
**Information technology — Metadata
registries (MDR) —**

**Part 6:
Registration**

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

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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. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national 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 and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 11179-6 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management and interchange*.

This second edition cancels and replaces the first edition (ISO/IEC 11179-6:1997).

ISO/IEC 11179 consists of the following parts, under the general title *Information technology — Metadata registries (MDR)*:

- *Part 1: Framework*
- *Part 2: Classification*
- *Part 3: Registry metamodel and basic attributes*
- *Part 4: Formulation of data definitions*
- *Part 5: Naming and identification principles*
- *Part 6: Registration*

Introduction

This part of ISO/IEC 11179 specifies the procedure by which *administered items* required in various application areas could be registered and assigned an internationally unique identifier. The uniqueness of the identification of a registered *administered item* is determined by a combination of the Registration Authority Identifier (RAI), the unique identifier assigned to a *administered item* within a Registration Authority (RA), and the version under which an *administered item* registration is submitted or updated. The registered *administered items* are included in Registries of Administered Items, maintained by a Registration Authority, to which the administered 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.

This part of ISO/IEC 11179 has been revised to address other types of Administered Items besides data elements: data element concepts, conceptual domains and value domains. Each of these types of Administered Items, including data elements, is represented within a metadata registry by administration records that document the common administration and identification, naming and definition details together with their administered item-specific details.

Within this part of ISO/IEC 11179 the use of “Metadata Registry” denotes an implementation of a metadata registry that is based upon ISO/IEC 11179 and that is managed by a Registration Authority.

Information technology — Metadata registries (MDR) —

Part 6: Registration

1 Scope

This part of ISO/IEC 11179 specifies the procedure by which *administered items* required in various application areas could be registered and assigned an internationally unique identifier. For each Administered Item to be registered, this part of ISO/IEC 11179 defines the type of information that is specified, the conditions that are met, and the procedure(s) that are followed.

The requirements and procedure contained herein apply to all Administered Items specified in ISO/IEC 11179-3. In addition, administration records that document the common administration and identification, naming and definition details as required by, and associated with, any administered item-specific details are also governed by this part of ISO/IEC 11179.

This part of ISO/IEC 11179 only addresses the metadata that is used to specify all types of Administered Items. Others may want to use this part of ISO/IEC 11179 to register and manage locally defined Administered Item types that are not defined in ISO/IEC 11179-3.

This part of ISO/IEC 11179 does not address the metadata that is used to specify particular types of Administered Items such as data elements and value domains. This part of ISO/IEC 11179 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 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/IEC 11179-3, *Information technology — Metadata registries (MDR) — Part 3: Registry metamodel and basic attributes*

ISO/IEC 6523-1, *Information technology — Structure for the identification of organizations and organization parts — Part 1: Identification of organization identification schemes*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

Administered Item

registry item for which administrative information is recorded in an Administration Record
[ISO/IEC 11179-3:2003, definition 3.3.1]

3.2

administrative status

designation of the status in the administrative process of a **Registration Authority** for handling **registration** requests

[ISO/IEC 11179-3:2003, definition 3.3.7]

3.3

data identifier

DI

unique identifier for an Administered Item within a **Registration Authority**

[ISO/IEC 11179-3:2003, definition 3.3.52]

3.4

information interchange

process of sending and receiving data in such a manner that the information content, or meaning assigned to the data, is not altered during the transmission

3.5

International Code Designator

ICD

identifier of an organization identification scheme

NOTE Based on ISO/IEC 6523-1:1998, definition 3.8.

3.6

International Code Designator value

ICD value

identifier allocated to a particular organization identification scheme

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

3.7

international registration data identifier

IRDI

internationally unique identifier for an **Administered Item** as defined in the framework of ISO/IEC 11179

3.8

item identifier

identifier for an item

[ISO/IEC 11179-3:2003, definition 3.3.76]

3.9

item registration authority identifier

identifier of the **Registration Authority** registering the item

[ISO/IEC 11179-3:2003, definition 3.3.77]

3.10

metadata item

instance of a **metadata object**

[ISO/IEC 11179-3:2003, definition 3.2.19]

NOTE In all parts of ISO/IEC 11179, this term is applied only to instances of metadata objects described by the metamodel in Clause 4 of ISO/IEC 11179-3. Examples include instances of Data Elements, Data Element Concepts, Permissible Values etc.

3.11

metadata object

object type defined by a metamodel

[ISO/IEC 11179-3:2003, definition 3.2.20]

3.12**metadata register**

information store or database maintained by a **Metadata Registry**
[ISO/IEC 11179-3:2003, definition 3.2.21]

3.13**Metadata Registry****MDR**

information system for registering metadata
[ISO/IEC 11179-3:2003, definition 3.2.22]

NOTE The associated information store or database is known as a **metadata register**.

3.14**OPI Source Indicator****OPIS**

data element used to specify the source for the **organization part identifier**
[ISO/IEC 6523-1:1998, definition 3.12]

3.15**OPIS value**

particular value (digit or capital letter) taken by the **OPIS** to designate the source of an **organization part identifier**
[ISO/IEC 6523-1:1998, definition 3.13]

3.16**organization identifier**

identifier assigned to an organization within an organization identification scheme, and unique within that scheme
[ISO/IEC 6523-1:1998, definition 3.10]

3.17**organization part identifier****OPI**

identifier allocated to a particular organization part
[ISO/IEC 6523-1:1998, definition 3.11]

3.18**registration**

assignment of an unambiguous identifier to an **Administered Item** in a way that makes the assignment available to interested parties

NOTE Adapted from definition in Annex E of the ISO/IEC JTC 1 Directives.

3.19**registration acting body****RAB**

type of organizations participating in the registration process of **Administered Items**

NOTE Currently, there are three RABs: **Registration Authorities** (RA), **Responsible Organizations** (RO) and **Submitting Organizations** (SO).

3.20**Registration Authority**

organization responsible for maintaining a register
[ISO/IEC 11179-3:2003, definition 3.3.121]

3.21

registration authority identifier

identifier assigned to a **Registration Authority**

[ISO/IEC 11179-3:2003, definition 3.3.122]

3.22

registration status

designation of the status in the registration life-cycle of an **Administered Item**

[ISO/IEC 11179-3:2003, definition 3.3.125]

3.23

registry item

metadata item recorded in a Metadata Registry

[ISO/IEC 11179-3:2003, definition 3.2.29]

3.24

responsible organization

RO

organization or unit within an organization that is the authoritative source for attributes of the **Administered Item**

3.25

submitting organization

SO

organization or unit within an organization that has submitted requests for registry action

3.26

version identifier

VI

identifier assigned to a version of an **Administered Item**

4 Concept of operation

4.1 Administered Items

4.1.1 Administered Item types

A conceptual model of a Metadata Registry for describing data is provided in ISO/IEC 11179-3. ISO/IEC 11179-3 specifies a number of Administered Items. These are: data element, data element concept, value domain, conceptual domain, classification scheme, context (for administered item), derivation rule, object class, property, and representation class. ISO/IEC 11179-1 provides the means for understanding and associating the individual parts and is the foundation for a conceptual understanding of metadata and metadata registries.

This part of the ISO/IEC 11179 standard addresses the specifics that are common to all Administered Items. It is envisioned that an organization may extend its Metadata Registry with additional items that are to be administered. It is also envisioned that the standard may be extended at a later time to administer additional items. Others may want to use this part of ISO/IEC 11179 to register and manage locally defined administered item types that are not defined in ISO/IEC 11179-3.

4.1.2 Identification of Administered Items

Administered Items registered under the provisions of this part of ISO/IEC 11179 are each assigned one International Registration Data Identifier (IRDI). The Registration Authority Identifier (RAI) portion of the International Registration Data Identifier (IRDI), as specified in ISO/IEC 6523, is optional in those registries that do not exchange contents with other registries. This identifier value uniquely identifies the Administered Item within the framework of this part of ISO/IEC 11179. Annex A describes the structure of the International Registration Data Identifier that is used to identify each Administered Item.

4.1.3 Status categories

4.1.3.1 General

There are two types of status categories. The registration status is a designation of the level of registration or quality of metadata or progression of an Administered Item. The administration status is a designation of the status in the administrative process of a Registration Authority for handling registration requests. Registration status categories shall apply to individual Administered Items that have been entered into the metadata register.

An Administration Status specifies the process that an Administered Item is undergoing within a Registration Status. It identifies the process that is taking place within a registration status.. It is very probable that the permissible administrative status values will be dependent upon the current registration status that an Administered Item possesses. A Registration Authority will establish the focus of the use of administrative status. A Registration Authority determines the allowed values of this attribute. It is the responsibility of the Registration Authority to refine, publish, and implement this administrative feature.

4.1.3.2 Summary of registration status categories

Registration status specifies the state of an Administered Item that is in the metadata register. Registration status categories shall apply to individual Administered Items that have been entered into the metadata register. Administered Item registration status categories are of two types, lifecycle and documentation. The lifecycle registration status categories address improvement and progression towards levels of perfection of the quality of the metadata of the item and of the preferences of usage of the Administered Item. The documentation registration status categories are used to denote positions at which there will be no more progression in quality of metadata or use of the Administered Item. The relationships among these status categories, along with the requirements for an Administered Item to achieve a particular registration status level, are presented in Table 1.

Table 1 — Registration status levels and criteria

Administered Item registration status category	Status criteria
Lifecycle Statuses	
Preferred Standard	The Registration Authority confirms that the Administered Item is • preferred for use within the community that uses this metadata register.
Standard	The Registration Authority confirms that the Administered Item is • of sufficient quality and • of broad interest for use in the community that uses this metadata register.
Qualified	The Registration Authority has confirmed that • the mandatory metadata attributes are complete and • the mandatory metadata attributes conform to applicable quality requirements.
Recorded	The Registration Authority has confirmed that • all mandatory metadata attributes have been completed.
Candidate	The Administered Item has been proposed for progression through the registration levels.
Incomplete	Submitter wishes to make the community that uses this metadata register aware of the existence of an Administered Item in their local domain.
Retired	The Registration Authority has approved the Administered Item as • no longer recommended for use in the community that uses this metadata register and • should no longer be used.
Superseded	The Registration Authority determined that the Administered Item is • no longer recommended for use by the community that uses this metadata register, and • a successor Administered Item is now preferred for use.
Documentation Statuses	
Historical	The Submitter wishes to make the community that uses this metadata register aware of the existence of an Administered Item that was used in the past.
Application	The Registration Authority wishes to make the community that uses this metadata register aware of the existence of an Administered Item in their local domain that is in an application system and is not specified at the logical level. This item may be very well described.

While the general intent is to progress as many Administered Items as possible from “Incomplete” to the “Preferred Standard” registration status, progression to a status higher than “Recorded” or “Qualified” may not be appropriate. That is, necessary metadata attribute documentation for an Administered Item may not be available to establish required documentation for the “Recorded” status, may not be of the quality necessary for the “Qualified” status, or identification as “Preferred Standard” Administered Item may not be appropriate. Such Administered Items shall be held at their current status level in the metadata register to facilitate understanding of and access to these Administered Items by the community that uses this metadata register.

The status category of an Administered Item entry shall be based upon the completeness of the data entered, its accuracy, and its conformance to the established format and syntax. The registration status category shall be as listed below.

- a) Incomplete — An Administered Item with the “Incomplete” status shall indicate that the Submitter wishes to make the community that uses this metadata register aware of the existence of an Administered Item in their local domain. An Administered Item in the status of “Incomplete” in the metadata register shall not be maintained under version control. The minimum metadata attribute documentation for the “Incomplete” status in the metadata register shall be as follows:
- 1) administered item identifier,

- 2) designation,
- 3) definition,
- 4) submitter organization name,
- 5) submitter contact name, and
- 6) submitter contact information.

The registered Administered Item may not contain all mandatory attribute values.

- b) **Candidate** — An Administered Item with the “Candidate” status shall indicate that it has been proposed for progression through the registration levels. Administered Items in the “Candidate” status are maintained under version control. The minimum metadata attribute documentation for the “Candidate” status is administered item identifier, designation, definition, submitter organization name, submitter contact name, submitter contact information, stewardship organization name, stewardship contact name, and stewardship contact information. The registered Administered Item may not contain all mandatory attribute values.
- c) **Recorded** — An Administered Item with the “Recorded” status shall mean that all mandatory metadata attributes have been completed. An Administered Item in the “Recorded” status implies that the Administered Item may be shared across domains. The contents of the mandatory metadata attributes may not conform to quality requirements. The Submitter may request the retirement of an Administered Item in the registration status of “Recorded” at any time. Administered Items in “Recorded” registration status or higher are maintained under version control.
- d) **Qualified** — An Administered Item with the “Qualified” status shall mean that the Administration Item had a “Recorded” registration status and the Registration Authority has confirmed that the mandatory metadata attributes are complete and conform to applicable quality requirements. In the event that an Administered Item is not approved by the Registration Authority for the “Qualified” registration status level, it shall remain at the “Recorded” registration status level.
- e) **Standard** — An Administered Item with the “Standard” status indicates that the Administration Item had a “Qualified” registration status and the Registration Authority confirms that the Administered Item is of sufficient quality and of broad interest for use in the community that uses this metadata register. There may be more than one “Standard” Administered Item that addresses the same function, concept etc.
- f) **Preferred Standard** — An Administered Item with the “Preferred Standard” status means that the Registration Authority confirms that the Administered Item is preferred for use in the community that uses this metadata register.
- g) **Retired** — An Administered Item with the “Retired” status indicates that the Registration Authority has determined the Administered Item is no longer recommended for use in the community that uses this metadata register. A “Retired” Administered Item should no longer be used. Such Administered Items are retained in the metadata register archival storage facility for historic reference and research purposes. “Retired” Administered Items should include a reference to replacement Administered Items when appropriate. Only editorial edits of “Retired” Administered Items are permitted.
- h) **Superseded** — An Administered Item with the “Superseded” status indicates that the Registration Authority has determined the Administered Item is no longer recommended for use in the community that uses this metadata register. A “Superseded” Administered Item may be used but the successor Administered Item is the preferred for use. Such Administered Items are retained in the metadata register archival storage facility for historic reference purposes. “Superseded” Administered Items should include a reference to replacement Administered Items when appropriate. Only editorial edits of “Superseded” Administered Items are permitted.

- i) Historical — An Administered Item with the “Historical” status shall indicate that the Submitter wishes to make the community that uses this metadata register aware of the existence of an item that was used in the past and has not been used recently. It is important to record so that related items may be given additional perspective through knowledge of this item. A “Historical” Administered Item has not passed through the dynamic registration levels.
- j) Application — An Administered Item with the “Application” status shall mean that the Registration Authority wishes to make the community that uses this metadata register aware of the existence of an Administered Item in their local domain that is used by an application system. This item may be very well described. Items with the “Application” status may be from application systems that are in current development.

4.1.3.3 Description of administration status

There should be administrative statuses that denote the pending changes that are important to the community that uses this metadata register. These status levels forewarn the community that uses this metadata register of changes that may have an impact on their area of interest.

4.2 Procedures

The Registration Authority shall establish procedures for necessary activities of the Metadata Registry. Example functional activities that need procedures are:

- a) Submission of Administered Items for registration — Submitters shall submit Administered Items for entry into the metadata register. These Administered Items may be recorded as “Incomplete” or “Candidate” registration status, as the Submitter deems appropriate. A registration status of “Incomplete” implies usage restricted to the Submitter's domain while being posted for informational purposes. The “Candidate” status implies that the submitter intends to progress the Administered Item to higher registration status levels. Submitters or Stewards may progress Administered Items in the “Candidate” status to the “Recorded” registration status by completing all mandatory metadata attributes required of that Administered Item.
- b) Progression of Administered Items — Submitters shall progress Administered Items to “Recorded” status. Progression of Administered Items to registration status of “Qualified” or higher shall require the sponsorship of a Steward and approval of the Registration Authority.
- c) Harmonization of Administered Items — The objective of harmonization is to resolve any potential duplicate or overlapping of Administered Items and to understand the justifiable differences that may exist among the harmonized items. Procedures shall be established to facilitate Administered Item harmonization and reuse.
- d) Modification of Administered Items — Procedures shall be established to change Administered Items.
- e) Retirement of Administered Items — Procedures shall be established to retire Administered Items.
- f) Administrative processing — The Registrar may assign administrative registration statuses in order to track an interim state of an Administered Item.

Functional operating procedures are needed for those that develop, operate, and/or maintain a Metadata Registry. The ISO/IEC 11179:2003 requires organizational participation of certain roles, such as Registration Authority, Registrar, Submission Contact, and Stewardship Contact. Annex C provides a suggested set of roles and responsibilities along with suggested functional operating procedures for the use of the Metadata Registry by role. Annex D provides a suggested concept of operations. Annex E provides suggested procedures to address these functional requirements and the concept of operations. Annex F provides suggested procedures for harmonization of Administered Items.

5 Metadata Registries of Administered Items

5.1 General

The Metadata Registry is for Administered Items that fall under its purview. The Metadata Registry is a system for registering metadata. A particular Metadata Registry may be used to manage any number of metadata registers, the information stores or databases of metadata. Each metadata register is maintained by one or more Registration Authorities. The number of metadata registers and Registration Authorities for any particular implementation of a Metadata Registry is decision of implementer and/or operator of a particular Metadata Registry.

Each Administered Item in any metadata register is associated with only one Registration Authority through the item identifier of that Administered Item.

The principal participants of Metadata Registries are Registration Authorities, Submitting Organizations, and Responsible Organizations. The Registration Authority has one or more Registrars as its contacts. Submitting Organizations submit provide items for metadata registers. A submitter is a contact for a Submitting Organization for an item a particular Administered Item. A Submitting Organization may utilize any number of submitters. Each Administered Item is associated with only one submitter. Responsible Organizations are authoritative sources for the attributes of Administered items. A steward is a contact for a Responsible Organization for an item a particular Administered Item. A Responsible Organization may utilize any number of stewards. Each Administered Item is associated with only one steward.

5.2 Contents

5.2.1 Metadata Registry Views

In the context of this part of ISO/IEC 11179, the views on the contents of the metadata register may vary based upon of the roles of the participants in the metadata registry and the levels of conformance to which each participant ascribes.

5.2.2 Metadata Registry Contents and Levels of Conformance

Responsible organizations may have an impact on the content of individual attributes of each Administered Item. Responsible organizations do not have the purview on the composition of the registry itself, i.e., what specific metadata attributes to include with each Administered Item. The Registration Authority specifies the requirements. For example, while the Registration Authority determines, in accordance to this Standard, each Administered Item must have a definition, the Responsible Organization ensures that the definition of a metadata item is semantically correct.

A Registration Authority may adopt a stricter or less strict level of conformance, levying corresponding requirements on Submitting Organizations. The contents of a metadata register, therefore, may vary accordingly. ISO/IEC 11179-3:2003 Clause 6 specifies Conformance for Metadata Registries.

5.2.3 Metadata Registry Contents and Types of Administered Items

Not all Metadata Registries will have the need or the means to support all the types of metadata items specified in the metadata model described in ISO/IEC 11179-3. Some Metadata Registries may start with a metadata register of Data Element Concepts; some may start with Conceptual Domain, then, at a later time, implement Data Element and Value Domain. This part of ISO/IEC 11179 refers the reader to ISO/IEC 11179-3 for the registry metadata attributes that are for specific types of Administered Items. This part makes use of the registry metadata attributes that apply to all Administered Items.

A Metadata Registry, however, must not violate the business rules (as specified via relationships and cardinalities) of the Registry Metamodel specified in ISO/IEC 11179-3 for Administered Items that have a registration status of "Recorded".

5.3 Language(s)

The language(s) used by the Metadata Registry shall be documented by the Registration Authority.

5.4 Availability of the Metadata Registry of Administered Items

Access to the contents of the metadata register shall be governed in accordance with the procedure prescribed by the appropriate Registration Authority.

6 Conformance

A conforming implementation shall conform to Clause 4, Clause 5, Annex A, and Annex B.

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Annex A (normative)

Administered Item Identifiers

A.1 General

Administered Items registered under the provisions of this part of ISO/IEC 11179 are each assigned an International Registration Data Identifier (IRDI). This identifier value uniquely identifies the Administered Item within the framework of this part of ISO/IEC 11179.

A.2 Components of International Registration Data Identifier (IRDI)

As discussed in the Introduction of this part of ISO/IEC 11179, the uniqueness of a registered Administered Item is determined by the combination of the values of three identifying attributes, as depicted in Figure A.1 and defined in ISO/IEC 11179-3:

- a) An identifier assigned to a Registration Authority, hereafter called Registration Authority Identifier (RAI).
- b) An identifier assigned to an Administered Item within a Registration Authority, hereafter called Data Identifier (DI).
- c) An identifier assigned to a version under which an Administered Item registration is submitted or updated hereafter called version identifier (VI).

NOTE 1 Although the version identifier may not necessarily be required to make an Administered Item unique within a metadata register, the inclusion of the version identifier in the International Registration Data Identifier would provide a unique reference point, should a conflict arise.

NOTE 2 OPI and OPIS are optional per ISO/IEC 6523. ISO/IEC 11179-6 uses the entire structure of ISO/IEC 6523 as a Registration Authority Identifier.

A.3 Assignment of Values to International Registration Data Identifier (IRDI) Components

A.3.1 Assignment

An International Registration Data Identifier will be assigned to an Administered Item submitted for registration. The values of each component of International Registration Data Identifier are assigned as follows.

A.3.2 Assignment of Registration Authority Identifier (RAI)

Every organization wishing to become a Registration Authority shall possess an internationally recognized organization code, assigned in accordance with the procedure prescribed in ISO/IEC 6523. The entire structure for identification of organizations, as described in Clause 4 of ISO/IEC 6523-1:1998, shall be the internationally unique Registration Authority Identifier for the purpose specified in this part of ISO/IEC 11179.

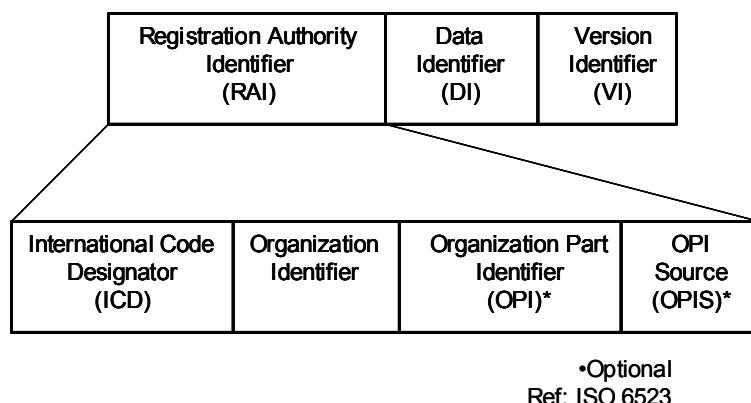


Figure A.1 — Structure of International registration Data Identifier (IRDI)

A.3.3 Assignment of Data Identifier (DI)

Each new Administered Item accepted into the metadata register shall be assigned a new Data Identifier. A new Data Identifier shall also be assigned to an existing Administered Item when it is modified in such a way as to change the meaning of the Administered Item or the representation form of the potential values of the Administered Item. For example, changes to the mandatory attributes, Definition and/or Form of Representation would require the assignment of a new Data Identifier. Editorial changes to the definition, however, would not cause generation of a new Administered Item, as long as the essential meaning expressed by the definition remains the same. For example, the value of the administrative attributes listed in Annex B may change without causing generation of a new Data Identifier.

Based on the requirements of the subject matter included in its metadata register, each Registration Authority shall establish and publish as appropriate, specific guidelines for any additional conditions requiring assignment of a new Data Identifier (i.e., generation of a new Administered Item), due to changes in the values of mandatory attributes established for its metadata register.

Each Registration Authority shall establish and publish specific guidelines on the format, presentation, and generation of Data Identifiers that are used within the metadata register.

A.3.4 Assignment of Version Identifier (VI)

In general, a new Version Identifier may be generated when any attribute value (other than one requiring a new Data Identifier) changes. Each Administered Item, however, may require a different versioning treatment. For example, a change in Permissible Data Element Values for an Employee Name may not require a new version identifier, while a change of Permissible Values for Account Type will likely require a version identifier change. Each Registration Authority shall establish specific guidelines for the subject matters in which it specializes and for which it is responsible.

Each Registration Authority shall establish and publish specific guidelines on the format, presentation, and generation of version identifiers that are used within the metadata register.

A.4 Using ISO/IEC 6523 Organization Codes as Registration Authority Identifier

A.4.1 Organization Code Structure

The following excerpts from ISO/IEC 6523-1 are included here for convenience, since this ready reference can facilitate the understanding of the code structure.

“The structure for the identification of organizations and organization parts consists of the following four components:

- a) the International Code Designator (ICD);
- b) the identification of an organization within an identification scheme: a data element containing an organization identifier;
- c) the identification of an organization part: a data element containing an organization part identifier (OPI);
- d) the OPI source indicator (OPIS): a data element containing a code value indicating the source of the OPI.

The third component, identification of an organization part, is optional. It is used when and only when one wants to designate a specific part within an organization.

The fourth component, the OPI source indicator (OPIS), shall not be used if the third component is not used; it is optional when the OPI is used.

The format of these data elements is the following:

- ICD: integer, variable length, up to 4 digits;
- Identification of an organization: variable length, up to 35 characters;
- OPI: variable length, up to 35 characters;
- OPIS: 1 character.

No particular sequence of the four components is specified in this International Standard.”

The structure is illustrated below:

ICD	Identification of an organization within an identification scheme	Identification of an organization part	OPIS
Variable length; integer; up to 4 digits.	Variable length up to 35 characters.	Optional; variable length up to 35 characters.	Optional; 1 character.

Figure 1: The structure for the identification of organizations and organization parts

(The sequence of the four components is not specified in this International Standard: see 4.6)

Source: ISO/IEC 6523-1:1998

A.4.2 Registration Authority for International Code Designators of ISO/IEC 6523 Registry

The registration authority (RA) for the above registry, at the date of publication of this standard:

British Standards Institution – DISC
389 Chiswick High Rd
London W4 4AL
United Kingdom

Tel : +44 020 8996 7448
Fax : +44 020 8996 7412

The British Standards Institution's (BSI) web site is <http://www.bsi-global.com>

The current contact persons are Ms. Nicola Harrison and Simone Seeds. The email address is Telecoms@bsi-global.com.

Obtaining an RAI without obtaining an ICD: The Registration Authority of ISO/IEC 6523 maintains only ICDs. An organization that wants to obtain an organization code might not have to obtain an ICD. It can contact an organization/trade association such as DUNS or SIRENE, which already have their ICDs, and request an organization code under their respective ICDs. The concatenation of ICD and Organization code assigned by the ICD owner will constitute the organization code of the requester.

Example: Most organizations already have their international organization codes without realizing that fact. For example, most organizations have a DUNS code that can be concatenated with DUNS's ICD (0060) to form their own organization codes. The organization codes for subscribers of DUNS, under DUNS ICD will have the DUNS format and are assigned by Dun and Bradstreet. Below is the detail of DUNS entry in the "Numerical list of all ICDs that have been issued" maintained by BSI.

Table A-1 — DUNS Entry from the ISO/IEC 6523 Registry

ICD	0060
Name of coding system	Data Universal Numbering System (D-U-N-S Number)
Name & address of issuing organisation	Dun and Bradstreet Ltd Holmers Farm Way High Wycombe Bucks HP12 4UL United Kingdom
Structure of code	1) Eight identification digits and a check digit. A two-digit prefix will be added in the future but it will not be used to calculate the check digit. 2) The Organization name is not part of the D-U-N-S number
Display Requirements	IIIIIIIC where all characters are the digits 0 to 9, I = an identification digit and C = the check digit. When the prefix (P) is added the display requirement will be eleven digits, PPIIIIIIIIC.
Description of organizations covered by the coding system	It is the objective of Dun and Bradstreet to allocate a D-U-N-S number to all businesses and institutions engaged in a specific business activity.
Notes on use of the code	The D-U-N-S Number originated to facilitate the compilation of financial status reports on those involved in business transactions but it is now widely used for other purposes also. The number has world wide recognition as a means of identifying businesses and institutions.
Sponsoring authority	BSI/DISC
Date of issue of ICD	JUNE 1993
Additional comments	A full specification of scheme has been deposited with the Registration Authority

Annex B (normative)

Contents of the Metadata Registry: Metadata attributes required for Administered Items

B.1 Introduction

This annex presents tables that delineate the requirements for inclusion of metadata attributes in a metadata registry for each Administered Item. These do not specify any of the metadata attributes that are applicable to specific types of Administered Items but only those metadata attributes that are applicable to all Administered Items.

In all tables each row is an elementary attribute or a composite metadata attribute.

B.2 Metadata attributes in ISO/IEC 11179-3:2003

This clause provides a summary of the attributes from in ISO/IEC 11179-3:2003 that used for any Administered Item. Table B-1 provides the summary. The first column is the metadata attribute name. The indentation of the metadata attribute name denotes the sublevel of the attribute. Elementary metadata attributes that are mandatory are identified in the first column with an “*” in the far left side of the column. The second column is the definition of the metadata attribute from ISO/IEC 11179-3. The third column identifies the clause in ISO/IEC 11179-3 where the metadata attribute is defined. The fifth column identifies the maximum number of occurrences for the metadata attribute within its composite metadata attribute. The sixth column specifies the datatype of the elementary metadata attributes.

The fourth column specifies the obligation and conditionality for the metadata attribute. The following codes are used in column 4:

- “M” = mandatory. Mandatory metadata attributes are required for the Administered Item, without exception.
- “O” = optional. Optional metadata attributes may be used if desired by the steward of the Administered Item to provide additional documentation about the Administered Item.
- “C” = contingent. Contingent metadata attributes are those that depend upon the implementation of an optional metadata attribute. They are required when the optional metadata attribute upon which they depend is implemented.
- “I” = indicative. Indicative metadata attributes depend upon an “if” condition that is independent of any other metadata attribute. If the “if” condition is applicable, then the “I” coded metadata attribute is mandatory; otherwise it is optional.

The constraints on minimum occurrences are to be enforced when the registration status for the metadata item is “Recorded” or higher. In other words, a registration status of “Recorded” indicates that all mandatory attributes have been documented.

Table B-1 — Metadata attributes for Administered Items

Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
Administered Item	a registry item for which administrative information is recorded in an Administration Record	3.3.1			
Administration_Record	a collection of administrative information for an Administered Item	3.3.5	M	one	
administered_item_identifier	an identifier for an administered item	3.3.4	M	one	
item_registration_authority_identifier	the identifier of the Registration Authority registering the item	3.3.77	M	one	
* International_Code_Designator	the identifier of an organization identification scheme	3.3.75	M	one	string
* organization_identifier	the identifier assigned to an Organization within an organization identification scheme, and unique within that scheme	3.3.92	M	one	string
OPI_source	the source for the organization part identifier	3.3.97	C / If organization_part_identifier is used	one	string
organization_part_identifier	an identifier allocated to a particular organization part	3.3.96	O	one	string
* data_identifier	the unique identifier for an Administered Item within a Registration Authority	3.3.52	M	one	string
* version	the unique version identifier of the Administered Item	3.3.156	M	one	string
* registration_status	a designation of the status in the registration life-cycle of an Administered Item.	3.3.125	M	one	string

Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
* administrative_status	a designation of the status in the administrative process of a Registration Authority for handling registration requests	3.3.7	M	one	string
* creation_date	the date the Administered Item was created	3.3.35	M	one	Date
effective_date	the date an administered item became/becomes available to registry users	3.3.70	O	one	Date
last_change_date	the date the Administered Item was last changed	3.3.82	O	one	Date
until_date	the date an Administered Item is no longer effective in the registry	3.3.138	O	one	Date
administrative_note	any general note about the Administered Item	3.3.6	O	one	string
change_description	the description of what has changed in the Administered Item since the prior version of the Administered Item	3.3.8	O	one	string
explanatory_comment	descriptive comments about the Administered Item	3.3.74	O	one	string
origin	[Administered item] the source (document, project, discipline or model) for the Administered Item	3.3.98	O	one	string
unresolved_issue	any problem that remains unresolved regarding proper documentation of the Administered Item	3.3.137	O	one	string
Registration_Authority	an Organization responsible for maintaining a register	3.3.121	M	one	
Registration_Authority_Identifier	an identifier assigned to a Registration Authority	3.3.123	M	one	
* International_Code_Designator	the identifier of an organization identification scheme	3.3.75	M	one	string

Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
* organization_identifier	the identifier assigned to an Organization within an organization identification scheme, and unique within that scheme	3.3.92	M	one	string
organization_part_identifier	an identifier allocated to a particular organization part	3.3.96	O	one	string
OPI source	the source for the organization part identifier	3.3.97	C / If organization_part_identifier is used	one	string
Organization	a unique framework of authority within which a person or persons act, or are designated to act, towards some purpose	3.3.91	M		
* organization_name	a designation for the Organization	3.3.94	M	one	string
organization_mail_address	the physical, postal or delivery address of the Organization	3.3.93	O	one	string
Registrar	a representative of a Registration Authority	3.3.117	M	one	
* registrar_identifier	an identifier for the Registrar.	3.3.119	M	one	string
registrar contact	the contact information associated with a Registrar	3.3.118	M	one	
* contact_name	the name of the Contact	3.3.28	M	one	string
* contact information	information to enable a Contact to be located or communicated with	3.3.27	M	one	string
contact title	the name of the position held by the Contact	3.3.29	O	one	string
documentation_language_identifier	the identifier of the language used for documentation by the Registration Authority	3.3.69	M	many	

Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
* language_identifier	information in a Terminological Entry which indicates the name of a language	3.3.79	M	one	string
country_identifier	[Language Identification] a country identifier further specifying the geopolitical area associated with the language	3.3.34	O	one	string
organization_mail_address	the physical, postal or delivery address of the Organization	3.3.93	O	one	string
Submission (of Administered Item)	the relationship of an Administered Item, a Contact, and an Organization involved in a submission of metadata	3.3.131	M	one	
Organization	a unique framework of authority within which a person or persons act, or are designated to act, towards some purpose	3.3.91	M		
* organization_name	a designation for the Organization	3.3.94	M	one	string
organization_mail_address	the physical, postal or delivery address of the Organization	3.3.93	O	one	string
submission_contact	the contact information associated with a Submission	3.3.132	M	one	
* contact name	the name of the Contact	3.3.28	M	one	string
* contact information	information to enable a Contact to be located or communicated with	3.3.27	M	one	string
contact title	the name of the position held by the Contact	3.3.29	O	one	string

Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
Stewardship (of Administered Item)	the relationship of an Administered Item, a Contact, and an Organization involved in the stewardship of the metadata	3.3.129	M		
Organization	a unique framework of authority within which a person or persons act, or are designated to act, towards some purpose	3.3.91	M		
* organization_name	a designation for the Organization	3.3.94	M	one	string
organization_mail_address	the physical, postal or delivery address of the Organization	3.3.93	O	one	string
stewardship contact	the contact information associated with a Stewardship	3.3.130	M	one	
* contact name	the name of the Contact	3.3.28	M	one	string
* contact information	information to enable a Contact to be located or communicated with	3.3.27	M	one	string
contact title	the name of the position held by the Contact	3.3.29	O	one	string
Context (for administered item)	a universe of discourse in which a name or definition is used	3.3.30	M	many	
context_administration_record	the Administration Record for a Context	3.3.31	M	one	
* context_description	the textual description of the Context	3.3.32	M	one	string
context_description_language_identifier	the identifier of the language used in the context description	3.3.33	O	one	
language_identifier	information in a Terminological Entry which indicates the name of a language	3.3.79	C	one	string

Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
country_identifier	[Language Identification] a country identifier further specifying the geopolitical area associated with the language	3.3.34	O	one	string
Terminological Entry	an entry containing information on terminological units for a specific Administered Item within a Context (subject field)	3.3.133	M	one	
Language Section	the part of a Terminological Entry containing information related to one language	3.3.80	M	many	
language section language identifier	the identifier of the language used to group a set of Designations and Definitions	3.3.81	M	one	
* language_identifier	information in a Terminological Entry which indicates the name of a language	3.3.79	M	one	string
country_identifier	[Language Identification] a country identifier further specifying the geopolitical area associated with the language	3.3.34	O	one	string
Designation (of Administered Item)	the designation of an Administered Item within a Context	3.3.67	I / at least one in any Context	many	
* name	[Administered item] a name by which an Administered Item is designated within a specific Context	3.3.83	M	one	string
preferred designation	an indicator that the name is a preferred term for an Administered Item within a language	3.3.106	O	one	T/F
Term_definition_pairing			O	one	

Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
Definition (of Administered Item)	the definition of an Administered Item within a Context	3.3.58	1 / at least one in any Context	many	
* Definition_text	the text of the Definition	3.3.60	M	one	string
preferred definition	an indicator that the definition text is a preferred definition for an Administered Item within a language	3.3.105	O	one	T/F
definition source reference {0..1}	a reference to the source from which the Definition is taken	3.3.59	O	one	
reference_document_identifier	an identifier for the Reference Document	3.3.112	C	one	string
reference organization	the relationship between a Reference Document and an Organization	3.3.116	C	one	
organization_name	a designation for the Organization	3.3.94	C	one	string
organization_mail_address	the physical, postal or delivery address of the Organization	3.3.93	O	one	string
reference_document_language_identifier	the identifier of the natural or special language used in the Reference Document	3.3.93	O	many	
language_identifier	information in a Terminological Entry which indicates the name of a language	3.3.79	C	one	string
country_identifier	[Language Identification] a country identifier further specifying the geopolitical area associated with the language	3.3.34	O	one	string
reference_document_title	the title of the Reference Document.	3.3.114	O	one	string

Metadata Attribute Name and Structure	Definition from ISO/IEC 11179-3:2003	Reference Clause in ISO/IEC 11179-3:2003	Obligation / Condition	Maximum Occurrence	Datatype
reference_document_type_description	a description of the type of Reference Document	3.3.115	O	one	string
Reference_Document	a document that provides pertinent details for consultation about a subject	3.3.111	O	many	
reference_document_identifier	an identifier for the Reference Document	3.3.112	C	one	string
reference organization	the relationship between a Reference Document and an Organization	3.3.116	C	many	
organization_name	a designation for the Organization	3.3.94	C	one	string
organization_mail_address	the physical, postal or delivery address of the Organization	3.3.93	O	one	string
reference_document_language_identifier	the identifier of the natural or special language used in the Reference Document	3.3.113	O	many	
language_identifier	information in a Terminological Entry which indicates the name of a language	3.3.79	C	one	string
country_identifier	[Language Identification] a country identifier further specifying the geopolitical area associated with the language	3.3.34	O	one	string
reference_document_title	the title of the Reference Document.	3.3.114	O	one	string
reference_document_type_description	a description of the type of Reference Document	3.3.115	O	one	string
NOTE 1 * - A mandatory elementary metadata attribute NOTE 2 M – mandatory O – optional C – contingent I – indicative NOTE 3 In this table, items denoted by "C" are contingent upon the preceding optional item in the table unless otherwise specified.					

B.3 Metadata attribute requirements at each registration status

This clause associates the attributes from in ISO/IEC 11179-3:2003 that used for any Administered Item with the registration status values.

Table B-2 provides the requirements for each metadata attribute based upon the registration status values. The first column is the metadata attribute name. The indentation of the metadata attribute name denotes the sublevel of the attribute. The second column specifies the obligation and conditionality for the metadata attribute from ISO/IEC 11179-3:2003. The third through fourteenth columns specifies the obligation and conditionality for the metadata attribute metadata attributes at the respective registration statuses.

Tables B-3 through B-13 provide a list of metadata attributes that required for each registration status.

Table B-2 — Required elementary metadata attributes at each registration status

		Lifecycle Status								Documentation Status			
Metadata Attribute Name and Structure	Metamodel Obligation / Condition	Incomplete	Candidate	Recorded	Qualified	Standard	Preferred Standard	Retired	Superseded		Historical	Application	
Administered Item													
Administration_Record	M												
administered_item_identifier	M												
item_registration_authority_identifier	M												
* International_Code_Designator	M	M	M	M	M	M	M	M	M		M	M	
* organization_identifier	M	M	M	M	M	M	M	M	M		M	M	
organization_part_identifier	O	O	O	O	O	O	O	O	O		O	O	
OPI_source	C / If organization_part_identifier is used	C	C	C	C	C	C	C	C		C	C	
* data_identifier	M	M	M	M	M	M	M	M	M		M	M	
* version	M	M	M	M	M	M	M	M	M		M	M	
* registration_status	M	M	M	M	M	M	M	M	M		M	M	
* administrative_status	M	D	D	M	M	M	M	M	M		M	M	
* creation_date	M	D	M	M	M	M	M	M	M		M	M	
effective_date	O				M	M	M				M		
last_change_date	O												

		Lifecycle Status										Documentation Status	
Metadata Attribute Name and Structure	Metamodel Obligation / Condition	Incomplete	Candidate	Recorded	Qualified	Standard	Preferred Standard	Retired	Superseded			Historical	Application
until_date	O				I	I	I	M	M			M	
administrative_note	O												
change_description	O												
explanatory_comment	O											M	
origin	O												
unresolved_issue	O												
Registration_Authority	M												
Registration_Authority_Identifier	M												
* International_Code_Designator	M	D	D	M	M	M	M	M	M			M	D
* organization_identifier	M	D	D	M	M	M	M	M	M			M	D
organization_part_identifier	O	D	D	O	O	O	O	O	O			O	D
organization part identifier source	C / If organization_part_identifier is used	D	D	C	C	C	C	C	C			C	D
Organization	M												
* organization_name	M	D	D	M	M	M	M	M	M			D	D
organization_mail_address	O												
Registrar	M												
* registrar_identifier	M	D	D	M	M	M	M	M	M			D	D
registrar contact	M												
* contact name	M	D	D	M	M	M	M	M	M			D	D
* contact information	M	D	D	M	M	M	M	M	M			D	D
contact title	O												
documentation_language_identifier	M												

		Lifecycle Status								Documentation Status		
Metadata Attribute Name and Structure	Metamodel Obligation / Condition	Incomplete	Candidate	Recorded	Qualified	Standard	Preferred Standard	Retired	Superseded		Historical	Application
* language_identifier	M	D	D	M	M	M	M	M	M		D	D
country_identifier	O											
organization_mail_address	O											
Submission (of Administered Item)	M											
Organization	M											
* organization_name	M	M	M	M	M	M	M	M	M		M	M
organization_mail_address	O											
submission_contact	M											
* contact name	M	M	M	M	M	M	M	M	M		M	M
* contact information	M	M	M	M	M	M	M	M	M		M	M
contact title	O											
Stewardship (of Administered Item)	M											
Organization	M											
* organization_name	M		M	M	M	M	M	M	M		M	
organization_mail_address	O											
stewardship contact	M											
* contact name	M		M	M	M	M	M	M	M		M	
* contact information	M		M	M	M	M	M	M	M		M	
contact title	O											
Context (for administered item)	M											
context_administration_record	M	D	D	M	M	M	M	M	M		M	D
* context_description	M	D	M	M	M	M	M	M	M		M	D
context_description_language_identifier	O											
language_identifier	C											

		Lifecycle Status								Documentation Status		
Metadata Attribute Name and Structure	Metamodel Obligation / Condition	Incomplete	Candidate	Recorded	Qualified	Standard	Preferred Standard	Retired	Superseded		Historical	Application
country_identifier	O											
Terminological Entry	M											
Language Section	M											
language section language identifier	M											
* language_identifier	M	D	D	M	M	M	M	M	M		M	D
country_identifier	O											
Designation (of Administered Item)	I / at least one in any Context											
* name	M	M	M	M	M	M	M	M	M		M	M
preferred designation	O											
Term_definition_pairing	O											
Definition (of Administered Item)	I / at least one in any Context											
* Definition_text	M		M	M	M	M	M	M	M		M	M
preferred definition	O											
definition source reference {0..1}	O				I	I	I					
reference_document_identifier	C				C	C	C					
reference organization	C											
organization_name	C											
organization_mail_address	O											
reference_document_language_identifier	O											
language_identifier	C											
country_identifier	O											

		Lifecycle Status								Documentation Status			
Metadata Attribute Name and Structure	Metamodel Obligation / Condition	Incomplete	Candidate	Recorded	Qualified	Standard	Preferred Standard	Retired	Superseded		Historical	Application	
reference_document_title	O												
reference_document_type_description	O												
Reference_Document	O				I	I	I						
reference_document_identifier	C				C	C	C						
reference organization	C												
organization_name	C												
organization_mail_address	O												
reference_document_language_identifier	O				C	C	C						
language_identifier	C				C	C	C						
country_identifier	O				C	C	C						
reference_document_title	O												
reference_document_type_description	O												
NOTE 1 * - A mandatory elementary metadata attribute NOTE 2 M – mandatory O – optional C – contingent I – indicative D – mandatory but using Metadata Registry default NOTE 3 In this table, items denoted by “C” are contingent upon the preceding optional item in the table unless otherwise specified.													

Table B-3 — “Incomplete Status” — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Incomplete
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	M
	organization_identifier	M
	organization_part_identifier	O
	OPI_source	C
data_identifier	data_identifier	M
version	version	M
registration_status	registration_status	“Incomplete”
administrative_status	administrative_status	D
creation_date	creation_date	D
Registration_Authority	Registration_Authority_Identifier	D
Organization	organization_name	D
Registrar	registrar_identifier	D
registrar contact	contact name	D
	contact information	D
documentation_language_identifier	language_identifier	D
Submission (of Administered Item)		
Organization	organization_name	M
submission_contact	contact name	M
	contact information	M
Context (for administered item)	context_administration_record	D
	context_description	D
Terminological Entry		
Language Section		
language section language identifier	language_identifier	D
Designation (of Administered Item)	name	M
NOTE 1 M – mandatory O – optional C – contingent I – indicative D – mandatory but using Metadata Registry default NOTE 2 In this table, items denoted by “C” are contingent upon the preceding optional item in the table unless otherwise specified.		

Table B-4 — “Candidate” Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Candidate
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	M
	organization_identifier	M
	organization_part_identifier	O
	OPI_source	C
data_identifier	data_identifier	M
version	version	M
registration_status	registration_status	“Candidate”
administrative_status	administrative_status	D
creation_date	creation_date	M
Registration_Authority	Registration_Authority_Identifier	D
Organization	organization_name	D
Registrar	registrar_identifier	D
registrar contact	contact name	D
	contact information	D
documentation_language_identifier	language_identifier	D
Submission (of Administered Item)		
Organization	organization_name	M
submission_contact	contact name	M
	contact information	M
Stewardship (of Administered Item)		
Organization	organization_name	M
stewardship contact	contact name	M
	contact information	M
Context (for administered item)	context_administration_record	D
	context_description	M
Terminological Entry		
Language Section		
language section language identifier	language_identifier	D
Designation (of Administered Item)	name	M
Definition (of Administered Item)	Definition_text	M
NOTE 1 M – mandatory O – optional C – contingent I – indicative D – mandatory but using Metadata Registry default NOTE 2 In this table, items denoted by “C” are contingent upon the preceding optional item in the table unless otherwise specified.		

Table B-5 — “Recorded” Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Recorded
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	M
	organization_identifier	M
	organization_part_identifier	O
	OPI_source	C
data_identifier	data_identifier	M
version	version	M
registration_status	registration_status	“Recorded”
administrative_status	administrative_status	M
creation_date	creation_date	M
Registration_Authority	Registration_Authority_Identifier	M
Organization	organization_name	M
Registrar	registrar_identifier	M
registrar contact	contact name	M
	contact information	M
documentation_language_identifier	language_identifier	M
Submission (of Administered Item)		
Organization	organization_name	M
submission_contact	contact name	M
	contact information	M
Stewardship (of Administered Item)		
Organization	organization_name	M
stewardship contact	contact name	M
	contact information	M
Context (for administered item)	context_administration_record	M
	context_description	M
Terminological Entry		
Language Section		
language section language identifier	language_identifier	M
Designation (of Administered Item)	name	M
Definition (of Administered Item)	Definition_text	M
NOTE 1 M – mandatory O – optional C – contingent I – indicative D – mandatory but using Metadata Registry default NOTE 2 In this table, items denoted by “C” are contingent upon the preceding optional item in the table unless otherwise specified.		

Table B-6 — “Qualified” Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Qualified
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	M
	organization_identifier	M
	organization_part_identifier	O
	OPI_source	C
data_identifier	data_identifier	M
version	version	M
registration_status	registration_status	“Qualified”
administrative_status	administrative_status	M
creation_date	creation_date	M
effective_date	effective_date	M
until_date	until_date	I
Registration_Authority	Registration_Authority_Identifier	M
Organization	organization_name	M
Registrar	registrar_identifier	M
registrar contact	contact name	M
	contact information	M
documentation_language_identifier	language_identifier	M
Submission (of Administered Item)		
Organization	organization_name	M
submission_contact	contact name	M
	contact information	M
Stewardship (of Administered Item)		
Organization	organization_name	M
stewardship contact	contact name	M
	contact information	M
Context (for administered item)	context_administration_record	
	context_description	M
Terminological Entry		
Language Section		
language section language identifier	language_identifier	M
Designation (of Administered Item)	name	M
Definition (of Administered Item)	Definition_text	M
definition source reference	reference_document_identifier	I
Reference_Document	reference_document_identifier	I
reference_document_language_identifier	language_identifier	I
	country_identifier	I
NOTE 1 M – mandatory O – optional C – contingent I – indicative D – mandatory but using Metadata Registry default NOTE 2 In this table, items denoted by “C” are contingent upon the preceding optional item in the table unless otherwise specified.		

Table B-7 — “Standard” Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Standard
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	M
	organization_identifier	M
	organization_part_identifier	O
	OPI_source	C
data_identifier	data_identifier	M
version	version	M
registration_status	registration_status	“Standard”
administrative_status	administrative_status	M
creation_date	creation_date	M
effective_date	effective_date	M
until_date	until_date	I
Registration_Authority	Registration_Authority_Identifier	M
Organization	organization_name	M
Registrar	registrar_identifier	M
registrar contact	contact name	M
	contact information	M
documentation_language_identifier	language_identifier	M
Submission (of Administered Item)		
Organization	organization_name	M
submission_contact	contact name	M
	contact information	M
Stewardship (of Administered Item)		
Organization	organization_name	M
stewardship contact	contact name	M
	contact information	M
Context (for administered item)	context_administration_record	
	context_description	M
Terminological Entry		
Language Section		
language section language identifier	language_identifier	M
Designation (of Administered Item)	name	M
Definition (of Administered Item)	Definition_text	M
definition source reference	reference_document_identifier	I
Reference_Document	reference_document_identifier	I
reference_document_language_identifier	language_identifier	I
	country_identifier	I
NOTE 1 M – mandatory O – optional C – contingent I – indicative D – mandatory but using Metadata Registry default NOTE 2 In this table, items denoted by “C” are contingent upon the preceding optional item in the table unless otherwise specified.		

Table B-8 — “Preferred Standard” Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Preferred Standard
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	M
	organization_identifier	M
	organization_part_identifier	O
	OPI_source	C
data_identifier	data_identifier	M
version	version	M
registration_status	registration_status	“Preferred Standard”
administrative_status	administrative_status	M
creation_date	creation_date	M
effective_date	effective_date	M
until_date	until_date	I
Registration_Authority	Registration_Authority_Identifier	M
Organization	organization_name	M
Registrar	registrar_identifier	M
registrar contact	contact name	M
	contact information	M
documentation_language_identifier	language_identifier	M
Submission (of Administered Item)		
Organization	organization_name	M
submission_contact	contact name	M
	contact information	M
Stewardship (of Administered Item)		
Organization	organization_name	M
stewardship contact	contact name	M
	contact information	M
Context (for administered item)	context_administration_record	
	context_description	M
Terminological Entry		
Language Section		
language section language identifier	language_identifier	M
Designation (of Administered Item)	name	M
Definition (of Administered Item)	Definition_text	M
definition source reference	reference_document_identifier	I
Reference_Document	reference_document_identifier	I
reference_document_language_identifier	language_identifier	I
	country_identifier	I
NOTE 1 M – mandatory O – optional C – contingent I – indicative D – mandatory but using Metadata Registry default NOTE 2 In this table, items denoted by “C” are contingent upon the preceding optional item in the table unless otherwise specified.		

Table B-9 — “Retired” Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Retired
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	M
	organization_identifier	M
	organization_part_identifier	O
	OPI_source	C
data_identifier	data_identifier	M
version	version	M
registration_status	registration_status	“Retired”
administrative_status	administrative_status	M
creation_date	creation_date	M
until_date	until_date	M
Registration_Authority	Registration_Authority_Identifier	M
	organization_name	M
Registrar	registrar_identifier	M
registrar contact	contact name	M
	contact information	M
documentation_language_identifier	language_identifier	M
Submission (of Administered Item)		
Organization	organization_name	M
submission_contact	contact name	M
	contact information	M
Stewardship (of Administered Item)		
Organization	organization_name	M
stewardship contact	contact name	M
	contact information	M
Context (for administered item)	context_administration_record	M
	context_description	M
Terminological Entry		
Language Section		
language section language identifier	language_identifier	M
Designation (of Administered Item)	name	M
Definition (of Administered Item)	Definition_text	M
NOTE 1 M – mandatory O – optional C – contingent I – indicative D – mandatory but using Metadata Registry default NOTE 2 In this table, items denoted by “C” are contingent upon the preceding optional item in the table unless otherwise specified.		

Table B-10 — “Superseded” Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Superseded
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	M
	organization_identifier	M
	organization_part_identifier	O
	OPI_source	C
data_identifier	data_identifier	M
version	version	M
registration_status	registration_status	“Superseded”
administrative_status	administrative_status	M
creation_date	creation_date	M
until_date	until_date	M
Registration_Authority	Registration_Authority_Identifier	M
	organization_name	M
Registrar	registrar_identifier	M
registrar contact	contact name	M
	contact information	M
documentation_language_identifier	language_identifier	M
Submission (of Administered Item)		
Organization	organization_name	M
submission_contact	contact name	M
	contact information	M
Stewardship (of Administered Item)		
Organization	organization_name	M
stewardship contact	contact name	M
	contact information	M
Context (for administered item)	context_administration_record	M
	context_description	M
Terminological Entry		
Language Section		
language section language identifier	language_identifier	M
Designation (of Administered Item)	name	M
Definition (of Administered Item)	Definition_text	M
NOTE 1 M – mandatory O – optional C – contingent I – indicative D – mandatory but using Metadata Registry default NOTE 2 In this table, items denoted by “C” are contingent upon the preceding optional item in the table unless otherwise specified.		

Table B-11 — “Application” Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Application
Administration_Record		
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	M
	organization_identifier	M
	organization_part_identifier	O
	OPI_source	C
* data_identifier	data_identifier	M
version	version	M
registration_status	registration_status	“Application”
administrative_status	administrative_status	M
creation_date	creation_date	M
Registration_Authority	Registration_Authority_Identifier	USE DEFAULT
Organization	organization_name	USE DEFAULT
Registrar	registrar_identifier	USE DEFAULT
registrar_identifier		USE DEFAULT
registrar contact	contact name	USE DEFAULT
	contact information	USE DEFAULT
documentation_language_identifier	language_identifier	USE DEFAULT
Submission (of Administered Item)		
Organization	organization_name	M
submission_contact	contact name	M
	contact information	M
Context (for administered item)	context_administration_record	USE DEFAULT
	context_description	USE DEFAULT
Terminological Entry		
Language Section		
language section language identifier	language_identifier	USE DEFAULT
Designation (of Administered Item)	name	M
Definition (of Administered Item)	Definition_text	M
NOTE 1 M – mandatory O – optional C – contingent I – indicative D – mandatory but using Metadata Registry default NOTE 2 In this table, items denoted by “C” are contingent upon the preceding optional item in the table unless otherwise specified.		

Table B-12 — “Historical” Status — Required Metadata Attributes

Metadata Attribute Structure	Elementary Metadata Attribute	Historical
administered_item_identifier		
item_registration_authority_identifier	International_Code_Designator	M
	organization_identifier	M
	organization_part_identifier	O
	OPI_source	C
* data_identifier	data_identifier	M
* version	version	M
* registration_status	registration_status	“Historical”
* administrative_status	administrative_status	M
* creation_date	creation_date	M
	effective_date	M
	until_date	M
	explanatory_comment	M
Registration_Authority	Registration_Authority_Identifier	M
Organization	organization_name	D
Registrar	registrar_identifier	D
registrar contact	contact name	D
	contact information	D
documentation_language_identifier	language_identifier	D
Submission (of Administered Item)		
Organization	organization_name	M
submission_contact	contact name	M
	contact information	M
Stewardship (of Administered Item)		
Organization	organization_name	M
stewardship contact	contact name	M
	contact information	M
Context (for administered item)	context_administration_record	M
	context_description	M
Terminological Entry		
Language Section		
language section language identifier	language_identifier	M
Designation (of Administered Item)	name	M
Definition (of Administered Item)	Definition_text	M
NOTE 1 M – mandatory O – optional C – contingent I – indicative D – mandatory but using Metadata Registry default NOTE 2 In this table, items denoted by “C” are contingent upon the preceding optional item in the table unless otherwise specified.		

Annex C (informative)

Suggested functional operating procedures — Roles and Responsibilities

C.1 Introduction

The ISO/IEC 11179 Metadata Registry family of standards and technical reports provides the specifications for establishing systems that support the dissemination and harmonization of Administered Items (e.g. data elements, data element concepts, value domains) from different stakeholder groups. Most often a stakeholder community is large and diverse. The definition of key data elements and data element concepts as well as other Administered Items will arise from numerous sources. Moreover different groups will have an interest in the definition of the same Administered Item, which could lead to the prospect of duplicate or similar definitions being developed.

This Annex identifies suggested roles and responsibilities and provides suggested functional operating procedures for the use of the Metadata Registry by role. These procedures support documentation, standardization, and harmonization processes that facilitate different working groups sharing Administered Items. Annex D details suggested procedures for organizational roles and responsibilities (and their relationships), and suggested procedures for registration status levels.

Organizational roles associated with the Administered Item registration process should be established. The organizational roles should include the, Registration Authority, Registrar, Stewards, Submitters, and Read-only users. A summary of each role is provided in this Annex. Annex D provides a description of the purpose, specific responsibilities, and membership or selection criteria for each role.

Figure C-1 provides a high level view of how these organizational roles are related within the context of a Metadata Registry.

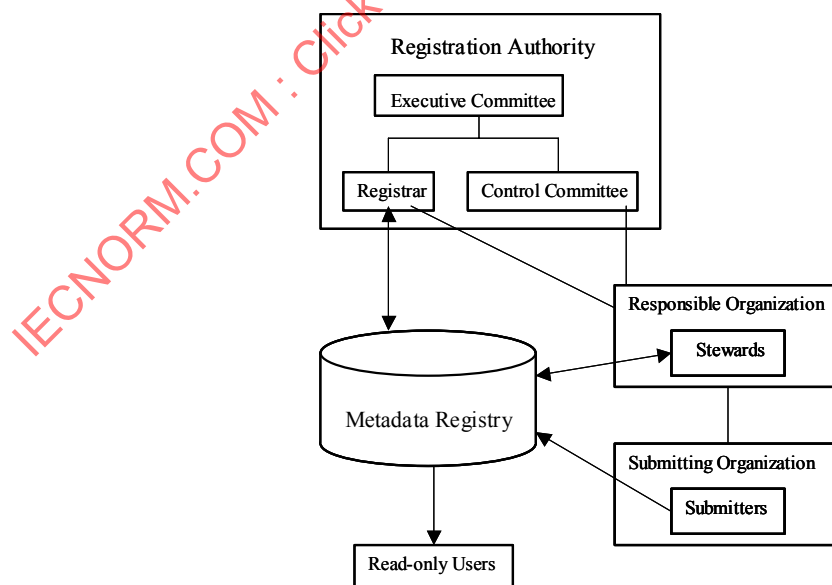


Figure C-1 — Organizational roles to the Metadata Registry and their relationships

C.2 Roles associated with the Metadata Registry

C.2.1 General

There are three types of Registration Acting Bodies (RAB) in the framework of this part of ISO/IEC 11179: Registration Authorities, Submitting Organizations, and Responsible Organizations. Each type of Registration Acting Body should meet the criteria, fulfil the roles, and assume the responsibilities prescribed in the following clauses of this part of ISO/IEC 11179.

C.2.2 Role of Registration Authorities (RA)

C.2.2.1 Overall Registration Authority

The Metadata Registry Registration Authority should be an organizational unit that desires to operate and manage a Metadata Registry based upon the ISO/IEC 11179 Metadata Registry standard. It is envisioned that any organization wishing to become a Registration Authority and establish a Metadata Registry for the purpose of registering Administered Items may do so.

A Registration Authority should establish and publish procedures for the operation of its Metadata Registry. A Registration Authority should receive and process proposals from Submitting Organizations for registration of Administered Items falling within its registration domain. A Registration Authority is responsible for maintaining the metadata register of Administered Items and issuing of international registration data identifiers (IRDIs).

C.2.2.2 Registrar

The Registrar should be an organizational unit within the Registration Authority, expert in registration processes, responsible for facilitating the registration of Administered Items and making those Administered Items widely accessible and available to the community. The Registrar may be viewed as the contact for the Registration Authority. The Registration Authority should appoint the Registrar.

C.2.2.3 Executive Committee

The Executive Committee should be an organizational unit established by the Registration Authority. It should be responsible for administering responsibilities and authority delegated by the Registration Authority. Responsibilities of the Executive Committee should include overall metadata registration policies and business direction of the Metadata Registry.

C.2.2.4 Control Committee

The Control Committee should be the organizational unit of the Registration Authority that is constituted to provide technical direction and harmonization of Administered Items for the metadata register. The structure, staffing, procedures, and membership of the Control Committee are determined by the Registration Authority. The membership of the Control Committee may include Registrars and Stewards.

C.2.3 Role of Responsible Organizations (RO)

C.2.3.1 Overall Responsible Organization

Responsible Organizations are usually designated by an organizational unit to insure consistence of related Administered Items managed by its Submitting Organizations. In the absence of a designated Responsible Organization, a Submitting Organization should act as a Responsible Organization.

A Responsible Organization is the organization, or part thereof, that is responsible for the integrity and accuracy of the attributes values of the Administered Item; e.g., the semantics of Administered Items maintained and controlled by a Registration Authority. The Responsible Organization is the subject matter expert for the Administered Item.

The Responsible Organization, at the Registration Authority's request, should review proposals from Submitting Organizations on relevant attributes, e.g., name, definition, and permissible values for the Administered Item's attributes. The Responsible Organization should inform the Registration Authority of any essential modifications in the specification of the assigned Administered Items.

C.2.3.2 Steward

A Steward shall be an organizational unit of the Metadata Registry community. Stewards should be responsible for the accuracy, reliability, and currency of descriptive metadata for Administered Items at a registration status level of "Qualified" or above within an assigned area. A process defined by the Registration Authority approves stewards. Stewards should be responsible for metadata within specific areas and may have responsibilities that cut across multiple areas (e.g., value domains such as date, time, location, codes of the Countries of the World). The Steward can be viewed as a contact for the Responsible Organization.

C.2.4 Role of Submitting Organizations (SO)

C.2.4.1 Overall Submitting Organization

All Submitting Organizations wishing to register Administered Items should be able to do so in accordance with the procedures prescribed in this part of ISO/IEC 11179 and the procedures established by the Registration Authority. Each Registration Authority may establish its own criteria for registration eligibility.

A Submitting Organization wishing to register an Administered Item should follow the procedures and requirements prescribed in this part of ISO/IEC 11179 and in the procedures established by the Registration Authority for submission to the appropriate Registration Authority.

C.2.4.2 Submitter

A Submitter should be an organizational unit approved by a process defined by the Registration Authority. A Submitter is authorized to identify and report Administered Items suitable for registration. The Submitter can be viewed as a contact for the Submitting Organization.

C.2.5 Role of Others

C.2.5.1 All others

A Registration Authority may establish guidelines on the use of their Metadata Registry by other users. The general goal should be to provide an open area that anyone may use to obtain and explore the metadata that is managed within the Metadata Registry.

C.2.5.2 Read-only user

A Read-only User should be an organizational unit or individual that is approved to review the contents of the metadata register. A read-only user has access to the contents in the metadata register, but is not permitted to submit, alter, or delete contents.

C.3 Responsibilities of Registration Acting Bodies (RAB)

C.3.1 Responsibilities of Registration Authorities (RA)

In order to establish itself as a Registration Authority, an organization should complete the following:

- Secure a Registration Authority Identifier in accordance with Clause A.3.1.
- Prescribe, amend, and interpret the procedures to be followed for the registration of Administered Items in accordance with this part of ISO/IEC 11179.

- Determine any additional conditions specifically required by its domain of registration within its Metadata Registry.
- Specify the format for each attribute listed in Annex B of this part of ISO/IEC 11179 and for any additional attributes that the Registration Authority may deem necessary, and specify the media by which an Administered Item may be submitted for registration. The registration form and accompanying procedure should be made available to requesting Submitting Organizations.
- Determine the format and media in which items for administration should be submitted. The Registration Authority should also provide Submitting Organizations with guidance on the submission of items for administration.
- Establish and publish the rules by which its metadata register should be made available. The Registration Authority shall specify the allowable users, the accessible contents, the frequency of availability, and the language(s), media, and format in which the information is provided for the Metadata Registry.

Regarding applications for registering Administered Items, a Registration Authority should fulfil the following responsibilities:

- Receive and process applications for the registration of Administered Items, assign international registration data identifier values, and maintain a metadata register in accordance with the following provisions.
 - Consult the appropriate Responsible Organizations when requests affect the mandatory attributes of the Administered Items being registered.
 - Handle all aspects of the registration process in accordance with good business practice and, in particular, take all reasonable precautions to safeguard the metadata register. Specifically, the responsibilities of a Registration Authority are as follows:
 - Receive applications for the registration of Administered Items from its Submitting Organizations.
 - Review and facilitate the progression of the applications through the registration cycle.
 - Assign appropriate Registration Status.
 - Notify Submitting Organizations of its decisions according to the procedure specified in its rules.

C.3.2 Responsibilities of Responsible Organizations (RO)

A Responsible Organization should:

- At the Registration Authority's request, advise on the semantics, name, and permissible values for the Administered Item's attribute values submitted for registration.
- Notify the Registration Authority of any amendments to the Administered Items assigned to the Responsible Organization.
- Decide, in case of confusion and/or conflict, on the attribute values of the assigned Administered Items.

C.3.3 Responsibilities of Submitting Organizations (SO)

A Submitting Organization is responsible for the following activities:

- Providing the information specified in Annex B in the form required by the Registration Authority.
- Providing any additional information that may reasonably be required by the Registration Authority to enable it to perform its responsibilities.

- Ensuring that when an Administered Item has been registered, specification of the attribute values of the Administered Item is not changed without first advising the Registration Authority.

C.4 Responsibilities of Organizations within Registration Acting Bodies

C.4.1 Registrar

The Registrar provides a single individual point-of-contact responsible for managing and maintaining information about data in the metadata register, under the authority of the Registration Authority. The Registrar should be responsible for:

- a) Monitoring and managing the Metadata Registry contents, i.e. the metadata register (Note: The Metadata Registry is established, operated, and maintained by the Registration Authority).
- b) Enforcing policies, procedures, and formats for populating and using the Metadata Registry.
- c) Proposing procedures and standard formats for the Metadata Registry to the Control Committee for consideration.
- d) Recording current registration status for Administered Items in the metadata register.
- e) Ensuring access for authorized users to contents in the Metadata Registry.
- f) Assisting in the progression of Administered Items through the registration status levels.
- g) Assisting in the identification and resolution of duplicate or overlapping semantics of Administered Items in the metadata register.
- h) Acting on direction from the Registration Authority.
- i) Effecting registration of Administered Items in external metadata registers or dictionaries.
- j) Enforcing data registration procedures for submitting Administered Items to the Metadata Registry, e.g.,
 - How to prepare, submit, and process submissions of Administered Items.
 - How the Metadata Registry is used to avoid duplicate Administered Items submissions to the metadata register.
 - How the Metadata Registry is used to effect harmonization of data across metadata registers of participating organizations.
 - How external metadata registers are used as a source of Administered Items for reuse in the metadata register.
- k) Maintaining a separate document recording the appropriate contact information for all members of the Control Committee and the Executive Committee.
- l) Adding new users or organizational entities that may become authorized to access the metadata register.
- m) Maintaining other controlled word lists of the Metadata Registry.

C.4.2 Stewards

Stewards provide specific expert points of contact responsible for coordinating the identification, organization, and establishment of registered data for use throughout the enterprise within an assigned functional area.

Stewards should be responsible for:

- a) Co-ordinating the identification and documentation of Administered Items within their assigned functional area.
- b) Ensuring that appropriate Administered Items in their assigned functional area are properly registered.
- c) Co-ordinating with other Stewards to attempt to prevent or resolve duplicated efforts in defining Administered Items.
- d) Reviewing all Administered Items once they are in the "Recorded" status to identify and attempt to resolve conflicts among Administered Items with other Stewards' assigned functional areas.
- e) Ensuring the quality of metadata attribute values for Administered Items they propose for the "Qualified" registration status level, reusing standardized data from external metadata registrars where applicable.
- f) Proposing "Standard" registration status level Administered Items in their assigned functional area.
- g) Proposing "Preferred Standard" registration status level Administered Items in their assigned functional area.
- h) Ensuring that data registration procedures and formats are followed within their assigned functional area.
- i) Recommending Submitters to the Registration Authority.

C.4.3 Submitters

Submitters are organization elements that are familiar with or engaged in development and operational environments. Submitters maintain current Administered Items and are engaged to describe and submit new Administered Items following the registration requirements.

A Submitter should be responsible for:

- a) Identifying himself to the Registrar.
- b) Identifying and documenting Administered Items appropriate for registration in the metadata register.
- c) Submitting Administered Items to the metadata register.
- d) Ensuring the completeness of mandatory metadata attributes for Administered Items proposed for the "Recorded" registration status level.

C.4.4 Read-only users

A Read-only User is an organizational unit approved by the Registrar to review the contents of the metadata register. Read-only Users may not add to, delete from, or otherwise modify the contents of the metadata register.

C.4.5 Control Committee

The Control Committee provides overall technical direction of, and resolution of technical issues associated with, the Metadata Registry, its contents and its technical operations.

The Control Committee should be responsible for:

- g) Overall conduct of registration operations.
- h) Promoting the reuse and sharing of data in the metadata register within and across functional-areas, and among external interested parties to the enterprise.
- i) Progressing Administered Items through “Qualified”, “Standard”, and “Preferred Standard” registration status levels.
- j) Resolving semantical issues associated with registered Administered Items, e.g., overlap, duplication, etc.
- k) Approving updates to Administered Items previously placed in the metadata register with the “Qualified”, “Standard”, or “Preferred Standard” registration status levels.
- l) Proposing Metadata Registry policies to the Executive Committee for approval.
- m) Approving authorized Submitters, Read-only Users, and types of users, of the Metadata Registry.
- n) Approving Metadata Registry content, procedures, and formats.
- o) Submitting management-related recommendations and issues to the Executive Committee.
- p) Acting on directions from the Executive Committee.
- q) Meeting periodically in face-to-face meetings, with additional meetings and teleconferences held as needed.

The Control Committee will normally fulfil its responsibilities via consensus building in accordance with an established procedure. Intractable issues may be resolved by an established procedure.

C.4.6 Executive Committee (ExCom)

The Executive Committee should be responsible for overall policy and business direction for the Metadata Registry, to include:

- a) Establishing overall Metadata Registry policies.
- b) Resolution of all business management issues pertaining to the Metadata Registry, e.g., copyrights, stewardship, Executive Committee membership, etc.
- c) Ensuring the long-term success and performance of the Metadata Registry.
- d) Establishing and updating the Metadata Registry charter and strategic plans.
- e) Meeting periodically in face-to-face meetings, with additional meetings and/or teleconferences held as needed.

The Executive Committee will normally fulfil its responsibilities via consensus building. Intractable issues may be resolved by an established procedure.

Annex D (informative)

Suggested functional operating procedures — Concept of operations

D.1 Registration concept of operations

This Annex defines the suggested overall concept of operations for the Metadata Registry. It shows suggested roles and responsibilities and shows suggested functional operating procedures for the use of the Metadata Registry. The suggested operational procedures for the Metadata Registry are summarized in this annex. These procedures describe registration and harmonization practices for the Metadata Registry. See Annex C for organizational roles and responsibilities (and their relationships), and Clause 4.1.3.2 for registration status level definitions. This annex describes the registration activities associated with Submitters, Stewards, and the registrar and roles of the Control Committee. Figure D-1 summarizes these functional activities.

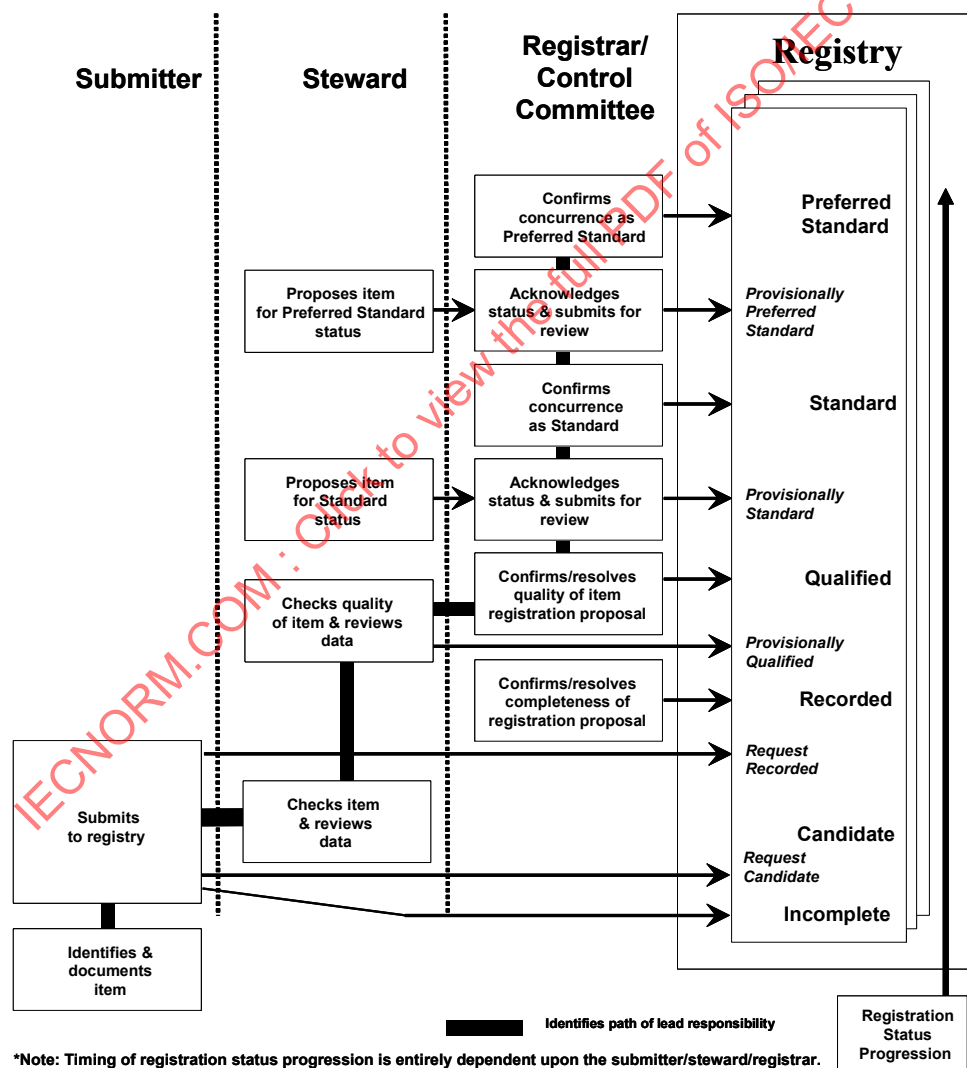


Figure D.1 — Registration functional activities

D.2 Registration initiation

All Submitters accomplish the Submitter registration activities in the same way in accordance with these functional operation procedures so that Administered Items are consistently and accurately registered. The responsibility of the Submitter is to propose and document Administered Items for registration with the registration status of “Incomplete”; and, if desired, propose Administered Items for the registration status of “Candidate” then “Recorded”. A Submitter acquires an understanding of Administered Items, their context and sources, and their significance in the course of accomplishing normal operational, design, development, or management activities.

D.3 Quality review

The responsibility of the Steward, for Administered Items in an assigned functional area, is to ensure that quality registration candidates are passed to the Registrar for presentation to the Control Committee. Presented candidates are evaluated to see if they meet the criteria for “Qualified” registration status. Stewards also may recommend Administered Items for “Standard” and “Preferred Standard” registration status.

D.4 Metadata Registry administration

The responsibility of the Registrar is to coordinate the Metadata Registry environment and manage the Metadata Registry, making its contents as widely accessible as feasible. Administrative levels may be established to track the progression of an Administered Item in the transition from one status level to the next. Some potential examples are:

- a) Provisionally Qualified — An Administered Item with the “Provisionally Qualified” status means that a Steward has confirmed that the mandatory metadata attributes are complete and conform to applicable metadata attribute quality requirements. The Steward is authorized to promote Administered Items at the “Recorded” status to the administrative status of “Provisionally Qualified” at such time as the Steward believes that all quality requirements have been achieved.
- b) Provisionally Standard — An Administered Item with the “Provisionally Standard” status means that a Steward proposes the Administered Item as “Standard” for general use in the registry community; however, certification of “Standard” status of the Administered Item by the Control Committee is not yet complete. The Steward is authorized to promote Administered Items from the “Qualified” level to the “Provisionally Standard” at such time as the Steward believes the Administered Item should be a “Standard” Administered Item.
- c) Provisionally Preferred — An Administered Item with the “Provisionally Preferred” status means that a Steward proposes the Administered Item as “Preferred Standard” for preferred use in the registry community; however, certification of “Preferred Standard” status of the Administered Item by the Control Committee is not yet complete. The Steward is authorized to promote Administered Items from the “Standard” level to the “Provisionally Preferred” at such time as the Steward believes the Administered Item should be a “Preferred Standard” Administered Item.

Annex E (informative)

Suggested functional operating procedures — Procedures

E.1 General procedures

E.1.1 Review and Response

Submissions shall be reviewed according to the following steps:

1. Preliminary review to verify completeness of the submission
2. Applicant's review to authenticate the applicant's identity and supporting organizational and contact information.
3. Technical review of the submission, if any.
4. Processing the submission in the registry (e.g., making the additions, changes, deletions).
5. Responding to the applicant in writing and/or E-mail.
6. Publishing updates, if applicable.

E.1.2 Rejection Criteria

The submission may be rejected for any of the following reasons:

1. If the submission does not provide the required (mandatory) information
2. If the submission provides false or misleading information.
3. If the applicant does not respond to questions about clarifications or ambiguities within the submission.
4. If the submission is inconsistent with the requirements of the registration.
5. If the registration requires a technical review and the submission fails the technical review.

In all cases, the applicant has Metadata Registry specific period of time to respond and remedy the issue before the submission is formally rejected.

E.1.3 Revision and review procedures

Once registered, an Administered Item may be revised and/or reviewed, or in special cases possibly withdrawn.

E.1.4 Revision procedures

E.1.4.1 General

Unless specified otherwise, the following revision procedures apply to all Administered Items.

E.1.4.2 Changing registrant contact information

Submitters and Stewards may update their contact information. Updating only contacting information (1) shall not require a technical review, and (2) is not considered a revision or review for the purposes of the systematic review cycle.

E.1.4.3 Update procedures

Submitters and Stewards may update information about their Administered Items, as permitted by the Metadata Registry procedures.

Using the current procedures, if an initially an Administered Item would require a technical review, then a technical review shall be performed on an updated registration.

Note: In other words, the requirement for technical reviews is the same for initial registrations as it is for updated registrations.

E.1.4.4 Registrant transfer procedures

A Submitter may reassign a registered item to another Submitter.

A Steward may reassign a registered item to another Steward.

Using the current procedures, if an initially registered item would require a technical review, then a technical review shall be performed on transferred registration.

Note: In other words, the requirement for technical reviews is the same for initial registrations as it is for transferred registrations.

E.1.5 Review procedures**E.1.5.1 General**

Unless specified otherwise, the following review procedures apply to all Administered Items.

Note: One purpose for reviewing Administered Items is to update any information associated with the Administered Item; another purpose is to confirm that the existing registered information is still current and valid.

E.1.5.2 Registrant-initiated review procedures

A registrant may have its Administered Item reviewed.

E.1.5.3 Period of validity

The Registration Authority should establish and publish a period of validity for items that are to be maintained within the metadata register.

E.1.5.4 Systematic review procedures

All Administered Items should be reviewed on a regular basis. After the initial registration or the last registration update, Administered Items shall be reviewed within the period of validity.

The Registration Authority should establish and publish the procedures for systematic review. These procedures should include:

1. The time before that a notification of an anticipated registration review shall be sent to the Steward prior to the review date.