

SCANNING STANDARDS

1. Compliance & Retention

- 1.1 For the purposes of this standard the terms “scanning” and “electronic document imaging systems” are used interchangeably.
- 1.2 University offices seeking to implement electronic document imaging systems are required to comply with McGill University and Provincial regulations.
- 1.3 University offices considering such implementations must consult with campus information technology (Information Systems Resources) and record-keeping (McGill University Archives) authorities prior to beginning a scanning project. This consultation may include product, technical, and business process recommendations.
- 1.4 Retention: McGill University records retention and disposal regulations *MURRS* (*McGill University Records Retention Schedule*) apply to scanned/imaged records.

Original source documents and imaged/scanned versions are subject to the approved retention standard documented in *MURRS*. Any plan to replace original source records (paper) with scanned versions and destroy the originals requires changes to *MURRS* and the approval of the University Archives. Under Provincial regulations not all University records may be permanently replaced by scanned versions. Compliance with *MURRS* must be established and approved **in advance** of imaging system implementation.

- 1.5 System Architecture: The system architecture is to allow flexibility in exporting and importing data to other nonproprietary systems. Systems should consist of hardware and software that conform to nonproprietary standards and should be constructed in open system architecture.

2. Business Process & Documentation Requirements

- 2.1 Documentation must include extensive written procedures on the transfer process and technical specifications (format and resolution output) used. Documentation must indicate use of system architecture that allows flexibility in exporting and importing data to other nonproprietary systems (i.e.: how will the resulting images remain readable and authentic when systems change?).

Such documentation must be retained by the office responsible for the scanning project and retained according to *MURRS*.

Documentation regarding the process must include the following:

Document(s) Identification:

- Office of origin of the document(s)
- Type of document(s), *MURRS* classification and series identification (requires consultation with the University Archives)
- Content/purpose of the document(s)
- Search and indexing metadata

Process Mapping:

- Access conditions (including nature of review and approval process for the document(s) and frequency of use)

System Documentation:

- Nature of imaging application, evidence of compliance with technical standards

Project Responsibility:

- Statement of project purpose, business process analysis, role and responsibilities of project officers and deliverables with a timeline

- 2.2 University offices seeking to implement an imaging system must review the associated business process and complete the Business Process Checklist. The review of the business process must articulate the nature of the scanning project in the context of unit record-keeping functions including whether the scanning is for backlog paper records and/or continuing scanning of paper.
- 2.3 The project must include a detailed plan to view and verify the scanned results. This plan would include a commitment to view 100% of the images, ensuring that the resulting scanned images are an authentic, reliable and readable reflection of the original.

The plan would also include a commitment to perform a detailed comparison of between 5 and 10% of the resulting scanned images and the originals.

- 2.4 A plan to retrieve the information must be instituted and adequate security measures must be in place to guarantee the accessibility and confidentiality of the document including:
- Description of the methods utilized to locate the information. For example, to identify the scanned images by a code embedded in the media or on the box where the media is stored.
 - Depiction of the type of index and retrieval process (e.g. Bar Code, Full Text Retrieval).

The security measures must include password documentation ensuring access only by authorized persons.

- 2.5 Type of storage media and back-up procedures must be stated.

3. Technical Standards

- 3.1 Electronic documents stored in an imaging system are to be in standard image file formats. TIFF (Tagged Image File Format) file format is the preferred standard for documents submitted through a scanning system. The nature and relevance of colour in paper documents will be considered a factor in whether the project elects to scan in colour vs. black and white (black and white scanning may risk the loss of colour notations or other relevant information in paper form).
- 3.2 Required format for the index associated with an imaging system is ASCII (open format and easily readable by varied software).
- 3.3 Where optical disks (CD ROM) are used for information interchange between information processing systems, the process must comply with ISO 9660. ISO 9660 defines the attributes of the volume and the descriptors recorded, file placement; file attributes, and other related processes provided within information processing systems.
<http://www.iso.org/iso/en/CatalogueDetailPage.CatalogueDetail?CSNUMBER=17505>
- 3.4 Scanning resolution standards: Resolution requirements reflect the recommendations of the Archives nationales du Quebec *Guide d'imagerie numerique*.
www.anq.gouv.qc.ca/Publications/GUIDEIMAG.pdf
 - For textual administrative records, a minimum of 300 dpi – this provides a high resolution for reading and for manipulation of the image if necessary and covers a variety of document formats.
 - Barcodes and data in check box forms: 300dpi
 - Optical character recognition: 300dpi
 - Geographical charts, maps, drawings or special documents: 300-400dpi or greater depending on the tests carried out.

Resource/Contact:

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