
**Information and documentation —
Metadata for managing records —**

**Part 2:
Conceptual and implementation
issues**

iTeh Standards
(<https://standards.itih.ai>)
Document Preview

[ISO 23081-2:2021](https://standards.itih.ai/catalog/standards/iso/a117ca4d-d8c7-4b92-9db4-3558a6c44e2b/iso-23081-2-2021)

<https://standards.itih.ai/catalog/standards/iso/a117ca4d-d8c7-4b92-9db4-3558a6c44e2b/iso-23081-2-2021>



iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

ISO 23081-2:2021

<https://standards.iteh.ai/catalog/standards/iso/a117ca4d-d8c7-4b92-9db4-3558a6c44e2b/iso-23081-2-2021>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Purpose and benefits of metadata	2
4.1 Purposes of metadata for managing records	2
4.1.1 General	2
4.1.2 Amount of metadata	2
4.2 Business benefits for metadata for managing records	3
4.2.1 General	3
4.2.2 Capturing and managing records in business systems	3
4.2.3 Interoperability	3
4.2.4 Risk management	3
4.2.5 Metadata for records as an organizational information asset	4
4.2.6 Preventing unauthorized access to records	4
4.2.7 Sustainability of business systems through administrative change	4
4.2.8 Long-term retention of digital records	4
4.2.9 Incorporation of metadata into archival systems	4
5 Policy and responsibilities	4
5.1 Policy decisions	4
5.2 Responsibilities for implementing metadata for managing records	5
6 Metadata conceptual model	6
6.1 Entities	6
6.2 Relationships between entities	6
6.3 Flattening the entity model	8
7 Concepts relating to metadata implementation	8
7.1 Aggregation	8
7.1.1 General	8
7.1.2 Entity class aggregation scheme	9
7.2 Inheritance	12
7.3 Reuse of metadata values	13
7.4 Interdependence of metadata elements	14
7.5 Extensibility and modularity	14
8 Metadata model for managing records	14
8.1 Metadata model	14
8.2 Dynamic metadata model	15
8.3 Metadata as a record	16
9 Generic metadata elements	17
9.1 Identity metadata	17
9.2 Description metadata	17
9.3 Use metadata	18
9.4 Event plan metadata	20
9.5 Event history metadata	21
9.6 Relation metadata	22
10 Developing a metadata schema for managing records	23
10.1 Metadata schema	23
10.2 Metadata registries	23
10.3 Designing metadata schemas for managing records	24
10.3.1 Selecting elements to form a schema	24

10.3.2	Structuring elements and establishing relationships	24
10.3.3	Encoding schemes	25
10.3.4	Rules for syntax, obligation levels, default values and repeatability	25
10.3.5	Reusing existing metadata schemas for the purposes of managing records	25
10.4	Metadata schema presentation	26
10.4.1	Documenting a metadata schema for managing records	26
10.4.2	Machine readable presentations	26
11	Implementing metadata for managing records	27
11.1	General	27
11.2	Storage and management	27
11.2.1	Centralized versus decentralized storage and management	27
11.2.2	Metadata repository	28
11.3	Metadata capture	28
11.4	Creating a metadata record for managing records	28
11.5	Registration	29
11.6	Metadata as control tools for managing records	29
11.7	Linking metadata	30
11.8	Appraisal	30
11.9	Transferring records	31
11.10	Preservation and storage formats	31
11.10.1	General	31
11.10.2	Storage in specified formats	32
11.10.3	Encapsulating	32
11.11	Ensuring management of metadata over time	32
Bibliography	33


[\(https://standards.iteh.ai/\)](https://standards.iteh.ai/)
 Document Preview

ISO 23081-2:2021

<https://standards.iteh.ai/catalog/standards/iso/a117ca4d-d8c7-4b92-9db4-3558a6c44e2b/iso-23081-2-2021>

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 of 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 www.iso.org/iso/foreword.html.

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

This second edition cancels and replaces the first edition (ISO 23081-2:2009), of which it constitutes a minor revision.

The changes compared to the previous edition are as follows:

- the second element of the title has been changed from "Managing metadata for records" to "Metadata for managing records";
- in [Clause 2](#), ISO 30300 has been added as a normative reference;
- in [Clause 3](#), a reference to ISO 30300 has been added and the terminological entries have been deleted;
- dated references have been updated;
- minor editorial changes have been applied for clarification.

A list of all parts in the ISO 23081 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The ISO 23081 series describes metadata for records. This document 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 document 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 document are primarily focused on the “records” entity. However, they are also relevant to the other entities.

This document 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 can 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 can 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 document 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 document 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.