

Preferred file formats and digitization standards

The table below outlines recommended resolutions, bit depths, and file formats for several commonly digitized materials. These guidelines have been adapted to balance best practices with the realities faced by under-resourced cultural heritage organizations. The “minimum” specifications will produce reliable, usable digital files, while the “ideal” specifications will yield higher-quality files suitable for long-term preservation and future editing or enhancement.

Additional guidance can be found in the Resources and Tools list at the end of the Recollection Wisconsin Digital Readiness Toolkit.

Content Type	Resolution (PPI)	Color	Bit Depth	File Format/Extension	Details
Books or other texts with no images	Min: 300 Ideal: 600	B & W or Grayscale	1 (bitonal) or 8	Min: PDF/A Ideal: TIFF	Optional Character Resolution (OCR) applications work best on documents scanned at 400 DPI or higher. Access files: PDF/A.
Books or other texts with images	Min: 300 Ideal: 400	Min: Grayscale Ideal: Color	Min: 8 Ideal: 24	TIFF	Optional Character Resolution (OCR) applications work best on documents scanned at 400 DPI or higher. Access files: PDF/A.
Manuscripts, letters, diaries	Min: 300 Ideal: 600	Color	Min: 8 Ideal: 24	TIFF	Aim for 3000-4000 pixels on the longest edge of the digital file.
Slides, film and negatives smaller than 4"x5"	Min: 1200 Ideal: 3000	Min: Grayscale Ideal: Color	Min: 16 Ideal: 24	TIFF	Aim for 3000-4000 pixels on the longest edge of the digital file.
Photos and prints smaller than 8"x10"	Min: 400 Ideal: 600	Min: Grayscale Ideal: Color	Min: 16 Ideal: 24	TIFF	Aim for 3000-4000 pixels on the longest edge of the digital file.
Photos, posters, and maps larger than 8"x10"	Min: 300 Ideal: 600	Min: Grayscale Ideal: Color	Min: 8 Ideal: 24	TIFF	Aim for 3000-4000 pixels on the longest edge of the digital file.
Audio	96 kHz		Sample rate: (recommended) 24-bit, 96kHz, (minimum) 24-bit, 48kHz	Broadcast wave (BWF), .wav or .aif	Access files: 320 Kbps sampling rate. File format: mp3 Codec: LPCM
Video (transferred from analog source)	720x486 4k		8-10 uncompressed Sample rate: (recommended) 24-bit, 48kHz, (minimum) 16-bit, 48kHz	.mov or .avi (Quicktime) MKV (Matroska)	Access files: 1.5 Mbps sampling rate. File format: mp4 h.264 Codec: Uncompressed 4:4:4 (motion picture film) Uncompressed 4:2:2 (video) Prores 4444 Codec (audio): PCM
Digital video	Native		Native, or 8-bit Sample rate: 16-bit, 48kHz	Native, .mov or .avi	Access files: 1.5 Mbps sampling rate. File format: mp4 h.264 Codec (Image): DV-NTSC (DV-25) Codec (audio): PCM
Motion picture film 35 mm film 8 or 16 mm film audio	4k (4096 pixels) 2k (2048 pixels)		10 bit RGB 24-bit, 48kHz	.DPX and .BWA	Codec: uncompressed Codec: 24-bit, 48kHz Access files: use Video (transferred from analog source) line specifications above

Source: Recollection Wisconsin Digital Readiness Toolkit, page 19.

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