

South Carolina Digital Library

Scanning: General Rules of Thumb

Resolution

Before you begin scanning items, consider the type or format of the item because it will affect your scanning methods. Books, manuscripts, photographs, slides, and negatives all have different scanning needs. Image resolution is one such difference. Image resolution refers to the number of pixels per inch in the image. The higher the resolution, the higher quality the image because more pixels, in essence bits of information, are being stored in the same amount of space. The lower the resolution, the less information overall that you store in the image.

Books and manuscripts generally require a lower resolution than photographs, slides, and negatives because these documents typically do not have as much visual information that needs to be captured, whereas a photograph can contain any number of colors or variances in lighting, shadowing, etc. The following section details SCDL's resolution recommendations for the most common media formats:

Books/typed pages: 300ppi (pixels per inch)

Manuscripts/handwritten documents: 300ppi

Photographs: 600ppi

Slides: 1200ppi

35mm Negatives: 1200ppi

The SCDL also recommends scanning in 24-bit color, except for books/typed pages where scanning in black and white or grayscale seems acceptable and the the visual value of the item will not be diminished.

The SCDL understands that the amount of disk space taken up by higher resolution images can be quite high, and that it can be difficult to find the space for those images. If you *absolutely must* sacrifice quality for space, do not scan books or manuscripts under **200 ppi**, photographs under **300ppi**, or slides and negatives under **600ppi**. Otherwise you will find that scanning these materials will not have been worth the digitization effort. Re-evaluating your selection

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process and limiting the number of items that you choose to digitize for a project is one strategy to both save disk space and maintain the integrity and quality of your scanned images. You can always scan the other items later, but you certainly do not want to have to re-scan because of poor quality.

File Formats

Digitization of an item really involves the creation of two digital files: one for preservation purposes, and one for public access. The original, unaltered scan will be your archival master. Thus, when scanning, save the file as an **uncompressed TIFF**. TIFF is an open-source and lossless format, meaning that it does not need a particular program/software to open and you can copy it as many times as you want without losing any information. TIFF files are HUGE, and therefore not terribly appropriate for access on the internet. It would take a patron quite a long time to download a TIFF in his or her browser.

Because TIFFs are basically inaccessible through the internet, we create **JPEG** files using the archival master. JPEGs are much smaller in size, and of good enough quality for an online audience. Also, you can manipulate JPEGs with Photoshop to enhance colors or brighten images (remember, you do not want to alter your master file in any way). **SAVE YOUR TIFF AND JPEG FILES IN SEPARATE FOLDERS!** You *do not* want to overwrite your master TIFF file, otherwise you will have to start scanning again.

Recap:

Original Master Archival File: **TIFF** format

Alterable Online Access File: **JPEG** format

--Save in separate folders, or you face redoing your work

Software

Pretty much any software will suffice for scanning, so long as you have correctly input the settings such as resolution, bit-depth, and file format. Perhaps the easiest way to access your scanning software is through Photoshop or Photoshop Elements. The supplemental *Scanning Best Practices* will detail this process.