

Title:	Digitization Guidelines
Purpose:	Guidelines for utilizing the flatbed scanner to create digital surrogates of physical materials.
For:	Digital Lab Staff
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Introduction

These guidelines provide a step by step regarding how to operate the Epson Expression 10000XL and 11000XL scanners.

Image capture - Epson Expression 11000XL:

- All items are scanned at 600 dpi/ppi with RGB colors unless a higher resolution is specifically requested.
- Fill out an Image Production Record.
- Open Adobe Photoshop.

- Position the item you want to scan on the glass scanning bed.
- To begin scanning, select File > Import > EPSON Expression 11000XL...

Confirm the settings:

- Mode: Professional Mode
- Document Type: Reflective
- Document Source: Document Table
- Auto Exposure Type: Photo (Occasionally it is appropriate to choose Document)
- Image Type: 24-bit Color
- Resolution: 600 dpi (Unless otherwise requested)
- Document Size: this will vary - do not enter any numbers here
- Target Size: Original
- Adjustments: These are rarely used

For negatives:

- Mode: Professional Mode
- Document Type: Film
- Film Type: depending on the type of Negative, select Positive Film, Color Negative or B&W Negative
- Image Type: 24-bit Color
- Resolution: 1200 dpi (Unless otherwise requested)
- Document Size: this will vary - do not enter any numbers here
- Adjustments: These are rarely used
- If using a negatives template, you can generate thumbnails by checking Thumbnail under the Preview button

- Select Preview to see a preview of the image.
- Drag the scanning frame to fit the image. Leave a little space around it if possible.
- Select Scan.
- The scan will appear in the Preview window. When the scanner stops, close the settings box - this will also close the preview window

Master image manipulation of scanned items - Photoshop:

- The master image for a scanned item is a 600 dpi TIFF. Master images should look as true to the original as possible.
- Examine each image to see whether or not it requires manipulation. Do as little manipulation as possible to make the master image look like the original.
- You can either save the image before you do any manipulations and then re-save it once the manipulations are complete, or you can complete manipulations and then save the image.

Save Image

Select File > Save As.

- Select the appropriate directory where the image will be saved.
- Use the file name from the production record.
- Format: TIFF
- Make sure Save As Copy is not checked.
- Select Save.
- In the TIFF Options window, make sure IBM PC is selected and that LZW Compression is not checked.

Rotate Image

If needed, rotate the image so that it is right-side-up. Do this by selecting Image > Rotate Canvas. Typically 180°, 90° CW, or 90° CCW will work.

Cropping

The image may need cropping to remove excess border. To do this, you need to activate the crop tool.

- Left-click on the crop tool  on the toolbar. If you don't see that, left-click and hold on , which will give you a set of choices like this:



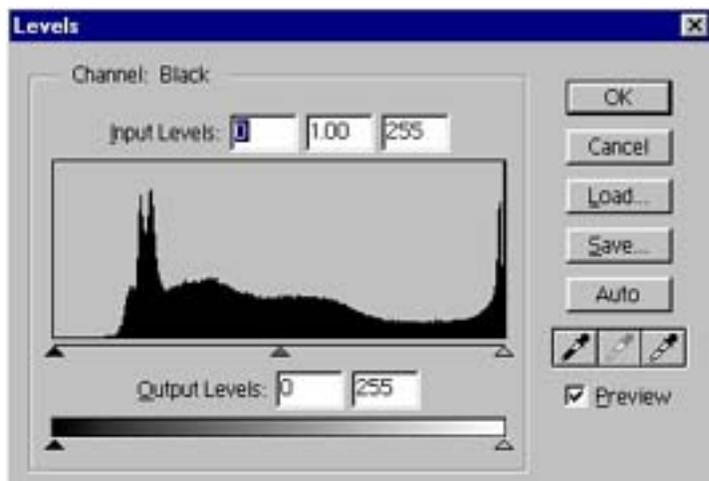
- From there, you can left-click on the correct icon, and the cursor should look like the crop tool.
- Left-click and hold while dragging the box around the part of the image you want to keep. After releasing the mouse, the box will have smaller boxes on its corners and sides. You can click on these and drag them in or out to adjust the cropping area.

- When you have selected the area you want to crop, right-click inside the selected area and choose either crop or cancel. You can also double left-click to crop the image.
- To undo the crop, select Edit > Undo Crop or hit Ctrl + Z.

Adjusting the contrast

If the image looks a little dull or flat, the contrast needs to be adjusted. This can be done several ways, but it is best to adjust the levels.

- The contrast of the image should match the original as closely as possible. Be careful not to overdo it – contrast can always be adjusted again on the access image to make it easier for the user to view.
- Select Image > Adjust > Levels. Be careful not to choose Auto Levels or Auto Contrast.
- The dialogue box below will appear:

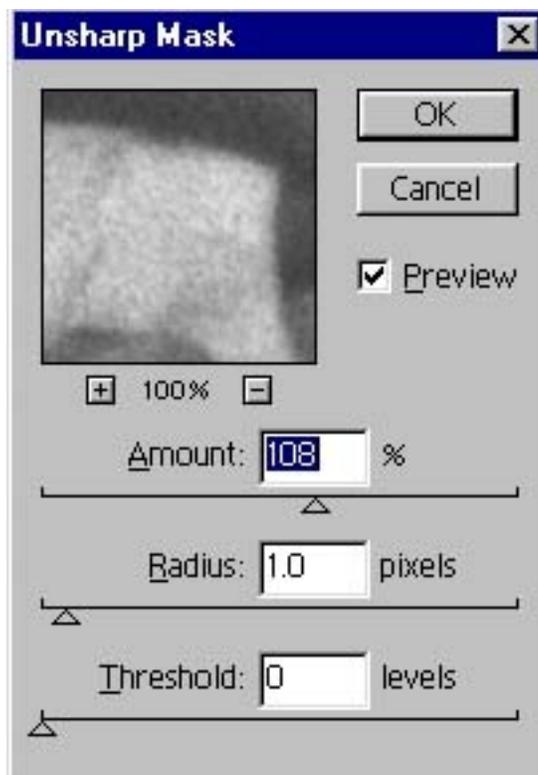


- Output levels should remain at 0 and 255 for a master image.
- Input levels can be adjusted either by clicking on the arrows and moving them or by changing the numbers in the appropriate boxes. Usually, it's only the first number (the left arrow) that needs to be changed. You will see a difference in the image as you make these changes. The amount of change needed varies from image to image, so you just have to use your own judgment. A general guide is that black should be really black, white should be really white, and there should be a wide range of grays in a photo (assuming a black and white image). Some people say the photograph should "pop". You'll recognize this with practice. In any case, the left arrow almost never needs to be moved past the first bit of black on the histogram shown (if one is present). Be careful not to increase the contrast too much on the master (contrast can always be adjusted again on the access image).

Sharpening

The image may look slightly out of focus or fuzzy. If it is only slightly fuzzy, you can sharpen the image. If the digital image is very blurry, and the original item is in focus, you should rescan the item.

- Sharpening can be overdone, so use caution. It's better to leave a master image unsharp and sharpen the access image than to over-sharpen the master. Also, sharpening should be the last step in post-processing before saving.
- Select Filter > Sharpen > Unsharp Mask.
- The dialogue box below will appear:



- The amount radius and threshold can be adjusted here, but usually a threshold of "0", a radius of "1.0", and an amount of "108%" works very well.

Creating Access Images - Photoshop:

- The standard access image is a 200 dpi JPEG. This is the image that is provided to the patron, unless otherwise specified. This is also the image that is uploaded into Content DM.

Creating individual access images

- Make sure the master TIFF image is open in Photoshop.
- Select Image > Image Size.
- Change resolution to 200 dpi.
- To save the image, select File > Save As.
 - Select the appropriate directory where the image will be saved.
 - Format: JPEG
 - Check the file name to make sure it is complete. Sometimes the end of the file name is deleted when JPEG format is selected.
 - Make sure Save As Copy is not checked.
 - Select Save.
 - In the JPEG Options window, set the quality to 12 maximum.

Batch creating access images

- Use this option if you want to make access images for multiple items. Make sure that all of the TIFFs that you want to create access images for are in the same folder.
- Select File > Automate > Batch.
- Under Play, select the Action tiff to 200 dpi JPEG.
- Under Source, click on Choose to select the source folder where the TIFFs are located.
- Under Destination, click on Choose to select the destination folder where you want to save the JPEGs.
 - Select Override Action "Save In" Commands. This allows the images to be saved in the folder you designated instead of the folder used to originally create the action. If the action will not run, try deselecting this.
- Click OK and the action will run.
- After the action is complete, check the destination folder.