

Summary RUCore requirements and minimum standards for digitization of analog formats

(Note: This document addresses standards for digitizing or scanning, from paper, film, or other analog media into digital images. For born-digital still images, such as those captured directly from a digital camera, please see the guideline sheet for born digital images).

In order to standardize imaging specifications through the RUCore and other archival imaging projects, the following minimum standards and requirements have been established for preservation-grade digital images. Member sites should adhere to these guidelines to ensure that digital documents can be uniformly ingested and archived, and their preservation can be assured.

Archived Digital Images

Color photos and documents:

- Should be scanned at minimum 600 dpi for archival purposes
- Color space should be sRGB, at least 24 bit truecolor. 8 bits per channel is preferred.
- Archival files should be in TIFF format, encoded with no compression or (where available) a lossless compression algorithm.

Black and white documents with gray tones, or black and white photos:

- Should be scanned at a *minimum* of 600 dpi.
- Color space should be grayscale. RGB is acceptable, but contributes nothing to pure grayscale images and only increases file size.
- Archival files should be in TIFF format. Archival files should be in TIFF format, encoded with no compression or (where available) a lossless compression algorithm.

Black and white documents with pure text:

- Should be scanned at a *minimum* of 400 dpi.
- Color space should be 2 bit color (black and white), but should be converted to grayscale if the documents are to be digitally resized.
- Archival files should be in TIFF format. Archival files should be in TIFF format, encoded with no compression or (where available) a lossless compression algorithm.

Additional Considerations - the 3,000-pixel rule

- Scanning at resolutions much higher than 600dpi may be required if the document is small in physical size.
- All digitized documents should be scanned such that at least one dimension of the visible area of the document (width or height) is comprised of a minimum of 3,000 pixels each. If a scan at 600 dpi does not meet this minimum, then the resolution should be increased and the document re-scanned accordingly. *It is not acceptable under any circumstances to artificially increase the dpi by resampling or interpolating the image. The original scan **must** meet the 3,000 pixel minimum.*
- Extraneous image information (such as a calibration strip, record labels, or any part of the scanned image that does not directly pertain to the document itself) should not be included in this calculation. Measurements should be made using only the visible area of the document.
- Example: a 3"x4" color photograph scanned at 600 dpi will render an image that is 1800 x 2400 pixels. As the width does not meet the minimum, a 600dpi scan will be unacceptable. The scan should be increased to 800 dpi to render a 2400 x 3200 pixel image, and thus bring the image to an acceptable level of detail.

On the other hand, an 8.5"x11" sheet of paper with black and white text will scan acceptably at 400dpi, rendering a 3400 x 4400 pixel image.