

Do you rely on spreadsheet results ? Really ?

Some of you will remember amongst the many jewels to be found in the Hitch Hiker's Guide to the Galaxy, the concept of Bistromath. This is the mathematics done in Bistros by waiters at lightning speed on small pieces of paper which contains items which bear little resemblance to what you just ate. In his inimitable manner, Douglas Adams developed this into the essential mathematics behind a form of interstellar travel. I was reminded of this reading a story this week where mega-company A is buying mega-company B and then claims "IT would account for more than half of these savings at 65 million ...". It then went on to state that "45 million would be saved through migrating blah blah to a single system blah blah". I needn't go on as I'm sure you have heard this sort of nonsense before. The questions I would like to ask are a) how on earth did they come up with these numbers and b) is anybody daft enough to believe them, other than the persons making them ? Recall that this is in an age where most companies have no idea what software failure costs them or how much they spend 'maintaining' systems after they have been deployed.

This brings me nicely onto the subject of spreadsheets, the financier's friend. There have been major continuing studies of spreadsheet errors over the last 20 years or so. If you are not doing so at the moment, just sit down. The bottom line is that until 1997, studies showed that about 25% of all spreadsheets tested contained serious errors, (i.e. affecting the answers by at least 5%). Since 1997, with more assiduous testing, this has gone up to 91%. Note that this doesn't mean that we're finding them all. It just means that the chance of a spreadsheet being wrong by at least 5% is nearly certainty unless it has been checked. Have a look at Professor Raymond Panko's work at <http://panko.cba.hawaii.edu/ssr/Mypapers/whatknow.htm>. These studies also showed that spreadsheet builders had high levels of confidence that spreadsheets were correct even when there were errors and this level of confidence was not related to the number of errors. I will refer to spreadsheet mathematics as Sheetomath in homage to the late great Douglas Adams. Careful how you say it.

Programmers will not be surprised of course by this. The mental process of building a financial model using a spreadsheet is very similar to the mental process of building any other abstract model for implementation on a computing system. What seems to be missing in the strange world of Sheetomath is any form of the kind of quality control a company would demand its IT department to have. Now let's go back to where I came in. A company claims to save 65 million on IT. Even if they got their financial due diligence right, the spreadsheet error would almost certainly be around +/- 3-4 million. In practice, its probably much larger as estimating the cost of change to giant IT systems is not even Sheetomath, its Bistromath or even worse, Footballmath. Footballmath bears no resemblance to normal arithmetic whatsoever.

So for any companies out there considering IT system rationalisation, I promise twice the savings if you give me half the error calculating it.

lesh@leshatton.org