

Prints, Manuscript, Text, Paintings, Maps, Newspapers, Drawings and Books

1) Preservation Standard – Master/Archival Files:

Reflective originals:

Image resolution: 600 pixels per inch (ppi); 300 ppi for originals larger than 8.5”x11”;
Books: up to 14”x19.5”: 4400 pixels on the long dimension; Books and flat sheets up to
30”x40”: 7200 pixels on the long dimension

File format: Tagged Image File Format (TIFF)

Compression: lossless compression (uncompressed)

Bit depth: 8-bit grayscale; 24-bit colour; bitonal for typeset pages with typeface 7 pt and above

Transmissive originals (negatives and transparencies):

Image resolution: adjust capture to achieve 600 ppi when the Master is restored to the size of the original object being digitized; 300 ppi for originals larger than 8.5”x11” when the Master is restored to the size of the original object being digitized

File format: TIFF, lossless compression

Bit depth: 8-bit greyscale; 24-bit colour

2) Delivery Standard for Web – Derivative Files:

a) Service/Access files (for viewing):

Image resolution: 150 ppi; 800, 1024, 1500 or 3000 pixels across the long dimension

File format: Joint Photographic Experts Group (JPEG); JPEG File Interchange Format (JFIF)

Compression: medium quality compression; 10:1 compression for grayscale, 20:1 for colour

Bit depth: 8-bit grayscale; 24-bit colour

(Alternative for better text legibility: 100 ppi (i.e., resample image master file to 100 ppi of original document), GIF, 4-bit grayscale, 8-bit colour; or JPEG – higher quality compression)

b) Preview/Thumbnail files (for browsing):

Image Resolution: 72 ppi; 100-400 pixels across the long dimension

File format: Graphic Interchange Format (GIF)

Bit depth: 4-bit grayscale, 8-bit colour

c) Print:

Image resolution: 300-600 dpi

File format: Adobe Acrobat Portable Document (PDF) or TIFF with Lempel Ziv Welch (LZW) compression for black and white materials (alternative: JFIF – medium to high quality)

Bit depth: 8 bit grayscale; 24-bit colour

3) Proprietary Standard – JPEG 2000; Adobe PDF

TIFF images can be compressed using International Telecommunication Union (ITU) Group IV compression. Grayscale and colour images can be compressed using LZW compression

Sources:

California Digital Library

<http://www.cdlib.org/news/pdf/CDLImagesStd-2001.pdf>

Canadian Heritage Information Network

http://www.chin.gc.ca/English/Digital_Content/Small_Museum/fundamentals.html

Illinois State Library Digital Imaging Program

<http://www.cyberdriveillinois.com/library/digital/guidelines.html>

National Information Standards Organization (NISO)

A Framework of Guidance for Building Good Digital Collections, 2nd Edition, 2004

OhioLINK Digital Media Center

<http://www.ohiolink.edu/media/dmcinfo/ScanningStandards.pdf>

Princeton University Library Digital Initiatives

<http://diglib.princeton.edu/standards.html>

The Library of Congress/Ameritech National Digital Library

<http://lcweb2.loc.gov/ammem/formats.html>

Patricia Fulton

Digitization Standards Committee

MUN

May 2005