SLOVENSKI STANDARD
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Nadomešča:
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Geografske informacije - Slovarji in registri konceptov o pojavih (ISO 19126:2009)

Geographic information - Feature concept dictionaries and registers (ISO 19126:2009)

Geoinformation - Verzeichnisse und Register für Featurekontepte (ISO 19126:2009)

Information géographique - Dictionnaires de concepts de caractéristiques et registres (ISO 19126:2009)

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EUROPEAN STANDARD

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English Version

Geographic information - Feature concept dictionaries and registers (ISO 19126:2009)

Information géographique - Dictionnaires de concepts de caractéristiques et registres (ISO 19126:2009)

Geoinformation - Verzeichnisse und Register für Featurekontepte (ISO 19126:2009)

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Foreword

This document (EN ISO 19126:2009) 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 NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.

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Endorsement notice

The text of ISO 19126:2009 has been approved by CEN as a EN ISO 19126:2009 without any modification.

INTERNATIONAL STANDARD

ISO 19126

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Geographic information — Feature concept dictionaries and registers

Information géographique — Dictionnaires de concepts de caractéristiques et registres

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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.

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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.

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ISO 19126 was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics*.

Introduction

This International Standard specifies a schema for geographic feature concept dictionaries managed as registers. As described in ISO 19101, geographic features are abstractions of real world phenomena associated with a location relative to the surface of the earth, about which data are collected, maintained and disseminated.

A feature concept dictionary provides basic definitions and related information about a set of concepts that may be used to describe geographic features and shared across multiple application areas. Elements from a feature concept dictionary may be reused in one or more feature catalogues. A feature catalogue is often associated with a particular application schema, product specification and data set. It provides a complete textual specification of a set of feature types and their properties and relationships. See Annex A for further discussion of the relationships between feature concept dictionaries, feature catalogues, application schemas and product specifications.

ISO 19135 specifies procedures for the registration of items of geographic information. 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. This International Standard defines object classes and specifies rules used to establish and maintain feature concept dictionaries as ISO 19135 conformant register schemas.

ISO 19135 specifies the structure of a hierarchical register in which the principal register holds a set of items that describe the subregisters. This International Standard specifies a schema for a hierarchical register where the subregisters are feature concept dictionaries and/or feature catalogues. This International Standard specifies an accompanying schema. The resulting hierarchical register may be used as a basis for harmonization and the establishment of interoperability between different geographic information communities.

Feature concept dictionaries and feature catalogues maintained as registers may serve as sources of reference for similar registers established by other geographic information communities as part of a system of cross-referencing. Cross-referencing between respective items in registers of items of geographic information may be difficult in cases where the structure of registers differs between information communities. This International Standard may serve as a guide for different information communities to develop compatible registers that can support a system of geographic information cross-referencing.

The Digital Geographic Information Working Group (DGIWG) community feature concept dictionary and register is described as an example implementation of this International Standard.

Geographic information — Feature concept dictionaries and registers

1 Scope

This International Standard specifies a schema for feature concept dictionaries to be established and managed as registers. It does not specify schemas for feature catalogues or for the management of feature catalogues as registers. However, because feature catalogue are often derived from feature concept dictionaries, this International Standard does specify a schema for a hierarchical register of feature concept dictionaries and feature catalogues. These registers are in accordance with ISO 19135.

2 Conformance

2.1 Introduction

To conform to this International Standard, all of the conditions specified for at least one of the two conformance classes described below shall be satisfied.

2.2 Conformance for a feature concept dictionary

Any feature concept dictionary that claims conformance to this International Standard shall satisfy all of the conditions specified in the following abstract test suites:

a) ISO 19135, A.1, for general conformance to ISO 19135, and

b) B.2 of this International Standard.

A feature concept dictionary register established by ISO/TC 211 shall in addition satisfy all of the conditions specified in the ISO 19135 abstract test suite for registers established by ISO/TC 211 (ISO 19135, A.3).

2.3 Conformance for a register of feature concept dictionaries and/or feature catalogues

Any register of feature concept dictionaries and/or feature catalogues that claims conformance to this International Standard shall satisfy all of the conditions specified in the following abstract test suites:

a) ISO 19135, A.1, for general conformance to ISO 19135,

b) ISO 19135, A.2 for conformance to ISO 19135 as a hierarchical register, and

c) B.3 of this International Standard.

A register of feature concept dictionaries and/or feature catalogues established by ISO/TC 211 shall in addition satisfy all of the conditions specified in the ISO 19135 abstract test suite for registers established by ISO/TC 211 (ISO 19135, 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/TS 19103:2005, *Geographic information — Conceptual schema language*

ISO 19110:2005, *Geographic information — Methodology for feature cataloguing*

ISO 19115:2003, *Geographic information — Metadata*

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

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
compound registry
registry containing multiple **registers** that share the same **item classes** and coordinated management of a common characteristic

NOTE The common characteristic may be a shared namespace for the assignment of names and/or codes.

4.1.2
data product
dataset or dataset series that conforms to a **data product specification**

[ISO 19131:2007, definition 4.6]

4.1.3
data product specification
detailed description of a dataset or dataset series together with additional information that will enable it to be created, supplied to and used by another party

[ISO 19131:2007, definition 4.7]

4.1.4
data type
specification of a **value domain** with operations allowed on values in this domain

[ISO/TS 19103:2005, definition 4.1.5]

4.1.5
feature
abstraction of real world phenomena

[ISO 19101:2002, definition 4.11]

EXAMPLE The phenomenon named “Eiffel Tower” may be classified with other similar phenomena into a feature type named “tower”.

NOTE 1 A feature may occur as a type or an instance. In this International Standard, feature type is meant unless otherwise specified.

NOTE 2 This International Standard does not address real world phenomena directly; it addresses only their abstractions (feature concepts and feature types) and feature instances (data collected to represent a feature in conformance with a specified feature type).

4.1.6
feature association
relationship that links instances of one **feature** type with instances of the same or a different feature type

[ISO 19110:2005, definition 4.2]

NOTE A feature association may occur as a type or an instance. In this International Standard, feature association type is meant unless otherwise specified.

4.1.7
feature association concept
concept that may be specified in detail as one or more **feature association** types

EXAMPLE A "supports" feature association concept describes a relationship between real world phenomena such as "highways" and "bridges" where the role of one **feature** is that it is *supported-by* the other feature (whose role is *supporter-of*).

4.1.8
feature attribute
characteristic of a **feature**

[ISO 19101:2002, definition 4.12]

EXAMPLE 1 A feature attribute named "colour" may have an attribute value "green" which belongs to the **data type** "text".

EXAMPLE 2 A feature attribute named "length" may have an attribute value "82,4" which belongs to the **data type** "real".

NOTE 1 A feature attribute may occur as a type or an instance. In this International Standard, feature attribute type is meant unless otherwise specified.

NOTE 2 A feature attribute has a name, a data type and a **value domain** associated to it. A feature attribute for a feature instance also has an attribute value taken from the value domain.

4.1.9
feature attribute concept
concept that may be specified in detail as one or more **feature attribute** types

EXAMPLE A "height" feature attribute concept describes length in the vertical direction as a characteristic that may be shared by real world phenomena such as "human", "tree" and "building."

4.1.10
feature catalogue
catalogue containing definitions and descriptions of the **feature** types, **feature attributes** and feature relationships occurring in one or more sets of geographic data, together with any **feature operations** that may be applied

[ISO 19101:2002, definition 4.13]

4.1.11
feature concept
concept that may be specified in detail as one or more **feature** types

EXAMPLE The feature concept "road" may be used to specify several different feature types, each with a different set of properties appropriate for a particular application. For a travel planning application, it might have a limited set of attributes such as name, route number, location and number of lanes, while for a maintenance application it might have an extensive set of attributes detailing the structure and composition of each of the layers of material for which it is composed.

4.1.12
feature concept dictionary
dictionary that contains definitions of, and related descriptive information about, concepts that may be specified in detail in a **feature catalogue**