Reference number of working document: ISO/TC 000/SC 0 N 000

Date: yyyy-mm-dd

Reference number of document: ISO/WD nnn‑n

Committee identification: ISO/TC 000/SC 0/WG 0

Secretariat: XXXX

Introductory element — Main element — Part n: Part title

Document type: International standard

Document subtype: if applicable

Document stage: (20) Preparation

Document language: E

*Élément introductif — Élément principal — Partie n: Titre de la partie*

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The **table of contents** is an optional preliminary element, but is necessary if it makes the document easier to consult. The table of contents shall be entitled “Contents” and shall list clauses and, if appropriate, subclauses with titles, annexes together with their status in parentheses, the bibliography, indexes, figures and tables. The order shall be as follows: clauses and subclauses with titles; annexes (including clauses and subclauses with titles if appropriate); the bibliography; indexes; figures; tables. All the elements listed shall be cited with their full titles. Terms in the “Terms and definitions” clause shall not be listed in the table of contents.

Foreword

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

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

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

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO nnn‑n was prepared by Technical Committee ISO/TC 000, *TC title*, Subcommittee SC 0, *SC title*.

This second/third/... edition cancels and replaces the first/second/... edition (ISO nnn‑n:19xx), [clause(s) / subclause(s) / table(s) / figure(s) / annex(es)] of which [has / have] been technically revised.

ISO nnn consists of the following parts, under the general title *Introductory element — Main element*:

 *Part n: Part title*

 *Part [n+1]: Part title*

 *Part [n+2]: Part title*

The **foreword** shall appear in each document. It shall not contain requirements, recommendations, figures or tables.

It consists of a general part and a specific part. The general part (supplied by the Central Secretariat of ISO) gives information relating to the organization responsible and to International Standards in general, i.e.

1. the designation and name of the committee that prepared the document,
2. information regarding the approval of the document, and
3. information regarding the drafting conventions used, comprising a reference to the ISO/IEC Directives, Part 2.

The specific part (supplied by the committee secretariat) shall give a statement of significant technical changes from any previous edition of the document and as many of the following as are appropriate:

1. an indication of any other international organization that has contributed to the preparation of the document;
2. a statement that the document cancels and replaces other documents in whole or in part;
3. the relationship of the document to other documents.

Introduction

A paragraph.

The **introduction** is an optional preliminary element used, if required, to give specific information or commentary about the technical content of the document, and about the reasons prompting its preparation. It shall not contain requirements.

The introduction shall not be numbered unless there is a need to create numbered subdivisions. In this case, it shall be numbered 0, with subclauses being numbered 0.1, 0.2, etc. Any numbered figure, table, displayed formula or footnote shall be numbered normally beginning with 1.

Introductory element — Main element — Part n: Part title

# Scope

A paragraph.

The **Scope** clause shall appear at the beginning of each document and define without ambiguity the subject of the document and the aspects covered, thereby indicating the limits of applicability of the document or particular parts of it. It shall not contain requirements.

In documents that are subdivided into parts, the scope of each part shall define the subject of that part of the document only.

The scope shall be succinct so that it can be used as a summary for bibliographic purposes.

It shall be worded as a series of statements of fact. Forms of expression such as “This International Standard specifies [establishes] [gives guidelines for] [defines terms] …” shall be used.

Statements of applicability of the document shall be introduced by the wording such as “This International Standard is applicable to …”. The wording shall be altered as a function of the document type concerned, i.e. International Standard, Technical Specification, Publicly Available Specification, Technical Report or Guide.

A **clause** is the basic component in the subdivision of the content of a document.

The clauses in each document or part shall be numbered with Arabic numerals, beginning with 1 for the “Scope” clause. The numbering shall be continuous up to but excluding any annexes. Numbers given to the clauses of an annex shall be preceded by the letter designating that annex followed by a full-stop. The numbering shall start afresh with each annex.

Each clause shall have a title, placed immediately after its number, on a line separate from the text that follows it.

A **paragraph** is an unnumbered subdivision of a clause or subclause.

“Hanging paragraphs” (see ISO/IEC Directives, Part 2, 2001[1], 5.2.4) shall be avoided since reference to them is ambiguous.

# Conformance

A paragraph.

The **Conformance** clause is only required in some standards in the Information technology field. Requirements concerning the conformance clause are not covered by the ISO/IEC Directives, Part 2[1], but by ISO/IEC TR 10000‑1[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 ab‑c:199x, *General title of series of parts — Part c: Title of part*

ISO xyz (all parts), *General title of the series of parts*

The **Normative reference(s)** clause is an optional element that gives a list of the referenced documents cited in the document in such a way as to make them indispensable for the application of the document.

In principle, the referenced documents shall be documents published by ISO and/or IEC. Documents published by other bodies may be referred to in a normative manner provided that

1. the referenced document is recognized by the ISO and/or IEC committee concerned as having wide acceptance and authoritative status as well as being publicly available,
2. the ISO and/or IEC committee concerned has obtained the agreement of the authors or publishers (where known) of the referenced document to its inclusion and to its being made available as required — the authors or publishers will be expected to make available such documents on request,
3. the authors or publishers (where known) have also agreed to inform the ISO and/or IEC committee concerned of their intention to revise the referenced document and of the points the revision will concern, and
4. the ISO and/or IEC committee concerned undertakes to review the situation in the light of any changes in the referenced document.

The list shall be introduced by the following wording:

“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.”

The above wording is also applicable to a part of a multipart document.

The list shall not include the following:

* referenced documents which are not publicly available;
* referenced documents which are only cited in an informative manner;
* referenced documents which have merely served as bibliographic or background material in the preparation of the document.

Such referenced documents may be listed in a bibliography.

Normative references may be dated or undated.

Dated references are references to

1. a specific edition, indicated by the year of publication, or
2. a specific enquiry or final draft, indicated by a dash.

Subsequent amendments to, or revisions of, dated references will need to be incorporated by amendment of the document referring to them.

NOTE In this context a part is regarded as a separate document.

References to specific divisions or subdivisions, tables and figures of another document shall always be dated.

Undated references may be made only to a complete document or a part thereof and only in the following cases:

1. if it is accepted that it will be possible to use all future changes of the referenced document for the purposes of the referring document;
2. for informative references.

Undated references shall be understood to include all amendments to and revisions of the referenced document.

For dated references, each shall be given with its year of publication, or, in the case of enquiry or final drafts, with a dash together with a footnote “To be published.”, and full title. The year of publication or dash shall not be given for undated references. When an undated reference is to all parts of a document, the publication number shall be followed by the indication “(all parts)” and the general title of the series of parts (i.e. the introductory and main elements, see ISO/IEC Directives, Part 2, 2001[1], Annex D).

# Terms and definitions

For the purposes of this document, the following terms and definitions apply / the terms and definitions given in … and the following apply.

4.1

term

text of the definition

The **Terms and definitions** clause is an optional element giving definitions necessary for the understanding of certain terms used in the document. The following introductory wording shall be used where all terms and definitions are given in the document itself:

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

In the case where terms defined in one of more other documents also apply (for example, in the case of a series of associated documents where Part 1 specifies the terms and definitions for several or all of the parts), the following introductory wording shall be used, altered as necessary:

“For the purposes of this document, the terms and definitions given in … and the following apply.”

Rules for the drafting and presentation of terms and definitions are given in the ISO/IEC Directives, Part 2, 2001[1], annex C, and in ISO 10241[3].

# Symbols (and abbreviated terms)

A paragraph.

The **Symbols (and abbreviated terms)** clause is an optional element giving a list of the symbols and abbreviated terms necessary for the understanding of the document.

Unless there is a need to list symbols in a specific order to reflect technical criteria, all symbols should be listed in alphabetical order in the following sequence:

* upper case Latin letter followed by lower case Latin letter (*A*, *a*, *B*, *b*, etc.);
* letters without indices preceding letters with indices, and with letter indices preceding numerical ones (*B*, *b*, *C*, *C*m, *C*2, *c*, *d*, *d*ext, *d*int, *d*1, etc.);
* Greek letters following Latin letters (*Z*, *z*, *Α*, *α*, *Β*, *β*, …, *Λ*, *λ*, etc.);
* any other special symbols.

For convenience, this element may be combined with the Terms and definitions clause in order to bring together terms and their definitions, symbols, abbreviated terms and perhaps units under an appropriate composite title, for example “Terms, definitions, symbols, units and abbreviated terms”.

# Clause

## Subclause (level 1)

### Subclause (level 2)

# Feature Catalogue ISO 19135-1 Procedures for Registration

**Version:**

ISO/DIS 19135-1:2013

**Date:**

2013

**Scope:**

This part of ISO 19135 specifies procedures to be followed in establishing, maintaining and publishing registers of unique, unambiguous and permanent identifiers and meanings that are assigned to items of geographic information. In order to accomplish this purpose, this part of ISO 19135 specifies elements that are necessary to manage the registration of these items.

**Responsible organisation:**

International Organisation for Standardization

## Application schema: ISO 19135-1 Procedures for Registration - Core schema

### ItemClass (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| ItemClass | The class "ItemClass" is a description of a class of geographic information items specified in a technical standard. |  |  |  |
| describedItem | The role describedItem connects an instance of a "RegisterItem" to an "ItemClass" | 1..\* | RegisterItem |  |
| identifier | The attribute "identifier" shall be represented as a CharacterString containing a compact and human-readable designator that is used to denote a class of item.  The <i>identifier</i> that designates an item class held in a register that conforms to this International Standard shall uniquely denote the item class within the context of the register. | 1 | CharacterString |  |
| register | The role register connects an instance of an item class to a register | 1..\* | Register |  |
| subregister | The role subregister connects an instance of an item class to a subregister | 0..\* | SubregisterDescription |  |

### RE\_Version (Data Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_Version | A dataType that uniquely defines a version |  |  |  |
| versionDate | The attribute "date" shall be represented as an instance of the class <<Date>> [ISO 19103] that specifies the date (which may be of reduced precision) of the version.  EXAMPLE 2002-10-21. | 1 | Date |  |
| versionNumber | The attribute "versionNumber" shall be represented as a constrained CharacterString that denotes the version. The CharacterString shall be of the form <first positive integer> <dot> <second positive integer> <letter characters> (“#.#a”), where:  <ul>  <li><first positive integer> (one or more digits) shall specify the major version designation;</li>  </ul>  <ul>  <li><dot> (“.”) shall delimit the <first positive integer> from the <second positive integer> when there is a <second positive integer>;</li>  </ul>  <ul>  <li><second positive integer> (one or more digits) shall optionally specify the minor version designation; and</li>  </ul>  <ul>  <li><letters> (one or more characters) shall optionally specify the minor subversion designation.</li>  </ul>  EXAMPLE “2.1a”. | 1 | CharacterString |  |

### Register (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| Register | The class RE\_Register specifies information about the register itself. |  |  |  |
| containedItem | Describes that the RegisterItem for the association Content describes the contained items held in the register. | 1..\* | RegisterItem |  |
| containedItemClass | The role "containedItemClass" describes that the "ItemClass" for the association "ContentDescription" contains the item classes in the register. | 1..\* | ItemClass |  |
| dateOfLastChange | The conditional attribute "dateOfLastChange" shall be represented as an instance of the class <<Date>> [ISO 19103] and specify the (full precision) date of the most recent change to the status of an item in the register was made. A value shall be provided for this attribute if a value of "version" is not supplied. | 0..1 | Date |  |
| identifier | The attribute "identifier" represents a designator that is used to uniquely denote that register within the set of registers maintained by the register owner. In the case of a hierarchical register, the "identifier" of a subregister shall uniquely identify that subregister within the scope of all registers established by the owner of the principal register. It shall be represented as a CharacterString containing a compact and human-readable designator.  EXAMPLE: “ISO/TC 211 Register of Feature Data Dictionaries and Feature Catalogues” might be the identifier of the principal register of a hierarchical register. “DGIWG FACC Data Dictionary” and “IHO S-57 Object Dictionary” might be the identifiers of subregisters within the hierarchy. | 1 | CharacterString |  |
| manager | The role "manages" describes that the RegisterStakeholder for the association RegisterManager is the manager for the register. | 1 | RegisterStakeholder |  |
| owner | The role name owner describes that the RegisterStakeholder for the association RegisterOwner is the owner of the register. | 1 | RegisterStakeholder |  |
| submitter | The role "submitter" describes that the RegisterStakeholder for the association RegisterStakeholder is the submitting organization for the register. | 1..\* | RegisterStakeholder |  |
| version | The conditional attribute "version" shall be represented as an instance of class RE\_Version that specifies a unique state in the life of the register. A value shall be provided for this attribute if a value of "dateOfLastChange" is not supplied. | 0..1 | RE\_Version |  |

### RegisterItem (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RegisterItem | The class RegisterItem) specifies elements of information to be recorded for each item held in a register. The technical standard that specified an item class may specify additional elements to be recorded. |  |  |  |
| dateTimeAddition | The attribute "dateTimeAddition" shall specify the date on which the item was added | 1 | DateTime |  |
| dateTimeInvalidation |  | 0..1 | DateTime |  |
| dateTimeRetirement |  | 0..1 | DateTime |  |
| dateTimeSupersession | The attribute "dateTimeSupersession" shall specify the date and time on which an item has been superseeded. This attribute is mandatory if status is superseded. | 0..1 | DateTime |  |
| itemClass | The role "itemClass" describes that the "ItemClass" for the association "Categorization" describes the class that the register items belong to. | 1 | ItemClass |  |
| itemIdentifier | The attribute "itemIdentifier" shall be represented as a Character that is used to uniquely denote that item within the register and is intended for information processing. Values shall be assigned sequentially in the order in which items are proposed for entry into the register. Once a value has been assigned, it shall not be reused.  <b>NOTE</b> When a register contains items from different item classes, each item will be uniquely identifiable by the item identifier alone. | 1 | CharacterString |  |
| predecessor | The role "predecessor" describes a previous concept of the "RegisterItem" | 0..\* | RegisterItem |  |
| register |  | 1..\* | Register |  |
| status | The attribute "status" shall be represented as an instance of RE\_ItemStatus that identifies the registration status of the RegisterItem | 1 | RE\_ItemStatus |  |
| sucessor | The role "sucessor" describes a later concept of the "RegisterItem" | 0..\* | RegisterItem |  |

### RegisterStakeholder (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RegisterStakeholder | The class RegisterStakeholder specifies information about the register stakeholder, which is either a manager, owner or submitter. A stakeholder can serve one or more roles.  NOTE This International Standard does not require that a register stakeholder name be unique, since an stakeholder will, in general, have had a name before undertaking a role in connection with a register. |  |  |  |
| contact | The attribute "contact" shall be represented as an instance of CI\_Responsibility [ISO 19115-1], either in the form of contact information for an individual or an organization that ist he contact point for the stakeholder, either in the role as manager, owner or submitter of register information the register. | 1 | CI\_Responsibility |  |
| manages | The role "manager" identifies the register stakeholder as the manager of the register. | 1..\* | Register |  |
| name | The attribute <i>name</i> shall be represented as a CharacterString containing a compact and human-readable designator that is used to denote the stakeholder of that register.  EXAMPLE “ISO/TC 211,” “Digital Geographic Information Working Group,” and “International Hydrographic Bureau”. | 1 | CharacterString |  |
| owns | The role name "owns" identifies the register stakeholder as the owner of the register. | 1..\* | Register |  |
| submits | The role name "submits" identifies the register stakeholder as the submitting organization of the register. | 1..\* | Register |  |
| subregister |  | 0..\* | SubregisterDescription |  |

### SubregisterDescription (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| SubregisterDescription | "SubregisterDescription" is a subclass of "RegisterItem" that shall be used in the principal register of a hierarchical register to describe each of the affiliated subregisters. Their semantics are unchanged, but a few are subject to additional  constraints or conditions specified.  NOTE Because a subregister is a type of register, it contains an instance of "Register" that describes itself. "SubregisterDescription" carries similar information about the subregister, but it is contained within the principal register. |  |  | Subtype of: RegisterItem |
| containedItemClass | The role "containedItemClass" describes that the "ItemClass" for the association "SubregisterContentDescription" contains the item classes in the subregister. | 1..\* | ItemClass |  |
| subregisterManager |  | 1 | RegisterStakeholder |  |

## Application schema: ISO 19135-1 Procedures for Registration - Extended schema

### RE\_AdditionInformation (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_AdditionInformation | The subclass RE\_AdditionInformation contains management information about a proposal to add an item to a register. |  |  | Subtype of: RE\_ProposalManagementInformation |
| item | The role "addtionInformation" identifies the class RE\_AdditionInformation for addtional information about the registerItem | 1 | RE\_RegisterItem |  |

### RE\_AlternativeExpression (Data Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_AlternativeExpression | The class RE\_AlternativeExpression is a data type used to provide information about a register item in an alternative language. Subclasses of  RE\_AlternativeExpression may be specified in order to add additional attributes appropriate for particular item classes.  EXAMPLE A specification for a metadata element register could identify a subclass of RE\_AlternativeExpression that would include the data dictionary fields specified in ISO 19115-1(obligation/condition, data type, and domain) as additional attributes. |  |  |  |
| definition | The attribute "definition"<i> </i>shall be represented as a CharacterString whose content meets the requirements of RE\_RegisterItem.definition<i> </i>except that the applicable locale shall be that specified in RE\_AlternativeExpression.locale. | 0..1 | CharacterString |  |
| description | The attribute description<i> </i>shall be represented as a CharacterString whose content meets the requirements of RE\_RegisterItem.description<i> </i>except that the applicable locale shall be that specified in RE\_AlternativeExpression.locale. | 0..1 | CharacterString |  |
| fieldOfApplication | The attribute fieldOfApplication<i> </i>shall be represented as a set of instances of RE\_FieldOfApplication whose content meets the requirements of RE\_RegisterItem.fieldOfApplication<i> </i>except that the applicable locale shall be that specified in RE\_AlternativeExpression.locale | 0..1 | Set<RE\_FieldOfApplication> |  |
| locale | The role "expression" identifies the class RE\_AlternativeExpression for language information as specified in RE\_Locale | 1 | RE\_Locale |  |
| name | The attribute "name"<i> </i>shall be represented as a CharacterString whose content meets the requirements of RE\_RegisterItem.name<i> </i>except that the applicable locale shall be that specified in RE\_AlternativeExpression.locale. | 1 | CharacterString |  |

### RE\_AlternativeName (Data Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_AlternativeName | The class RE\_AlternativeName is a data type used to provide the name of an item class in an alternative language. |  |  |  |
| locale | The role "name" identifies that information in the class RE\_Locale gives further information about the language of the name i RE\_AlternativeName | 1 | RE\_Locale |  |
| name |  | 1 | CharacterString |  |

### RE\_AmendmentInformation (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_AmendmentInformation | The subclass RE\_AmendmentInformation contains management information about a proposal to amend an item in a register. |  |  | Subtype of: RE\_ProposalManagementInformation |
| amendmentType | The attribute "amendmentType"<i> </i>shall be represented as an instance of RE\_AmendmentType that identifies the type of amendment proposed. | 1 | RE\_AmendmentType |  |
| item |  | 1 | RE\_RegisterItem |  |

### RE\_ClarificationInformation (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_ClarificationInformation | The subclass RE\_ClarificationInformation contains management information about a proposal to clarify an item in a register. |  |  | Subtype of: RE\_ProposalManagementInformation |
| item | The role "clarificationInformation " identifies the class RE\_ClarificationInformation for clarifying information about the registerItem | 1 | RE\_RegisterItem |  |
| proposedChange | The attribute "proposedChange"<i> </i>shall be represented as a CharacterString containing a description of the clarification that shall identify the elements of the register item that are changed and the prior and subsequent values of each.  EXAMPLE The definition of this item was changed to correct a typographical error. The misspelled word “phenomnon” was changed to “phenomenon”. | 1 | CharacterString |  |

### RE\_FieldOfApplication (Data Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_FieldOfApplication | RE\_FieldOfApplication is a data type used to provide information about a use for a register item. |  |  |  |
| description | The attribute description provides as a CharacterString a description of the field of application.  EXAMPLE “Pertaining to the science, art, and business of cultivating soil, producing crops, and raising livestock.”  “Pertaining to the science or art of conducting ships or vessels from one place to another at sea.” | 0..1 | CharacterString |  |
| name | The attribute "name"<i> </i>shall be represented as a CharacterString used to identify the field of application.  EXAMPLE “Agricultural Production”, “Marine Navigation”. | 1 | CharacterString |  |

### RE\_ItemClass (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_ItemClass | RE\_ItemClass is a description of a class of geographic information items specified in a technical standard. |  |  | Subtype of: ItemClass |
| alternativeName | The attribute alternativeNames<i> </i>contains a set of instances of RE\_AlternativeName, each of which is a translation of the "name" of the RE\_ItemClass into a language other than the "operatingLanguage"<i> </i>of the RE\_Register. | 1 | Set<RE\_AlternativeName> |  |
| name | The attribute "name"<i> </i>shall be represented as a CharacterString containing a compact and human-readable designator that is used to denote a class of item.  The "name"<i> </i>that designates an item class held in a register that conforms to this International Standard shall:  a) uniquely denote the item class within the context of the register; and  b) be based on the item class designation used in the applicable technical standard. | 1 | CharacterString |  |
| technicalStandard | The attribute technicalStandard<i> </i>shall be represented as an instance of CI\_Citation [ISO 19115-1] that shall specify the technical standard (and the specific portion thereof) to which items in the item class shall conform. | 1 | CI\_Citation |  |

### RE\_Locale (Data Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_Locale | The class RE\_Locale provides information about languages used in a register. |  |  |  |
| characterEncoding | The attribute <i>characterEncoding </i>shall be represented as an instance of MD\_CharacterSetCode that specifies the name of the character coding standard used. | 1 | MD\_CharacterSetCode |  |
| citation | The optional attribute "citation"<i> </i>shall be represented as an instance of CI\_Citation [ISO 19115-1] that identifies a resource that provides more information about the locale.  EXAMPLE An instance of CI\_Citation could provide information about a specific dialect of the language identified for the locale, or about some other culturally significant aspect of information presentation, such as a specific method of formatting numbers. | 1 | CI\_Citation |  |
| country | The attribute <i>country </i>shall be represented as a CharacterString that holds a 3-character numerical country code as specified in ISO 3166-1.  NOTE The list of codes is available from the URL ftp.ics.uci.edu/pub/ietf/http/related/iso3166.txt or the ISO 3166  Maintenance Agency at URL http://www.iso.ch/iso/en/prods-services/iso3166ma/index.html. | 1 | CharacterString |  |
| expression | The role "locale" identifies the class RE\_Locale for further information about the language used for the alternative expression | 0..\* | RE\_AlternativeExpression |  |
| language | The attribute <i>language </i>shall take as its value a 3-character language code as specified in ISO 639-2.  NOTE The list of codes maintained by the ISO 639-2 Registration Authority is available at the URL  http://www.loc.gov/standards/iso639-2/langcodes.html. | 1 | LanguageCode |  |
| name | The attribute "name"<i> </i>shall be represented as a CharacterString that describes the locale.  EXAMPLE “Welsh” | 1 | CharacterString |  |

### RE\_ProposalManagementInformation (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_ProposalManagementInformation | The class RE\_ProposalManagementInformation specifies elements of management information to be recorded for each proposal to add or modify a register item. |  |  |  |
| controlBodyDecisionEvent | The attribute controlBodyDecisionEvent<i> </i>shall be represented as a CharacterString that identifies a meeting or other event associated with the control body’s decision concerning the proposed change. | 0..1 | CharacterString |  |
| controlBodyNotes | The attribute "controlBodyNotes" shall be represented as a CharacterString containing notes relevant to the control body’s decision concerning the proposal. Individual entries within the notes should be dated. | 0..1 | CharacterString |  |
| dateDisposed | The conditional attribute dateDisposed<i> </i>shall be represented as an instance of the class <<Date>> [ISO 19103] and specify the (full precision) date on which the disposition of the proposal was  determined. | 0..1 | Date |  |
| dateProposed | The attribute "dateProposed" shall be represented as an instance of the class <<Date>> [ISO 19103] and specify the (full precision) date on which the item was entered into the register.  EXAMPLE 2002-11-27. | 1 | Date |  |
| disposition | The conditional attribute <i>disposition </i>shall be represented as an instance of RE\_Disposition that identifies the disposition of the proposal. | 0..1 | RE\_Disposition |  |
| justification | The attribute justification<i> </i>shall be represented as a CharacterString that explains why the proposed change  should be implemented. | 1 | CharacterString |  |
| registerManagerNotes | The attribute registerManagerNotes<i> </i>shall be represented as a CharacterString containing notes relevant to the register manager’s handling of the proposal. Individual entries within the notes should be dated. | 0..1 | CharacterString |  |
| sponsor | The role "sponsor " identifies the class RE\_RegisterStakeholder to be submitting proposal management information to the registry | 1 | RE\_RegisterStakeholder |  |
| status | The attribute "status"<i> </i>shall be represented as an instance of RE\_DecisionStatus that identifies the standing of the proposed change within the approval process. | 1 | RE\_DecisionStatus |  |

### RE\_Reference (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_Reference | The class RE\_Reference specifies information about the source and/or lineage of a specific RE\_RegisterItem derived from an external document or register. |  |  |  |
| item | The role "item" identifies the information in RE\_Reference is for the register item. | 0..\* | RE\_RegisterItem |  |
| itemIdentifierAtSource | The attribute "itemIdentifierAtSource"<i> </i>shall be represented as a CharacterString that provides the value of the item identifier in the source document or register from which the specification of the RE\_RegisterItem is derived. | 1 | CharacterString |  |
| notes | The optional attribute "notes"<i> </i>shall be represented as a CharacterString that may be used to provide additional information about the derivation of the specification of a register item from an external source. | 0..1 | CharacterString |  |
| referenceText | The optional attribute "referenceText"<i> </i>shall be represented as a CharacterString that may be used to provide a copy of documentation about the item from the RE\_ReferenceSource.  NOTE This attribute is intended for use in cases where the RE\_ReferenceSource may not be readily accessible to users of the register. | 0..1 | CharacterString |  |
| similarity | The attribute "similarity"<i> </i>shall use a value from the <<CodeList>> RE\_SimilarityToSource that specifies the type of change that has been made to the item specification relative to the item specification in the external source. | 1 | RE\_SimilarityToSource |  |
| sourceCitation | The role "itemReference" identifies that the information in the RE\_ReferenceSource is the citation for the RE\_Reference. | 1 | RE\_ReferenceSource |  |
| specifiedItem | The role "specificationSource" identifies the reference infromation for the register item. | 1 | RE\_RegisterItem |  |

### RE\_ReferenceSource (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_ReferenceSource | The class RE\_ReferenceSource specifies information about the source of RE\_RegisterItem specifications taken from an external document or register. |  |  |  |
| citation |  | 1 | CI\_Citation |  |
| itemReference | The role "sourceCitation" identifies the information in RE\_ReferenceSource is the source for the reference information for the register item. | 1..\* | RE\_Reference |  |
| register | The role "citation" identifies reference source for the items in the RE\_Register. | 1..\* | RE\_Register |  |

### RE\_Register (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_Register | The class RE\_Register specifies information about the register itself. It is a subtype of the Register class in the core profile |  |  | Subtype of: Register |
| alternativeLanguages | The attribtue "alternativeLanguages" supports cultural and linguistic adaptability, individual items in a register may provide elements of information in additional languages other than the operating language of the register.  The attribute <i>alternativeLanguages </i>shall be represented as a set of instances of RE\_Locale, each specifying an additional unique locale used by items in the register. Every member of the set shall be used by at least one item in the register. The <i>locale </i>of every <i>alternativeExpression </i>used by any item in the register shall be included in this set of RE\_Locales.  This attribute provides a summary of alternative locales used by items in a register. Register owners shall specify and publish their policy as to whether all or only some of the items in a register shall have alternative expressions. | 0..\* | RE\_Locale |  |
| citation | The role "register" describes that the register for the association Reference is the reference for one or more items in the register. | 0..\* | RE\_ReferenceSource |  |
| contentSummary | The attribute "contentSummary"<i> </i>shall be represented as a CharacterString containing a general statement of the purpose for which items in the register are made available to potential users. It should also specify any limits to the scope of the register and identify the types of applications for which the items are intended.  NOTE The scope of a register could be limited by theme, by region, by language or other criteria.  EXAMPLE The scope of a terminology register could be limited to Spanish terms used to describe landforms in Latin America. | 1 | CharacterString |  |
| name | The attribute "name"<i> </i>shall be represented as a CharacterString containing a compact and human-readable designator that is used to uniquely denote that register within the set of registers maintained by the register owner. In the case of a hierarchical register, the <i>name </i>of a subregister shall uniquely identify that subregister within the scope of all registers established by the owner of the principal register.  EXAMPLE “ISO/TC 211 Register of Feature Data Dictionaries and Feature Catalogues” might be the name of the principal register of a hierarchical register. “DGIWG FACC Data Dictionary” and “IHO S-57 Object Dictionary” might be the names of subregisters within the hierarchy. | 1 | CharacterString |  |
| operatingLanguage | The attribute "operatingLanguage"<i> </i>shall be represented as an instance of class RE\_Locale that is used to specify language, country information and character encoding for the proper interpretation of the content of character strings in the register.  The values of all character strings in the register shall be in accordance with the value of "operatingLanguage", unless otherwise stated. | 1 | RE\_Locale |  |
| uniformResourceIdentifier | The attribute "uniformResourceIdentifier"<i> </i>shall take as its value a set of URI's, each referencing information about online resources associated with the register.  EXAMPLE “http://www.digest.org/Navigate2.htm” and “http://www.epa.gov/opppmsd1/PPISdata/index.html” are  sample values  <i>  </i><i>  </i>  corresponding value of the attribute <i>OnLineResource.linkage </i>specifies a resource providing access to the  complete content of the register.  EXAMPLE “http://www.digest.org/Navigate2.htm” and “http://www.epa.gov/opppmsd1/PPISdata/index.html” are  sample values of <i>OnLineResource.linkage</i>. | 1..\* | URI |  |

### RE\_RegisterItem (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_RegisterItem | The class RE\_RegisterItem specifies elements of information to be recorded for each item held in a register. It has nine attributes and eight associations. The technical standard that specified an item class may specify additional elements to be recorded. |  |  | Subtype of: RegisterItem |
| additionInformation | The role "item" identifies the class RE\_RegisterItem for addtional nformation in the RE\_AdditionalInformation | 1..\* | RE\_AdditionInformation |  |
| alternativeExpressions | The attribute "alternativeExpressions"<i> </i>represents as a set of instances of RE\_AlternativeExpression, each specifying an alternative name and optionally additional information in a locale different from that of the register. No two instances of RE\_AlternativeExpression within the set shall have the same value for <i>locale</i>. | 0..1 | Set<RE\_AlternativeExpression> |  |
| amendmentInformation | The role "amendmentInformation" identifies that amendment information to the register item may be available in the RE\_AmendmentInformation class | 0..\* | RE\_AmendmentInformation |  |
| clarificationInformation | The role "item" identifies that the information in the class RE\_ClarificationInormation s related to a register item. | 0..\* | RE\_ClarificationInformation |  |
| dateAccepted | The conditional attribute "dateAccepted" shall specify the date on which a proposal to add the item to the register was accepted. The condition is identified by the constraint:  {status <> #notValid implies dateAccepted -> notEmpty}.  The value is derived from information in RE\_AdditionInformation:  DateAccepted = self.additionInformation.dateDisposed | 0..1 | Date |  |
| dateAmended | The conditional attribute "dateAmended"<i> </i>specifies the date on which a proposal to supersede or retire the item was accepted. The condition is identified by the constraint:  {status = #superseded or status = #retired implies dateAmended -> notEmpty}.  The value is derived from information in RE\_AmendmentInformation:  DataAmended = self.amendmentInformation.dateDisposed | 0..1 | Date |  |
| definition | The attribute "definition"<i> </i>shall be represented as a CharacterString containing the definition of the concept  embodied by that item and expressed in the operating language of the register. The "definition" shall be a precise statement of the nature, properties, scope or essential qualities of the concept as realized by the item.  If a definition is taken from an external source, RE\_Reference shall be used to provide information about that source together with the unique identifier of the item in the external source where available.  EXAMPLE “Equipment consisting of a platform, which is often enclosed, that is raised and lower ed in a vertical shaft to transport humans, equipment or materials; a lift or (U.S.) elevator” and “The shape of a buoy”. | 1 | CharacterString |  |
| description | The attribute "description"<i> </i>shall be<i> </i> represented as a CharacterString containing a description of the concept embodied by that item and expressed in the operating language of the register. The "description"<i> </i>shall be a statement of the nature, properties, scope, or non-essential qualities of the concept that are realized by the item but are not specified by the "definition"<i> </i>element.  EXAMPLE 1 “A lift may be moved through a system of overhead cables, lateral traction or under-floor hydraulics.”  EXAMPLE 2 “Buoy shape is generally based on the portion visible above the water line.” | 0..1 | CharacterString |  |
| fieldOfApplication | The attribute "fieldOfApplication"<i> </i>shall be represented as a set of instances of RE\_FieldOfApplication, each of which shall describe a kind of use of the item. The fieldOfApplication<i> </i>may be used as the basis for creating metadata for submission to search engines.  EXAMPLES “Agricultural Production” and “Marine Navigation”. | 0..\* | RE\_FieldOfApplication |  |
| name | The attribute "name"<i> </i>shall be represented as a CharacterString containing a compact and human-readable designator that is used to denote a register concept. Each "name"<i> </i>shall:  - denote an item concept in the scope of an item class; and  - be a succinct expression of the item concept it denotes.  EXAMPLE “Lift” and “buoy shape”.  The "name"<i> </i>shall be unique within a register according to the following rules:  - Multiple items of the same item class may use the same value for "name"<i> </i>but only one such item may have a status of “valid”.  - Items in different item classes may use the same value for name.  The "name"<i> </i>may be used to support searches for items of interest to a human user of the register. | 1 | CharacterString |  |
| specificationLineage | The role "item" identifies the information in RE\_Reference is for the register item. | 0..\* | RE\_Reference |  |
| specificationSource | The role "specifiedItem " describes that the RE\_Reference for the association "source" is the reference source for specification of the register item. | 0..1 | RE\_Reference |  |

### RE\_RegisterStakeholder (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_RegisterStakeholder |  |  |  | Subtype of: RegisterStakeholder |
| proposalInformation | The role "proposalnformation" identifies that the stakeholder in the function of a proposer has proposed proposal managment information to the registry. | 1..\* | RE\_ProposalManagementInformation |  |

### RE\_SubregisterDescription (Object Type)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Definition** | **Mult.** | **Value Type** | **Remarks** |
| RE\_SubregisterDescription | RE\_SubregisterDescription is a subclass of SubregisterDescription that shall be used in the principal register of a hierarchical register to describe additional information for each of the affiliated subregisters. |  |  | Subtype of: SubregisterDescription |
| operatingLanguage | The attribute "operatingLanguage"<i> </i>shall be represented as an instance of class RE\_Locale that is used to specify language, country information and character encoding for the proper interpretation of the content of character strings in the subregister. | 1 | RE\_Locale |  |
| uniformResourceIdentifier | The attribute "uniformResourceIdentifier"<i> </i>shall take as its value a set of URI's, each referencing information about online resources associated with the register. | 1 | URI |  |