

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION- Electronic Access Project Scanning and File Format Matrix

All dots per inch (dpi) specified for scanning are equivalent dpi for the size of the original documents, unless otherwise specified. All scanning from photographic intermediates or microfilm shall be done at the dpi needed to achieve the cited resolution on the original documents. Due to inconsistent legibility of documents and the desire to image documents in a consistent manner, all scanning will be 8-bit greyscale or 24-bit color. The tone reproduction and aimpoint values are intended to provide good monitor representation of the images on an "average" computer monitor based on the visual evaluation of a selection and variety of monitors. Scanning and quality control workstation monitors shall be set to 24 bits (millions of colors), set to a gamma of 2.2, set to a color temperature of 6500°K, calibrated for color nuetrality, and the contrast and brightness adjusted for the aimpoint values.

Scanning Aimpoints- Using the Kodak greyscale, the tonal controls of the scanner shall be adjusted to place step #19 at RGB levels of 8, 8, and 8 or at % black of 97%, to place step "M" at RGB levels of 105, 105, and 105 or at % black of 59%, and to place step "A" at RGB levels of 247, 247, and 247 or at % black of 3%. Using the Kodak color bars, the tonal controls of the scanner shall be adjusted to place single color black patch at RGB levels of 19, 19, and 19 or at % black of 93%, to place the grey background at RGB levels of 101, 101, and 101 or % black of 60%, and to place the white patch at RGB levels of 241, 241, and 241 or % black of 5%. Variability: no more than \pm 3 RGB level variance from aimpoints and no more than 3 RGB level difference in the individual channels within a patch for RGB scanning and no more than \pm 1% level variance from the aimpoints in % black for greyscale scanning.

TYPES OF DOCUMENTS

<u>FILES</u>	Textual	<u>Photographs</u>	Maps and Drawings	<u>Graphic</u>
MASTER FILES	Scan Resolution:	Scan Resolution:	Scan Resolution:	Scan Resolution:
	300 dpi for docs.	adjust dpi to achieve	300 dpi for docs.	adjust dpi to achieve 3,000 pixels
	UP TO 11"x17"	3,000 pixels across	UP TO 11"x17"	across the long dimension for docs.
	or 187 sq. in.	the long dimension	or 187 sq. in.	UP TO 11"x17" or 187 sq. in.
	200 dpi for docs.	adjust dpi to achieve	200 dpi for docs.	200 dpi for docs.
	OVER 11"x17"	2,700 x 2,700 pixels	OVER 11"x17"	OVER 11"x17"
	or 187 sq. in.	for square images	or 187 sq. in.	or 187 sq. In.
	File Format and Resolution:			
	TIFF	TIFF	TIFF	TIFF
	•uncompressed	•uncompressed	•uncompressed	•uncompressed
	•Intel (IBM) byte order			
	•300 or 200 dpi at orig. size	•10" across long dim. or 9"x9" at 300 dpi	•300 or 200 dpi at orig. size	•10" across long dim. at 300 dpi
				or 200 dpi at orig. size
ACCESS FILES	File Format:	File Format:	File Format:	File Format:
	GIF for docs. UP TO 8.5"x14" or 119 sq. in.	GIF	JPEG	GIF for docs. UP TO 11"x17" or 187 sq. in.
	•4 bit/89a/interlaced for greyscale	•4 bit/89a/interlaced for greyscale	•8 bit/low quality compression for greyscale	•4 bit/89a/interlaced for greyscale
	•8 bit/89a/interlaced/custom palette for color	•8 bit/89a/interlaced/custom palette for color	•24 bit/RGB/low quality compression for color	•8 bit/89a/interlaced/custom palette for color
	JPEG for docs. OVER 8.5"x14" or 119 sq. in.			JPEG for docs. OVER 11"x17" or 187 sq. in.
	•8 bit/low quality compression for greyscale			•8 bit/low quality compression for greyscale
	•24 bit/RGB/low quality compression for color			•24 bit/RGB/low quality compression for color
	File Resolution:	File Resolution:	File Resolution:	File Resolution:
	for GIF files, resize to 90 dpi at	600 pixels across the long	10" (or 1,200 pixels) across	GIF files- 600 pixels across long dimension
	original size and let GIF default	dimension at 72 dpi	the long dimension at 120 dpi	or 540x540 pixels for square images at 72 dpi
	to 72 dpi at larger than orig. size	540x540 pixels for square images	9"x9" (or 1,080x1,080 pixels)	JPEG files- 10" (or 1,200 pixels) across
	90 dpi at orig. size for JPEG files	at 72 dpi	at 120 dpi for square images	the long dimension at 120 dpi
THUMBNAIL FILES	File Format and Resolution:			
	GIF	GIF	GIF	GIF
	•200 pixels across the long dimension			
	•72 dpi	•72 dpi	•72 dpi	•72 dpi
	•4 bit/89a/interlaced for greyscale			
	•8 bit/89a/interlaced/custom palette for color			