Image and Data Acquisition

LCP Image Acquisition Procedures

This section provides guidelines for scanning images that will be added to the LCP image archive. By scanning the image, we obtain a digital copy that can be stored on the UVM server rather than a hard copy, which would require physical storage space. This document will walk though the steps to acquire a properly scanned image from different media (i.e. photograph, slides, negatives, glass plates).

Note: All images should be scanned as .tiff files. This image format is preferred by archivists because there is no loss of in image quality as the image is saved and later edited.

Scanning a photograph using Canoscan LiDE 90:

1) Begin by unlocking the scanner. The scanner should always be locked during transport. And plugging in the cord to the scanner and your computer.
2) Insert image into scanner. If necessary remove the image from any protective covering and make sure you are wearing gloves if asked to do so by the archivist. Try to align the image so the scan will come out straight. Align the image so that the is along the base of the scanner (farthest from the hinges of the scanner lid) and the scan will come out right side up on your monitor.
3) Run software. Click on the MP Navigation EX 1.0 icon on your computer (which will appear after software instillation). If the icon is not on your desktop Open [Applications] - [Canon Utilities], then double-click the [MP Navigation EX 1.0] icon.
4) On the MP Navigator EX – CanoScan LiDE 90 screen choose “Photo – 1”
5) Check Settings. “Use the Scanner Driver” should be toggled. Give your scan a file name using the two initials of the archive, your initials followed by the date. There is no need to add any numbers, as you scan it will incrementally increase. For example, the first scan will be SM_JR_5_19.TIF, then SM_JR_5_190001.TIF, SM_JR_5_190002.TIF etc.
6) Choose to save you file as a TIFF.

7) Choose the destination folder for where all scanned images will be saved. Save all scans into a folder created each day. The folder name is a combination of the archive, the scanner and the date. The folder name should be the archive initials_scanner's initials_date (including year). If Jamie Russell is scanning at the Sheldon Museum on May 19th 2008 the file name for that day is SM_JR_5_19_2008.
8) Make sure "Open the save dialog box after scanning the image (Input Exif information)" is toggled.
9) Application Settings, open with "Preview".
10) Click on the scan button.
11) Calibration should be done at the beginning of each day and approximately every hour after heavy scanning or when prompted by the scanner software. If image quality visibly deteriorates perform a calibration immediately and rescan the image that had the poor quality scan. To calibrate click on the arrow buttons next to calibration settings to display the execute button. Click on the execute button and wait approximately 1–2 minutes for the calibration to run.
12) Prepare to Scan. Check all settings. Select Source: Platen. Paper Size: Full Platen. Color Mode: Varies depending on scan (use color for color images and gray scale for black and white images) Output Resolution between 400 and 1200 dpi. What is important here is that the scanned image is at least 4000 pixels wide so that using the zoom tool in the archive is effective. The smaller the image the higher dpi you will scan at to ensure the 4000 pixel wide digital image. Auto Tone should be on but Unsharp mask and Descreen should both be off. All the other fields should be "none" when scanning under normal circumstances. When scanning printed material (not a photograph) turn Descreen on. After scanning printed material, check carefully to ensure that the settings are returned to normal before scanning images again.
13) If an image is printed on hard cardstock, it may be warped and you will need to apply gentle pressure to the scanner lid to flatten image during scanning.

Example of a warped stereoview scanned without applying pressure to the scan lid. Note that the edges are clear but center is fuzzy.

14) Preview Scan. Click on the preview button. Allow a few seconds for the scanner to preview the image, once image appears, rotate it if necessary using the rotate right and rotate left icons at the top if the page. Select the area for scanning. This will allow for the selection of the desired scan area. Select a scan area just slightly inside the edge of the image to reduce the possibility of scanning a small amount of white background. If the image is on interesting cardstock (or has an interesting border) then make the scan area large enough to include the detail. Multiple scans can be preformed on a single image if desired by making multiple sections.
15) Scanning the image. Click on the Scan button and the image will be scanned and saved into the folder designated in step 5.
16) Before the image is finished scanning a “scanned Image” page will appear this allows you to preview the image to ensure it has scanned properly. This is also a good place to copy the file name (since it does not contain an extension at this point) and paste it into the bulk upload spreadsheet for the images. By clicking on the image, you can view an enlarged version of the image. After previewing to make sure the scan worked properly click forward. At this point the image will be saved.
17) Check scanned image. Open the scanned image and zoom-in to make sure that the scanned image has sharp resolution. If not, then rescan the image. Open a finder window to ensure the file is being saved in the proper location. Keep this window open on your desktop throughout scanning to make sure the files are saving into the destination folder each time.

18) Replace the image in is cover (if it has one) and place it in the "scanned" pile. Move on to the next image.
19) At the end of the scanning day, relock the scanner before transporting.

Scanning a 35mm slide using Nikon SUPER COOLSCAN 4000 ED:

1) Begin by plugging the scanner into a power outlet and your computer.
2) Slide down the black cover and insert the single slide holder.
3) Open the Nikon Scan 4 software, open [Applications] – [Nikon Software] – [Nikon Scan 4] – double click on the [Nikon Scan 4] icon.
4) Place a slide in the slide holder, shinny side up with the top of the image facing toward the right.
5) On the Nikon Scan 4 software click the Tool button and open the Tool Pallet.
6) Check that the resolution of the image is sufficiently high. Ideally images should scan at 3,000 to 4,000 pixels wide. Due to the small size of the 35mm slides select 3,000 -4,000 dpi.
7) Click the preview button. This will allow you to preview the scanned image. Check to ensure that the scan area only includes the picture and no background (i.e. black or white border).
8) Click the scan button.
9) After scanning the image will appear on the screen. Choose "File" → "Save as" to save the file to the proper destination. The slide should be saved into a folder titled using the archive location, your name and the date (i.e. SM_JR_5_29_08 for a scan at the Sheldon Museum by Jamie Russell on May 29, 2008). The file name of the scan should include the archive, date and your name (i.e. SM5_19JR.TIFF). As you continue scanning add sequentially increasing numbers after you name (i.e. SM5_19JR001.TIFF, SM5_19JR002.TIFF etc.). Make sure the file saves as a TIFF.

Scanning a 35mm slide using EPSON PERFECTION V750 PRO:

1) Begin by unlocking the scanner (in the back of the scanner **and** on left underside of the lid). The scanner should always be locked during transport. And plugging in the cords to a power outlet and your computer.

2) Turning the scanner on. Push the on button on the front of the scanner and allow it a few moments to warm up.
3) Placing the slide(s). Place up to 12 slides in the 35mm slide holder with the shinny side down and the rougher emulsion side up. The image will appear backwards on the side that faces up. The top of the image should face the open end of the film holder (and the film holder side flaps should be on the right. Align the film holder on the scanner document table in the upper right corner. Make sure the document mat is removed. Close scanner cover.
4) Run software. Click on the EPSON Scan icon on your desktop. If not on your desktop open [Applications] – double click [EPSON Scan]. Make sure the Mode is set to "Professional Mode". Select document type "Film (with film holder). In film type select "Positive Film". Under destination, select image type: 24-bit color. Select resolution for 1200 dpi, since the slides are so small we need to choose a large dpi value. What is important here is that the scanned image is ideally 4000 pixels wide so that using the zoom tool in the archive is effective. Make sure Thumbnail is checked.
5) Choose the destination folder for the scanned image. Click on the small folder icon to the right of the "Scan" button. Click "Choose" to select a folder where all scanned images will be saved into. Save all scans into a folder created each day. The folder name is a combination of the archive, the scanner and the date. The folder name should be the archive initials_scanner's initials_date (including year). If Jamie Russell is scanning at the Sheldon Museum on May 19th 2008 the folder name for that day is SM_JR_5_19_2008. Name the file after the archive and the scanner, so the file name for the above example would be SMJR. As you scan more images, the program will add and then incrementally increase the number after the initials. Check to ensure you are saving the scan as at Multi-TIFF. Click "OK"
6) Preview and Scan. Click the "Preview button at the bottom of the menu. Allow the scanner some time to warm up. Once the preview scan is complete select a slide and click "Full Size" on the top of the menu to make adjustments to each individual slide. Check the box below an image and make sure the image is selected (blue box). Select all images at once and on the EPSON Scan menu click the scan button.
7) A screen will appear saying the scan is complete. Click "Edit Page" to preview the scanned image. After checking to make sure the image scanned correctly click "Okay".

8) A finder screen will open with the saved location of the image. Check to ensure it is saved properly. Copy and paste the file name (without the TIFF extension) into the bulk upload spreadsheet.
9) Replace the image in is cover (if it has one) and place it in the "scanned" pile. Move on to the next image.
10) When scanning in this format the image will be compressed into a single file. This is fine and each image can be extracted at a later point.
11) Turn off and relock scanner for transport after scanning is complete.

Scanning a negative using EPSON PERFECTION V750 PRO:

1) Begin by unlocking the scanner (in the back of the scanner **and** on left underside of the lid). The scanner should always be locked during transport. Plug in the cords to a power outlet and your computer.
2) Turn the scanner on. Push the on button on the front of the scanner and allow it a few moments to warm up.
3) Remove the document mat. To scan negatives you need to remove the document mat from the scanner cover, this uncovers the transparency unit so a negative can be scanned. Open the scanner cover and gently pull up on the document mat to remove it.
4) Placing the negative in the scanner.
    a. If negatives fit within one of the document holders, open the format film holder and place the negative in it. Place the shiny side down and rough, emulsion side up, images will appear backwards when looking at them. Place the top of the image toward the back of the scanner, in order to have the image appear right side up on the computer monitor. Place the film holder on the scanner, aligning the holes on the right with the pegs on the film holder. Close the scanner lid.
    b. Some negatives may not fit within the film holders, if this is the case use the Film Area Guide. Place the film area guide on the document table with the tabs facing the left side of the scanner. Place the negative in the film area guide, with the shiny base side facing down. Close the scanner lid.
        i. You do not need to use the Film Area Guide, however, if you are scanning without a guide make sure to move

the image toward the center of the scanner to avoid cutting off the edges of the image.

5) Run software. Click on the EPSON Scan icon on your desktop. If not on your desktop open [Applications] – double click [EPSON Scan]. Make sure the Mode is set to “Professional Mode”. Select document type [“Film (with film holder) if you are using a film holder or “film (with film area guide)” if using the area guide]. In film type select “Negative Film” (Color or B&W depending on the negative). Under destination, select image type (8-bit grayscale or 24-bit color). Select resolution from 400 to 1200 dpi depending on the size of the image. The goal is to have a scan that is ideally 4000 pixels wide.
6) Choose the destination folder for the scanned image. Click on the small folder icon to the right of the “Scan” button. Click “Choose” to select a folder where all scanned images will be saved. Save all scans into a folder created each day. The folder name is a combination of the archive, the scanner and the date. The folder name should be the archive initials_scanner’s initials_date (including year). If Jamie Russell is scanning at the Sheldon Museum on May 19th 2008 the file name for that day is SM_JR_5_19_2008. Name the file after the archive and the scanner, so the file name for the above example would be SMJR. As you scan more images, the program will add and then incrementally increase the number after the initials. Check to ensure you are saving the scan as at Multi-TIFF. Click “OK”
7) Preview. Click the “Preview button at the bottom of the menu. Allow the scanner some time to warm up. Once the preview scan is complete use the mouse cursor to select a region around the scan that you want scanned. You may also rotate the image at this point.
8) Scan. On the EPSON Scan menu click the scan button.
9) A screen will appear saying the scan is complete. Click “Edit Page” to preview the scanned image. After checking to make sure the image scanned correctly click “Okay”.
10) A finder screen will open with the saved location of the image. Check to ensure it is saved properly. Copy and paste the file name (without the TIFF extension) into the bulk upload spreadsheet.
11) Replace the image in is cover (if it has one) and place it in the “scanned” pile. Move on to the next image.
12) Turn off and relock scanner for transport after scanning is complete.

Scanning a lanternslide using EPSON PERFECTION V750 PRO:

1) Begin by unlocking the scanner (in the back of the scanner and on left underside of the lid). The scanner should always be locked during transport. Plug in the cords to a power source and your computer.
2) Turn the scanner on. Push the on button on the front of the scanner and allow it a few moments to warm up.
3) Remove the document mat. To scan negatives you need to remove the document mat from the scanner cover, this uncovers the transparency unit so a negative can be scanned. Open the scanner cover and gently pull up on the document mat to remove it.
4) Placing the lanternslide in the scanner.
    a. If the slide fits within one of the document holders, open the format film holder and place the slide in it. Place the shinny side down and rough, emulsion side up, **images will appear backwards when looking at them**. Place the top of the image toward the back of the scanner, in order to have the image appear right side up on the computer monitor. Place the film holder on the scanner, aligning the holes on the right with the pegs on the film holder. Close the scanner lid.
    b. Some slides may not fit within the film holders, if this is the case use the Film Area Guide. Place the film area guide on the document table with the tabs facing the left side of the scanner. Place the slide in the film area guide so it looks backwards when looking down at it. Close the scanner lid.
        i. You do not need to use the Film Area Guide, however, if you are scanning without a guide make sure to move the image toward the center of the scanner to avoid cutting off the edges of the image.
5) Run software. Click on the EPSON Scan icon on your desktop. If not on your desktop open [Applications] – double click [EPSON Scan]. Make sure the Mode is set to “Professional Mode”. Select document type [“Film (with film holder) if you are using a film holder or “film (with film area guide)” if using the area guide]. In film type select “Positive Film” (Color or B&W depending on the negative). Under destination, select image type (8-bit grayscale or 24-bit color). Select resolution for 600 to 1200 dpi depending on the size of the image. The goal is to have a scan that is at least 4000 pixels wide. Wider is OK.

6) Choose the destination folder for the scanned image. Click on the small folder icon to the right of the “Scan” button. Click “Choose” to select a folder where all scanned images will be saved into. Save all scans into a folder created each day. The folder name is a combination of the archive, the scanner and the date. The folder name should be the archive initials_scanner’s initials_date (including year). If Jamie Russell is scanning at the Sheldon Museum on May 19th 2008 the file name for that day is SM_JR_5_19_08. Name the file after the archive and the scanner, so the file name for the above example would be SMJR. On your first scan make sure the start with number is 001. As you scan more images, the program will add and then incrementally increase the number after the initials. Check to ensure you are saving the scan as at Multi-TIFF. Click “OK”
7) Preview. Click the “Preview button at the bottom of the menu. Allow the scanner some time to warm up. Once the preview scan is complete use the mouse cursor to select a region around the scan that you want scanned. You may also rotate the image at this point.
8) Scan. On the EPSON Scan menu click the scan button.
9) A screen will appear saying the scan is complete. Click “Save File”.
10) Check to ensure it is saved properly. Copy and paste the file name (without the TIFF extension) into the bulk upload spreadsheet.
11) Replace the image in is cover (if it has one) and place it in the “scanned” pile. Move on to the next image.
12) Turn off and relock scanner for transport after scanning is complete.

LCP Procedures for Recording metadata

During the image acquisition process it is important to record any information associated with the image such as writing on the front or back. Metadata can be thought of as “data about data” or information relating to an image.

Metadata is an extremely important aspect of archiving in that it provides details about an image that otherwise would be lost once the image is in a digital form. Some of these details may be printed directly on an image or a person examining an image can interpret other pieces of metadata.

Metadata is saved into a bulk upload spreadsheet (see LCP Procedures for Using a Bulk Upload Spreadsheet for additional information). Each day of scanning will have a corresponding bulk upload spreadsheet where original image metadata is recorded while scanning. Each day's spreadsheet has the same file name as the folder where all the scanned images are saved (archive initials _ scanners intials_date). While scanning, copy and paste the scanned file name into the spreadsheet and add the extension ".jpg" into the original file name column (column B). Fill in all information written on the image (both front and back) into the Original metadata column (column C) also on the spreadsheet. Make sure to differentiate between information that is handwritten on the image after it was printed versus text that is printed with the image. If an image has a date written on it make sure to fill this into the photo date column (column P) as well as the original metadata column. Dates need to be entered in a specific format. If only the year is present enter as XXXX (i.e. 1910), If the month is also known it must be entered as year-month (i.e. 1910-03), if the day is also known enter as year-month-day (1910-03-15). If there is a date range enter the oldest year first followed by a space then a dash, another space and the other year (i.e. 1910 – 1940). For questionable dates you may enter the date followed with a question mark (i.e. 1920?).

Make sure to save after every entry into the bulk upload spreadsheet!!!

LCP Procedures for Using a Bulk Upload Spreadsheet

This document will provide guidelines for using a bulk upload spreadsheet. When working with a large set of images it is extremely useful to use a bulk upload spreadsheet rather than submit each image to the website separately. The bulk upload spreadsheet allows more information to be included in the image metadata than does the pubic upload (described in Using the LCP Public Upload Site) and processes more quickly.

A bulk upload spreadsheet allows you to enter all the information for each image into an excel spreadsheet and then upload all the information along with the image into the archive at one time. A bulk upload spreadsheet is used throughout the entire image acquisition process (from image scanning through description to final uploading into the archive).

The bulk upload spreadsheet will have a file name that corresponds to the archive from which the scans came, the person who did the scanning and the date on which the scans were acquired. For example, if Jamie Russell scanned images from the Sheldon Museum on May 20th, 2008 the bulk upload spreadsheet would be named SM_JR_5_20_08.xls and would reside in a folder of the same name (SM_JR_5_20_08) with all the images (having file names of SMJR.jpg, SMJR001.jpg, SMJR002.jpg…).

It is necessary to fill out all mandatory fields within the spreadsheet in order for the upload program to function properly. Descriptions should be written in a word processing program such as Microsoft Word then copied and pasted into the field. Likewise keywords will be selected using the keyword selector then copied and pasted into the bulk upload spreadsheet.

Using a Bulk Upload Spreadsheet:

1. Begin by opening the bulk upload spreadsheet template in excel and renaming the file, click "file" → "Save As…" and give the file a unique name. Filenames should begin with the two letter archive initials. Followed by and underscore and the scanners initials. After another underscore is the date. The filename should look something like this: SM_JR_5_20_08.xls.
2. Fill the file name (of the scanned image) into the Original file name column B during the scanning process. It is extremely important to populate this field with the exact file name of the scanned image, including all spaces, capital letters and file name extensions (i.e. jpg vs. jpeg). If the file name of the scan is different than what is populated in this column then the image will not load into the archive when the bulk upload spreadsheet is processed. Note during scanning files are saved as tiff files, however before a file can be uploaded to the LCP website it must be in jpg format, thus file extensions in the spreadsheet should be .jpg.
3. During scanning all original metadata from the image should also be filled in (Column D Original Metadata). The town and date should also be filled is at the time of scanning (Column C and P respectively).
4. After scanning is finished. Populate the rest of the data fields.
5. In many instances, the entire column will have the same information. If this is the case, fill in the first cell of the column with the correct information. Select the cell and place your mouse

cursor in the lower right corner of the cell until the mouse icon change to a "+" Hold down the mouse button and drag down to the last cell in the column. If the cell you are copying contains a number hold down the "alt" key to keep the number the same as you drag to the last column otherwise it will sequentially increase as you drag.

6. Fill in all information for each image.
   a. Choose a title. Simple and short but still descriptive.
   b. Copy and paste keywords from the keyword selector into the appropriate field.
   c. Write a description in a word processing program and copy and paste it into the appropriate field.
7. Make sure that any entries for images that are reshots of historic images are put into another spreadsheet or different sheet within the workbook and labeled reshots. Make sure to note the LS# or the file name of the historic image and upload these images separately from the rest of original images.
8. Sequentially number the image entries within the spreadsheet in Column A. Type 1 in row 7, 2 in row 8. Select both cells by dragging the mouse over both cells while holding the mouse button. Once both cells are selected, release the button and move the mouse cursor to the lower right corner until the cursor changes to a "+". Drag to the last cell in the column making sure the numbers are sequentially increasing as you drag.
9. **Check to ensure all mandatory fields are filled**. An easy way to check this is to add an auto filter. Click in the center of the button on the left of the top row (field labeled 1) to highlight the entire row. Click on "Data" → "Filter" → "Auto Filter". This will create filters on each one of the headings. Click on the arrow next to each one of the mandatory fields and select "show blank" from the pull down menu. This will show all rows with a blank cell in the selected column. Each of these cells should contain information. To return to the entire list click on the arrow again and select "show all".
10. Spell Check the entire spreadsheet.
11. Check the quality of the images you are adding to the archive. Make sure they are the highest quality possible to ensure a large amount of image quality was not lost when images were converted from TIFF to JPG.
12. Save your file as a .xls file
13. Also save your file as a tab delimited text file. Click "File" → "Save As…" → "Format" → "Text (Tab delimited)" → "Save".

Things to keep in mind:

- A bulk upload spreadsheets will correspond to the images from one day of scanning.
- All images from a single day and the corresponding bulk upload spreadsheet will reside in a file of the same name as the bulk upload spreadsheet.
- When the spreadsheet for a days worth of scanning is complete the file should contain a .xls file, a .txt file and all the images (as .jpg files) that are described in the bulk upload spreadsheet.
- If the file extension has been left off of your Original File name, it can be added quickly in Excel using the formula =A1&A2. This will combine text in A1 with A2 in a third column, copy and paste special back into the field.