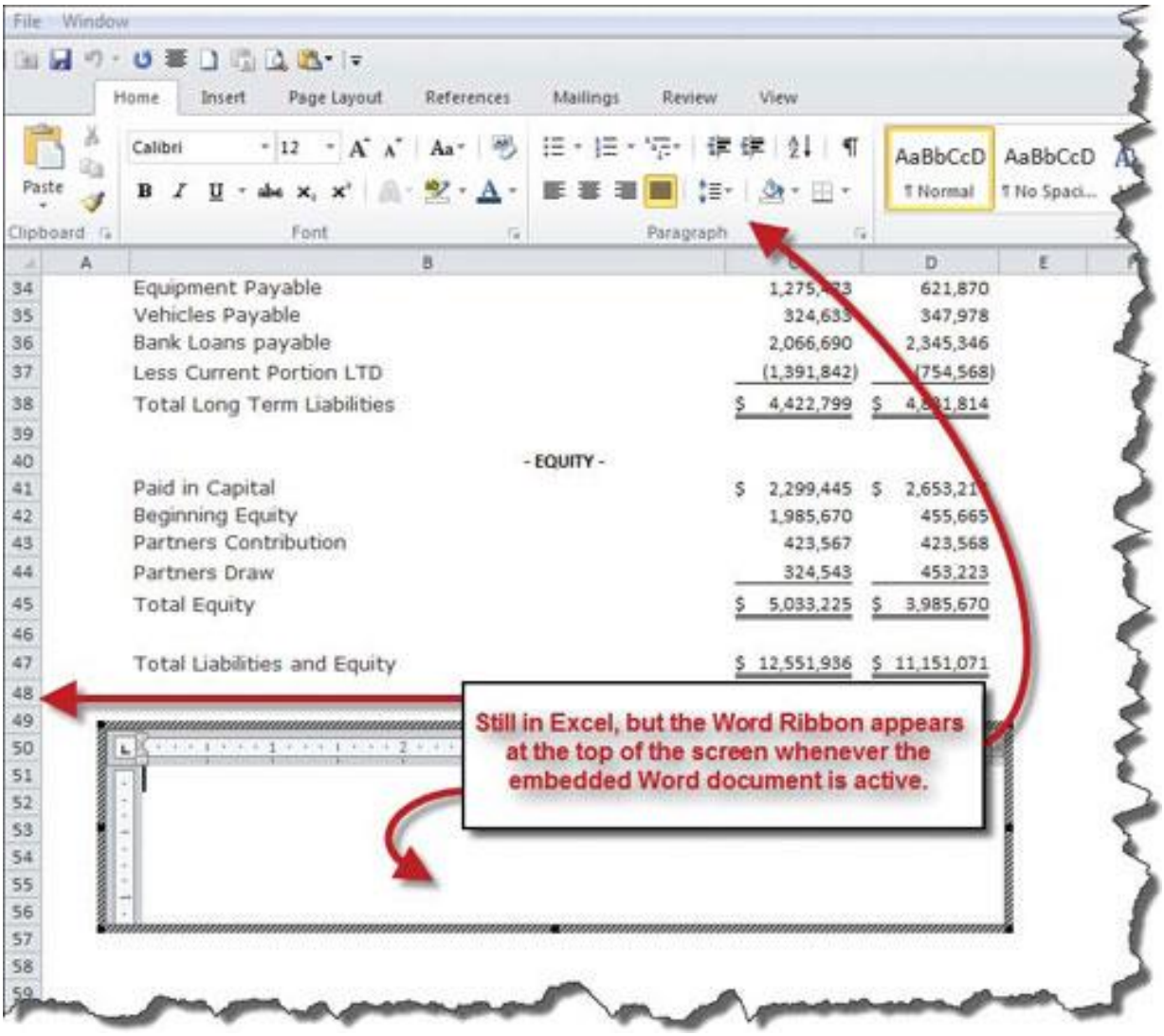


	Historical Year 1	Projected Year 2
Profitability Analysis		
Sales	$9,188,748	$10,000,000
Cost of Sales	$6,844,915	$6,900,000
Gross Profit	$2,343,833	$3,100,000
Income from Operations	$522,274	$522,274
Net Income	$310,178	$310,178
Gross Profit Margin	25.5%	31.0%
Operating Profit Margin	5.7%	5.2%
Net Profit Margin	3.4%	3.1%
Debt Ratios		
Total Assets	$5,300,000	$5,500,000
Total Liabilities	$4,100,000	$3,900,000
Total Owners' Equity	$1,200,000	$1,600,000

As you can see in this example, the workbook column and row headings have been suppressed, but you can switch them back on with a few quick **Option** settings.

Foot Your Financials in Excel

You can embed a Word document in Excel as an object to provide Word processing functionality within Excel, which makes the process of adding footnotes much easier. To embed a Word document in an Excel worksheet, select **Object** from the **Insert** tab or menu, then select **Microsoft Word Document** and click **OK**. Use the mouse to resize and reposition the resulting embedded Word document object underneath the financial statement (or in the appropriate position) as pictured below.



The resulting embedded Word object will allow you to type using the same word processing functionality provided by Word, such as outline numbering, paragraph justification, indenting and Word shortcuts (such as Shift+F3 to change case). When you click away from the Word object, the Word menus disappear and the Excel menus return to normal. Double-clicking on the Word object reactivates the embedded object, allowing you to further edit its contents using word processing functionality.

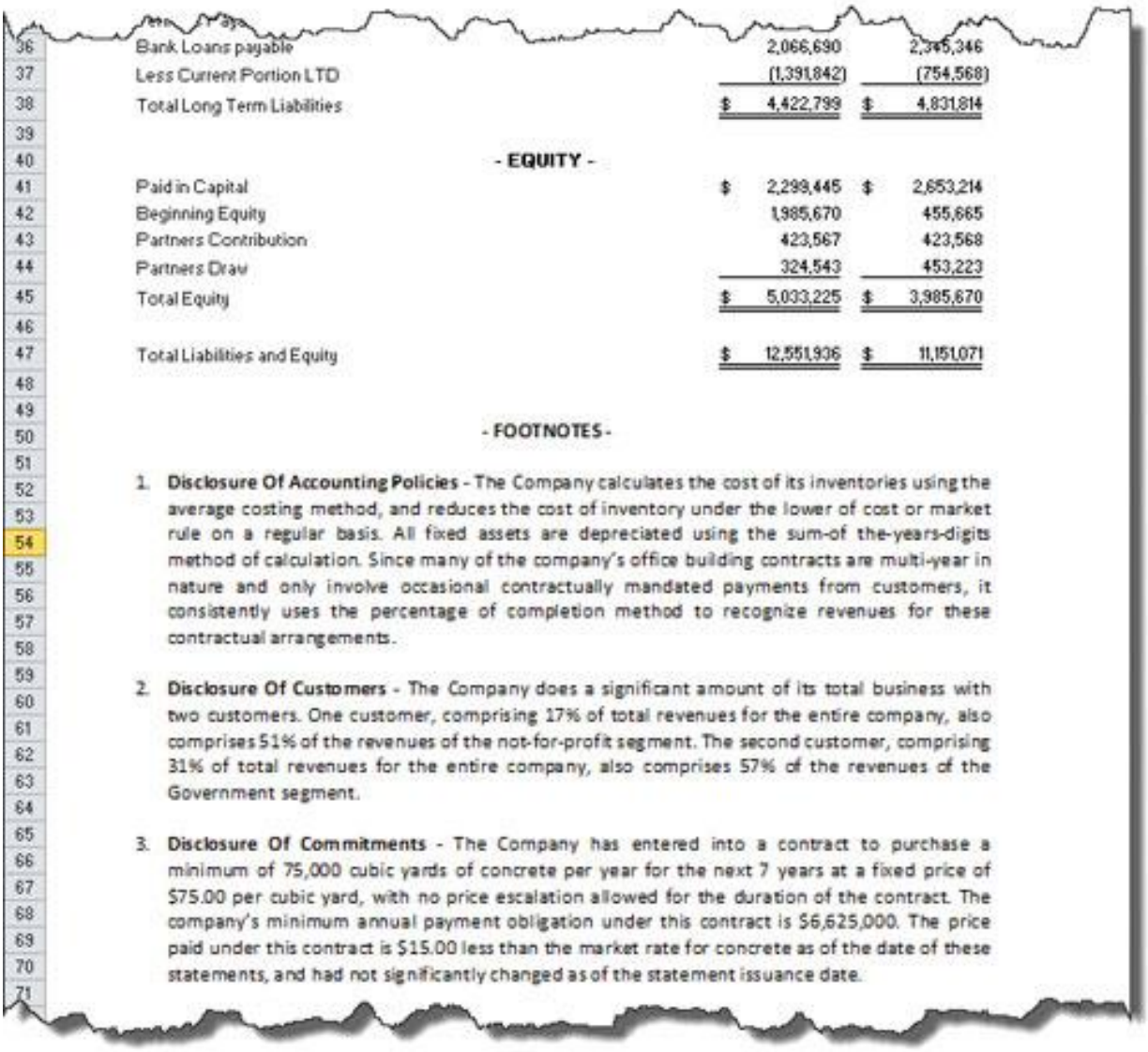
To finalize your footnotes, consider adding the following finishing touches:

1. ***Font.*** For consistency, change the footnote font to match the font used in the financial statements.

2. ***Border.*** Click away from the Word box to deactivate the object, and click the Word box once to select it. Right-click on the edge of the Word object to display the pop-up menu, and

select **Format Object**. On the **Colors and Lines** tab, click the **Line Color** dropdown arrow and select **No Line**, and click **OK**.

Once printed, the resulting footnotes will appear seamlessly at the bottom of the financial reports, as shown below (note that this is not the same as a footer and does not behave like a footer when printing).



Bank Loans payable	2,066,690	2,345,346
Less Current Portion LTD	(1,391,842)	(754,568)
Total Long Term Liabilities	$ 4,422,799	$ 4,831,814
- EQUITY -		
Paid in Capital	$ 2,299,445	$ 2,653,214
Beginning Equity	1,985,670	455,665
Partners Contribution	423,567	423,568
Partners Drav	324,543	453,223
Total Equity	$ 5,033,225	$ 3,985,670
Total Liabilities and Equity	$ 12,551,936	$ 11,151,071

- FOOTNOTES -

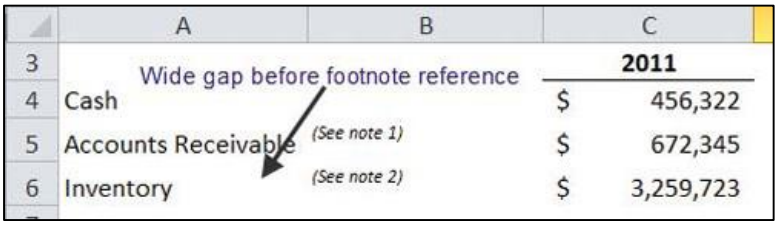
1. **Disclosure Of Accounting Policies** - The Company calculates the cost of its inventories using the average costing method, and reduces the cost of inventory under the lower of cost or market rule on a regular basis. All fixed assets are depreciated using the sum-of the-years-digits method of calculation. Since many of the company's office building contracts are multi-year in nature and only involve occasional contractually mandated payments from customers, it consistently uses the percentage of completion method to recognize revenues for these contractual arrangements.

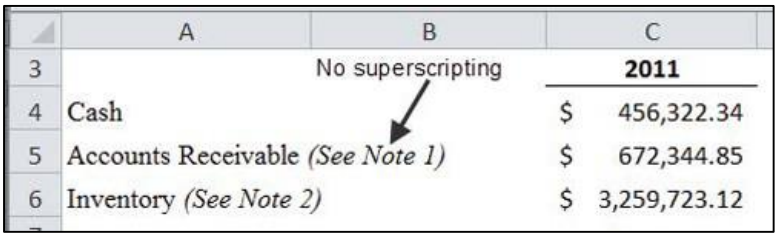
2. **Disclosure Of Customers** - The Company does a significant amount of its total business with two customers. One customer, comprising 17% of total revenues for the entire company, also comprises 51% of the revenues of the not-for-profit segment. The second customer, comprising 31% of total revenues for the entire company, also comprises 57% of the revenues of the Government segment.

3. **Disclosure Of Commitments** - The Company has entered into a contract to purchase a minimum of 75,000 cubic yards of concrete per year for the next 7 years at a fixed price of $75.00 per cubic yard, with no price escalation allowed for the duration of the contract. The company's minimum annual payment obligation under this contract is $6,625,000. The price paid under this contract is $15.00 less than the market rate for concrete as of the date of these statements, and had not significantly changed as of the statement issuance date.

Footnote References in Excel

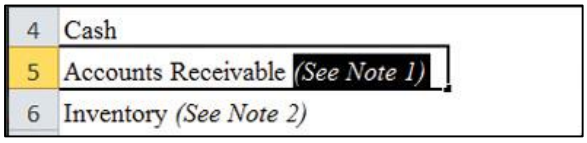
CPAs often struggle to include footnote references in their Excel-based financial statements, they can't seem to get the footnote references to appear the way they would like. Following are two common approaches to including footnotes, both of which fall short.



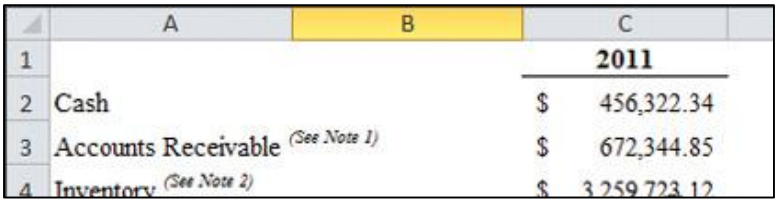


Because of this problem, many CPAs take the extra steps of copying and pasting the financial statements into Word, then editing the financial report further before printing.

Solution: Excel allows you to format each character in a given cell individually, and this trick can be used to achieve the result you desire. To accomplish this, enter the row description and footnote reference into the same cell. Highlight the cell and activate edit mode (by pressing the F2 key or by double-clicking the cell). Use the mouse (or the arrow keys while holding down the Shift key) to highlight the footnote reference portion of the text (see below).

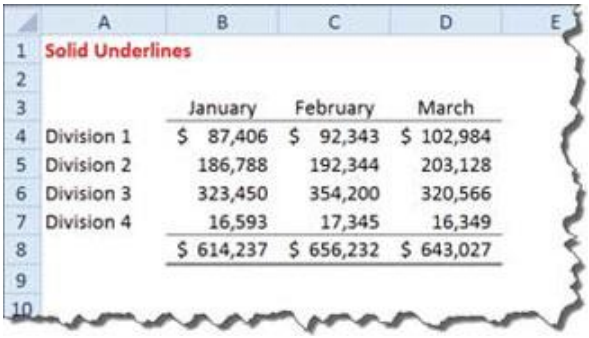


Next, right-click on the cell to display the pop-up menu and select **Format Cells**. Click the **Superscript** checkbox, and click **OK**. As pictured below, this action will display the footnote reference in superscript format, like Word does.

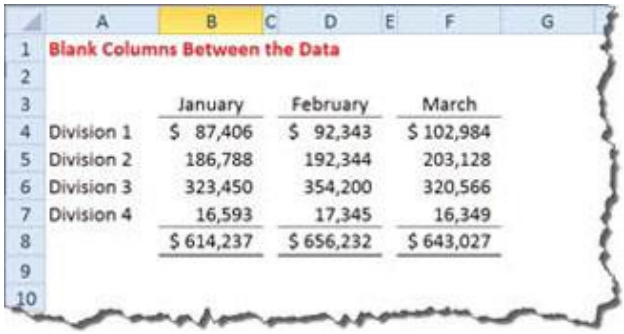


Controlling Underlines in Excel

CPA Question: Because I think the solid underlines on my Excel-based financial reports look less professional, I insert thin, blank columns between my data so the underlines don't touch one another. This process of inserting and reformatting columns is tiresome. Is there another way to produce the underline breaks I want without having to insert blank columns between my data? The screenshots in the next column provide an example of my data before (with solid underlines) and after inserting blank columns (with underlines that don't touch).



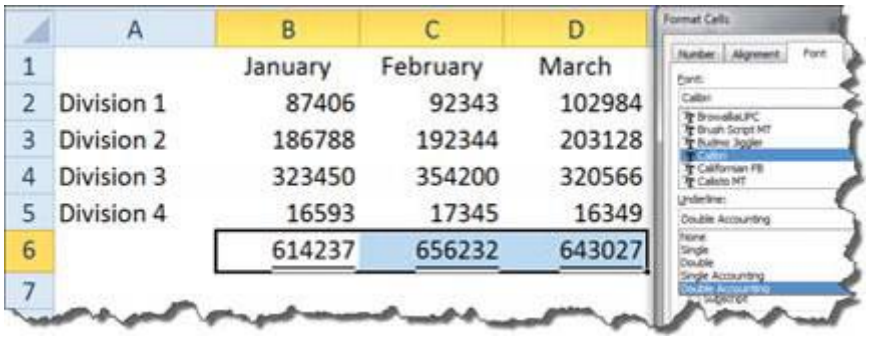
	A	B	C	D
1	Solid Underlines			
2				
3		January	February	March
4	Division 1	$ 87,406	$ 92,343	$ 102,984
5	Division 2	186,788	192,344	203,128
6	Division 3	323,450	354,200	320,566
7	Division 4	16,593	17,345	16,349
8		$ 614,237	$ 656,232	$ 643,027
9				
10				



	A	B	C	D	E	F	G
1	Blank Columns Between the Data						
2							
3		January		February		March	
4	Division 1	$ 87,406		$ 92,343		$ 102,984	
5	Division 2	186,788		192,344		203,128	
6	Division 3	323,450		354,200		320,566	
7	Division 4	16,593		17,345		16,349	
8		$ 614,237		$ 656,232		$ 643,027	
9							
10							

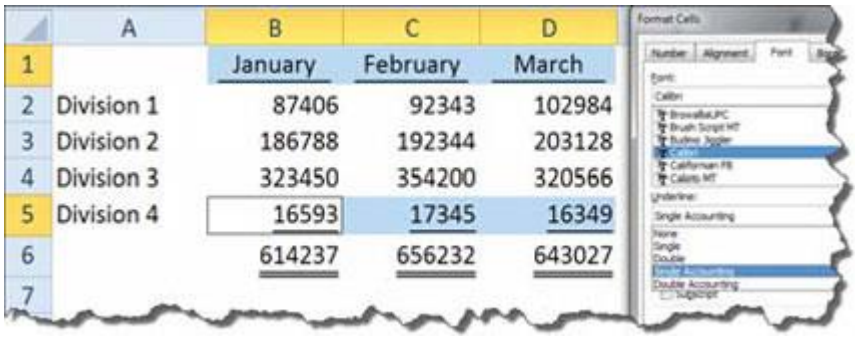
A: There is a slightly better option. Excel's **Accounting Format** was designed for accountants, and it allows you to insert non-touching single and double underlines in adjacent columns. Below are the five steps needed to apply this format using your example data:

1. **Add double underlines.** Highlight the total row, right-click on the total row, select **Format Cells** from the pop-up menu, and then on the **Font** tab, select **Double Accounting** from the **Underline** dropdown box, then click **OK**.



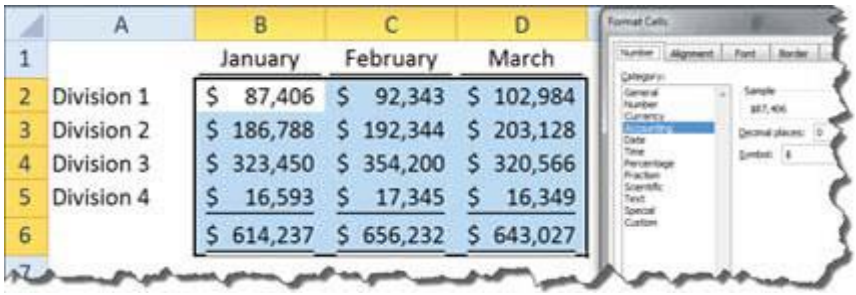
	A	B	C	D
1		January	February	March
2	Division 1	87406	92343	102984
3	Division 2	186788	192344	203128
4	Division 3	323450	354200	320566
5	Division 4	16593	17345	16349
6		614237	656232	643027
7				

2. **Add single underlines.** Highlight both the header row and the row above the total row (hold the Ctrl key down to select multiple ranges), right-click anywhere on the highlighted range, and then select **Format Cells** from the pop-up menu. Next, on the **Font** tab, select **Single Accounting** from the **Underline** dropdown box, then click **OK**.



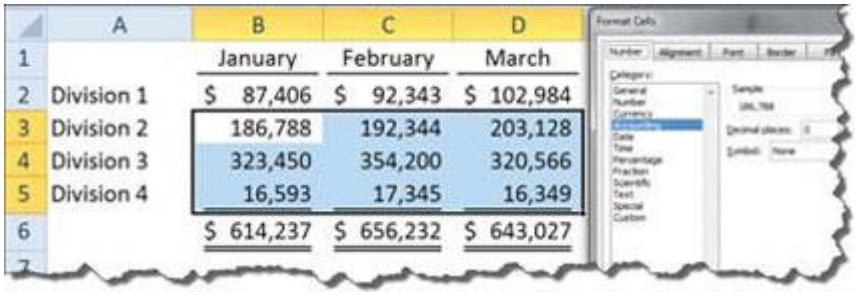
	A	B	C	D
1		January	February	March
2	Division 1	87406	92343	102984
3	Division 2	186788	192344	203128
4	Division 3	323450	354200	320566
5	Division 4	16593	17345	16349
6		614237	656232	643027
7				

3. **Format the numerical data.** Highlight the numerical data, right-click anywhere on the highlighted range, and select **Format Cells** from the pop-up menu. Next, on the **Number** tab, select **Accounting** from the **Category** list box, set the **Decimal places** spinner to **0**, select the dollar symbol (**$**) in the **Symbol** dropdown box, and click **OK**. (***Note:*** After applying the accounting format, not only do commas and dollar signs appear, but the single and double accounting underlines will also resize to match.)



	A	B	C	D
1		January	February	March
2	Division 1	$ 87,406	$ 92,343	$ 102,984
3	Division 2	$ 186,788	$ 192,344	$ 203,128
4	Division 3	$ 323,450	$ 354,200	$ 320,566
5	Division 4	$ 16,593	$ 17,345	$ 16,349
6		$ 614,237	$ 656,232	$ 643,027
7				

4. **Remove unwanted dollar signs (optional).** Highlight the numerical data where you want to suppress the dollar signs, right-click anywhere on the highlighted range, select **Format Cells** from the pop-up menu, and then on the **Number** tab, select **None** from the **Symbol** box and click **OK**.



	A	B	C	D
1		January	February	March
2	Division 1	$ 87,406	$ 92,343	$ 102,984
3	Division 2	186,788	192,344	203,128
4	Division 3	323,450	354,200	320,566
5	Division 4	16,593	17,345	16,349
6		$ 614,237	$ 656,232	$ 643,027
7				

5. **Control text underlines.** Notice in the image at the bottom of the previous column that the header underlines are larger than the numeric underlines. To correct this problem, highlight the header row, right-click anywhere on the highlighted range, select **Format Cells**, and on the **Number** tab, select the **Accounting** format from the **Category** list box. ***Note:*** This step may sound strange, but you must format the header text using the accounting format in order for the size of the underlines below the headers to match the underlines in the numeric data. These steps will produce the desired format in adjacent columns, as pictured below.

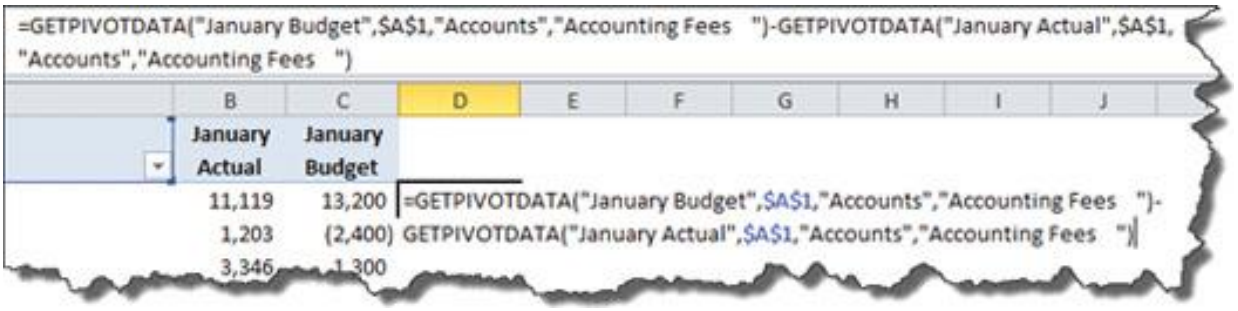
	A	B	C	D
1		January	February	March
2	Division 1	$ 87,406	$ 92,343	$ 102,984
3	Division 2	186,788	192,344	203,128
4	Division 3	323,450	354,200	320,566
5	Division 4	16,593	17,345	16,349
6		$ 614,237	$ 656,232	$ 643,027
7				

While these steps may also be tiresome, this approach eliminates blank columns, making it easier to navigate using the End+Arrow Keys combinations, and to perform other operations such as sorting, filtering, and subtotaling.

Subtracting Columns in a PivotTable

CPA Question: For many years we have created PivotTables in Excel, but it is frustrating because there doesn't seem to be a way to add, subtract or divide columns. We want to subtract our actual columns from our budget columns to produce the difference and difference percentages. If there is a way to do this, we have never been able to find it. Can you help us?

Solution: You are not alone; many CPAs struggle with this same situation. The problem arises when you use your mouse to write a formula that references a cell in a PivotTable. In this case, Excel automatically inserts the GETPIVOTDATA function into your formula, as shown below in cell D2.

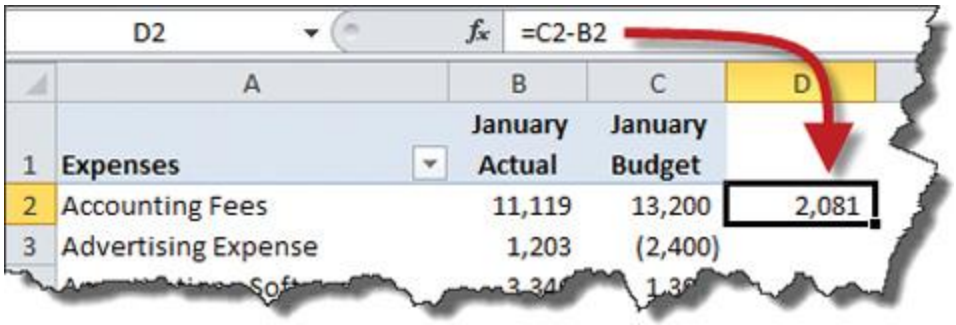


As a result, the formula cannot be properly copied with relative references to adjacent cells.

Presented below are two possible solutions: writing formulas using the keyboard, and inserting calculation columns into the PivotTable.

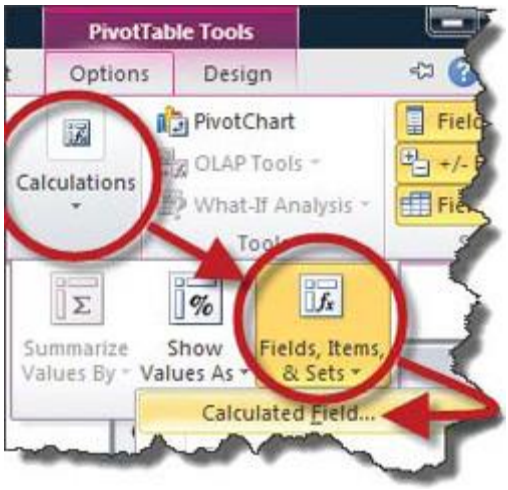
1. ***Writing formulas using the keyboard.*** If you write formulas that reference PivotTable cells by typing cell references into the formula using your keyboard instead of pointing to the cell using your mouse, Excel does not insert the GETPIVOTDATA function. The screenshot below shows the

resulting formula in column D (=C2–B2), which was created using the keyboard instead of the mouse pointer.



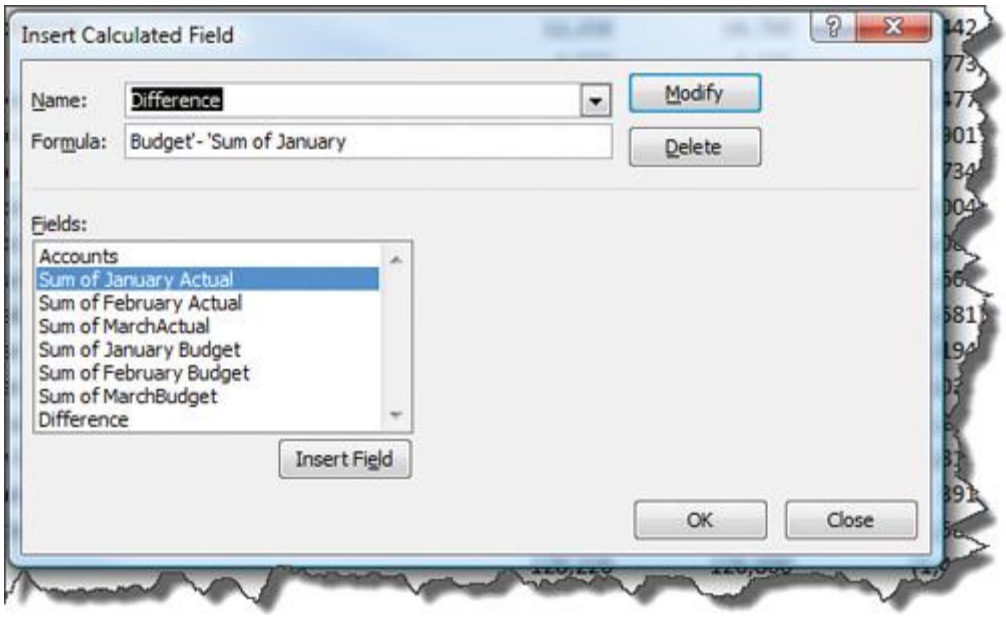
This formula can then be copied to the cells below to produce the desired column differences. (***Note:*** A problem with this method is that as you refresh your PivotTable, it may grow or shrink, which could reposition data in different cells. As a result, formulas created with your keyboard may no longer reference the correct data cells.)

2. ***Inserting calculation columns into the PivotTable.*** A better approach is to insert a new calculation column into your PivotTable using the **Fields, Items, & Sets** tool. To use this tool in Excel 2010, first select a cell within the PivotTable you want to modify, then from the **PivotTable Tools** menu, select **Options**, **Calculations**, **Fields, Items, & Sets** as shown below. (In Excel 2007, select **PivotTable Tools**, **Options**, **Formulas**, **Calculated Field**).

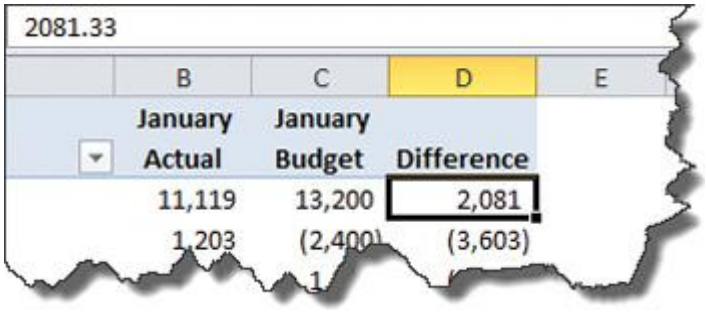


In the resulting **Insert Calculated Field** dialog box (shown below), type a name (to appear as the column label) in the **Name** box, then create the desired formula you want in the **Formula** box. To create the formula, start by inserting an equal sign, then select the column you want to appear in your formula from the **Fields** box and click the **Insert Field** button to add that field to your formula. Add mathematical operators (such as "+", "–," "/" and "*") and continue this process until your formula is complete. (***Note:*** The **Formula** box displays only one line of your formula at

a time, making it difficult to view formulas in their entirety. Therefore, when creating lengthy formulas, you must use the left and right arrow keys to scroll, view and edit it.)



When you have completed your formula, click **OK** and the resulting new calculation column will appear as follows:



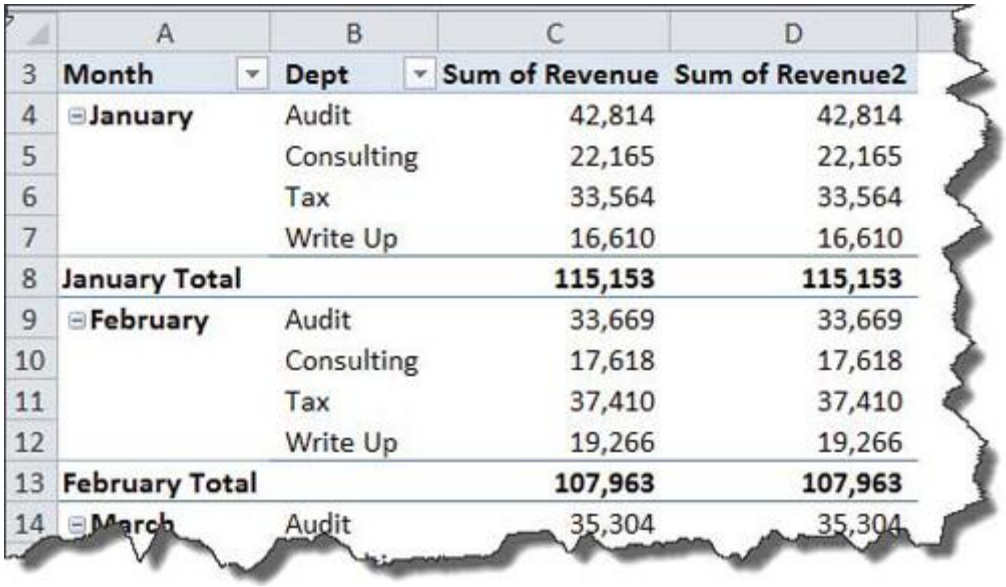
Repeat this process to insert an additional column to calculate the percentage difference.

Note: The fact that Excel automatically inserts the GETPIVOTTABLE function into formulas when referencing PivotTable data frustrates many CPAs, but actually, it is a good solution because it allows those formulas to continue to reference the correct data, even if the PivotTable shrinks or grows.

A PivotTable Column Worth Repeating

CPA Question: How do I add a percentage-of-total column in a PivotTable in Excel 2013 or 2010?

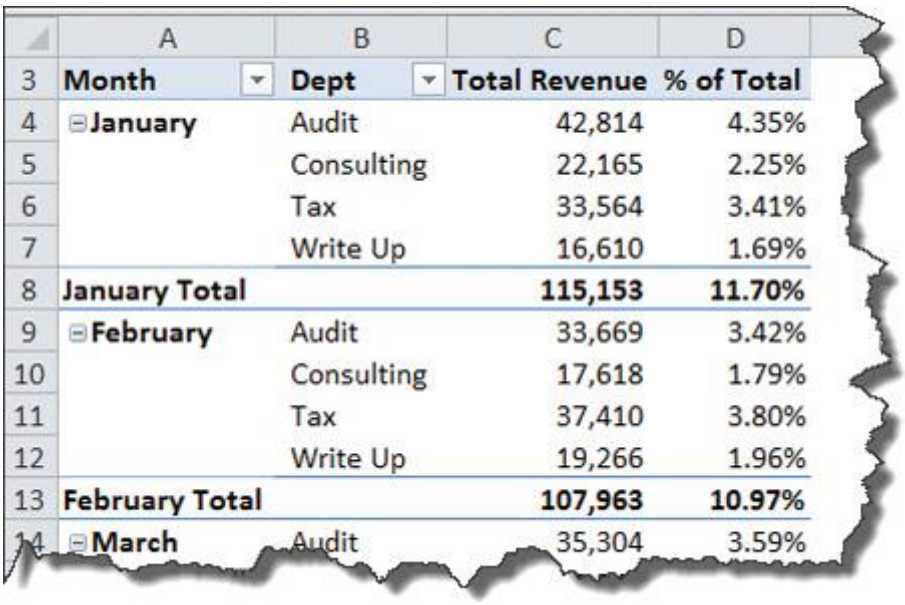
Solution: The previous tip explains how to add a calculated column to a PivotTable. That solution could work, but in this particular situation, I'd like to offer an easier option, using Excel's **Show Values As** function. To use this feature, in the PivotTable's **Field List**, drag the value field name that you want to summarize by amounts and percentages into the Field List's **Values** box twice. This action repeats the value columns in the PivotTable, as shown below.



	A	B	C	D
3	**Month**	**Dept**	**Sum of Revenue**	**Sum of Revenue2**
4	**January**	Audit	42,814	42,814
5		Consulting	22,165	22,165
6		Tax	33,564	33,564
7		Write Up	16,610	16,610
8	**January Total**		**115,153**	**115,153**
9	**February**	Audit	33,669	33,669
10		Consulting	17,618	17,618
11		Tax	37,410	37,410
12		Write Up	19,266	19,266
13	**February Total**		**107,963**	**107,963**
14	**March**	Audit	35,304	35,304

Next, right-click anywhere on the second value column (Sum of Revenue2 in this example) and select **Value Field Settings** from the popup menu. In the resulting **Value Field Settings** dialog box, click the **Show Value As** tab and select **% of Column Total** from the **Show Values As** dropdown box, and then click **OK**.

Your PivotTable will now display the same two columns of data both numerically and as a percentage of total, as pictured below. (In this example, I double-clicked and edited each column's title to better describe the data.)



	A	B	C	D
3	Month	Dept	Total Revenue	% of Total
4	January	Audit	42,814	4.35%
5		Consulting	22,165	2.25%
6		Tax	33,564	3.41%
7		Write Up	16,610	1.69%
8	January Total		115,153	11.70%
9	February	Audit	33,669	3.42%
10		Consulting	17,618	1.79%
11		Tax	37,410	3.80%
12		Write Up	19,266	1.96%
13	February Total		107,963	10.97%
14	March	Audit	35,304	3.59%

Note: This option also can be accessed from the **PivotTable Tools** tab by selecting the **Options** tab, **Calculations**, **Show Values As**.

E-Mailing A Single Worksheet

CPA Question: What is the easiest way to send a single Excel worksheet to a staff member without sending them the entire workbook?

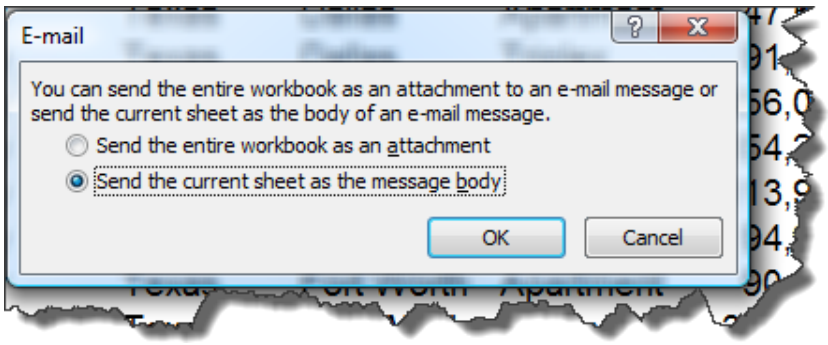
Solution: You can send a single worksheet (ie: not the entire workbook) from within Excel using the integrated Outlook **Send this Sheet** applet, as follows:

1. Launch the **E-Mail** dialog box tool as follows:

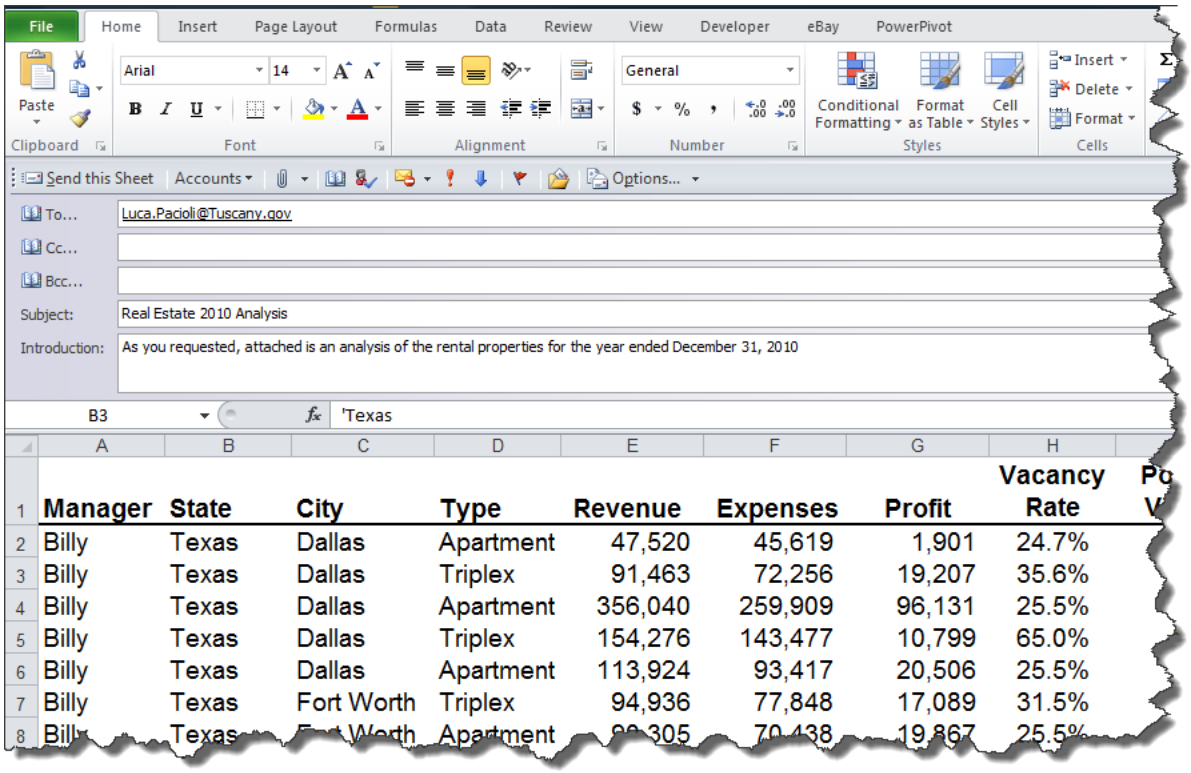
   In Excel 2003 - Select **File, Send to Mail Recipient**.

   In Excel 2007 - 2013 – Right mouse-click on the Quick Access Toolbar and select **Customize Quick Access Toolbar**. In the **Choose commands from:** drop down box, select **Commands Not in the Ribbon**. Scroll down and select **Send to Mail Recipient**, and click the **Add>>** button to include this command on your **Quick Access Toolbar**. Click **OK**. Click the **Send to Mail Recipient** icon on the **Quick Access Toolbar**.

2. In the **E-Mail** dialog box, select the radio button labeled **Send the current sheet as the message body**, and click **OK**.



3. This action creates an e-mail message using the worksheet contents as the e-mail message with limited Outlook tools and functionality as shown below. Enter the e-mail recipients and subject as you would normally when preparing an E-mail message, and click **Send the Sheet**.



Manager	State	City	Type	Revenue	Expenses	Profit	Vacancy Rate
Billy	Texas	Dallas	Apartment	47,520	45,619	1,901	24.7%
Billy	Texas	Dallas	Triplex	91,463	72,256	19,207	35.6%
Billy	Texas	Dallas	Apartment	356,040	259,909	96,131	25.5%
Billy	Texas	Dallas	Triplex	154,276	143,477	10,799	65.0%
Billy	Texas	Dallas	Apartment	113,924	93,417	20,506	25.5%
Billy	Texas	Fort Worth	Triplex	94,936	77,848	17,089	31.5%
Billy	Texas	Fort Worth	Apartment	89,305	70,438	19,867	25.5%

The **Send This Sheet** menu is integrated with Outlook so that the **To…**, **Cc…**, and **Bcc…** drop down fields will display your contacts and contact groups you maintain in Outlook. Once the e-mail is sent, a copy of the e-mail appears in your Outlook **Sent Items** box, similar to that of a regular e-mail.

Cautionary Note 1: When using this **Send the current sheet as the message body** option, the Excel data is converted from an Excel format into a table format containing only values. To send a single worksheet with the Excel formulas intact, make a copy of the workbook, delete all of the worksheets except for the one you intend to send, and repeat the steps above using the **Send the entire workbook as an attachment** option.

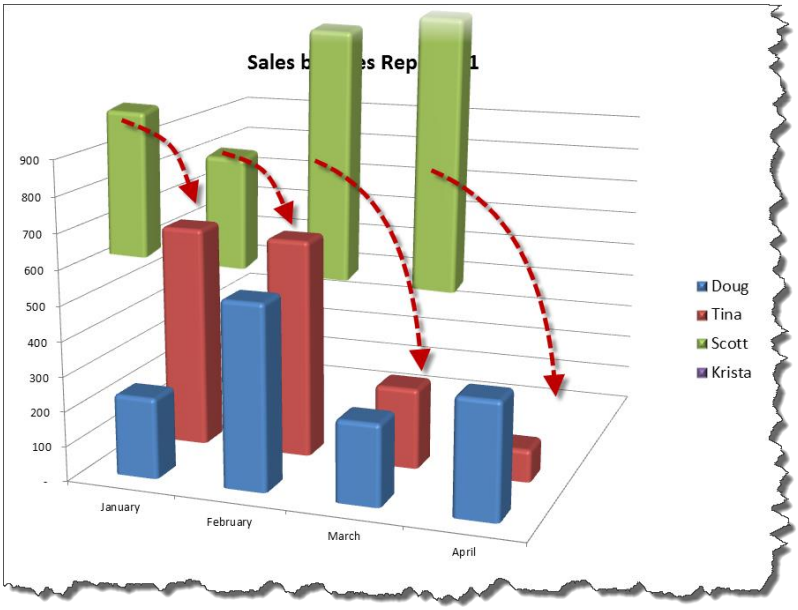
Cautionary Note 2: When sending e-mails from within Excel, your default signature block is not inserted into the e-mail.

Cautionary Note 3: This functionality works well with Outlook, but does not necessarily work with other e-mail client applications.

Animating Excel Charts in PowerPoint by Data Series

PowerPoint 2010 allows you to animate your charts by data series as follows. Start by creating a chart in PowerPoint, or if you prefer, copy and paste a chart from Excel into PowerPoint. **Click** on the chart to **select it**, and click **Animation Pane** from the **Animations** tab to display the Animation Pane. Again, with the chart still selected, from the **Animation** tab, click **Add Animation** and select an **Entrance** animation such as **Bounce**, for example.

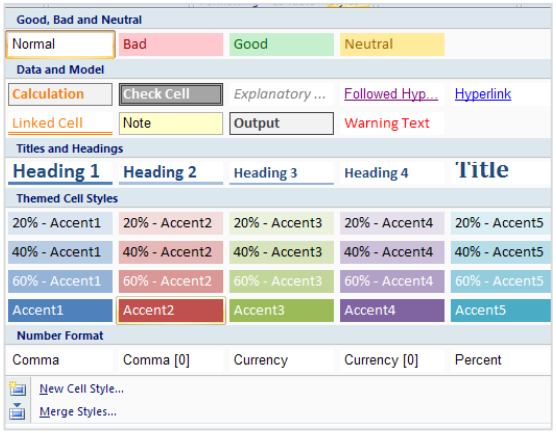
In the **Animation Pane** click the **drop down arrow** next to the animation and click **Effect Options** to open the **Bounce** dialog box. Next, on the Chart Animation tab, click the **Group chart drop-down arrow** and select **By Series,** and click **OK**. Thereafter, when you display the slide show, each data bar series will bounce in individually, helping your audience identify the specific data series you are discussing. The screenshot below depicts the data series for sales representative Scott as the bars are bouncing into position.

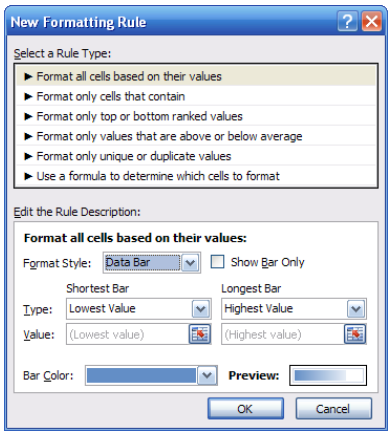


Hints: The ability to animate charts by data series first appeared in PowerPoint 2007, and the instructions are similar, but not identical to those described above. This feature is not available in charts that contain links to other applications, such as Excel.

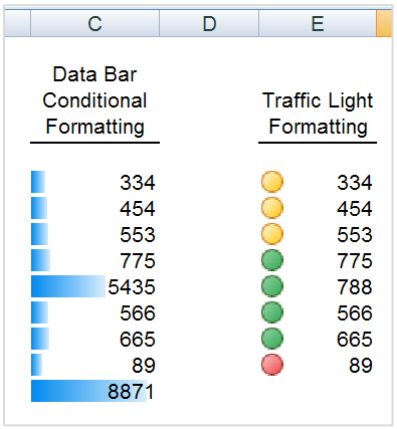
Conditional Formatting with Data Bars and Traffic Lights

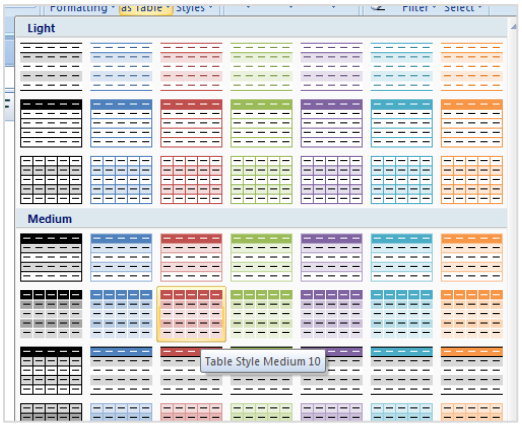
Beginning in Excel 2007, the format features have been expanded to include better styles, table formats, conditional formats, cell formats and more. Styles enable users to apply a specific style, including font, font size, fill color, font color, underlines, borders, bolding, and italics to a cell, or multiple cells. Later, if you change the format style, your changes will automatically update all the cells that have been formatted with that style. Even if you never change your mind, often the use of styles can make formatting a large workbook quicker and easier. The "Cell Styles" tool offers users a gallery of predefined styles to choose form, as show in the screen below and to the left, or you can also create your own unique styles.





The Conditional Formatting tool is vastly improved with "Data Bar" and "Traffic Light" reporting, as well as an improved menu for applying conditional formats. Presented below (left) are examples of conditional formats. Below (right) are examples of "Table Styles" that can be applied to data ranges. Excel 2007 also provides tools for creating your own user-defined "Table Styles".





Other enhancements include new "Top/Bottom" tools and rules for displaying the top or bottom values in a range; "Highlight" tools and rules for displaying duplicates, equivalents, conditional dates, and other types of data; and "Color Scale" tools and rules for identifying specific data by color.

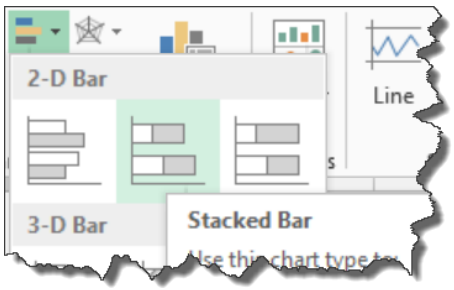
Gantt Charts in Excel

Excel does not produce Gantt charts out of the box; but you can still create one with a bit of Excel trickery, as illustrated in the following example.

1. **List your tasks:** Start by entering a list of tasks including start dates, duration of each task, and end dates, an example of which is pictured below (*I used formulas to calculate the end dates by adding the start date plus the duration days*).

	A	B	C	D
3	**Tasks**	**Start Date**	**Duration (Days)**	**End Date**
4	Land Preparation	9/4/2014	8	9/12/2014
5	Foundation	9/12/2014	4	9/16/2014
6	Framing	9/16/2014	5	9/21/2014
7	Doors and Windows	9/19/2014	4	9/23/2014
8	Plumbing	9/23/2014	2	9/25/2014
9	Electrical	9/23/2014	3	9/26/2014
10	Sheet Rock	9/26/2014	12	10/8/2014
11	Finish Work	10/8/2014	7	10/15/2014
12	Painting	10/10/2014	9	10/19/2014
13				

2. **Create Stacked Bar chart:** Create an empty stacked bar chart by selecting any empty cell surrounded by other empty cells, then from the **Insert** tab, in the **Chart** group, select **Stacked Bar**, and then click and drag the desired range on the worksheet.



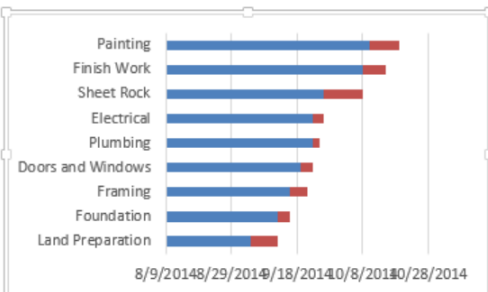
3. **Launch the *Select Data* dialog box:** Right mouse-click the blank chart and choose **Select Data** (or **Select Data Source**) from the popup menu.

4. **Reference the Start Dates:** In the resulting **Legend Entries** box section, click the **Add** button. In the resulting **Edit Series** box, enter the phrase ***Starting Dates*** in the **Series name** box. Click the **Select range** button (the small icon depicting a worksheet) located at the end of the **Series values** box, highlight the starting date range in the worksheet (cells B4 through B12 in this example), and then click **OK**.

5. **Reference the Duration Days:** Again, in the **Select Data Source** dialog box, in the **Legend Entries** box section, click the **Add** button. In the **Edit Series** box, enter the phrase ***Days*** in the **Series name** box. Click the ***Select range*** button located at the end of the **Series values** box, highlight the **Duration Days** range in the worksheet (cells C4 through C12 in this example), and then click **OK**.

6. **Reference the Task descriptions:** Again, in the **Select Data Source** dialog box, in the **Horizontal Axis Labels** section, click the **Edit** button. In the resulting **Axis Labels** dialog box, click the cell ***Select range*** button located at the end of the **Axis label range** box, highlight the Tasks on the worksheet (cells A4 through A12 in this example), and then click **OK**, **OK**. Your progress thus far should appear as follows:

	A	B	C	D
3	**Tasks**	**Start Date**	**Duration (Days)**	**End Date**
4	Land Preparation	9/4/2014	8	9/12/2014
5	Foundation	9/12/2014	4	9/16/2014
6	Framing	9/16/2014	5	9/21/2014
7	Doors and Windows	9/19/2014	4	9/23/2014
8	Plumbing	9/23/2014	2	9/25/2014
9	Electrical	9/23/2014	3	9/26/2014
10	Sheet Rock	9/26/2014	12	10/8/2014
11	Finish Work	10/8/2014	7	10/15/2014
12	Painting	10/10/2014	9	10/19/2014
13				



7. **Hide the first set of stacked bars:** In the stacked bar chart, click any of the start date bars (shown in blue above) to select them all. Right-click on the selected bars to pop up the **Format Data Series** options panel. Click the **Fill & Line** icon (the pouring paint bucket icon) and select **No fill** and **No line** options.

8. **Reverse the order of the labels:** Right-click on the chart's task labels, choose **Format Axis**, and in the **Format Axis** panel, in the **Axis Options** section, check the **Categories in reverse order** box. This action will position the first task at the bottom of the chart, which is a Gantt chart tradition.

9. **Edit the date range displayed by the chart:** Holding the Ctrl key down, select cells B4 and D12, (the first **Start Date** and last **End Date)**. Change the format of these two cells to the **General** format, and make a note of these two numbers (41886 and 41931 in this example, but not shown above). Right-click on the **Horizontal Axis** (the chart's date range) to pop up the **Format Axis** panel. Click the **Size & Properties** icon, and then in the **Axis Options** section set the **Minimum** and **Maximum** bounds to 41886 and 41931 (the numbers determined in the previous step).

10. **Format the date axis:** Still in the **Format Axis** panel, under the **Axis Options** icon, in the **Number** section, change the **Category** dropdown to **Date**, and then change the **Type** to a short date option (*I selected 3/14 in this example*).

11. **Finishing Touches:** As finishing touches:

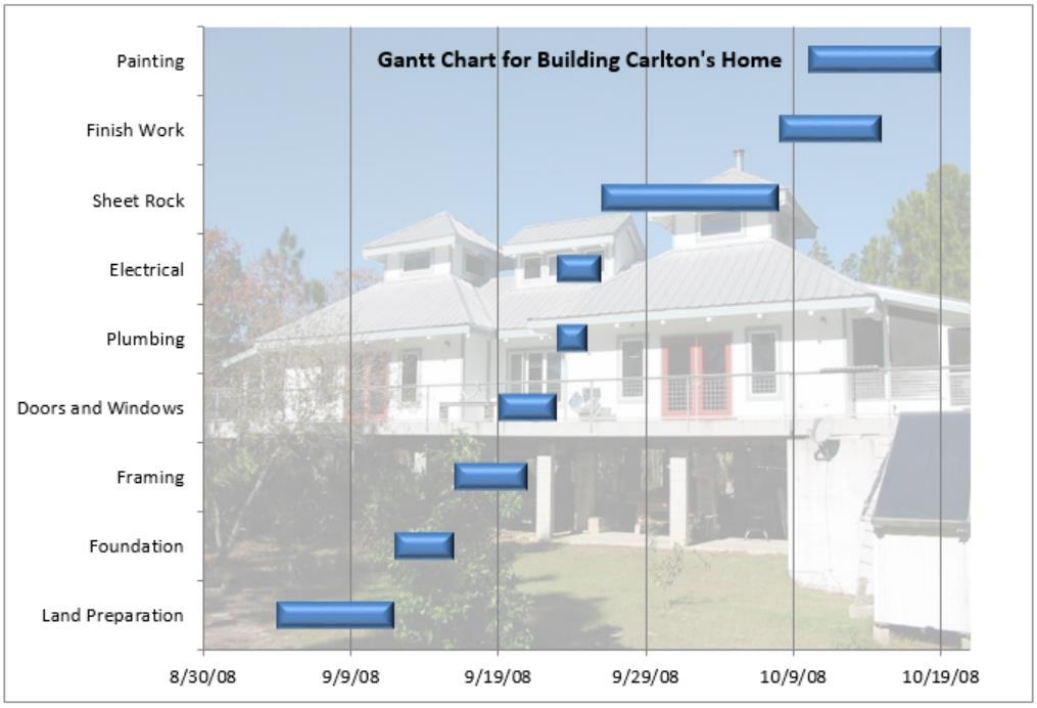
    a. Add a title to your chart.

    b. Right-click the duration bars *(shown above in dark red), and set the **Gap Width** to 50% (to increase the width of the bars).
    c. Click the Series Options icon, and in the 3-D Format section, click the **top bevel** dropdown button and then select the **Circle** bevel.

    d. Click the **Fill & Line** icon, and in the **Fill** section click the **Solid fill** option and then select a blue color.

    e. If desired, you might also edit the chart's **Plot Area** by inserting a picture of the construction project, and then adjusting the picture's transparency to 65% so the chart remains readable.

Presented below is the final Gantt chart report.

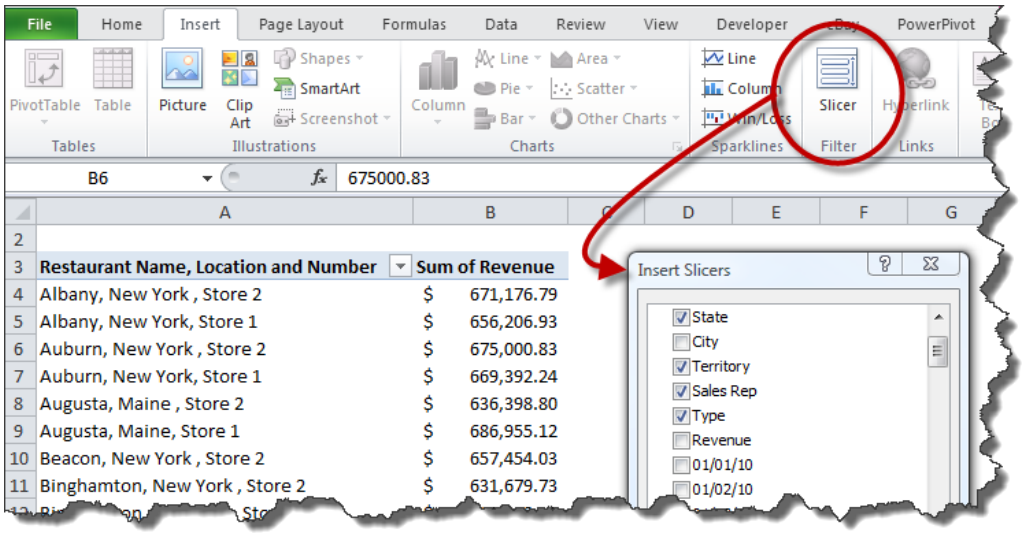


You can download this example Gantt chart file at **www.CarltonCollins.com/gantt.xlsx**.

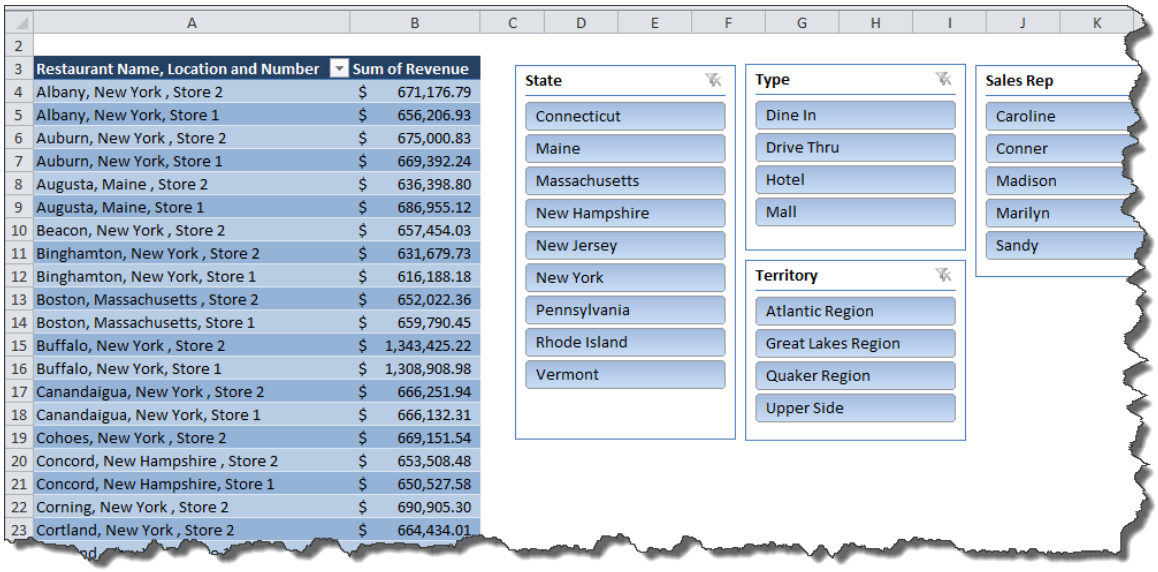
Excel's New Slicer - It Slices, it Dices…

CPA Question: We maintain a large amount of data for more than 100 restaurants and we analyze sales and expenses daily, weekly and monthly by location, city, state and territory, and even by type of restaurant. Overnight, the results of operations for the previous day feed into a database and we analyze the data in Excel using pivot tables. Despite preparing dozens of reports, my superiors desire more detailed reports and analysis. Can you offer a good solution?

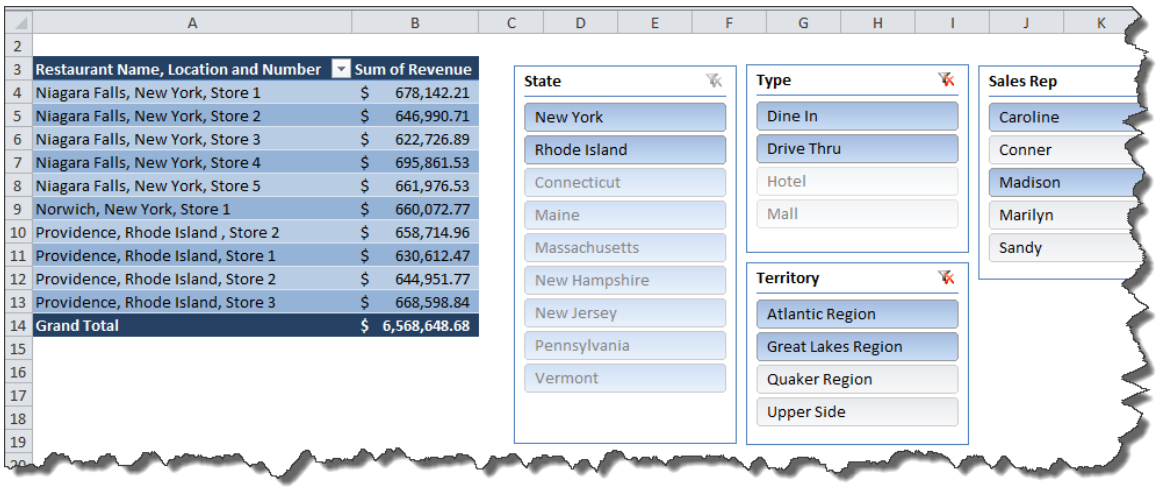
Solution: Excel 2010's new Slicer may be the answer you are looking for. Slicer is an enhancement to Excel 2010's PivotTables that inserts filter boxes that your superiors can click to display precisely the reports they desire. To use Slicer, position your cursor anywhere in a PivotTable report and from the **Insert** ribbon, select **Slicer** from the **Filter** group. This action will open the **Insert Slicers** dialog box shown below.



Place a **checkmark** in the checkbox for each slicer you want to display and click **OK**. Excel will insert slicer dialog boxes containing filter buttons in the worksheet for each field name you select, as shown below.



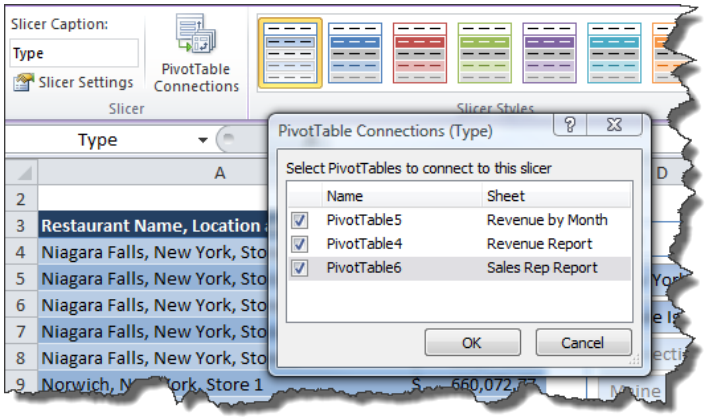
Simply click the various filter buttons to display different views of your data. For example, the report below summarizes revenue for those “Dine-In” and “Drive-Thru” restaurants managed by “Caroline” and “Madison” in the “Atlantic” and “Great Lakes” regions. (Holding down the **Ctrl** key allows you to make multiple selections within a Slicer dialog box.) The selected filter buttons are highlighted and the non-selected filter buttons are greyed out, allowing you to see which filters have been applied to the report.



Restaurant Name, Location and Number	Sum of Revenue
Niagara Falls, New York, Store 1	$ 678,142.21
Niagara Falls, New York, Store 2	$ 646,990.71
Niagara Falls, New York, Store 3	$ 622,726.89
Niagara Falls, New York, Store 4	$ 695,861.53
Niagara Falls, New York, Store 5	$ 661,976.53
Norwich, New York, Store 1	$ 660,072.77
Providence, Rhode Island , Store 2	$ 658,714.96
Providence, Rhode Island, Store 1	$ 630,612.47
Providence, Rhode Island, Store 2	$ 644,951.77
Providence, Rhode Island, Store 3	$ 668,598.84
Grand Total	$ 6,568,648.68

In the example shown above, the reader could produce up to 720 different views of this one report (9 States times 4 Types times 4 Territories times 5 Sales Reps). In your situation, you could add three similar PivotTable reports summarizing your data by week, month, and quarter, and e-mail the entire workbook to your superiors. This would limit the total number of reports you would need to prepare to just four, yet provide your superiors with the ability to view the data thousands of different ways, according to their preference.

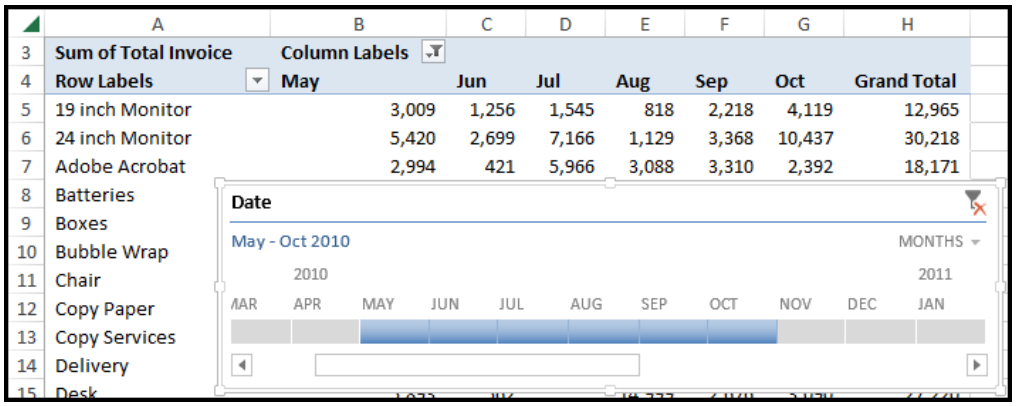
Advanced Tip: A Slicer can be shared with multiple PivotTable reports so that when filters are applied in one Slicer, multiple PivotTable reports are filtered. To share a Slicer, click on the Slicer to be shared to display the **Slicer Tools, Options** tab. In the **Slicer** group, select **PivotTable Connections** and place a **checkmark** next to the PivotTables you want to share the Slicer, as shown below.



Hint: You can resize and re-position your slicers on the worksheet, and apply matching styles to both the PivotTables and Slicers to produce professional looking results.

Timeline Slicers

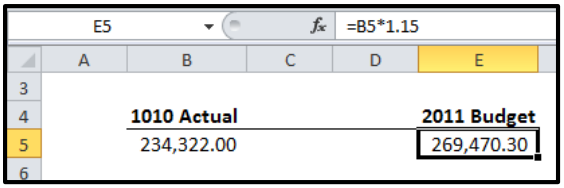
CPAs who work with PivotTables will likely appreciate Excel 2013's new **Timeline Slicer** which helps users *slice and dice* Pivot data that contain dates. As an example, selecting the dates May through October on the Timeline slicer (pictured) adjusts the PivotTable to display May thru October data.



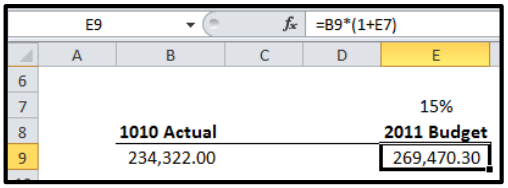
Excel's New Timeline Slicer provides a
Visual Method of Filtering a PivotTable by Date

Avoiding Embedded Assumptions in Formulas

It is always a good rule to not embed assumptions in your Excel formulas. The reason is that doing so makes it more difficult to later find those assumptions to change them, and unsuspecting users in the future (including yourself) may forget that there are embedded assumptions and they could accidentally render subsequent budgets inaccurate.



Wrong



Correct

Explaining all Underlying Assumptions

It may be obvious to all when you are preparing a budget as to where the assumptions come from. However, later the source of those assumptions may not be so obvious. For this reason, the diligent CPA will document all assumptions and formulas used so that they and others can easily follow the logic later. Explanations can be documented in a variety of ways as follows:

- On an administrative page
- Next to the assumption in a cell

- Next to the assumption as a **Comment**
- Next to the assumption as a **Data Validation Comment**
- Next to the assumption using a **Balloon Call** out

The Administrative Page

For complex workbooks that are referred to frequently or used by others, it is a good idea to include an administrative page that helps the reader understand and navigate the workbook. Following is a list of potential elements you might add to your workbook administrative page:

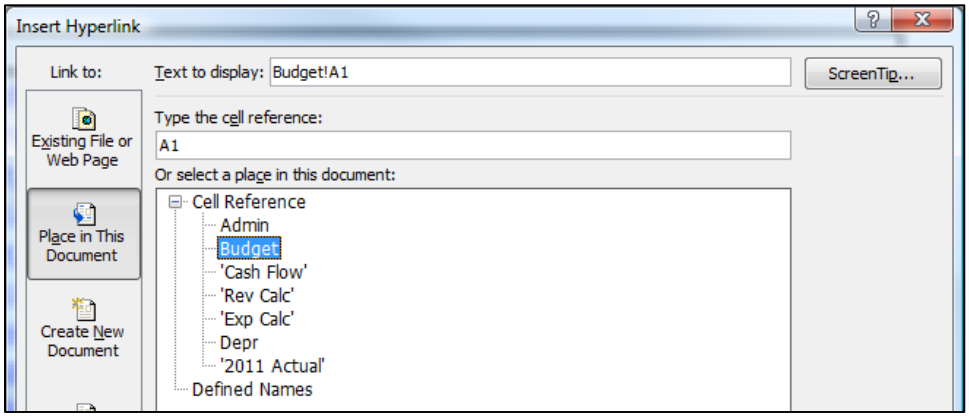
- The name of the company or client to which the workbook pertains
- The date the workbook was first crated, and notes related to subsequent enhancements
- Table of contents with hyperlinks to the various contents
- Macro buttons for easier printing of the various reports
- A list of authors and reviewers contributing to the template
- An explanation of the purpose of the workbook
- An explanation of the assumptions used in the workbooks
- Links to external data sources referenced in the workbook

Read on to see an example and learn more about creating an administrative page.

Using Hyperlinks to Navigate

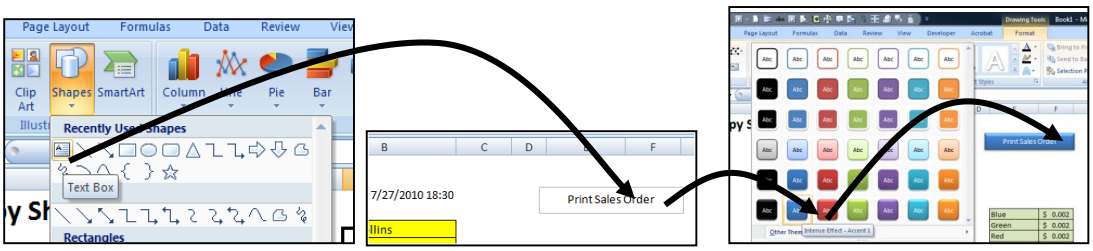
As financial reports are created, the various calculations tend to be based on data assembled from a variety of sources. The financial reports, calculations, and data should not only be organized and well-labeled, but a hyperlinked table of contents should be inserted to aide in navigating the workbook, like the table of contents shown below.

To create a hyperlinked table of contents, list the various sections of your workbook in a table of contents format as shown above, then select each line and click Ctrl+K to assign a hyperlink to that line. Notice below that the Insert Hyperlink dialog box allows you to assign a hyperlink to worksheets, cells, or defined names in the workbook.

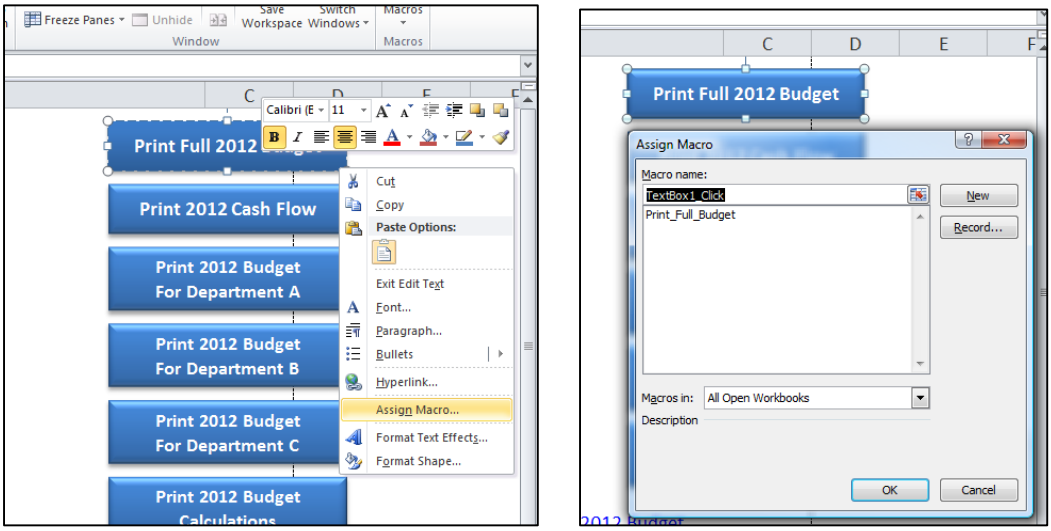


Using Macro Buttons to Print

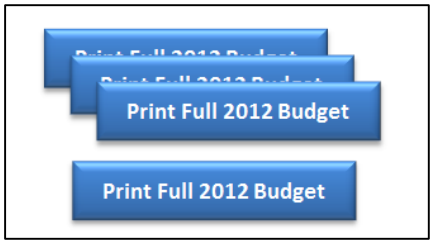
You can make the workbook easier to use by inserting macro buttons to print the various reports. To start this process, create a single text box, and use the Drawing Tools to make it look fancy as indicated in the screens below:



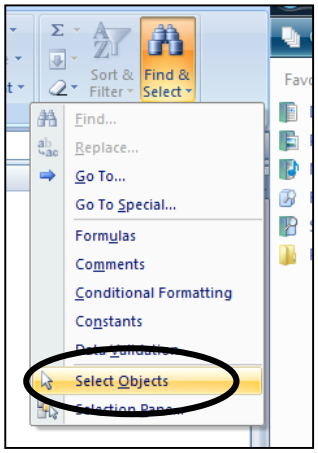
Create the Print Macro – Next create a print macro by selecting "Macro, Record Macro" from the "View Ribbon" *(make sure that no spaces are used in your macro name and save the macro to "This Workbook")*. Set the "Print Area" appropriately to display your full budget area. Next simply print the full budget, then stop recording the macro by selecting "Macro, Stop Recording" from the "View Ribbon". Once completed assign the Macro to the Print Sales Order Button by right mouse clicking and selecting "Assign Macro". The right click menu and the Assign Macro Dialog box are shown in the two screens below.

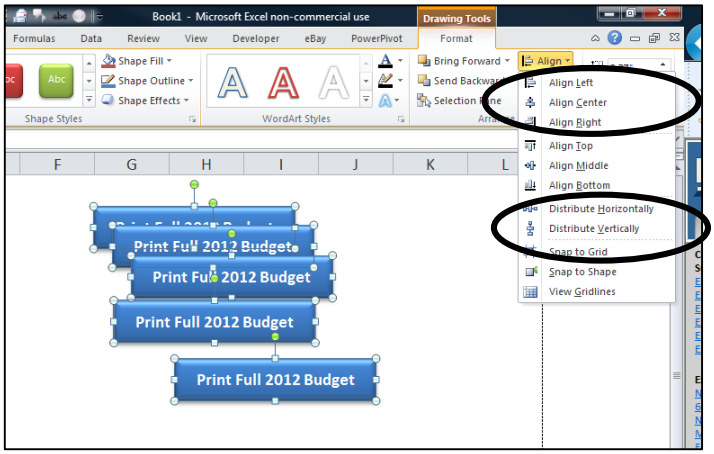


Additional Macro Buttons – Next right click on the edge of the existing macro button twice, and or press Ctrl+C to copy it; then click away from the button and Paste the button several times. This will create exact copies of your macro button. (You must right click twice on the edge of the button to display the second menu of options.)

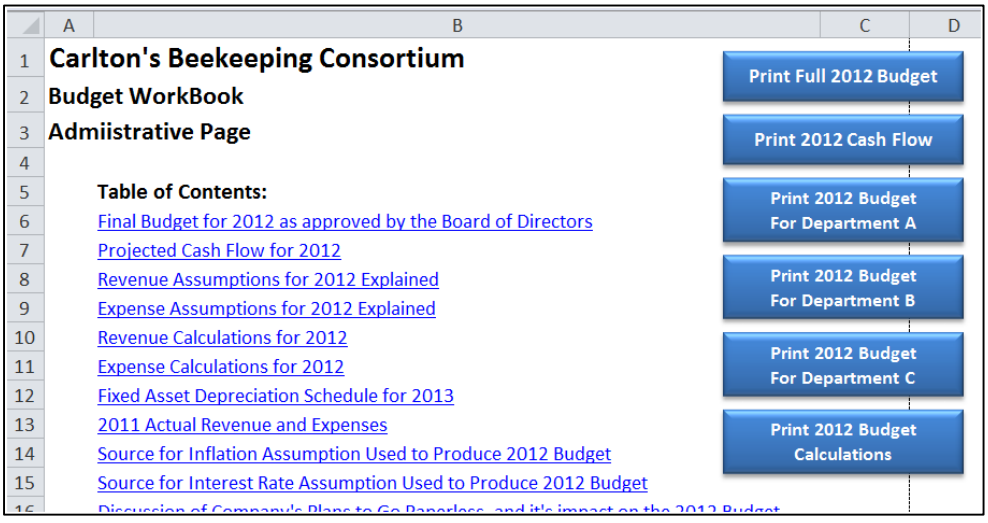


Next on the **Home** tab in the **Editing** group, select **Find and Select**, **Select Objects**. Then lasso the three buttons and from the **Drawing Tools** tab, use the alignment tools to **Left Justify** and **Distribute Vertically** the macro buttons.





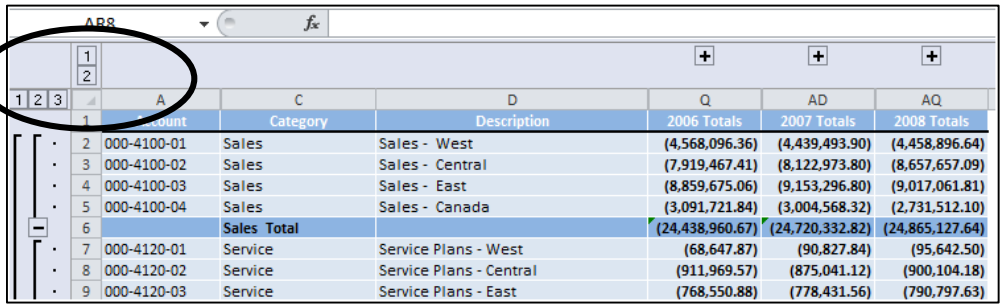
The results will appear as follows:



Press escape to deselect the "Object Pointer" tool, and return your cursor to normal. In the future, when you want to print any portion of your budget workbook, just click the appropriate buttons to produce the desired reports.

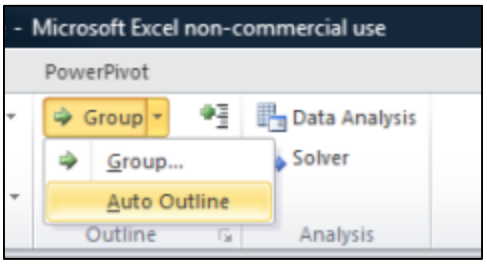
Grouping Financial Data

To group and summarize your financial data, you can create an outline of up to eight levels, by row or by column. Once grouped, you can show or hide detailed data by selecting the desired outline level as circled in the screen below. To group data, simply highlight the rows or columns to be grouped, and select **Group** from the **Data** tab. The resulting grouped data will appear as follows:



	A	C	D	Q	AD	AQ
1	Account	Category	Description	2006 Totals	2007 Totals	2008 Totals
2	000-4100-01	Sales	Sales - West	(4,568,096.36)	(4,439,493.90)	(4,458,896.64)
3	000-4100-02	Sales	Sales - Central	(7,919,467.41)	(8,122,973.80)	(8,657,657.09)
4	000-4100-03	Sales	Sales - East	(8,859,675.06)	(9,153,296.80)	(9,017,061.81)
5	000-4100-04	Sales	Sales - Canada	(3,091,721.84)	(3,004,568.32)	(2,731,512.10)
6		Sales Total		(24,438,960.67)	(24,720,332.82)	(24,865,127.64)
7	000-4120-01	Service	Service Plans - West	(68,647.87)	(90,827.84)	(95,642.50)
8	000-4120-02	Service	Service Plans - Central	(911,969.57)	(875,041.12)	(900,104.18)
9	000-4120-03	Service	Service Plans - East	(768,550.88)	(778,431.56)	(790,797.63)

If your data contains subtotals or grand totals (limited to 8 levels of subtotals), then Excel can automatically apply groups for you. To use this feature, select Auto Outline from the Group dropdown arrow, as shown below.



Producing Budget to Actual Comparison Reports

There are several approaches to comparing actual to budget data, as follows:

a. Side-by-side reports, with difference and difference percentage calculations. Probably my favorite approach personally. To improve this function, consider grouping the data.

b. Side-by-side columns, with difference and difference percentage columns. This might be a better approach in some situations.

c. Over and Under reports, with difference calculations. These reports are much harder to compare in my opinion, but many CPAs seem to use this approach.

d. Side-by-side reports, with **Data Bar Formatting** applied to difference and difference percentage calculations. While extreme data can throw off the data bars, in many

situations data bar formatting helps you quickly identify the data that needs further scrutiny.

e. Reports without subtotals so data can be filtered, subtotaled and pivoted. Removing formula subtotals and inserting data subtotals is not as hard as you might think. In this example we will number the rows, use =RIGHT() to identify the subtotal rows, sort, delete the unwanted rows, then re-sort in order according to our numbered rows. This is a time-honored method used frequently by many CPAs to clean data and prepare it for analysis. From here, I will demonstrate filtering, subtotaling and pivoting the data as well.

An Excel 2010 file containing examples of these types of comparisons is available for download on my web site at **www.ASAResearch.com/web/actual.xlsx**, or just navigate to the file on the Excel tab menu. Example screen shots are shown below:

A.

	D	E	F	G	H	I	J	K	L	M	N
1	Description	January Actual	February Actual	March Actual	January Budget	February Budget	March Budget	January Difference	February Difference	March Difference	January Diff %
2	Sales - West	(408,011.81)	(411,599.63)	(397,531.12)	(362,400)	(351,500)	(365,600)	45,612	60,100	31,931	-12.6%
3	Sales - Central	(643,508.54)	(641,723.35)	(651,671.80)	(652,100)	(664,800)	(668,900)	(8,591)	(23,077)	(17,228)	1.3%
4	Sales - East	(736,956.86)	(742,564.19)	(741,847.84)	(742,600)	(743,500)	(760,500)	(5,643)	(936)	(18,652)	0.8%
5	Sales - Canada	(258,873.89)	(255,821.77)	(260,361.99)	(257,600)	(259,700)	(259,900)	1,274	(3,878)	462	-0.5%
6		(2,047,351.10)	(2,051,708.94)	(2,051,412.75)	(2,014,700)	(2,019,500)	(2,054,900)	32,651	32,209	(3,487)	-1.6%
7	Service Plans - West	(4,643.40)	(4,394.49)	(3,783.32)	(5,800)	(6,500)	(4,800)	(1,157)	(2,106)	(1,017)	19.9%
8	Service Plans - Central	(78,546.43)	(78,333.99)	(77,621.15)	(73,000)	(72,600)	(73,200)	5,546	5,734	4,421	-7.6%
9	Service Plans - East	(64,113.09)	(65,321.31)	(65,777.32)	(62,300)	(63,500)	(64,100)	1,813	1,821	1,677	-2.9%
10	Service Plans - Canada	(22,335.31)	(21,854.10)	(21,819.44)	(20,800)	(21,800)	(22,100)	1,535	54	(281)	-7.4%
11		(169,638.23)	(169,903.89)	(169,001.23)	(161,900)	(164,400)	(164,200)	7,738	5,504	4,801	-4.8%
12	Installation Charges - West	(13,541.67)	(13,997.99)	(14,198.33)	(13,100)	(14,200)	(13,600)	442	(202)	598	-3.4%
13	Installation Charges - Central	(145,905.91)	(146,071.19)	(145,481.15)	(145,500)	(144,600)	(144,300)	406	1,471	1,181	-0.3%
14	Installation Charges - East	(282,819.17)	(283,050.57)	(283,506.42)	(284,000)	(283,900)	(285,300)	(1,181)	(849)	(1,794)	0.4%
15	Installation Charges - Canada	(87,370.54)	(88,120.50)	(88,848.32)	(95,400)	(95,200)	(94,700)	(8,029)	(7,080)	(5,852)	8.4%
16		(529,637.29)	(531,240.25)	(532,034.23)	(529,000)	(527,900)	(527,900)	(9,263)	(5,660)	(5,866)	1.6%

B.

	D	E	F	G	H	I	J	K	L	M
1	Description	January Actual	January Budget	January Difference	January Diff %	February Actual	February Budget	February Difference	February Diff %	Marc Actua
2	Sales - West	(408,011.81)	(362,400)	45,612	-12.6%	(411,599.63)	(351,500)	60,100	-17.1%	(397,5
3	Sales - Central	(643,508.54)	(652,100)	(8,591)	1.3%	(641,723.35)	(664,800)	(23,077)	3.5%	(651,6
4	Sales - East	(736,956.86)	(742,600)	(5,643)	0.8%	(742,564.19)	(743,500)	(936)	0.1%	(741,8
5	Sales - Canada	(258,873.89)	(257,600)	1,274	-0.5%	(255,821.77)	(259,700)	(3,878)	1.5%	(260,3
6		(2,047,351.10)	(2,014,700)	32,651	-1.6%	(2,051,708.94)	(2,019,500)	32,209	-1.6%	(2,051,4
7	Service Plans - West	(4,643.40)	(5,800)	(1,157)	19.9%	(4,394.49)	(6,500)	(2,106)	32.4%	(3,7
8	Service Plans - Central	(78,546.43)	(73,000)	5,546	-7.6%	(78,333.99)	(72,600)	5,734	-7.9%	(77,6
9	Service Plans - East	(64,113.09)	(62,300)	1,813	-2.9%	(65,321.31)	(63,500)	1,821	-2.9%	(65,7
10	Service Plans - Canada	(22,335.31)	(20,800)	1,535	-7.4%	(21,854.10)	(21,800)	54	-0.2%	(21,8
11		(169,638.23)	(161,900)	7,738	-4.8%	(169,903.89)	(164,400)	5,504	-3.3%	(169,0
12	Installation Charges - West	(13,541.67)	(13,100)	442	-3.4%	(13,997.99)	(14,200)	(202)	1.4%	(14,1
13	Installation Charges - Central	(145,905.91)	(145,500)	406	-0.3%	(146,071.19)	(144,600)	1,471	-1.0%	(145,4
14	Installation Charges - East	(282,819.17)	(284,000)	(1,181)	0.4%	(283,050.57)	(283,900)	(849)	0.3%	(283,5
15	Installation Charges - Canada	(87,370.54)	(95,400)	(8,029)	8.4%	(88,120.50)	(95,200)	(7,080)	7.4%	(88,8

C. (Not Pictured)

D.

H	I	J	K	L	M	N	O	P
January Budget	February Budget	March Budget	January Difference	February Difference	March Difference	January Diff %	February Diff %	March Diff %
(362,400)	(351,500)	(365,600)	45,612	60,100	31,931	-12.6%	-17.1%	
(652,100)	(664,800)	(668,900)	(8,591)	(23,077)	(17,228)	1.3%	3.5%	
(742,600)	(743,500)	(760,500)	(5,643)	(936)	(18,652)	0.8%	0.1%	
(257,600)	(259,700)	(259,900)	1,274	(3,878)	462	-0.5%	1.5%	
(5,800)	(6,500)	(4,800)	(1,157)	(2,106)	(1,017)	19.9%	32.4%	
(73,000)	(72,600)	(73,200)	5,546	5,734	4,421	-7.6%	-7.9%	
(62,300)	(63,500)	(64,100)	1,813	1,821	1,677	-2.9%	-2.9%	
(20,800)	(21,800)	(22,100)	1,535	54	(281)	-7.4%	-0.2%	
(13,100)	(14,200)	(13,600)	442	(202)	598	-3.4%	1.4%	
(145,500)	(144,600)	(144,300)	406	1,471	1,181	-0.3%	-1.0%	
(284,000)	(283,900)	(285,300)	(1,181)	(849)	(1,794)	0.4%	0.3%	
(95,400)	(95,200)	(94,700)	(8,029)	(7,080)	(5,852)	8.4%	7.4%	
(4,500)	(5,200)	(5,200)	(1,875)	(1,089)	(171)	41.7%	20.9%	
(25,400)	(24,200)	(24,400)	1,500	4,082	3,736	-5.9%	-16.9%	
(45,200)	(45,500)	(44,500)	4,402	4,494	5,499	-9.7%	-9.9%	
(12,500)	(12,000)	(12,100)	166	643	57	1.3%	5.4%	

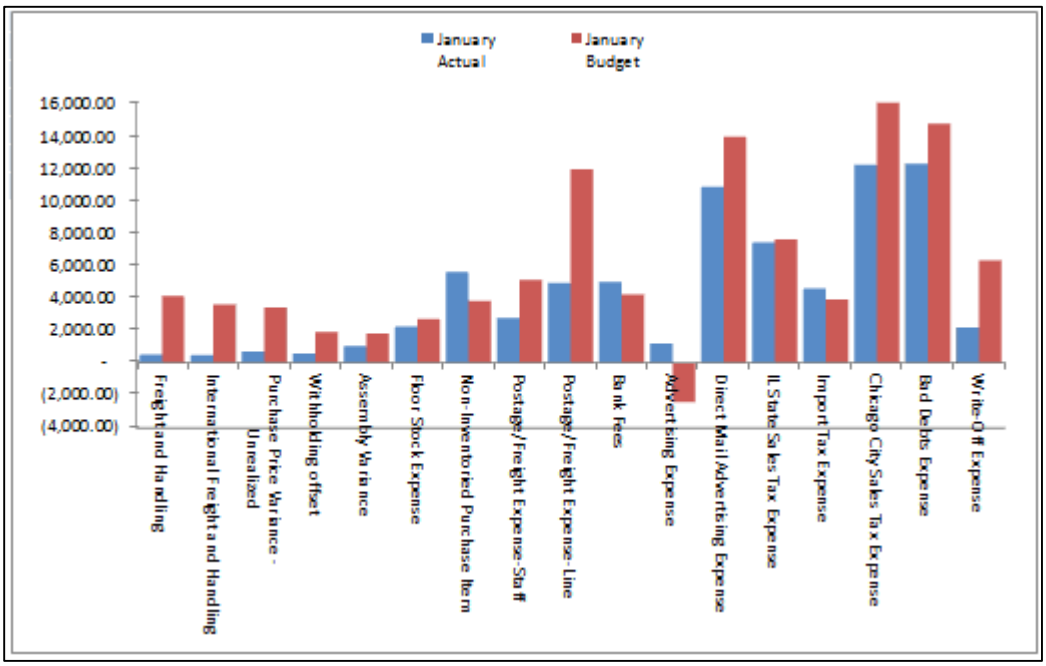
E.

	A	B	C	D	E	F	G	H	I	J
3	Row Labels	Sum of January Actual	Sum of January Budget	January Difference	Sum of February Budget	Sum of February Actual	February Difference	Sum of March Budget	Sum of March Actual	March Difference
4	Accounting Fees	11,119	13,200	2,081	13,900	10,992	2,908	12,800	11,514	1,28
5	Advertising Expense	1,203	(2,400)	(3,603)	(3,200)	1,339	(4,539)	(2,700)	783	(3,48
6	Amortization - Software	3,346	1,300	(2,046)	2,100	3,338	(1,238)	2,900	3,521	(6
7	Assembly Variance	1,047	1,800	753	900	1,087	(187)	1,400	1,033	3
8	Bad Debts Expense	12,258	14,700	2,442	15,800	10,794	5,006	17,000	11,712	5,28
9	Bank Fees	4,973	4,200	(773)	3,100	4,567	(1,467)	3,300	4,422	(1,1
10	Billings in Excess of Earnings	9,123	11,600	2,477	11,100	9,343	1,757	11,100	9,928	1,1
11	Bonuses - Accounting	6,099	9,000	2,901	8,700	5,689	3,011	8,200	5,998	2,2
12	Bonuses - Administration	6,466	14,200	7,734	13,700	7,150	6,550	14,000	8,126	5,8
13	Bonuses - Consulting/Training Canada	1,504	(1,500)	(3,004)	(2,000)	1,163	(3,163)	(700)	1,158	(1,8
14	Bonuses - Consulting/Training US	5,885	1,800	(4,085)	1,100	6,078	(4,978)	2,300	6,401	(4,1
15	Bonuses - Purchasing/Receiving	10,395	12,000	1,605	13,400	11,416	1,984	13,300	10,710	2,5

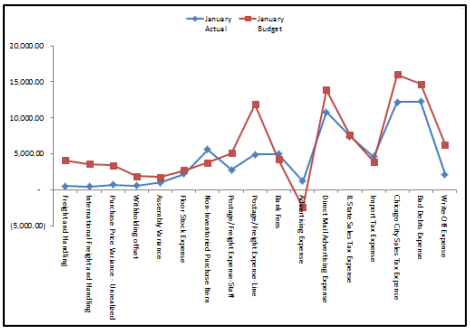
As these examples illustrate, comparison reports are usually large and often confusing to construct and navigate. Any of the approaches described above may be more suitable than the others, depending upon the data, situation and personal preference. Hopefully, knowledge of all of these approaches will be helpful to you.

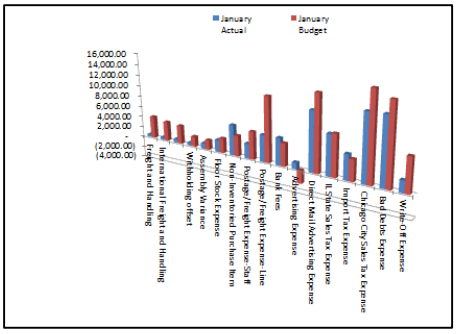
Charting Budget versus Actual Results

Charts can often be an effective method for comparing actual verses budgeted data. Presented below is an example:



In this example, I have avoided using 3D chart and rotation. I have also reduced the **Gap** between the data bars which effectively makes the data bars wider. The flat chart is slightly easier to read than line charts or 3-D charts (because 3-D charts distort the data a little, and make comparisons a little more difficult.) The same chart above is presented below as both a line chart and a 3-D chart.

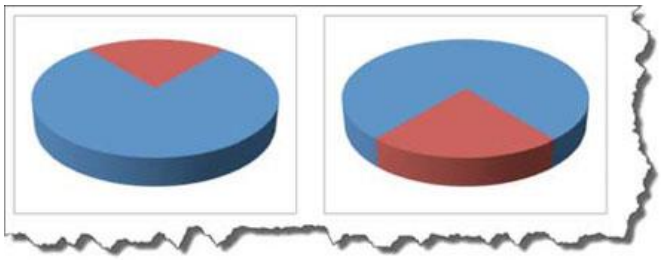




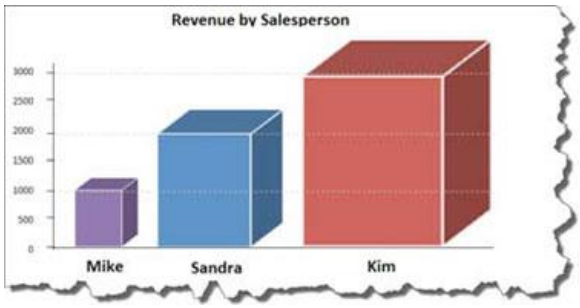
How Charts Lie

Charts are useful tools for visualizing and analyzing data. However, charts can sometimes be deceiving, and CPAs should be aware of this when creating or reading charts. Below are examples of charting methods that may distort data.

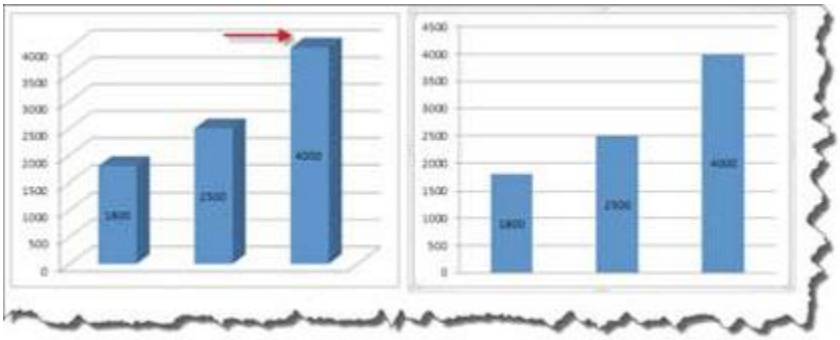
Rotating 3-D charts. The two charts shown below are identical, except for rotation. The red pie slice facing forward covers 107% more area (graphically) than the pie slice facing the rear. This technique might subliminally give the impression that the red pie slice represents a larger or smaller portion of the pie, depending upon your perspective.



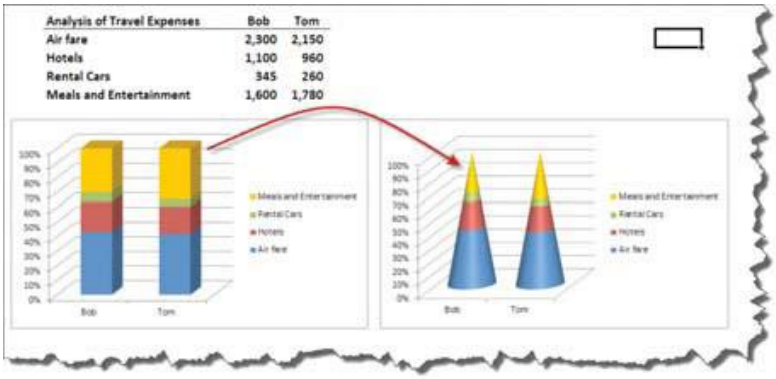
Picture charts. The chart below shows sales results for three salespersons. The chart shows that the third salesperson generated three times the amount of sales of the first salesperson ($3,000 compared with $1,000). Reading the chart based on data bar height, the chart reads accurately. However, because the data bars in the chart are taller and wider, the third data bar covers nine times the surface area of the first data bar, thus creating the illusion that sales were nine times higher.



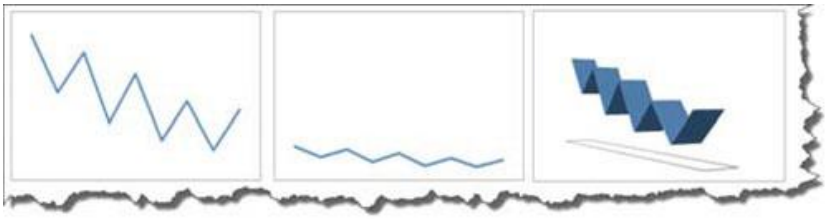
3-D bar charts. The two charts below are identical, except for the 3-D effect. Notice that in the 3-D chart, the third data bar representing 4,000 does not appear to reach the 4,000 hash mark on the Y-axis. By comparison, the same data bar displayed in a two-dimensional version of the chart does perceptibly touch the 4,000 hash mark. (The reason for this distortion is that the front of the 3-D bar lines up with the Y-axis labels on the left side of the chart, but the data bar's depth is not as great as the 3-D chart's depth.)



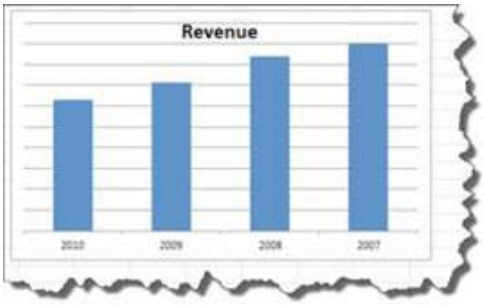
Cone charts. The two charts atop the next column are identical, except for the "cone" effect. Notice in the 3-D bar chart on the left, meals and entertainment expenses appear to represent a significant portion of the total travel expenses. However, in the cone chart on the right, meals and entertainment expenses visually appear to represent a much smaller fraction of the total travel expenses.



Distorted line charts using 3-D and rotation. The three charts below depict the same data. The first chart is a two-dimensional line chart, which suggests an overall downward trend in the data. The second chart is also a two-dimensional line chart, but the maximum value on the Y-axis has been increased tenfold compared to the first chart, thus flattening the line and suggesting that there is not much of a trend in the data. The third chart is a 3-D line chart, which has been rotated forward to emphasize the increase at the end of the chart. This third chart might give more of an impression that results are trending upward.



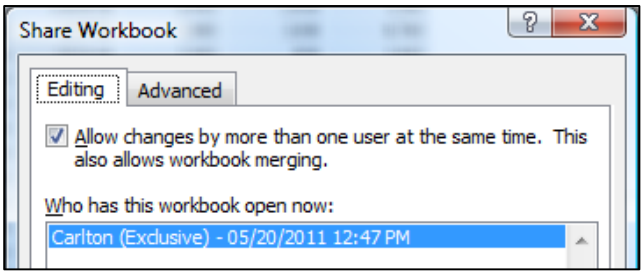
Reverse order charts. In the chart below, the data is displayed chronologically from right to left. In this example, revenue has actually declined over the past three years; however, since most people read charts from left to right, they might miss the fact that the data is presented in the opposite direction.



Armed with this information, you are in a better position to prepare and read charts without falling into distortion traps.

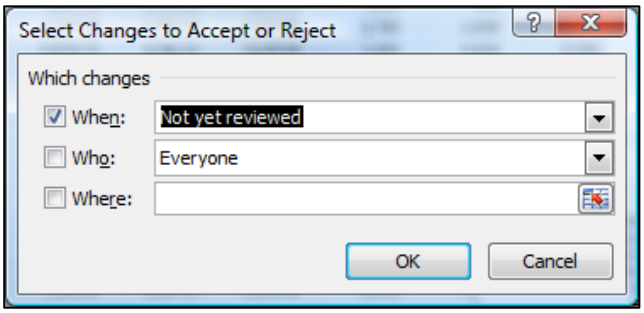
Managing Reviews via Workbook Sharing

How does the reviewer know that once reviewed, what data was changed (if any). The answer is that the workbook must be **Shared** so that future changes can be tracked. To use this feature, from the **Review** tab, select **Share Workbook** form the **Changes** group, and click the **Allow Changes** checkbox as shown below.

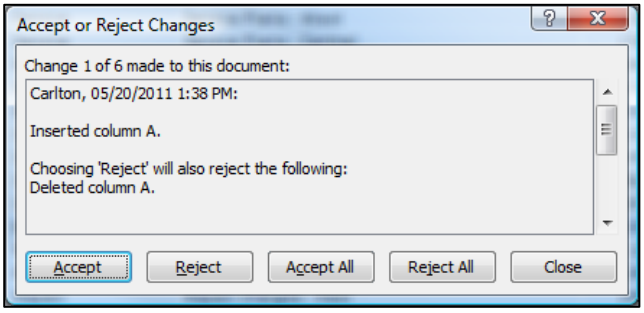


Once you have shared the workbook, all changes made by yourself and others are tracked in Excel. Therefore, upon the next review, the reviewer will be able to tell which cells have changed (and how) and which cells have not changed. This makes subsequent reviews

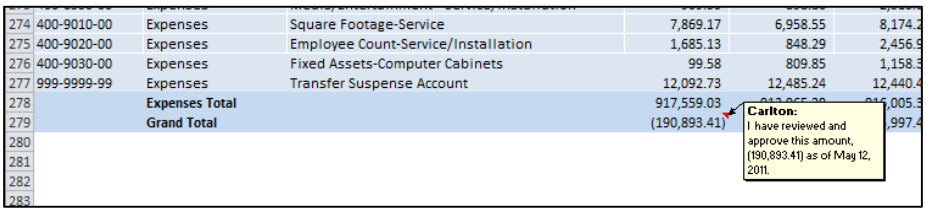
much easier. To track changes, from the **Review** tab, select **Track Changes, Accept or Reject** from the **Changes** group. The following dialog box will appear.



Select the changes you want to review based on the date range in which the changes were made, who made the changes, and even in a selected portion of the workbook. Click **OK**. This action will launch the Accept or Reject Changes dialog box shown below, and will navigate to each change one at a time allowing the reviewer to click the accept button to keep the change and mark it as reviewed, or reject the change.



Another reviewer approach that is sometimes used is to insert comments at various points in the worksheet as an approval sign off, an example of which is shown below.



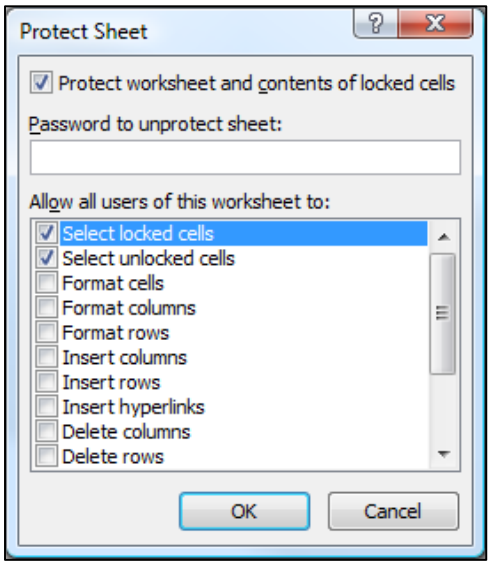
Protecting the Integrity of the Financial Reports

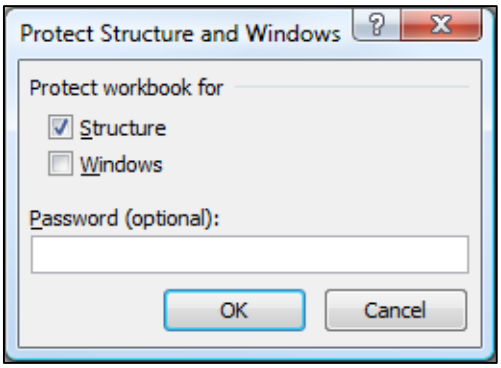
In a famous case from the 1990's, a disgruntled employee who had just been fired before leaving his office reportedly opened an Excel based budget for a proposed highway project, and changed the amount of concrete required from 50 million cubic yards to just 5 million cubic yards. The change was made after the budget had been reviewed and approved, and the employee's subsequent change was not detected. The bid was sent and the company was awarded the

contract. The error was noticed months later as project managers compared the actual costs to the budget and projected a significant loss on the job. The company was able to compare the budget submitted to a printed version of the approved budget where they discovered how the problem occurred.

To protect a workbook, it is a good idea to first Share the workbook so that you can track all changes and who made them. To further protect data to help prevent it from being changed, you can also specify a password that users must enter to modify the workbook. In addition, additional advanced protection settings also allow you to prevent users from changing the structure of a worksheet.

Protecting A Worksheet - By default, when you protect a worksheet, all the cells on the worksheet are locked, and users cannot make any changes to a locked cell. If desired, you can unlock specific cells using the Format Cells dialog box prior to turning on worksheet protection. You can unlock cells for all users or for specific users. When you protect a worksheet or workbook, adding a password is optional. Once protected, the user must physically unprotect the worksheet (using the password if necessary) in order to make changes to locked cells. Presented below are both the **Protect Worksheet** and **Protect Workbook** tools in Excel.





Copying Across the Excel Page

When creating budgets, the user often has a need to copy formulas or data across long columns in which arrowing down thousands of rows takes too much time. In this situation, there are two possible approaches you can use – the piggyback approach and the end-down-back approach. These approaches are explained as follows:

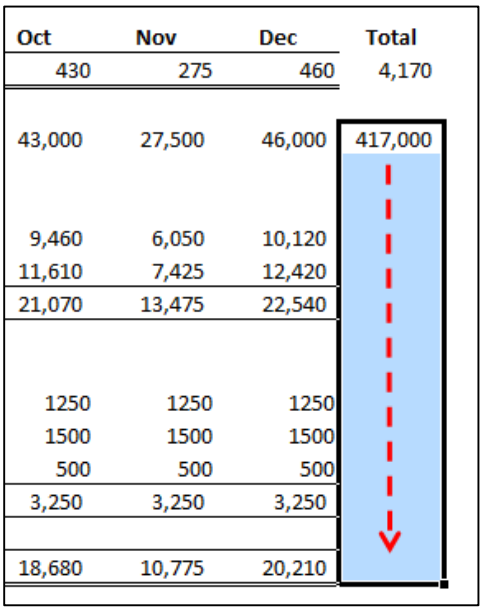
a. **Piggyback Approach** – (Use an adjacent column to navigate.) For example, assume you want to copy a formula in cell D2 down to the next 48,000 blank cells. Column A contains 48,000

row labels, which can be piggy-backed. In this example, copy cell D2, then move to cell D3. Next, holding the **Shift** key down, press the **LEFT ARROW** 3 times to navigate to cell A3, then press the **END, DOWN ARROW** to navigate to the bottom of column A, then press the **RIGHT ARROW** three times to navigate across to cell D48001. Release the **Shift** key. You have now selected the range in column D from cell D3 to D48001. **Paste** to complete the operation.

b. **End-Down-Back Approach** – (Use the bottom of the worksheet to navigate.) For example, once again assume you want to copy a formula in cell D2 down to the next 48,000 blank cells. Column A contains approximately 48,000 row labels, but there are too many blank cells to use that column for piggy-back purposes. In this example, copy cell D2, then move to cell D3. Next, holding the **Shift** key down, press the **END, DOWN ARROW** to navigate to the bottom of the worksheet – cell D1048575. Next press the LEFT AROOW three times to navigate to column A, then Press **END, UP ARROW** to navigate to the last label in Column A – cell A48001. Press the **RIGHT ARROW** three times to navigate across to cell D48001. Release the **Shift** key. You have now selected the range in column D from cell D3 to D48001. **Paste** to complete the operation.

Copying Down with Ctrl+D

The Ctrl+D keystroke combination can be a quick way to copy data. To use this shortcut, highlight the cell you want to copy and the blank cells underneath where you want to paste, and press **Ctrl+D**, as shown below.



Hiding Data in Excel

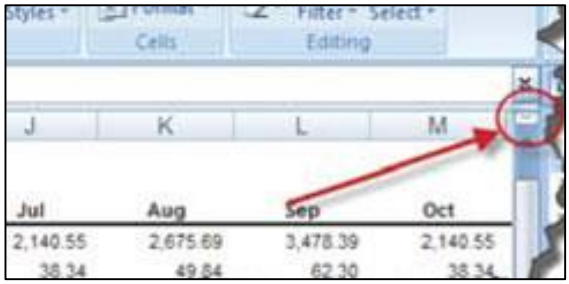
Be aware that data cannot be hidden in Excel. Even if you hide columns containing sensitive data and turn on worksheet and workbook protection. A user could reveal that hidden data in one of the following ways:

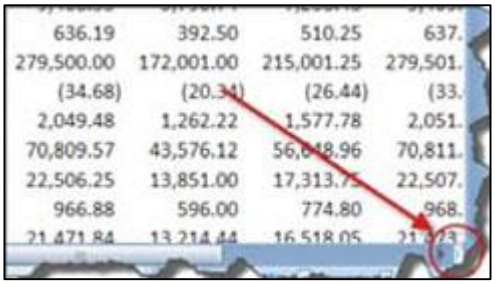
a. A user could select a range of columns that contains hidden columns, then copy and paste that data to reveal the hidden data in another workbook.

b. A user could link to a hidden cell from another workbook, simply by typing a formula linking to that hidden cell.

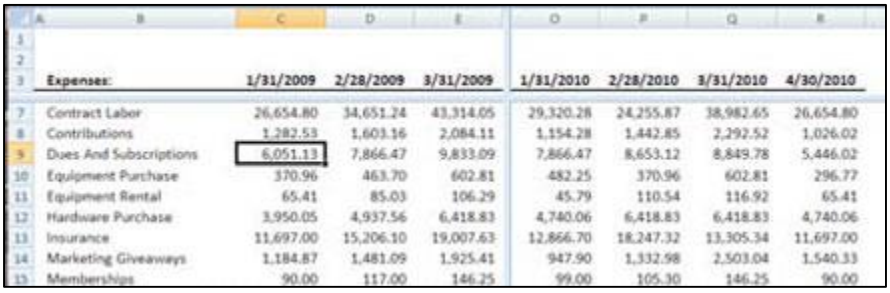
Using Split Screen

Excel 2007 and 2010 contain two **Split** tools, which allow you to quickly split the Excel worksheet horizontally, vertically, or both. In Excel 2013, these tools have been removed, but the feature is still assessable via the **View** tab. The **Split** tools make it easier to view and compare different portions of your data at the same time. To split your screen, click and drag the split tools to the desired positions. The **Split** tools are located in the upper right-hand corner and lower right-hand corner of the worksheet area in the scroll bars, as shown below.





You can also access this tool by selecting **Split** from the **Window** group on the **View** Ribbon. Many users find the click-and-drag method a little faster and easier to use than the menu method. In the example below, the **Vertical Split** tool has been used to display data for the first quarters of 2009 and 2010. (Notice that the columns jump from column E to column O). Additionally, the **Horizontal Split** tool has been used to fix the column headings at the top of the worksheet. (Notice that the row numbers jump from row 3 to row 7.)



Note: There are several alternative strategies for viewing Excel data side-by-side as follows:

a. ***Freeze Panes.*** You can achieve similar results to **Split** by using **Freeze Panes,** located in the **Windows** group on the **View** Ribbon.

b. ***Second instance of Excel.*** You can also achieve similar results by launching a second instance of Excel and using it to open a second (read-only) copy of your Excel file. You can then resize both instances of Excel in side-by-side windows.

c. ***Formulas.*** For a more permanent solution, some CPAs use formulas to repeat data on a separate worksheet to produce a different view. For example, on **Sheet2** they may insert formulas that refer to data in columns A, B and C next to other formulas that refer to columns M, N and O. Using this approach, the side-by-side comparison is always available without the need for the above-mentioned manual procedures.

Hiding Zero Values

You can hide all of the zero values in a worksheet by adjusting Excel's options as follows:

f. In Excel 2003, select **Tools**, **Options**. On the **View** tab, uncheck the **Zero values** box and click **OK**.

g. In Excel 2007, select the Office Button, **Excel Options**, **Advanced**. Under the **Display options for this worksheet** section, uncheck the box labeled **Show a zero in cells that have zero value** and click **OK**.

h. In Excel 2010, select **File**, **Options**, **Advanced**. Under the **Display options for this worksheet** section, uncheck the box labeled **Show a zero in cells that have zero value** and click **OK**.

Hiding Columns

Some CPAs are constantly hiding, unhiding and rehiding columns to generate reports in a multitude of report layouts, and they can't figure out how to display only the hidden column they need without first having to display all of their hidden columns.

Because hiding and unhiding columns is a frequent task for many CPAs, let's first address this issue, and then I will offer a better solution using Excel's Custom Views. To unhide a specific column in Excel, press the F5 key to launch the **Go To** dialog box and type in any cell address within the hidden column that you wish to unhide (such as G1), and click **OK**. This will place your cursor within column G, even if hidden. Next, while holding down the Alt key, type in order O, C, U to unhide the column.

Alternatives. Once you have highlighted a column as described above, there are many alternatives for unhiding columns, several of which are presented below so you can use the approach that works best for you.

1. ***Using the menu.*** To unhide a column using the menu in Excel 2007 and 2010, from the **Home** tab, select **Format** from the **Cells** group, **Hide & Unhide**, **Unhide Columns**. To unhide a column using the menu in Excel 2003, select **Column**, **Unhide** from the **Format** menu.

2. ***Using the unhide shortcut.*** In Excel 2003, 2007 and 2010, Windows XP users can unhide a column by typing Ctrl+Shift+0, but this keystroke combination is inactive by default in Windows 8, 7 and Vista. (***Hint:*** Microsoft support document 967893 describes advanced procedures to enable this keystroke combination to work properly in Windows 8, 7 and Vista.)

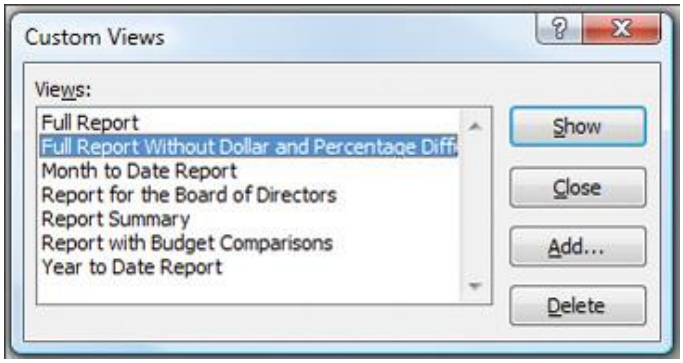
3. ***Adjusting column width.*** Instead of unhiding a column, you could simply increase the column width to make it visible. To do this, start by pressing the F5 key to open the **Go To** dialog box and enter a cell address to go to a hidden column. To resize column widths in Excel 2007 and 2010, from the **Home** tab, select **Format** from the **Cells** group, **Column Width**, enter the desired width, and click **OK**. To resize a column width in Excel 2003, from the **Format** menu select **Column**, **Width**, enter the desired width, and click **OK**.

Advanced hint: You can make your task easier by assigning a name to a cell in each column you wish to hide or unhide using the Name Box (located just above the Column A heading). For example, you might assign the name **YTD** to cell G1, and the name **Budget** to cell H1. This will make it easier for you to use the **Go To** command because the name makes it more obvious which column is which. Further, you could also use the Name Box to assign a name to a group of columns, and use the same procedure described above to hide or unhide that group. For example, you might assign the name **PriorYear** to cells J1 through M1, and use the **Go To** command to go to those columns and unhide the entire lot.

Custom Views

Rather than constantly hiding and unhiding columns, a better approach might be to use the **Custom Views** feature in Excel 2003, 2007, 2010 and 2013. By creating custom views, you can easily toggle back and forth between all of your views. To create your first custom view, select **Custom Views** from the **View** tab or menu, click the **Add** button and enter a description in the **Name** box, then click **OK**. Next, hide or unhide various columns in your workbook and repeat these steps to create a second view of your data that includes selected hidden columns. Continue to create additional custom views for each of your desired hidden column layouts. Thereafter, you can reduce or eliminate the need to hide and unhide columns by simply changing views. To

toggle between custom views, from the **View** tab, select **Custom Views** in the **Workbook Views** group, and double-click the desired custom view as shown below.



Displaying Zero Values as a Dash

You can display zero values in your worksheet as a dash by changing the cell's format to either the **Accounting** or **Comma Style** format.

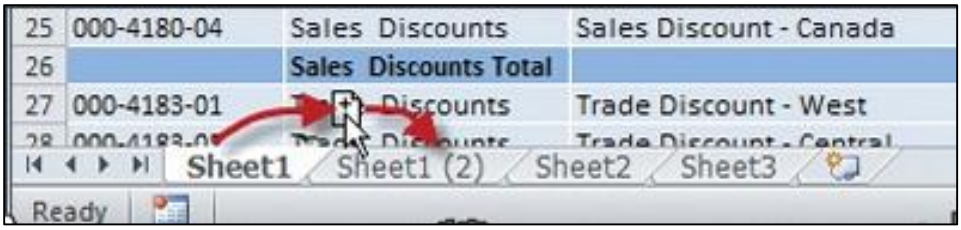
	Jan	Feb	Mar	Apr	May	Jun
Insurance	17,108	-	25,662	-	25,662	29,9
Maintenance	11,970	7,182	7,182	14,364	7,182	11,9
Marketing	74,196	49,464	49,464	-	86,562	61,8
Miscellaneous	-	12,888	12,888	25,776	25,776	-

Using the Black Parenthesis

When building a complex formula that contains nested functions or multiple sets of parenthesis, Excel uses colors to help you identify parenthesis pairing, and the outside parenthesis are always black. This tip can help you determine whether you have inserted the proper number of parenthesis pairs in your formula.

Duplicating a Worksheet or Worksheets

Excel allows you to duplicate a worksheet by holding the Ctrl key down and dragging the worksheet's tab to the left or right. This action will insert a new worksheet, complete with the same headers, footers, margins, column widths, and cell contents, as the original worksheet. (In many situations, this method is quicker and easier than inserting a new worksheet and then adding headers, footers, margin settings and content.)



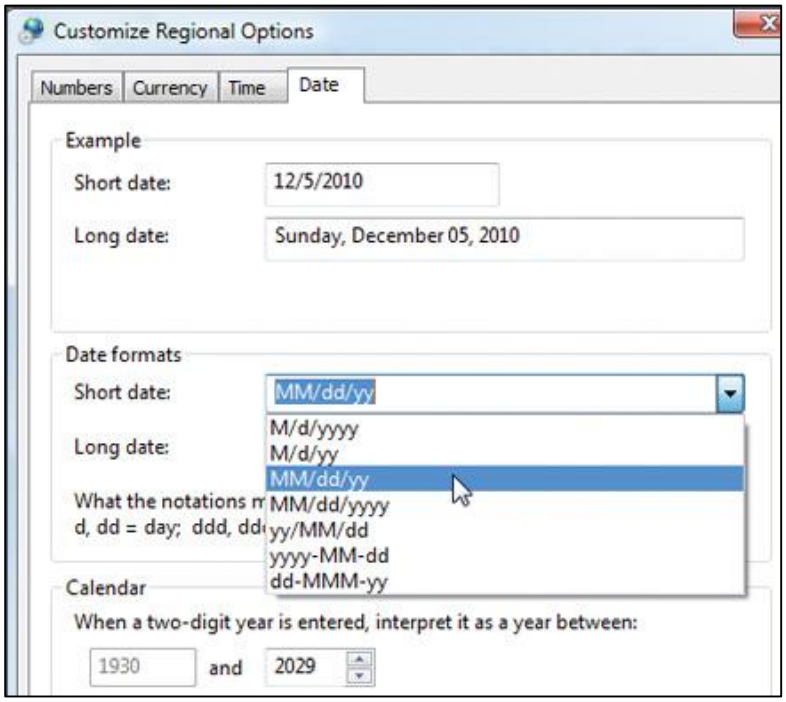
Alternative approach: To achieve the same results using the menus, select a worksheet tab (or group of tabs), right-click on that worksheet tab (or group of tabs), select **Move or Copy** from the pop-up menu, check the **Create a copy** box, and click **OK**.

Hint 1: Using the menu approach described above, you could also copy and create a duplicate worksheet in another workbook.

Hint 2: To duplicate multiple worksheets at the same time, select the first worksheet to be duplicated by clicking on the worksheet tab. Next, while holding down the Shift key, select the last worksheet to be duplicated by clicking on its tab. (This action will select those two tabs and all worksheet tabs in between.) Copy the group of worksheets by holding the Ctrl key down and dragging the group of worksheet tabs to the left or right.

Displaying Two Digit Years

Many of the default settings in Excel, including the date format, are governed by the default settings in the Windows operating system, as pictured in the screen below.



These default settings can be modified as follows:

1. In Windows XP, launch **Control Panel** and double-click the **Regional and Language Options** icon, then click the **Customize** button to open the **Customize Regional Options** dialog box. On the **Date** tab, click the **Short date format:** dropdown arrow in the **Short date** group and select a two-digit date format. Click **OK**, **OK** to complete the process.

2. In Windows Vista, launch **Control Panel** and select **System and Maintenance**. Next, from the left-hand menu select **Clock, Language, and Region**, then **Regional and Language Options**, then click the **Customize this format** button to open the **Customize Regional Options** dialog box. On the **Date** tab, click the **Short date:** dropdown arrow in the **Date formats** group and select a two-digit date format. Click **OK**, **OK** to complete the process.

3. In Windows 8 or 7, launch **Control Panel** and select **System and Security**. Next, from the left-hand menu, select **Clock, Language, and Region**, then **Region and Language**, then click the **Additional settings** button to open the **Customize Format** dialog box. On the **Date** tab, click the **Short date:** dropdown arrow in the **Date formats** group and select a two-digit date format. Click **OK**, **OK** to complete the process.

Note: You must close and restart Excel for any changes to take effect. Thereafter, Excel will display the two-digit date format you specified as the default.

Cautionary point: It is important to understand that even when you are displaying two-digit years, you should still make it a habit to enter four-digit years, otherwise Excel may assume the wrong century. This is because Excel interprets two-digit years ending in 00 through 29 as years 2000 through 2029. (For example, if you type the date 6/2/20, Excel assumes the date is June 2, 2020.) However, Excel interprets two-digit years ending in 30 through 99 as years 1930 through 1999. (For example, if you type the date 6/2/60, Excel assumes the date is June 2, 1960.) You can change the way Excel interprets two-digit years by adjusting the **Calendar** setting located at the bottom of the **Customize Regional Options** dialog box (shown in the left-hand column).

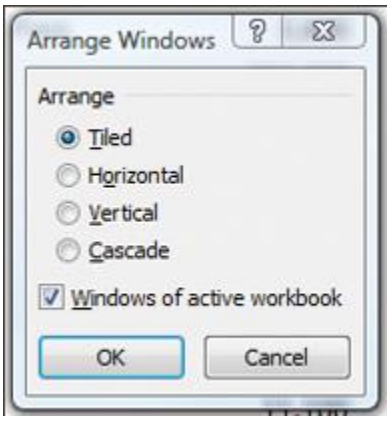
Displaying different tabs from the same Excel workbook on two monitors

This can be accomplished. Start by displaying Excel across both monitors as follows: Click the Restore Down button in the upper-right corner of the Excel window. Hover the mouse over either the left or right edge of the Excel window until it becomes a double arrow and drag the edge of the Excel window across both monitors.

With Excel now spanning two monitors, display two views of the same workbook in Excel 2013, 2010 or 2007 by selecting **New Window** from the **View** menu, then select **Arrange All**, **Tiled**, **OK**, also from the **View** menu. In Excel 2003, select **New Window** from the **Window** menu, then select **Arrange**, **Tiled**, **OK** also from the **Window** menu. This will allow you to view multiple worksheets

from the same workbook side by side on two monitors. In this situation, each window will scroll independently and best of all, updates entered into one window will automatically update the other windows.

Note: This feature works well on monitors of the same size with the same resolution settings, but can yield unpredictable results if monitor size or resolution settings differ.



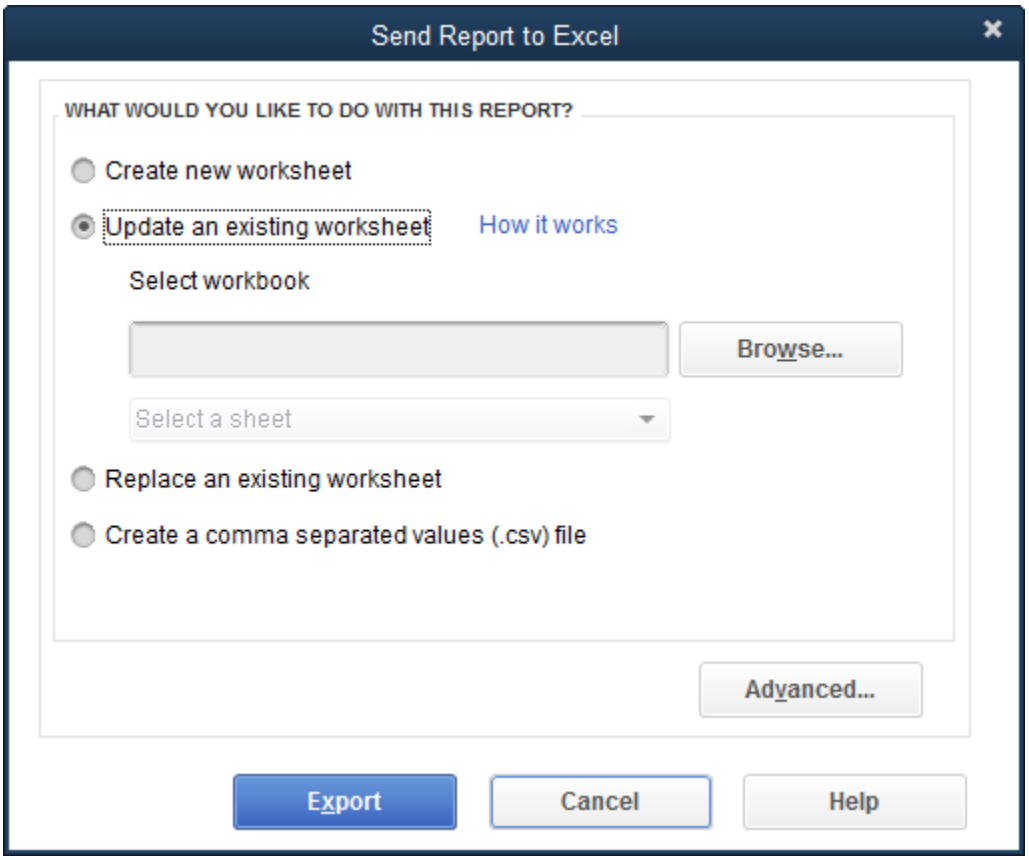
Hint: To ignore other workbooks you have open, and arrange the windows for your current workbook only, check the **Windows of active workbook** box in the **Arrange Windows** dialog box in Excel 2010 (shown above), or the **Arrange All** dialog box in Excel 2007.

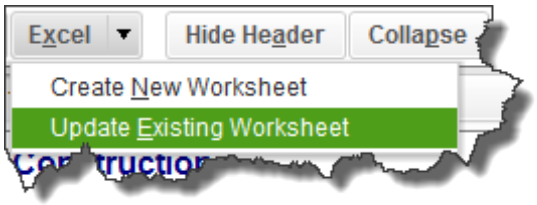
Chapter 3

Integrating Excel with your Accounting System

Exporting QuickBooks Reports to Excel

Where QuickBooks fails to deliver the reports you want, Microsoft Excel picks up the slack. QuickBooks enables you to send reports to Excel where you can refine those reports and produce virtually any report or chart you envision. To facilitate this process, QuickBooks converts all totals and subtotals to formulas, so numeric changes you make in Excel more easily flow through to the bottom line. In addition, QuickBooks allows you to export reports directly to existing Excel workbooks, thereby updating previously exported data. As a result, if you build your new reports using the right formula approach, your newly created reports in Excel will update whenever you repeat the QuickBooks export routine. To use this approach, from the report screen select **Excel**, **Update Existing Worksheet**, in the **Select workbook** box browse to the desired workbook and worksheet, and then click **Export**.

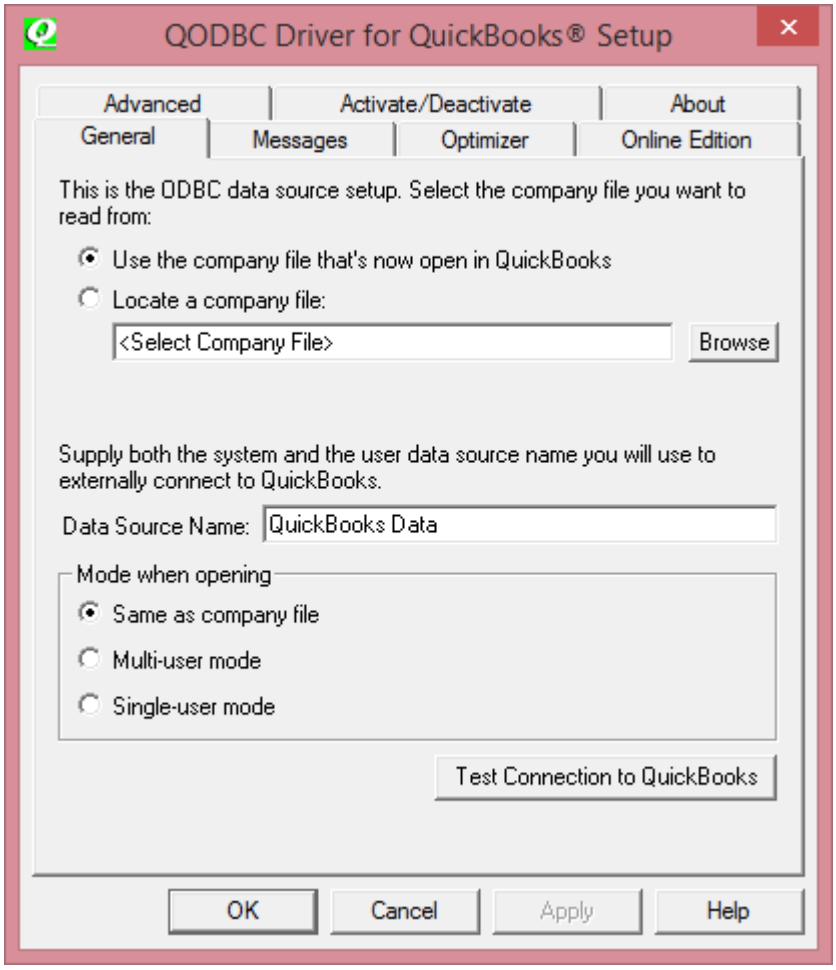




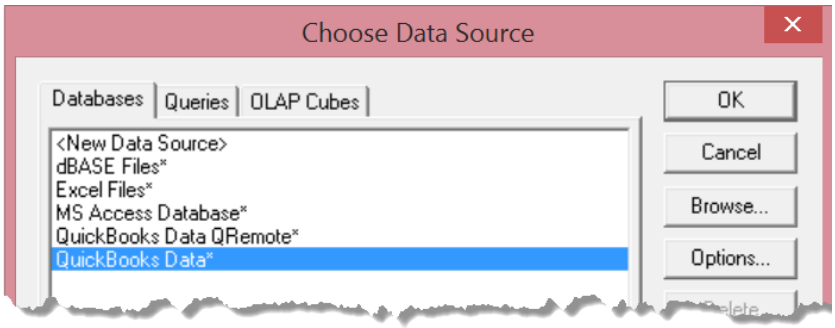
QuickBooks ODBC Queries

QuickBooks Enterprise provides the ability to create ODBC Queries to the QuickBooks database, and for a fee of $149, this capability can also be added to QuickBooks Premier at **www.QODBC.com**. Using ODBC, QuickBooks data can be queried and linked to a variety of ODBC (Open Database Connectivity) compliant applications, such as Excel, Access, and SQL Server. (Note: This tool does not currently work with Excel 2013 or Access 2013, but does work with previous Excel and Access editions).

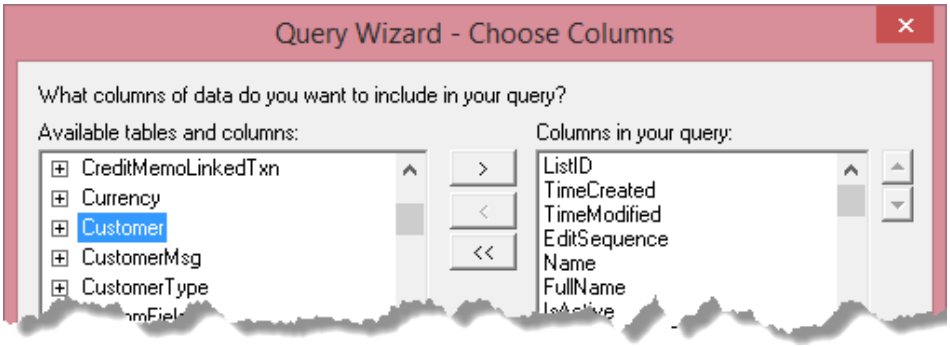
To use this tool, from the QuickBooks Enterprise menu, select **File**, **Utilities**, **Configure ODBC**. In the resulting dialog box, adjust the settings as desired and then click **OK**.



Thereafter, in Excel 2010 or earlier, select **Data**, **Get External Data**, **From Other Sources**, **From Microsoft Query**. In the resulting **Choose Data Source** dialog box, select **QuickBooks Data**, and then click **OK**.



In the resulting **Query Wizard – Choose Columns** dialog box, in the **Available tables and columns** section, scroll to and select a table (such as the **Customer** table) and click the greater than sign (**>**) button to add this table to the **Columns in your query** section.



Click **Next**, **Next**, **Next**, **Finish**, **OK** to complete the ODBC query and display the results in Excel. You can use a variety of Excel tools, such as the PivotTable tool, to manipulate the queried data. Thereafter, pressing the **Refresh All** button on Excel's **Data** tab updates the query and all of the reports you've built referencing that queried data *(assuming you used formulas to reference the data, and did not merely copy and paste the queried data)*. An example ODBC query is displayed below.

	E	F	AH	AL	AO	AP	AX	BA
1	Name	FullName	ShipAddressAddr2	ShipAddr	Shi	ShipAdd	Phone	Email
2	Abercrombie, Kristy	Abercrombie, Kristy	5647 Cypress Hill Rd	Bayshore	CA	94326	415-555-6579	kristy@samplename
3	Family Room	Abercrombie, Kristy:Family Room	5647 Cypress Hill Rd	Bayshore	CA	94326	415-555-6579	kristy@samplena
4	Kitchen	Abercrombie, Kristy:Kitchen	5647 Cypress Hill Rd	Bayshore	CA	94326	415-555-6579	kristy@samplena
5	Remodel Bathroom	Abercrombie, Kristy:Remodel Bathroom					415-555-6579	kristy@samplenam
6	Allard, Robert	Allard, Robert	92834 Chandler St.	Millbrae	CA	94030	650-555-3422	rallard@myemail.co
7	Remodel	Allard, Robert:Remodel					650-555-3422	rallard@myemail.c
8	Babcock's Music Shop	Babcock's Music Shop	Kristie Babcock	Millbrae	CA	94030	650-555-2342	kbabcock@myemail
9	Remodel	Babcock's Music Shop:Remodel					650-555-2342	kbabcock@myemai
10	Baker, Chris	Baker, Chris					415-555-2253	ChrisB@samplena
11	Family Room	Baker, Chris:Family Room					415-555-2253	ChrisB@samplen
12	Garage Repair	Baker, Chris:Garage Repair					415-555-2253	ChrisB@samplena
13	Balak, Mike	Balak, Mike	8753 S. Mountain View	Bayshore	CA	94326	415-555-6636	mbalak@samplenam
14	Utility Shed	Balak, Mike:Utility Shed	8753 S. Mountain View	Bayshore	CA	94326	415-555-6636	mbalak@samplenam
15	Barley, Renee	Barley, Renee					415-555-7262	renee@samplena
16	Repairs	Barley, Renee:Repairs					415-555-7262	renee@samplena
17	Bauman, Mark	Bauman, Mark	910 S. Ivy	Bayshore	CA	94326	415-555-8669	mbauman@sampl
18	Home Remodel	Bauman, Mark:Home Remodel	910 S. Ivy	Bayshore	CA	94326	415-555-8669	mbauman@sam

Preparing QuickBooks Data for Pivoting

When it comes to pivoting QuickBooks data in Excel, you must first do a little bit of clean up work before the pivoting process can begin. In the following example, I have exported a QuickBooks general ledger report from 1995 to 2011, and I walk you through the process of preparing the expense portion of this data for pivoting, as follows.

1. **Remove Empty Columns** – QuickBooks provides an option for exporting a general ledger report to Excel without empty columns, but this is not the default action. If you have not adjusted this default setting, then your exported general ledger report will contain empty columns, and you should remove them by selecting an empty column, right clicking on that cloumn, and selecting Delete Column. Thereafter, you can select each subsequent empty column and press the F4 key to repeat the deletion.

2. **Reformat Text Columns –** QuickBooks does a nasty thing when it exports data to Excel in that it formats all text columns with text formatting, making it impossible to insert text based formulas, (which we want to do in the next step). To correct this problem, select the text columns and from the **Home** tab, select **General** from the **Number Format** drop down options box in the **Number** group**.**

3. **Delete the Non Expense Related Rows** – In this example, the expense related rows begin on row 9490, therefore I will delete everything above that row, except the top row column headings. Select these rows by clicking on row 9408 (not visible in screen shot), then hold the **Shift Key** down and press **HOME**, then move down one row, right-click on the selected range and select **DELETE**. The data should now appear as follows:

	A	B	C	D	E	F	G	H
1			Type	Date	Num	Adj	Name	Memo
2		Advertising - Business						
3			Check	03/07/1996	6164		Foster & Associates	Portrait for Brochure
4			Check	03/27/1996	6175		Foster & Associates	Portrait for Brochure
5			Check	04/11/1997	6338		Foster & Associates	Portrait for Brochure
6			Check	04/29/1997	6347		M-Broidery, Inc.	K2 Shirts for Vendors
7		Total Advertising - Business						
8		Airgrd						
9			Check	06/08/2004	4521		Bank One	Quiktrip Gasoline
10		Total Airgrd						
11		Asset Purchases - Business						
12			Check	01/15/1995	5969		American Express	-MULTIPLE-
13			Check	01/15/1995	5969		American Express	Home Depot Credit

4. **Insert Column Descriptions** – In this example, there is no column description in Columns A & B, therefore we need to insert descriptions – any description will do.

5. **Repeat Account Description** – In column B, the **Account Description** must be repeated on all subsequent blank rows below. For example, the phrase Advertising – Business shown on 2 in the screen image above needs to be repeated on rows 3, 4, 5, and 6. To do this:

a. In cell B3, enter the formula **=B2**.
b. Copy cell B3 by pressing **Ctrl + C**.
c. Highlight the range from **B2** to the end of column B's data range, **B8816** in this example.
d. Press the **F5** key to launch the **GoTo** dialog box.
e. Click the Special button, check the radio button labeled **Blanks**, then click **OK**.
f. Paste the data by pressing **Ctrl + V**.
g. Next, select Column B and copy the entire column by pressing **Ctrl + C**.
h. Select **Home** tab, **Paste Special**, **Paste Values**. (Note that without this extra step, you will end up with formulas, and not values throughout column B, which will not be suitable for pivoting.)

	B	C	D	E	F	G	H
1	**Account Description**	**Type**	**Date**	**Num**	**Adj**	**Name**	**Memo**
2	**Advertising - Business**						
3	Advertising - Business	Check	03/07/1996	6164		Foster & Associates	Portrait for Brochure
4	Advertising - Business	Check	03/27/1996	6175		Foster & Associates	Portrait for Brochure
5	Advertising - Business	Check	04/11/1997	6338		Foster & Associates	Portrait for Brochure
6	Advertising - Business	Check	04/29/1997	6347		M-Broidery, Inc.	Shirts for Vendors
7	Total Advertising - Business						
8	**Airgrd**						
9	Advertising - Business	Check	06/08/2004	4521		Bank One	Quiktrip Gasoline
10	Total Airgrd						
11	**Asset Purchases - Business**						
12	Advertising - Business	Check	01/15/1995	5969		American Express	-MULTIPLE-
13	Advertising - Business	Check	01/15/1995	5969		American Express	Home Depot Credit

6. **Save Your Work** – At this point, save your work (and save it often), perhaps to a new file name (such as Export 2), in case power goes out or a major mistake is made.

7. **Number Each Row** – Insert a new column in front of Column A, and number them sequentially. To insert numbers quickly, enter the number 1 in cell **A1** and the number 2 in cell **A2**. Now highlight cells A1:A2, and doubleclick the Fill handle. This action will automatically number your rows down to row 8,816.

8810	8810	Water -- Personal	Check	12/14/2011	6357	Gwinnett
8811	8811	Water -- Personal	Check	01/09/2012	6374	Gwinnett
8812	8812	Water -- Personal	Check	02/03/2012	6391	Gwinnett
8813	8813	Total Water -- Personal				
8814	8814	**No accnt**				
8815	8815	Total no accnt				
8816	8816	**TOT/** Total no accnt				

8. **Eliminate Non Transaction Rows –** The data's transaction rows each contain a date, therefore sort the data by the date column, then delete all rows that do not have dates, then re-sort the data by column A in descending order.

	A	B	C	D	E	F	G	H
1	1	Row	Account Description	Type	Date	Num	Name	Memo
2	3		Advertising - Business	Check	03/07/1996	6164	Foster & Associates	Portrait for Brochure
3	4		Advertising - Business	Check	03/27/1996	6175	Foster & Associates	Portrait for Brochure
4	5		Advertising - Business	Check	04/11/1997	6338	Foster & Associates	Portrait for Brochure
5	6		Advertising - Business	Check	04/29/1997	6347	M-Broidery, Inc.	Shirts for Vendors
6	9		Airgrd	Check	06/08/2004	4521	Bank One	Quiktrip Gasoline
7	12		Asset Purchases - Business	Check	01/15/1995	5969	American Express	-MULTIPLE-
8	13		Asset Purchases - Business	Check	01/15/1995	5969	American Express	Home Depot Credit
9	14		Asset Purchases - Business	Check	02/03/1995	5980	American Express	-MULTIPLE-
10	15		Asset Purchases - Business	Check	03/21/1995	6032	American Express	-MULTIPLE-
11	16		Asset Purchases - Business	Check	03/21/1995	6032	American Express	Home Depot

9. **Delete Columns A & B** – Delete columns A & B, as they are no longer needed.

10. **Format the Data –** To make the data visually easier to read, format the data to your desired appearance. For example, I changed all fonts to Calibri and all font colors to black; I removed unneccessaery borders and lines; I bolded the column heading labels only; I adjusted column widths; and I centered certain text columns. My data now appears as follows:

	A	B	C	D	E	F
1	Account Description	Type	Date	Num	Name	Memo
2	Advertising - Business	Check	03/07/1996	6164	Foster & Associates	Portrait for Brochure
3	Advertising - Business	Check	03/27/1996	6175	Foster & Associates	Portrait for Brochure
4	Advertising - Business	Check	04/11/1997	6338	Foster & Associates	Portrait for Brochure
5	Advertising - Business	Check	04/29/1997	6347	M-Broidery, Inc.	Shirts for Vendors
6	Airgrd	Check	06/08/2004	4521	Bank One	Quiktrip Gasoline
7	Asset Purchases - Business	Check	01/15/1995	5969	American Express	-MULTIPLE-
8	Asset Purchases - Business	Check	01/15/1995	5969	American Express	Home Depot Credit
9	Asset Purchases - Business	Check	02/03/1995	5980	American Express	-MULTIPLE-
10	Asset Purchases - Business	Check	03/21/1995	6032	American Express	-MULTIPLE-
11	Asset Purchases - Business	Check	03/21/1995	6032	American Express	Home Depot
12	Asset Purchases - Business	Check	03/21/1995	6033	ATT Universal Card	Target
13	Asset Purchases - Business	Check	04/25/1995	6040	American Express	Luggage for Computer
14	Asset Purchases - Business	Check	05/10/1995	6046	AT & T Universal Card	Walmart
15	Asset Purchases - Business	Check	06/25/1995	6060	American Express	Service Merchandise

11. **Tidy the Debits and Credits Columns –** The presentation of the debits and credits columns are not conducive to easy pivoting; therefore, I inserted the formula to combine debits and credits in the same column as shown below.

	G	H	I	J
1	Split	Debit	Credit	Balance
2	Wachovia Checking	174.90		174.90
3	Wachovia Checking	84.50		259.40
4	Wachovia Checking	80.42		339.82
5	Wachovia Checking	370.50		710.32
6	First Union Checking	32.94		32.94
7	Wachovia Checking	795.33		795.33
8	Wachovia Checking		55.47	739.86
9	Wachovia Checking	489.02		1,228.88
10	Wachovia Checking	310.53		1,539.41

	G	H	I	J	K
1	Split	Debit	Credit	Balance	
2	Wachovia Checking	174.90		174.90	=H2-I2
3	Wachovia Checking	84.50		259.40	84.50
4	Wachovia Checking	80.42		339.82	80.42
5	Wachovia Checking	370.50		710.32	370.50
6	First Union Checking	32.94		32.94	32.94
7	Wachovia Checking	795.33		795.33	795.33
8	Wachovia Checking		55.47	739.86	(55.47)
9	Wachovia Checking	489.02		1,228.88	489.02
10	Wachovia Checking	310.53		1,539.41	310.53

Next I converted the formulas contained in Column K to values using the same steps mentioned above (in steps 5g & 5h), labeled Column K, then deleted Columns H, I and J as they are no longer needed. My data now appears as follows:

	E	F	G	H
1	Name	Memo	Split	Amount
2	Foster & Associates	Portrait for Brochure	Wachovia Checking	174.90
3	Foster & Associates	Portrait for Brochure	Wachovia Checking	84.50
4	Foster & Associates	Portrait for Brochure	Wachovia Checking	80.42
5	M-Broidery, Inc.	Shirts for Vendors	Wachovia Checking	370.50
6	Bank One	Quiktrip Gasoline	First Union Checking	32.94
7	American Express	-MULTIPLE-	Wachovia Checking	795.33
8	American Express	Home Depot Credit	Wachovia Checking	(55.47)
9	American Express	-MULTIPLE-	Wachovia Checking	489.02
10	American Express	-MULTIPLE-	Wachovia Checking	310.53

12. **Data Review and More Cleaning** – Now that the data has been cleaned from a layout point of view, it still must be reviewed for consistency in content as well. For example, in this data set we can see many problems as follows:

    a. **Consistency** – A quick review reveals that consistent account descriptins and memos have not been used throughout the data. For example, as shown below the phrase AT&T Universal Card has not been entered consistently. If you plan to summarize data using this phrase, then consistent phrasology is needed throughout.

ATT Universal Card
American Express
AT & T Universal Card

    b. **No Amounts** - Some transactions have no amounts, which may be due to Voided transactions or other explanations. Each of these transactions should be reviewed to determine if that line item should be removed completely.

    c. **Credit Amounts** – Some transactions have credit balances, which aren't expenses at all. Each of these transactions should be reviewed to ensure the data is a valid expense, and if not, consideration should be given to removing the transaction completely.

13. **Ready for Pivoting** – At this point, the data is ready for pivoting. As an example, the PivotTable report shown below was created in only a few seconds, including time to adjust the grouping of the dates listed across the report in Years.

Sum of Amount	Labels																		
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total
Row Labels																			
Federal Tax Payments - Personal	35,300	41,265	22,252	9,880	30,993	61,500	24,723	17,100	22,500	26,932	40,283	69,461	26,500	5,794	19,708	13,300	7,050	3,500	478,040
Travel Expense - Business	40,364	32,450	37,542	36,739	44,832	37,998	40,497	2,607	214		347	150							273,739
Home Mortgage - Personal	25,437	14,983	16,183	16,183	14,835	17,532	16,183	14,835	17,532	16,183	16,183	16,183	15,687						217,939
Home Improvement- Personal		1,192	8,068	16,284	4,821	3,983	3,696	7,772	3,804	5,646	12,854	2,886	28,532	10,766	1,310	12,895	1,375	2,817	128,701
School Tuition & Related Exp				60			256	8,841		326	10,312	6,803	25,979	13,436	11,218	17,034	15,024	4,318	113,607
State Tax Payments - Personal	6,436	5,644	5,500	2,100	5,891	10,778	3,979	4,161	6,600	4,975	13,467	15,140	6,191	1,777	10	7,182			99,830
Miscellaneous - Personal	2,037	3,070	1,954	5,356	8,949	6,189	3,792	55,569	(68)	(3,094)	5,140	6,435	(5,588)	(2,493)	1,241	(360)	19,689	(10,043)	97,774
Recreation/ Entertai - Personal	3,864	2,681	4,900	4,368	6,226	7,550	13,454	7,178	2,399	6,835	6,643	5,675	5,112	3,270	4,432	4,930	4,476	870	94,862
Education							10,893	314	11,179	11,860	600	19,253		12,379	12,585	12,489			91,553
Auto Expense - Personal	1,865	18,588	1,793	2,565	33,527	2,091	1,911	2,910	2,357	1,489	1,429	3,392	2,221	1,976	1,264	2,720	588		82,685
Groceries - Personal	3,694	5,462	4,857	5,911	7,074	7,367	5,952	5,818	5,038	3,579	3,479	4,635	4,834	1,493	4,301	5,247	1,137		79,877
Asset Purchases - Personal	12,371	11,510	8,291	11,474	11,525	5,817	2,156	1,641	844	800	1,296	1,067	1,751	157	1,954	2,518	1,180	498	76,851
Property Taxes--Home	3,780	3,653	3,491	3,516	3,238	4,251	4,341	4,243	4,188	4,513	4,756	9,052	6,701	6,040	3,042	3,207			72,012
Insurance, Medical - Business	3,495	2,857	3,046	4,076	3,278	4,104	5,356	5,601	6,212	7,250	8,340								53,617
Contributions - Personal	969	842	2,125	4,956	3,254	3,244	4,478	4,447	5,272	5,711	6,490	4,069	2,517	348	250	489	182		49,644
Asset Purchases - Business	2,830	1,179	239	1,943	310	139	716		34,343				101		112		31		41,943
Doctor, Dentist, Medicines - Pe	1,213	3,199	1,170	3,847	2,358	3,381	3,486	2,093	1,695	5,443	4,103	1,702	1,377		294	301	68		35,729
Insurance Disability - Personal	3,043	3,039	3,094	3,094	3,125	3,160	3,529	3,565	3,148	3,184	3,113								35,093
Fees Paid to Contractors - Busi	20,270	11,737	1,697																33,704
Home Supplies - Personal	596	4,674	1,191	1,593	3,064	3,547	2,833	1,120	2,305	2,004	1,316	954	713		1,204	1,442	946	1,000	30,501
Software & Hardware - Business	2,366	6,510	6,244	2,901	4,309	1,274	5,993												29,597
Home Maintainence				163	1,353		364	182	197	332	4,352	5,226	4,679	3,606	2,396	2,378	2,409	518	28,153
Callaway Gardens Management Fee	3,372	3,142	481	166	374	(1,234)	40		(59)	(681)	19,518	1,793		(917)	730	203	34		26,960
Other Callaway Gardens Expenses	5,750	2,438	1,121	560		2,236	558	568	681	1,361	1,628	1,628	970	1,834	1,874	1,874	1,239		26,320
Insurance-Auto	559	1,386	1,232	1,215	1,869	1,540	1,647	2,421	1,045	1,049	1,379	2,168	3,299	142	3,167	(158)	(13)	(13)	23,933
Gas Utility - Personal	620	777	704	803	674	1,218	1,481	1,081	1,268	1,363	1,800	2,016	1,874	1,808	1,458	1,813	1,891	365	23,013
Georgia Power - Personal	194	239	1,731	2,007	1,929	2,087	1,849	2,055	1,642	1,150	772	528	53	526	996	1,609	3,022	355	22,743
Telephone Expense - Business	2,229	3,410	3,566	3,038	3,215	2,910	1,484	802				-							20,654
Restaurants - Personal	657	632	1,321	1,415	1,662	2,738	2,334	638	443	940	594	780	959	296	1,392	2,190	438		19,427
Printing Expense - Business	6,526	9,086	1,329	300	1,027	17													18,286
Home Improvement - St Simons											4,950	6,400		1,480	1,891	1,370	1,440	240	17,771
Insurance-Home Owners	1,187	681	738	737	768	1,061	722	813	945	1,179	824	1,405	1,308		1,171	-			13,539
Miscellaneous Expense - Busines	3,608	747	875	790	586	595	583	884		1,461	1,997	12	100	(422)		869	17		12,702
Supplies Expense - Business	2,409	2,631	1,675	312	1,297	819	2,490	555	271	(5)	7					14	115		12,591
Callaway Gardens Mortgage - Per	6,519	5,435											-						11,954
On-Line Computer Service - Busi	899	958	1,542	980	1,892	1,329	1,633	2,138			20								11,391
Dues & Subscriptions - Business	3,103	847	717	968	1,354	1,277	899	38	45	87	69	168	215	185	205	195	185	195	10,752
Postage, UPS, Fed-X - Business	1,353	3,996	1,598	291	300	281	192	90		38	76		-						8,213
Vacations					6,226	1,705													7,930
Insurance - Life - Personal		1,800	959	2,875	2,514	2,359	2,232	2,549	2,635	(1,469)		(1,339)	(2,198)	(2,198)	(1,396)	(1,452)			7,872
Gifts--Business		3,840	116			81	316	440	7	40	23		67	331	897	274			6,432
Other Taxes, Licenses, & Fees -							15	15	315	523	113	348	13	619	3,496	477			5,934
Cellular Telephone - Business	946	1,478	195			640	1,266	731					530						5,785
Water -- Personal	38			189					379	380	532	452	588	498	526	871	922	120	5,495
Telephone - Personal	218	277	256	273	229	596	594	320	255	254	328	236	336	329	230	211	244	43	5,231
Gwinnett Water - Personal	626	612	582	557	806	595	663	503	131										5,073
Meals & Entertainment - Busi	870	762	49	458	219	402	1,075	522											4,356
Office Expense - Business	586	494	28	163	569		405	137		400	443	48	173	64			247		3,759
Gifts--Personal								248	431	215		148	789		602	914			3,347
Garbage Collection	182	184	192	194	207	225	237	210	180	180	181	185	190	243	197	51			3,038
Legal & Accounting - Business	2,566						354												2,920
Cable TV - Personal	329	357	388	383	394	334	437	170								(18)			2,775
Fines & Penalties - Business	10					1,437	275					145		90			512		2,469
Dues & Subscriptions - Personal	100	105	130	130	105	105	140	105	125	125	135		36	277	80	66			1,764
Reimbursement Business Expense									461	181	-	-					1,274	(741)	1,176
Property Taxes - St Simons											1,158								1,158
Maintainence											525	455							980
Advertising - Business		259	451																710
Insuance - SSI											710	(30)							680
Repairs & Maintenance - Busines	26						15						529						571
Child Care - Personal	494																		494
Insurance - Boat									188					239		10			437
Bank Service Charge			2	54	115	32		61			6		33						302
Georgia Power - SSI											268								268
SSI Homewowners Dues											26		26	26	26	50	50		204
Rent Expense - Business	115																		115
Water - St. Simons Island											33	78							110
Airgrd										33									33
Depreciation Expense - Business										28									28
Equipment Rental - Business																	10		10
Uncategorized Expenses				-		-													-
Insurance-Health										(153)	-	-							(153)
Insurance - Personal Liability									113		126	(453)	252		314	-	(646)		(295)
Refund--State Taxes			(1,092)																(1,092)
Refund- Federal Taxes									(333)					(1,500)					(1,833)
Miscellaneous -SSI												314				(40,000)			(39,686)
Grand Total	**216,022**	**221,106**	**154,521**	**155,865**	**221,291**	**209,291**	**182,523**	**168,090**	**140,924**	**112,649**	**182,745**	**189,568**	**137,449**	**62,500**	**83,176**	**57,205**	**65,136**	**4,042**	**2,564,103**

Chapter 3

Carlton's Do's and Don'ts of Financial Reporting

Carlton's Do's and Don'ts of Financial Reporting

You've probably read a thousand financial statements in your lifetime, and scoff at the idea that there could more to it than you already know. Nonetheless, here are my fifteen rules for preparing, delivering, reading and analyzing financial statements and reports.

The Whole Point is Financial Reporting

Financial reporting is the most important function of an accounting system. According to the Intermediate Accounting textbook written by Keiso and Weygandt, ***"the primary objective of an accounting system is to summarize detailed transactional data into useful reports that management can use to run their business"***. Many businesses seem to miss this point as financial statements and reports are rarely produced, distributed and read on a continual basis. I believe that it is the job of the CPA to implement a financial reporting system that accomplishes the following:

1. Ensure that the company's accounting system produces accurate financial reports.
2. Ensure that the appropriate reports are produced on a daily, weekly, and monthly basis.
3. Ensure that those reports are distributed to the appropriate personnel.
4. Ensure that the appropriate personnel understand how to read the reports.
5. Ensure that the appropriate personnel are reading the reports and using the information.

Too often businesses produce financial reports only after year end, far too late to allow executives to manage the business. There is great information in those reports, and an informed management team will make better decisions.

Achieving the Best Reporting Possible

Given the above importance of producing financial statements and reports, it is not enough to merely produce a few summary reports. To achieve the best possible results, a wide variety of reports must be produced to meet a wide variety of information needs. Accordingly, the checklist below is intended to help you achieve the best possible financial reporting for your company or client.

One Number, By Itself, Is Almost Meaningless

If I told you that I spent $266,548 on contract labor last month, could you tell me whether that was good or bad? No you couldn't. You would probably follow by asking "How much did you expect to spent? Oh, a budget? Sure, we have a budget and we expected to spend $293,200 on Contract Labor. From these two numbers you could deduce that we were under budget and that is a good.

You might also ask me how much did you spent last month on Contract Labor, or the same month last year? Oh, historical amounts. Sure I can tell you that we spent $234,562 last month on Contract Labor and $214,036 the same month last year. Based on this new information, you might deduce that Contract Labor costs are up dramatically this month compared to historical numbers.

The next time you find yourself producing a single column financial report, rethink your decision. Adding historical and budget comparison data could make the report far more meaningful. Consider the two examples below.

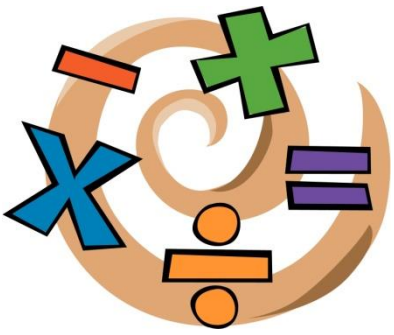
Expense:	Actual
Automobile Expense	38,765
Bank Service Charges	940
Conference Registration Fees	4,000
Contract Labor	266,548
Contributions	12,825
Dues And Subscriptions	60,511
Equipment Purchase	3,710
Equipment Rental	1,344
Hardware Purchase	39,501
Insurance	116,970
Marketing Giveaways	11,849
Memberships	900
Miscellaneous	210,103
Office Supplies	68,618
Online Computer Services	57,897
Outside Services	3,915
Partner Salary Draw	1,720,000
Postage And Delivery	12,612
Printing And Reproduction	435,751
Rent	132,134
Repairs	1,913
Software Purchase	9,117
Federal Taxes	5,000
State Taxes	2,000
Total Expenses	3,216,923

Less informative

Expense:	Actual	Budget
Automobile Expense	38,765	27,100
Bank Service Charges	940	1,000
Conference Registration Fees	4,000	3,400
Contract Labor	266,548	293,200
Contributions	12,825	9,000
Dues And Subscriptions	60,511	55,700
Equipment Purchase	3,710	3,900
Equipment Rental	1,344	500
Hardware Purchase	39,501	40,300
Insurance	116,970	131,000
Marketing Giveaways	11,849	13,400
Memberships	900	900
Miscellaneous	210,103	205,900
Office Supplies	68,618	83,000
Online Computer Services	57,897	73,500
Outside Services	3,915	3,400
Partner Salary Draw	1,720,000	1,548,000
Postage And Delivery	12,612	11,100
Printing And Reproduction	435,751	492,400
Rent	132,134	146,700
Repairs	1,913	2,200
Software Purchase	9,117	11,300
Federal Taxes	5,000	4,400
State Taxes	2,000	1,400
Total Expenses	3,216,923	3,162,700

More informative

Difference Reporting



Displaying comparison data is helpful, but such comparisons should also be accompanied by "Differences" to make it easier for the reader to comprehend, absorb and analyze the data. In the example below, columns have been added to show the differences between actual amounts compared to budget and historical amounts.

Expense:	Actual	Budget	Last Month	Same Month Last Year	Actual to Budget Difference	Actual to Prior Month Difference	Actual to PY, Same Month Difference
Automobile Expense	38,765	27,100	37,214	21,951	11,665	1,551	16,814
Bank Service Charges	940	1,000	705	733	(60)	235	207
Conference Registration Fees	4,000	3,400	5,320	1,200	600	(1,320)	2,800
Contract Labor	266,548	293,200	234,562	214,036	(26,652)	31,986	52,512
Contributions	12,825	9,000	9,875	8,730	3,825	2,950	4,095
Dues And Subscriptions	60,511	55,700	77,454	71,853	4,811	(16,943)	(11,342)
Equipment Purchase	3,710	3,900	2,968	3,120	(190)	742	590
Equipment Rental	1,344	500	693	585	844	651	759
Hardware Purchase	39,501	40,300	48,586	36,270	(800)	(9,085)	3,231
Insurance	116,970	131,000	83,049	151,960	(14,030)	33,921	(34,990)
Marketing Giveaways	11,849	13,400	12,086	17,554	(1,551)	(237)	(5,705)
Memberships	900	900	999	603	-	(99)	297
Miscellaneous	210,103	205,900	178,587	142,071	4,203	31,515	68,032
Office Supplies	68,618	83,000	58,326	89,640	(14,382)	10,293	(21,022)
Online Computer Services	57,897	73,500	61,371	61,005	(15,603)	(3,474)	(3,108)
Outside Services	3,915	3,400	6,788	9,800	515	(2,873)	(5,885)
Partner Salary Draw	1,720,000	1,548,000	1,685,600	1,654,770	172,000	34,400	65,230
Postage And Delivery	12,612	11,100	9,585	13,320	1,512	3,027	(708)
Printing And Reproduction	435,751	492,400	483,684	384,072	(56,649)	(47,933)	51,679
Rent	132,134	146,700	169,132	142,299	(14,566)	(36,998)	(10,165)
Repairs	1,913	2,200	2,085	2,816	(287)	(172)	(903)
Software Purchase	9,117	11,300	6,655	9,040	(2,183)	2,461	77
Federal Taxes	5,000	4,400	4,550	3,256	600	450	1,744
State Taxes	2,000	1,400	1,760	1,512	600	240	488
Total Expenses	3,216,923	3,162,700	3,181,635	3,042,196	54,223	35,288	174,727

You might think that this tip is obvious, however I see comparison financial statements and reports displayed all the time with no such comparison calculations. Without the difference calculations, the reader is forced to make mental calculations in their head which takes more time and is more prone to error.

Let's remind ourselves that the goal of producing financial reports is to help management make decisions to manage the company.

Difference Percentage Reporting

In some cases numerical data is more informative than percentage data; however in other cases just the opposite is true. Why not provide both? It is helpful to display differences as both a numerical and percentage amount. Remember the goal is to make it easier for the reader to comprehend, absorb and analyze the data. Consider the following data:

Expense:	Actual	Budget	Diff	Diff %
Automobile Expense	38,765	27,100	11,665	43%
Bank Service Charges	940	1,000	(60)	-6%
Conference Registration Fees	4,000	3,400	600	18%
Contract Labor	266,548	293,200	(26,652)	-9%
Contributions	12,825	9,000	3,825	43%
Dues And Subscriptions	60,511	55,700	4,811	9%
Equipment Purchase	3,710	3,900	(190)	-5%
Equipment Rental	1,344	500	844	169%
Hardware Purchase	39,501	40,300	(800)	-2%
Insurance	116,970	131,000	(14,030)	-11%
Marketing Giveaways	11,849	13,400	(1,551)	-12%
Memberships	900	900	-	0%
Miscellaneous	210,103	205,900	4,203	2%
Office Supplies	68,618	83,000	(14,382)	-17%
Online Computer Services	57,897	73,500	(15,603)	-21%
Outside Services	3,915	3,400	515	15%
Partner Salary Draw	1,720,000	1,548,000	172,000	11%
Postage And Delivery	12,612	11,100	1,512	14%
Printing And Reproduction	435,751	492,400	(56,649)	-12%
Rent	132,134	146,700	(14,566)	-10%
Repairs	1,913	2,200	(287)	-13%
Software Purchase	9,117	11,300	(2,183)	-19%
Federal Taxes	5,000	4,400	600	14%
State Taxes	2,000	1,400	600	43%
Total Expenses	3,216,923	3,162,700	54,223	2

In this example, take a look at the difference column. Immediately Partner Salary draws catch your attention because it is a whopping $172,000 over budget. However, the $844 overage for Equipment Rental barely catches your attention. However, when you analyze the Difference Percentage column, you immediately see that Equipment Rental is 169% over budget. The point is that you should consider both – look for actual amounts that grossly exceed your budgets in terms of amounts and percentage differences, and concentrate more of your analytical efforts on these amounts.

Budgeting & Revised Budgets

I used to view the budgeting process as a wasteful little chore that caused everybody grief and provided little benefit. But that view was based on bad budgeting – of course if you don't do it right, poor budgeting is a big waste of time. However, if done correctly, budgeting can be one of the best measures you can take to help manage and run your business. Presented below is a checklist to help you ensure that budgeting is performed correctly in your organization.

1. **Integrated** – Your budget system should be integrated with your accounting system, and not maintained in an outside budgeting system such as an Excel workbook. This ensures that the accounting system can then produce the necessary budget-to-actual comparative financial reports on a regular basis.

2. **Stratified** - Budgets should be well-stratified (or categorized multiple ways). For example, budget data may be categorized by month (or reporting period), by segments (such as departments, locations, funds, etc.) and by projects or programs.

3. **Revisions** – As conditions change, your initial budget may be rendered obsolete. For example, an epic disaster such as a hurricane or tsunami may have a tremendous impact on a charitable organization's donations and expenditures, rendering old budgets obsolete. In such instances, it is prudent to generate revised budgets to follow for the remainder of the year. Economic conditions can change multiple times throughout the year and they often do. For this reason it is more realistic to consider the budgeting process to be an ongoing process, rather than a one-time event which occurs at the beginning of each year.

4. **Reporting** – Budget amounts should flow easily to, and be included in financial reports. Your accounting system should produce a wide variety of comparative reports such as "actual-to-budget" comparisons, "budget-to-prior-year-budget" comparisons, and "actual and budget to budget-revision" comparisons. These reports should also present differences in amounts and percentages, by row; and should be available across separate segments such as departments, divisions, funds, etc).

5. **Roll Up** – Budgets should be created by levels, and rolled up into various levels of reporting. For example, a world-wide charity with hundreds of locations would typically maintain separate departmental budgets for each location; by state, region, and country. The accounting system should allow the entity to roll up all actual and budgetary data to produce reports by location, state, region, and country.

6. **Statistical Amounts** – It is often useful for an organization to budget non-financial amounts in addition to financial amounts. Non-financial amounts are commonly known as "statistical amounts". As examples, a homeless shelter might budget the number of

residents they expect to serve, or the number of meals they expect to provide; an association might budget the number of new members they expect to recruit; a charity might budget the number of magazine subscriptions they expect to sell.

7. **Variable Budgeting** – Associated with the ability to track statistical data is the ability to produce variable budgets – budgets that adjust themselves automatically based on certain levels, such as statistical data. For example, as a charitable organization sells more light bulbs, the organization's revenues and expenditures adjust automatically based on the number of light bulbs sold.

8. **Budgeting Activities** – In addition to budgeting financial and statistical amounts, some budgeting systems allow for the budgeting of specific activities, campaigns, and capital projects.

9. **Tools** – To aid in the budgeting process, it is helpful for the system to provide user tools for inputting budget data. For example some systems enable the user to input one amount for the first month, and that amount can then be automatically replicated, or increased by a fixed percentage or amount, to fill in the remaining months.

10. **Balance Sheet Budgeting** – In addition to budgeting revenues and expenditures, many not-for-profit organizations find it necessary to budget balance sheet items such as cash and receivables as well.

11. **Import from Spreadsheet** – Microsoft Excel is the world's most popular tool for creating budgets and therefore a good budgeting system will support the importing of data from this environment.

Per Unit Budgeting and Per Unit Reporting

In many instances, it may be helpful to also display financial information based on the "Per Unit" cost. This is because revenues and costs can vary from one month to the next due to volume. As volumes fluctuate, the process of comparing actual numbers to budget or historical numbers can be completely meaningless. However, the process of comparing actual Per Unit Revenue and Costs to Budgeted or Historical Per Unit Revenue and Costs can provide meaningful insights into your data. Listed below are a few industries in which volume can fluctuate widely from one month to the next depending upon many factors.

Manufacturer – Per Units Produced
Dentist – Per Number of Visits
Doctor or CPA Firm – Per Hours Billed
Airline – Per Number of Passengers Served
Builder – Per Number of Houses Constructed
Swimming Pool Cleaner – Per Number of Swimming Pools Cleaned
Hotdog Restaurant – Number of hotdogs served

This type of "Per Unit" revenue & cost accounting analysis can be revealing and informative. Consider the example below in which the Per Unit columns show which line items are askew when analyzed on a per unit basis.

Expense:	Actual	Budget	Same Month Last Year	Actual Per Unit	Budget Per Unit	Same Month Last Year Per Unit	Actual to Budget Difference Per Unit	Actual to Same Month Difference Per Unit
Automobile Expense	38,765	27,100	21,951	2.67	1.96	1.81	0.71	0.86
Bank Service Charges	940	1,000	733	0.06	0.07	0.06	(0.01)	0.00
Conference Registration Fees	4,000	3,400	1,200	0.28	0.25	0.10	0.03	0.18
Contract Labor	266,548	293,200	214,036	18.38	21.25	17.69	(2.86)	0.69
Contributions	12,825	9,000	8,730	0.88	0.65	0.72	0.23	0.16
Dues And Subscriptions	60,511	55,700	71,853	4.17	4.04	5.94	0.14	(1.77)
Equipment Purchase	3,710	3,900	3,120	0.26	0.28	0.26	(0.03)	(0.00)
Equipment Rental	1,344	500	585	0.09	0.04	0.05	0.06	0.04
Hardware Purchase	39,501	40,300	36,270	2.72	2.92	3.00	(0.20)	(0.27)
Insurance	116,970	131,000	151,960	8.07	9.49	12.56	(1.43)	(4.49)
Marketing Giveaways	11,849	13,400	17,554	0.82	0.97	1.45	(0.15)	(0.63)
Memberships	900	900	603	0.06	0.07	0.05	(0.00)	0.01
Miscellaneous	210,103	205,900	142,071	14.49	14.92	11.74	(0.43)	2.75
Office Supplies	68,618	83,000	89,640	4.73	6.01	7.41	(1.28)	(2.68)
Online Computer Services	57,897	73,500	61,005	3.99	5.33	5.04	(1.33)	(1.05)
Outside Services	3,915	3,400	9,800	0.27	0.25	0.81	0.02	(0.54)
Partner Salary Draw	1,720,000	1,548,000	1,654,770	118.62	112.17	136.76	6.45	(18.14)
Postage And Delivery	12,612	11,100	13,320	0.87	0.80	1.10	0.07	(0.23)
Printing And Reproduction	435,751	492,400	384,072	30.05	35.68	31.74	(5.63)	(1.69)
Rent	132,134	146,700	142,299	9.11	10.63	11.76	(1.52)	(2.65)
Repairs	1,913	2,200	2,816	0.13	0.16	0.23	(0.03)	(0.10)
Software Purchase	9,117	11,300	9,040	0.63	0.82	0.75	(0.19)	(0.12)
Federal Taxes	5,000	4,400	3,256	0.34	0.32	0.27	0.03	0.08
State Taxes	2,000	1,400	1,512	0.14	0.10	0.12	0.04	0.01
Total Expenses	3,216,923	3,162,700	3,042,196	221.86	229.18	251.42	(7.32)	(29.56)

As a Percentage of Sales Reporting

Many industries do not produce units or measure units that may be used as a basis for calculating Per Unit Revenue and Costs; however, their Sales may still fluctuate widely enough from one month to the next as to make month to month comparisons rather meaningless. In this case, it may be meaningful to use a "Percentage of Sales" calculation to analyze and compare costs from one month to the next.

For example, the financial report below displays financial data as well as "Percentage of Sales" calculations. Further, the final four columns calculate the percentage amount by which budgeted and prior month "Percentage of Sales" calculations differ from actual "Percentage of Sales" calculations. These changes are then highlighted by "Data Bar Formatting" to help the reader quickly identify those actual "Percentage of Sales" line items that fluctuate significantly from budget or prior month "Percentage of Sales" calculations.

Sales	4,182,000	3,950,150	3,634,227					
Expense:								
Automobile Expense	38,765	27,100	21,951	0.93%	0.69%	0.60%	0.24%	0.32%
Bank Service Charges	940	1,000	733	0.02%	0.03%	0.02%	0.00%	0.00%
Conference Registration Fees	4,000	3,400	1,200	0.10%	0.09%	0.03%	0.01%	0.06%
Contract Labor	266,548	293,200	214,036	6.37%	7.42%	5.89%	-1.05%	0.48%
Contributions	12,825	9,000	8,730	0.31%	0.23%	0.24%	0.08%	0.07%
Dues And Subscriptions	60,511	55,700	71,853	1.45%	1.41%	1.98%	0.04%	-0.53%
Equipment Purchase	3,710	3,900	3,120	0.09%	0.10%	0.09%	-0.01%	0.00%
Equipment Rental	1,344	500	585	0.03%	0.01%	0.02%	0.02%	0.02%
Hardware Purchase	39,501	40,300	36,270	0.94%	1.02%	1.00%	-0.08%	-0.05%
Insurance	116,970	131,000	151,960	2.80%	3.32%	4.18%	-0.52%	-1.38%
Marketing Giveaways	11,849	13,400	17,554	0.28%	0.34%	0.48%	-0.06%	-0.20%
Memberships	900	900	603	0.02%	0.02%	0.02%	0.00%	0.00%
Miscellaneous	210,103	205,900	142,071	5.02%	5.21%	3.91%	-0.19%	1.11%
Office Supplies	68,618	83,000	89,640	1.64%	2.10%	2.47%	-0.46%	-0.83%
Online Computer Services	57,897	73,500	61,005	1.38%	1.86%	1.68%	-0.48%	-0.29%
Outside Services	3,915	3,400	9,800	0.09%	0.09%	0.27%	0.01%	-0.18%
Partner Salary Draw	1,720,000	1,548,000	1,654,770	41.13%	39.19%	45.53%	1.94%	-4.40%
Postage And Delivery	12,612	11,100	13,320	0.30%	0.28%	0.37%	0.02%	-0.06%
Printing And Reproduction	435,751	492,400	384,072	10.42%	12.47%	10.57%	-2.05%	-0.15%
Rent	132,134	146,700	142,299	3.16%	3.71%	3.92%	-0.55%	-0.76%
Repairs	1,913	2,200	2,816	0.05%	0.06%	0.08%	-0.01%	-0.03%
Software Purchase	9,117	11,300	9,040	0.22%	0.29%	0.25%	-0.07%	-0.03%
Federal Taxes	5,000	4,400	3,256	0.12%	0.11%	0.09%	0.01%	0.03%
State Taxes	2,000	1,400	1,512	0.05%	0.04%	0.04%	0.01%	0.01%
Total Expenses	3,216,923	3,162,700	3,042,196	76.92%	80.07%	83.71%		

Industry Metrics & Benchmarks

Another approach to comparing data is to compare actual results to financial benchmarks of similar companies of similar sizes. Consider the following true story that occurred in 1998.

In 1998 I was installing a new accounting system for a southeastern aluminum products company. During the installation I noticed that its days-in-inventory level had risen from 72 and 75 days in 1995 and 1996, to 143 and 152 days in 1997 and 1998 respectively. Perplexed, I visited the local library to consult Moody's Industrial Guide where I looked up the typical days in inventory for a company of that size and in that SIC code. This guide confirmed that average days in inventory for a company of this nature was 76.2 days.

At that time, the company's inventory level was valued at $4,635,000, but a simple math calculation revealed that the inventory level should have been closer to $2,323,600 (4,635,000 / 152 * 76.2). Indeed for the previous two years the company's inventory was approximately $2,238,200 high compared to similar companies. At the time the company's interest rate on its' inventory note was 12.5% which means that the company had paid interest of $559,600 just to carry the additional inventory.

One of the reasons that management failed to detect the excess inventory was because no one was monitoring financial ratios. A manager told me that he was aware that inventory levels had increased along with sales and he assumed—incorrectly, as it turned out—that inventory was increasing in proportion to increases in sales. An investigation revealed that the company's new purchasing agent who had been hire two years earlier simply over ordered inventory so that the they would not run out. This made the project managers within the company very happy as they did not have to deal with inventory arriving just in time in order for them to meet their deadlines.

The manager then explained to me that not only did the company needlessly spend $559,600 in excess interest in order to carry the extra inventory, but in fact the company had already broken ground on a new $4,000,000 warehouse which they now determined was not really needed.

There are many sources for obtaining financial benchmark information, and in many cases you may have to pay for that information. A few example sources for benchmark information are listed below:

Moody's Financial Metrics Key Ratios by Rating and Industry: 2009

Special Comment

Moody's Corporate Finance

December 2009

Moody's Financial Metrics™ Key Ratios by Rating and Industry for North American Non-Financial Corporations: December 2009

Summary

Moody's Investors Service

http://www.bizminer.com/reports/samples/industry-financial.pdf

Financial Ratios: Turnover:					
	2005	2006	2007	2008	2009
Cash Turnover (X)	15.21	12.85	14.17	12.80	12.38
Current Asset Turnover	6.21	5.01	5.06	5.49	4.21
Fixed Asset Turnover	14.25	10.15	9.33	8.70	9.41
Inventory Turnover (X)	57.03	50.26	60.47	70.22	59.48
Receivables Turnover (X)	19.79	13.55	12.23	17.13	10.53
Total Asset Turnover (X)	3.81	3.01	3.06	3.02	2.50
Working Capital Turnover (X)	24.64	19.74	12.07	10.95	78.50

http://benchmark.kpilibrary.com ($20 per month)

http://www.finlistics.com/BenchmarkingTopDownArticle.html

CapitalStream | Moody's KMV | CCH

Experian | EQUIFAX | CASEWARE

STANDARD &POOR'S | HARLAND FINANCIAL SOLUTIONS | fisCAL

Ratio Analysis

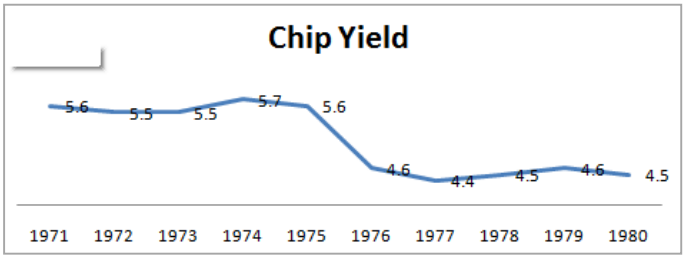
In many companies, ratio reporting appears to be a lost art form. However, ratios can be very revealing, especially if monitored over time. You can find a good listing of the various financial ratio calculations commonly used in the Wikipedia at this address:

http://en.wikipedia.org/wiki/Financial_ratio

If time permitted, I would probably cover numerous ratios, show you the formulas and explain what they each mean. However, as CPAs, you already know about ratios. My key point is that it's time to start using them. I am deeply saddened to find that virtually none of the accounting software products out there actually calculate financial ratios – BusinessWorks is one of the few. Instead I will provide you with this true story from 1981:

In 1981 I took an internship with ITT Rayonier where it was my job to use Arthur Anderson's Transaction Flow Analysis (TFA) technique to trace the flow of documents in the accounting systems of pulp mills. I was assigned to the pulp mill in Jesup, GA – (Yes I spent a whole summer in Jesup, GA, commuting each day from Saint Simons island).

During my work I calculated the chip yield for the previous 10 years. The chip yield is calculated by dividing the tons of paper that is produced by the pulp mill by the tons of pulp wood that are delivered to the pulp mill. The results showed that the chip yield had fallen as shown in the chart below.



I called my supervisor in Connecticut and reported the findings, and he told me *"Carlton, there is a reason for that and if you don't do anything else this summer, I want you to find an explanation".* I spent the next several weeks looking for answers, however no one I talked to could explain the variation. Finally, one hot summer day I walked across the mill yard and interviewed a seasoned worker who knew the answer. The older gentlemen worked the scales and weighed each train car as it came in to deliver pulpwood. It was his job to record the weight of the train car full of pulpwood, and then subtract the stenciled weight on the side of the rail car to determine the total amount of pulpwood received.

For nearly five years this gentleman had noticed when the empty trains came back across the scales, the stenciled weight on many of the railroad cars was understated. That meant that he was reporting too much pulpwood had been delivered. For example, he would weigh a railcar in at 66 tons, and then subtract the stenciled weight of 23 tons to calculate the amount of pulpwood received (43 tons). However, the railcar actually weighed closer to 26 tons, which meant that the pulp mill was over paying for 3 tons of pulpwood that they never actually received. The scale worker had saved notes on the nearly 250 offending railcars. I was able to use his notes to recalculate the true amount of pulpwood received and the chip years calculations returned to normal. ITT Rayonier was able to go back to the supplier and collect approximately $250,000 in overpayments from that supplier.

This story underscores the importance of calculating key ratios over time, and analyzing them for consistency. The actual ratios you calculate will vary depending upon the nature of your company, but at a minimum I recommend that you calculate the following ratios with regularity:

1. Days in accounts payable
2. Days in accounts receivable
3. Days in inventory
4. Gross profit margin percentage
5. Current ratio
6. Quick ratio
7. Debt to equity

Event Triggered Reporting (Alarms)

All businesses should ideally employ a team of accountants dedicated exclusively to reviewing the company's books and financial statements continuously in order to identify potential problems. For example, if cash balance drops below a certain level, if profit margin percentages dip dangerously low, or if sales taper off suddenly, warning bells should be sounded and management should be alerted quickly so they can initiate corrective measures. Historically, this process has been out of reach for most companies, as manual accounting systems required the need for hundreds of continuous boring calculations, which rendered such a solution unreasonable.

However, with the advent of the computer, the evolution of application software, and the addition of e-mail, today's accounting systems can perform hundreds of business calculations continuously, comparing the results against pre-set conditions in order to identify emerging problems or trends. Once identified, these business alerts can be sent to the appropriate management personnel through e-mail, fax, or even a mobile phone. This type of reporting is known in programming circles as "Event-Triggered Reporting," "Alarms," or "Alerts." In business circles, this type of reporting is known as "Management by Exception." By any name, this type of reporting is being heralded as the most useful type of reporting on the planet today—and thanks to advancements in technology, this solution is now widely available to all businesses.

Six Advantages of Event-Triggered Reporting

Event-triggered reporting holds many advantages over the more traditional type of reporting, which typically involves the production of periodic financial statements and reports—usually thick, voluminous stacks of financial statements and reports. A summary of key advantages of event-triggered reporting is presented below.

1. **Immediate Reporting** - Event-triggered reports alert the appropriate personnel to emerging financial conditions as they occur. For example, if profit margins slip, the CFO is notified of this event immediately—often within a few seconds. The more traditional monthly reporting approach might mean the CFO receives this information in report format several weeks later, and even then there's the chance the CFO won't notice this particular event simply by perusing the financial statements.

2. **Continuous Monitoring** - Even the most diligent of employees will grow tired of constantly computing ratios and measures in search of significant observations or signs of trouble. However, an automated accounting system does not get bored—it can calculate numbers without tiring.

3. **Filtered Information** - The traditional approach of producing and circulating detailed financial reports often inundate management with mountains of information which they

must wade through in order to ferret out useful information. This process can be tedious and time consuming. By contrast, event-triggered reporting only provides people the information they need to act upon.

4. **Efficiency** - Event-triggered reporting helps people work more efficiently. For example, assume a customer's purchases decline for a given period. Traditionally, the sales manager might sift through a 400-page sales report in order to identify a customer with declining activity. Such laborious tasks are often set aside or even discarded. An event-triggered reporting system instantly notifies the sales manager whenever activity for a given customer slips. The sales manager need only act on the information—mountains of paperwork are thereby avoided, or at least reduced.

5. **Benchmarking** - When it comes to accounting, no single number is useful. To be useful, it must first be compared to another number. For example, knowing a company has 80 days worth of inventory is virtually useless. You must also fill the blanks to questions such as:

   • What was the number of days in inventory last month? Last quarter? Last year?
   • What is the average days in inventory for a company of our size and industry?
   • What is our budgeted days in inventory?

   Once a manager knows the days in inventory had been averaging 70 days over the past year, the industry average is 65 days, and the budgeted amount is 72 days, a call to action to reduce the current 80 day amount is evident. Event-triggered reporting is about comparing current financial conditions with benchmarks—hence, all information produced by this reporting process is concise and beneficial.

6. **Targeted Feedback -** Event-triggered reports typically send notifications to only those people who should be privy to the information. While the CFO may be copied on all event triggered reports, the sales manager may see only those notifications relevant to his or her job. Likewise, the president may be copied on notifications pertaining to sales, cash, and profits, but may not be bothered with notifications indicating a particular inventory item needs to be re-ordered.

Not Just Looking for Trouble

One might assume event-triggered reporting might focus on looking for potential problems and troubling trends, and indeed, event-triggered reporting is well-suited for this goal. However, event-triggered reporting can be just as useful for identifying positive events as well. For example, a sales manager might want to be alerted when a customer has earned a new discount threshold. In this occurrence, the sales manager might receive the following e-mail message from the alerts system:

Attention Sales Manager: Please call Julia Stevens and congratulate her for purchasing $50,000 this calendar year and earning an extra 1 percent discount on all future purchases. Her telephone number is 555-0100.

Think how much easier your job could be if your accounting system kept you well informed of key events such as this. Other examples might include notification of an employee who achieved a perfect attendance record for the year, sales representatives who have exceeded their goals, or a collections manager who has set a new record for the lowest days in accounts receivable.

Unlimited Business Alerts

An unlimited number of possible alert conditions exist that might help a company better manage its customers, vendors, employees, and resources. All companies would most likely want to monitor typical benchmarks, such as cash levels, current ratios, days in inventory, accounts receivable, and accounts payable. They would also employ this solution to keep an eye on profits, interest rates, and sales levels as well. However, the accounting system can also alert companies about particular inventory items whose quantity are running low, customers who are paying too slow, or even employees who have exceeded their vacation and sick time quotas. The creative CFO can set up hundreds of pre-set parameters in just a few hours, and thereafter, the accounting system will constantly compare these conditions to actual results without fail for years to come.

Sage ACCPAC Pro ERP, for example, not only monitors custom events, but it can alert mangers by sending them e-mails. As you would expect, many high-end accounting products—the so-called beginning enterprise resource planning (ERP) products, such as Epicor, offer event-triggered reporting. However, this high-end feature also can be found in an entry-level product, Peachtree Complete. Its alarms automatically monitor amounts related to account balances, customers, vendors and employees.

For accounting software packages that don't provide event-triggered alarms, a third-party solution often is available. For example, the CleverPath Portal (formerly known as Forest & Trees) from Computer Associates can extract data from a host of accounting software packages, spreadsheets and other databases. In addition, the software can send you a text message if it spots a potential problem. Likewise, the Cisco Agent can perform similar actions.

Accuracy

Of course this should go without saying, but financial statements and reports should be accurate. It seems ridiculous to mention this to a bunch of CPAs, however too often I encounter companies whose financial statements and reports are not accurate, and the readers of those statements know it. As a result, the financial statements and reports are not properly used to manage the business. To help ensure accuracy, follow these steps:

Monthly Entries - Make sure that someone is assigned to enter the necessary journal entries each month. Make sure that they are entered correctly. Write up notes and explanations directing the bookkeeper as to the correct process. For example, explain that the monthly loan payment amount must be debited against the interest expense and outstanding loan accounts each month in differing amounts according to the amortization schedule.

Review – Make sure that someone knowledgeable is assigned to review the financial statements and reports each month for errors. Create a list of key steps to take such as preparing a bank reconciliation, performing a physical inventory count, spot checking key balances, comparing actual amounts to budgeted amounts and investigating any significant discrepancies.

Errors – As errors are identified, take time to determine what caused the error and train that person responsible so that the error does not re-occur.

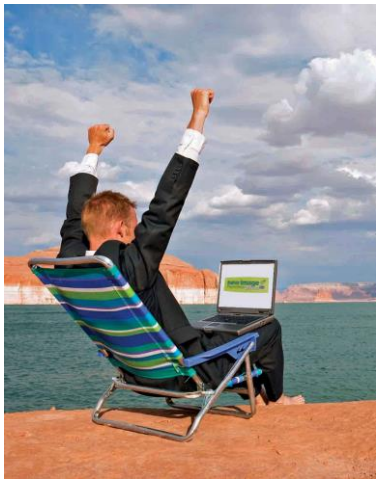
Reporting Frequency

Financial statements and reports should be issued on a regular basis – daily, weekly, monthly, quarterly and annually. It has been my experience that often the bookkeeper will sit on information believing that it is their job to protect the privacy of all information. This is incorrect. Just the opposite is true, it should be the bookkeeper's job to produce and deliver financial statements and reports on a continual and recurring basis. Both QuickBooks and Peachtree provide a tool that allows the bookkeeper to print a batch of reports with a single click. As the CPA, you should make sure that these batches are set up properly.

Electronic Reporting

If possible, it is best to deliver electronic financial statements and reports via encrypted e-mail rather than to produce paper based reports for the following reasons:

a. Paper reports take time to print.
b. Paper reports must be delivered, faxed, or mailed.
c. Paper reports use paper.
d. Paper reports use toner.
e. Paper reports result in wear and tear on your printer.
f. Paper reports require you to go get paper, store paper, and load paper.
g. Paper reports require you to go get toner, store toner, and load toner.
h. Paper reports must be filed away in a drawer or filing cabinet.
i. Securing paper reports in binders takes time.
j. Report binders cost money.
k. Storing report binders full of reports takes up storage space.
l. Paper reports must later be moved to an archive room.
m. Ultimately paper reports must be shredded.
n. Paper reports cannot be copy and pasted into other applications such as Word.
o. Paper reports make what-if analysis impossible without reentering the data.
p. Paper reports make it impossible to generate a chart without re-entering the data.
q. Paper reports are harder and more expensive to secure than electronic reports.
r. Paper reports are more difficult to share with others.
s. Paper reports are far more difficult to back up.
t. Paper reports are impossible to access remotely.
u. Paper reports do not allow the user to drill into details by double clicking a number.
v. Paper reports do not provide search tools to make it easy to locate an account.
w. Electronic reports can be accumulated conveniently in a single folder for easy access.



Automated Delivery

If possible, it is best to have the accounting system automatically generate and deliver electronic financial statements and reports via encrypted e-mail at regularly scheduled intervals. The benefits are as follows:

a. This eliminates the need for a bookkeeper to spend countless hours generating and delivering reports.
b. This enables readers of those reports to learn to expect and rely on various financial reports at regularly scheduled intervals, rather than wonder when, if ever, the reports are forth coming.

Some accounting systems provide the ability to schedule financial statements and reports to be delivered automatically at regularly scheduled intervals. For example, you could schedule the Detailed Aged Receivables report to be delivered each Tuesday and Friday at 10:00 am to the president, CFO, AR Clerk, and Sales Manager. As examples, both Microsoft Management Reporter and Crystal Reports (with the **Navarre Report Scheduler** Add-on) provide the ability to schedule the delivery of each and every report.

Timely Delivery

Financial statements must be delivered timely. By the 10th day of the following month, before information grows stale. Many companies receive accurate financial statements once a year, well after the end of the year – too late to be used in the decision making process.

Financial reports should be delivered daily, weekly or month depending upon the company and various factors. For example, I would recommend that inventory re-order reports be delivered twice a week or even once a day in an effort to best manage inventory.

The trademark of a well-run company is a continuous effort to produce and deliver deep rich financial statements and reports on a continuing basis.

Customizing The Financial Statements and Reports

Virtually every accounting system on the planet provides tools which allow you to customize your financial statements and reports to your specific needs. Financial statements and reports should be customized to include all of the pertinent information. Recipients should be asked to help review the financial statements and reports for missing info.

In particular, statistical information such as units of sales can be added to enhance the reports. Many accounting systems allow the users to create new data fields which can also flow to the financial statements and reports for enhanced reporting. In QuickBooks, these added data fields can be used to filter reports as well.

The key point is that the seasoned CPA should do more than simply rely on the canned reports to meet the needs of the company. They should fully utilize the tools to ensure that the reporting is the best it can be.

Training Users to Read and Understand Financial Statements

It is not enough to merely produce and deliver the financial statements and reports. The recipients of those financial statements and reports should know how to read and understand them. This is a delicate matter, for you don't want to insult the recipient by questioning their ability to read the report. Nonetheless, you should sit down with recipients and point out key numbers and indicators to look for when examine each report.

Other

In addition, there are several small tips that you should keep in mind when producing financial reports as follows:

a. Well labeled report titles should appear on each page.
b. Each page should be numbered using the "Page # of ##" format.
c. The Calibri and Aerial fonts make numbers easier to read.
d. Financial reports containing numerous zeros should suppress those zeros.
e. In Excel, use the "Accounting Format" with the "Single" and "Double" Accounting underlines to achieve the look and feel that CPAs prefer.
f. In Excel use the new "Spark Line" feature to help depict trends.
g. In Excel use the "outlining" exploding and condensing.
h. In Excel use "Superscripting" partially in your cell to reference footnotes.

Bio for J. Carlton Collins, CPA

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J. Carlton Collins, CPA is a Certified Public Accountant with experience in technology, tax, auditing, accounting systems, financial reporting, and bond financing. He is an author, lecturer, and technology & accounting systems consultant. He has published books, articles, and web pages and is the author of the monthly technology Q&A column for the **Journal of Accountancy**. As a public speaker, Mr. Collins has delivered more than 2,000 lectures in 44 states and 5 countries addressing more than 500,000 CPAs and business professionals. As a consultant, Mr. Collins has assisted 275+ large and small companies with the selection and implementation of accounting systems. Mr. Collins has a Bachelor's degree in Accounting from the University of Georgia, is a 25+ year member of the American Institute of CPAs and the Georgia Society of CPAs, and is also a licensed realtor.

Summary of Selected Positions, Awards & Accomplishments:

1. Honored as one of the CPA Industries Top 25 Thought Leaders by **CPA Technology Advisor Magazine**
2. Author of the monthly Technology Q&A column for the Journal of Accountancy.
3. Recipient of the 2012 AICPA Lawler Award for Excellence in professional writing.
4. Recipient of the AICPA's Lifetime Technical Contribution to the CPA Profession Award.
5. Chairman of the Southeast Accounting Show - the South's largest CPA event.
6. Recipient of the Tom Radcliff Outstanding Discussion Leader Award.
7. Named "Top Ten CPA Technologists" by Accounting Technologies Magazine (multiple years).
8. Named "Top 100 Most Influential CPAs " by Accounting Technologies Magazine (multiple years).
9. Has personally delivered over 2,000 technology lectures around the world.
10. Recipient of the Outstanding Discussion Leader Award from the Georgia Society of CPAs.
11. Lead author for PPC's Guide to Installing Microcomputer Accounting Systems.
12. Has installed accounting systems for more than 200 companies.
13. Chairperson of the AICPA Technology Conference.
14. Recipient of the ACCPAC Partner of the Year Award.
15. Determined by SAP to be one of the country's "Top Ten Most Influential ERP Systems Consultants".
16. Has delivered keynote and session lectures at dozens of accounting software conferences.
17. Sworn in as a Certified Public Accountant on September 18, 1985.
18. Member of the American Institute of CPAs since 1985.
19. Member of the Georgia Society of CPAs since 1982.

As an auditor, Mr. Collins has audited businesses in the areas of health care, construction, distribution, automobile dealerships, insurance, manufacturing, and general business. Mr. Collins' tax experience includes corporate, individual, partnership, fiduciary, and estate tax planning work. In the area of finance, Mr. Collins has prepared (or assisted in preparing) feasibility studies and financial forecasts for nearly 300 projects seeking more than $3 billion in startup capital. Mr. Collins is familiar with bond issues, Medicare and Medicaid reimbursement, and conventional financing matters. In 1992, Mr. Collins contributed and demonstrated more than 500 pages of suggested design improvements to the Microsoft Excel development team of programmers - and many of those improvements are found in Excel today.

At the University of Georgia, Mr. Collins was elected President of the Phi Eta Sigma Honor Society, was initiated into the BIFTAD Honor Society, served three years in the Judicial Defender/Advocate program, and was a member of Alpha Tau Omega fraternity. At Glynn Academy High School, Mr. Collins was Senior Class President, Class Valedictorian (1 of 6), and received a principle nomination to Annapolis Naval Academy. Mr. Collins has been married for 27 years and has two children. He devotes his leisure time to family, travel, tennis, fishing, snow skiing, and riding motorcycles (both dirt and street). Mr. Collins is president of his homeowners association, participates in the Gwinnett Clean and Beautiful program, and volunteers for Cooperative Ministries food drive.

