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Information technology — Metadata registries (MDR) —

Part 6: **Registration**

Technologies de l'information — Registres de métadonnées (RM) — Partie 6: Enregistrement des données

Reference number
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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

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 document 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 or www.iec.ch/members_experts/refdocs).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC 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) or the IEC list of patent declarations received (see https://patents.iec.ch).

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. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management and interchange*.

This fourth edition cancels and replaces the third edition (ISO/IEC 11179-6:2015), which has been technically revised.

The main changes are as follows:

— the restructuring of the different parts of ISO/IEC 11179 have been taken into account;

— references to other standards have been updated to the latest editions.

A list of all parts in the ISO/IEC 11179 series can be found on the ISO and IEC websites.

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 and www.iec.ch/national-committees.

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Introduction

This document describes the procedure by which metadata items, or other registry items, required in various application areas can be assigned an internationally unique identifier and registered in a metadata registry maintained by one or more Registration Authorities. This document supports multiple schemes for ensuring the uniqueness of the identification.

The metamodel of the common facilities for a metadata registry is defined in ISO/IEC 11179-3. Other parts in the ISO/IEC 11179 series and the ISO/IEC 19763 series provide additional metamodels to extend the common facilities to permit various types of metadata to be registered. The metamodel for the common facilities defined in ISO/IEC 11179-3 allows a registry item to simply be identified or to be both identified and registered. A registered item may either be an administered item, meaning it has its own registration state, or it may be an attached item, which means it is attached to an administered item and shares the latter's registration state. The registered items are included in registries maintained by one or more Registration Authorities, to which the registered items logically and functionally belong. An organization wishing to become a registration authority may do so in accordance with the procedure prescribed in Annex A.

The registration process described in this document may be applied to any type of registry item, such as those specified by:

— ISO/IEC 11179-31[8]: data elements, data element concepts, conceptual domains, value meanings, value domains and classification schemes;

— ISO/IEC 11179-32[9]: concept systems, relations and links;

— ISO/IEC 11179-33[10]: data sets and associated attributes;

— ISO/IEC 11179-34[16]: computable data;

— ISO/IEC 11179-35[11]: models;

— ISO/IEC 19763[14]: ontologies, process models, service models, role and goal models, information models, document models, mappings between models, and form designs;

and/or custom types not specified by these standards. Each registered item is represented within a metadata registry by a registration record that documents the common administration and identification, naming and definition details together with their metadata item-specific details.

Within this document, the use of “Registry” denotes an implementation of a registry that is based upon the common facilities defined in ISO/IEC 11179-3 and that is managed by one or more Registration Authorities.

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Information technology — Metadata registries (MDR) —

Part 6: Registration

1 Scope

This document defines the type of information to be specified, the conditions to be met, and the procedure(s) to be followed for each item to be registered in a metadata registry. The requirements and procedures contained herein apply to all types of items specified in ISO/IEC 11179-3, ISO/IEC 11179-31[8], ISO/IEC 11179-32[9], ISO/IEC 11179-33[10], ISO/IEC 11179-35[11] and those specified in ISO/IEC 19763[14]. Some Registration Authorities can use this document to register and manage locally defined metadata item types that are not defined in ISO/IEC 11179 or ISO/IEC 19763.

This document addresses the common metadata that is used to document the common facilities of a registry: administration, identification, naming and definition, details that can apply to any and all types of registry items.

This document does not address the metadata that is specific to particular types of registry items, such as data elements and value domains. This document does not specify the registry's system design, file organization techniques, storage media, programming languages, etc. to be used in its implementation.

2 Normative references

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/IEC 11179-3, *Information technology — Metadata registries (MDR) — Part 3: Metamodel for registry common facilities*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 11179-3 and the following apply.

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

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

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

3.1
data
re-interpretable representation of information in a formalized manner suitable for communication, interpretation, or processing

Note 1 to entry: Data can be processed by human or automatic means.

[SOURCE: ISO/IEC 2382:2015, 2121272, modified — Notes to entry 2 and 3 deleted.]

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3.2
data element
<organization of data> unit of *data* (3.1) that is considered in context to be indivisible

EXAMPLE The *data element* "age of a person" with values consisting of all combinations of 3 decimal digits.

Note 1 to entry: The definition states that a *data element* is "indivisible" in some context. This means that it is possible that a *data element* considered indivisible in one context (e.g. telephone number) can be divisible in another context, (e.g. country code, area code, local number).

[SOURCE: ISO/IEC 2382:2015, 2121599, modified — Note 1 to entry label removed from the example. Note 2 to entry replaced and renumbered as Note 1, Note 3 to entry deleted.]

3.3
metadata
data (3.1) that defines and describes other *data*

[SOURCE: ISO/IEC 11179-1:2023, 3.2.26]

3.4
registry
information system for registration

[SOURCE: ISO/IEC 11179-1:2023, 3.2.34]

3.5
identification scheme
system allocating identifiers to registered objects

[SOURCE: ISO/IEC 6523-1:1998, 3.6]

3.6
version
unique form differing in certain aspects from an earlier form

[SOURCE: ISO/IEC 11179-1:2023, 3.3.25]

3.7
registration acting body
RAB
type of *organization* (3.8) participating in the registration process of administered items

Note 1 to entry: Currently, there are three RABs: registration authority (RA), *stewardship organization* (StO) and *submitting organization* (SuO).

3.8
organization
unique framework of authority within which individuals act, or are designated to act, towards some purpose

Note 1 to entry: The kinds of organizations covered by ISO/IEC 6523-1 include the following examples:

a) an organization incorporated under law;

b) an unincorporated organization or activity providing goods, services or both including the following:

   1) partnerships;

   2) social or other non-profit organizations or similar bodies in which ownership or control is vested in a group of individuals;

   3) sole proprietorships;

   4) governmental bodies;

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c) groupings of the above types of organizations where there is a need to identify these in information interchange.

[SOURCE: ISO/IEC 6523-1:1998, 3.1, modified — 'goods and/or services' changed to 'goods, services or both', 'person or persons' changed to 'individuals', leading article deleted, trailing fullstop deleted, NOTE converted to Note 1 to entry.]

3.9
organization part
any department, service, or other entity within an *organization* (3.8) which needs to be identified for information exchange

[SOURCE: ISO/IEC 6523-1:1998, 3.2]

3.10
organization identification scheme
identification scheme dedicated to the unique identification of *organizations* (3.8)

3.11
International Code Designator
ICD
identifier of an *organization identification scheme* (3.10)

[SOURCE: ISO/IEC 6523-1:1998, 3.8, modified — uses 'identifier of' instead of 'the data element used to uniquely identify'.]

3.12
International Code Designator value
ICD value
identifier allocated to a particular *organization identification scheme* (3.10)

[SOURCE: ISO/IEC 6523-1:1998, 3.9]

3.13
organization identifier
identifier assigned to an *organization* (3.8) within an *organization identification scheme* (3.10) and unique within that scheme

[SOURCE: ISO/IEC 6523-1:1998, 3.10]

3.14
organization part identifier
OPI
identifier allocated to a particular *organization part* (3.9)

[SOURCE: ISO/IEC 6523-1:1998, 3.11]

3.15
international registration data identifier
IRDI
internationally unique identifier for an identified item as defined in the framework of ISO/IEC 11179

3.16
OPI Source Indicator
OPIS
data element (3.2) used to specify the source for the *organization part identifier* (3.14)

[SOURCE: ISO/IEC 6523-1:1998, 3.12]

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