

**The University of Texas at Austin**  
**School of Architecture**  
**Vision Plan 2001**

**Computing Plan for Fiscal Year 2001-2002**

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**Table of Contents**

**Executive Summary** ..... 3

**Vision, Goals and Objectives** ..... 4

**Infrastructure** ..... 5

**Proposed Projects** ..... 8

**Academic Instructional Projects** ..... 9

**Administrative Projects** ..... 12

**Funding** ..... 13

## **Executive Summary**

### *School Overall Goals:*

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.

### *Academic Instructional Goals:*

The planned network upgrade for fiscal year 2000-01 was under funded. A portion of the project focusing on Goldsmith Hall will be completed. The remainder of the project, with additional considerations for West Mall Office Building and Battle Hall will be extended into a second year.

Digital manipulation and production of large-scale images is increasingly important in Architecture and Urban Design as well as Community and Regional Planning. This project will establish and augment our large scale imaging capabilities with a drum scanner, large storage capacity workstations, and a large format plotter.

An increasing demand for computer-aided design instruction in the curriculum combined with the success of existing computer based studio courses indicates the need for an additional design studio with extensive computer resources.

The Digital Image Collection project is continuing; a new coordinator has been hired for this project. The goal of the project is to complete the cataloging and creation of a digital archive containing a sizable portion of the 200,000 images in the School's 35mm slide library in the Audio Visual Resource Collection by the year 2003.

### *ITAC funding requests:*

Network Upgrade – Phase II	\$200,000
Large Scale Imaging Facility	\$40,000

Computer-Aided Design Studio	\$35,000 <sup>4</sup>
Digital Archive Project	\$30,000
Cyclical Upgrade of Equipment	
Computer-Aided Teaching Facility	\$50,000
Computer-Aided Design Studios	35,000

## **Vision, Goals and Objectives**

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.

The funds required to complete the network upgrade for Goldsmith and Sutton Halls were not available in the 2000-01 fiscal year. A portion of the upgrade focusing on Goldsmith Hall will be completed early in 2001. Unfortunately, doing the job in two parts will increase the cost of the project by about 15%. Additionally, West Mall Office Building and Battle Hall need to be added to the upgrade schedule.

The ongoing support of funds and equipment from the University's Information Technology Fee and Faculty Computer Initiative, along with the implementation of the School's Instructional Technologies Fee, has enabled the widespread use of computer resources in our curriculum. The SOA Undergraduate Curriculum Committee is for the first time introducing a mandatory digital component to the visual communications series of courses. Our challenge has become the maintenance of high standard and quality in the effort.

As 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 equipment will also be useful for archiving and reproducing architectural "blueprint" construction documents.

Additional computer-based design studios are planned on an ongoing basis. Maintaining the quality of the equipment in our studios and laboratories through cyclical upgrades will continue to be a major objective.

The World Wide Web continues to be an important avenue for connecting to prospective, current, and former students. Our Digital Imaging project is steadily growing. Web-based access to the catalog containing entries for 100,000 slides--about half of the collection--is now available. Thumbnail and web-quality resolution copies of 28,000 images are on-line. Internet broadcast of Lunch Forum

discussions from the Center for American Architecture and Design is continuing with a full schedule this year.

## **Infrastructure**

### **Facilities**

#### *Computer-Aided Design Studios*

Design studios are the fundamental arenas for education in the School of Architecture. There are seventeen studio spaces in the School that house between twenty and thirty design studio sections each semester. Each of these studio spaces now contains a minimal set of equipment--between one and four workstations with various local output peripherals. These studio workstations are also networked to centralized output devices and file servers. To date five of these studios have been further equipped with a higher concentrations of workstations and thus are able to emphasize computer-aided design. Additional "computerization" of studios is planned on an ongoing basis; the goal for the next several years is to outfit a new computer studio each year.

The goals from previous plans of introducing computational resources as tools into the design studio arena are being met. Cyclical upgrades and maintenance of equipment will assure continued success.

#### *Computer-Aided Teaching Facility*

The computer laboratories located in the basement of Sutton Hall function as the School of Architecture's computer-aided Teaching Facility. The Teaching Facility provides equipment for instruction in the areas of computer-aided design, geographical information systems, image processing, numerical simulation, desktop publishing, multi-media production, statistical analysis and program development. The facility is available for open student use when class activities are not scheduled and is currently open one hundred hours a week. The facility now contains more than sixty Macintosh, Windows, and Unix workstations.

The Teaching Facility also functions as a focal point for centralized input and output devices. There are workstations for capturing 35mm slide images and a variety of flatbed reflective and transparency scanners. The array of printers and plotters that are available in this central location include letter-size and tabloid-size

grayscale laser printers, letter-size and tabloid-size color ink jet printers, a tabloid-size color laser printer, a multi-size dye-sublimation printer and large-format (24" and 36" wide) color ink jet plotters.

See <<http://arch.utexas.edu/resources/cadlab>>

School of Architecture Vision Plan 2001  
Infrastructure - Facilities

*Digital Media Collection*

The Digital Image Collection project is continuing. More than 28,000 of the slides from our AudioVisual Resource Collection that have been digitized are now available on-line. Architectural history and survey courses are utilizing support materials on the World Wide Web. The user interface is in place to allow access to the collection catalog currently containing 100,000 records.

*Faculty and Administrative Computing*

The School of Architecture has more than eighty full time faculty and staff members that regularly use computer resources. This equipment must be maintained on a continuing basis.

School of Architecture Vision Plan 2001  
Infrastructure

## **Staffing**

### *Director of Computer Laboratories*

The School of Architecture has one full-time Senior Systems Analyst who serves as the director of all computer-related operations within the School. Bob Swaffar manages a staff of Teaching Assistants who conduct the daily operation of the Teaching Facility and maintain the open-use computer laboratories.

### *Assistant LAN Administrator*

One full-time Assistant LAN Administrator, Patricia Alvarado, works with the Director of Computer Laboratories in maintaining the computer resources in the School.

### *Digital Image Project Coordinator/Webmaster*

One full-time Computer Programmer/Services Assistant, Eric Johnson, has recently been hired to coordinate the Digital Image Project and maintain the School of Architecture pages on the World Wide Web. As the Digital Image Project Coordinator, he is in charge of supervising the Digital Image Project and developing access to the on-line images.

### *Photographic Services Director*

One full-time Photography Supervisor, Charlotte Pickett, divides her time between traditional and digital photographic services, audio-visual technical support and course-work web page development.

### *SOA Web Team*

A group of faculty and staff meet on a regular basis to guide the direction and implementation of the School of Architecture pages on the World Wide Web. The various web team members are responsible for maintaining selected pages. The

creation of the Webmaster position will undoubtedly improve the operation of this group.

## **Proposed Projects**

### **Academic Instructional Projects**

<b>Network Upgrade – Phase II</b> .....	9
<b>Large Scale Imaging Facility</b> .....	10
<b>Computer-Aided Design Studio</b> .....	11
<b>Digital Archive</b> .....	12
<b>Cyclical Upgrade of Equipment</b> .....	13

### **Administrative Projects**

<b>Cyclical Upgrade of Equipment</b> .....	14
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School of Architecture Vision Plan 2001  
Academic Instructional Projects

**Project Title:** Network Upgrade – Phase II

**Abstract:**

The network upgrade for Goldsmith and Sutton Halls was under funded in the 2000-01 fiscal year. A portion of the upgrade focusing on Goldsmith Hall will be completed early in 2001. Unfortunately, doing the job in two parts will increase the cost of the project by about 15%. Additionally, West Mall Office Building and Battle Hall need to be added to the upgrade schedule.

**Space/Facilities Needs:**

Existing communication cabinets will be sufficient for the required building switches, with the central router being housed in Sutton Hall.

**Audience:**

Undergraduate and graduate students, faculty and staff, general public accessing network resources.

**Budget:**

Sutton Hall Cabling	ITAC funds	\$75,000
Main network router, Sutton Hall switch	ITAC funds	95,000
West Mall Office Building and Battle Hall	ITAC funds	<u>30,000</u>
		\$200,000

School of Architecture Vision Plan 2001  
Academic Instructional Projects

**Project Title:** Large Scale Imaging Facility

**Abstract:**

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 (36") equipment will also be useful for archiving and reproducing architectural construction documents.

**Space/Facilities Needs:**

Existing Teaching Facility

**Audience:**

Undergraduate and graduate students in architecture, urban design, and community and regional planning

**Budget:**

Large format scanner	ITAC funds	\$25,000
Large format plotter	ITAC funds	10,000
Digital image support workstation	ITAC funds	<u>5,000</u>
		\$40,000

School of Architecture Vision Plan 2001  
Academic Instructional Projects

**Project Title:** Computer-Aided Design Studio

**Abstract:**

An increasing demand for computer-aided design instruction in the curriculum combined with the success of existing computer based studio courses indicates the need for an additional design studio with extensive computer resources.

**Space/Facilities Needs:**

One of the existing design studio spaces will be converted from a traditional studio with the addition of computer workstations and peripherals.

**Audience:**

Undergraduate and graduate design students.

**Equipment:**

The hardware in this studio will be patterned after the Advanced Visualization studio, where a variety of workstations have proven to be successful. Eight Macintosh and Pentium workstations with input and output peripherals will support sixteen design students.

**Budget:**

Hardware, peripherals	ITAC funds	\$35,000
Software	SOA IT funds	5,000
Furniture	SOA building funds	<u>5,000</u>
		\$45,000

School of Architecture Vision Plan 2001  
Academic Instructional Projects

**Project Title:** Digital Archive Project

**Abstract:**

The Digital Image Collection project is continuing. The goal of the project is to complete the cataloging and creation of a digital archive containing a sizable portion of the 200,000 images in the School's 35mm slide library in the Audio-Visual Resource Collection by the year 2003. After a series of personnel changes and subsequent setbacks, this project now has a permanent coordinator.

**Space/Facilities Needs:**

The cataloging and scanning operations for this continuing project are now housed in the School's Audio-Visual Resource Center in Sutton Hall. No additional space requirements are envisioned. The digital archive is currently stored on a variety of existing SOA media and file servers. A new file server will enable the consolidation of storage and improve availability.

**Audience:**

Undergraduate and graduate design students in architecture, on-line general public.

**Equipment:**

The equipment used in the cataloging and scanning operations are taken from the available pool of computing resources within the School.

**Budget:**

Cataloging and Scanning Labor	ITAC funds	\$20,000
Internet File Server	ITAC funds	<u>10,000</u>
		\$30,000

School of Architecture Vision Plan 2001  
Academic Instructional Projects

**Project Title:** Cyclical Upgrades and Software Maintenance

**Abstract:**

Replacement costs have been included to reflect the need to anticipate equipment upgrades on an ongoing basis. In the projections for instructional equipment, a three-year life of hardware and a two-year life of software are used.

The general approach to the upgrade of equipment uses a “trickle-down” system where “top line” facilities such as the Technical Communications studio receive some new replacement equipment every year. Equipment displaced by new acquisitions is then relocated into “lower line” facilities.

**Audience:**

Graduate and undergraduate students in architecture and planning

**Budget:**

Cyclical Upgrade of Equipment:

Computer-Aided Teaching Facility	ITAC funds	\$50,000
Computer-Aided Design Studios	ITAC funds	35,000

Software Annual Maintenance:

Computer-Aided Design Studios	SOA IT funds	10,000
Computer-Aided Teaching Facility	SOA IT funds	<u>10,000</u>
		\$105,000

School of Architecture Vision Plan 2001  
Administrative Projects

**Project Title:** Cyclical Upgrade of Equipment

**Abstract:**

Replacement costs have been included to reflect the need to anticipate equipment upgrades on an ongoing basis. In the projections for administrative equipment for faculty and staff, a four-year life of hardware is used.

**Audience:**

Faculty and staff in the School of Architecture

**Budget:**

Cyclical Upgrade of Equipment	SOA funds	\$40,000
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## School of Architecture Vision Plan 2001

**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. The following table presents the ITAC funding for the School of Architecture in the past three years.

<u>Fiscal Year</u>	<u>Direct Allocation</u>	<u>Cyclical and Special Allocations</u>
1998-99	\$25,000	\$88,250
1999-2000	25,000	90,000
2000-01	60,000	45,000

*SOA Instructional Technology Fee*

The School of Architecture implemented an Instructional Technology Fee for students in the 1995-96 academic year. This fee is allocated to funding the full-time computer support assistant salary, a portion of the Director of Computer Laboratories salary, and the acquisition of classroom hardware and software. The following table presents the funds made available through this fee during the past three years.

<u>Fiscal Year</u>	<u>SOA ITF Funds</u>
1998-99	\$52,240
1999-2000	86,700
2000-01	86,700

School of Architecture Vision Plan 2001  
Funding

*SOA Special Equipment Fund*

A portion of the School of Architecture's annual operating budget has been a Special Equipment Account. Over the years, these funds have been used to acquire a variety of equipment for the school, including computer resources for students, faculty and staff. The Special Equipment budget amounts to \$100,000 per year. The following table presents the percentage of the Special Equipment budget devoted to various categories during the past three years.

<u>Category</u>	<u>Percentage of Special Equipment Budget</u>		
	<u>1997-98</u>	<u>1998-99</u>	<u>1999-2000</u>
Student Computers	23.0%	36.7%	45.5%
Faculty Computers	47.1	41.1	23.6
Staff Computers	26.4	20.5	19.8
Classroom Facilities			3.9
Shop Equipment	3.2	0.5	3.6
Office Equipment	0.3	0.2	2.6
Photographic Equipment		1.0	1.0

*Corporate Grants*

Due to various factors, the School of Architecture has traditionally not had success with securing corporate grants. (We are a small school without extensive research activities.) No funds are scheduled to be received from Corporate Grants this year.