



## Colorado State Archives (CSA) Guidelines for Quality Standards for Reproduction of Records

Updated 11/13/2023

### Purpose

The purpose of these guidelines is to outline quality standards for reproduction of records. Reproductions of records are defined in §24-80-107 (C.R.S.). The following quality standards are derived from recommendations set by the Library of Congress (LOC), National Archives and Records Administration (NARA), and International Organization for Standardization (ISO) and ensures long-term access to records.

These guidelines are recommended for any government created records with a retention of 5 years or more. For more information on records retention, visit the [Colorado State Archives Records Management website](#).

### Approved Reproduction Formats

Listed are the approved formats for long-term preservation set by CSA.

1. Digital
  - a. Text documents
    - i. PDF or PDF/A
    - ii. 300 DPI, 24-bit color and preferably with searchable text and embedded fonts
  - b. Images
    - i. TIFF, JPG or JPG2000
    - ii. 600 DPI, 24-bit color
    - iii. SVG (vector graphics)
  - c. Spreadsheets/Datasets
    - i. CSV or XLS
    - ii. XML (relational datasets)
    - iii. CSA is aware that data for current use may depend upon native formats and proprietary software. If your data is housed in a proprietary system, the system should have the ability to export in a recommended format.

- d. GIS Data
    - i. Shapefile, Esri File Geodatabase, GeoTIFF, or native formats
  - e. Audio files
    - i. WAV or BWF file embedded with metadata
  - f. Video files
    - i. MOV or MPEG-4/MP4
  - g. Emails
    - i. PDF, MBOX, PST, or XML
  - h. For more detailed information on digital file formats for long-term preservation, please contact CSA or refer to the [Library of Congress Recommended Format Statement](#).
2. Microfilm/microfiche masters
- a. Silver masters are the only approved format for long-term preservation.
  - b. Standard density reading between 1 and 1.5
  - c. Target (insert) sheets
    - i. Beginning/end of roll/fiche
    - ii. Resolution chart
    - iii. Density target
    - iv. Title each roll/fiche w/title of records;
    - v. Identifier for film i.e. roll number
    - vi. Name of agency/org
    - vii. Identity of filming agency
    - viii. Target recording date of filming

## Preservation Environment/Storage

1. Digital
- a. Master copies should be stored on a server and not on removable media such as hard drives, CDs, DVDs, flash drives, zip drives, etc.
  - b. Reproductions stored on 3 different servers geographically disparate within in the continental United States
  - c. See OIT's policies on information security.
  - d. File naming conventions
    - i. Avoid extra-long folder names or complex hierarchical structures
    - ii. Put sufficient elements in the name for easy retrieval and identification but do not overdo it.
    - iii. No spaces; use an underscore (\_) instead of a space as needed. Avoid other special characters.
    - iv. all lowercase
    - v. Dates as year, month, day (YYYYMMDD) and time as hour, minute, seconds (HHMMSS)

2. Micrographic (microfilm/microfiche)
  - a. Minimize any exposure to light
  - b. Stable controlled temperatures below 70°F
  - c. A stable, low-humidity environment
  - d. Stored in archival boxes and separate from paper or other types of records
    - i. Master microfilm/microfiche should be stored apart from duplicated microfilm/access copies.
  - e. Stored on metal shelving
  - f. Have a system to list film information including type, creator, and date of records on the film; the number of exposures on the film; the date the film was created; and whether it is a master copy or access copy.
    - i. Example - District Court - Criminal Cases - 1950-1975. 1520 exposures. Film created 2023-9-30. Access copy.
3. CSA offers storage solutions that meet the recommendations for digital and micrographic storage listed. Please contact the State Archives for more information.

### **Destruction of Original Records**

Original records can be destroyed if the reproductions meet the recommendations outlined in CSA's Quality Standards for Reproductions Guidelines. CSA requires a certificate of disposal to be on file with CSA upon destruction of original records. A copy of this certificate can be found on [CSA's Records Management website](#) and emailed to [dpa\\_archivesrm@state.co.us](mailto:dpa_archivesrm@state.co.us) upon completion. Records with personally identifiable information and other sensitive information must be securely destroyed. §24-80-107 (C.R.S) and [Methods of Record Destruction](#) provides more information on the destruction of original records.

Prior to destruction of original records, it is recommended to contact CSA to determine if records have historic value and can be transferred to CSA's permanent collections.

### **Additional Resources**

- 1 [CSA's Statute](#)
- 2 [Library of Congress](#)
- 3 [National Archives and Records Administration](#)
- 4 [ISO](#)
- 5 [File Naming Strategies](#)
- 6 Recommended Vendors
  - a [Integrated Document Services \(IDS\)](#)
  - b [DocuTek](#)
  - c [Mountain States Imaging](#)
  - d [Ken's Reproductions](#)
  - e [Airshow](#)
  - f [XOVOX \(formerly Electrical Science, Inc\)](#)

The Colorado State Archives (CSA) reserves the right to unilaterally revise, suspend, revoke, terminate or change its policies, guidelines and procedures, in whole or in part, at the discretion of the State Archivist and with approval from the Director of Central Services.