Data Management tools

I recently saw some on-line articles that were bemoaning the lack of "new technology" to do E&P data management, the claim was that there have been no "bright ideas" in this area for decades. Now, to me, this illustrates the biggest single problem with the way technical data is handled in oil companies today. The author implies that the challenge is a mainly a technical one, the current "data mess" would be completely solved if only "someone" had built the right tools. The snag with this view is that, in my opinion, the lack of order that most E&P companies exhibit is an inevitable consequence of the way data users work.

Some of the discussion was about whether "data management" is a real discipline which should have its own training, career path, and professional society. In the past I've made my own position on that issue fairly clear: Data management requires a mind-set and skills that are alien to both geoscientists and to conventional IT types and pretending that it doesn't contributes to why we are in the state we are. However, even if I'm wrong about that, and it is possible to get technical data users to discuss information flows without having them learn new stuff, I still believe that the main change needed to keep technical data in good order involves requires extra effort from the actual data users themselves.

Keeping data tidy is exactly like keeping your bedroom tidy when you were a teenager. You may moan that no one has yet invented a cheap "tidying robot", but such things don't exist outside the realms of 1960s cartoons (and probably never will). It would have been possible to hire someone to put things away, but firstly that costs money, and, more importantly, whoever took on that onerous task would end up stuffing your prized Trilobite fossil in the back of the sock draw (because they thought it was just a rock). There were those who looked after their rooms and knew where things were, and the rest of us, who didn't.

I've been interviewing E&P technical staff about their data for more than 15 years, and, with very few exceptions, the majority of geoscientists in the oil industry have expressed horror at how hard it is to find data and how poor it is when found. They all have tales about how a piece of missing or misunderstood data caused a specific financial disaster. So you can see why they might think that if only there was some automated "tidying data" software then all those issues would be solved. Indeed, why hasn't "someone" built such a thing? Well, like the bedroom "tidying robot" there are good reasons to think that it will never get created.

It costs to keep data in good order, in both budget and in time. If users don't spend the time to catalogue results, if they pass values without documenting quality, if oil companies spend less (as a proportion of revenue) on looking after their technical data than any other sector (which is what Gartner says), then the end result is inevitable. If data has a big influence on company performance (and I believe it does), then senior executives need to worry more about the data that contributed to their decisions; they need to ask, for example, where this interpretation can be retrieved in two years' time. As long as executives don't ask about the data, the users won't waste time putting it into the places it "should be", and so, when we go back to look it won't be where it is expected. As the old joke has it: "How many psychiatrists does it take to change a light bulb?"; "Only one, but the light bulb has to want to change".