Facility Manager’s Report for 2 June 2000

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Lab and Construction News

The New Mechanical Engineering Lab

Work on this lab goes on sluggishly, and is taking more of John's time than it ought. Nevertheless, it should be comfortably finished before the start of second session. The computers for the lab already exist, so there will be no problem in equipping it.

John reports:

Construction is happening, with an ETA for the painters to arrive on next Friday, so all should be operational within a week from then, and comfortably before the start of next session. Since the renovations have commenced, things have been going smoothly, though it was another tediously slow approach to work commencing by FZ3. Comms haven't been as helpful as they have in the past, with someone making some assumptions about how many and where UTP points would go, but that's not holding things up much.

?? John do we have tables arranged ??

Printer Boxes

The new thesis lab and the Mechanical Engineering Undercroft are still without printers. We don't have a nearby room to house them, and need a secure enclosure to keep prying fingers from delicate parts. Design and construction of such an enclosure is now a high priority to get implemented before the start of session two.

The New Help Desk

The Help Desk will be moving into the room in the south-west corner of the ME Undercroft, leaving its current location (in the EE Undercroft) vacant for CompSoc.

There is some reconstruction necessary however, and this has taken a low priority while other lab construction issues have continued.

Zain and Angie now have what appears to be a workable design for the new Help Desk area, and will be approaching Facilities and builders imminently. We currently expect the work to be finished in time for session two.

New Postgrad areas: EE331 and EE332

John reports (on Thursday 1 June):
The Day Gang were in full “flight” today, and most of the shuffling has happened, with a couple of tables still to be moved out of K17 which should happen tomorrow. Steve Tipper is hanging on to a pair of ergo tables, and I hope to sneak them away from him within a fortnight. It looks like we can comfortably fit 5 tables in the ex-Vis lab. I optimistically thought of more, but they are big tables. All of the partitioning that used to be in Ken’s PG rooms on the 3rd floor of EE is stacked in the lab, and maybe we can commission the folks who sold it to us to come and assemble it in some fashion. EE332 (ex-Hell’s office) should be emptied tomorrow, and there’s easily space enough for 3 desks. On Monday I’ll tidy things up to the point of being ready for people to sit at the tables. WRT computers, I’m still guessing what and how many we’ll be needing to supply for Raymond’s and other students, but hopefully there won’t be too much of a delay in setting some or all of what is required.

K17: 107 ↔ 111

John reports (on Thursday 1 June):

Kieren-the-Architect spoke with me yesterday, and every possible thing has been working against him, it seems, but he still has admitted that this job is rolling along. And that he’ll be able to spend more time on it. Bill has expressed the importance of this job in the Tuesday meetings, and apparently there is a 7-week lead-time in building joinery. Estimates put the job at at least $20k, but hopefully we’ll have something more concrete to consider — in the form of a plan and quote — late next week.

New Thesis Lab Computers

We are about 35 computers short in the new undergrad thesis lab. Some will be filled by old Alpha-stations which will be resumed from some staff and postgrad desks in the next week or two. The rest need to be ordered.

An attempt to order them a number of weeks ago fell foul of supply problems regarding motherboards and CPUs. We are about to try again, and again this should be ready for second session. These will have CSG-supported linux installed on them.

New Systems

The Modem Pool

The new modem pool has been on-line and working like a treat for about six weeks. There are still one or two anomalies, but generally it is working really
well — much more reliably than the old modem pool. Peak usage has hit approx
50 modems (out of 60) in use.

The current schedule includes turning off the old modem pool at the end of
June. Unfortunately, we still have peak usage of about 20 modems in use on
the old modem pool, so it is very likely that the new modem pool will saturate
once the old modem pool is turned off and session two gets under way.

I am currently getting prices on upgrading the new modem pool (a Cisco
AS5300) with another 30 modems. I understand there may be a delay in getting
the modems and carrier card, but if we order soon, then this also should be in
place by the start of session two.

Even if there is a delay between turning off the old modem pool and upgrad-
ing the new, this should be during a period of low usage.

The Wireless LAN

Our new staff member, Chris Petrov, has been looking into a wireless LAN to
cover the K-17 building, the garden, and the cafeteria.

We have so far looked at and tried demo models of Lucent and Cabletron,
and Cisco should have a unit out for us next week. So far it is all looking
feasible, the only problems being in terms of coverage. The K17 building core
and floors are rather opaque and we will probably need two base units per floor
to cover the building. Nevertheless, it looks like we should be able to set the
system up for a network supporting up to 250 wireless connections at up to
11Mbps, for comfortably under $30,000.

Fortunately, standard 802.11b PCMCIA cards will work will all three likely
suppliers, and these readily available for around $300 each.

There are still some administrative concerns regarding issues such as trust
of MAC addresses, allocation of IP addresses and security of connections to be
worked out. Peter and Chris are working on this; it should all be pretty neat.

CSG-supported Linux

This is currently Trent’s main project. We are basing this on the Debian distri-
bution, because:

- the package format is simpler and easier to decompose, and
- it has a greater variety of packages available.

Trent’s object here is to write machinery which will take a Debian package
and turn it into a conform product. With this in place, it should be trivial to
install any Debian package on all of our CSG-managed linux boxes overnight.

We are currently planning on this being available by the end of June, though
there is still a little way to go in detangling package dependency lists and similar
stuff. By early July we should be able to put linux into the undergrad thesis lab, on the new computers in there; and onto the desk of anyone who would like it. Later in the year we should consider making linux our standard teaching platform, especially on our Intel-based systems in the labs.

As part of the current work, we would like to make available a Debian package (and probably a Redhat package) for people administering their own Linux boxes, which will hopefully make them a little more secure (turn off sendmail and nfsd and a stack of other unnecessary open doors).

**Windows support**

It is becoming increasingly apparent that *wincenter*, based on the NT 3.51 kernel, is not a satisfactory means for many people to occasionally access Windows-based applications. Powerpoint particularly is proving to be problematic. We are starting to look at two alternatives to *wincenter*.

**On local computers:** For people who normally want a Unix workstation, but moderately often need to make use of Windows applications, we are looking VMware. In our use, this would run on a linux box and would provide a virtual Intel-based computer running under linux. This virtual machine would run an appropriate Windows OS, and would a real, local Windows environment.

This has worked well in the testing we have done so far, and I expect to make it more widely available as soon as we are supporting Linux.

**On a server:** For people who have only infrequent need for Windows applications, or for people who do not ‘own’ a computer (such as students in labs), we want to provide a more modern *wincenter*-like server.

We are currently considering two options, both running on a fast (but still fairly inexpensive) dual-processor Intel box with plenty of memory:

- Citrix (or similar), such as is used by NSS. A modern multi-user NT system.
- A number of VMware virtual machines, each running an appropriate Windows OS.

The advantage of the VMware approach is that it should all be manageable from the Unix-side of things, which will mesh better with the rest of our environment; and that it provides a more “pure” Windows environment for those applications that are not multi-user friendly.

The possible disadvantage of the VMware approach is that it may not scale up to 20+ instances on our server (in which case it becomes very expensive).

We are in the process of buying a new server-box to try out a few options. The order will go out as soon as NSS is back online. One way or the other, this should be running by the start of session two.
A New Mirror

It has become apparent that our current 30Gb mirror, which seemed so big last year, is no longer sufficient. We are in the process of buying a new mirror server. With the ridiculous price of disks this year, it looks like we can easily (and fairly cheaply) set up something close to 150Gb of mirror. The order will go out as soon as NSS is back online.

Staff Issues

We have been interviewing many people for a number of positions recently. Unfortunately, we have at least three sets of interviews still in the pipeline. I therefore particularly appreciate the assistance of Andrew Taylor, Yvonne Balakian, Vanessa Joubert and Maurice Meezs in sitting in on interview panels.

Replacing Zebee and Stephen

Interviews have been held to fill the positions vacated by Stephen and Zebee earlier in the year. The results of that are that:

- Zebee has been replaced by Chris Petrov.
- Stephen has been replaced by Trent Swift (this is effectively a promotion for Trent, we now need to fill his position).

Mac Support

We had dreams of finding a Mac expert amongst the applicants for Zebee’s advertisement. We did not find such a person and have now:

- Employed Michael Doyle as a casual for two days a week to provide Mac support, particularly to the student office and other admin staff. As soon as his academic work finishes in the middle of the year, this will go to full-time. His casual appointment will continue until the new Mac expert has arrived (plus a little overlap).
- Advertised again for a Mac expert. We had planned to advertised in Mac-specific publications, but it seems that they are mostly monthlies, and it was felt we would get better coverage via a number of Mac-specific news groups and mailing lists. The advertisement goes out this weekend, closing in two weeks, interviews a couple of weeks after that, new body hopefully arrives within a few weeks of that.

A Help Desk Manager

The “new” position of Help Desk Manager, filled full-time-casual for many months by Angie Sweiss, has now been filled full-time-permanent by Angie Sweiss.
Replacing Trent

As mentioned above, there is now a vacancy behind Trent following his recent promotion. This will be advertised this weekend, closing in two weeks, interviews a couple of weeks after that, new body hopefully arrives within a few weeks of that.

A new SS Position

During the first half of this session it became quite clear that we did not have sufficient SS staff to keep on top of the growing SS job queue. The growth is simply a consequence of the large increase in student and staff number over the last few years.

We took some efforts to get on top of it a number of weeks ago, using other group members to tackle the backlog and extending SS work hours to try to stay on top. Unfortunately this has not been enough, and it is clear that we need to employ a fifth SS.

The paperwork has started, advertising in a week or two, closing two weeks later, interviews a couple of weeks after that, new body hopefully arrives within a few weeks of that.

Position Descriptions, etc, for John’s Team

John’s and David’s job descriptions have been woefully inapt for well over a year. Fortunately re-structuring and re-classification is a little easier now, and with the work put into describing other positions in the group, we are now reasonably well-placed to write reasonable job descriptions for John and David, and have these acted on in the next week or two.

No doubt readers with any sort of memory will remember phrases like these from previous reports, but we really are quite a bit closer now.

CSG Performance Evaluation

There is apparently a requirement that all University salary supplements have a performance related component, though I observe that the Comms Unit are still able to offer a industry-parity loading in addition to the broad-band steps which are performance related.

The CSG has started discussing the matter and over the course of about four meetings have canvassed a number of options from other places. As a result of these, and further discussion ourselves, we have come up with a draft process that we feel has some promise of succeeding.

The issues we tried to address are:

- The process should not be an administrative burden, otherwise it will not be used seriously and will be useless.
• It should be a positive process, trying to spot ways in which people can improve their work and participation in the group.

• We wanted it to feed into a professional development process (which has not previously existed except in the most ad hoc manner).

The draft process is nothing spectacularly radical — in one way or another it is rather similar to other similar agreements and procedures used elsewhere.

The proposal currently describes a form which is the record of the evaluation and a focus for discussions surrounding the evaluation. It is meant to be focussed enough to ensure that the discussion points are in fact useful, but flexible enough that it does not excessively constrain the evaluation process.

As a draft, it is still really too rough to table as a public document. However, I will have copies of our work so far at the FC meeting, and am very happy to discuss any of it with anyone interested.

Other Issues from Previous FC Meetings

Assets DB

There have been a couple more changes to the database and its interface, it is currently waiting for David Pisch to come back to work to try it out.

PDF Support

There are still a few questions about support for PDF files.

The main one currently outstanding is the poor set of fonts that xpdf sometimes uses. Whilst this should not be a big job, it has not yet been looked at and is on a list of jobs to attend to over the mid-year break.

Class Expiries

Neil has started looking new concepts relating to UDB class expiries, so that people are not abruptly without appropriate privileges. This is particularly a problem for postgrads at the start of the year, when enrolment information is often slow reaching us. We must do it now, so that we don’t forget for next year.

I understand that Neil and Andrew have started discussion on what it should look like.

Class administrator to designate tutors

A priv script should be created so that class administrators can designate appropriate people as tutors in the UDB, and so get them on mailing lists and allocate certain privileges. This has not yet been done.
Help Desk Duties

Part of the job description for the Help Desk Manager is (nearly) a list of duties for the Help Desk. It would be useful to extract this as separate description of ‘what the Help Desk does, what can be expected of the Help Desk’. This has not yet been done.