Student Assistants at the Design and Construction Archives: Learning Outcomes and Program Support

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UC MERCED

Background

UC Merced's Design & Construction Archives was established in July 2012. As a new program, workflows and initiatives needed to be created in order to organize and manage the vast number of records, both physical and digital, that had been created throughout our young campus's 10 years of planning, design and construction.

Students have been critical to the success of this program. Student Assistants in the archive are trained to catalog physical materials and to digitize, curate, and save digital records within databases of structured classification schemes. Each campus building and infrastructure project consists of thousands of documents. It is a significant responsibility to maintain the records of campus planning, design & construction; many records have an "in perpetuity" retention period, and simultaneously there is the added complexity of preserving both physical and digital formats.

Fig. 1 Digital Rendering from the Archives, Kolligian Library Concept Drawing, early 2000s
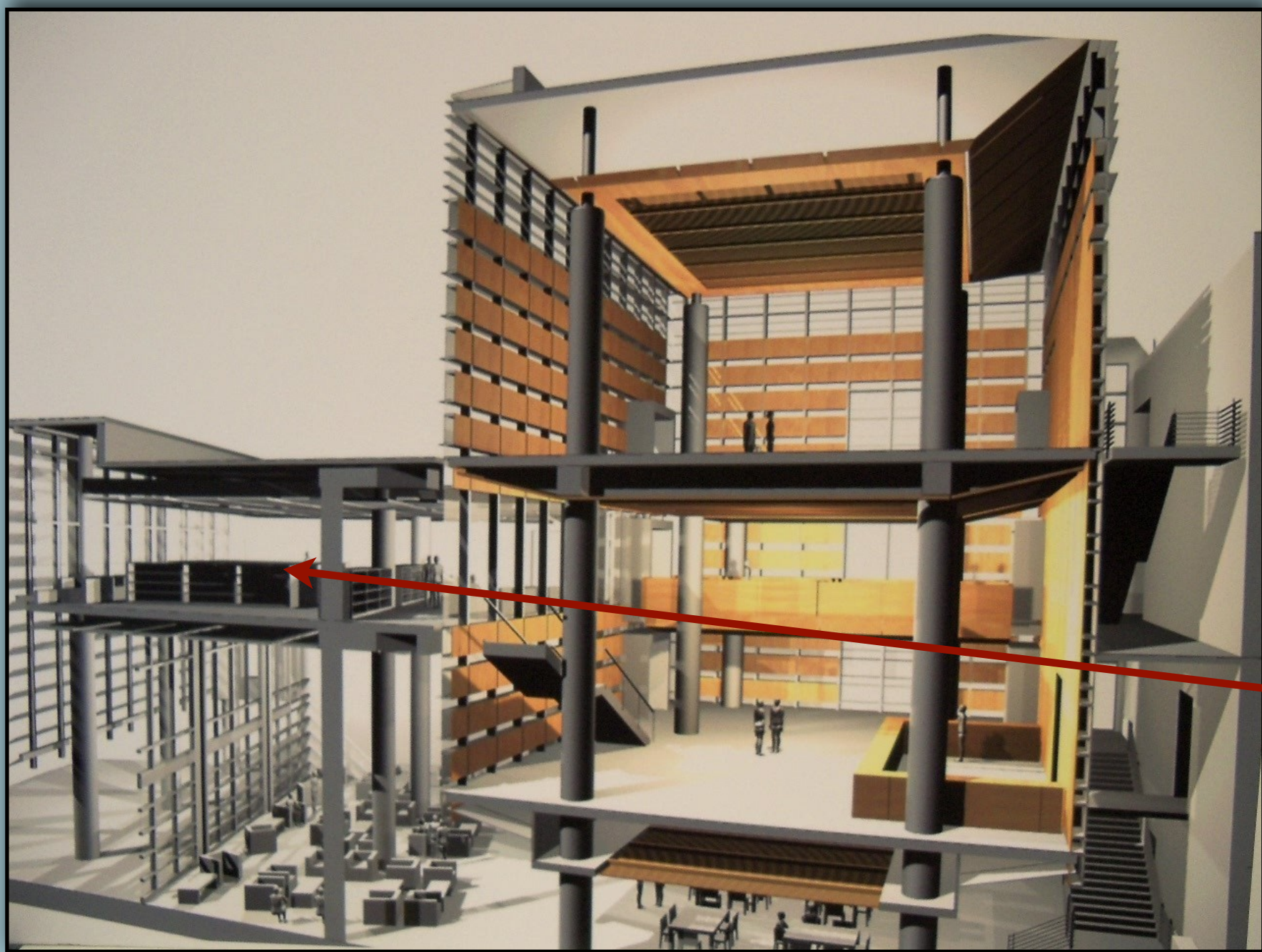

You are here!

Hypothesis

Student Assistants employed and trained by the Design & Construction Archives learn skills in information organization, including digitization and classification of both physical (analog) and digital documents. In turn the archives achieves a consistent level of service and program support; these activities are crucial to preserving the institutional record by providing **access to** and **preservation of** valuable records required for long-term retention. This presentation explains the kinds of skills learned by students, and also presents assessment of their success by a quantitative review of their contributions to the Archives' collections.

Fig. 2 Submittal- Hundreds of files like this one are created for each campus structure; a single file may comprise shop drawings, material data, samples & product data. Most of the campus submittals were created in physical format only.   Student assistants have digitized thousands of files like this one, files that are required to be retained in perpetuity by UC's Office of the President.
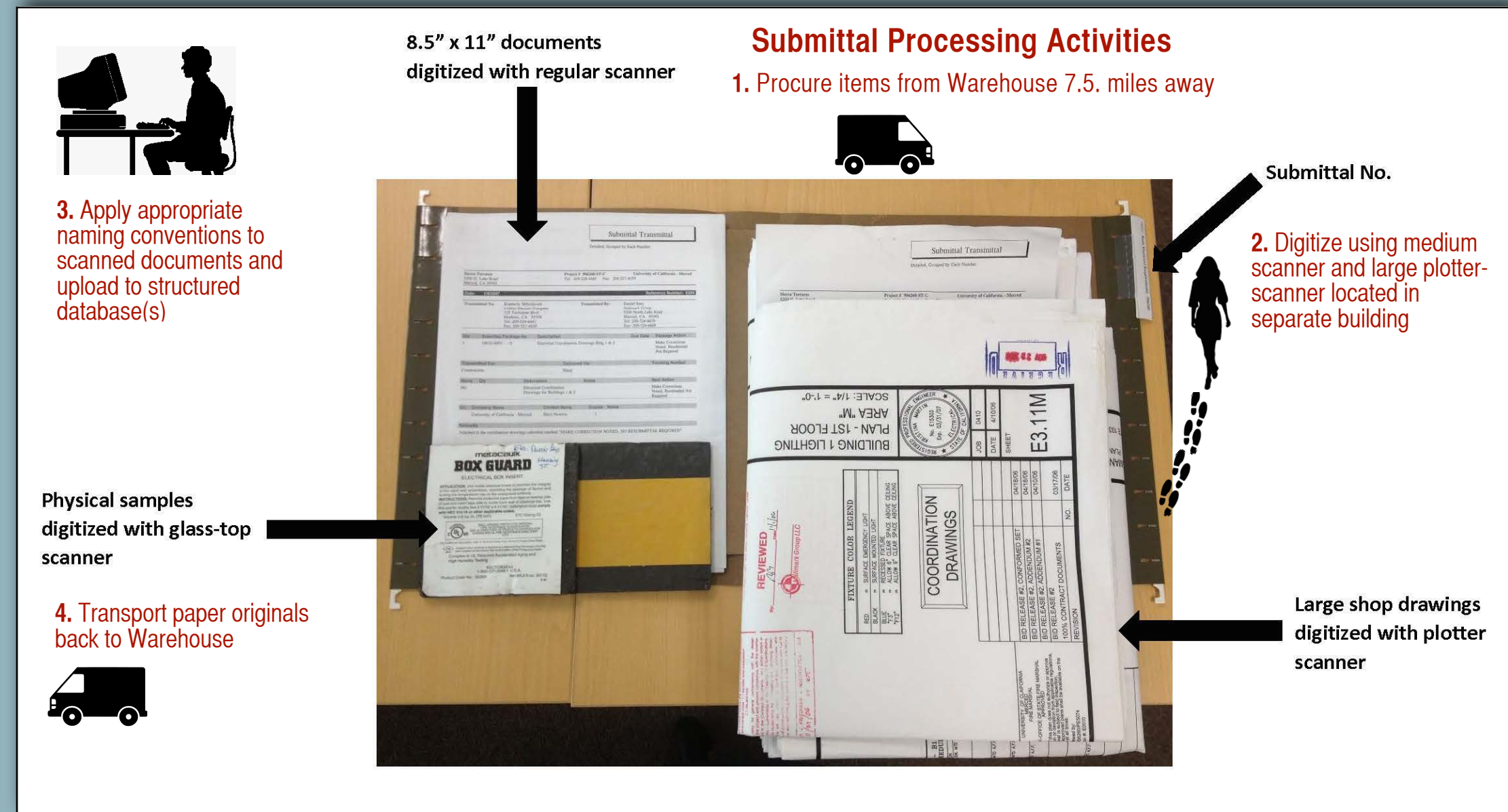
Assessment: Student Assistant Training

Software & Database Training

- **Adobe** Acrobat Professional
- **Box** Cloud Content Management System
- **Archivists' Toolkit** Open Source Cataloging software
- **ArchivesSpace** Open Source Cataloging software
- **DSpace** Open Source Digital Repository software
- **Facilities Link** Campus Building Database
- **Prolog** Construction Administration Database

Information Organization & Customer Service Training

- Arrange and describe archival records into standardized classification schemes
- Catalog and preserve paper documents (remove harmful fasteners; preserve architectural plans with cotton string and by wrapping in plastic)
- Apply appropriate file-naming standards to digital files
- Provide customer service in an information environment (document placement, retrieval and distribution; assisting users with information requests)

Assessment: Program Support Statistics & Graphs
August 2012 – February 2015
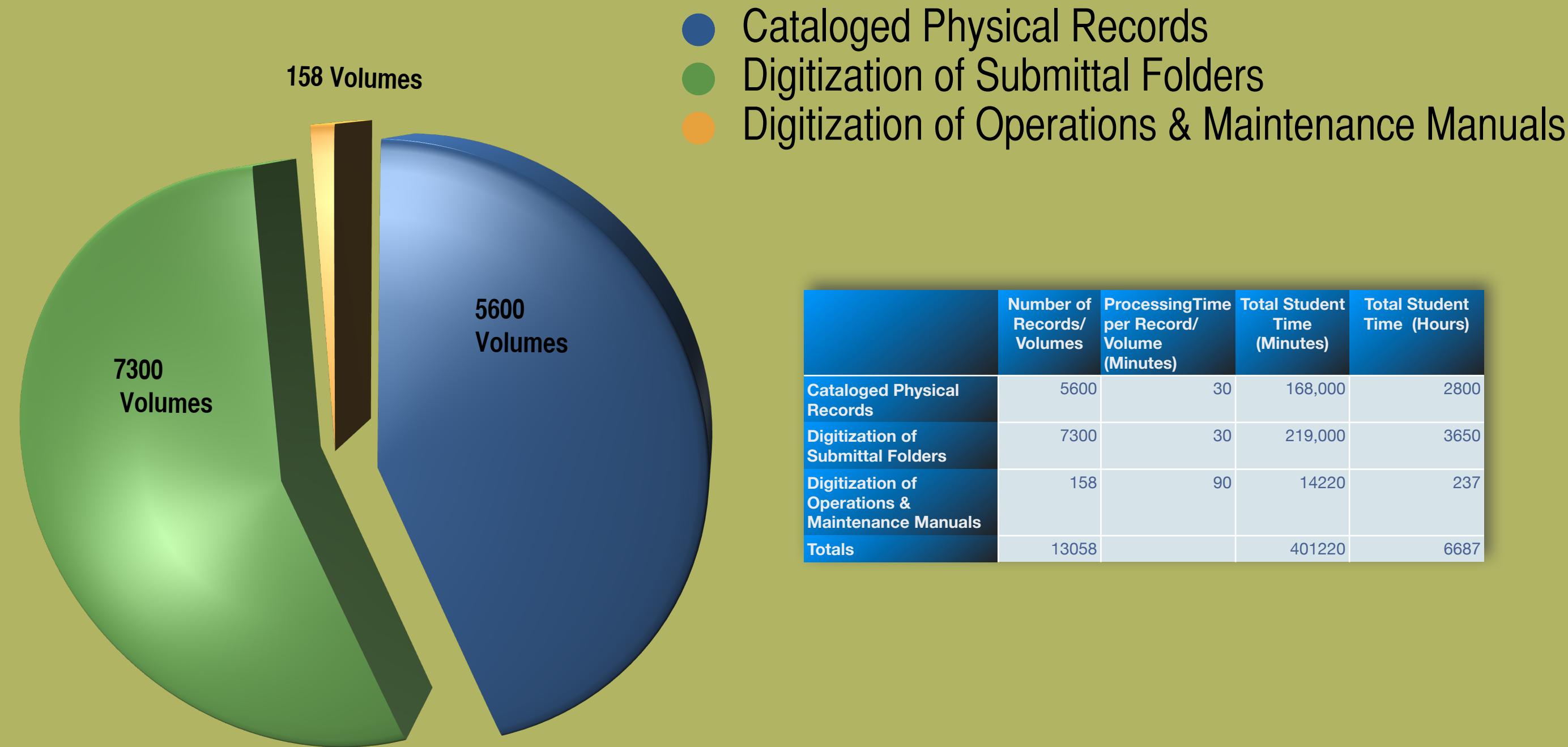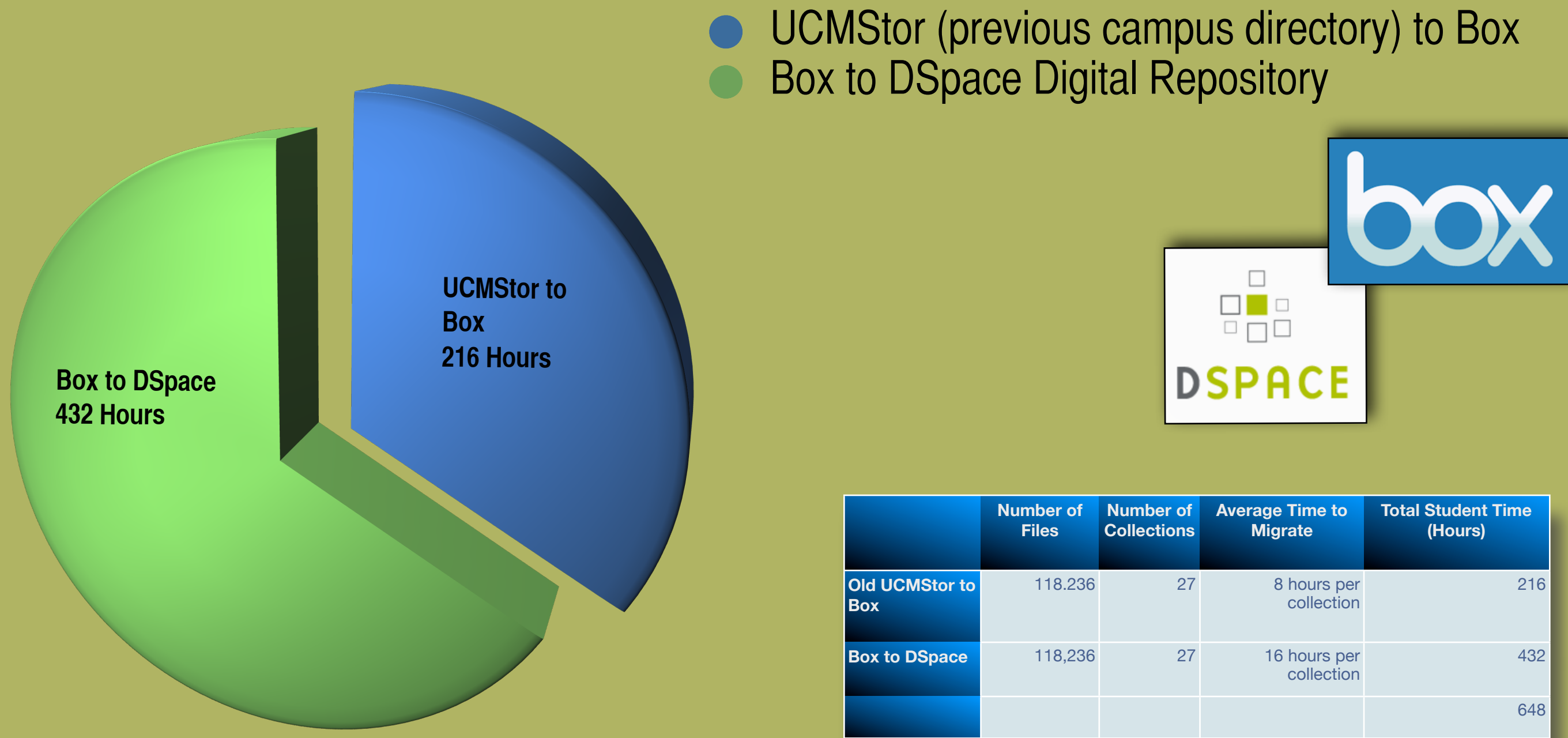
Fig. 3 Number of Records/Volumes Processed

- Cataloged Physical Records
- Digitization of Submittal Folders
- Digitization of Operations & Maintenance Manuals

158 Volumes

7300 Volumes

5600 Volumes

	Number of Records/ Volumes	Processing Time per Record/ Volume (Minutes)	Total Student Time (Minutes)	Total Student Time (Hours)
Cataloged Physical Records	5600	30	168,000	2800
Digitization of Submittal Folders	7300	30	219,000	3650
Digitization of Operations & Maintenance Manuals	158	90	14220	237
Totals	13058		401220	6687

Fig. 4 Migration Activities (process of moving data from one storage system or medium to another)

- UCMStor (previous campus directory) to Box
- Box to DSpace Digital Repository

Box to DSpace 432 Hours

UCMStor to Box 216 Hours

	Number of Files	Number of Collections	Average Time to Migrate	Total Student Time (Hours)
Old UCMStor to Box	118,236	27	8 hours per collection	216
Box to DSpace	118,236	27	16 hours per collection	432
				648

Results

Student Assistant (SA) Learning Outcomes

- SAs learn to utilize software applications for digital curation activities. For example, Adobe Acrobat Professional is utilized to apply OCR (optical character recognition) and to bookmark documents; such activities maintain the integrity of the original analog document while simultaneously enabling greater search functionality.
- SAs learn to use several databases through which information is organized, shared, and maintained. These databases include Box, DSpace, ArchivesSpace, Archivists' Toolkit, Facilities Link, Prolog, and the department's website/content management system.
- SAs learn customer service in an information environment. Knowledge of the infrastructure that supports information requests begins by teaching students how to place information in databases of structured classification schemes. Such standardized practices result in efficient search and retrieval of information. Students interact directly with users in satisfying information requests, including campus staff, legal counsel, auditors, construction managers, architects and consultants.
- SAs learn to utilize office and industrial scanners to digitize documents previously available only in analog/paper format. Students apply appropriate naming conventions to documents, placing them within classified file structures as noted above.
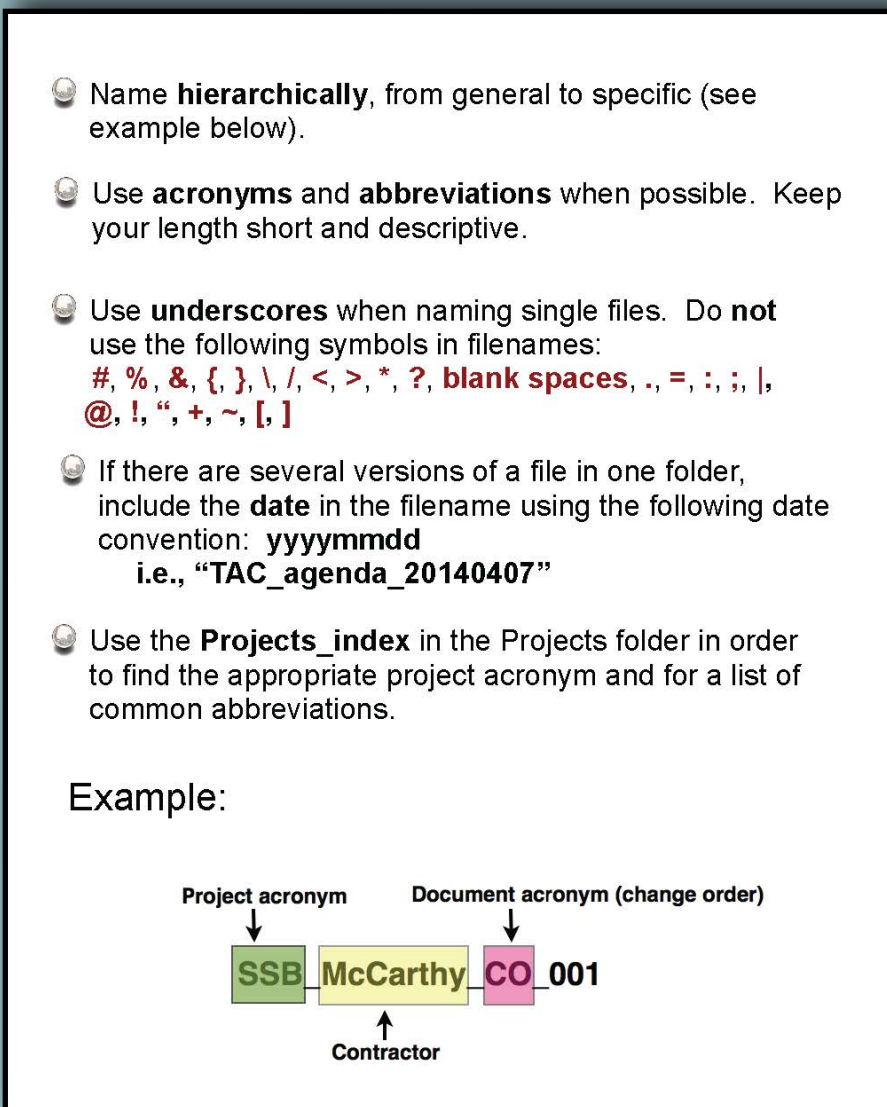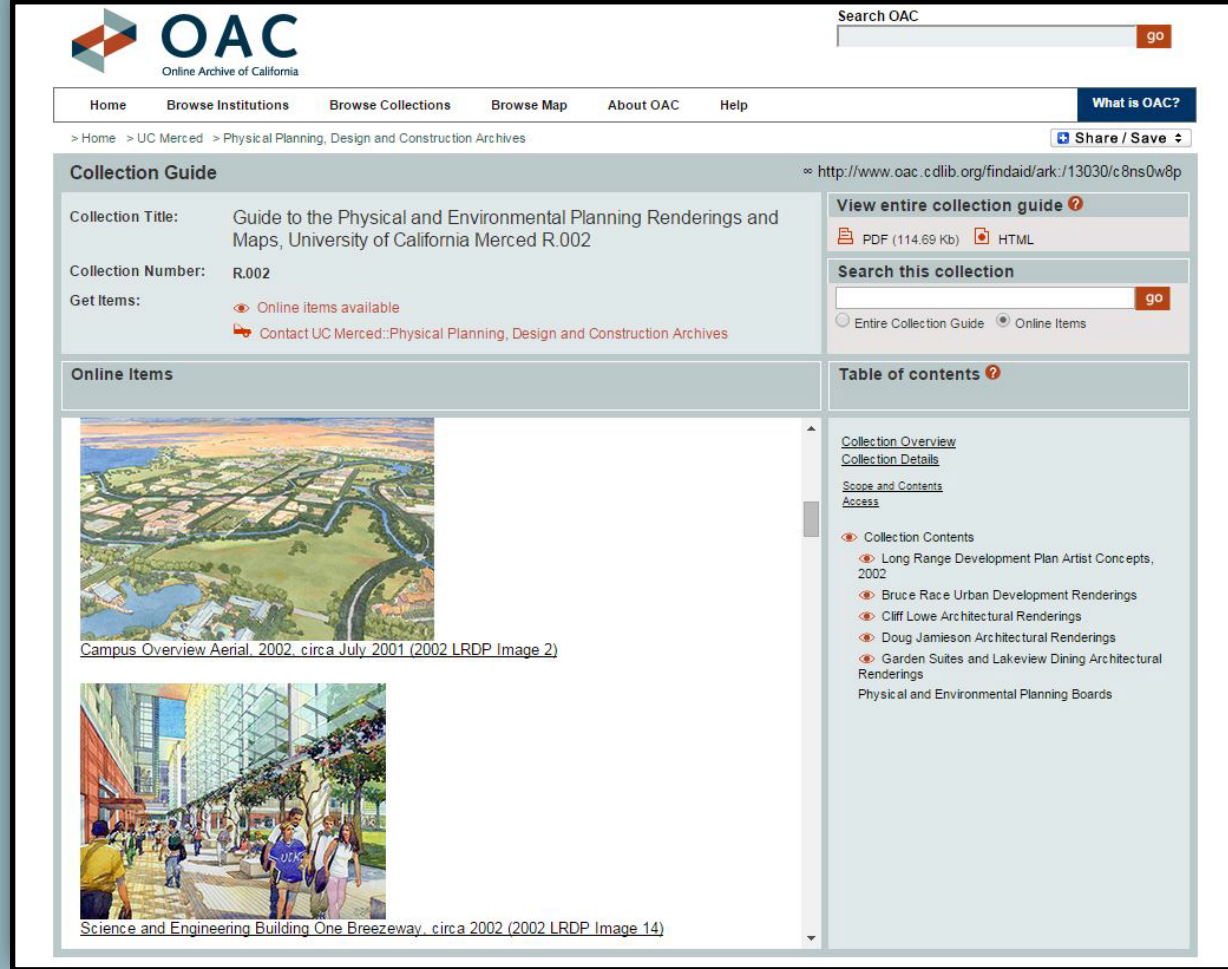
Fig. 5 Digital File-Naming Tutorial

Fig. 6 Online Archive of California Finding Aid, Renderings and Maps, UCM, curated by campus planner Richard Cummings and student assistant Leslie Anderson.

Program Support Results Summary

- Digitization of 158 Operations & Maintenance manuals (binders are 3–4 inches wide)
- Digitization of approximately 7300 design & construction submittals and shop drawings
- Cataloging of approximately 5600 physical (analog) records
- Setting up standardized file structures for collections of all campus buildings and infrastructure projects in the archives' digital repository DSpace (currently 27 major collections)
- Migration of legacy data from Box into DSpace digital repository (currently 118,236 digital documents)
- Curation of the Archives' digital collection of UC Merced maps and architectural renderings to the Online Archive of California (81 volumes).

Conclusion

Student Assistants employed and trained by the Design & Construction Archives acquire several skills in organizing information. Examples include applying text recognition and appropriate file-naming conventions to digital files, learning to utilize office equipment for a variety of scanning purposes, and using structured databases to ensure that physical and digital documents are properly classified for long term access & preservation. In turn, the D&C Archives achieves a consistent level of program support.

References & Acknowledgements

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- Society of American Archivists Glossary of Archival Terms & Terminology, n.d., Internet resource
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- Waverly Lowell, Archivist, Environmental Design Archives, UC Berkeley