
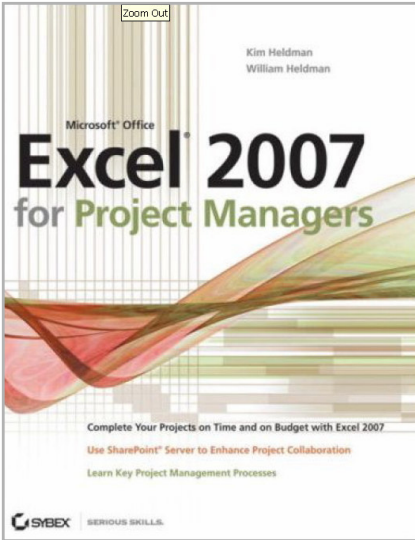


Excel – Friend or Foe?

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The Promised Land ?



- ~~Risk assessment modelling ?~~
- ~~Financial modelling ?~~
- ~~Estimating tool ?~~
- ~~Portfolio management ?~~
- ~~Dashboarding projects databases ?~~
- Collaboration ? ✓
- Logs ? ✓
- Requirements ? ✓
- Document Management ? ✓
- Learning to manage projects ? ✓

I bought a book earlier this year, because it had a great title, which is after all why you buy books!

Having used Excel extensively as a project manager, as a portfolio manager within a PMO, and as a business planning manager, I was aware of the power and some of the pitfalls of using the tool.

I eagerly thumbed through the table of contents, my mind racing at the thought of all the juicy algorithms that could somehow improve the numerical aspects of managing projects, prioritising portfolios of investment and creating compelling summaries of complex data.

Sadly disappointed though – the contents were along the lines of how countless project managers have used Excel for years – there was nothing really to take away other than a whole mountain of screenshots of how easy it is to publish tables of information using Sharepoint.

It did get me asking myself some questions – what had I learned about Excel, and how does it get used in the projects ecosystem? Why were there not more sophisticated uses contained within the book – did the authors, like most of us when we use Excel, only just scratch the surface of the possibilities?

This quick session will give you some things to think about, maybe answer some questions you have, and maybe scare you to death! If you take those thoughts and answers back into your PMO, you'll be well on the way to making Excel work for you, rather than you having to work for it!

Just What is Excel Fantastic At (with Caveats!)



- Analysing and manipulating data
- Working with two dimensional data
- Creating Charts to summarize data visually
- Data Collection
- Prototyping data storage
- The “one stop shop” project information system for standalone projects
- Being accessible – everyone uses it

Computers can do millions of calculations per second. Excel uses that potential to the full.

Tables are an important way of letting humans visually see raw data. Organising data this way is almost universal, from the standard “Boston Matrix” which is a 2*2 for managers (wouldn't want anything too complicated now would we) to the premiership league table. It gets hairy in Excel when we want to use more than two dimensions though, which is where the complexity in the real world often takes us! Example is issue log which is a single row and a risk log where each risk can have multiple mitigations or a change request where there are multiple options... you can see that Excel quickly runs out of power for this kind of stuff.

Charts linked to raw data. One of the most powerful methods out there for summarising huge wads of data and allowing even managers to understand the meaning and the trend, if not the detail. Excel has a wealth of charting options, mostly underused and misunderstood!

With a properly protected template, Excel is a fantastic tool for gathering data – you can use the multisheet options to produce simple summaries of multi-instance data – analogy of a pin going through a number of sheets , and referencing the questionnaire that was sent out....

The flexibility of spreadsheets in holding data allows you to play with large sets of data to see how they can best be structured before creating a more robust tool. Many spreadsheets never really get beyond this stage though, some for the good reasons of cost / benefit, but others for the inexcusable reasons of laziness and not realising the worth of managing data assets.

If you're a project manager working on isolation on a single project, little is better than Excel at creating a quick and dirty series of project logs in the same workbook. Control can be established really quickly and there are loads of PMs who love to work this way. Unfortunately in an enterprise scenario with lots of PMs all working in their own silos, this can create problems for PPSOs who are trying to build knowledge transfer and common ways of working into the goal of a more mature delivery organisation... and that can be why project managers still love their spreadsheets...

Where Do You Have To Be Really Careful ?



- Sharing Data – definitive version?, “one version of the truth”, watch out for time lags, who owns the data
- Cost of data / tool ownership
- Robustness
- Limits in Excel
- Bugs, bugs, bugs – how many people treat Excel like a programming tool, but never test the end product?
- It’s not the perfect multitool – sometimes the more specialist tool is more effective

You’ve created a really important spreadsheet. It’s no use just stuck on your PC, so the information is shared widely. Then you find people quoting your spreadsheet and making decision based upon it. Great! Or is it? You find out that they have a version from 2 weeks ago, and woe upon woes, you’ve refined the model, got the bugs out of it and updated all the data since then. Guess what – the wrong business decision is taken.

You may think Excel offers you a quick and cheap way of storing data – it’s true up until a point that the issues of version control, auditability and maintainability rear their ugly head. That’s when the hidden costs of the tool not delivering start to hurt.

For years, users and developers of tools of relational databases have had robustness built in – data centre servers, database backups, data rollbacks on a transaction by transaction basis, and a proper two-phase commit ensuring that nobody can make simultaneous and incompatible data changes.

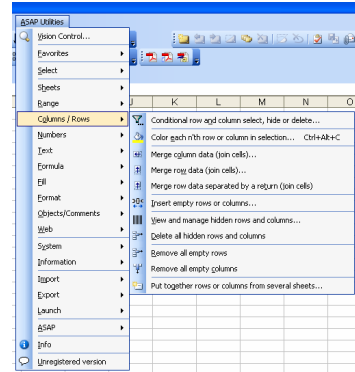
Limits – a cell can only hold 32768 characters, so it’s no wordprocessor. Even worse, it will only display the first 1000 or so! For the sheet dimensions – was 256 cols and 65,536 rows – I used to have some resource assignment sheets that were severely curtailed by the row limitation – Excel 2007 ups this to 1,048,576 rows and 16,385 cols! Time to buy that 37” LCD monitor I think!

When was the last time you actually tested a spreadsheet that’s critical to your organisation? When did you prove that the answers were correct? Things to think about!

The key thing with all tools is to know them well, be practised in using them, and to not get carried away by ignoring their limitations.

Stuff That Can Help

- Protect, protect, protect – practise “safe Excel” – if your data is worth something to you, don’t let anyone else break it, or even worse, misuse it!
- Training!
- Look at ASAP Utilities (<http://www.asap-utilities.com/>) – free for non-commercial use, cheap otherwise!



Cell protection

Version control

Macros that pop-up warning the user to ask for the most recent version

Direct updates from centralised data sources

Worksheet protection

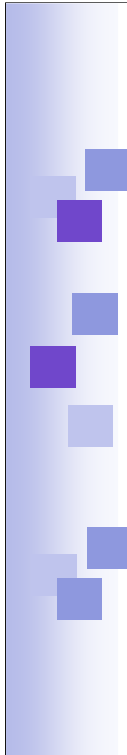
Data Validation (formats, types)

Get some training – even if it only opens your eyes to what is possible for spreadsheets to achieve, and what is impractical.


It’s not about rote learning, it’s about opening your eyes to the possibilities and limitations.

I’ve had complex formulae that have taken 4 hours to get right for a single cell – training will cut that time down considerably. The case for doing that work was overwhelming – saving 2 hours per week on scheduled data analysis and 1-2 days per week in unscheduled analysis during busy periods.

ASAP utilities is the must-have addin for Excel. It’s worth the \$50 or £25 just in terms of sanity! Check out the website to see what it can do!



Have You Tried... (Because You Should!)



- Data Validation
- Named data ranges
- Conditional formatting
- Pivot Tables
- Creating a database instead of a spreadsheet when the data relationships are complex?

These might make your life easier!

If I have time I'll do a quick demo of how these simple facilities can save you time and improve data accuracy – with a few caveats that you need to be aware of!

Validation – because it's not a relational database, you can get into control problems.

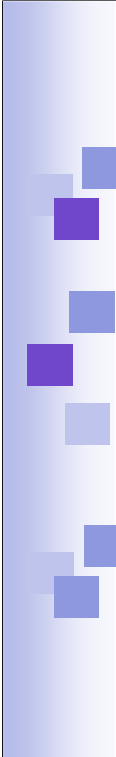
Named data ranges help to future proof a spreadsheet and conceptualise a block of data rather than just relying on you knowing what the cells mean or represent.

Conditional formatting – another dimension in data is what it means not what it says. Projects use a RAG indicator, why not data. It sure draws your attention to data that you might want to highlight automatically.

Pivot tables – these really are an answer from the gods for looking at your set of data in every which way possible. Group however you want, quickly adjust your tables – provide management with the answers that they want – quickly!

The real mark of a spreadsheet guru is when you stay a step ahead of the evolution of your dataset and create a database to manage it all properly.

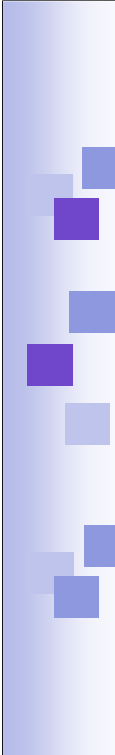
What Did Our Survey Show?



And The Winner Is....



www.ppsc.gov.uk
the programme & project support office
specialist interest group



Friend or Foe – Still Not Sure?

True friends stab you in the *front*.

Oscar Wilde

The moral is – get to know your friends
and their foibles well!

Using some received wisdom from that 19th Century playwright, author and wit, Oscar Wilde, my conclusion to the taxing question posed at the start, is that you have to get to know your friends well!



Questions?