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October 26, 2021

Appendix B: Tennessee Archives Management Advisory

Dear Reader:

The following document was created from the CTAS electronic library known as e-Li. This online library is maintained daily by CTAS staff and seeks to represent the most current information regarding issues relative to Tennessee county government.

We hope this information will be useful to you; reference to it will assist you with many of the questions that will arise in your tenure with county government. However, the *Tennessee Code Annotated* and other relevant laws or regulations should always be consulted before any action is taken based upon the contents of this document.

Please feel free to contact us if you have questions or comments regarding this information or any other e-Li material.

Sincerely,

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Reference Number: CTAS-2071

APPENDIX B

TENNESSEE ARCHIVES MANAGEMENT ADVISORY

(TAMA) 99-007

From: William W. Moss, Assistant State Archivist

To: Records Keepers in State and Local Government Agencies

Subject: Guidelines for the use of digital imaging for permanent records^[1]

Date: 13 June 1999

- State and local government officials hold public records in trust. They are legally obliged to protect public records and to make them readily accessible regardless of the records storage media. These guidelines will help public officials design responsible digital imaging systems for creating and maintaining long-term archival records.
- The guidelines are good advice. They are based on national technical standards, established practices, and research in the professional literature. The guidelines identify critical issues in designing, selecting, implementing, and operating digital imaging technologies. These issues are especially important for systems used for mission critical records or for long-term archival records.
- Digital imaging is the ability to capture, store, retrieve, display, process, and communicate or disseminate records electronically using a variety of hardware and software components. Digital imaging technology continues to change rapidly, but with proper planning and design, an agency can significantly improve its business operations without endangering records or procedures because of technology obsolescence.
- Maximum potential benefits of digital imaging systems can best be achieved through an agency planning process. This process examines the information needs and records requirements of the agency as a whole rather than a single, isolated application.

CAVEAT

ELECTRONIC RECORDS ARE NOT PERMANENT.

The following guidelines do **not** guarantee the assured survival of permanent records, essential records, or records of archival value as defined in *Tennessee Code Annotated* § 10-7-301. They do offer the best chance that records will survive transitions from one digital information system to another and from one generation to another of the same information system.

The only media that will assure long-term survival of essential, permanent, or archival records are still carbon-based ink on acid-neutral paper and archival quality silver gelatin microfilm created and kept under conditions that meet archival standards. Records keepers should identify such records, appraise their value, and if found to be worth permanent retention should take steps to preserve them in archival media.

GUIDELINES^[2]

PROJECT PLANNING

Recommendation 1: Prior to selecting a digital imaging system, conduct a records and workflow analysis to determine and to make a reliable record of existing and planned agency information needs.

Recommendation 2: Prior to selecting a digital imaging system, conduct a cost benefit analysis to determine the cost justification of a system purchase and to determine the possible benefits to the agency with its implementation.

SYSTEM SPECIFICATIONS AND SELECTION

Recommendation 3: Require an open systems architecture for digital imaging applications or require vendors to provide a bridge to systems with non-proprietary configurations.

Recommendation 4: Where data longevity or records integrity is a primary concern use a recording medium that is NOT rewritable.

Recommendation 5: Use a non-proprietary digital image file format. If using a proprietary format, provide a bridge to a non-proprietary digital image file format.

Recommendation 6: Use International Telecommunications Union (ITU) Group 3 and Group 4 compression techniques or have the vendor provide a bridge to these techniques.

Recommendation 7: When determining document scanning resolution, consider data storage requirements, document scanning throughput rates, and the accurate reproduction of the image. Validate vendor claims using a sampling of the agency's documents.

Recommendation 8: Select equipment that conforms to the standard methodology for media error detection and correction. The system should provide techniques for monitoring and reporting verification of the records stored on a digital optical disk, and the system administrator should actively follow the status of the monitors.

Recommendation 9: Specify that the Small Computer System Interface (SCSI) command "Write and Verify" is used when writing data to digital optical disks.

Recommendation 10: Use an indexing data base that provides for efficient retrieval, ease of use, and up-to-date information about the digital images stored in the system. The indexing data base should be selected after an analysis of agency operations and user needs.

Recommendation 11: Provide specific plans for an ongoing process of migrating long-term and archival records from older to newer hardware and software platforms.

Recommendation 12: Integrate into the system design a comprehensive records retention and disposal schedule for the entire system.

SYSTEM IMPLEMENTATION

Recommendation 13: Assign a permanent staff member as systems administrator and require the vendor to provide a project director during the installation and training periods.

Recommendation 14: Establish operational practices and provide technical and administrative documentation to ensure the future usability of the system, continued access to long-term records, and a sound foundation for assuring the system's legal integrity.

Recommendation 15: Perform a visual quality control evaluation of each scanned image and related index data. Write the scanned image to optical media only after the evaluation process is completed.

Recommendation 16: Design backup procedures to create security copies of digitized images and their related index records.

Recommendation 17: Provide adequate environmental conditions for the digital optical disks.

Recommendation 18: Budget annually between 15 and 20 percent of the original system acquisition cost for upgrades, training, and maintenance.

Recommendation 19: Long-range planning and budgeting should include provision for replacement of existing systems at least every 10 years.

IF YOU NEED ASSISTANCE

The Records Management Division of the Department of General Services and the Office for Information Resources of the Department of Finance and Administration provide assistance to state and local government agencies regarding the records administration considerations affecting the design and implementation of digital imaging systems. Direct questions or comments concerning digital imaging technologies, or this technical leaflet, to the Tennessee State Library and Archives, 403 Seventh Avenue North, Nashville, Tennessee 37243-0312 (615) 741-2561. For technical assistance questions concerning the design and implementation of digital imaging technologies contact the Office of Information Resources, Department of Finance and Administration, State Capitol, Nashville, Tennessee 37243-0285 (615) 741-2401.

BIBLIOGRAPHY

AIIM TR2-1992, *Glossary of Imaging Technology*. Silver Spring, MD: Association for Information and Image Management, 1992.

AIIM TR25-1995, *The Use of Optical Disks for Public Records*. Silver Spring, MD: Association for Information and Image Management, 1995.

AIIM TR26-1993, *Resolution as it Relates to Photographic and Electronic Imaging*. Silver Spring, MD: Association for Information and Image Management, 1993.

AIIM TR27-1996, *Electronic Imaging Request for Proposal (RFP) Guidelines*. Silver Spring, MD: Association for Information and Image Management, 1996.

AIIM TR28-199 1, *The Expungement of Information Recorded on Optical Write-Once-Read-Many (WORM) Systems*. Silver Spring, MD: Association for Information and Image Management, 1991.

AIIM TR31-1992, *Performance Guideline for Admissibility of Records Produced by Information Technology Systems as Evidence Part 1: Evidence*. Silver Spring, MD: Association for Information and Image Management, 1992.

AIIM TR31/2-1993, *Performance Guideline for Acceptance of Records Produced by Information Technology Systems by Government Part 2: Acceptance by Federal or State Agencies*. Silver Spring, MD: Association for Information and Image Management, 1993.

AIIM TR31/3-1994, *Performance Guideline for Admissibility of Records Produced by Information Technology Systems as Evidence Part 3: User Guidelines*. Silver Spring, MD: Association for Information and Image Management, 1994.

AIIM TR31/4-1994, *Performance Guideline for Admissibility of Records Produced by Information Technology Systems as Evidence Part 4: Model Act and Rule*. Silver Spring, MD: Association for Information and Image Management, 1994.

ANSI/AIIM MS44-198 8 (R 1993), *Recommended Practice for Quality Control of Image Scanners*. Silver Spring, MD: Association for Information and Image Management, 1993.

ANSI/AIIM MS52-199 1, *Recommended Practice for the Requirements and Characteristics of Original Documents Intended for Optical Scanning*. Silver Spring, MD: Association for Information and Image Management, 199 1.

ANSI/AIIM MS53-1993, *Standard Recommended Practice—File Format for Storage and Exchange of Images - Bi-Level Image File Format: Partj*. Silver Spring, MD: Association for Information and Image Management, 1993.

ANSI/AIIM MS59-1996, *Media Error Monitoring and Reporting Techniques for Verification of Stored Data on Optical Digital Data Disks*. Silver Spring, MD: Association for Information and Image Management, 1996.

Cinnamon, Barry and Richard Nees. *The Optical Disk-Gateway to 2000*. Silver Spring, MD: Association for Information and Image Management, 199 1.

D'Alleyrand, Marc R., Ph.D. *Networks and Digital Imaging Systems in a Windowed Environment*. Boston, MA: Artech House, 1996.

Elkington, Nancy E., ed. *Digital Imaging Technology for Preservation—Proceedings from an RLG Symposium held March 17 and 18, 1994*. Mountain View, CA: The Research Libraries Group, Inc., 1994.

International Council on Archives. "Guide for Managing Electronic Records from an Archival Perspective." Paris: International Council on Archives, 1997. ISBN 0-9682361-0-3.

National Archives and Records Administration. "Digital Imaging and Optical Digital Data Disk Storage Systems: Long-Term Access Strategies for Federal Government Agencies." Washington, D.C. 1994.

National Archives and Records Administration and National Association of Government Archives and Records Administrators. "Digital Imaging and Optical Media Storage Systems: Guidelines for State and Local Government Agencies." Washington, D.C. 1991.

Saffady, William. "Stability, Care and Handling of Microforms, Magnetic Media and Optical Disks." *Library Technology Reports*, Vol. 27, January/February 1991: 63-87.

Warner, Will. "Special Report: An Introduction to TIFF." *Inform*, Vol. 5, February 1991: 32-35.

^[1] Tennessee State Library and Archives acknowledges the nationally-respected model guidelines of the Alabama Department of Archives and History and other state, national, and international recommendations as the basis for these guidelines.

^[2] The guidelines are given in a condensed version. You may request a complete version of the guidelines by contacting the Tennessee State Library and Archives, Local Archives Program at (615) 343-3458; ask for TAMA 99-007.

Source URL: <https://eli.ctas.tennessee.edu/reference/appendix-b-tennessee-archives-management-advisory>

