

Digitization Spec Kit

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Overview of Digitization Workflow

Process materials

- Check in individual items via spreadsheet and / or database.
- Determine best scanning scenario based on size, reflectivity, and condition of original.
- Create image folders.
- Assign work to student assistants.

Digitize

- Scan.
- Edit.
- Add image metadata in file info box in Photoshop.
- Save as master tiff.

Quality Control

- Track progress of materials via spreadsheet and / or database.
- Review scanned images for comparison with original materials.

Upload images to CONTENTdm

- Prioritize image upload with Metadata Cataloger and various committees.
- Create compound object.
- Upload via ftp.

Submitting Materials for Digitization

The Curatorial Committee is responsible for selecting materials for inclusion in the Central Florida Memory website. Once items have been approved by the committee, each partnering institution is responsible for submitting a [Digitization Request Form](#) for each item and arranging for delivery of the materials to the University of Central Florida Libraries Digital Services Unit. The lending institution is responsible for reviewing material prior to submission to determine how it should be organized and viewed on the Central Florida Memory website. The Metadata Cataloger and Digital Services Librarian are available for consultation to provide assistance with the overall process as well as recommendations that would affect the accessibility and display of the final product.

The Digitization Request Form allows us to consistently track materials through the use of uniform bibliographic information and a computer generated unique identification number. For the process to function efficiently and effectively, each individual item must have its own Digitization Request Form. For example, if 60 loose individual photos are being submitted, then 60 request forms need to be submitted. If 2 volumes of photos are being submitted, then 2 request forms should be submitted. The lending institution is strongly encouraged to provide as much detailed information as possible regarding the item itself in addition to any special factors that should be taken into consideration with regard to digitization or metadata. The form allows for entry of information pertaining to the lending institution's contact information; physical item information such as title, author, subject, description/notes, date original, publisher, number of pages, format, call number / identification number, and storyline; and digitization information including number of images to digitize and notes regarding special handling or other circumstances.

When a Digitization Request Form is submitted, the information is automatically entered into an Access database and an email confirmation of the request is sent to the Digital Services Librarian. The lending institution receives a confirmation page upon submission of the request form. The confirmation page must be printed and delivered along with the appropriate item. The confirmation page and unique identifier will accompany the item throughout the process from material inventory check in to scanning to metadata. In addition to providing a well organized tracking system, these measures allow for a meaningful transition from a physical item to a digital image.

Standards for Digitization

Overall Process:

Each item is evaluated for the most appropriate method and equipment to be used for scanning. Size, condition, content, and intended end use of the item to be digitized are several of the factors taken into consideration. Overall, Central Florida Memory strives to adhere to the recommendations set forth by [PALMM](#), [RLG](#), and [Cornell University](#) .

Equipment:

Routine maintenance and calibration of scanning equipment and monitors ensures consistency in the visual appearance of the images.

Scanning:

Our goal is to retrieve the best possible image without disturbing the original in any way while producing an image that represents the original as close as possible. Minimal editing is performed on the scanned images. Technicians may rotate and crop individual images prior to saving the master tiffs using sequential numerical filenames. Technicians are instructed to crop out any areas that do not belong to the original while maintaining as much of the original as possible.

Images produced on the reprographic station require use of the Kodak gray scale bar to maintain proper color balance.

All images are scanned at a minimum of 400 dpi and saved as LZW compressed tiff images. Images with significant visual details are reviewed on a case by case basis for scanning at 600 dpi. Images digitized on the reprographic station are scanned at 100% resolution.

Equipment

Kodak i200 Series flatbed scanner.

http://www.kodak.com/US/en/dpq/site/TKX/name/DocumentScanners_product



Entry level production scanner. Dockable flatbed with automatic document feeder.

Flatbed can handle documents approximately 16 inches x 11 ½ inches.

For use with books, postcards, letters, pamphlets, photographs, and a variety of non-reflective materials.

Kaiser rePro graphic stand with Karden-Linhof camera

<http://academicimaging.com>



Reprographic station with a column/rail that can transport the scanner head to its proper height to attain desired cropping and focus.

Column is perpendicular to the art being captured, and a centering arm which places the camera out from the column so that it is centered and level to the center of the base board below.

A heavy base which can hold art flat, is level at all points, and is large enough to leave some protective area away from any edge.

An integrated lighting system that provides the amount of light needed. The light fixtures and stands themselves are easily adjustable to achieve even illumination.

Stand accommodates materials up to size 33 inches x 28 inches and can support up to 33 pounds.

For use with oversize, fragile or reflective materials such as maps, scrapbooks, photographs, and newspapers.

General Guidelines for Scanning Images

Open Adobe Photoshop CS

To begin scanning images click on File – Import – Kodak Scanner i200

Place item in lower left hand corner of flatbed. Please use caution with fragile, brittle pages. Our goal is to retrieve the best possible image without damaging or disturbing the original.

Important items to check in the Scanner Properties box:

Front Color should be checked and highlighted

Resolution (dpi) should be set at 400

Color table should be Mixed1

Click the scan button.

Click cancel when finished scanning and ready to edit.

For editing the goal is to have an image that represents the original as close as possible. The only editing that should be needed would be rotate and/or crop before saving the image. Try to crop out any areas that do not belong to the original while maintaining as much of the original as possible. Add the file info for the appropriate institution. If you are not sure which institution contributed the material, you can check in the Digital Services database under the institution field or ask Page or Lee.

Save the images sequentially. For example, the first image scanned should be 001.tif, then 002.tif and so on regardless of the physical page number. Files are saved as **TIFF images with LZW compression.**

If you have any questions, please do not hesitate to ask Page, Lee or John.

Software

Excel

<http://office.microsoft.com>

Microsoft Excel spreadsheet used to check in items and to track scanning and metadata progress.

Access

<http://office.microsoft.com>

Converted Excel spreadsheet to a Microsoft Access database to allow us to collect more detailed information regarding digitization as well as enable us to have greater functionality with the data.

Adobe Photoshop CS

<http://www.adobe.com/products/photoshop/main.html>

Acquire scanned images through Photoshop. Scanned images are edited for cropping and rotation, file information metadata is added, and each image is saved as a master tiff. The file browser within Photoshop provides easy access to thumbnails and file info metadata.

IrfanView

<http://www.irfanview.com/>

Graphic viewer. Very useful for quality control review of images. Provides method for scrolling through a folder of images or allowing a slideshow of the images to run without having to open the images individually.

CONTENTdm

<http://contentdm.com/>

The most powerful and flexible digital collection management package on the market today, CONTENTdm handles it all—documents, PDFs, images, video, and audio files. Upload individual images or create compound objects. Automatically converts tiff images to JPEG or JPEG 2000 images.

Copyright

Copyright consideration is given at three distinct levels.

At the highest level, a general copyright statement exists on the Central Florida Memory website:

Copyright for Central Florida Memory Online:

Copyright for the design and content of the Central Florida Memory web site is owned collectively by the Orange County Regional History Center, Orange County Library System, and University of Central Florida Library. All rights to images such as illustrations, photographs, prints, logos, maps, etc. are retained by the institution that originally contributed the document.

Obtaining Permission for Use:

Permission for use of a document must come from one of the following institutions.

Orange County Regional History Center

65 East Central Boulevard

Orlando, FL 32801

Orange County Library System

101 East Central Boulevard

Orlando, FL 32801

University of Central Florida Libraries

4000 Central Florida Blvd

Orlando, Florida 32816-2666

Image Reproduction Costs:

Reproduction costs will vary depending on the document and the institution that owns the document.

At the document description / item description level, a general rights statement exists:

All rights to images are held by the respective holding institution. This image is posted publicly for non-profit educational uses, excluding printed publication. To purchase copies of images and/or for copyright information contact the respective holding institution.

At the individual image file level, copyright information has been added to the file info box detailing the holding institution and the reproduction equipment:

Copyright notice: Rollins College, Olin Library, 1000 Holt Avenue, Winter Park, FL 32789. Electronically reproduced on a Kaiser rePRO RSP / camera Linhof Karden-M by the University of Central Florida Libraries from materials held in the Olin Library, Rollins College, Winter Park.

Copyright URL: <http://www.rollins.edu/olin/>

Time Estimates for Scanning Various Materials

Important factors for estimating the amount of time to allot for digitization:

- Condition of the material
- Size of the material
- Equipment
- Editing required

Average time allotted per image for various materials:

- [Maps](#): Average 15 minutes per image on reprographic station
- [Photographs](#): Average 10 minutes per image on reprographic station
- [Books](#): Average 1.2 minutes per image or 50 images per hour
- [Voter Registration](#): Average 6.67 minutes per image or 9 images per hour
- Overall CFM: Average 2.9 minutes per image or 20.5 images per hour

Storage and Archiving for CFM Images

Storage during digitization – While materials are in process, image files are stored locally on an external hard drive or on the Library's server. Master TIFF images for Phases 1 and 2 are saved to the Library's server as they are digitized and stored for uploading to CONTENTdm. Due to large file sizes and space considerations, an external LaCie hard drive is used to store image files for the Orange County Voter Registration records.

Uploading – When image files are uploaded to CONTENTdm, the master TIFF images are used to create jpeg or jpeg2000 files for end user viewing.

Archiving - All master TIFF images are burned to a CD or DVD depending upon the size of the files and stored in the Digital Services unit of the University of Central Florida Libraries. To assist with long term storage and migration, Central Florida Memory images have been selected for inclusion in [FCLA's Digital Archive](#).