

File 20100903.0730: Notes from meeting with Dr Martin this morning:

I am getting more baffled by these RM 5.0 CT&E meetings every week. So much politicking going on. In last week's telecon the participants were (reportedly; I wasn't able to attend, being in Europe at the time) generally down, in agreement that the October 1 date could not be met, to the discouragement of the PMO. Yesterday's telecon, though, was upbeat, with participants seemingly confident of bettering the 1st October date by a few days towards the end of the month of September. Perhaps the difference was that the NSA pen test team were not on the call. Anyway, the more I am attuned to look for it, the more I can see instances where people from different agencies do not talk to one another. It's frustrating, and like watching through darkness and smoke.

On the other hand, I am making great progress with the numerical model. I am working on a vector representation of accreditor work unit offer packages, because matrix operations are the right way to do things in MATLAB. I do not have anything to demonstrate yet, though, because the only way to look inside right now is to inspect the numbers. I want to instrument the model to produce graphs, so you can see the result of applying a perturbation to the system, measure how long it takes to settle down into a new equilibrium, and see the level of the new equilibrium. The values are multidimensional, however, so I am not sure how I am going to show those in a line graph. But I am working on it, and I expect to have it in a form I can write about in another week or so. The deadline for the ACSAC conference is in two weeks, and I want to submit a revised paper there, or to IM 2011.

Which led into the next topic I wanted to talk about: confirmation of status. I need to confirm during Michaelmas term. I have the following pieces of work I can talk about: (items marked with * are immediately relevant to the confirmation sub-task)

- Literature survey*
- Two case studies: R' (historical) and R'' (in progress)*
- Interviews with US and UK certifiers and accreditors
- Model of inter-DAA communication*
- Tool development
- Validation
- Confirmation report*

How do I go about presenting this in such a way as to make a good impression? Dr Martin described three schools of thought about how to approach confirmation. Some people are in a position to submit a mostly finished thesis. This is actually annoying to assessors, because they have to read the whole thesis, and there is not much chance to suggest improvements. The second way is to show a partially complete thesis, some chapters replaced by a page saying 'Chapter six goes here' with a list of things the chapter will be about. Perhaps the best way to approach confirmation is with a short, five-page report of where you are and where you are going, and how you intend to get there, backed up by a few published papers that will form substantive portions of chapters. Another point of view on conformation, expressed by Jeremy Gibbons, is that if this were an experimental science, then confirmation is the time when your supervisor would tell you to pack up your equipment and start writing. Of course, this isn't chemistry, but we talked about the Texas Tech story about the grad student who lost a hand working with 500 g of an energetic material (he was directed by his advisor to prepare no more than 10 mg of the substance); he is writing up now, presumably with his left hand. They took away his equipment, kicked him out of the lab and told him to write up his dissertation. I am not quite at that point.

What I have are a lot of things I have tried, a lot of blind alleys I went down, a lot of things that did not work and a few things that did. I am following the philosophy described in a book by DeMarco, where he told of a project manager who told his team, 'I have a ship date in mind, but I'm not going to tell you what it is. Some day, I will come by and tell you it is time to ship in a week. And you will be ready, because you have always been ready.' What I have been thinking of all along in this process, is the defence. At every step, every decision, I have been thinking of how I would defend this result, how I would defend these decisions, what worked, what didn't, why I did x and not y . I am actually looking forward to the confirmation viva, because I could talk for hours about all the things I thought of and tried, which ones worked, what didn't work and why, all the blind alleys I went down in search of one

that wasn't. I finally have some pieces here that fit together, and I am beginning to assemble the puzzle, beginning to see a new picture.

What should I put in a five-page report? Dr Martin suggested a risk management approach. I agreed; this gives me a framework on which to hang the contents. I can certainly talk about risk management, how to ensure that a year from now we arrive at the point where I have a finished dissertation full of meaningful results. Here are the tasks needed to be accomplished, here is the time and other resources each will require, here are the resource or scheduling conflicts, here are the potential risks and countermeasures assigned to each one, here is plan B, and plan C, and the measurements I will use to track progress, and the contingency plans at each check point to force progress back on track if it is discovered to be falling behind at any point. Five pages is not a lot of room to work, but if I want to include background narrative on all the approaches I tried that didn't work, an annexe to the report is perfectly possible.

Once I write the report, I expect it will take a while for assessors to be chosen, and for them to read it, and to schedule time later in the term for a viva. In that time, I won't be standing still. Dr Martin said that there is scope to update the report, a few days before the viva, with the latest information, especially if you can present it in a form with change bars. I can do that.

We talked about the preliminary results I have now. I am stymied on the accreditor approach. First it was Ian Levy, now it is Dan Nichols—I speculated that perhaps the formal tone of my emails was putting them off somehow. I proposed switching to a more informal contact approach. Dr Martin cautioned of the risk of burning relationships if non-attributable information later is published; I hadn't thought of that, worrying myself about the consistency and comparability of informal contact information, outside of the structured framework of surveys. Dr Martin agreed that the usability of the data was important too.

I described the paper I presented last week as being less substantive than the next one will be. Dr Martin countered that what I presented last week was substantive, it was just about my methodology rather than results. So I felt rather better about that afterwards than I did before I talked with Dr Martin today.

Plan for next three weeks: I will finish the ACSAC paper and get it submitted in the next two weeks, then write the five-page report and deliver it to Dr Martin three weeks from today.

Dr Martin laughed about my To-Do list at the end; here I have 14 tasks all listed under 'immediately'. Yes, it is getting longer. Some of those tasks are one-hour jobs—very easy; I just haven't got to them yet, because new tasks keep crowding onto the front of the list. I will get some them done and knocked off the list soon.

I will email Dr Martin now reiterating what we decided in the meeting. [Done]

References