SumProduct

I think this is a record...

it's been a busy six months for SumProduct. We have a few announcements to make, with a new Blog section on the website, two new offices in New York and London and a move into larger premises in Sydney. Things are definitely on the up and up! All this news adds up to our largest newsletter ever.

We also take a look at further improvements to Power Query (Excel 2010 and 2013) / Get & Transform (Excel 2016), discuss the new Office Insider Fast programme, look back at the recent accounting events and the Amsterdam Excel Summit and, in the first of a five-part series, take a look at some of the pertinent specifications and limitations of Excel.

With the usual keyboard shortcuts and links to updated training and other resources, it's a gargantuan beast of a newsletter this month.

Until next month.

Liam Bastick, Managing Director, SumProduct

Something to Blog about

We promised you new features on the web site and our latest update sees a new Blog section, which went live back in early June. Hopefully, some of you have already paid us a visit. We are planning to find something to blog about every Monday, Wednesday and Friday, with various useful titbits, including what's going on in our world, an on-going A to Z of Excel Functions serial (**ACCRINTM** is simply to die for, he lied) and call-outs for ideas / suggestions. For would-be developers / marketers, please feel free to drop us a line with any suggestions at contact@sumproduct.com. We can't promise we can mention everything, but we promise to take a look.

The A to Z of Excel Functions: ABS

Talking of the **A to Z of Excel Functions**, we thought we'd reproduce the first one here to show you what you are missing if you're not checking out Blog. If we reproduce one a month, we might take a while to get to Z though...

The ABS Function

When the ABS function is applied it returns the absolute value of a cell. The absolute value is the number is the value excluding sign (*i.e.* the notation that determines whether it is positive or negative). Think of it as a useful way to determine the distance between two points, ignoring direction.

The syntax is very simple:

=ABS(number)

Please see the examples below:

Formula	Description	Result
=ABS(-10)	Absolute value of -10	10
=ABS(12.8)	Absolute value of 12.8	12.8
=ABS(44)	Absolute value of 44	44
=ABS(92+7)	Absolute value of 92 + 7	99

For those who may get an error back from the **ABS** function, it is possible that that the number you used was actually a text value: ensure the **number** is numeric.

New York Office

SumProduct is excited to announce the opening of our New York office at long last! With various training work and past clients in the US, our new New York office allows us to better connect and assist our current and future American clients.
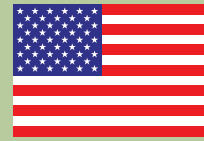
Our office is located at 48 Wall Street, in between Federal Hall and the New York Stock Exchange.

For all enquiries please see our contact details:

Address:

48 Wall Street, New York, NY
USA 10005

Phone:

+1 347 344 5778

London Office

If New York wasn't enough, SumProduct's plans for world domination continue with a London office too. In order to make SumProduct's services more available to our UK and European clients, we are moving in to the City of London too.

For all enquiries please see our contact details:

Address:

Office 7, 35-37 Ludgate Hill
London, EC4M 7JN, UK

Phone:

+44 20 3769 6936

Sydney Office

And if New York and London wasn't enough…

SumProduct has also decided that Sydney needed more room for a growing team and have re-located to a new Sydney office. As of the July 1, you can now find us at Suite 52, 88 Pitt Street Sydney. For those of you who may know our previous office location, you'd know that we are quite literally moving down and around the corner.

Now which one is Liam's boat (yeah, right)..?

For all enquiries please see our contact details:

Address:

Suite 52, Level 10, 88 Pitt Street
Sydney, NSW 2000

Phone:

+61 2 8599 7504

For anyone who isn't familiar with Sydney CBD, SumProduct will be situated between George Street and Castlereagh Street, near the Reserve Bank of Australia, Martin Place Station, Channel 7 and the NSW Treasury.

In Sydney alone, we've had the pleasure of working with some great companies that include National Australia Bank, the NSW Treasury and Helmsman. We endeavour to continue providing high quality work for current and future clients.

Get & Transform Transformed Again

Too late for our June newsletter, Microsoft released a further 10 updates and improvements for Get & Transform in Excel 2016 and the Power Query add-in (Excel 2010 / 2013). For Excel 2016, these updates are available as part of an Office 365 subscription. However, if you work in Excel 2010 or Excel 2013 you too can take advantage of the new updates by downloading the latest Power Query for Excel add-in. Allow us to take you through the latest improvements.

1. Remove blanks via Column Filter menu

A new data filtering option has been added, now allowing you to remove all rows where the value for the current column is either null or empty. To access this new feature, simply select the Column Filter menu drop-down: →
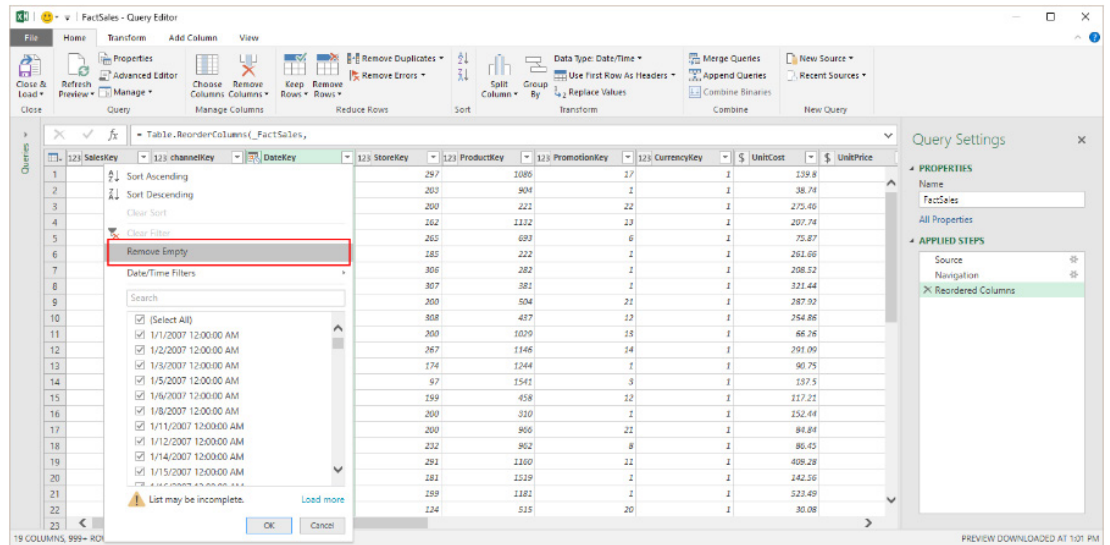

2. Convert Duration Values to Years

Another improvement is now having the ability to calculate total years based on a Duration type column. This is found within the Duration drop-down menu is the new feature "Total Years". When in use, the logic applied is capable of dividing the total number of days by 365.
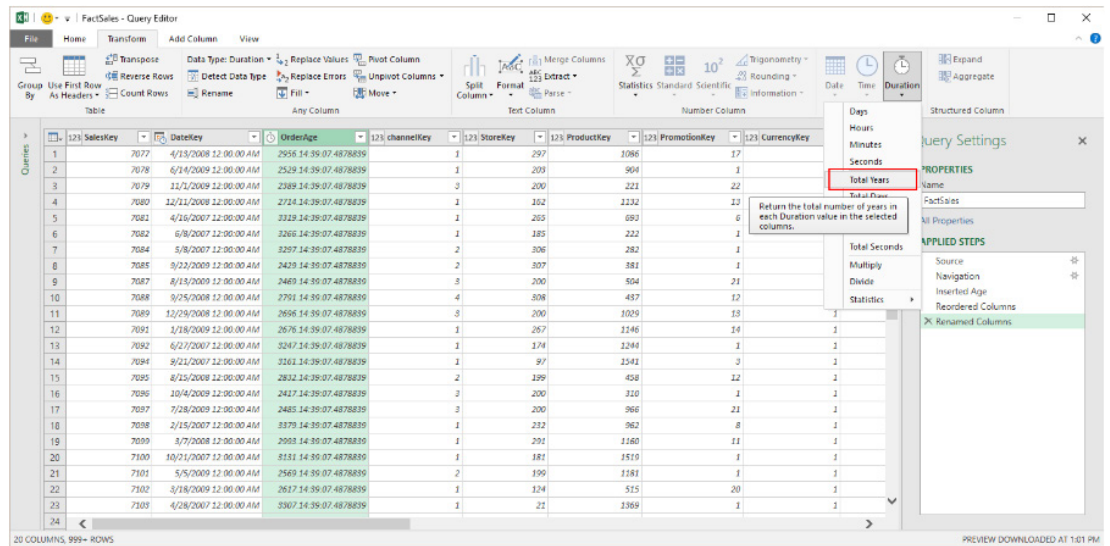

3. Keep Duplicates

Keep Duplicates is a new feature allowing users to keep only the rows with duplicated values on the selected column(s). Prior to this update, users could only "Remove Duplicates". To use this new update simply go to your Ribbon and select Home -> Remove Duplicates split button and then select the Keep Duplicates command.
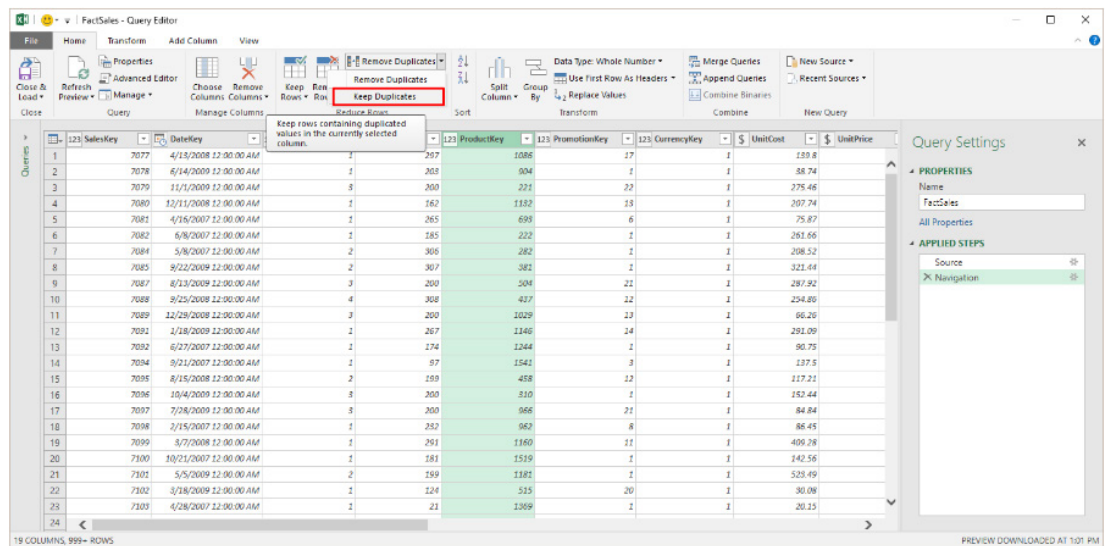
4. Hints for "sample input values" in the "Change Type with Locale" dialog box

Users can change the type of column, taking into account the Locale or regional settings / formats in which the data is being represented. To do this, it must be by setting the Locale value for the entire workbook (under Data -> New Query -> Query Options -> Current Workbook -> Data Load). This can also be customised for each specific "Change Type" step in the queries.
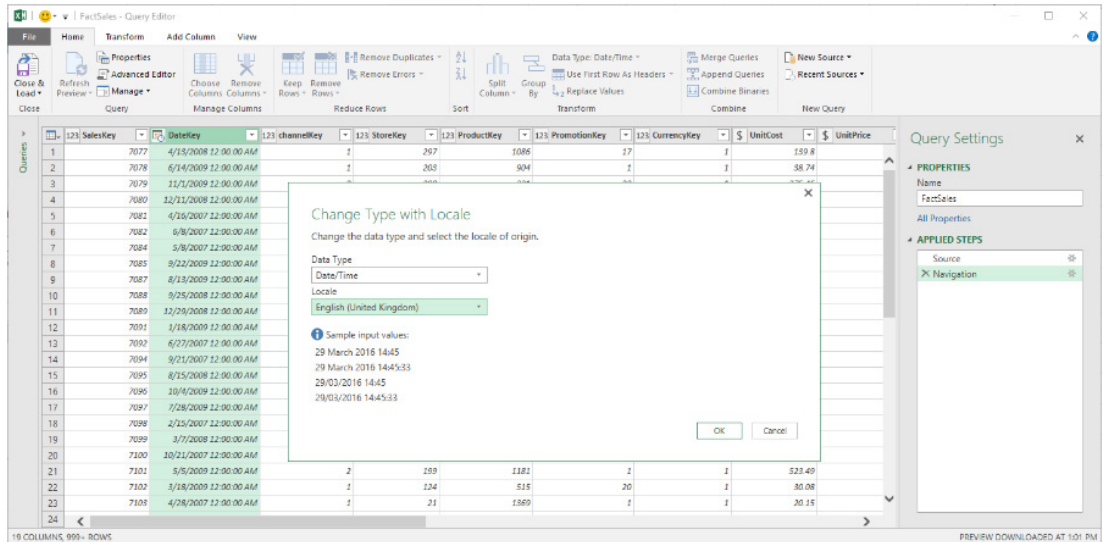
Within the "Change Type with Locale" dialog box (accessible by right-clicking on a column header in the Query Editor preview then selecting Change Type -> Using Locale…), users can also now get a few "sample values" for the expected input format when selecting a specific data type and locale.

5. Support for whitespace and line feeds in the Query Editor preview

Within the Query Editor preview, support for visualising whitespaces in data cells has been added. This includes any whitespace characters, including line feeds. You can select "Show Whitespace", which is the new default, or not show it (old behaviour) from the View tab on the Query Editor Ribbon.
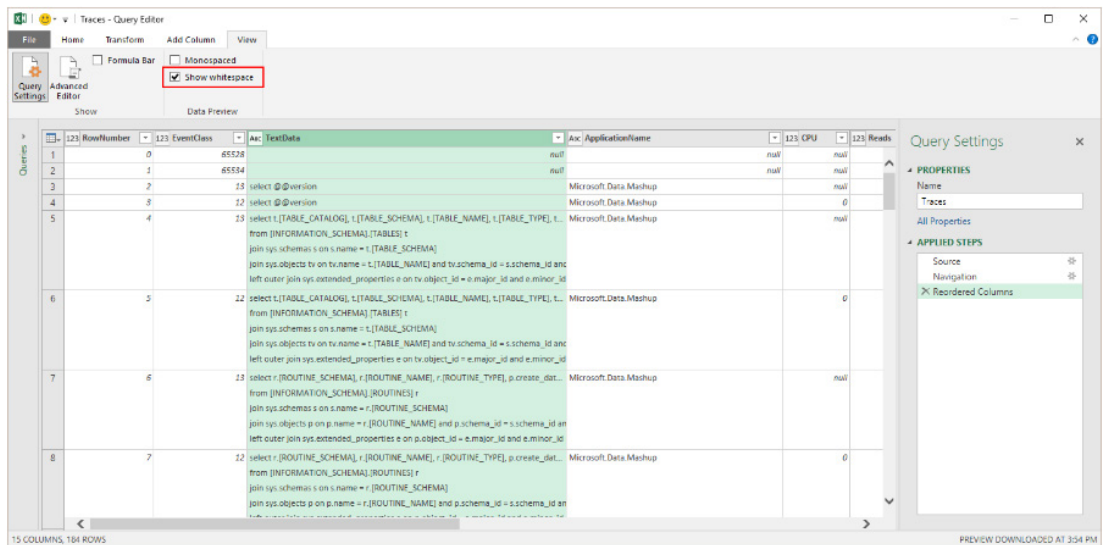
6. Ability to disable previews from Navigator window

A disable preview option has been added to the Navigator dialog box. This ensures users can reduce the number of calls being made to the data source in order to retrieve these previews.
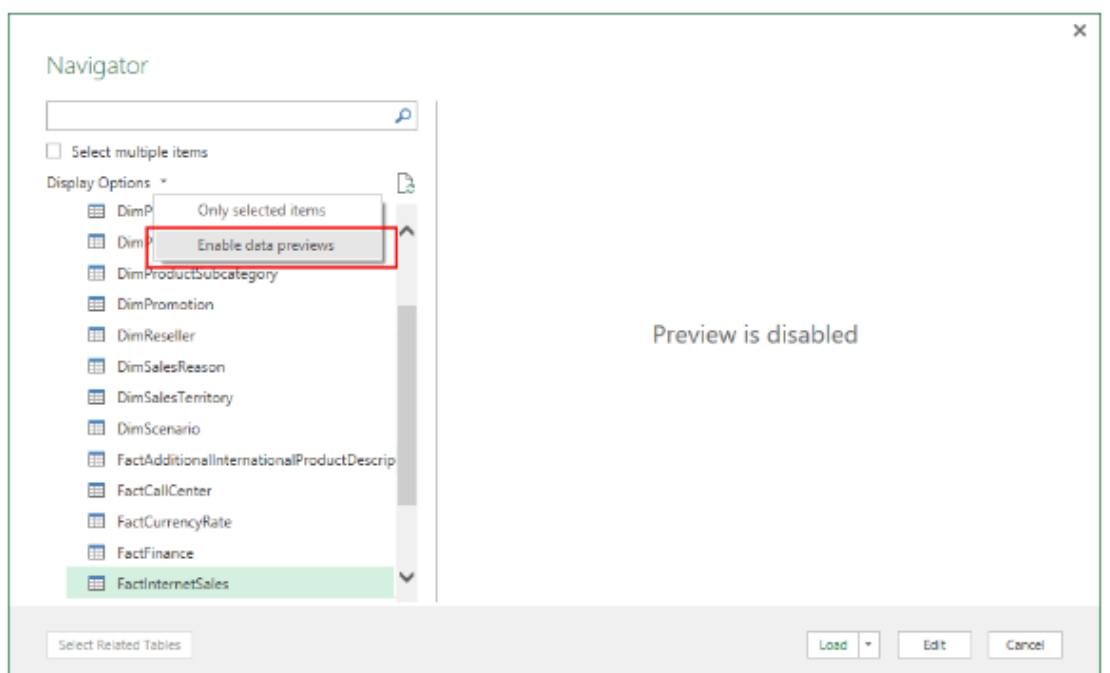
7. Technical name support in the Navigator window

A new option has been to the Navigator dialog that allows users to switch between "physical name" and "technical name". Some data sources support the notion of a "technical name" for objects within the source. The intent of a "technical name" (which is the new behaviour) is to provide a more meaningful name for the user connecting to the data source than the "physical name" (previous behaviour) for the object.

## 8. Rename queries directly from the Queries pane in the Query Editor

Users can now rename queries directly from the Queries pane inside the Query Editor. To do this, simply select and right-click the query and select Rename, or double-click the query name, or select it and press **F2**.
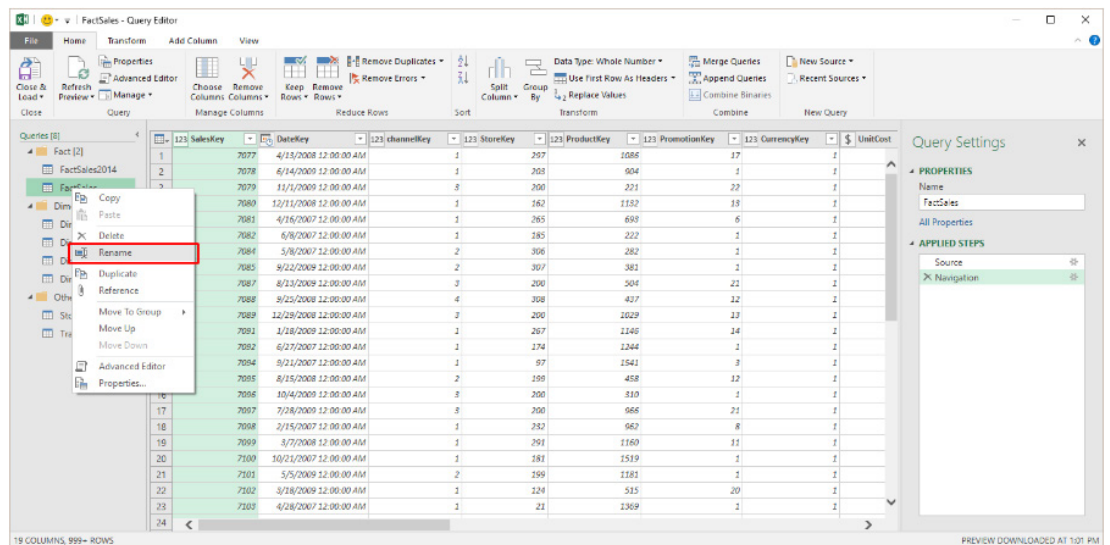
9. Support for Command Timeout in the UX

With this update, users are now able to specify a Command Timeout value (in minutes) when connecting to database sources. This is a significant experience improvement since, before this update, this customization was only possible via custom formula authoring.

This new Command Timeout option can be found under the "Advanced options" section in data source dialogs.
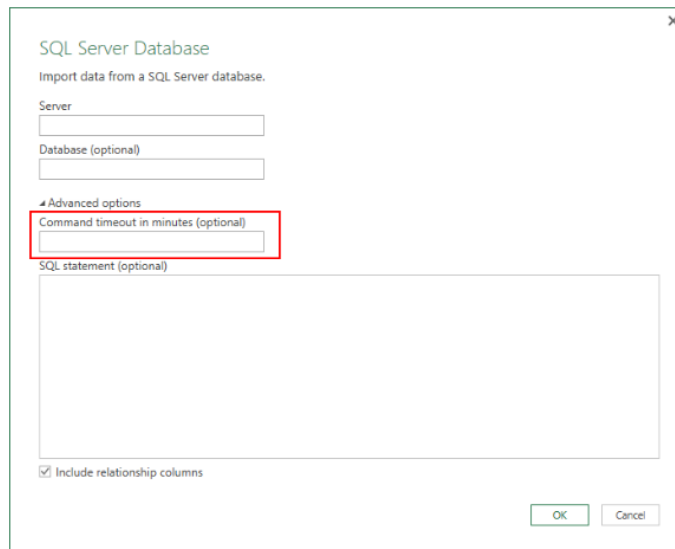
10. Set to disable Privacy Level prompts at machine level (including Registry Key)

Power Query allows users to combine data from multiple data sources into a single workbook. When dealing with multiple data sources, it is possible for users to define queries that require sending data from one data source to another data source. To prevent accidental disclosure of private or enterprise data, Power Query provides a feature called "Privacy Levels". This feature allows users to specify the Privacy Level (Public, Organizational or Private) for each data source that they connect to when trying to combine data from multiple sources. Based upon the selected Privacy Level, Power Query will ensure that data from a Private source is not sent to any other sources and that data from an Organizational source is only sent to sources within the organisation.

In some cases, this privacy enforcement can get in the way for users who want to define some data combinations that bypass this Privacy feature. Another potential effect of Privacy Levels is that, when combining data from multiple sources that are not supposed to send data between them due to their Privacy Levels, Power Query will compensate and download the data locally to perform the data combination in a secure way. This could result in a performance degradation due to the fact that data would have to be cached locally from all sources implied and combined in-memory. For those cases, users have the ability to ignore Privacy Levels as a "current workbook" setting.

However, given that this option was only available per file and per user, it would require a user to enable this option for each workbook they would like to leverage. In addition, ignoring this privacy protection needs to be approved by each user of the workbook, so someone opening an .xlsx file from a different user in their computer would have to either provide Privacy Levels for the data sources involved on the report or manually disable this feature in the Options dialog (under Query Options -> Current Workbook -> Privacy section).

In this release, Microsoft has introduced a new setting to allow users and enterprises to pick one of the following behaviours:

- Always combine data according to your Privacy Level settings for each source—This new option allows a user to "enforce" that Privacy Levels are taken into account for every .xlsx file on their machine, regardless of whether the "Current Workbook" Privacy Level setting is enabled or disabled
- Combine data according to each file's Privacy Level settings. This is the default behaviour and matches the Power Query behaviour in previous releases
- Always ignore Privacy Level settings—This new option allows a user to always bypass Privacy Level settings for every .xlsx file in their machine, regardless of the Current Workbook setting.

These options are available to the user under the Query Options dialog box:
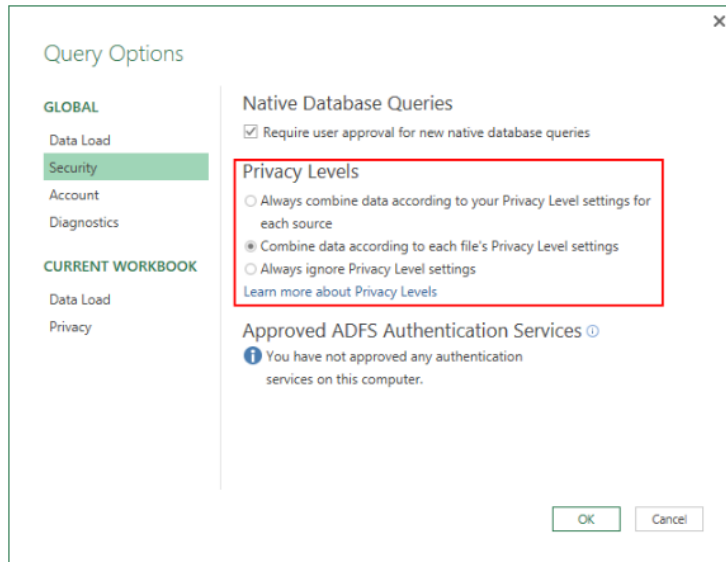
Microsoft notes that the newest set of updates are powerful, fast and boast easy data gathering and shaping. These updates can be found under the Get & Transform section on the Data Ribbon as a part of an Office 365 subscription.

STOP PRESS – A further four updates for Power Query / Get & Transform

We actually got it into this newsletter (only just, mind you!!). June 21 saw Microsoft issue a further four new or improved features:

- Conditional Columns
- Column type indicator in Query Editor preview column headers
- Reorder Queries and Query Groups inside Query Editor via drag and drop gestures
- Query Management menu in Query Editor.

In case you hadn't quite had enough of Power Query this month, allow us to detail these newcomers too…

1. Conditional Columns

With this update, Microsoft is trying to make it easier for users to create new columns in their queries based on values from a different column. A typical use case for this includes creating a set of "buckets" or "categories" based on ranges from a continuous value column. For example, you might wish to categorise students' marks as "Grade A", "Grade B", "Grade C", "Grade D" and "Grade E".

Previously, this could be achieved by creating Custom Columns and capturing the conditional logic with a set of "IF THEN ELSE" statements.

Anyone who has ever had to maintain these types of calculations will appreciate that this can very soon become extremely complex to author, update and edit as logic is refined and / or amended.

Starting with this update, users can now define a set of rules and output values for the new column based on values in other columns within their tables. This can be achieved via the new Conditional Columns dialog, available in the Query Editor under the "Add Column" tab on the Ribbon.
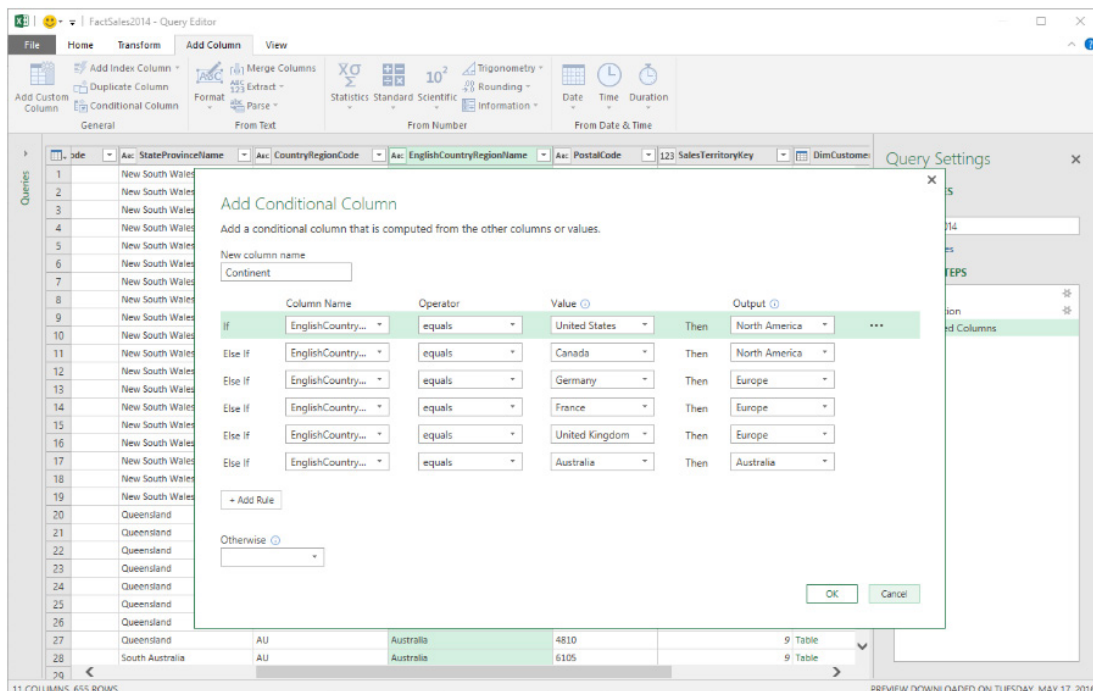
2. Column type indicator in Query Editor preview column headers

Microsoft has now added column type indicators in column headers within the Query Editor preview. These new column type indicators allow you to quickly understand the types for each of the columns in your table, as well as being able to change them to another type by clicking on these indicators or by using the previously available Ribbon options (Data Type drop-down menu at the Home tab on the Ribbon or Detect Type command under the Transform tab).
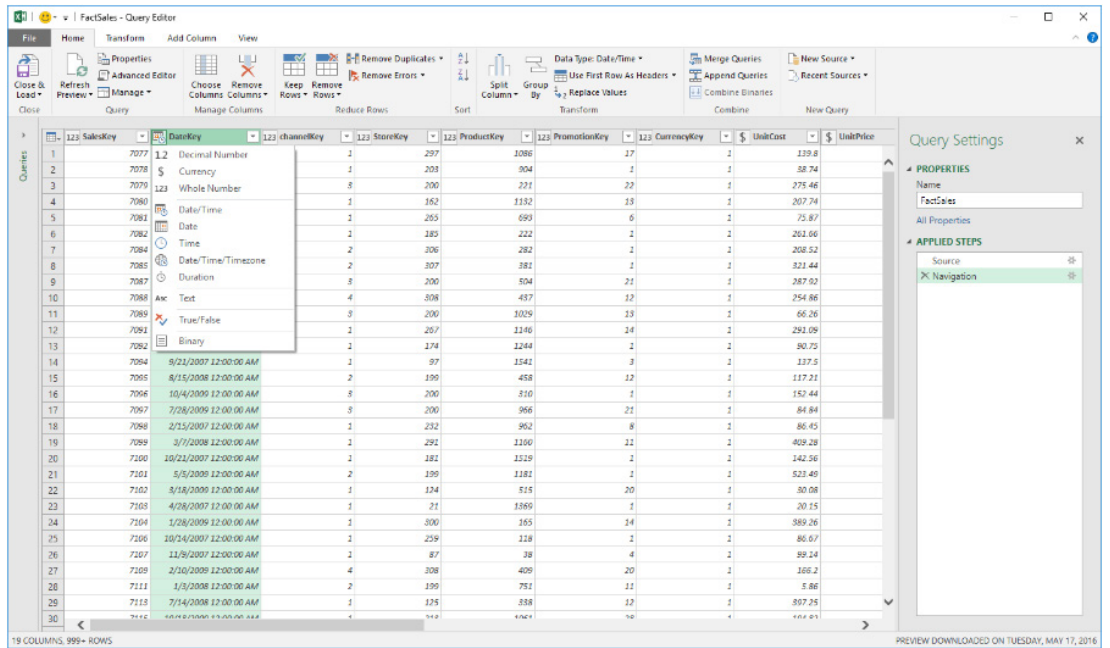
3. Reorder Queries and Query Groups inside Query Editor via drag and drop gestures

Users can also now easily reorder queries and query groups within the Queries pane inside Query Editor by selecting one or multiple objects and dragging and dropping them into the desired destination. This can be used to reorder items within a given group (or top level) and also to move objects into a query group.

Adding drag and drop gestures to the Queries pane inside Query Editor greatly improves the user experience for reorganizing queries and query groups, which was previously only possible via Context Menu options.
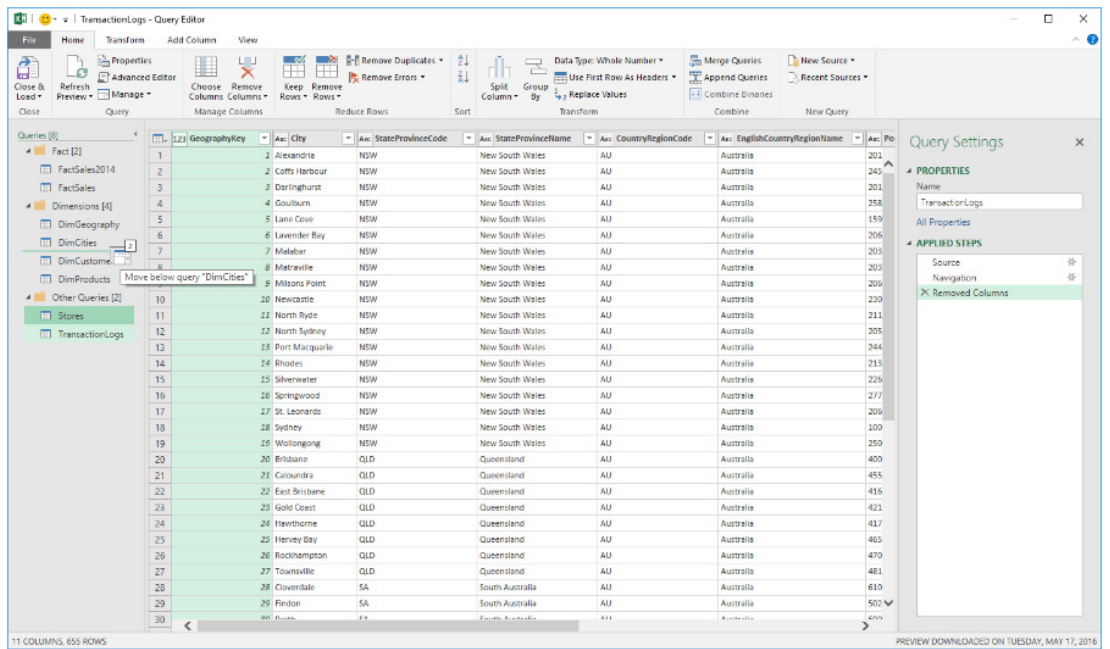
4. Query Management menu in Query Editor

With this update, Microsoft has announced they are "exposing" a new "Manage" drop-down menu for a query within the Query Editor Home tab on the Ribbon. We hope they don't get arrested for it. This menu exposes common management operations for a query, such as Delete, Duplicate and Reference.

Phew. Any more updates will have to wait until the next newsletter!!
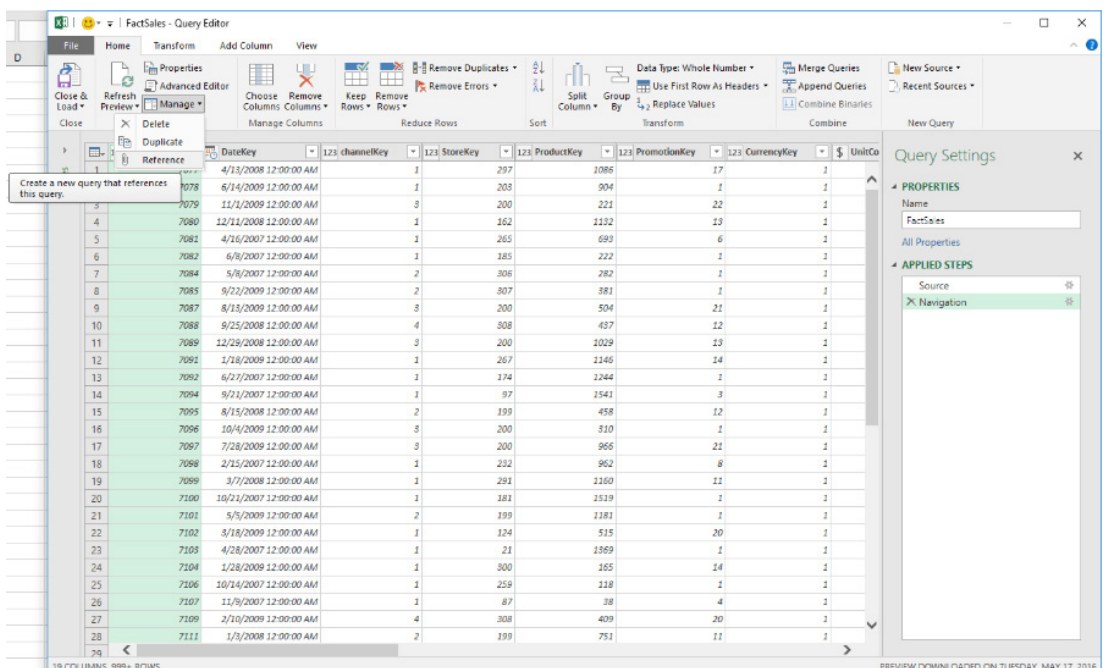
(No?) Accounting for Taste

June has been a busy month for SumProduct in the accounting world Down Under. Four presentations (two on Power Pivot, one on financial modelling and another on key Excel functions) have been presented to members and students of the Chartered Accountants [of] Australia and New Zealand (CAANZ), Certified Practising Accountants (CPA) and the Chartered Institute of Management Accountants (CIMA) in several locations, including Perth and Melbourne. But it doesn't stop there. We have more sessions anticipated in the next few months in Auckland, Brisbane, Darwin, London and Sydney. And that's just for accountants.

Whilst SumProduct specialises in the accounting, analytical, Excel, modelling and training needs of finance professionals, we are also happy to present at other events in various industries and academia worldwide. If you are interested in such a presentation, as long as you are happy to stump up travel costs and allow us to circulate our business cards, we are happy to present. We have laptops and passports, will travel. If interested, drop us a line at contact@sumproduct.com.

The Outer Limits, Episode 1
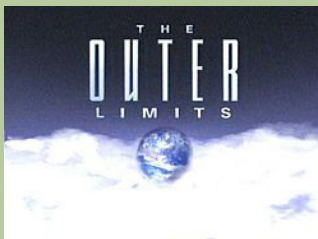
There is nothing wrong with your computer. Do not attempt to adjust the Excel settings. Microsoft is now in control of the transmission. They control the horizontal and the vertical. They can deluge you with a thousand errors, or expand one single cell to crystal clarity and beyond. Excel can shape your vision to anything your imagination can conceive. For the next paragraph, Excel will control all that you see and hear as we take you to the Outer Limits of Excel.

Not quite sure how many copyrights were breached in that last parody, but you get the idea. One question we often get asked is about the limitations and specifications of Excel. In the first of a five-part series, this month we look at PivotTable and PivotChart specifications and limitations.

Feature	Maximum Limit
Calculated item formulas in a PivotChart report	Limited by available memory
Calculated item formulas in a PivotTable report	Limited by available memory
Items displayed in filter drop-down lists	10,000 (Excel 2007 and later); 1,000 previously
Length for a relational PivotTable string	32,767 characters
Length of the MDX name for a PivotTable item	32,767 characters
PivotTable reports on a sheet	Limited by available memory
Report filters in a PivotChart report	256 (although this may be limited by available memory)
Report filters in a PivotTable repor	256 (although this may be limited by available memory)
Row or column fields in a PivotTable report	Limited by available memory
Unique items per field	1,048,576
Value fields in a PivotChart report	256
Value fields in a PivotTable report	256
Calculated item formulas in a PivotChart report	Limited by available memory

Amsterdam Excel Summit

Pictures courtesy of Jan Karel Pieterse

The third Amsterdam Excel Summit took place back in late May but was too late to be reported upon in last month's newsletter. This two-day summit proved to be successful and included many insightful presentations from various Excel experts / MVPs.

From Israel, Microsoft's Excel team program manager Yigal Edery opened the Summit and spoke in detail about the Excel Power BI tools and what users should expect in the future. Attendees then heard from our own Excel Summit South presenter Jon Peltier, who explained how to automate tedious charting chores using a bit of VBA. Fellow Excel Summit Southerner Charles Williams then explained "all that is evil" functions. Henk Vlootman then changed the tone as he demonstrated how to set up a Power Pivot model. Up next, long-time MVP Bob Umlas, the master of Excel tips and tricks, shared his knowledge to illustrate to attendees how to apply various cool tricks to your everyday Excel work. Finally, Guy Hunk (cool name!), another Program Manager from the

Microsoft Israel team, gave the audience a Power Query demonstration highlighting the software's current capabilities.

The second day was essentially an Excel Charting and Dashboard Masterclass this time around. It began with David Hoppe, a runner-up of the 2014 Chandoo Dashboard contest, speaking to the audience about how he constructs his own dashboards. Jon Peltier, Charting Guru extraordinaire, then added his two cents on how charts should be developed. Tony de Jonker continued the theme by discussing objects on charts.

In summary, this year's Amsterdam Excel Summit continued its fine tradition of useful topics presented by experts. If you missed out this year, the Summit will return to Amsterdam in May 2017, just after the Excel Summit South returns to the Australia / New Zealand region. Keep your eyes peeled for confirmed dates for both.

Referral Programme

Have you heard about the SumProduct Referral programme? If you successfully introduce us to a client we will pay you 10% of the net profits of the engagement won upon receipt of client payment. Sounds like a pretty good deal to us!

Terms and conditions apply. Referrer must be over 18 years of age, able to issue an invoice and not be an employee, director, agent or other related party of the client engaged. For further information, drop us a line at contact@sumproduct.com. We hope to hear from you!
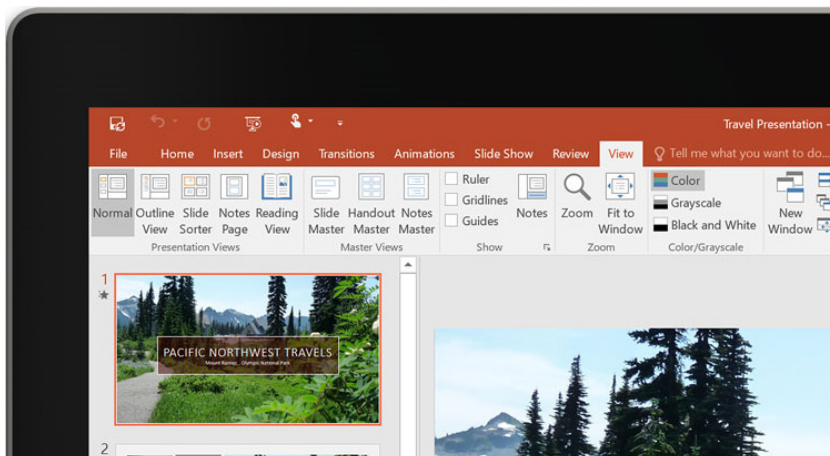
Office Insider – Fast or Slow?

If you are a commercial Office 365 subscriber who would like early access to Microsoft's new features, then this may be something worth considering. As mentioned in earlier newsletters, Office Insider is a preview program for Office 365 users. This easy-to-install upgrade will allow you access to the new Office innovations. Office Insider is available on Windows, desktop and mobile, for both Mac and Android. It's now available in two versions: Fast and Slow.

So, what's the difference between Insider Fast and Insider Slow? Insider Slow is the option that was originally offered to Mac users *(no comment, ha ha)*, working most efficiently for users who want early access to a fully supported Office 2016 for Mac build. In the past one or two new releases have been released each month.

Office Insider Fast is a new option, aimed for Insiders who want to the use the builds as soon as they are available. Users who choose this option will be in the driving seat to assist improving quality and influence features. Insider Fast will prove most effect for those who don't mind the risks inherent in using unsupported builds. Moving forward, Microsoft plans to release Insider Fast updates to Mac Insiders on a weekly basis, however Microsoft may produce builds that don't necessarily meet the quality bar.

To opt out of being an Office Insider, open any Office 2016 app. Click Help -> Check for Updates. The Microsoft AutoUpdate dialog box will appear: clear the Join the Office Insider program to get early access to new releases check box. Do note that if the reason why you're opting out is due to a blocking issue, please note you must uninstall Office 2016 and then reinstall.

Microsoft is encouraging users to provide them with any and all feedback. To tell them what you think click Tell Us What You Like or Tell Us What Can Be Better in the upper-left corner of any app. You could also post your feedback in the Office Insider Community.

For further information, or to install please follow this link Office Insider page here: https://products.office.com/en-AU/office-insider.

Upcoming SumProduct Training Courses

Location	Course	Date	Duration
Sydney	Excel Tips and Tricks	8th Aug 2016	1 day
Sydney	Financial Modelling	9th - 10th Aug 2016	2 days
Melbourne	Excel Tips and Tricks	29th Aug 2016	1 day
Melbourne	Financial Modelling	30th - 31th Aug 2016	2 days
Sydney	Power of Power Pivot	19th - 20th Sept 2016	2 days
Melbourne	Power of Power Pivot	4th - 5th Oct 2016	2 days
Perth	Financial Modelling	10th - 11th Oct 2016	2 days
Brisbane	Financial Modelling	20th - 21st Oct 2016	2 days
Darwin	Excel Tips and Tricks	9th Nov 2016	1 day

Key Strokes

Each newsletter, we'd like to introduce you to useful keystrokes you may or may not be aware of. This month we decided we'd be clear about deleting:

Keystroke	What it does
BACKSPACE	Edit and clear
DELETE	Clear
SHIFT + DELETE	Cut
CTRL + DELETE	Clear
CTRL + ALT + DELETE	Not used for anything important, ever…
CTRL + X	Cut
F2	Edit

And these alternatives don't begin address mouse-related solutions!

There are over 540 keyboard shortcuts in Excel. For a comprehensive list, please download our Excel file a www.sumproduct.com/thought/keyboard-shortcuts. Also, check out our new daily **Excel Tip of the Day** feature on the www.sumproduct.com homepage.

Our Services

We have undertaken a vast array of assignments over the years, including:

· **Business planning**
· **Building three-way integrated financial statement projections**
· **Independent expert reviews**
· **Key driver analysis**
· **Model reviews / audits for internal and external purposes**
· **M&A work**
· **Model scoping**
· **Power BI, Power Query & Power Pivot**
· **Project finance**
· **Real options analysis**
· **Refinancing / restructuring**
· **Strategic modelling**
· **Valuations**
· **Working capital management**

If you require modelling assistance of any kind, please do not hesitate to contact us at contact@sumproduct.com.

Link to Others

These newsletters are not intended to be closely guarded secrets. Please feel free to forward this newsletter to anyone you think might be interested in converting to "the SumProduct way".

If you have received a forwarded newsletter and would like to receive future editions automatically, please subscribe by completing our newsletter registration process found at the foot of

Any Questions?

If you have any tips, comments or queries for future newsletters, we'd be delighted to hear from you. Please drop us a line at newsletter@sumproduct.com.

Training

SumProduct offers a wide range of training courses, aimed at finance professionals and budding Excel experts. Courses include Excel Tricks & Tips, Financial Modelling 101, Introduction to Forecasting and M&A Modelling.

Check out our more popular courses in our training brochure:

Drop us a line at training@sumproduct.com for a copy of the brochure or download it directly from http://www.sumproduct.com/training.