



SLOVENSKI STANDARD
SIST EN ISO 19110:2006/A1:2011
01-september-2011

Geografske informacije - Metodologija za objektne kataloge - Dopolnilo 1 (ISO 19110:2005/AMD 1:2011)

Geographic information - Methodology for feature cataloguing - Amendment 1 (ISO 19110:2005/AMD 1:2011)

Geoinformation - Objektartenkataloge - Änderung 1 (ISO 19110:2005/AMD 1:2011)

Information géographique - Méthodologie de catalogage des entités - Amendement 1 (ISO 19110:2005/AMD 1:2011)

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ICS:

07.040	Astronomija. Geodezija. Geografija	Astronomy. Geodesy. Geography
35.240.70	Uporabniške rešitve IT v znanosti	IT applications in science

SIST EN ISO 19110:2006/A1:2011 **en**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 19110:2006/A1

June 2011

ICS 35.240.70

English Version

Geographic information - Methodology for feature cataloguing - Amendment 1 (ISO 19110:2005/AMD 1:2011)

Information géographique - Méthodologie de catalogage
des entités - Amendement 1 (ISO 19110:2005/AMD
1:2011)

Geoinformation - Objektartenkataloge - Änderung 1 (ISO
19110:2005/AMD 1:2011)

This amendment A1 modifies the European Standard EN ISO 19110:2006; it was approved by CEN on 14 June 2011.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Foreword

This document (EN ISO 19110:2006/A1:2011) has been prepared by Technical Committee ISO/TC 211 "Geographic information/Geomatics" in collaboration with Technical Committee CEN/TC 287 "Geographic Information" the secretariat of which is held by BSI.

This Amendment to the European Standard EN ISO 19110:2006 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2011, and conflicting national standards shall be withdrawn at the latest by December 2011.

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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The text of ISO 19110:2005/A1:2011 has been approved by CEN as a EN ISO 19110:2006/A1:2011 without any modification.

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INTERNATIONAL STANDARD

ISO 19110

First edition
2005-02-15

AMENDMENT 1
2011-06-15

Geographic information — Methodology for feature cataloguing

AMENDMENT 1

Information géographique — Méthodologie de catalogage des entités

AMENDEMENT 1

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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.

Amendment 1 to ISO 19110:2005 was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics*.

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ISO 19110:2005/Amd.1:2011(E)**Introduction**

This amendment is based on experience in implementing ISO 19110:2005, experience and lessons learned by the ISO 19126 project team, harmonization with other ISO/TC 211 standards, and in particular establishment of an eXtensible Mark-up Language (XML) schema encoding for feature catalogues. This amendment provides XML schemas that are meant to enhance interoperability by providing a common specification for describing, validating, and exchanging feature catalogue information.

The changes in this amendment aim to:

- facilitate the use of ISO 19110:2005 to create geographic feature catalogues;
- ensure a consistent description of the feature types of an application schema;
- enhance the compliance of ISO 19110:2005 with ISO 19109;
- enable an XML schema implementation, based on ISO/TS 19139 encoding rules, of ISO 19110:2005-compliant feature catalogues;
- enable the registration of feature catalogues and their feature types.

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Geographic information — Methodology for feature cataloguing

AMENDMENT 1

Page 1, Scope

Replace the entire clause with the following:

This International Standard defines the methodology for cataloguing feature types. This International Standard specifies how feature types can be organized into a feature catalogue and presented to the users of a set of geographic data. This International Standard is applicable to creating catalogues of feature types in previously uncatalogued domains and to revising existing feature catalogues to comply with standard practice. This International Standard applies to the cataloguing of feature types that are represented in digital form. Its principles can be extended to the cataloguing of other forms of geographic data. Feature catalogues are independent of feature concept dictionaries defined in ISO 19126 and can be specified without having to use or create a feature concept dictionary.

This International Standard is applicable to the definition of geographic features at the type level. This International Standard is not applicable to the representation of individual instances of each type. This International Standard excludes portrayal schemas as specified in ISO 19117.

This International Standard can be used as a basis for defining the universe of discourse being modelled in a particular application, or to standardize general aspects of real world features being modelled in more than one application.

Page 1, Conformance

Replace the entire clause with the following:

Because this International Standard specifies a number of options that are not required for all feature catalogues, this clause specifies five conformance classes. These classes are differentiated on the basis of the following criteria.

- a) Which elements of a feature type are required in a catalogue:
 - 1) feature attributes only?
 - 2) feature attributes and feature associations?
 - 3) feature attributes, feature associations, and feature operations?
- b) Is there a requirement for defining global feature attributes, feature associations, and feature operations which may be bound to multiple feature types?
- c) Is there a requirement to include inheritance relationships in the feature catalogue?

Annex A specifies a test module for each of the conformance classes, as shown in Table 1.

Table 1 — Conformance classes

Attributes only	Attributes and associations	Attributes, associations and operations	Global properties	Inheritance relationships included	Test module
×	—	—	—	—	A.17
—	×	—	—	—	A.18
—	—	×	—	—	A.19
—	—	—	×	—	A.22
×	—	—	—	×	A.23
—	×	—	—	×	A.24
—	—	×	—	×	A.25

NOTE The initial test module numbers are kept, even if some of the test modules are removed. The numbering can be subject to change on publication of any new edition of this International Standard.

Page 2, Normative references

Update the entries for ISO/TS 19103:— and ISO 19109:—, delete footnote 1), and add ISO 19135:2005 and ISO/TS 19139:2007:

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

ISO 19109:2005, *Geographic information — Rules for application schema*

ISO 19135:2005, *Geographic information — Procedures for item registration*

ISO/TS 19139:2007, *Geographic information — Metadata — XML schema implementation*

Page 3, Terms and definitions

Replace entry 4.4 with the following:

feature catalogue

catalogue containing definitions and descriptions of the **feature** (4.1) types, **feature attributes** (4.3), and **feature relationships** (4.8) occurring in one or more sets of geographic data, together with any **feature operations** (4.5) that may be applied

[ISO 19101:2002, definition 4.13]

Add the following terms and definitions:

4.7

feature inheritance

mechanism by which more specific **features** (4.1) incorporate structure and behaviour of more general features related by behaviour

4.8

feature relationship

feature association (4.2) or **feature inheritance** (4.7)

Page 3, Abbreviations

Add the following heading under "5 Abbreviations"

5.1 Acronyms

Add the following after the new 5.1:

5.2 Namespace abbreviations

In the list below, the item on the left describes the common namespace prefix used to describe the elements in the namespace. The second item is an English description of the namespace prefix, and the item in parenthesis is the URI of the actual namespace. These URIs do not correspond necessarily to an effective location of the schemas.

This list corresponds to the namespaces used by this International Standard.

gco	Geographic Common extensible markup language	(http://www.isotc211.org/2005/gco)
gfc	Geographic Feature Cataloguing	(http://www.isotc211.org/2005/gfc .)
gmd	Geographic MetaData extensible markup language	(http://www.isotc211.org/2005/gmd)
gmx	Geographic Metadata XML Schema	(http://www.isotc211.org/2005/gmx)

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Page 4, 6.1

Replace the text in 6.1 with the following:

A feature catalogue shall present the abstraction of reality represented in one or more sets of geographic data. The basic level of abstraction in a feature catalogue shall be the feature type. A feature catalogue shall be available in electronic form for any set of geographic data that contains features. A feature catalogue may also comply with the specifications of this International Standard independently of any existing set of geographic data.

Page 4, 6.2.1

Add the following text at the end of 6.2.1:

Annex E specifies XML encoding for feature catalogue, Annex F specifies concepts that permit the management of feature catalogue either in a multi-part register or in a hierarchical register containing multi-part subregisters, in accordance with ISO 19135. Annex G provides an example of XML implementation of this International Standard.

Page 4, 6.2.2

Replace the first sentence of 6.2.2 with the following:

A template for the representation of feature catalogues is specified in Annex B.

ISO 19110:2005/Amd.1:2011(E)*Page 4, 6.2.3.1*

Replace the text in 6.2.3.1 with the following:

All feature types and feature properties (i.e. feature attributes, feature associations, association roles, and feature operations) included in a feature catalogue shall be identified by a name. The name of a feature type is unique within that feature catalogue. The name of a feature property (whether the feature property is a global property bound to the feature type or is local to the feature type) is unique within its feature type. The name of a global feature property is unique within that feature catalogue.

Page 6, A.1

In the 2nd and 3rd paragraph, replace “Tables B.1 through B.15” with “Tables B.1 through B.16”.

Page 7, A.3

Replace bullet 2) with the following:

- 2) that all feature types, all feature association and all global feature properties (feature role, feature attribute or feature operation not directly owned by a feature type) are identified by a name that is unique within the feature catalogue,

Add the following bullet point after 6):

- 7) that all carriers of characteristics of a feature type are identified by a name that is unique in the context of that feature type.

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Page 8, A.7

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Replace bullet b), with the following [deleting 1) and 2)]:

- b) test method: test each attribute and role listed in Table B.5 (and Table B.4) by verifying that for each the specified description, obligation/condition, maximum occurrence, type, and constraint are satisfied;

Page 9, A.10

Replace bullet b) with the following:

- b) test method: test each attribute and role listed in Table B.8 and Table B.4 by verifying that for each the specified description, obligation/condition, maximum occurrence, type, and constraint are satisfied;

Page 10, A.11

Delete bullet 2).

Page 12, A.19

Replace bullet b) with the following [deleting 1), 2) and 3)]:

- b) test method: perform test module A.18 and test case A.7 (feature operation);

Page 13, A.22

Replace the text in A.22 with the following:

Information for the test module is as follows:

- a) test purpose: verify that feature catalogue supports core representation functionality, comprised of feature types, and feature properties (i.e. feature attributes, association roles, and feature operations) either directly owned by a single feature type or globally defined in the feature catalogue;
- b) test method: perform test module A.8, A.16 and A.18;
- c) reference: A.8, A.16 and A.18;
- d) test type: capability.

Page 16, Annex B

In the first paragraph, replace “Tables B.1 through B.15” with “Tables B.1 through B.16”.

In the second paragraph, replace “Figure B.1” with “Figure B.1 a), b), and c)”.

In the last line, delete “ISO 19109:—1)” and insert “ISO 19109:2005”.

Page 17, Annex B

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