

*Tactical Plan* prepared by: Annette Burr, Gail McMillan, convener, Gary Worley

**Mission:** increase access to digitized information

**Goal:**

## **Digital Images for the Virginia Tech Digital Library**

All images photographed or copied by a unit of Information Systems will be scanned and contributed to the Virginia Tech Digital Library. The digital images will be browsable and findable through word searching textual descriptors. The university community will be able to view digital images online according to fair use guidelines for nonprofit, academic libraries. They will be available for faculty to incorporate in their course materials and to students for study and research purposes. Outside the university community, not all digital images will be accessible via the Internet; some will only be available at library workstations and campus computer labs. There will be unlimited Internet access to digital images when the university owns the copyright. No one will be charged a fee to view thumbnails, but there will be a charge to have a reproduction made and this will have implications for the electronic billing tactical plan. Reproductions of digital images will be made for a fee by PhotoGraphic Services.

### **SCAN INSTRUCTIONAL IMAGES**

Digitize images for faculty for teaching and research purposes AT NO COST. (If faculty want a hard copy product in addition to access to the digital image, they will have to pay for it.)

This requires financial support in the form of one additional position and equipment upgrades. Attached is an outline showing that with the present equipment, but the addition of one position, progress will be too slow to build a viable collection for teaching and learning. With substantive support, the Virginia Tech Digital Library can become a valuable resource digital images for faculty and students.

Digitize known collections, including 100,000 slides currently housed in Art/Architecture Library and Art and Art History, 5000 unique images in Kornegay/Agriculture collection [of potential interest to other land grant institutions (collaborative initiative?)], College of Veterinary Medicine, University Relations, Special Collections (Civil War collections, International Archive of Women in Architecture, and others)

Survey campus to reveal other collections of instructional materials to digitize and add to the Virginia Tech Digital Library.

- Faculty will supply 3-6 descriptors of each image
- Scholarly Communications Project will make them accessible: add to VTDL, link text and images, index, design and/or implement search engine
- Limit access to university community for copyright compliance through fair use guidelines for libraries (when faculty who own copyright do not share e-rights with the university).
- Prototype will be a fall 1996 art history course using digitized slides from both the Art/Architecture Library and the Art/Art History Departments' slide collections

**Issues to be resolved**

- Archival/preservation quality digital images will be made only when the faculty member is the copyright holder and share copyright for digital images with the university; otherwise will do a 72dpi scan. The archival images will require considerable storage space, but Internet-accessible images will be much smaller files.
- Refine online request form (JP) and billing mechanisms (LS?).

<b>Time sequence: SCAN INSTRUCTIONAL IMAGES</b>	
Jan. 24, 1996	Project team meets to develop goal, work on timeline, budget, plan action
Jan. 31, 1996 (snow cancellations postponed this until Feb. 5)	Submit tactical plan.
Feb. 12, 1996 (10:30 a.m.)	Project team (Burr, McMillan, and Worley) meets with systems expert (James Powell) to refine procedures for moving files, indexing and access.
mid-February 1996: Develop prototype design	Annette Burr will gather circa 300 slides and prepare descriptions Gary Worley will have them scanned and delivered to SCP server James Powell will set up directory, ID form, and limited access
April 1996	scan images for prototype system and test identifying and linking procedures
June 1996	implement prototype
August-December 1996	test prototype with fall classes
October-November 1996	modify prototype design as needed to initiate production scanning and full implementation for course access spring semester

**SCAN GENERAL INTEREST IMAGES**

Scan images for a cost-recovery fee to be paid by the requester of a reproduction.

Sources of images for the Virginia Tech Digital Library:

- Any image brought to PhotoGraphic Services to be reproduced will be digitized. Fees for these reproductions may be used to support these and other digital image projects.

Known collections to be digitized include:

- Norfolk & Western railroad images (We will contact N&S re support for digitizing the archives (housed in Special Collections).
- University Architect's Office (Architectural drawings of campus, already exist as CADs)

Needs: staff, equipment, and storage, as described in the attached document.

<b>Time sequence: SCAN GENERAL INTEREST IMAGES</b>		
February-May 1996	Contact N&S re support for digitizing their image collection in VT Special Collections: financial support for doing it, standards so that future images contributed to the N&W archives will work well with current digitizing, implement full scale digitizing.	
April 1996	Advertise, fill, train staff (Erv allocated) to PhotoGraphic Services for digital image preparation	Survey: Contact authorities of known image collections re collaboration to digitize for Virginia Tech Digital Library--if Erv allocates a full time position and equipment money for this project.
Spring 1996	work with authorities of known image collections to establish digitizing schedule	begin digitizing
Summer 1996	Compile survey results and establish digitizing schedule	Purchase needed storage, etc. from 1996/76 budget allocations to Digital Library

### **Moving from Casual Scanning into Production Digital Imaging**

Providing university-wide scanning services for all instructional and research related images will require major adjustments to the current support operations in the PhotoGraphic Services Department. Current staff and equipment support scanning requests based on recovery for those services. The current devices available are not suitable for any volume increases that providing this service for free might generate. The number of collections on campus and the amount of scanning those collections represent call attention to the need to employ scanning systems that are designed to handle both requirements associated with archival image files-quality and speed of processing.

<b>Current scanning capabilities</b>		<b>Cost</b>
Equipment	Quadra 950 w/68mg ram	\$ 9,000
	Nikon film scanner	\$ 13,000
<b>Scan rate</b>	<b>Approximately 30 images / day</b>	
File size	18-19 mb / image	
Compression	None	
File format	TIFF: files would be saved for Macintosh.	
Images	Digital images will be archival/preservation quality, adjusted for noise, contrast, and tonal fidelity. Remove dust and scratch defects.	

<b>Volume</b>	<b>Approximately 150 images per week</b>	
<b>Needs</b>	<b>1 dedicated employee</b>	<b>\$ 19,188</b>
<b>Some improvement to current scanning operation requires</b>		
Equipment 2 Power PC 9500 w/ 128mb ram, 4mb vram	\$ 19,292	
	Kodak's Built-it software	\$ 5,000
	2 CD writers	\$ 5,000
<b>Volume</b>	<b>Anticipated production volume 225 per week</b>	
<b>Requirements for a production digitizing operation</b>		
Equipment Kodak PhotoCD Pro workstation/system	\$ 120,000 -135,000	
&nbsp;	Phase One studio scanning system	\$ 24,000
<b>Scan rate</b>	<b>Film: approximately 200 images / day</b>	
File size	14-16 mb / image	
<b>Scan rate</b>	<b>Artwork: 75 images / day</b>	
File size	varies w/ size of original (up to 120Mb)	
Compression	YCC	
File format	PhotoCD format: can be opened on most platforms.	
Images	Digital images will be <b>archival/preservation quality</b> , adjusted for noise, contrast, and tonal fidelity. Remove dust and scratch defects.	
<b>Volume</b>	<b>Approximately 1000 images per week</b>	
<b>Needs</b>	<b>2 dedicated employees</b>	<b>\$ 38,376</b>

**Note**

Additional time or personnel would be provided through student workers either assigned from the Library or hired through PhotoGraphic Services.

All costs mentioned do not include scanning for flat artwork or photographs. This would be handled by the studio digital imaging system working on current 4x5 cameras. Cost per image has not been determined.

*Gail McMillan*

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*<http://scholar.lib.vt.edu/staff/gailmac/DigitalImagingProjectPlan.html>*