



SLOVENSKI STANDARD

SIST EN ISO 19112:2005

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Geografske informacije – Lociranje z geografskimi identifikatorji (ISO 19112:2003)

Geographic information - Spatial referencing by geographic identifiers (ISO 19112:2003)

Geoinformation - Raumbezug mit (geographischen) Identifikatoren (ISO 19112:2003)

Information géographique - Système de références spatiales par identificateurs géographiques (ISO 19112:2003)

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 19112

January 2005

ICS 35.240.70

English version

**Geographic information - Spatial referencing by geographic
identifiers (ISO 19112:2003)**

Information géographique - Système de références
spatiales par identificateurs géographiques (ISO
19112:2003)

Geoinformation - Raumbezug mit (geographischen)
Identifikatoren (ISO 19112:2003)

This European Standard was approved by CEN on 24 December 2004.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

EN ISO 19112:2005 (E)

Foreword

The text of ISO 19112:2003 has been prepared by Technical Committee ISO/TC 211 "Geographic information/Geomatics" of the International Organization for Standardization (ISO) and has been taken over as prEN ISO 19112:2005 by 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 July 2005, and conflicting national standards shall be withdrawn at the latest by July 2005.

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

Endorsement notice

The text of ISO 19112:2003 has been approved by CEN as EN ISO 19112:2005 without any modifications.

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INTERNATIONAL STANDARD

**ISO
19112**

First edition
2003-10-15

Geographic information — Spatial referencing by geographic identifiers

*Information géographique — Système de références spatiales par
identificateurs géographiques*

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Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Conformance	1
3 Normative references	1
4 Terms and definitions	2
5 Notation	2
5.1 Unified Modelling Language (UML)	2
5.2 Attribute tables	4
6 Concepts of spatial referencing using geographic identifiers	4
6.1 Spatial referencing using geographic identifiers	4
6.2 Spatial reference systems using geographic identifiers	5
6.3 Gazetteers	5
7 Requirements for spatial reference systems using geographic identifiers	6
7.1 Attributes of a spatial reference system using geographic identifiers	6
7.2 Attributes of a location type	7
8 Requirements for gazetteers	9
8.1 Properties of a gazetteer	9
8.2 Attributes of location instance	10
Annex A (normative) Abstract test suites	13
Annex B (informative) Example spatial reference system using geographic identifiers	15
Annex C (informative) Examples of gazetteer data	16
Bibliography	19

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 19112 was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics*.

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Introduction

Geographic information contains geospatial references that relate the features and information represented in the data or text to positions in geographic space. Spatial references fall into two categories:

- a) those using coordinates;
- b) those using geographic identifiers.

This International Standard deals only with spatial referencing by geographic identifiers. This type of spatial reference is sometimes called “indirect”. Spatial referencing by coordinates is the subject of ISO 19111.

Spatial reference systems using geographic identifiers are not based explicitly on coordinates but on a relationship with a location defined by a geographic feature or features. The relationship of the position to the feature may be as follows:

- a) containment, where the position is within the geographic feature, for example in a country;
- b) based on local measurements, where the position is defined relative to a fixed point or points in the geographic feature or features, for example at a given distance along a street from a junction with another street;
- c) loosely related, where the position has a fuzzy relationship with the geographic feature or features, for example adjacent to a building or between two buildings.

The purpose of this International Standard is to specify ways to define and describe systems of spatial references using geographic identifiers. However, it only covers the definition and recording of the referencing feature, and does not consider the forms of the relationship of the position relative to that feature.

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Geographic information — Spatial referencing by geographic identifiers

1 Scope

This International Standard defines the conceptual schema for spatial references based on geographic identifiers. It establishes a general model for spatial referencing using geographic identifiers, defines the components of a spatial reference system and defines the essential components of a gazetteer.

Spatial referencing by coordinates is addressed in ISO 19111. However, a mechanism for recording complementary coordinate references is included.

This International Standard enables producers of data to define spatial reference systems using geographic identifiers and assists users in understanding the spatial references used in datasets. It enables gazetteers to be constructed in a consistent manner and supports the development of other standards in the field of geographic information.

This International Standard is applicable to digital geographic data, and its principles may be extended to other forms of geographic data such as maps, charts and textual documents.

2 Conformance

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Two classes of conformance are defined for this International Standard:

- any spatial reference system for which conformance with this document is claimed shall pass all the requirements described in the abstract test suite given in Clause A.1.
- any gazetteer for which conformance with this document is claimed shall pass all the requirements described in the abstract test suite given in Clause A.2.

The definition of an abstract test suite is given in ISO 19105.

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 19105:2000, *Geographic information — Conformance and testing*

ISO 19107:2003, *Geographic information — Spatial schema*

ISO 19111:2003, *Geographic information — Spatial referencing by coordinates*

ISO 19115:2003, *Geographic information — Metadata*