

Sum Product

NEWSLETTER #48 - November 2016

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Sorry to monopolise your time – but this month we wanted to highlight our recent series on Excel and Monopoly and revisit range names as our keyboard shortcuts are depressed enough (get it?) to resort to **F3**.

Our recent series on The Outer Limits of Excel comes to an end this month, but the A to Z of Excel Functions and Keyboard Shortcuts series will continue. And we even have time to talk about the forthcoming MVP Summit as well as mention recent simulations software we have discovered and introduce you to a potential future Michelin chef (yes, he cooks tyres).

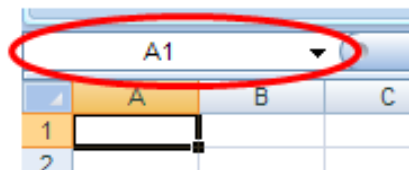
Until next month.

Liam Bastick, Managing Director, SumProduct

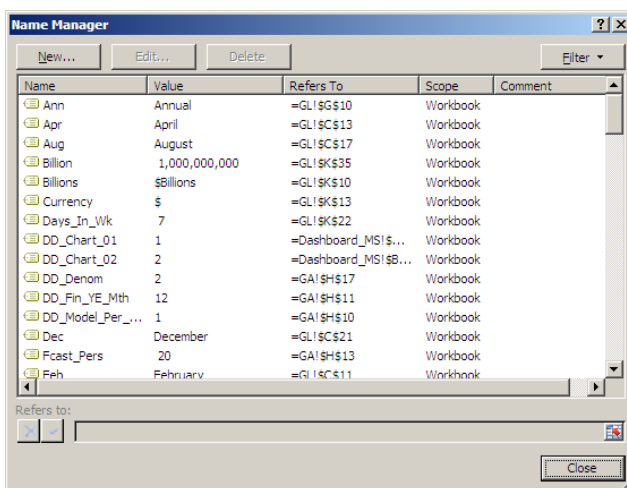


Creating Range Names

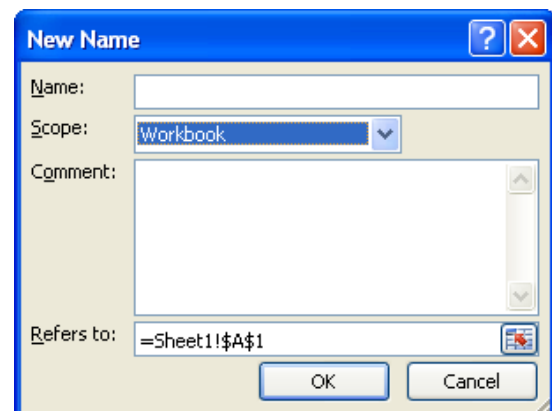
Given our Excel keyboard shortcuts series focuses on function key **F3** this month and these pretty much revolve around range names, we thought it would be good to revisit these useful features – provided they are used sparingly. Range names have been created using the 'Name Manager' in Excel since Excel 2007 came out. The Name Box (circled, below),



drop down menus and / or Ribbon may be used, or keyboard shortcuts such as **ALT + I + N + D** (Excel 2003 and earlier) or **ALT + I + N + D + N** or **ALT + M + N** (Excel 2007 and later). We would suggest using none of these methods. Simply used the keyboard shortcut **CTRL + F3** in all versions of Excel, and then click on the 'New' button in the 'Name Manager' dialog box, viz.



After clicking on 'New' (above), the following dialog box appears:



Scope

Note the highlighted section (Scope). All names have a scope, either to a specific worksheet (also called the local worksheet level) or to the entire workbook (also called the global workbook level). The scope of a name is the location within which the name is recognised without qualification.

For example, if you have defined a range name as 'Profit' with its scope as Sheet1 (say) rather than 'Workbook', then it will only be recognised in Sheet1 as 'Profit' (*i.e.* without qualification).

To use this local name in another worksheet, you must qualify it by preceding it with the localised worksheet name:

=Sheet1!Profit

If you have defined a name, such as 'Cashflow', and its scope is the workbook, that name is recognised for all worksheets in that workbook (but not for any other workbook).

A name must always be unique within its scope. Excel prevents you from

defining a name that is not unique within its scope. However, you can use the same name in different scopes. For example, you can define a name, such as 'Profit' that is scoped to Sheet1, Sheet2, and Sheet3 in the same workbook. Although each name is the same, each name is unique within its scope. You might do this to ensure that a formula that uses the name 'GrossProfit' (say) is always referencing the same cells at the local worksheet level.

You can even define the same name, 'Profit' for the global workbook level, but again this scope is unique. In this case, there may be a name conflict. To resolve this conflict, Excel uses the name that is defined for the worksheet by default. The local worksheet level takes precedence over the global workbook level. This can be circumvented by adding the following prefix to the name, *e.g.* rename it 'WorkbookFile!Profit' instead.

It is possible to override the local worksheet level for all worksheets in the workbook, except for the first worksheet. This will always use the local name if there is a name conflict and cannot be overridden.

Care with Names

The name string must begin with a text or underscore character. Remaining characters in the name can be letters, numbers, periods and underscore characters. Spaces are not allowed but two words can be joined, or with an underscore (_) or period (.), for example, to enter the Name 'Cash Flow' you should enter 'Cash_Flow' or 'Cash.Flow'.

You cannot use a name that could otherwise be confused as a cell reference, for example, **A1**, as this is already a cell reference. How cool would that be otherwise?

There is no limit on the number of names you can define, but a name may only contain up to 255 characters (why on earth you would want something this long is beyond us).

Names can contain uppercase and / or lowercase letters. Excel does not distinguish between uppercase and lowercase characters in names.

For example, if you have created the global name 'Profit' and then create another global name called 'PROFIT' in the same workbook, the second name will replace the first one.

It is not a syntax issue, but we strongly recommend thought is given to adding prefixes to range names. Regular readers will note that my list range names always begin with 'LU_' where 'LU' stands for 'Look Up'. Similarly, we use 'BC_' for 'Base Cell' when working with the **OFFSET** function.

By using these prefixes, you may understand the purpose of the range name as names with a common purpose are grouped together in a list. This is not to say all range names should contain a prefix. 'Tax_Rate', for instance, makes sense on its own and adding a prefix would only detract from the name given, potentially confusing the end user.

Creating Range Names Quickly

There is a nifty shortcut for creating range names using existing names. Consider the following list:

	M	N	O
11			
12		Phonetic Alphabet	
13		A for 'orses	
14		B for Dam	
15		C for Miles	
16		D for Effort	
17		E for Brick	
18		F for Vescent	
19			

Imagine you were to highlight cells **N12:N18** in the above example and then use the shortcut **CTRL + SHIFT + F3**:



With the first check box ('Top row') checked, by clicking on 'OK' the range **N13:N18** (not **N12:N18**) will be named 'Phonetic_Alphabet' (i.e. the underscore will be added automatically). Ranges across rows can be named in seconds similarly using 'Left column' similarly.

The reason this dialog box uses check boxes (rather than option buttons) is to allow users to select more than one at a time. For example:

Example data table in Excel

	M	N	O	P	Q	R
30						
31						
32			Jan	Feb	Mar	Apr
33	Sales		7,000	8,000	9,000	10,000
34	COGS		(2,270)	(3,817)	(4,522)	(5,712)
35	Gross Margin		4,730	4,183	4,478	4,288

Create Names dialog box



Highlighting **N31:R34** and using the keyboard shortcut **CTRL + SHIFT + F3** once more should generate the Create Names dialog box as above with both 'Top row' and 'Left column' checked. This means that **O32:O34** will be called 'Jan', **O33:R33** will be called 'COGS' and so on. This would take considerably longer to perform manually.

This example also illustrates why spaces are illegal characters in range names (and for that matter, should not be added to formulae either).

Using Range Names Quickly

One of the reasons I like using the **CTRL + F3** shortcut is that it is part of the **F3** 'names family of shortcuts'. We have just seen how **CTRL + SHIFT + F3** can be useful – and so can **F3** on its own.

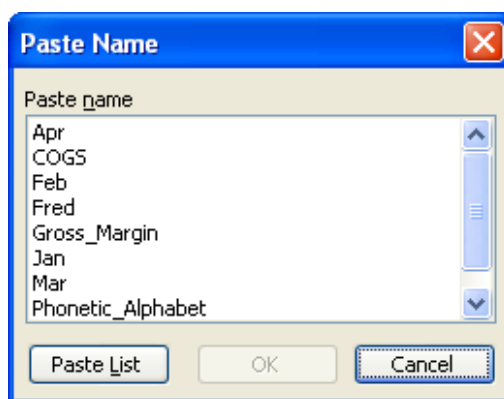
Perhaps superseded by the fact that in Excel 2007 and later versions

Space is the *intersect operator* in Excel. If you were to type the following formula:

=Gross_Margin Feb

Excel would return the value in cell P34 (the intersection of the two ranges, above), i.e. \$4,183. This can be a powerful yet quick and simple analytical tool for key outputs.

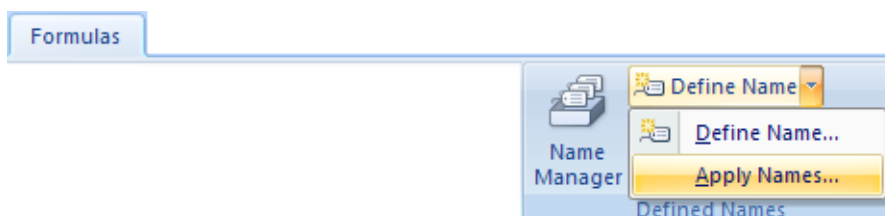
Excel will now prompt as you type formulae, **F3** has been very useful in the past as the 'Paste Names' shortcut. For example, as you type a formula you can refer to a range name by simply typing **F3** to get the Paste Names dialog box, viz.



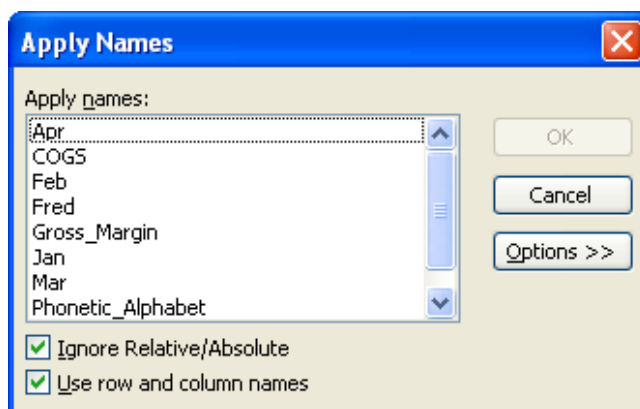
Selecting one of the cells and clicking 'OK' inserts the range name.

However, look closer at the dialog box. The 'Paste List' button in the bottom left hand corner, if depressed, will paste the list and their definitions into a pre-selected range of cells in an Excel worksheet which can be invaluable for model auditing purposes.

Sometimes, formulae have been written before the range name was created. In some circumstances, it is possible to apply these names retrospectively using 'Apply Names' within the 'Defined Names' group of the 'Formulas' tab, viz.



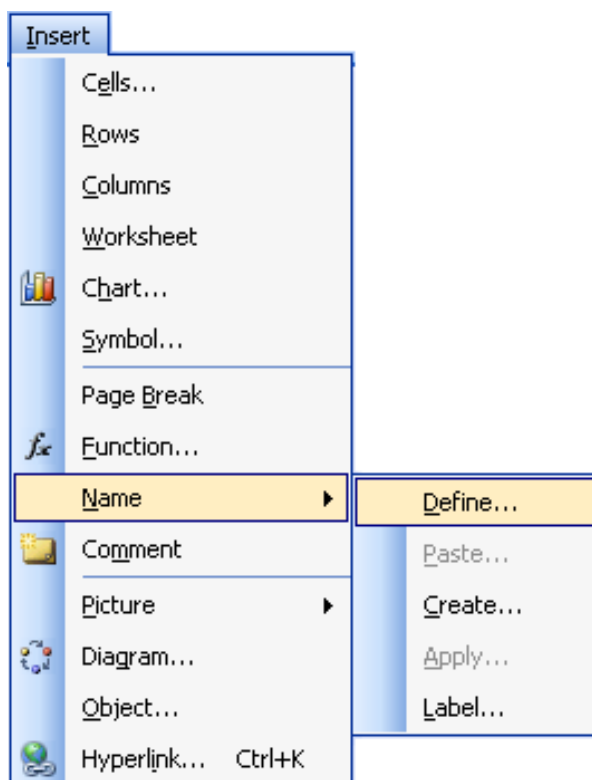
Note that the keyboard shortcut **ALT + I + N + A** will work in all versions of Excel. Selecting the required range names in the resulting dialog box



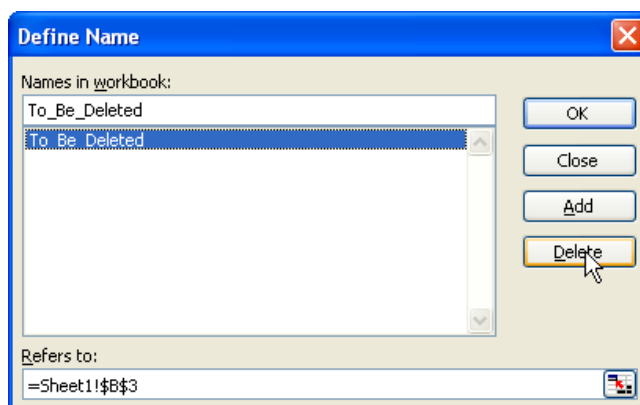
will see formulae on the active worksheet(s) updated accordingly.

Deleting Range Names

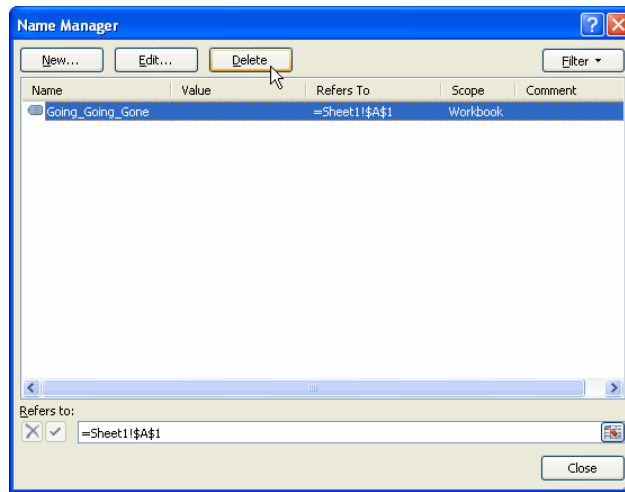
If I got paid just \$1 for every time I have been asked how to delete range names I would probably have retired by now. This was chiefly attributable to the counter-intuitive menu in Excel 2003 and earlier versions:



From the resulting dialog box, you would then select the range name (unfortunately, only one at a time could be selected) and hit 'Delete', viz.



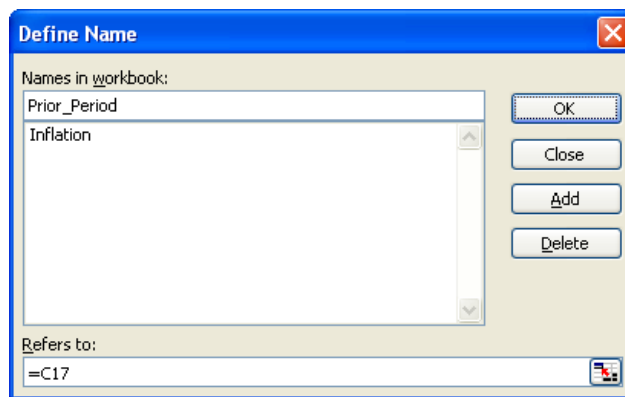
Excel 2007 and later makes this much simpler. In this case, users are more likely to go to the 'Name Manager' rather than the confusing 'Insert' drop down menu:



The other marked improvement is that multiple names may be deleted simultaneously by using the **CTRL** or **SHIFT** buttons to make multiple selections before hitting the 'Delete' button.

Relative Referencing

By default, range names are referenced absolutely (*i.e.* contain the \$ sign so that references remain static). However, imagine a scenario where you are modelling revenue and you wish to grow the prior period value by inflation (already given a range name, say cell **C3** on Sheet1). Simply click on any cell (for example, I will use **D17** arbitrarily), then define the new range name as follows:



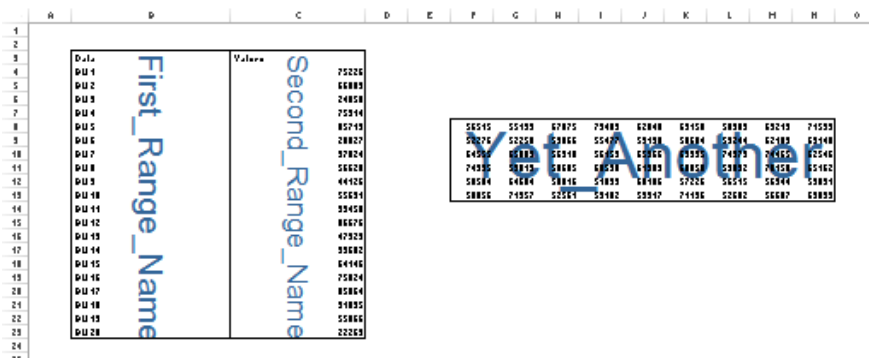
Note the 'Refers to:' entry. Cell **C17** (the cell to the left of **D17**) has been chosen without the dollar signs. This is a relative reference. Once we click on 'OK', the range name 'Prior_Period' will be defined as the cell immediately to the left of the active cell. We can then inflate values easily by copying the formula

$$=Prior_Period*(1+Inflation)$$

across the row.

The 39 Steps

One interesting quirk of names relating to range names is what happens if you actually reduce the scale of Zoom View (**ALT + W + Q**) to 39% or below:



It can be a simple way of tracking down some of those pesky critters.

Excel at Monopoly: Who Wants to Play a Game?

If you like Excel and Monopoly, then it stands to reason that you'd like excelling at Monopoly. Recently, in our Blog series (www.sumproduct.com/blog), we ran a five-part series on how Excel can help you be the envy of your friends. Yes, you too can stay at home and really get good at Excel / Monopoly whilst your friends will have to go out and have fun instead.

If you're like most normal people, you probably would have seen the tag line and immediately run a million miles away from this article. But if you're reading this, you're probably either an Excel geek, a Monopoly geek, or both.

Before we jump into the Excel side of things, let's start off looking at Monopoly. Most people assume that Monopoly is a game of chance. That means that everybody has an equal chance to win, right? Just like Blackjack and Poker are games of chance, right?

Imperfect information

Your dice rolls are up to chance, just like the cards that you're dealt at the casino. But the decisions you make will have more sway on the result of the game, just as they do in Blackjack and Poker. Sure, if by some miracle, you land on Community Chest, Income Tax and then head straight to Jail on the first round (about a one in 7,500 chance of that – you'd think you'd see it happening more often, actually), you'll be in a weaker position. But you can always claw your way back with some good decision making and solid trades. Like any game of so-called 'chance', having information and using it well will always swing the game in your favour.

If you have good information, you have a better chance at winning. So, to excel at Monopoly, the trick is to understand what properties are good, in order to make better decisions when buying and trading.

How might we define a good property? It might be:

- A property that people land on frequently
- A property that charges high rental
- A property that isn't too expensive to purchase

In this article, I'll just start looking at the first step. How can we identify which squares people land on more frequently? There are 40 squares on the board, each one should be equally likely, right?

That's not quite true.

Without knowing

If we look at the board as a whole, we can see that there are some squares with markedly lower probabilities – notably Chance squares and "Go to Jail" (it's pretty hard to end your turn there!) – and one with a very high probability (who hasn't spent turns sitting around in Jail?). Everything else somewhat blends in with each other, relative to the highs and lows of the other squares.

2.96%	2.79%	1.05%	2.72%	3.17%	3.04%	2.68%	2.65%	2.79%	2.57%	0.00%
2.99%										2.66%
2.94%										2.61%
2.47%										2.36%
2.80%										2.48%
2.80%										2.41%
2.50%										0.86%
2.77%										2.17%
2.60%										2.16%
2.22%										2.61%
7.10%	2.28%	2.30%	0.86%	2.24%	2.94%	2.31%	2.14%	1.87%	2.12%	3.06%

Now, if we remove the non-purchasable properties, you can see a much greater deviation between high likelihood squares and low likelihood squares. Properties along the bottom row, for example, are much less likely to be landed on, with the exception of King's Cross Station or Reading Railroad (or other similar station, depending on your local version of the game). You've got a 50% higher chance of landing on Trafalgar Square than you do on Old Kent Road (or Illinois Avenue and Mediterranean Avenue, for our US friends).

Free Park	2.79%		2.72%	3.17%	3.04%	2.68%	2.65%	2.79%	2.57%	Go to Jail
2.99%										2.66%
2.94%										2.61%
2.80%										2.48%
2.80%										2.41%
2.50%										
2.77%										2.17%
2.60%										
2.22%										2.61%
Jail	2.28%	2.30%		2.24%	2.94%		2.14%		2.12%	Go!

Imperfect information

So why is this the case? What causes these differences, and how can we work these out? And most importantly, how can understanding these help us in our game? The answers to these questions can be found on our blog [here](#).

We update our blog every other workday with information on Excel functions, trips we are taking, and even how other games, such as Tetris which we mentioned in last month's newsletter.

Hope to see you there!

November MVP Summit

SumProduct is going back to Redmond this November. Microsoft has announced its annual Most Valuable Professional (MVP) Summit this year for us all to get a chance to pick the brains of the various product groups – in our case the Excel team.

Whilst much of the content may have to remain confidential for the time being, SumProduct would like to invite our readers to submit any queries or issues they may have for the Excel team (please note that we've found we get more traction with general rather than technically specific questions!).

We can't promise we can get answers to any questions raised, but we'll report back what we can in the December newsletter. In the meantime, please send your questions to contact@sumproduct.com.



Excel MVPs at a past summit. Picture courtesy of Tom Urtis.

The A to Z of Excel Functions: AMORDEGRC

We thought we'd add a European flavour to today's blog, a little *je ne sais quoi*. This function returns the depreciation for each accounting period in accordance with the French accounting system. If an asset is purchased in the middle of the accounting period, the pro-rated depreciation is taken into account. The function is similar to **AMORLINC** (see below), except that a depreciation coefficient is applied to the calculation depending on the life of the assets.

The **AMORDEGRC** function employs the following syntax:

AMORDEGRC(cost, date_purchased, first_period, salvage, period, rate, [basis])

Important: Dates should be entered by using the **DATE** function, or as results of other formulas or functions. For example, use **DATE(2016,5,23)** for the 23rd day of May, 2016. Problems can occur if dates are entered as text instead.

The **AMORDEGRC** function syntax has the following arguments:

- **cost:** this is required. This represents the cost of the asset
- **date_purchased:** also required. The date of the purchase of the asset
- **first_period:** required. The date of the end of the first period
- **salvage:** required. The salvage value at the end of the life of the asset
- **period:** required. The period in question
- **rate:** required. The rate of depreciation
- **basis:** optional. The year basis to be used.

Some notes to remember on how the **basis** argument works (there's no number 2):

Basis	Date system
0 or omitted	360 days (NASD method)
1	Actual
3	365 days in a year
4	360 days in a year (European method)

Remarks:

- Microsoft Excel stores dates as sequential serial numbers so they can be used in calculations. By default, January 1, 1900 is serial number 1, and January 1, 2008 is serial number 39448 because it is 39,448 days after January 1, 1900
- This function will return the depreciation until the last period of the life of the assets or until the cumulated value of depreciation is greater than the cost of the assets minus the salvage value
- The depreciation coefficients are:

Life of assets (1/rate)	Depreciation coefficient
Between 3 and 4 years	1.5
Between 5 and 6 years	2
More than 6 years	2.5

- The depreciation rate will grow to 50 percent for the period preceding the last period and will grow to 100 percent for the last period
- If the life of assets is between 0 (zero) and 1, 1 and 2, 2 and 3, or 4 and 5, the **#NUM!** error value is returned.

Please see our example below:

	A	B	C
1	Description	Data	Formula
2	Cost	2400	
3	Date purchased	15-Jul-16	
4	End of the first period	31-Jul-16	
5	Salvage value	300	
6	Period	1	
7	Depreciation rate	15%	
8	Actual basis	1	
9			
10	AMORDEGRC	885	=AMORDEGRC(B2,B3,B4,B5,B6,B7,B8)
11			

The A to Z of Excel Functions: AMORLINC

The **AMORLINC** function in Microsoft Excel is similar to the last function, **AMORDEGRC**. The difference is that this function returns the depreciation for each accounting period, as provided for the French accounting system. If an asset is purchased in the middle of the accounting period, the pro-rated depreciation is taken into account instead.

AMORLINC uses the following syntax:

AMORLINC(cost, date_purchased, first_period, salvage, period, rate, [basis])

Important: Dates should be entered by using the **DATE** function, or as results of other formulas or functions. For example, use **DATE(2016,5,23)** for the 23rd day of May, 2016. Problems can occur if dates are entered as text.

The **AMORLINC** function syntax has the following arguments:

- **cost:** this is required. This represents the cost of the asset
- **date_purchased:** also required. The date of the purchase of the asset
- **first_period:** required. The date of the end of the first period
- **salvage:** required. The salvage value at the end of the life of the asset
- **period:** required. The period in question
- **rate:** required. The rate of depreciation
- **basis:** optional. The year basis to be used.

Some notes to remember on how the basis argument works (there's no number 2):

Basis	Date system
0 or omitted	360 days (NASD method)
1	Actual
3	365 days in a year
4	360 days in a year (European method)

Also note:

- Microsoft Excel stores dates as sequential serial numbers so they can be used in calculations. By default, January 1, 1900 is serial number 1, and January 1, 2008 is serial number 39448 because it is 39,448 days after January 1, 1900.

Please see our example below:

	A	B	C
1	Description	Data	Formula
2	Cost	2400	
3	Date purchased	15-Jul-16	
4	End of the first period	31-Jul-16	
5	Salvage value	300	
6	Period	1	
7	Depreciation rate	15%	
8	Actual basis	1	
9			
10	AMORLINC	360	=AMORLINC(B2,B3,B4,B5,B6,B7,B8)
11			

The A to Z of Excel Functions: AND

My old English teacher said you should never start or finish a sentence with the word "and". **AND** is one of several Excel logic functions (others include **NOT**, **OR** and **XOR**). It returns TRUE if all of its arguments evaluate to TRUE; it returns FALSE if one or more arguments evaluate to FALSE.

One common use for the **AND** function is to expand the usefulness of other functions that perform logical tests. For example, the **IF** function performs a logical test and then returns one value if the test evaluates to **TRUE** and another value if the test evaluates to **FALSE**. By using the **AND** function as the **logical_test** argument of the **IF** function, you can test many different conditions instead of just one.

For example, imagine you are in New York on a Monday. Consider the expression

=AND(condition1, condition2, condition3)

where:

- **condition1** is the condition, "today is Monday"
- **condition2** is the condition, "you are in New York" *and*
- **condition3** is the condition, "this author is the best looking guy you have ever seen".

This would clearly be FALSE as not everywhere in the world it would be Monday (i.e. condition1 would be breached)...

As alluded to above, the syntax for **AND** is as follows:

AND(logical1, [logical2], ...)

where:

- **logical1**: the first condition that you want to test that can evaluate to either TRUE or FALSE
- **logical2**: additional conditions that you want to test that can evaluate to either TRUE or FALSE, up to a maximum of 225 conditions. **logical2** is optional and is not needed in the syntax.

It should be noted that:

- The arguments must evaluate to logical values, such as TRUE or FALSE, or the arguments must be arrays or references that contain logical values
- If an array or reference argument contains text or empty cells, those values are ignored
- If the specified range contains no logical values, the **AND** function returns the #VALUE! error values.

Please see our example below:

	A	B	C
1	Condition 1	TRUE	
2	Condition 2	FALSE	
3	Condition 3	TRUE	
4			
5			
6	Description	Results	Formula
7	All arguments are true	TRUE	=AND(B1,B3)
8	At least one argument is false	FALSE	=AND(B1:B3)
9	All arguments are true	TRUE	=AND(B1,B3,2=1+1)
10			

Sigma XL – Discover Sim



Here at SumProduct we do work with lots of different software / Excel add-ins as part of our consulting work. While we were in Toronto though, we came across some software we must confess we hadn't heard of previously.

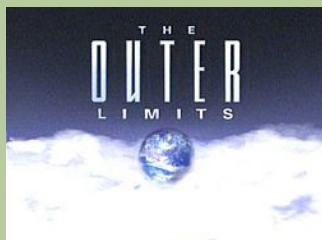
Ontario-based software company Sigma XL has developed a suite of Lean Six Sigma statistical tools, templates and Monte Carlo sampling based simulations in Excel. It's called **Discover Sim**. There are similar packages out there from established companies such as @Risk and Crystal Ball, but the difference with Sigma XL is the cost for outright purchase is less than half of the annual fee for these other products.

We are still playing with it so we're not in a position to compare and contrast its capabilities against other products. However, it does boast:

- The ability to use 53 continuous and 10 discrete distributions in your analysis
- The option to fit your data with Automatic Best Fit
- The capability to identify key variables with sensitivity analysis based on correlation or stepwise regression
- It is bundled with Sigma XL Version 7 software for enhanced statistical and graphical analysis.

For more information on the product and how to purchase, please contact Sigma XL directly at Sales@SigmaXL.com. For more on sensitivity or simulations analysis in general, you should also check out www.sumproduct.com/thought/tornado-charts and www.sumproduct.com/thought/simulation-stimulation respectively.

The Outer Limits, Episode 5



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.

One question we often get asked is about the limitations and specifications of Excel. In this final part of our five-part series, this month we look at the specifications and limitations surrounding shared workbooks.

Feature	Maximum Limit
Cells that can be highlighted in a shared workbook	32,767
Colours used to identify changes made by different users when change highlighting is turned on	32 (each user is identified by a separate colour; changes made by the current user are highlighted with navy blue)
Days that change history is maintained	32,767 (default is 30 days)
Excel Tables in a shared workbook	0 (zero). Note: a workbook that contains one or more Excel Tables cannot be shared.
Personal views in a shared workbook	Limited by available memory
Users who can open and share a shared workbook at the same time	256
Workbooks that can be merged at one time	Limited by available memory

Still on the Road...

More like “in the air” actually. October has seen SumProduct in – deep breath – Auckland, Brisbane, Kuala Lumpur, New York and Singapore. And we are still travelling – upcoming trips take in Auckland, Kuala Lumpur, London (possibly), Seattle and Singapore. Perhaps we should just pay off our creditors instead!



Attendees in Toronto politely wait to see whether the ransom drop was successful for the safe return of their laptops...



Master Chef Not Cooking the Books?

SumProduct alumnus, VBA / Tables guru and Excel MVP Extraordinaire **Zack Barresse** is about to become a celebrity superstar and will be eligible for ‘D’ list appearances worldwide (e.g. opening supermarkets, naming dinghies) shortly. He has apparently been accepted on the US series of *Master Chef*!

He has a lot to live up to. Melbourne-based Liam Bastick was a semi-finalist on the first series of Australia’s *Letters and Numbers* so Zack will need to have both his relatives watching in order to break the record for most viewers...

We wish Zack all the best whilst here at SumProduct we will endeavour to keep making trifles out of your most serious modelling issues (*groan*)...

Zack pictured on his last televised appearance, appealing for the return of his left ear

Upcoming SumProduct Training Courses

Location	Course	Date	Duration
Darwin	Excel Tips and Tricks	9th Nov 2016	1 day
Sydney	Power Pivot, Power Query and Power BI	12th - 14th Dec 2016	3 days
Sydney	Visual Basic and Excel	15th Dec 2016	1 day
Melbourne	Financial Modelling for Mergers and Acquisitions	6th - 9th Feb 2017	4 days
Sydney	Excel Tips and Tricks	6th Feb 2017	1 day
Sydney	Financial Modelling	7th - 8th Feb 2017	2 days
Melbourne	Power Pivot, Power Query and Power BI	20th - 22nd Feb 2017	3 days
Toronto	Financial Modelling	6th - 7th Mar 2017	2 days
Toronto	Power Pivot, Power Query and Power BI	8th - 10th Mar 2017	3 days
New York	Financial Modelling	13th - 14th Mar 2017	2 days
New York	Power Pivot, Power Query and Power BI	15th - 17th Mar 2017	3 days
Melbourne	Financial Modelling	22nd - 23rd Mar 2017	2 days
Sydney	Power Pivot, Power Query and Power BI	24th - 26th Mar 2017	3 days



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!

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 continue going through the function keys with the **F3** function key:

Keystroke	What it does
F3	Paste Names
CTRL + F3	Open Name Manager
SHIFT + F3	Function Wizard
CTRL + ALT + F3	New Name
CTRL + SHIFT + F3	Create Names

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 www.sumproduct.com web page.

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>.

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