

School of Architecture
2003 Vision Plan for Information Technology
February 2003

Introduction

Our continuing goal is to provide our students with practical and challenging training in the use of information technology that reflects the state-of-the-art architecture and planning practice and establishes a foundation for their practice in the future. This goal is being achieved. Our challenge has become the maintenance of high standard and quality in the effort.

Our immediate goal is to insure that each of our students has continuing access to these facilities. In this effort, we must provide access in every classroom, on every studio desk, every day, all the time. Finally, we are asking our students to begin furnishing their own workstations while we supply the infrastructure and support services to justify and enhance their contributions.

Summary of 2003-2004 Projects

Studio output devices

In conjunction with ITS, we are beginning a project to install PRS output devices in all of our studios. Ultimately, we want to provide a 24" wide color plotter and a tabloid-size b&w laser printer in each of our seventeen studios spaces. This project is intended to take several budget cycles to complete as we replace existing equipment and identify the appropriate cost-sharing arrangement.

Large Scale Imaging Facility, Print Center

The need is emerging to capture and manipulate large-scale images--such as maps and aerial photography. Wide format (42") equipment will also be useful for archiving and reproducing architectural construction documents. We need a professionally staffed print center where output is dependable and timely.

Classroom Technology Presentation Systems

We plan to continue the installation of small consoles and projection systems to our instructional classrooms as funding permits.

Cyclical Replacement of Equipment

We plan to replace more than thirty high-end workstations in offices and other School facilities this year.

Digital Assets Collection

The slide collection is variously estimated at 200,000 to 300,000 slides, there are now 100,000 entries in our catalog. This project needs continued funding for digitization, cataloging, and access development.

ITAC Expenditures for 2001-02 and 2002-03

	<u>2001-02</u>	<u>2002-03*</u>
Hardware Acquisition	\$192,860	\$83,780
Software Acquisition	12,100	6,370
Installation	28,390	
Hardware Maintenance	22,540	25,000
Software Maintenance	19,640	22,570
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* Projected	\$275,530	\$137,720

Review of Technology Infrastructure and Support Services

Instructional Computer Labs

The School of Architecture has instructional computer laboratories in Sutton Hall that function as open use facilities for our students when not reserved for classes. There are more than sixty Macintosh and PC workstations dedicated to GIS, CAD, 3D modeling, animation, computer imaging, and desktop publishing in these facilities. Computer Lab equipment is replaced on a three year basis.

Design Studios

The design studio is the major pedagogical venue for School of Architecture students. We have finally decided that every design student needs to have access to an individual computer workstation in the studio. Our approach is to ask the students to provide the equipment. To this end, the incoming freshman class of 2003-04 will be required to furnish their own computers. We have arranged with Apple and Dell to offer our students special configurations, but will accept other workstations that meet our standards.

Technology Classrooms

Faculty in the School of Architecture have had a tradition of using 35mm slides in their classes and lectures for more than fifty years. Thus our support consoles have mostly consisted of slide projectors. We have completed the first phase in a series of installations to provide high-technology presentation consoles in our auditoriums and lecture classrooms. Goldsmith Auditorium, Jessen Auditorium, and two classrooms in Sutton Hall have received recent upgrades. Three additional classrooms in Battle Hall, Sutton Hall, and the West Mall Building are currently being upgraded with permanent projector systems. We will follow up in the next few years with smaller consoles in our other classrooms.

Networking Infrastructure

The School of Architecture occupies all or part of four buildings on the west side of campus (GOL, SUT, BTL, WMB). The Goldsmith Hall network upgrade has been completed with 100Mb switches and CAT5 cabling to all rooms. Sutton Hall is currently undergoing a similar upgrade. All of the Goldsmith Hall studios now have wireless access.

IT Staff

One Senior Systems Analyst, one LAN Administrator, and one Computer (Web) Programmer comprise our IT staff. Five half-time Teaching Assistants staff the Computer Laboratories. Our long-time Director of Computer Operations will be retiring at the end of the 2002-03 academic year. Current plans are to refill the position and augment the staff with a half-time Server Specialist on contract with ITS.

Funding

Information Technology Fee

The School of Architecture depends heavily on Information Technology fee funding to accomplish our acquisition and maintenance of computer resources. During the past several years, the ITAC has been generous with funds to implement our various computing vision plans. \$25,000 of the direct allocation has been set aside for repair and maintenance of existing equipment. The cyclical and special allocations have been used to acquire new equipment and setup new facilities.

SOA Instructional Technology Fee

The School of Architecture implemented an Instructional Technology Fee for students in the 1995-96 academic year. This fee is now completely allocated to computer support salaries and is no longer considered in budgeting for equipment acquisition.

SOA Special Equipment Fund

A portion of the School of Architecture's annual operating budget has been a Special Equipment Account. The Special Equipment budget amounts to \$100,000 per year. Over the years a varying amount of these funds have been used to acquire and maintain computer equipment.

ITAC Funding Requests

Studio Output Devices **\$50,000**

In conjunction with ITS, we are beginning a project to install PRS output devices in all of our studios. Ultimately, we want to provide a 24" wide color plotter and a tabloid-size b&w laser printer in each of our seventeen studios spaces. This project is intended to take several budget cycles to complete as we replace existing equipment and identify the appropriate cost-sharing arrangement.

The current models-of-choice for printers and plotters cost about \$8,000 per studio.

With seventeen studios to outfit the total budget for this project is \$136,000. If we assume a three-year time frame, we need to equip six studios every year.

Lexmark w812tn Laser Printer: \$2,200; HP DesignJet 800ps Plotter: \$5,200

Large Scale Imaging Facility, Print Center **\$40,000**

Geographical Information Systems have become increasingly important to city planning and urban design. The need is emerging to capture and manipulate large-scale images--such as maps and aerial photography. Wide format (42") equipment will also be useful for archiving and reproducing architectural construction documents.

As our students have become accustomed to computer-aided design, we have identified a growing demand for high quality visual output. We need a professionally staffed print center where output is dependable and timely.

HP Designjet cc800ps Copier: \$20,000; HP Designjet 5500ps Plotter: \$12,000

Classroom Technology Presentation Systems **\$15,000**

We are currently in the third phase of modernizing our classroom presentation systems. To date we have upgraded two auditoriums and two classrooms. Three more installations are in progress. We plan to continue the installation of small consoles and projection systems to our instructional classrooms as funding permits.

Panasonic PT-L720U Projector:\$3,500; Installation:\$1,000; Dell Optiplex GX260:\$2,300

Cyclical Replacement of Equipment **\$90,000**

In this new era as our students bring their own equipment, we will still be providing high-end rendering engines and local file servers in studios. We will still be maintaining our teaching facilities and special use workstations in our Computer Laboratories. We are scheduled to replace more than thirty high-end workstations in offices and other School facilities this year.

Dell Optiplex GX260: \$2,300; Apple Macintosh G4: \$3,200

Digital Assets Collection **\$50,000**

We have been participating in the campus Digital Assets Management Group as part of the Knowledge Gateway initiative. We have started the migration of our digital slide collection to servers in the General Libraries where we will have access to an industrial strength database. The slide collection is variously estimated at 200,000 to 300,000 slides, there are now 100,000 entries in our catalog. This project needs continued funding for digitization, cataloging, and access development.

Total ITAC Request **\$245,000**

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Addendum
April 2003

Further Clarification on:

Cyclical Replacement of Equipment **\$90,000**

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Currently, the School of Architecture plans to continue the operation of the School's Computer Laboratories located in the basement of Sutton Hall. Used as teaching facilities and open use student workstations the labs include a Geographical Information Systems GISLab with fifteen PC workstations, a Macintosh based computer-aided design MacLab with seventeen workstations, and a PC based CADLab with fifteen workstations. These facilities are upgraded on a three year cycle. We need to provide an additional three workstations to the GISLab this year. Thus we expect to acquire and replace nineteen workstations during the 2003-04 academic year for the Sutton Computer Labs.

The School has seventeen studio spaces (most of which support multiple sections) in which workstations are used to support studio peripherals (scanners, for example), as local file servers, and as rendering engines. We expect to upgrade six workstations as studio servers.

Over the next four years, during the transition from School supplied to student supplied individual workstations, we need to maintain the level of workstations in those studios that have been specially equipped with computers, particularly our second-year Design III-IV/ Visual Communications studios and our advanced Technical Communications and Visualization studios. There are more than sixty workstations in these particular studios. While we do not expect to continue a three-year life cycle for these workstations, we will be upgrading ten or more this year.

Our Ph.D. students have been working out of a research office with hand-me-down computers for the past several years. It is important to provide them with occasional new equipment. Perhaps one new workstation can be provided this year.