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**Excel Versions**

Let's talk about the different versions of Excel that you might be using. I would expect that most of you are using Excel 2013. It's been out for quite a while now but I would like to go through some of the new tools and features that are available to you. You may have been using it for quite some time and you may not know of some of the differences between the different versions and there's just a couple of things from a financial modelling perspective that you need to know.

Here is a bit of a history of the different versions that are available to us in Excel. We had the Excel 2003 and then there was a huge break until they brought out 2007 which you probably remember they changed the file type, they changed the menu, they changed basically everything that there was. It took a really long time for a lot of people to upgrade to the latest version.

2007 and 2010 wasn't as much of a change. When it comes to MAC though, they brought out Excel for MAC 2008, it didn't have any VBA so that made it quite difficult. If you're using 2010, that was 2011.

What you do really need to know about the different versions is that the old versions, Excel 2003, the file type used was an XLS file type. We don't use that file type anymore. The latest version is XLSX if it's just an ordinary Excel file or XLSM if you're using macros. Those are the file types that you should be using. XLSX or XLSM is a much more compact, more secure and a more efficient file type.

You'll find that there are a lot of people for some reason still using XLS file types and this happens because quite often when you export some data out of another system it will spit it

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out as a CSV or an XLS file type. You can tell that it's an XLS file type because it will have compatibility mode across the top.

Let me just flick over to Excel now and show you what I mean. I've given you a copy of this file if you'd like to follow along with me or you can just sit back and watch what I'm doing.

My screen here at the very top says compatibility mode and the reason for that is that even though I am using a later version of Excel, the file type or the file extension is XLS, so that's an old file type. If I want to upgrade it to a much more compact, more secure, more efficient file type, I should save that as an XLSX file type.

The way to do that is to go into file, save as and go into your computer and you can see here that 97/2003 change to the dropdown and you just save it as an Excel workbook. You can just save over the top of it and you can just create two versions of exactly the same file. You can see there it still says compatibility mode so what you need to do is close Excel down completely and then open it back up again. You can see there I've actually got two versions of exactly the same file and then you just open up the later version, the XLSX file type. You can see that compatibility mode has disappeared. A lot of the tools and new features that are available in Excel 2013 will simply not work if you are working in compatibility mode. If you've got a very big file, something that uses up a lot of memory, it's much less efficient and it just won't work as well.

They changed a lot of things in the 2013 version particularly when it comes to charting. There are some fantastic standard templates in 2013 and it's very easy to make fancy looking charts in Excel 2013. They look much better than the old ones. This is how your pie chart looks when you create it in 2013.

A little bit of a history of the pie chart. This is what your standard pie chart looked like in your older version of Excel. Do change the standard colours if you doing charting in Excel don't just go with the default which just looks quite boring because that's what everyone's charts look like. It's very easy go into the themes, styles and colours and change it and it makes it look so much nicer.

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That's what the old 2003 looks like. You'd be surprised people still have charts that look like that in the old navy and magenta colour scheme.

When they upgraded from 2003 to 2007, the capacity and the size changed a huge amount. There was only 65,000 rows in the old version 2003 XLS version so if you're in compatibility mode that would be your limitation which seems like quite a lot but we tend to run out of rows quite quickly. So they expanded it from 65,000 rows to over a million rows and we still run out of rows every now and again. They changed the number of columns and the capacity as well with the latest version of Excel. You want to make sure you are using all of those new features by using the correct file type.

There wasn't a huge difference between 2007 and 2010, but they did bring out a couple of really cool new features. Spark lines is one. Spark lines are those miniature charts in a single cell which are fantastic for dashboards. They are pretty cool. If you haven't looked at spark lines be sure to check those out because they are great.

Another new feature of 2010 is slicer. Slicer is part of pivot table so when you go in and filter a pivot table you can actually put in some little boxes over on the side which make it very easy for your user to click, slice and dice as part of your pivot table. If you're using 2010 or later have a play around if you're doing pivot tables. Play with your slicer because it's a cool feature particularly for dashboards. One of the new features of 2013, by the way, is that they've introduced a slicer for tables. That's quite handy as well.

Lastly one of the other features that they brought out in 2010 was Power Pivot. Power Pivot was a bit of a game changer. I'm not going to go into a huge amount of detail but suffice to say it is an add-in to Excel. It is part of your Excel and it is available to you. You do need to download it. You just need to go to Microsoft put in your licence key and download PowerPivot for Excel. It's like a pivot table but a lot more capacity. It stores the data as a flat file so it can handle a lot more data than Excel can because that's the major limitation of Excel, that we run out of rows and capacity. Power Pivot is like Excel's answer to a data warehouse or self-serve business intelligence.

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Some of the things that you might notice if you've upgraded to 2013 is that the ribbon is capitalised. That's probably your tip that you're using the later version.

The start screen is a little different and also mobility when you log in from different locations, you'll notice that your settings are the same. Flash fill is fantastic. I will show you what flash fill does, it's fantastic and quick analysis is pretty cool as well. You'll notice that the charting is quite different and they always bring out new functions. There is something like 400 or so different functions already available in Excel and every time they bring out a new version, they add new functions to it. Probably a couple of the ones that you might like is IFNA, ISFORMULA and PDURATION, so you might want to have a play around with these. Do be careful though when you're using some of these new functions. Because these are new to Excel 2013 so if you use one of these new functions and then somebody opens it up in an older version of Excel they won't be able to see your formula. Your formula will come up just as a #NA error. I usually try not to use some of those new functions until I'm actually sure that everybody who's going to be using the model is on a later version of Excel.

Lastly with 2013, they did change a lot of the features of Power Pivot so if you're using Power Pivot between 2010 and 2013 it is quite different and it's inbuilt in 2013.

I will just go back now and show you what I mean by flash fill because it is one of my favourite features of 2013. I'm just going to go back in to Excel. You'll see here I've got a list of names. Maybe you want to analyse that list or to split it out or perhaps you'd want to break them into two different sections. Maybe you want to pursue a career as a spammer and you want to figure out what their email address is going to be. Say if you've got the name Joe Brown, you might want to have J. Brown, H. Stevenson something like that. If you wanted to do that ordinarily, it's quite a bit of manipulation in Excel to get to that.

Let me just show you quickly how we would ordinarily do it. Let me just copy that over to here and then if I want to split it out, I would highlight the whole thing, go to text to columns and split it where it's a space and that would split the data out into two separate columns. If I then wanted to pick up their initial or the first character of their first name, I could use a formula to do that. I could say equals left comma 1 or don't even need to put the comma and 1 in, I can just leave it like that and that picks up a J which is their initial and

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then you can double click. If I go to the bottom right hand corner of the cell and then double click that will copy it all the way down.

You can follow along with me if you'd like to learn how to do this or you can just sit back and watch while I demonstrate. If I wanted to add in this surname, I would then go and ampersand and click it like that and then again bottom right hand corner and double click, so that brings up their initial together with their surname. If you want to then put in a dot and a space perhaps or without a space you would then need to go in and put in some inverted commas, dot, space for example, close inverted commas and then an ampersand. You're always having to string together the text. I told you it was quite technical, having to actually go in and extrapolate the data, it gets quite difficult.

I'm going to show you a much easier way in 2013 in a minute. Let's just finish what we were doing here. Double click and that's what your formula should look like. It's quite a handy formula to know anyway but if you're using Excel 2013 you don't need to go into any of that detail. Let me just go back to the original here. If you're going to try this, you need to be using Excel 2013 it doesn't work with previous versions. You can just start typing, go J dot Brown, H dot...there you go and it's picked up what I was trying to do. It's called flash fill. It looks at the pattern of what you're trying to do. Then I can just hit enter and it will pick up what I'm trying to do. It's hard coded, it's not a formula, so it's not dynamic. For example, if I wanted to go back and say well actually I want this surname and then their first name after that and it's picked up the pattern again. That can save you an awful lot of time if you having to work with a lot of data over and over again. I really like that feature, that's one of my favourites.

One of the other things I quite like is what's called the quick analysis. If you had 3 numbers like that, if you highlight and then on the bottom right hand corner it comes up with this quick analysis. It's trying to give you options. It says "what do you want to do? Do you want to chart? Do you want to put in some colour scales? Do you want to put in a formula?" So that's something that can help you and save you quite a bit of time.

Coming back to the new features of 2013, I was just demonstrating the flash fill and the quick analysis. Excel is such a powerful tool. There are so many different tools and features

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so have a play around and make sure that you really get to grips with all of the new tools and features that the latest version of Excel has to offer.