Crossing Organizational Boundaries
Image Scanning Preparation

This document is intended to aid you in the preparation of materials for scanning.

If you are uncomfortable with having your materials leave your building, the scanning contractor can come to you to do the scanning, provided you have enough room for their staff and equipment. Both the University of Washington Libraries and the Museum of History & Industry have sent and will continue to send their original images to the contractor's facilities.

Sending materials off-site

Tracking system

When sending collection materials off-site to be scanned, you will want to establish a tracking system so that you know what has been removed, both for your sake (in case researchers are looking for those very materials while they're temporarily out of commission) and for the contractor's sake (so they know which materials are in their possession at a given time).
We recommend two steps:

1. Prepare a list of items to be scanned. This list serves as an invoice. Each image should be uniquely and unambiguously identified in this itemized list. Suggested fields include:
   - the item's call number (a.k.a. negative number, accession number, shelflist number…however you usually identify the image)
   - a brief draft caption (that someone who doesn't know your numbering system could use to locate the image within a stack of images)
   - a blank field for the scanning contractor to fill in with the digital filename

   See the attached sample list for an idea of the type of basic information about each image you should provide to the scanning contractor.

   This list does not have to be in CONTENTdm. You may use Microsoft Excel or Access, or similar spreadsheet or database software; even a table in a word processing program will do. We would like to have the information entered into a computer, not handwritten.

   The Metadata Specialists can assist you with the preparation of this list, if needed. You may find it more useful to create this list at the same time as you're selecting images, since it will help you keep track of how many you've done (and how many you have left to do).

   This list should be attached to the delivery receipt (see 2.) and should be emailed to the scanning liaison prior to the pick-up.

2. Prepare a receipt for the contractor's delivery person to sign when they pick up your images. We can provide you with a blank form. This form equates to a bill of lading, and should list:
   - the exact number of images leaving the premises
   - a general description of the images (are they prints or negatives? color or black-and-white? a combination of all of the above?)
   - special instructions for the contractor (alert them if there are especially fragile or damaged items; unusual items, such as scrapbook pages, with images mounted on both sides; or if you have any other special requests for the handling or scanning of the materials)
   - places for the organization's liaison and the contractor's delivery person to sign at pick-up

3. Print out your list and attach it to the receipt. You should keep the original signed receipt and list, and make a copy for the delivery person. They may ask that you sign a similar receipt when they return your images.

4. Double-check your images against the itemized list (see 1). The list should contain only those images being scanned, and should be in the same order as the images.

Packing system

You will also need to pack your images in such a way that they won't break or bend during transport. Individual images should be housed in the manner most convenient for you and in keeping with your conservation policies. If they are housed in Mylar or acid-free sleeves, it is fine to leave them in that individual housing. The scanning contractor will use white gloves to handle the images.

You probably already have Hollinger boxes or some other archival storage system. These work fine for transport. We would advise labeling the outside of the box with the name of your institution, and fastening the boxes to prevent images from spilling out. If a box has enough space for items to move around, you may wish to include cardboard or another packing material to stabilize its contents.

The scanning contractor will place your boxes within plastic bins for transport in their vehicles.

Pick-up system

The Project Manager will work with you to schedule your scanning. The contractor can easily handle 400 images per week, so your materials should be out of your possession for no longer than a week.

We will find a day and time convenient for your Project Lead and/or Backup and arrange for the scanning contractor's driver to pick up your materials.

Delivery system

One week after pick-up, the contractor will return your original materials. You should examine them to make sure the correct number has been returned, and to make sure that no damage has occurred.

Scanned images are "burned" onto CDs. The CDs containing the uncompressed master TIFF images will be delivered to the Project Manager at MOHAI for quality review and loading onto the server. The TIFFs will be scanned at approximately 3000 ppi (pixels per inch) on the long side, 24-bit color or 8-bit grayscale.

The scanning contractor will supply the Project Manager with your original list. The field that you left blank will now contain the digital filename—that is, the name of the image as it appears on the CD. The filename will start out with a code for your organization (e.g. MO for MOHAI, etc.) and conclude with a six-digit number. This does not replace your original filing system—you may re-file your images in their original order. However, we will need to return to the original images if we find a problem with the scan, so please do not re-file your images until we let you know that everything is all right.

The Metadata Specialists will include your original number and the digital filename in the CONTENTdm software, so you will always be able to find a particular image on a CD by looking it up in the database.

The outside of each CD will be labeled with the same code for your organization and a 4-digit number. Once the images have been reviewed and transformed into smaller JPEG files on the server, the CDs are yours to keep. You will end up with 5-10 CDs. The grant will pay for a rack or box for you to store these disks containing your images.

Digital Image Glossary

Adapted from *Quality Review for Digital Images: An Internal Training Guide* (National Digital Library Program, Library of Congress, April 1999, available online at http://memory.loc.gov/ammem/techdocs/qintro.htm)

24-bit image: A color image where each dot may have any one of 16.7 million color values. The 24 bits are typically made up of three 8-bit values, with each 8-bit value representing a separate color (usually red, green, and blue). 24-bit images have a very high tonal resolution.

8-bit image: An image where each dot may have any one of either 256 possible gray values or 256 possible color values. The value is calculated by raising 2 to the 8^{th} power.

Compression: A process that reduces the file size for processing, storage, transmission, and display. The quality of the image may be affected by the compression techniques used and the level of compression applied.

DPI (Dots per inch): A measurement of the scanning resolution of an image or the quality of an output device. It expresses the number of dots a printer can print per inch, or a monitor can display, both horizontally and vertically.

Dynamic range: The number of possible colors or shades of gray that can be included in a particular image. 8-bit images can represent as many as 256 colors; 24-bit images can represent approximately 16 million colors.

Grayscale: The range of shades of gray in an image. The grayscale of scanners and monitors is determined by the number of shades between black and white that they can recognize and reproduce.

JPEG: A standard for image compression developed by Joint Photographic Experts Group. Compression is achieved by dividing the picture into tiny pixel blocks, which are halved over and over until the ratio is achieved. JPEG compression is a "lossy" compression, meaning that the compressed information cannot be retrieved. The greater the ratio of compression, the more information is lost.

Pixel: The picture elements that make up an image. Each pixel can represent a number of different shades or colors, depending upon how much storage space (ppi) is allocated for it.

PPI (Pixels per inch): The storage space allocated for a pixel. An image scanned at 3000 ppi can hold 3000 shades and colors in each inch.

Resolution (spatial): Images measured in terms of dots per inch or other linear measure. The higher the number of dots, the higher the resolution will be.

Resolution (tonal): Another way of describing the number of bits of information per pixel, used for grayscale or color images.

TIFF: Tagged Image/Interchange File Format. The file format used for the uncompressed master images created for this project.

MEMORANDUM OF RECEIPT OF IMAGES

Description of images to be scanned:

Number of images _____

General description of images (e.g. collection name, color or b/w, prints or negatives, etc.)

_____

_____

_____

Special instructions _____

_____

_____

I hereby acknowledge the receipt of the above-described images, and assure their safe return within one week.

For Conservation Imaging Systems:

_____ _____

Signed Date Print name

For [your organization]:

_____ _____

Signed Date Print name

Negative Number	Item Number Assigned by Scanner	Title	Details
DM22		John G. Ballard residence	interior, stairs
DM18		John G. Ballard residence	interior, room with fireplace
DM19		John G. Ballard residence	interior, room and deck
DM24		John G. Ballard residence	interior, bedroom and deck
DM16		John G. Ballard residence	exterior, entire structure
DM21		John G. Ballard residence	interior, room and landscape view
DM20		John G. Ballard residence	interior, room and partial fireplace
DM17		John G. Ballard residence	exterior, partial structure
DM43		Jack Miller residence	interior, room with fireplace
DM38		Jack Miller residence	interior, deck
DM37		Jack Miller residence	interior, landscape view
DM63		Tucker residence	interior, room with fireplace
DM70		Tucker residence	exterior, patio
DM59		Tucker residence	exterior, garden
DM61		Tucker residence	interior, entrance
DM60		Tucker residence	exterior, patio and façade
DM71		Tucker residence	exterior, entire structure, rear
DM56		Tucker residence	exterior, partial structure
DM54		Tucker residence	exterior, entire structure, front