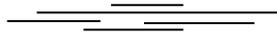


# Recordkeeping Standards

The following recordkeeping standards are published by the International Standards Organization (ISO) or are aligned with ISO standards. They outline guiding principles and organizational requirements for effective records management, and set specifications for electronic recordkeeping.

The Government Records Office endorses these standards. They inform our guidance and advice on recordkeeping, and are recommended for use in the Manitoba Government.



## Core standards

### **CAN/CGSB-72.34-2017 – Electronic records as documentary evidence**

Released in 2017, amended in October 2018 and reaffirmed in March 2022, this standard outlines the principles, methods, and practices for the creation and management of all forms of electronic records to support their admissibility and weight as evidence in legal proceedings. It provides a high-level overview of all major recordkeeping principles and current issues.

This standard takes into account the applicable federal, provincial, and territorial acts in force in Canada. The recommendations in this standard are consistent with the principles laid out in the records management-focused ISO standards. The standard is free of charge and is recommended reading for all records management professionals and senior managers with records management responsibilities.

[https://publications.gc.ca/collections/collection\\_2022/ongc-cgsb/P29-072-034-2022-eng.pdf](https://publications.gc.ca/collections/collection_2022/ongc-cgsb/P29-072-034-2022-eng.pdf)

### **ISO 15489-1:2016 – Information and documentation – Records management – Part 1: Concepts and principles<sup>1</sup>**

Aimed primarily at records professionals, this standard sets out guiding concepts, principles, and requirements for managing records across varied business and technological environments. At the heart of this guidance are two basic principles:

1. Records must be created and captured to provide evidence of business activities, transactions, and decisions.
2. Records must be authentic, reliable, useable, and have integrity for as long as they are required.

ISO 15489 provides the baseline for all other records standards and guidelines. The [About Records](#) section of our website provides an overview of the concepts outlined in this standard for general readers. We recommend that records management professionals in the Manitoba government familiarize themselves with the details of this core standard.

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<sup>1</sup> ISO 15489-1:2016 replaces ISO 15489-1:2001. Note: the 2001 publication also included a “part 2.” This second part of the standard was not revised and was withdrawn in 2017, however the “part 1” designation has remained in the 15489 title.

### **ISO 30300 Series – Management systems for records**

ISO 30300:2020 – Records management – Core concepts and vocabulary

ISO 30301:2019 – Management systems for records – Requirements

ISO 30302:2022 – Management systems for records – Guidelines for implementation

The ISO 30300 series was developed primarily for a management audience. It is designed to assist government and private organizations of all types in implementing, operating, and improving an effective management system for records. This is done by establishing a records policy and objectives based on the organization's requirements, and putting in place the necessary controls, processes, and evaluations in order for technology and good practices to thrive. We recommend that senior management consult this set of standards and our [Records and Information Management Framework](#) to ensure their departments and agencies are meeting requirements.

## Activity-specific standards

### **ISO/TR 13028:2010 – Information and documentation – Implementation guidelines for digitization of records**

This technical report outlines the best practice guidelines for the full scope of recordkeeping issues that need to be considered when digitizing records. It outlines benefits and risks, preliminary considerations, and best practice guidelines. Program areas undertaking a major digitization project should consult this report to ensure that all best practices have been considered. Also see our guidance on [Digitizing Records](#).

### **ISO 13008:2022 – Information and documentation – Digital records conversion and migration process**

This standard outlines the considerations related to the business and recordkeeping requirements, planning, and project management steps for converting and migrating records from one system or format to another.

### **ISO 23081 Series – Information and documentation – Records Management Processes - Metadata for Records**

ISO 23081-1:2017 – Metadata for records – Part 1: Principles

ISO 23081-2:2007 – Managing metadata for records – Part 2: Conceptual and implementation issues

ISO/TR 23081-3:2011 – Managing metadata for records – Part 3: Self-assessment method

This series of standards outlines the framework for creating, capturing, managing, and using metadata. Metadata is the structured or semi-structured information about records that enable the full spectrum of records management functions to occur. Records management has always included metadata, but in a digital environment the requirements must be more explicit, more intentionally captured, and planned up-front in system and process design.

## Analysis standards

### **ISO/TR 21946:2018 – Information and Documentation – Appraisal for managing records**

This technical report provides guidance on how to analyze the recordkeeping requirements needed to meet an organization's business requirements. This includes the "recurrent process of evaluating business activities to determine which records need to be created and captured as well as how and how long the records need to be kept." See the [Records and Information Management Framework](#), Principle 2 for more information about how to link recordkeeping requirements to business requirements.

### **ISO/TR 26122: 2008 – Work process analysis for records**

This technical report was developed with records professionals and systems/business analysts in mind. It provides guidance on analyzing work processes from the perspective of the creation, capture, and management of records so that records requirements are linked to business requirements. This type of analysis can be used, in combination with ISO/TR 21946, for a variety of records management purposes including developing file structures, business planning, risk assessment, records scheduling, and advocating for system requirements that meet recordkeeping needs.

### **ISO/TR 18128:2014 – Information and documentation – Risk assessment for records processes and systems**

This technical report was designed for records professionals and analysts to provide a systematic and comprehensive method for assessing the risks related to records processes and systems. It includes an identification of areas of uncertainty as well as guidelines to apply [ISO 31000 Risk management guidelines](#), which describes a common approach to managing any type of risk that is not industry or sector specific, to the management of records over time.

### **ISO/TR 21965:2019 – Information and documentation – Records management in enterprise architecture**

This technical report was developed to help enterprise architects and related professionals integrate records management into the analysis, planning, design, and procurement of systems in the digital environment. Its purpose is to create a common language that embeds records management concerns and requirements into enterprise architecture with the "twin goals of building consensus among records managers, enterprise architects and solution architects, and across the domains of records management, enterprise architecture and solution architecture." See the [Records and Information Management Framework](#), Principle 2 for more information about linking recordkeeping requirements with business requirements in the assessment and design of business processes and systems.

## Systems standards

The audience for these standards includes business managers/IT specialists responsible for planning, developing, and implementing electronic systems; the IT industry; and records specialists. These specifications are recommended for use in the design or procurement process, or for evaluating the capability of existing systems. Contact GRO for further guidance when embarking upon new systems so recordkeeping requirements are built in upfront.

### **ISO 16175 – Information and Documentation – Principles and functional requirements for records in electronic office environments**

ISO 16175-1:2020 – Part 1: Functional requirements and associated guidance for any applications that manage digital records

ISO 16175-2:2020 – Part 2: Guidance for selecting, designing, implementing and maintaining software for managing records<sup>2</sup>

ISO 16175 is intended to provide "model, high-level" functional requirements and implementation guidance regarding digital recordkeeping for business applications. Part 1 provides a plain-language explanation of the principles, characteristics, and functional requirements for software applications. The requirements provide flexibility and discuss organizational requirements and configuration options. This could include a range of approaches, from systems that have many different software and/or analog components, to comprehensive 'all in one' records management systems. Part 2 provides guidance about the selection, design, implementation, and maintenance of any software for managing records, including digital, analog, and hybrid environments.

### **MoReq2010 – Modular Requirements for Records Systems (June 2011)**

Developed and managed by the DLM Forum, a not-for-profit foundation sponsored by the European Commission, MoReq2010 builds on internationally recognized standards such as ISO 15489 and ISO 16175, and its precursor MoReq2.

MoReq2010 uses a flexible, modular approach designed to support a wide range of organizations and applications. It provides a set of common core services that can be shared by different records systems, and additional modules that can be added to meet specific needs (e.g., records of specialized business processes). It also contains non-functional requirements for different kinds of records systems, and an XML schema for exporting records from one system to another to enable long-term preservation.

The principles and requirements outlined in MoReq2010 remain applicable; however, as of 2018 the MoReq standards are no longer being updated.

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<sup>2</sup> ISO 16175-2:2020 replaces ISO 16175-2:2011 and ISO 16175-3:2010. It also includes some updated content from the now withdrawn ISO 15489-2:2001. Functional requirements formerly addressed in parts 2 and 3 have been updated and combined in ISO 16175-1:2020.

## **Information Management Requirements for Software-as-a-Service**

Version 1.0 May 2020; Australasian Digital Recordkeeping Initiative (ADRI) / Council of Australasian Archives and Records Authorities (CAARA)

Although geared towards an Australian environment, the recordkeeping principles and considerations outlined can be used as a basis for analysis of Software-as-a-Service (SaaS) within the Government of Manitoba environment, with some adaptations to consider Manitoban and Canadian legislation.

“The use of Software-as-a-Service (SaaS) products has many advantages for government organisations. However, government organisations are at a significant risk of breaching legal and practical information management obligations unless IM requirements are addressed during the procurement of these systems. [CAARA’s Information Management Requirements for Software-as-a-Service](#) guidance assists organisations in managing this risk, ensuring continued access to information”. ([caara.org](#))

## **ISO/TR 22428: 2020 - Managing records in cloud computing environments**

ISO/TR 22428-1 Part 1: Issues and Concerns

ISO/TR 22428 provides a “model for cloud records management and outlines the risk and issues that are considered by records managers before adopting cloud services for records management.” The standard provides potential stakeholder models, records management environments and use cases, which provides a useful introduction to the cloud environment for RM and IT professionals. The remainder of the standard focuses on risk considerations – service, system, stakeholder, social and legal risks.

## **Format standards**

Many formats exist that will meet business needs for short-term retention, however long-term retention of digital records requires migration, conversion, metadata, and systems that support core recordkeeping practices. To date, there are few international standards that endorse specific formats; rather, standards have focused on the qualities the records and recordkeeping systems must have (see ISO 15489 and ISO 16175). One format that has been adopted by the ISO as meeting all of the criteria is PDF/A.

### **PDF/A – ISO 19005 – Document management - Electronic document file format for long-term preservation**

ISO 19005-1:2005 – Document management – Electronic document file format for long-term preservation – Part 1: Use of PDF 1.4 (PDF/A-1)

ISO 19005-2:2011 – Document management – Electronic document file format for long-term preservation – Part 2: Use of ISO 32000-1 (PDF 1.7) (PDF/A-2)

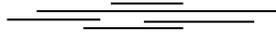
PDF/A is an electronic format designed for long-term preservation of records in document (page-based) form. Files can be created in PDF/A form or converted to PDF/A from other electronic formats or hard copy formats such as paper and microfilm.

The Government Records Office endorses this standard for the two versions, PDF/A-1 and PDF/A-2. These provide a suitable format for long-term retention of documents for business purposes, and are acceptable

as an archival format. This standard is likely to be useful in document-based business processes, but users should be aware that it provides a document format only, and is therefore only one part of an electronic records management strategy. The standard should be used in conjunction with other recordkeeping standards.

ISO 19005 is designed to avoid the problems of maintaining documents in native formats that depend on proprietary, short-lived technology. It provides a specification that preserves the visual appearance of electronic documents over time and supports future access and migration needs. A key characteristic is the requirement for PDF/A documents to be completely self-contained and self-documenting. All of the information necessary for displaying and printing the document is embedded in the file so that it is not dependent on the technology used to create, store, or display it, and metadata is used to provide important information about the document itself and its context. The specification also prohibits features of the PDF format that are not compatible with long-term preservation. Another key element is that the standard is publicly available, so that anyone can use it to develop applications that read, write, or process PDF/A files.

PDF/A-1 is the basic specification. PDF/A-2 extends the format by supporting additional features related to fonts, metadata, transparent objects, image compression, and digital signatures. It also enables the embedding of PDF/A documents within a PDF/A, which supports the creation of sets of related documents in one file for recordkeeping purposes. PDF/A-2 is designed to ensure forward compatibility so that users of PDF/A-1 will not need to migrate to the new version unless they want to use the added features.



A list of all standards issued or under development by ISO/TC46/SC11 Archives/records management is available here: <https://committee.iso.org/home/tc46sc11>

ISO standards described in this Fact Sheet are available through the Standards Council of Canada at: <https://www.scc.ca/en/standards/buy-standards>

The Canadian Standard on Documentary Evidence is available, free of charge, at: <http://www.publications.gc.ca/pub?id=9.839939&sl=0>

MoReq2010 is available at: <http://www.moreq.info/>

The CAARA requirements documents can be found here: <https://www.caara.org.au/index.php/working-groups/adri/products/>

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