

Digitizing Public Records in Rhode Island

Getting Started with Digitizing Records



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Overview of Digitizing Records

The State Archives and Public Records Administration oversees records management functions for all state and municipal agencies. This includes records management advice, assistance, and consultation. Records management is a comprehensive task encompassing all records, regardless of format or media.

This guide is intended to serve as a resource providing technical recommendations for creating reliable digitized records.

Things to Know

What is Digitizing?

Digitizing is conversion of physical documents into a digital/electronic format.

What is a Digital Preservation Plan?

A digital preservation plan outlines your agency's process for ensuring that records are accessible and readable for the entire retention period and life cycle of the record. For example, digital files saved to a floppy disk are no longer accessible, and a digital preservation plan will put workflows and quality control checks in place to avoid losing access to records as they age or are migrated from obsolete methods. The plan is provided to the Public Records Administration by the agency prior to starting a digitizing project. A model plan can be provided by the Public Records Administration.

What is the Notice of Intent to Digitize (NID)?

The form that is filled out by the agency, and approved by and kept on file with the Public Records Administration approving the digitization of specific records.

What records can be digitized?

Any record can be digitized; however, not everything can be digitized to replace the original record. Records with a retention of more than 10-15-years need a digital preservation plan. Records with a 30-year or permanent retention would need to be scanned and printed on microfilm in order to replace the original record.

How do I determine the retention length of a document?

Each state agency and municipality should use the retention schedules available on the Department of State website. These have been approved by the State Archives and Public Records Administration, the Attorney General, and the Auditor General. The retention period for each document type will be found in the appropriate schedule. If the

state agency or municipality does not have an approved retention schedule, or the records you are working to digitize are not identified in a currently approved schedule, please contact the State Archives and Public Records Administration.

What are the general digitization standards for documents?



In all cases a Notice of Intent to Digitize must be submitted to the Public Records Administration

Retention Period	Imaging Standard (Preservation File Format)	DPI (Image Resolution)	Destruction [of Paper]	Digital Preservation Plan
0- 5 years	PDF/TIFF/JPG 2000	200+	CRD required for all formats	Recommended
6-9 years	PDF-A /TIFF/JPG 2000	200+	CRD required for all formats	Strongly Recommended
10 or more years	PDF-A/TIFF <i>Microfilm Strongly Recommended</i>	300+	CRD required for all formats	Required
Permanent	PDF-A/TIFF for copies <i>Microfilm required for permanent replacement</i>	400+ / 600 preferred	CRD required for all formats <i>Microfilm required prior to destruction of paper.</i>	Required
Unscheduled	PDF/TIFF/JPG 2000	300+	Not permitted	Recommended

Why do different retentions have different requirements?

The complexity of preserving a digital record increases each year you must keep it.

What is Metadata?

The information that describes the digitized document. This information may include but is not limited to file name, document name, date created, affiliated agency or municipal department.

When do I contact the State Archives and Public Records Administration?

Contact the State Archives and Public Records Administration once the agency or municipality is ready to plan a digitization project as they will provide guidance and the necessary paperwork.

Before Starting

- Establish who will scan the selected records for preservation.
 - Will the agency outsource the project to a vendor?
 - Will the agency complete the project in-house?
- Complete a Notice of Intention to Digitize (NID) form to document the process and officially establish the digitized record as the official, record copy.
 - This form must be signed by the State Archivist and Public Records Administrator prior to scanning.
- Draft a Digital Preservation Plan, which should align with the agency's records management policy.
- Submit the Digital Preservation Plan to the State Archives and Public Records Administration for approval.
- Upon approval, begin project.

Getting Started

Protecting your documents

- Keep records in safe storage, protected from exposure to water, excess heat, or humidity, when not in use for your scanning project.
- Repair tears or other damage that may obstruct part of the document.
- Remove staples and clips.
- Do not use a feeder for records with a long-term or permanent retention as it may damage documents.
- Keep materials in their original order during the scanning process.



If your record is a permanent document, please refer to the Microfilming Public Records guidance document for next steps.

Scanning:

Scanning and inspection should be completed by two or more separate people

Step 1: Assign the specific people who will scan and later inspect the scans.



Scanning and inspection should be completed two or more separate people.

Step 2: Ensure you have your scanner set up properly.

Step 3: Establish quality control.

Step 4: Pre-test the scanner with various types of documents.

Step 5: Ensure the entire document is readable and clear with each test scan.

Scanning Operator - Duties

Part 1: Image Quality

Step 1: Scan the document

Step 2: Check the following:

Item 1: Is the image rotated or backwards?

Item 2: Is the image skewed or off center?

Item 4: Is the content readable?

Item 5: Is the scan “clean?”



What does “clean” mean? It means no hair, dust, specks of paper, or finger prints visible in the scan

Part 2: File Specifications

Step 1: Check the following:

Item 1: Is the file name correct?

Item 2: Is the file format correct?

Item 3: Are the pages in the correct order?

Scanning Inspector - Duties



Remember, each page of the scan needs to be checked

Part 1: Image Quality Confirmation

Step 1: Open each scan to check the following:

Item 1: Are there moiré patterns on the scan?



What are moiré patterns? Wavy lines or swirls, usually found in areas where there are repeated patterns

Item 2: Are there regular straight lines across the picture that are not on the original?

Item 3: Is the image too light or too dark?

Item 4: Are details lost in highlight or shadows?

Item 5: Does the image have clean edges, clear contrast, and legible text?

Item 6: Are individual pixels apparent to the naked eye?

Part 2: File Properties

Step 1: Check for the following:

Item 1: Is the image the correct size/resolution in long dimension?

Item 2: Is the bit depth, the color complexity stored in the image, correct?



How do I check resolution and bit depth? Select the file, right click to view properties and select the details tab to view the file property details including resolution, bit depth, and compression.

Item 3: Is the Optical Character Recognition (OCR) error free?

Item 4: Are all files and pages accounted for?

Item 5: Were any items skipped between scanning sessions?

Part 3: Metadata

Step 1: Is the following information accurate and complete?

Item 1: File name;

Item 2: Program name;

Item 3: Size; and

Item 4: Type of file.

Going Forward

Preserving your documents

- To keep records accessible for the future, you will need a Digital Preservation Plan. A Digital Preservation Plan will improve access and safeguard your vital information.
- There are seven basic steps to digital records management:
 1. Create/receive records;
 2. Appraise and select;
 3. Ingest;



What does “ingest” mean? It means receiving information from an external source and preparing it for storage.

4. Preservation action;
5. Store;
6. Access, use and reuse; and
7. Transform.

Seven Steps to Digital Records Management:

Step 1: Create or Receive records

Step 2: Appraise and Select

Item 1: Evaluate and select the digital or digitized records for long-term curation and preservation based on their value and retention period.



Legal and historical value are both important considerations when determining the retention period on all records retention schedules for records created or received by an agency.

Step 3: Ingest

Item 1: Transfer/import records that have long-term or permanent retention to a suitable environment, such as an archive, data center, or other preservation

platform. Review documented guidance, policies, or legal requirements for best results.

Step 4: Preservation Action



Examples of Preservation Actions include format migration (to the most recent version of the software) and emulation (using a new system to reproduce the functions and look of another system).

Item 1: Know what you want people to be able to do with your records.

Item 2: Establish the meaningful properties of your records and share them. This might be through metadata or other means.

Item 3: Document preservation actions so that people know what has been done to the records over time.

Step 5: Store

Item 1: Review state and national standards to ensure compliant secure storage.



Archival standards like ISAD-G are useful for hierarchical data description. Contact the Public Records Administration for a list of applicable standards.

Item 2: If storing externally, confirm all repository policies coincide with your long-term storage needs (i.e. what do they accept, are there preferred formats or normalization processes).

Item 3: Remember ingest does not necessarily mean deposit in a data center or repository, it may mean moving material to a 'curated' environment. This could be a specific folder on a shared drive.

Item 4: Make the ingest process as straight-forward as possible and provide support and guidance; automate processes if possible.

Item 5: Identify essential personnel in the process and decide who is responsible for final aspects of Quality Assurance and Quality Control (QA/QC) at the point of deposit.

Item 6: Get a formal receipt (if possible) or an informal acknowledgement for closure and transfer of custody and stewardship of all records stored for preservation.

Step 6: Access, use, and reuse

Item 1: Ensure that data is accessible to both designated users and re-users, on a day-to-day basis. This may be in the form of publicly available published information, such as a website or online database, such as the State Archives Digital Archive.



Robust access controls and authentication procedures may be applicable to keep records safe and uncompromised.

Step 7: Transform

Item 1: Create new data from the original, for example:

- By migration into a different format (preferred formats include PDF/A, TIFF, WAV), or addition actions such as disposal, preservation at the State Archives, reappraisal, or migration.

Maintaining a digital program

What happens when the agency decides to only keep digital copies?

The agency will need to change its workflow if it has decided to move permanently to digital preservation and maintenance.

Establishing a digital workflow

If your agency is establishing a new workflow for designated paper records to be scanned and the digitized record is intended to replace the paper as the official record, a [Certificate of Records Destruction \(CRD\)](#) is required for the destruction of the paper records selected and scanned in the initial digitization project.

After the initial digitization project, a Certificate of Destruction (CRD) is not required for the destruction of the paper records as long as the record series are identified in the Notice of Intention to Digitize (NID) and Digital Preservation Plan and both are in place and on file with the Public Records Administration indicating this workflow and designating the digital record as the Record Copy.

Agencies may maintain public records in a digital imaging records system and dispose of the originals after certifying through submission of the Notice of Intent to Digitize that the imaged records have been visually inspected, are legible and correct, and have met the established requirements of the Public Records Administration. There are numerous

digital imaging records systems available depending on the scale of an agency's needs. In selecting an application software for your agency, consider the following:

- It must be compatible with your operating system;
- It should support specific tasks, such as scanning, indexing, Database Management System (DBMS), and image retrieval;
- It should understand Structured Query Language (SQL); and
- It should work with existing network infrastructure.

For the Future

What other preservation actions are possible?

- Dispose: Destroy records that have met their retention period per appropriate state or local government records control schedules or;
- Preserve: Transfer state records deemed appropriate for long term preservation to the State Archives.
- Reappraise: Return records which fail validation procedures for further preservation and re-creation from backup copies.
- Migrate: Migrate records to a different format. This may be done to accord with the storage environment or to ensure the record's immunity from hardware or software obsolescence.

Helpful Resources

- Public Records Administration promulgated regulations.
 - <https://rules.sos.ri.gov/Regulations/Part/100-50-00-1>
- Standards available by request from the Public Records Administration:
 - Federal Information Processing Standards
 - ANSI/AIIM MS44-1988 (R1993),
 - ANSI/AIIM MS19-1993
 - International Organization for Standardization protocol
 - ISO 19005-1 (2005)
- Approved Records Retention Schedules
 - <http://sos.ri.gov/divisions/frequent-filers/records-management>