

BPA Policy 236-160

Digitizing Records From Physical Media

Information Governance

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1. Purpose & Background

- A. This policy provides guidance and requirements for digitizing physical media.
- B. BPA is not currently pursuing a “paperless” office strategy. However, digitization provides a means for preserving at-risk physical materials (including paper documents, charts, photos, etc.) as well as providing greater accessibility and security for those documents. To the extent practicable, BPA promotes electronic systems, electronic records, and paperless transactions to support BPA’s transition to electronic government. Digitization refers to the process that includes the following activities:
1. Identifying, selecting, and documenting physical materials for digitization;
 2. Preparing physical materials for scanning (including locating, preserving, gathering, reviewing for access, and screening for suitability to be digitized);
 3. Collecting basic descriptive and technical metadata sufficient to allow retrieval and management of the digital copies and to provide basic contextual information for the user;
 4. Scanning the physical materials (also referred to as digital conversion), re-filing, or disposing;
 5. Quality control (validation) of digital copies and metadata;
 6. Providing access to reliable and authentic copies for legitimate business purposes to multiple users;
 7. Providing online ordering for reproduction services at quality or quantities beyond the capability of an end user; and
 8. Maintaining digital copies and metadata.

2. Policy Owner

The Executive Vice President of Compliance, Audit, and Risk Management has overall responsibility for this policy. The Agency Records Officer within Information Governance develops, implements, and manages this policy on behalf of the Executive Vice President of Compliance, Audit, and Risk Management.

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3. Applicability

- A. This policy provides guidance and requirements for digitizing physical media.
- B. This policy applies to all collections of physical materials being considered for digitization. These collections fall into two divisions:
 - 1. Collections of inactive records that have not met their retention schedule (especially collections that are voluminous or have a long retention schedule) and are not regularly accessed. These may be considered for digitization due to constraints of physical storage space or costs of maintaining the physical collection; and
 - 2. Collections of active records that are initially produced in paper or similar physical media as part of the business process, e.g., requiring a physical signature, and are regularly accessed for a continuing business purpose. Digitization may provide for access among multiple users across multiple locations.

4. Terms & Definitions

- A. As used in this policy, the following terms and definitions apply:
 - 1. **Collection:** A series of records (whether in physical or digital form) that have a consistent organizing principle, e.g., subject matter, author, or business process.
 - 2. **Digitization:** The act of scanning an analog document into digital form, as well as the series of activities that results in a digital copy being made available to end users via the internet or other means for a sustained length of time.
 - 3. **Electronic Information System (EIS):** Computerized/digital means for collecting, organizing, and categorizing information to facilitate its preservation, retrieval, use, and disposition.
 - 4. **Electronic Recordkeeping System (ERK):** See Structured Electronic Information System (SEIS); any SEIS that is substantially compliant with either the DoD 5015.2 or the F1000 standards for integrity, security, and disposition.
 - 5. **Electronic Signature:** A method of signing an electronic document that identifies and authenticates a particular person as the source of the signature and indicates such person's intent to sign the document. For the purpose of BPA policy, Electronic Signature applies to scanned versions of hard copy signatures.
 - 6. **Office of Record:** The organization that, by definition of its mission or function, has primary responsibility for maintenance and retention of the record.

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- B. As used in this policy, the following acronyms apply:
 1. **EIS:** Electronic Information System
 2. **ERKS:** Electronic Recordkeeping System
 3. **IGLM:** Information Governance & Lifecycle Management

5. Policy

- A. BPA does not require that Federal records in physical media be digitized unless they are at risk of damage or destruction, which may result in the loss of the record. However, based upon business analysis by the Office of Record, digitization may be an effective way to maintain and manage a collection that exists only in physical media form.
- B. Before undertaking a digitization project, the Office of Record should consider the following:
 1. Volume of the collection;
 2. Cost to digitize;
 3. Need for availability (sharing) of the documents;
 4. Quality of the originals (including handwritten notes, degradation of original medium, etc.); and
 5. Need to preserve the originals after digitization for historical or other purposes.
- C. Organizations must recognize the legal validity of electronic signatures in the context of electronic transactions (i.e., actions between two or more persons relating to the conduct of business, consumer, commercial, or governmental affairs).

6. Policy Exceptions

- A. Exceptions to this policy may be necessary based on legitimate business needs, legal or compliance requirements. Any exceptions must be documented, reviewed, and approved by the Office of Record, IGLM, and IT.
- B. This policy guidance does not apply when the digitization is merely to provide a reference or convenience copy in limited circumstances, i.e. a single document rather than conversion of an entire collection for purposes of lifecycle management.

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7. Responsibilities

- A. **IGLM Office:** Coordinates the overall IGLM program. Provides guidance and assistance to all BPA organizations with lifecycle management, and coordinates required records reviews, evaluations, and reports.
- B. **Print Shop:** Provides digitization/scanning services to the Office of Record for their paper document collections.
- C. **Library and Visitor’s Center:** Maintains specialized equipment to read microfilm/microfiche and can provide guidance when determining the historical value of physical media.
- D. **Managers/Supervisors:** Effectively manage information assets within their area of responsibility in a consistent manner to ensure the integrity, security, and availability of information assets. Managers/supervisors are also responsible, through their organization, for documenting a digitization plan that ensures their digitization projects meet the requirements of this policy.

8. Standards & Procedures

- A. The Office of record must develop a digitization plan to meet the following requirements:
 1. Authorization. Digital collections may be maintained as the only copy of a Federal record. They are viewed as being functionally equivalent to the original paper version if the intent to preserve the document only in digital form is documented and authorized by the manager of the Office of Record in consultation with IGLM. This authorization and business process documentation must be included in the digitization plan.
 2. Document Preparation. This includes a review of the documents to be digitized to ensure that digitization will not compromise the readability of the content. This is particularly important for documents that include “marginalia” (handwritten notes or additions to the content of the document). Moreover, an inventory of the collection must be prepared, especially in instances where the actual digitization is performed by someone else. Finally, in some instances, a clean copy may be necessary if the original paper has been degraded to the point that, in its original form, a valid digital copy would not be possible.
 3. Digitization. As part of the actual digitization process, a single scanned image type must be chosen for the collection. Consideration must be given to the ability of a particular scanned image type to be searched. In addition, a consistent set of metadata should be incorporated into the scanned image to assist in organizing and managing the digital collection. “Scanned image” types include: gif – graphics

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interchange format; tiff – tagged image file format; biif – basic image interchange format; png – portable network graphics; or pdf – portable document format.

4. **Validation.** Throughout the digitization process, the scanned images must be validated to ensure that a clean, readable image has been produced and that the metadata attached is accurate. The Office of Record may choose to do an initial series of documents from the collection as a test case. If so, choose a sample from the collection that will cover the range of quality and other attributes of the originals, e.g., differing font sizes or layouts. It is recommended that every scanned image be validated. However, if the original documents are of highly consistent quality, format, and content, sampling validation may be appropriate.
5. **Disposition of Originals.** Once the collection has been digitized and validated, the paper original may be destroyed as long as the destruction is documented as part of the digitization plan and has been authorized. Special consideration must be given to physical records with historical value content. BPA’s Library and Visitor’s Center can provide assistance and guidance to organizations in determining the historical value of original physical media records.
6. **Digital Storage.** The Electronic Information System (EIS) designated for maintenance and management of the digital collection must meet the integrity, security, and availability requirements outlined in BPA Policy 236-13 Overview of Electronic Information Systems. Using an Electronic Recordkeeping System (ERKS) for digital collections is preferred because these systems prevent manipulation and unauthorized deletion of the scanned images. In addition, ERKS provide enhanced security and permission restrictions to aid management of the digital collection. If an ERKS is not available for the digital collection, permissions for access must be restricted to ensure the collection is not compromised.

9. Performance & Monitoring

A. The IGLM team within Information Governance is responsible for the performance standards and monitoring plans contained in this policy.

B. Performance Standards

1. Cost effectiveness of digitization projects:

- a) Increased availability of Federal records to appropriate personnel with a need for access.
- b) Reduced risk of damage or inaccessibility to Federal records currently maintained in paper format.

C. Monitoring Plans

1. Sampling and validating digitized collections for integrity, security, and availability.

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- a) Scheduling (for retention) and reviewing EIS used to maintain digitized collections.

10. Authorities & References

- A. 36 CFR 1225.24: Applying schedules for hard copy records to electronic versions (specifies only permanent records).
- B. NARA Guidance: <http://www.archives.gov/digitization/strategy.html>
- C. NARA Guidance – Technical Guidelines for Digitization: <http://www.archives.gov/preservation/technical/guidelines.pdf>
- D. NARA Guidance – Electronic Records Management Initiatives including expanding acceptable transfer requirement, email messages, scanned images of textual records, digital photographic records, portable document formats (pdf), digital geospatial data records, and web content records: <http://www.archives.gov/records-mgmt/initiatives/erm-guidance.html>
- E. BPA Policy 236-1 Information Governance and Lifecycle Management
- F. OMB Circular A-130: Managing Information as a Strategic Resource

11. Review

The IGLM team within Information Governance is responsible for this policy. This policy is reviewed on a three-year cycle beginning in 2015. All IGLM policies are reviewed when revisions are introduced to BPA Policy 236-1 Information Governance and Lifecycle Management or other policies governing information management. Editorial updates to the policy and attachments may be made without IGOT and Policy Working Group review and approval.

12. Revision History

This chart contains a history of the revisions and reviews made to this document.

Version Number	Issue Date	Brief Description of Change or Review
1.0	2012-11-05	Published completed original chapter, cmfrost.
1.1	2013-09-03	Updated formatting, sect. 07, cmfrost.
1.2	2015-08-27	Migration to new BPA policy format.
1.3	2016-10-18	Revision to update IGLM Program Organization change from Agency Compliance & Governance to Information Governance and migration to the new BPA policy format, cmfrost.
2.0	2019-03-11	Added OMB Circular A-130 Language re: electronic signatures

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