

**GUIDANCE FOR
MINIMUM STANDARDS FOR DIGITAL IMAGING
And
ARIZONA STANDARDS FOR PERMANENT RECORDS**

I. Microfilming of Permanent Paper Records

1. If the **Permanent paper original records** are microfilmed and processed according to the *Arizona Standards for Permanent Records* (images are good) and the Library, Archives and Public Records – Archives and Records Management Branch or the public body of origin are in possession of the silver master(s) and those silver master(s) are being retained according to the *Arizona Standards for Permanent Records* (not being used as an access copy) then:

The paper record does not need to be retained by the public body, nor do they need to be transferred to the State Archives. The silver master film(s) becomes the Permanent official record.

If these conditions are not strictly met and adhered to, then the Permanent paper records need to be retained by the public body or transferred to the State Archives. The State Archives only accepts records that are no longer active. In this case, the Permanent paper is the official record.

A signed *Request for Microfilming*, which includes permission to dispose of the paper, must be on file for these records with the Library, Archives and Public Records – Archives and Records Management.

II. Scanning of Permanent Paper Records

1. Scanning or digitizing paper records does not constitute “**born digital**” (meaning created electronically or via a digital audiovisual media) records.
2. If the **Permanent paper original records** are scanned and stored electronically (not filmed to microfilm) then:

The scanned electronic image is **not a Permanent record**, and there can be no permission provided to destroy the permanent paper original record.

The Permanent paper records need to be retained by the public body or transferred to the State Archives. The State Archives only accepts records that are no longer active.

A signed *Request for Document Imaging* must to be on file for these records with the Library, Archives and Public Records – Archives and Records Management.

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3. If a public body is **transferring** the Permanent paper records or Permanent silver microfilm to the State Archives, the legal custody / ownership of the Permanent paper or microfilm records transfers to the State Archives. The State Archives retains the Permanent paper or microfilm as the original and official record. The State Archives only accepts records that are no longer active.

If a problem develops with your scans at a later time, the State Archives will not return the records to the originating public body, nor scan the records for the originating public body. However, the originating public body is welcome to access and have copies made of the records the same as any other patron of the State Archives.

4. If a public body is scanning paper records (Permanent or non-Permanent) for web dissemination or access use only, the **electronic images are copies only**; the records may be scanned at 150 dpi bi-tonal. The Permanent paper records are the official record and must to be retained by the public body.

III. Permanent Electronic Records That Are “Born Digital” (created electronically or via a digital audiovisual media)

1. The *Arizona Standards for Permanent Records*, Section 5.4, “**For permanent records in electronic/digital formats and analog formats**” apply to “born digital” (created electronically or via a digital audiovisual media) records ONLY. This Section does NOT apply to scanned records.

For example: If you have **paper Minutes** (these records have a Permanent retention period) and you scan the paper Minutes to create an electronic record / image:

The electronic images of the Minutes are not considered born digital and **will not meet the requirements** for Permanent records retention.

AND

The electronic images of the Minutes are **copies** and can be used for web dissemination or as use copies ONLY.

2. When a record is “born digital” (created electronically or via a digital audiovisual media), and that record has a **Permanent retention period**, then:

It must be retained according to the *Arizona Standards for Permanent Records*.
There are no exceptions to this rule.

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3. If a public body employs a third-party vendor to supply records, and / or if a public body receives electronic / scanned records that have a **Permanent retention period** and are to be retained permanently by the public body, the records must meet the *Minimum Standards for Digital Imaging or Scanning of Textual Documents* requirements for records with a total retention period of 31 years or longer.

If a public body finds itself in this situation, their third-party vendor must meet the required standards, and best practices indicate you should include these required standards in the public body's contract with the vendor.

IV. Stricter Standards for Records with a Total Retention Period of 31 Years or Longer

1. If you are scanning **long-term records** (those records with a total retention period of 31 years or longer), or scanning paper records for **disaster recovery purposes**, the Library, Archives and Public Records – Archives and Records Management highly recommends that you adhere to the scanning requirements for records with a total retention period of 31 years or longer from the *Minimum Standards for Digital Imaging or Scanning of Textual Documents*.

This high recommendation is due to the fact that technology changes rapidly, and adhering to the requirements for records with a total retention period of 31 years or longer will help as your public body faces the challenges and issues associated with migration of records to new formats.

2. Risk Management

Arizona State Standards written by the Archives and Records Management branch of the State Library are based off of national and industry research, standards and guidelines in the digitization of records and mitigation of the risk of loss of records due to file format migration, readability, clarity, authenticity issues and bit rot over long periods of time.

Example #1:

Xerox copier flaw changes numbers in scanned docs

By Iain Thomson, 6th August 2013

“In August 2013, computer science student David Kriesel was scanning in some building plans on a Xerox WorkCentre, and when checking the copies he found some of the dimensions of the plans had been altered, with three room measurements out of sync with the original documents. In particular, the number six was being changed to an eight.

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The problem appears to affect documents scanned as PDFs without any character recognition (OCR) enabled... According to a statement released by Xerox, he's right. The company confirmed that the problem is caused by a combination of compression levels and resolution setting with the JBIG@ system, saying it has 'inherent tradeoffs under low resolution and quality settings.'"

Example #2:

Higher resolutions of scans preserve details necessary for the readability of font variations and allow for sufficient clarity in the image and to support the use of optical character recognition (OCR) or intelligent character recognition (ICR) processing if desired.

Example #3:

Experience has shown that higher resolutions scans fair better in the migration of file formats and viewer application advancement or changes overtime.

V. Arizona's Standards

The *Arizona Standards for Permanent Records* is located at the following link:

http://www.azlibrary.gov/sites/azlibrary.gov/files/arm-standard-for-permanent-records_april_23_2013_signed.pdf

The *Minimum Standards for Digital Imaging or Scanning of Textual Documents* is located at the following link:

<http://www.azlibrary.gov/sites/azlibrary.gov/files/arm-minimum-standards-for-digital-imaging.pdf>

The *Minimum Standards for Scanning Photographs* is located at the following link:

<http://www.azlibrary.gov/sites/azlibrary.gov/files/arm-resolutions-permanent-images.pdf>

The *Minimum Standards for "Born Digital" Photographs* is located at the following link:

<http://www.azlibrary.gov/sites/azlibrary.gov/files/arm-minimum-standards-born-digital-photography.pdf>

For all Standards and Guidelines, please click on the following link:

<http://www.azlibrary.gov/arm/guidelines-standards-and-statutes>

Effective: June 9, 2014