# SVENSK STANDARD
# SS-ISO 23081-2:2009

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## Information och dokumentation – Dokumenthantering (Records management) – Metadata för verksamhetsinformation – Del 2: Frågeställningar kring begrepp och införande (ISO 23081-2:2009, IDT)

## Information and documentation – Managing metadata for records – Part 2: Conceptual and implementation issues (ISO 23081-2:2009, IDT)



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Den internationella standarden ISO 23081-2:2009 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av ISO 23081-2:2009.

The International Standard ISO 23081-2:2009 has the status of a Swedish Standard. This document contains the official English version of ISO 23081-2:2009.



Upplysningar om sakinnehållet i standarden lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00.
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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 23081-2 was prepared by Technical Committee ISO/TC 46, *Information and documentation*, Subcommittee SC 11, *Archives/records management*.

This first edition cancels and replaces ISO/TS 23081-2:2007, which has been technically revised.

ISO 23081 consists of the following parts, under the general title *Information and documentation — Managing metadata for records*:

— *Part 1: Principles*

— *Part 2: Conceptual and implementation issues*

# Introduction

The ISO 23081 series describes metadata for records. This part of ISO 23081 focuses on the framework for defining metadata elements for managing records and provides a generic statement of metadata elements, whether these are physical, analogue or digital, consistent with the principles of ISO 23081-1.

It provides an extended rationale for metadata for managing records in organizations, conceptual models for metadata and a high-level element set of generic metadata types suitable for any records environment encompassing, for example, current document or records management implementations or archival implementations. It defines the generic metadata types both for records entities as well as other entities that need to be managed in order to document and understand the context of records. This part of ISO 23081 also identifies, for key entities, a minimum number of fixed aggregation layers that are required for interoperability purposes. The models and generic metadata types outlined in this part of ISO 23081 are primarily focused on the "records" entity. However, they are also relevant to the other entities.

This part of ISO 23081 does not prescribe a specific set of metadata elements. Rather, it identifies generic types of metadata that are required to fulfil the requirements for managing records. This approach provides organizations with the flexibility to select specific metadata to meet their business requirements for managing their records for as long as they are required. It provides diagrams for determining the metadata elements that may be defined in a particular implementation and the metadata that could apply to each aggregation of the entities defined. It acknowledges that these entities can exist at different layers of aggregation. It defines generic metadata types that are expected to apply at all layers of aggregation, while alerting implementers to specific metadata elements that may only apply at particular layers of aggregation.

Implementing metadata for managing records in organizational and system settings involves a number of choices, which are determined by the circumstances of the organization, the systems in place and the requirements for managing records.

Building upon the principles of ISO 23081-1, this part of ISO 23081 provides further explanation on the underlying concepts of metadata schemas for managing records, offers practical guidance for developing and constructing those schemas from an organizational point of view and finally goes into issues relating to the implementation and management of metadata over time.

This part of ISO 23081 is intended for

— records professionals (or persons assigned within an organization for managing records in any environment) responsible for defining metadata for managing records at any layer of aggregation in either a business system or dedicated records application software,

— systems/business analysts responsible for identifying metadata to manage records in business systems,

— records professionals or systems analysts addressing system interoperability requirements involving records, and

— vendors, as suppliers of software applications that support and enable the creation, capture and management of metadata over time.

# Information and documentation — Managing metadata for records —

## Part 2:
## Conceptual and implementation issues

### 1 Scope

This part of ISO 23081 establishes a framework for defining metadata elements consistent with the principles and implementation considerations outlined in ISO 23081-1. The purpose of this framework is to

a) enable standardized description of records and critical contextual entities for records,

b) provide common understanding of fixed points of aggregation to enable interoperability of records and information relevant to records between organizational systems, and

c) enable reuse and standardization of metadata for managing records over time, space and across applications.

It further identifies some of the critical decision points that need to be addressed and documented to enable implementation of metadata for managing records. It aims to

— identify the issues that need to be addressed in implementing metadata for managing records,

— identify and explain the various options for addressing the issues, and

— identify various paths for making decisions and choosing options in implementing metadata for managing records.

### 2 Normative references

The following referenced documents are indispensable for the application 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/IEC 11179-1, *Information technology — Metadata registries (MDR) — Part 1: Framework*

ISO 15489-1:2001, *Information and documentation — Records management — Part 1: General*

ISO 23081-1:2006, *Information and documentation — Records management processes — Metadata for records — Part 1: Principles*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 15489-1, ISO 23081-1, ISO/IEC 11179-1 and the following apply.

**3.1**
**archival system**
organized collection of hardware, software, policies, procedures and people, which maintains, stores, manages and makes available records over time

**3.2**
**attribute**
characteristic of an object or entity

[ISO 11179-1:2004, definition 3.1.1]

**3.3**
**business system**
organized collection of hardware, software, supplies, policies, procedures and people, which stores, processes and provides access to an organization's business information

**3.4**
**class**
description of a set of objects that share the same attributes, operations, methods, relationships, and semantics

[ISO/IEC 19501:2005, Glossary]

**3.5**
**conceptual data model**
data model that represents an abstract view of the real world

NOTE A conceptual model represents the human understanding of a system.

[ISO 11179-1:2004, definition 3.2.5]

**3.6**
**entity**
any concrete or abstract thing that exists, did exist, or may exist, including associations among these things

EXAMPLE A person, object, event, idea or process.

NOTE An entity exists whether data about it are available or not.

[ISO 11179-1:2004, definition 3.2.10; ISO/IEC 2382-17:1999, definition 17.02.05].

**3.7**
**metadata for managing records**
structured or semi-structured information, which enables the creation, management, and use of records through time and within and across domains

NOTE See ISO 23081-1:2006, Clause 4.

**3.8**
**records application software**
specific application used to maintain, manage and provide access to an organization's record resources

# 4 Purpose and benefits of metadata

## 4.1 Purposes of metadata for managing records

### 4.1.1 General

Organizations need information systems that capture and manage appropriate contextual information to aid the use, understanding, management of, and access to, records over time. This information is critical for asserting authenticity, reliability, integrity, usability and evidential qualities of records. Collectively, this information is known as metadata for managing records.

Metadata for managing records can be used for a variety of purposes within an organization to support, identify, authenticate, describe, locate and manage their resources in a systematic and consistent way to meet business, accountability and societal requirements of organizations.

Records application software and business systems with records functionality manage records by capturing and managing metadata about those records and the context of their creation and use.

Records, particularly in the form of electronic transactions, can exist outside of formal records application software, often being created in business systems serving specific purposes (for example, licensing systems). Records are used and understood by people who possess, or have access to, sufficient knowledge about the processes being undertaken, the people involved in the transaction, the records generated and their immediate context. Such records are not always robust, for reasons including the following.

a) Contextual linkages can be unwritten and dependent upon individual and group memory. Such reliance on unwritten contextual understanding is not dependable; some people have access to more knowledge than others, over time the usability of records will be compromised by staff movement and diminishing corporate memory.

b) The records often lack explicit information needed to identify the components of a transaction outside the specific business context and are therefore difficult to exchange with other related business systems for interoperability purposes.

c) The management processes necessary to assure the sustainability of the records for as long as they are required are not usually a feature of such systems.

### 4.1.2 Amount of metadata

There are practical limits to the amount of contextual information that can be made explicit and captured into a given system in the form of metadata. Context is infinite, while a single information system has finite boundaries. Further contextual information will always exist outside the boundaries of any one system. A single records application software system only needs to capture as much metadata as is considered useful for that system and its users to interpret and manage the records for as long as they are required within the system and to enable migration of those records required outside the system. Good metadata regimes are dynamic and can add additional metadata for managing records as and when necessary over time.

Much metadata for managing records can be obtained from other information systems. For them to be useful in a system for managing records they need to be structured and organized in a standardized way. Standardized metadata are an essential prerequisite for information system interoperability within and between organizations.

## 4.2 Business benefits for metadata for managing records

### 4.2.1 General

Metadata for managing records not only describe the attributes of records in a way that enables their management and use/reuse, they also document the relationships between records and the agents that make and use them and the events or circumstances in which the records are made and used. Metadata support the searching of information assets and the maintenance of their authenticity.