

---

---

**Geographic information — Procedures  
for item registration**

*Information géographique — Procédures pour l'enregistrement  
d'éléments*

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

ISO 19135:2005

<https://standards.iteh.ai/catalog/standards/sist/8ee371c7-274a-4fe9-9a31-9533c385b2da/iso-19135-2005>



**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

ISO 19135:2005

<https://standards.iteh.ai/catalog/standards/sist/8ee371c7-274a-4fe9-9a31-9533c385b2da/iso-19135-2005>

© ISO 2005

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

Foreword.....	v
Introduction .....	vi
1 Scope .....	1
2 Conformance .....	1
2.1 Introduction .....	1
2.2 General conformance .....	1
2.3 Hierarchical registers .....	1
2.4 Registers established by ISO/TC 211 .....	1
3 Normative references .....	1
4 Terms, definitions and abbreviations .....	2
4.1 Terms and definitions.....	2
4.2 Abbreviations .....	4
4.3 Notation .....	4
5 Roles and responsibilities in the management of registers.....	4
5.1 Introduction .....	4
5.2 Register owner .....	4
5.3 Register manager.....	6
5.4 Submitting organizations .....	6
5.5 Control body.....	6
5.6 Registry manager.....	6
5.7 Register user .....	6
6 Management of registers .....	7
6.1 Establishment of registers.....	7
6.2 Processing of proposals.....	7
6.3 List of submitting organizations .....	13
6.4 Publication.....	13
6.5 Integrity.....	13
6.6 Registration proposals.....	14
7 Some principles of registration.....	14
7.1 Alternative register structures .....	14
7.2 Identification of register items .....	16
7.3 Definition of register items .....	16
7.4 Cultural and linguistic adaptability.....	17
7.5 Status of register items .....	18
7.6 State of a register.....	18
8 Register schema .....	19
8.1 Introduction .....	19
8.2 RE_Register.....	20
8.3 RE_RegisterOwner .....	22
8.4 RE_RegisterManager.....	23
8.5 RE_SubmittingOrganization .....	24
8.6 RE_ItemClass .....	25
8.7 RE_ReferenceSource .....	27
8.8 RE_RegisterItem .....	28
8.9 RE_ProposalManagementInformation.....	32
8.10 RE_AdditionInformation.....	34
8.11 RE_ClarificationInformation .....	35
8.12 RE_AmendmentInformation .....	35

8.13	RE_Reference .....	35
8.14	RE_SubregisterDescription .....	37
8.15	RE_AlternativeExpression .....	39
8.16	RE_AlternativeName .....	40
8.17	RE_Locale .....	40
8.18	RE_Version .....	41
8.19	RE_FieldOfApplication .....	42
8.20	RE_ItemStatus .....	42
8.21	RE_DecisionStatus .....	42
8.22	RE_Disposition .....	43
8.23	RE_AmendmentType .....	43
8.24	RE_SimilarityToSource .....	43
<b>Annex A (normative) Abstract test suite .....</b>		<b>44</b>
<b>Annex B (informative) UML Notation .....</b>		<b>47</b>
<b>Annex C (normative) Establishment of registers by ISO/TC 211 .....</b>		<b>52</b>
<b>Annex D (normative) Information to be included in proposals for item registration .....</b>		<b>55</b>
<b>Bibliography .....</b>		<b>57</b>

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

ISO 19135:2005

<https://standards.iteh.ai/catalog/standards/sist/8ee371c7-274a-4fe9-9a31-9533c385b2da/iso-19135-2005>

## 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 19135 was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics*.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO 19135:2005](https://standards.iteh.ai/catalog/standards/sist/8ee371c7-274a-4fe9-9a31-9533c385b2da/iso-19135-2005)

<https://standards.iteh.ai/catalog/standards/sist/8ee371c7-274a-4fe9-9a31-9533c385b2da/iso-19135-2005>

## Introduction

This International Standard specifies procedures for the registration of items of geographic information. ISO/IEC JTC 1 defines registration as the assignment of an unambiguous name to an object in a way that makes the assignment available to interested parties. Items of geographic information that may be registered are members of object classes specified in technical standards such as those developed by ISO/TC 211.

NOTE In this International Standard, the definition of registration has been changed so that registration is the assignment of linguistically independent identifiers, rather than names, to items of geographic information.

Registration of items of geographic information offers several benefits to the geographic information community. Registration:

- a) supports wider use of registered items both by providing international recognition to the fact that such items conform to an ISO International Standard and by making them publicly available to potential users;
- b) provides both immediate recognition to extensions of an International Standard and a source for updates to that International Standard during the regular maintenance cycle;
- c) may provide a single mechanism to access information concerning items that are specified in different standards;
- d) provides a mechanism for managing temporal change;

NOTE Items specified in a standard or in a register may change over time either due to changes in technology or for other reasons. Published standards do not clearly document what changes may have occurred, and do not include information about earlier versions of specified items. Such information can be maintained in a register

- e) may be used to make sets of standardized tags available for encoding of registered items in data sets; and
- f) supports cultural and linguistic adaptability by providing both a means for recording equivalent names of items used in different languages, cultures, application areas and professions, and a means for making those equivalent names publicly available.

This International Standard specifies procedures to be followed in preparing and maintaining registers of items of geographic information. Although any organization may choose to establish registers of items of geographic information that conform to this International Standard, this International Standard is intended particularly to apply to registers established under the auspices of ISO/TC 211.

A registration authority is an organization authorized by ISO to maintain a register. ISO discourages the proliferation of registers, but the maintenance of a single large register places a heavy burden on the registration authority. A goal of this International Standard is to achieve a balance between minimizing the number of registers for items of geographic information and minimizing the burden on the registration authorities.

# Geographic information — Procedures for item registration

## 1 Scope

This International Standard 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 International Standard specifies elements of information that are necessary to provide identification and meaning to the registered items and to manage the registration of these items.

## 2 Conformance

### 2.1 Introduction

To conform to this International Standard, a register of items of geographic information shall satisfy all of the conditions specified for one of the conformance classes described below.

### 2.2 General conformance

Any register that claims conformance to this International Standard shall satisfy all of the conditions specified in the abstract test suite for general conformance (Annex A.1).

### 2.3 Hierarchical registers

Any hierarchical register that claims conformance to this International Standard shall satisfy all of the conditions specified in the abstract test suite for general conformance (A.1) and shall, in addition, satisfy the conditions specified in the abstract test suite for hierarchical registers (A.2).

### 2.4 Registers established by ISO/TC 211

Any register established by ISO/TC 211 shall satisfy all of the conditions specified in the Abstract Test Suite for general conformance (A.1), and shall in addition satisfy all of the conditions specified in the abstract test suite for registers established by ISO/TC 211 (A.3).

## 3 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 639-2, *Codes for the representation of names of languages — Part 2: Alpha-3 code*

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes*

ISO/TS 19103:2005, *Geographic information — Conceptual schema language*

ISO 19115:2003, *Geographic information — Metadata*

## 4 Terms, definitions and abbreviations

### 4.1 Terms and definitions

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

#### 4.1.1

##### **clarification**

non-substantive change to a **register** item

NOTE A non-substantive change does not change the semantics or technical meaning of the item. Clarification does not result in a change to the registration status of the register item.

#### 4.1.2

##### **control body**

group of technical experts that makes decisions regarding the content of a **register**

#### 4.1.3

##### **geographic information**

information concerning phenomena implicitly or explicitly associated with a location relative to the Earth

[ISO 19101:2002]

#### 4.1.4

##### **hierarchical register**

structured set of **registers** for a domain of register items, composed of a **principal register** and a set of **subregisters**

EXAMPLE ISO 6523 is associated with a hierarchical register. The principal register contains organization identifier schemes and each subregister contains a set of organization identifiers that comply with a single organization identifier scheme.

<https://standards.iteh.ai/catalog/standards/sist/8ee371c7-274a-4fe9-9a31-9533c385b2da/iso-19135-2005>

#### 4.1.5

##### **identifier**

linguistically independent sequence of characters capable of uniquely and permanently identifying that with which it is associated

[adapted from ISO/IEC 11179-3:2003]

#### 4.1.6

##### **item class**

set of items with common properties

NOTE Class is used in this context to refer to a set of instances, not the concept abstracted from that set of instances.

#### 4.1.7

##### **locale**

cultural and linguistic setting applicable to the interpretation of a character string

#### 4.1.8

##### **principal register**

**register** that contains a description of each of the **subregisters** in a **hierarchical register**

#### 4.1.9

##### **register**

set of files containing **identifiers** assigned to items with descriptions of the associated items

NOTE Adapted from Annex E of the ISO/IEC JTC 1, *Procedures*.



**4.1.10****register manager**

organization to which management of a **register** has been delegated by the **register owner**

NOTE In the case of an ISO register, the register manager performs the functions of the registration authority specified in the ISO/IEC Directives.

**4.1.11****register owner**

organization that establishes a **register**

**4.1.12****registration**

assignment of a permanent, unique and unambiguous **identifier** to an item

NOTE Adapted from Annex E of the ISO/IEC JTC 1, *Procedures*.

**4.1.13****registry**

information system on which a **register** is maintained

[adapted from ISO/IEC 11179-3:2003]

**4.1.14****retirement**

declaration that a **register** item is no longer suitable for use in the production of new data

NOTE The status of the retired item changes from "valid" to "retired". A retired item is kept in the register to support the interpretation of data produced before its retirement.

**4.1.15****source reference**

reference to the source of an item that has been adopted from a source external to the **register**

ISO 19135:2005

<https://standards.iteh.ai/catalog/standards/sist/8ee371c7-274a-4fe9-9a31->

<https://standards.iteh.ai/catalog/standards/sist/8ee371c7-274a-4fe9-9a31->

**4.1.16****submitting organization**

organization authorized by a **register owner** to propose changes to the content of a **register**

**4.1.17****subregister**

part of a **hierarchical register** that contains items from a partition of a domain of information

**4.1.18****supersession**

replacement of a **register** item by one or more new items

NOTE The status of the replaced item changes from "valid" to "superseded".

**4.1.19****technical standard**

standard containing the definitions of **item classes** requiring **registration**

NOTE Adapted from Annex E of the ISO/IEC JTC 1, *Procedures*.

4.2 Abbreviations

- IEC International Electrotechnical Commission
- JTC 1 Joint Technical Committee 1
- NWIP New Work Item Proposal
- TC Technical Committee
- TMB Technical Management Board
- UML Unified Modeling Language

4.3 Notation

The conceptual schema specified in this International Standard is described using the Unified Modeling Language (UML) (ISO/IEC 19501), following the guidance of ISO/TS 19103:2005. UML notation is described in Annex B.

By convention within ISO/TC 211, names of UML classes, with the exception of basic data type classes, include a two-letter prefix that identifies the standard and the UML package in which the class is specified. UML classes specified in this International Standard have the two letter prefix of "RE". Several model elements used in this schema are specified in packages specified in ISO 19115:2003, as shown in Table 1.

iTeh STANDARD PREVIEW

Table 1 — UML packages from ISO 19115:2003

Prefix	Package
CI	Citation
EX	Extent
MD	Metadata

5 Roles and responsibilities in the management of registers

5.1 Introduction

Several organizations play a role in the management of a register (Figure 1). The roles and their relationships are illustrated as a conceptual model using UML notation. This model is not intended to be implemented in software and data, but as a set of organizations and the interactions between them.

NOTE Although they are not organizations, register and registry are included in Figure 1 because they are the basis of the roles played by the organizations included.

5.2 Register owner

A register owner is an organization that:

- a) has established one or more registers; and
- b) has primary responsibility for the management, dissemination and intellectual content of those registers.

A register owner may serve as the register manager for any register that it has established, or it may appoint another organization to serve as the register manager (5.3). A register owner shall specify the criteria that determine which organizations may act as submitting organizations (5.4) to propose changes to the content of

the register. A register owner may serve as the control body (5.5) for any register that it has established, or it may delegate that role to a subgroup within the organization or to the register manager that it has appointed to manage that register. The register owner shall establish a procedure to process appeals by submitting organizations of decisions made by the control body of a register. The specification of this procedure shall include appropriate time limits for completion of the process.

The register owner shall specify the time interval for reports from the register manager that describe the proposals received and the decisions taken since the last report. The register owner shall set terms and conditions for making the contents of the register available to the public.

In the case of a hierarchical register (7.1.4), the register owner shall coordinate the establishment of subregisters by other organizations.

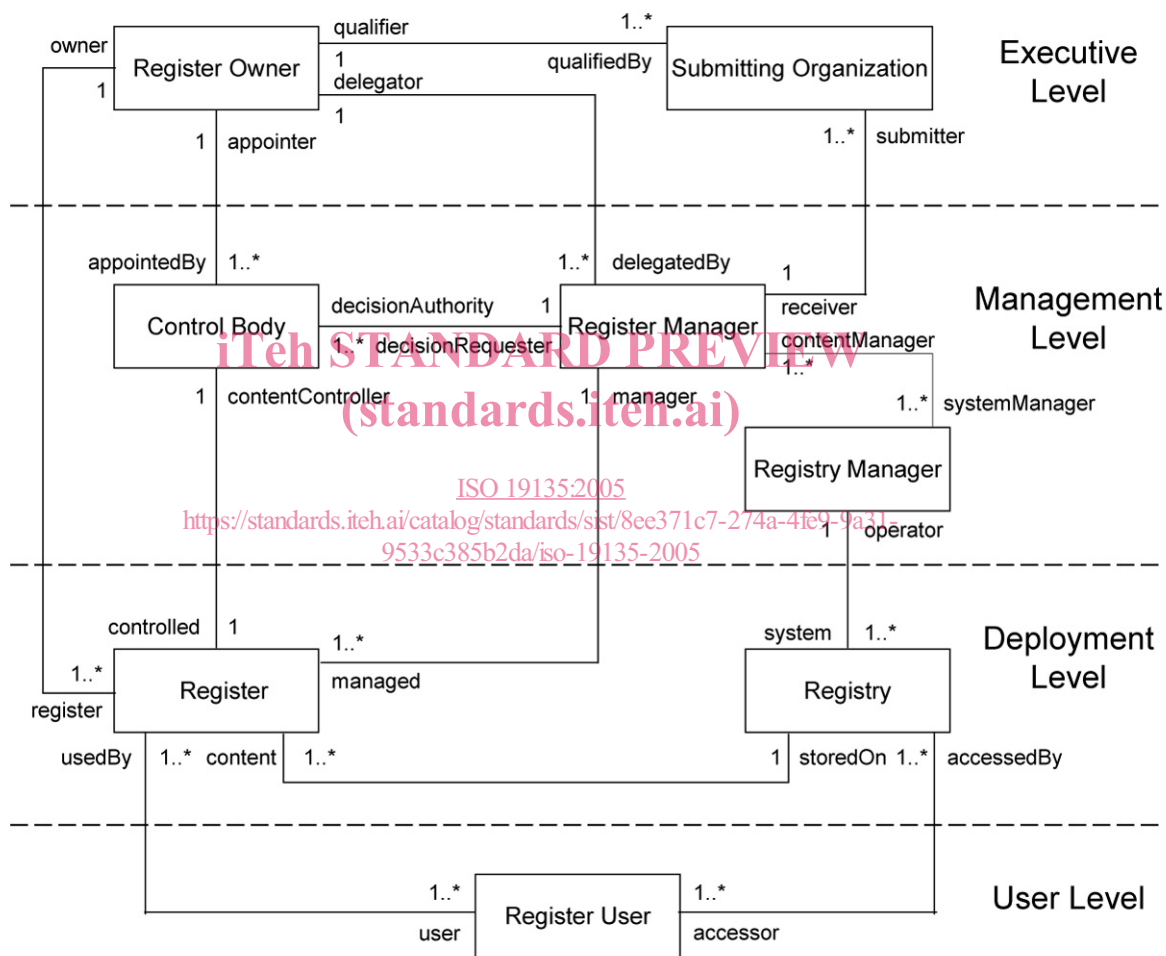


Figure 1 — Organizational relationships

## 5.3 Register manager

### 5.3.1 Appointment of a register manager

A register owner may delegate the role of register manager to another organization. This is the usual case for registers established by ISO or IEC Technical Committees.

### 5.3.2 Responsibilities of a register manager

A register manager shall manage a register of items within the item classes for which it is responsible in conformance with Clause 6. A register manager may manage multiple registers. A register manager may own and operate the registry that holds a register that it manages, or it may delegate operation of the registry to a registry manager (5.6). Upon request, the register manager shall distribute an information package containing a description of the register and how to submit proposals for changes to the content of the register. The register manager shall accept proposals from submitting organizations and manage the proposals as specified in 6.2. The register manager shall pass proposals to the control body (5.5) for decisions as to acceptability, and shall serve as the point of contact between the control body and the submitting organization for negotiations regarding changes to the proposal. The register manager shall provide reports to the register owner at intervals specified by the register owner. Each report shall describe the proposals received and the decisions taken since the last report. The contents of the register shall be available to the public under the terms and conditions set by the register owner.

## 5.4 Submitting organizations

### 5.4.1 Eligible submitting organizations

A submitting organization is an organization that is qualified under criteria determined by the register owner to propose changes to the content of a register. The register manager shall determine whether a submitting organization is qualified in accordance with the criteria established by the register owner. A potential submitting organization may appeal the determination to the register owner.

### 5.4.2 Responsibilities of submitting organizations

Submitting organizations shall manage the submission of proposals to the register manager or appeals to the register owner that are initiated from within their respective countries or organizations as specified in 6.2.

## 5.5 Control body

A control body is a group of technical experts appointed by a register owner to decide on the acceptability of proposals for changes to the content of a register (6.2.7). The control body shall accept proposals from the register manager and render a decision regarding each proposal within the time limits specified by the register owner.

## 5.6 Registry manager

A registry manager is a person or an organization responsible for the day-to-day management of a registry. A registry manager may engage a third-party service provider to perform this service. A registry manager shall ensure the integrity of any register held in the registry (6.5), and shall provide means for electronic access to the registry (6.4) for register managers, control bodies and register users.

## 5.7 Register user

Register users access a registry in order to use one or more of the registers held in that register. Register users include any person or organization interested in accessing or influencing the content of a register. Users have a variety of registration requirements:

- Developers of standards and specifications want to re-use items specified in a register;

- Data producers want to use in their products items specified in a register;
- Data users want to understand the meaning of register items used by a data producer; and
- System developers want to provide a capability to use register items in data production, interchange or consumption.

A register owner may set terms and conditions for different levels of access to the register to satisfy the requirements of different categories of users.

Register users vary in the frequency of access they need, from the occasional data user who may need to determine the meaning of a register item on a very infrequent basis, to the data producer who may need to use values from a register many times a day. Register managers shall consider the requirements of different categories of users in selecting methods for publishing the content of a register (6.4).

## 6 Management of registers

### 6.1 Establishment of registers

Any organization may establish a register. A register established by an ISO Technical Committee (TC) or Subcommittee is an ISO register. Although this International Standard is intended primarily for registers established by ISO/TC 211, other ISO or IEC Technical Committees may choose to establish registers that conform to this International Standard. Organizations other than ISO or IEC Technical Committees or Subcommittees may also choose to establish registers that conform to this International Standard. In establishing registers, ISO Technical Committees are required to follow the general rules specified in the ISO/IEC Directives, but may develop detailed rules and procedures to satisfy their own requirements.

The ISO/IEC Directives require a TC, when it is developing an International Standard that may require registration, to inform the Chief Executive Officer at an early stage in order to permit any necessary negotiations and allow the ISO/TMB or IEC Council Board to take a decision in advance of the publication of the International Standard. The ISO/IEC JTC 1 Procedures specify the rules for the establishment of JTC 1 registers. Annex C of this International Standard specifies the rules and procedures for the establishment and management of registers by ISO/TC 211. Other organizations may specify their own rules and procedures for establishing registers.

Every register requires a technical standard that specifies the classes of items to be registered. To establish a register that conforms to this International Standard, an organization shall:

- a) be the organization that produced the technical standard that specifies the item classes to be held in the register; or
- b) have the approval of that organization.

### 6.2 Processing of proposals

#### 6.2.1 Introduction

Submitting organizations may submit requests to add items to a register, to modify items in a register, or to retire items in a register. Modifications are of two kinds: simple clarifications that cause no substantive change to an item (6.2.3), and substantive changes that are handled through a supersession process (6.2.4). The control body shall determine whether a proposed modification is to be handled as a clarification or supersession.

#### 6.2.2 Addition

Addition is the insertion into a register of an item that describes a concept not described by an item already in the register.

### 6.2.3 Clarification

Clarifications correct errors in spelling, punctuation or grammar. A clarification shall not cause any substantive semantic or technical change to a registered item.

### 6.2.4 Supersession

Modification of a registered item that results in substantive semantic or technical change shall be accomplished by including a new item in the register with a new identifier and the date on which it superseded the original item (8.9.6). The original item shall remain in the register but shall include the date at which it was superseded, and a reference to the item that superseded it.

### 6.2.5 Retirement

Submitting organizations may submit requests for retirement of registered items that are no longer useful for producing data. Retirement shall be accomplished by leaving the item in the register, marking it retired, and including the date on which it was retired (8.9.6).

### 6.2.6 Submission of proposals

**6.2.6.1** The process for submitting proposals for registration of items of geographic information is illustrated in Figure 2.

**6.2.6.2** Submitting organizations shall:

- a) receive proposals for the registration of items that are initiated from within their respective countries or organizations;
- b) ensure that all proposals are complete (6.6);
- c) coordinate proposals with other submitting organizations, if desired;
- d) forward to the appropriate register manager those proposals that have the support of the submitting organization; and
- e) explain proposals to the register manager or register owner, if necessary.

**6.2.6.3** The register manager shall:

- a) receive proposals from qualified submitting organizations;
- b) review proposals for completeness, and return proposals to the submitting organization if the proposal is incomplete or if the submitting organization is not qualified;
- c) generate a proposal management record (8.9), with the *status* (8.9.4) set to “pending”; and
- d) initiate the approval process (6.2.7).

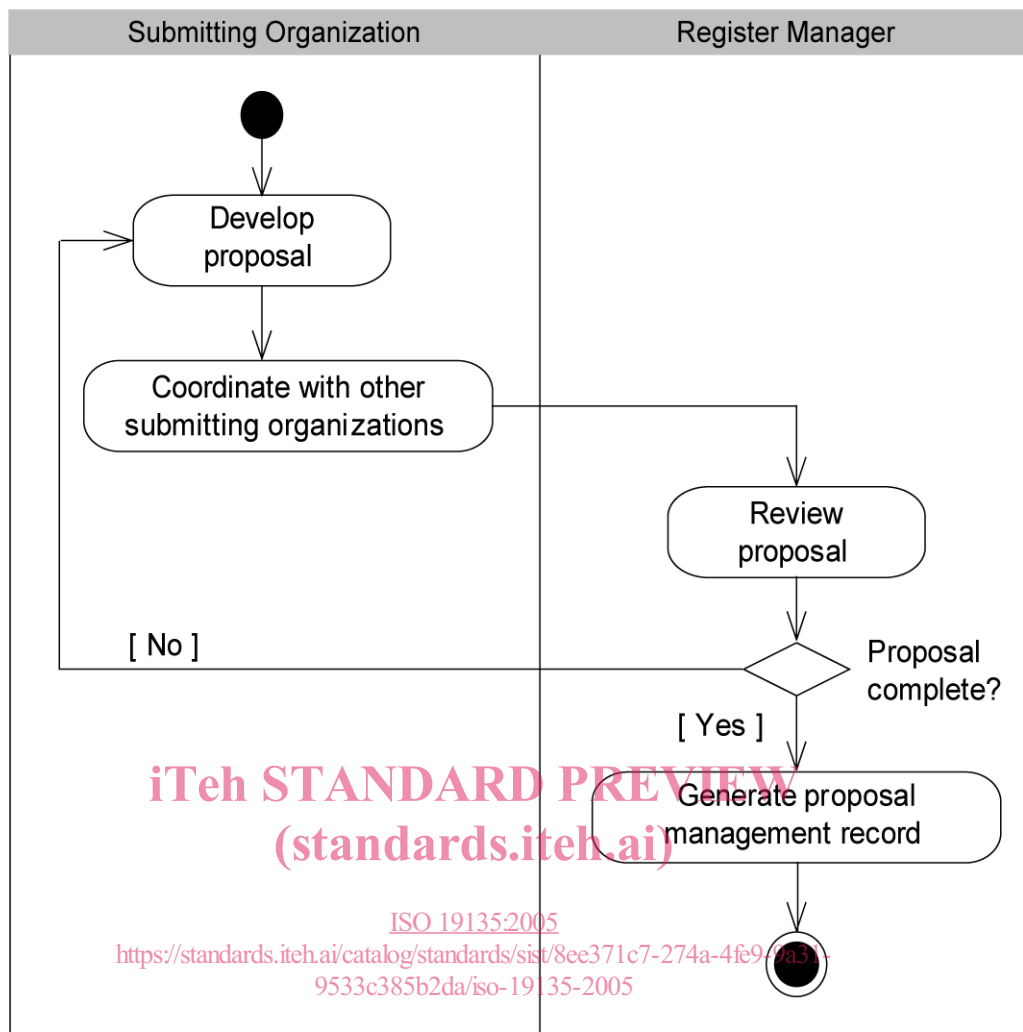


Figure 2 — Submission of proposals for registration