SLOVENSKI STANDARD
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Informatika in dokumentacija - Procesi in funkcionalne zahteve za načrtovanje programske opreme za upravljanje zapisov - 1. del: Funkcionalne zahteve in navodilo za aplikacije, ki upravljajo digitalne zapise

Information and documentation - Processes and functional requirements for software for managing records - Part 1: Functional requirements and associated guidance for any applications that manage digital records

Information et documentation -- Principes et exigences fonctionnelles pour les enregistrements dans les environnements électroniques de bureau -- Partie 1: Aperçu et déclaration de principes

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01.140.20	Informacijske vede	Information sciences
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Information and documentation — Processes and functional requirements for software for managing records —

Part 1: Functional requirements and associated guidance for any applications that manage digital records

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee *[or Project Committee]* ISO/TC *46 Information and documentation* Subcommittee SC 11, *Archives/records management*.

This second edition cancels and replaces the first edition (ISO 16175-2:2011 and ISO 16175-3:2010), which has been technically revised.

A list of all parts in the ISO ##### series can be found on the ISO website.

Introduction

1.1 The case for management of records

Good management of records and information is fundamental to a well-functioning organization. It supports business activity and provides a basis for efficient service delivery. It also provides the mechanism for organizations to retain evidence of their decisions and actions for future reference and to support business continuity. Good records practice is simply good business practice.

Managing records facilitates:

a) efficiency, by making information readily available when needed for decision-making and operational purposes and to support information reuse and innovation;

b) sound use of financial resources, by allowing timely disposition of non-current records;

c) accountability, by enabling the creation of complete and authoritative records of activities;

d) compliance, by demonstrating that legal requirements have been met; and

e) risk mitigation, by managing the risks associated with unlawful loss or destruction of records, and from inappropriate or unauthorised access to records.

Today in most organizations business is transacted and enabled by a variety of software applications. If organizations are to capture and manage reliable records of their business activities it is vital that their line-of-business applications incorporate good records functionality as part of their design. Making and keeping records should be an organic and natural part of business processes.

1.2 Purpose of this document

This document provides model, high-level functional requirements, with associated explanatory information and usage guidance, for any software applications that are intended to manage digital records. Part 2 (the companion document to this Part) provides process guidance on how to select/design, implement and maintain software for managing records within organizations.

For the purpose of presenting model functional requirements, this document makes no distinction between software applications that are used for any business purpose and those applications specifically intended and designed to manage records. Examples of the former include Enterprise Content Management Systems and applications which create records as one part of their functionality such as Contracts Management Systems, Case Management Systems or transactional systems. The term used throughout is therefore “Business application”, which is intended to encapsulate the totality of applications that manage records as part of their usual functioning. It is assumed that almost all business applications will generate data that will need to serve as evidence of business activity for future reference and as such will, *inter alia*, need to create, store and manage records. The purpose of this document is to assist the developers and implementers of those applications to identify and deploy functional requirements that will help ensure that the data generated and held in such applications can serve as adequate records of business activity.

Many business applications generate and store data that may be subject to constant updating (dynamic), able to be transformed (manipulable) and only contain current data (non-redundant). While business requirements for dynamic, manipulable and non-redundant data may be entirely legitimate, if records are to serve as reliable evidence of business activity they need to be fixed and inviolable. That is, systems and processes need to be able to guarantee the reliability and authenticity of the records as evidence of past business activity.

Organizations deploy software applications to automate business activities and transactions. The digital information generated by an application may serve as the only evidence or record of the process or transaction, despite the application not being designed specifically for the purpose of managing records. Without evidence of these activities, organizations are exposed to risk and may be unable to meet legislative, accountability, business and community expectations. Because of the dynamic

and manipulable nature of the data in business applications, the capture of records and the ongoing management of their fixity, authenticity, reliability, integrity and useability can be challenging.

The functional requirements presented in this document do not necessarily all need to be met by a single software application. It may be more cost effective for the requirements to be satisfied by multiple software applications that collectively work together within an organization, or across multiple organizations, to enable the conduct of business. Guidance on these issues can be found in Clause 8.5. In addition, some requirements could be satisfied outside applications through processes and procedures.

In addition to providing model high-level functional requirements for records in business applications, this document provides guidance on identifying and addressing the needs for records. It aims to:

— help organizations understand requirements for managing digital records as they relate to software applications used by organizations;

— assist IT and business specialists to include records considerations in applications design and/or procurement; and

— assess the capabilities of existing business applications to manage records, including helping to identify gaps or areas of risk in the current functionality of those applications.

This document is part of a suite of records system implementation guidance that supports the core international records management standard, ISO 15489-1:2016. The utility and characteristics of records systems are explained in that standard.

1.3 Audience

The primary audience for this document is professionals responsible for designing, developing, procuring, reviewing and/or implementing software applications, such as business analysts, applications developers, solution architects and IT procurement decision-makers. The audience also includes records professionals who are involved in advising or assisting in such processes.

Role	Purpose
Solution architects/ designers	Ensure IT applications infrastructure supports the RM requirements.
IT Procurement decision-makers	Ensure procurement process meets these requirements
Developers	Build application and support system tester during functional specification development and test phase. Includes software vendors and developers who wish to incorporate records functionality within their products, both commercial or open source
Business Analysts	Develop technical specifications; initiate/collate feedback and walkthrough. Submit specification for sign-off and pass over to developer. Update any changes to specification after sign-off (e.g. changes that are agreed during test phase), if required.
Application testers	Develop test plans, test conditions/cases and execute tests. Analyse test results, log any failures and retest once fix has been applied and built to test environment.
Business owners	For solution-specific requirements. Review and confirm application requirements meet business objectives. Provide the business rules/processes/requirements to the business analyst during the software specification development and test phases.
Records management professionals	Advising and assisting the business in the processes of defining RM requirements

Given the target audience for this document, the use of terminology that is specific to records professionals has been minimised as far as possible. Where the use of such terminology is unavoidable it is explained and/or defined (in clause 4 below).

1.4 Structure of this document

Sections 1-4 (Introduction; Scope; Normative References; Terms and Definitions) are standard ISO sections. Key concepts and requirements are set out in Sections 5 and 6, while Sections 7 and 8 provide more context and information on how the requirements might be used. Annex A provides a template for developing requirements for use in an implementation context in an organization.

Information and documentation — Processes and functional requirements for software for managing records —

Part 1:
Functional requirements and associated guidance for any applications that manage digital records

1 Scope *(mandatory)*

This document provides model, high-level functional requirements and associated guidance for software applications that are intended to manage digital records (including digital copies of analogue source records), either as the main purpose of the application or as a part of an application that is primarily intended to enable other business activities.

It does not include:

— functional requirements for applications that manage analogue records

— generic design requirements such as reporting, application administration and performance

— requirements for the long-term preservation of digital records in a dedicated preservation environment. It should be noted, however, that the model requirements are intended to encourage the deployment of applications that do not hinder long-term preservation of records. As such, some of the requirements support long-term digital preservation outcomes.

— implementation guidance for applications that will capture and/or manage records. Such guidance can be found in Part 2 of ISO 16175.

Assumption:

The requirements in this standard assume that the organization has undertaken or will undertake precursor business analysis as outlined in *Section 8.1 Determining needs for evidence of events, transactions and decisions in business applications.* Not all information contained in a business application will necessarily be required to be recorded as evidence. Before reviewing, designing, building or purchasing business applications, it is necessary to determine the organization's needs for records in order to develop and deploy appropriate strategies.

2 Normative references *(mandatory)*

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 15489-1:2016, *Information and documentation — Records management — Part 1: Concepts and principles*

ISO/TR 21946:2019, *Information and documentation — Records management – Appraisal for records*

ISO 23081-1:2017, *Information and documentation — Records management processes — Metadata for records — Part 1: Principles*

ISO 23081-2:2009, *Information and documentation — Managing metadata for records — Part 2: Conceptual and implementation issues*

ISO 30300, *Information and documentation — Management systems for records — Fundamentals and vocabulary*[Note: this publication is in the process of being revised and updated]

3 Terms and definitions *(mandatory)*

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform : available at http://www.iso.org/obp

— IEC Electropedia : available at http://www.electropedia.org

4 Key outcome areas and configuration options

4.1 Key outcome areas

The functional requirements in this standard focus on the ***outcomes*** required to ensure records are managed appropriately. How to achieve the outcomes will depend on the type of application being used.

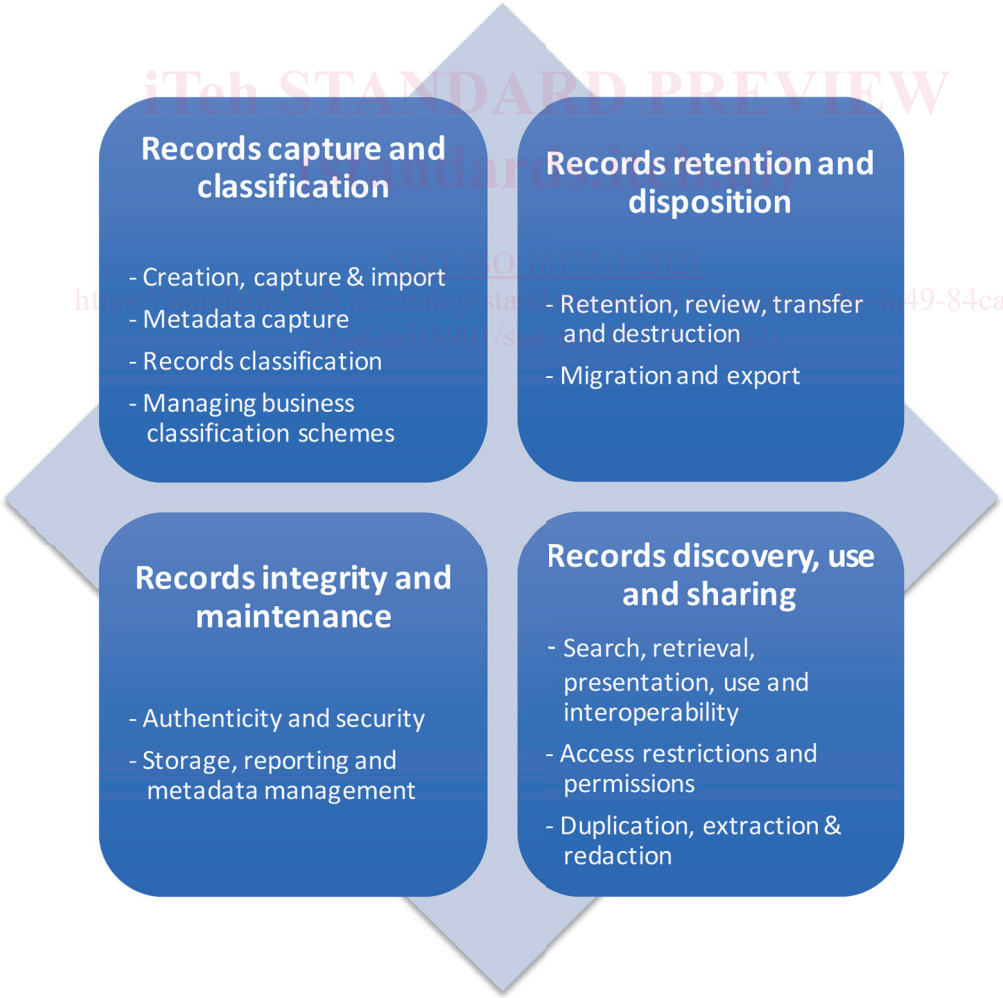

Figure 1 — Key outcome areas

4.2 Key outcome areas in detail

4.2.1 Records capture and classification

Software applications that enable business activities or transactions should be able to capture and/or import/ingest evidence of those activities. This involves identifying sets of digital information to serve as records. Records have to be linked to their business context using metadata.

4.2.2 Records retention and disposition

Records shall be kept and remain accessible to authorized users for as long as required for legislative, community and business needs. In conformance with authorized disposition authorities, records should be retained and disposed of in a managed, systematic and auditable way.

4.2.3 Records integrity and maintenance

Business applications should be able to register any interactions with or changes to the records. This includes the responsible agent, a timestamp and details on the changes. The registered events should be persistently linked to the records for as long as these exist.

4.2.4 Records discovery, use and sharing

Business applications should enable searching, retrieval, rendering, use, sharing and redaction of records for authorized users. They should also support interoperability across platforms and domains and over time.

4.3 Possible configuration options for managing records created in business applications

Before using the functional requirements, organizations should consider the extent to which functionality for records will be provided through internal mechanisms within a business application itself, or whether the requirements will be met by interacting with external software applications that are capable of providing the necessary records management functionality.

The mandatory functional requirements in this document outline the core records processes that shall be addressed. Options to implement these requirements may include:

1. designing the business application to internally perform the records management functions;
2. integrating with a dedicated records management application, such as an electronic records management system (ERMS); or
3. designing export functionality into the business application to directly export records and their associated metadata to an identified records management application.