Engineering Student Technology Committee (ESTC)
March 24, 2008

Titan Classroom, 04:00pm

In Attendance – Christina Canter, chair (CBE), Chris Klumph (ECE), Tiffany Suekama (CBE)

Absent - Prof. Mazdak Arabi (CEE), Becky Adams (Atmos), Prof. Ricky Kwok (ECE), Lucas Oehlerking (ME), Vladamir Shestak (ECE), Prof. David Wang (CBE), Prof. Tom Siller (Acad. Affairs), David Lerach (Atmos), Prof. Taka Ito (Atmos), David Grzenia (CBE), Mark Ritschard (ENS), Derek Bonner (ECE), Ryan Horn (CEE), Brad Reichel (CEE), Kris Bruun (CEE)

ENS Budget Proposals
- Dan Herrick the Lab Manager for ENS presented the changes he proposed for the labs in next year's budget. He drafted a document outlining the proposed changes and the entire document is found below.

ENS Lab Manager's proposals to ESTC – February 2008

Lab Equipment
The following changes to College computer lab equipment, with accompanying rationales, are requested by the ENS Lab Manager:

Academic Village:

1) Re-allocate 2 PCs from Access Grid, add 3 PCs

We discovered this summer during installation of new classroom facilities that Sun Ray thin clients do not have the capability to interface with Smart Boards. Thus, for each Smart Board installation in a Sun Ray classroom or lab, a PC is required to interface with the Smart Board. There are currently 4 Smart Boards throughout the Academic Village lab areas.

Originally, the AV Classroom and AV Electronic Classroom each were allocated 3 PCs for Access Grid use. ENS determined after implementation that only 2 PCs were needed. I propose 5 new PCs total: 1 in AV Classroom (for Smart Board control), 1 in AV Design Studio 1 (for Smart Board control), 1 at the Reception/Help Desk (for student multimedia assistance), and 1 in each AV Work Room (for Smart Board control). Two of these PCs can come from the Access Grid surplus.

2) Reduce 6 Sun Rays to 1.

6 Sun Ray thin clients were originally allocated (2 in AV Work Rooms, 4 at Reception/Help Desk). The 2 in AV Work Rooms can be eliminated because a PC is already present (see #1). Of the 4 at Reception/Help Desk, only 1 is needed.

3) Remove 3 Smart Boards allocated to AV Design Studios.

See #1. Each Smart Board requires a PC which will displace one Sun Ray. Currently only one Design Studio has a Smart Board installed (controlled by a spare PC), and it is rarely used. The additional Smart Boards would require retrofitting of lab facility, would require more complex lab management, and would reduce available Sun Ray seats by 3.

4) Remove 2 Smart Boards allocated to AV Electronic Classroom.

See #1. Each Smart Board requires a PC. This would require two PCs in the lectern in addition to the Sun Ray already there. Additionally, it is not technically possible to have one PC control two Smart Boards separately. One would merely mirror the other, in which case, this defeats the functionality of the second Smart Board.

If one Smart Board is desired, one PC must be added to AV Electronic Classroom. In addition, this will require considerable retrofitting of existing classroom white board space (and possibly incur additional expense for new white boards).

Anderson Computer Lab:

1) Reduce total computer seats to 49 (25 PC, 24 Sun Ray).

After the physical lab reconfiguration which produced two new design studios in the Anderson lab, we can only fit 49 computer seats in the lab.

2) Replace all CRT monitors with LCD monitors (bringing the total LCD monitor count to 49).

LCD monitor technology has at this point equaled or surpassed CRT monitor technology, with respect to technical performance and price. Replacing CRT monitors with energy-efficient LCD monitors reduces energy consumption, reduces heat output (which is a big problem in this lab), and increases desk space for users.

2) Remove 1 B&W Printer.

Due to size constraints of new lab configuration, and the reduction of seats from last year, one B&W printer has been used this academic year and is deemed sufficient for this lab's usage.

If two B&W printers are desired, please remove 1 computer seat (either PC or Sun Ray) to accommodate the lab space this printer requires.

3) Add 1 Projector for Anderson Studio 2.

We have used a spare projector in Anderson Studio 2 and it has been a popular addition to this lab.

4) Add 1 Smart Board for Anderson Studio 2.

We have used a spare Smart Board in Anderson Studio 2 and it has also been a popular addition to this lab.

ERC Electronic Classroom:

1) Replace 10 existing PCs with 10 Sun Ray thin clients. Add 1 Sun Ray thin client to lectern.

This would convert the entire ERC Electronic Classroom to Sun Ray thin clients, with the exception of 1 PC in the lectern (to control the Smart Board). The ERC Electronic Classroom is currently the only electronic classroom (of 5 total in the College) which has a mix of PCs and Sun Rays. This leads to instructional issues (because instructor has to effectively show computing procedures twice, and two different machine types are being used which can lead to program inconsistencies). Also, converting to Sun Ray thin clients will reduce technical management (including staffing time) at the lab considerably.

LM Magellan Design Studio (formerly the Lockheed Martin Design Studio):

1) Reduce PCs to 36 (6 studios, 6 per studio).

Current allocation is at 49 (when we had 8 studios plus a Conference Room). This simply aligns the allocations with reality.

2) Replace all CRT monitors with LCD monitors (for a total of 37 monitors: 6 studios, 6 per studio, plus 1 for the Consultant Desk's Sun Ray).

See rationale for Anderson Computer Lab #2.

3) Add 1 Digital Sender.

We have used a spare Digital Sender at the Consultant Desk and it has been a popular addition to this lab.

4) Add 5 Projectors and 5 Smart Boards to permanent funding (for a total of 6 each). Remove 1 Plasma Display from permanent funding.

Currently only 1 Projector and 1 Smart Board have permanent funding. Projectors have a life cycle of 4 years; Smart Boards have a life cycle of 5 years. These projectors and Smart Boards have been in the lab since 2003 and some are due to be replaced under the normal replacement cycle. Without funding, they may fail and not be able to be replaced.

LM Stardust Studio Classroom:

1) Shift inventory from Magellan funding to this new separate studio classroom.

The inventory consists of 6 PCs and 6 LCD monitors.

2) Add 1 Projector and 1 Smart Board to permanent funding.

See rationale for LM Magellan Design Studio #4. This projector and Smart Board are not permanently funded at this time.

LM Viking Electronic Classroom (formerly LMDS Classroom 1):

1) Re-allocate 1 PC from Access Grid to Smart Board control.

See rationale for Academic Village #1. Each Smart Board requires a PC. No additional funding required.

LM Titan Studio Classroom (formerly LMDS Classroom 2):

1) Add 1 PC for Smart Board control.

See rationale for Academic Village #1. Each Smart Board requires a PC.

Loaner Pool:

1) Change PC allocation method.

Currently 8 generic computers are allocated. Per previous ESTC directive, 2 Tablet PCs and 2 high-end HP notebook PCs are already authorized & purchased. For the other notebook PCs, it is strongly recommended to spread the funding so that more, but not as highly upgraded, notebook PCs are available.

The loaner PCs are used primarily for projection purposes, in conjunction with a loaner projector or classroom projector. They are borrowed for use in meetings, group projects, demonstrations, and classes where projection, not CPU power, is the primary concern.

The loaner pool is an extremely popular service and the demand often exceeds supply. We have been using obsolete notebook PCs (rather than disposing of them) and they have been practically as useful as the newer PCs for most purposes. Projection PCs have Windows and basic office applications installed, plus Citrix capability so users can link with the Virtual Lab if Engineering applications are needed. No notebook PC is realistically going to match the computing power of a desktop PC or a virtual server, so notebook PCs are impractical for high-end computing or Engineering purposes.

In practical terms, I would take the $1300 allocated per each loaner notebook PC and multiply it by the number of notebooks allocated. Currently, since 4 high-end notebooks are already in place, that leaves me with 4 to replace. I would have $5200 to spend. We would get more "bang for our buck" by buying six $850 basic projection notebook PCs than by buying four higher-end $1300 notebook PCs.

2) Add 1 Projector to loaner pool.

As mentioned in #1, demand often exceeds supply and we have been using obsolete projectors rather than disposing of them, to accommodate demand.

3) Add 1 Digital Camera to loaner pool.

One digital camera already exists in the loaner pool but has not been permanently funded. It is an effective and popular loaner item.

SUMMARY:

- Net loss of 16 desktop PCs. (Cost savings: $20,800)
- Net gain of 3 Sun Ray thin clients. (Cost increase: $1,500)
- Net loss of 2 monitors. (Cost savings: $500)
- Net gain of 2 Smart Boards. (Cost increase: $4,400)
- Replace CRT monitors with LCD monitors. (Effective cost difference: $0)
- Net loss of 1 B&W printer. (Cost savings: $3,100)
- Net gain of 7 Projectors. (Cost increase: $19,600)
- Net gain of 1 Digital Sender. (Cost increase: $2,700)
- TOTAL COST INCREASE: $3,800

END OF ENS PROPOSED CHANGES

The meeting adjourned at 5:00pm. The next meeting will be scheduled by the chair.

Respectfully Submitted,

Christina Canter