What's New in Microsoft Excel 2013

What's New in Microsoft Office 2013?

This course covers 8 hours of the very best and most essential Excel 2013 functionality that CPAs should be using in the performance of their jobs. This course is best suited for moderate level Excel users who know how to use the basic functionality of Excel, but have seldom explored the more powerful features and capabilities that Excel has to offer, including the following new features found in Excel 2013.

New in Excel 2013

1. **Quick Tour of Menus –** Almost identical to Excel 2010
2. **Touch-Screen Enabled** – Makes Excel accessible on touch-screen mobile devices.
3. **Windows 8 Style Tiles** – Match Windows 8 tiles, easier to touch on a smaller mobile device.
4. **Cloud-Enabled** – Save Excel workbooks directly to your free cloud data storage SkyDrive.
   a. **SkyDrive (20 to 25 GBs)**
   b. **Get A Link** – Send Excel workbooks links instead of workbooks via email.
   c. **Publish Excel Data to Social Media** – Embed Workbooks directly in Facebook.
5. **Office 2013 Web Apps** – a free version of Excel 2013 is available via the cloud.
6. **Subscription Pricing** – Enables you to install Excel on five devices, and run Excel from the cloud.
   a) **Installs on more PCs**
   b) **Never upgrade again**
   c) **Superior iMap email**
   d) **Better security**
   e) **File Sharing**
   f) **Eliminate upfront capital costs**
   g) **Eliminate balance sheet liabilities**
7. **Excel Instances** - Excel now opens each workbook in a separate instance.
8. **Flash Fill** - Watches you work and applies logic to help you complete your tasks.
9. **Timeline Slicer** - Helps you slice and dice Pivot data containing dates.
10. **Recommended Pivot Tables & Charts** – To help you work quicker and easier.
11. **Quick Analysis** - Helps you analyze data more quickly by offering data layouts.
12. **PowerView** - Enables you to create new report types, such as the interactive map charts.
13. **Create Relationships Tool** – Enables you to build PivotTables from multiple data sources.
14. **More Tables –** Add multiple tables to a PivotTable
15. **Drill Up and Cross Drill** - Drill upward and cross drill to related tables.
16. **New PivotTable Tools** - Decouple PivotCharts so they stand alone.
17. **New Chart Controls** - Excel pops up new chart controls.
18. **Review Tools** - New inquire Add-in reviews design, function and data dependencies.
19. **Excel Compare Tool** - Similar to Word's Compare tool.
20. **Fifty New Functions** – Bring the total number of functions to 455.
21. **Office on Demand** - https://office.microsoft.com/en-us/myoffice.aspx?CTT=97
22. **Managing Updates –** From the File, Account menu, you can set how updates install.

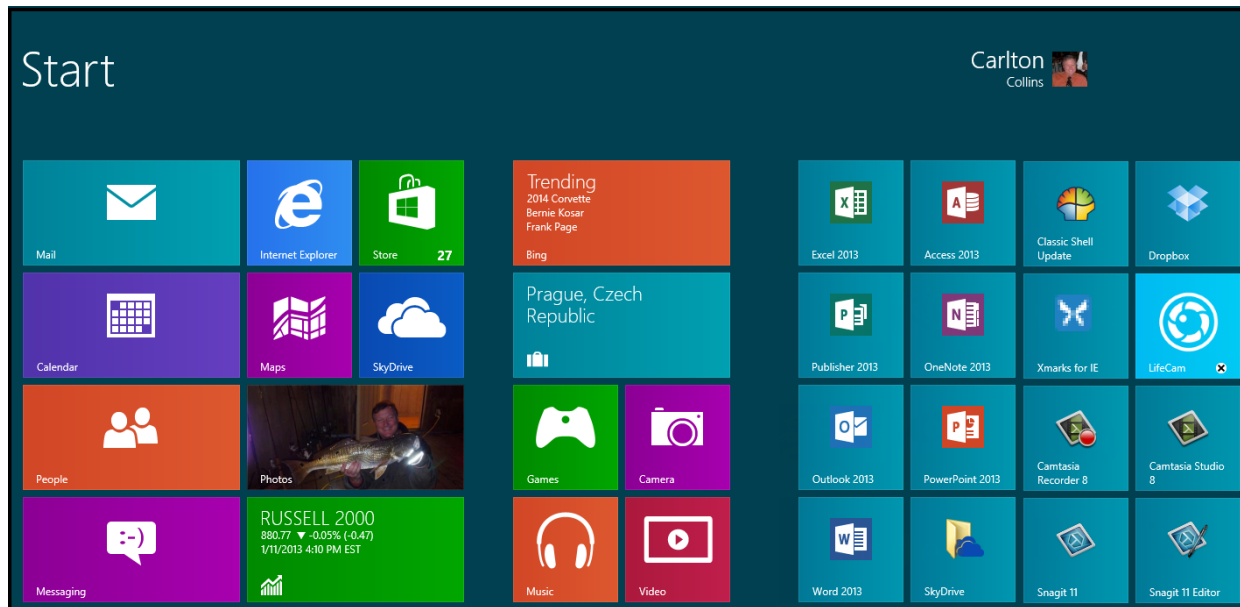These concepts are described in greater depth below.

New Global Features in Office 2013

1. **No Changes to the 2013 Ribbons -** Many CPAs worry that Office's new touch-screen functionality means the product's new ribbons that will be time-consuming to learn, but this is not the case. Office 2013's ribbons work and look almost exactly like Office 2010's ribbons, and transitioning to the new product involves only a minor learning curve. While the new touch-screen controls provide new ways to launch and use the applications on touch-screen devices, the 2010-style ribbon along with a standard keyboard and mouse remains to be the primary means for operating the product.

2. **Touch-Enabled -** On mobile devices, the ribbons offer the same menu options, but they are redesigned to better fit smaller hand-held devices. Most of Office's new touch controls work similar to mouse-clicks, but new gestures have been added. For example, you can navigate Excel workbooks or multiple pages in Word by swiping your finger across the screen. You can also pinch and spread to shrink or enlarge your spreadsheets, documents or presentations. A new **Touch Mode** button inserts more space around the Ribbon's icons so operating the touch controls on smaller devices is a little easier.
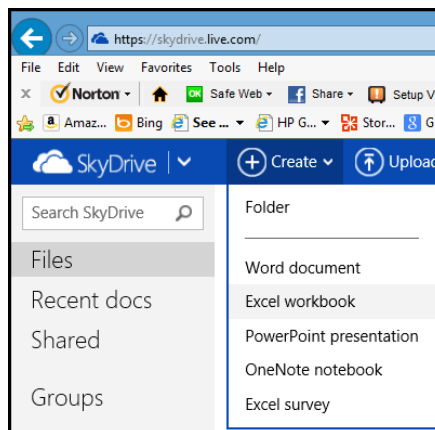

3. **Windows 8 Style Tiles** - Office's new square, color-coded tiles *(see figure)* are used to launch applications on your tablet, smartphone, or computers equipped with touch-screen monitors. The tiles can be resized and rearranged to your preference, and the color-coded schemes make it easier to identify and select the correct application. Office's tiles match the Windows 8 tiles which have been praised by some for their simplicity and utility.

Examples of Office 2013 Quick Launch Tiles in Windows 8

4. **Quick Demonstration of Excel 2013 on a Touchscreen Mobile Device-**

5. **Cloud Enabled -** Office binds you to the cloud in many ways. For example, Office automatically connects to your free cloud-based SkyDrive which includes 20 GBs of data storage space, email account, contact management, calendar management, and the following free web apps: 2013 editions of Word, Excel, PowerPoint, and OneNote. These web apps are cloud-based versions of the popular applications (with limited commands and features), accessible from any web browser on a desktop, laptop, tablet or smartphone device.

Office 2013's Free Web Apps

a) See SkyDrive on the smartphone.
b) See example of opening the same Excel file from SkyDrive on Desktop computer.
c) **File, Info** – Pick the sheets that browsers can see when opening that file.

d) Save a file to SkyDrive, show options to invite people, get a link, Post to Facebook or email.

6. **Web Apps -** Since everyone has access to the free web apps, troublesome file-sharing barriers and file compatibility issues are removed; therefore, CPAs can use Office 2013 with the confidence of knowing that documents and workbooks they produce can be easily viewed and edited by others.

7. **Subscription Rental Plan -** Microsoft offers Office via a subscription plan and many CPAs are finding the rental plan to be a better option than purchasing the product. Pricing options and functionality for selected Office 2013 editions are summarized in the *table* below.

Office Edition	Users/PCs	Price	Included

Purchase Options:

Office Home & Business	1 user/3 PCs	$279.99	Word, Excel, PowerPoint, OneNote, Outlook
Office Professional	1 user/2 PCs	$499.99	Word, Excel, PowerPoint, OneNote, Outlook, Access, Publisher

Subscription Options:

Office 365 Professional Plus	1 user/5 PCs	$15/Month	Word, Excel, PowerPoint, OneNote, Outlook, Access, Publisher
Office 365 E3 Plan	1 user/5 PCs	$20/Month	Word, Excel, PowerPoint, OneNote, Outlook, Access, Publisher, Cloud-based email, Web conferencing, Shared calendars, Cloud-based team sites, Office Web Apps

Pricing Options for Selected Editions of Office 2013

Seven advantages for renting rather than purchasing are as follows:

1. **Installs on more PCs** - The subscription plan allows you to install Office professional on five computers or devices, compared to just two or three installations with the purchased product.

2. **Never upgrade again** – Renters will never face an upgrade decision again as future product enhancements are included automatically.

3. **Superior iMap email** - The subscription plan includes a cloud-based email solution using iMap (Internet Message Access Protocol), which is stronger than the traditional Pop3 (Post Office Protocol) email solution. This is because iMap maintains email messages, replies, contacts, tasks and calendars in a central location so you can access them from any of your computers, the web, or mobile devices. In contrast, Pop3 maintains this information on the individual computers, thus accessing this information from multiple computers or devices is more problematic.

4. **Better security** - In the cloud, data is securely encrypted from your computer to the cloud, and your data remains encrypted in the cloud. Your data is also backed up automatically on a continuous basis and is protected by world-class firewalls, anti-virus software, and intrusion monitoring solutions. A significant amount of technology, cost and effort is needed to duplicate this level of security on a local computer or file server.

   Exception – Warning!!!

    Microsoft's agreement allows them to read your files!!!

   Here's the code of conduct agreement:
   http://windows.microsoft.com/en-us/windows-live/code-of-conduct

   Here's an example article in Forbes:
   http://www.forbes.com/sites/kellyclay/2012/07/19/is-microsoft-spying-on-skydrive-users/

5. **File Sharing** – The subscription plan includes a cloud-based SkyDrive (starting at 20 GBs), team management tools, and file syncing options to help groups work in collaboration. You can grant permission to others to access your SkyDrive files or folders, even if they don't use Office. In the cloud environment, email attachments are unnecessary because you can send recipients a link instead of attachments; as a result, emails travel faster, deliveries are no longer hung up due to attached file size restrictions, and attachments no longer contribute to oversized inbox data files.

6. **Eliminate upfront capital costs** – For larger companies, the subscription plan eliminates their need to borrow money to purchase product. By opting for the "pay

as go" subscription plan, companies can expense the costs as a monthly operating expense;

7. **Eliminate balance sheet liabilities –** For larger companies, FASB 47 requires disclosure of long term obligations, but because Office's subscription plan requires no long-term commitment, these rental obligations need not be included on the balance sheet.

New Features in Excel 2013

8. **Excel Now Opens Each Workbook in a Separate Instance** - Prior to Excel 2013, Excel opened multiple workbooks in the same instance of Excel by default. However, it was possible to launch Excel twice, and open workbooks in separate instances – but this approach had a problem in that Excel's **Paste** function behaves differently when pasting between two instances of Excel compared to pasting between two workbooks opened in the same instance of Excel. Specifically, Excel 2010 and prior editions did not allow you to copy formulas back and forth between Excel files opened in separate instances – only the formula's calculated value was pasted to the other instance of Excel.
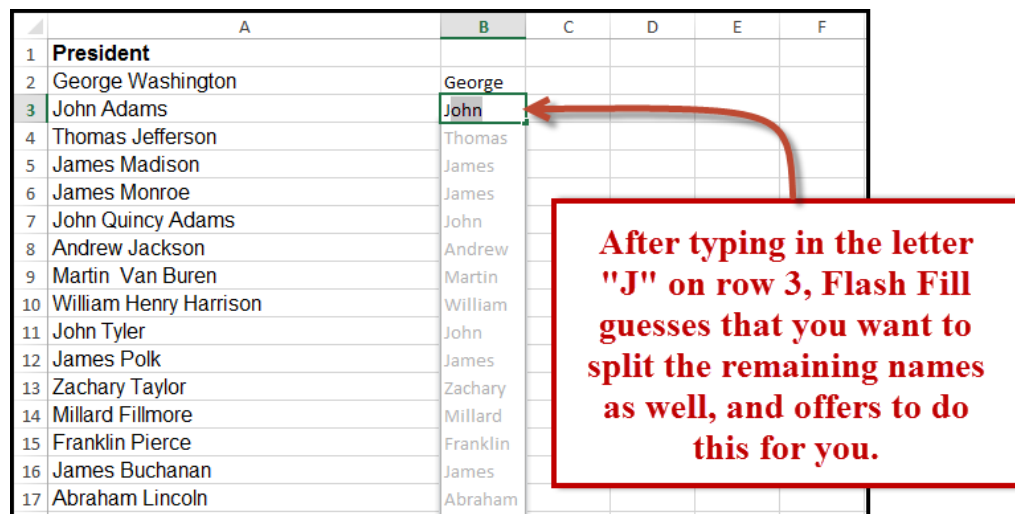
Excel 2013 now solves this problem allowing you to copy and paste formulas between separate instances of Excel. (FYI - Word has always opened Doc files in separate instances).

This issue came to light once CPAs started using dual monitors, and they launched excel on each monitor only to find they could not copy and paste formulas back and forth. In case you have clients or colleagues that still use an older edition of Excel, here are the procedures that you had to follow to display two workbooks simultaneously on dual monitors, and preserve the ability to copy and paste formulas:

1. *Open only one instance of Excel.*
2. *Restore down the Excel window by double-clicking the Title Bar located at the top of the window.*
3. *Stretch the window across both monitors by hovering your mouse pointer over either the left or right edge of the window until your pointer becomes a double arrow, then click and drag the window across both monitors.*
4. *Open two Excel workbooks.*
5. *In Excel 2007 and 2010, select Arrange All from the View tab to display the two workbooks side-by-side, each appearing in a separate monitor. In Excel 2003, select Arrange from the Window menu, select Tiled, and click OK.*
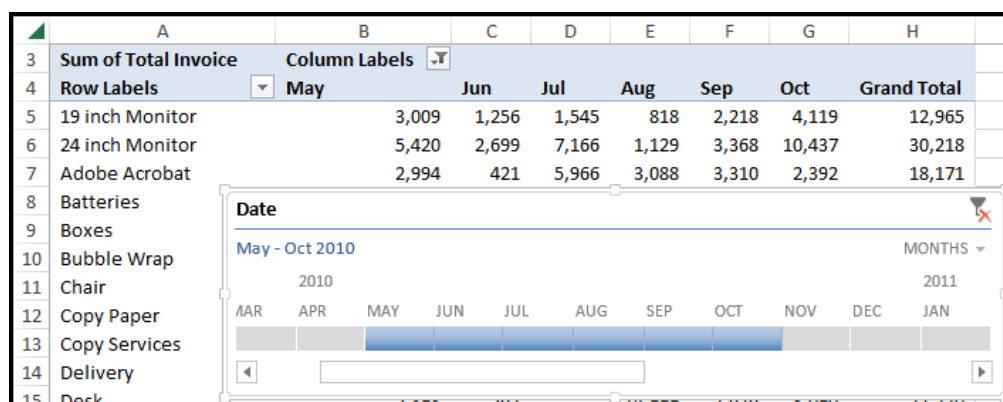6. *You can now use Paste Special, Value, Add between the two Excel workbooks displayed on separate monitors.*

   Note: To avoid undesirable results when stretching a window across two monitors, make sure both monitors are set to the same display resolution.

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9. **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 *(see figure 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)*.
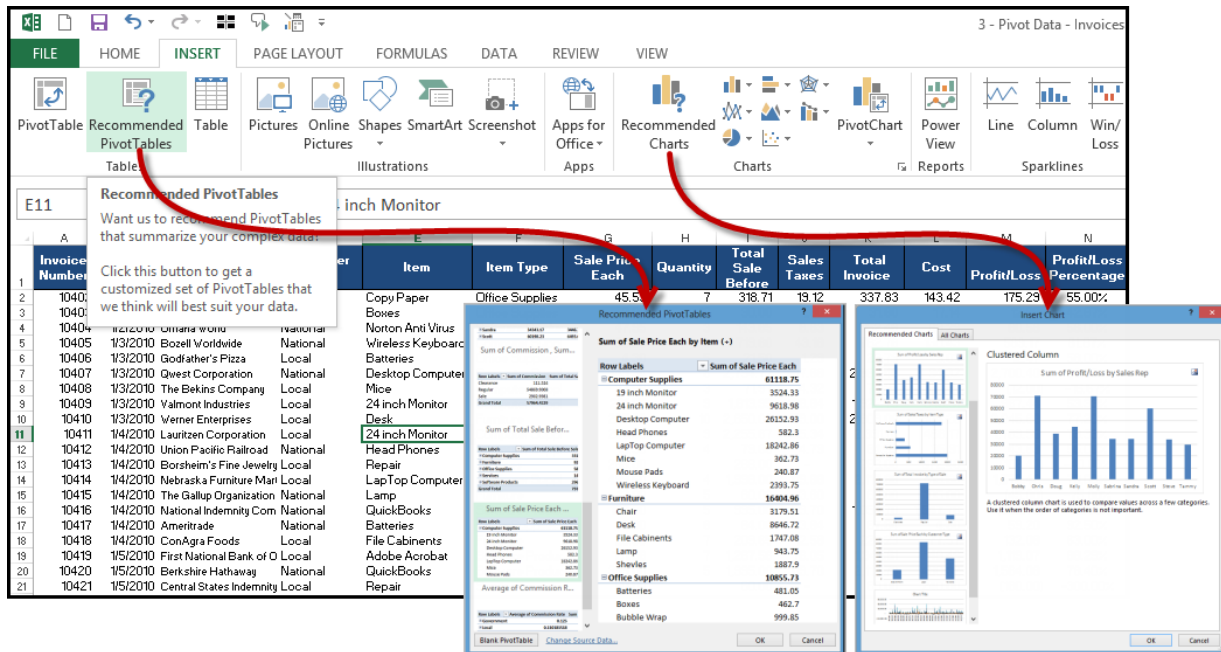

Excel's New Flash Fill Tool

10. **Timeline Slicer** - 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) adjusts the PivotTable to display May thru October data.
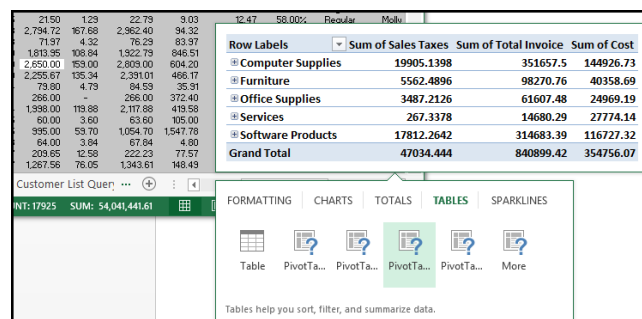

Excel's New Timeline Slicer provides a
Visual Method of Filtering a PivotTable by Date

Recommended PivotTables and PivotCharts - Excel offers new tools which can analyze your data and recommend a variety of PivotTable and Chart layouts to best illustrate the data. This new functionality is especially useful to novice users who are less familiar with Excel's functionality, but can also help avid Excel users save time too. Simply place the cursor anywhere in your data area and select **Recommended PivotTables** (or **Recommended Charts**) and in return, Excel offers various PivotTable and Chart options and as pictured in the *figure*.

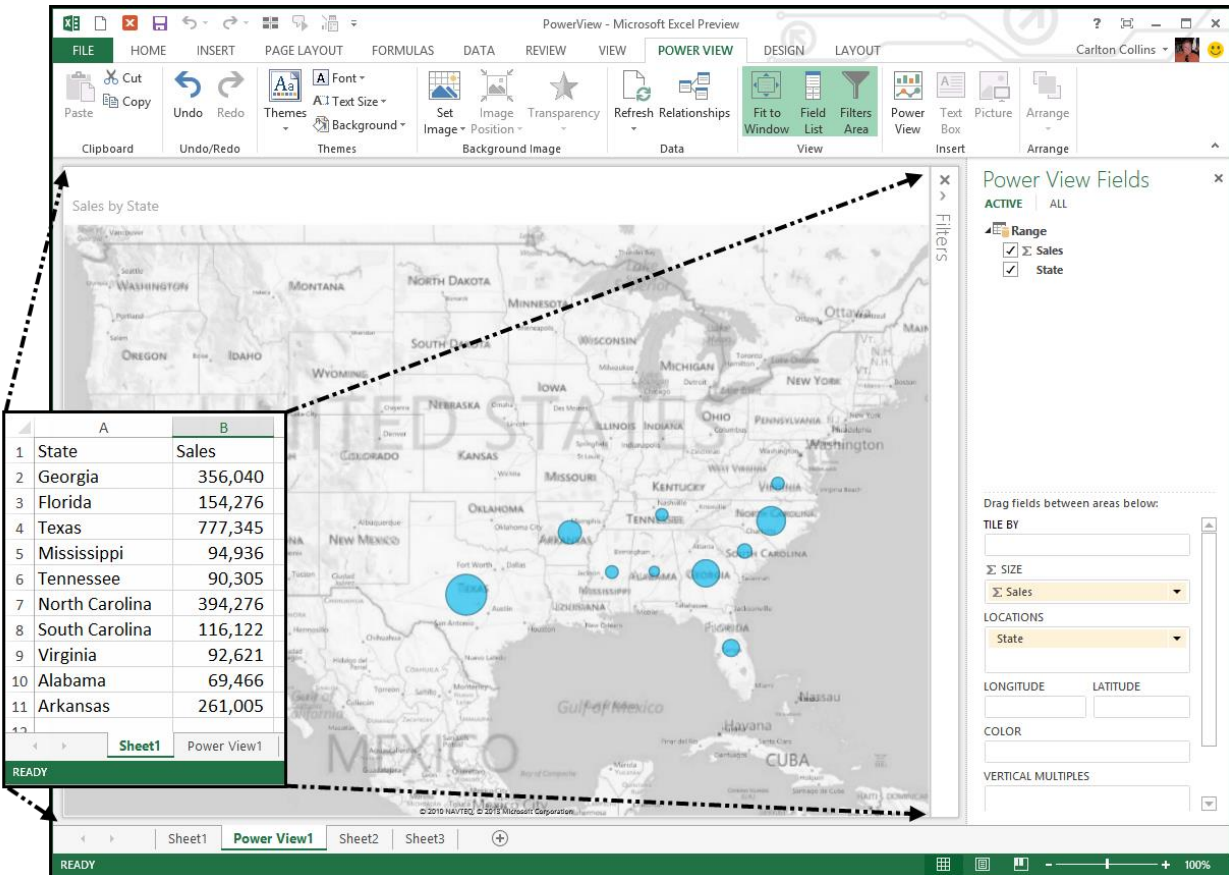*Excel's New Recommend PivotTables and Recommend Charts Tools*

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 figure below)*. When using Quick Analysis to scrutinize text-only data, text specific options for highlighting duplicate or unique text items appear.

Example of Excel's New Quick Analysis Tool

Simply place your cursor in your data area and then press **Ctrl + A** to highlight your data. Then in the bottom right corner make your selections.

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 in the *figure below*. The resulting PowerView Map report is zoomable, and filters can be applied to display partial data.

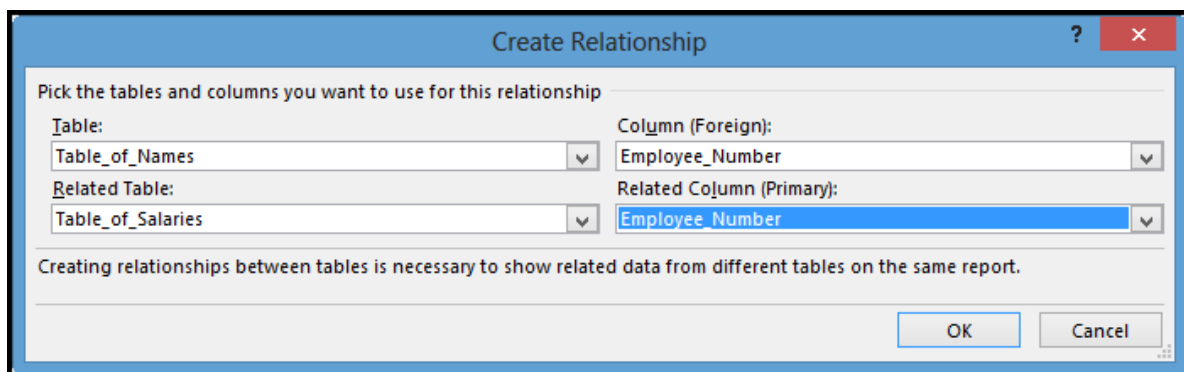*PowerView Tool Depicting a New Zoomable Map View*

A few points about PowerView:

1. PowerView is not included in Office 2013 Professional subscription, it is available in the Office 2013 Professional purchased product and the Office 2013 Professional **Plus** Subscription.

2. You can try PowerView for free here, as prepared in Excel 2013 and published to SharePoint: http://www.microsoft.com/en-us/bi/GetMicrosoftBI/TryIt.aspx

3. For demonstration purposes, I will select the **Contoso Tab, Contoso Sample Data**

4. PowerView produces a dashboard containing multiple PowerViews, each with it's own unique view and capabilities.

5. For example, the **Scatter Chart** includes a **Play button**, so you can view data over time.

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6. By default, all PowerView reports are linked so one filter applies to all reports. Or if you prefer, click the Filter button in the upper right corner (as you hover a chart) to gain more control over filtering using the *View tab* versus *Chart tab*.

7. An **Advanced Filter Button**, enables you to apply more advanced filters, such as *"only those transactions greater than $1,000"*.

8. PowerView worksheets can be published as standalone, interactive reports to Microsoft SharePoint's PowerPivot Gallery or other reporting service destinations.

9. You can apply themes and backgrounds, insert pictures and text boxes, insert collapsible and expandable tiles, and add data slicers.

10. I'll give you a quick demonstration using Excel 2013.

    a. Invoices
    b. Quick PowerView Map
    c. Quick PowerView Scatter Chart
    d. Play the PowerView Scatter Chart

Create Relationships - As an advanced enhancement, Excel provides the new **Create Relationships** tool for building table relationships in workbooks that contain at least two tables sharing at least one common field name*.

Before you start, you first need to convert your data to **Tables**, using the **Insert Tables** tool. Then, with a PowerView selected, click the **Create Relationships** tool and fill out the resulting dialog box pictured below.

Excel's New Relationship Tool for Pivoting Multiple Sources of Data

Once relationships are established, the **More Tables** option can be used to display additional tables allowing you to add data fields from mutiple tables to PivotTables, as pictured.

Connecting Multiple Sources of Data to a PivotTable

Drill Up and **Cross Drill** - Another PivotTable enhancement involves drillability. Previously, users could only drill down on PivotTable data, but now you can also **Drill Up** and **Cross Drill** to related tables.

50 New Functions - Microsoft has added 50 new functions to Excel (increasing the total number of functions to 450), and the following 12 new functions in particular will appeal to many CPAs.

1. **ARABIC** – Converts roman numerals to regular numbers, for example V, IX, and XX are converted to 5, 9, and 20.

2. **CEILING.MATH** – This function can be used to round a number up to a specific interval, such as the nearest 99 cents, as demonstrated in *figure 10*.

Example Use of Excel's New Ceiling.Math Function

3. **DAYS** – Calculates the number of days between two dates.

4. **FLOOR.MATH** - Rounds numbers down to a specific interval, and also can be used to round negative numbers towards zero, instead of towards a smaller number. For example, -8.5 can be rounded to -8.0 (instead of the -9.0 results delivered by the older **Round** function).

5. **FORMULATEXT** – Displays referenced formulas as text, and can be used to improve formula reading, reviewing and printing.

6. **ISFORMULA** – Returns the value TRUE if the referenced cell contains a formula.

7. **ISOWEEKNUM** – Calculates the week during the year in which a given date falls. As an example, I used this formula to determine that I was born in the 53rd week of 1959.

8. **PDURATION** - Returns the number of periods required by an investment to reach a specified value. For example, you could calculate that $1,000 invested at 6% APR would take 26.89 years to reach a value of $5,000. (This function approach is faster than constructing a 322 row table to figure this out.)

9. **RRI** – This function returns an equivalent interest rate for the growth of an investment. For example, you could calculate that a $1,200 mutual investment that grew to $5,600 in 18 years earned an average return of 8.93%.

10. **SHEET** – Calculates the sheet number of the referenced sheet. For example, you might use this function to determine that your interest rate assumptions are entered on the 46th sheet in your workbook.

11. **SHEETS** – Calculates the total number of sheets in a referenced range.

12. **SKEW.P** – Like the Skew function, SKEW.P calculates the standard deviation of a string of data, but bases its calculation on the entire population instead of a sample of the population. This function could be used to determine whether each line item of a company's historical financial statement data is consistent enough to use as a basis for projecting the following year's budget.

Fifty New Functions in Excel 2013

FUNCTION NAME	TYPE AND DESCRIPTION
1. ACOT function	**Math and trigonometry:** Returns the arccotangent of a number
2. ACOTH function	**Math and trigonometry:** Returns the hyperbolic arccotangent of a number
3. ARABIC function	**Math and trigonometry:** Converts a Roman number to Arabic, as a number
4. BASE function	**Math and trigonometry:** Converts a number into a text representation with the given radix (base)
5. BINOM.DIST.RANGE function	**Statistical:** Returns the probability of a trial result using a binomial distribution
6. BITAND function	**Engineering:** Returns a 'Bitwise And' of two numbers
7. BITLSHIFT function	**Engineering:** Returns a value number shifted left by shift_amount bits
8. BITOR function	**Engineering:** Returns a bitwise OR of 2 numbers
9. BITRSHIFT function	**Engineering:** Returns a value number shifted right by shift_amount bits
10. BITXOR function	**Engineering:** Returns a bitwise 'Exclusive Or' of two numbers
11. CEILING.MATH function	**Math and trigonometry:** Rounds a number up, to the nearest integer or to the nearest multiple of significance
12. COMBINA function	**Math and trigonometry:** Returns the number of combinations with repetitions for a given number of items
13. COT function	**Math and trigonometry:** Returns the hyperbolic cosine of a number
14. COTH function	**Math and trigonometry:** Returns the cotangent of an angle
15. CSC function	**Math and trigonometry:** Returns the cosecant of an angle
16. CSCH function	**Math and trigonometry:** Returns the hyperbolic cosecant of an angle

17. DAYS function	**Date and time:**	Returns the number of days between two dates
18. DECIMAL function	**Math and trigonometry:**	Converts a text representation of a number in a given base into a decimal number
19. ENCODEURL function	**Web:**	Returns a URL-encoded string
20. FILTERXML function	**Web:**	Returns specific data from the XML content by using the specified XPath
21. FLOOR.MATH function	**Math and trigonometry:**	Rounds a number down, to the nearest integer or to the nearest multiple of significance
22. FORMULATEXT function	**Lookup and reference:**	Returns the formula at the given reference as text
23. GAMMA function	**Statistical:**	Returns the Gamma function value
24. GAUSS function	**Statistical:**	Returns 0.5 less than the standard normal cumulative distribution
25. IFNA function	**Logical:**	Returns the value you specify if the expression resolves to #N/A, otherwise returns the result of the expression
26. IMCOSH function	**Engineering:**	Returns the hyperbolic cosine of a complex number
27. IMCOT function	**Engineering:**	Returns the cotangent of a complex number
28. IMCSC function	**Engineering:**	Returns the cosecant of a complex number
29. IMCSCH function	**Engineering:**	Returns the hyperbolic cosecant of a complex number
30. IMSEC function	**Engineering:**	Returns the secant of a complex number
31. IMSECH function	**Engineering:**	Returns the hyperbolic secant of a complex number
32. IMSINH function	**Engineering:**	Returns the hyperbolic sine of a complex number
33. IMTAN function	**Engineering:**	Returns the tangent of a complex number
34. ISFORMULA function	**Information:**	Returns TRUE if there is a reference to a cell that contains a formula

35.	ISOWEEKNUM function	**Date and time:** Returns the number of the ISO week number of the year for a given date
36.	MUNIT function	**Math and trigonometry:** Returns the unit matrix or the specified dimension
37.	NUMBERVALUE function	**Text:** Converts text to number in a locale-independent manner
38.	PDURATION function	**Financial:** Returns the number of periods required by an investment to reach a specified value
39.	PERMUTATIONA function	**Statistical:** Returns the number of permutations for a given number of objects (with repetitions) that can be selected from the total objects
40.	PHI function	**Statistical:** Returns the value of the density function for a standard normal distribution
41.	RRI function	**Financial:** Returns an equivalent interest rate for the growth of an investment
42.	SEC function	**Math and trigonometry:** Returns the secant of an angle
43.	SECH function	**Math and trigonometry:** Returns the hyperbolic secant of an angle
44.	SHEET function	**Information:** Returns the sheet number of the referenced sheet
45.	SHEETS function	**Information:** Returns the number of sheets in a reference
46.	SKEW.P function	**Statistical:** Returns the skewness of a distribution based on a population: a characterization of the degree of asymmetry of a distribution around its mean
47.	UNICHAR function	**Text:** Returns the Unicode character that is references by the given numeric value
48.	UNICODE function	**Text:** Returns the number (code point) that corresponds to the first character of the text
49.	WEBSERVICE function	**Web:** Returns data from a web service.
50.	XOR function	**Logical:** Returns a logical exclusive OR of all arguments