



SLOVENSKI STANDARD SIST EN ISO 19113:2005

01-april-2005

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Geographic information - Quality principles (ISO 19113:2002)

Geoinformation - Qualitätsgrundsätze (ISO 19113:2002)

Information géographique - Principes qualité (ISO 19113:2002)

Ta slovenski standard je istoveten z: **EN ISO 19113:2005**

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ICS:

03.120.99	Drugi standardi v zvezi s kakovostjo	Other standards related to quality
07.040	Astronomija. Geodezija. Geografija	Astronomy. Geodesy. Geography
35.240.70	Uporabniške rešitve IT v znanosti	IT applications in science

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 19113

January 2005

ICS 35.240.70

English version

Geographic information - Quality principles (ISO 19113:2002)

Information géographique - Principes qualité (ISO
19113:2002)

Geoinformation - Qualitätsgrundsätze (ISO 19113:2002)

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 19113:2005 (E)**Foreword**

The text of ISO 19113:2002 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 EN ISO 19113:2005 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 19113:2002 has been approved by CEN as EN ISO 19113:2005 without any modifications.

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INTERNATIONAL
STANDARD

ISO
19113

First edition
2002-12-01

**Geographic information — Quality
principles**

Information géographique — Principes qualité

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Reference number
ISO 19113:2002(E)

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ISO 19113:2002(E)**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 19113 was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics*.

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Introduction

Geographic datasets are increasingly being shared, interchanged and used for purposes other than their producers' intended ones. Information about the quality of available geographic datasets is vital to the process of selecting a dataset in that the value of data is directly related to its quality. Data users confront situations requiring different levels of data quality. Extremely accurate data is required by some data users for certain needs and less accurate data are sufficient for other needs. Information about the quality of geographic data is becoming a decisive factor for its utilization as technological advances allow the collection and use of geographic datasets whose quality can exceed that which is needed and requested by data users.

The purpose of describing the quality of geographic data is to facilitate the selection of the geographic dataset best suited to application needs or requirements. Complete descriptions of the quality of a dataset will encourage the sharing, interchange and use of appropriate geographic datasets. A geographic dataset can be viewed as a commodity or product. Information on the quality of geographic data allows a data producer or vendor to validate how well a dataset meets the criteria set forth in its product specification and assists a data user in determining a product's ability to satisfy the requirements for their particular application.

The objective of this International Standard is to provide principles for describing the quality for geographic data and concepts for handling quality information for geographic data.

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Geographic information — Quality principles

1 Scope

This International Standard establishes the principles for describing the quality of geographic data and specifies components for reporting quality information. It also provides an approach to organizing information about data quality.

This International Standard is applicable to data producers providing quality information to describe and assess how well a dataset meets its mapping of the universe of discourse as specified in the product specification, formal or implied, and to data users attempting to determine whether or not specific geographic data is of sufficient quality for their particular application. This International Standard should be considered by organizations involved in data acquisition and purchase, in such a way that it makes it possible to fulfil the intentions of the product specification. It can additionally be used for defining application schemas and describing quality requirements.

As well as being applicable to digital geographic data, the principles of this International Standard can be extended to identify, collect and report the quality information for a geographic dataset, its principles can be extended and used to identify, collect and report quality information for a dataset series or smaller groupings of data that are a subset of a dataset.

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

This International Standard does not attempt to define a minimum acceptable level of quality for geographic data.

2 Conformance

Any product claiming conformance with this International Standard shall pass all the requirements described in the abstract test suite presented in Annex A.

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 19108:2002, *Geographic information — Temporal schema*

ISO 19109:—¹⁾, *Geographic information — Rules for application schema*

ISO 19114:—¹⁾, *Geographic information — Quality evaluation procedures*

ISO 19115:—¹⁾, *Geographic information — Metadata*

1) To be published.

ISO 19113:2002(E)**4 Terms and definitions**

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

- 4.1 accuracy**
closeness of agreement between a test result and the accepted reference value [ISO 3534-1]
- NOTE A test result can be observations or measurements.
- 4.2 conformance**
fulfilment of specified requirements [ISO 19105]
- 4.3 conformance quality level**
threshold value or set of threshold values for data quality results used to determine how well a dataset meets the criteria set forth in its product specification or user requirements [ISO 19114]
- 4.4 data quality date**
date or range of dates on which a data quality measure is applied
- 4.5 data quality element**
quantitative component documenting the quality of a dataset [ISO 19101]
- NOTE The applicability of a data quality element to a dataset depends on both the dataset's content and its product specification, the result being that all data quality elements may not be applicable to all datasets.
- 4.6 data quality evaluation procedure**
operation(s) used in applying and reporting quality evaluation methods and their results
- 4.7 data quality measure**
evaluation of a data quality subelement
- EXAMPLE The percentage of the values of an attribute that are correct.
- 4.8 data quality overview element**
non-quantitative component documenting the quality of a dataset [ISO 19101]
- NOTE Information about the purpose, usage and lineage of a dataset is non-quantitative quality information.
- 4.9 data quality result**
value or set of values resulting from applying a data quality measure or the outcome of evaluating the obtained value or set of values against a specified conformance quality level
- EXAMPLE A data quality result of "90" with a data quality value type of "percentage" reported for the data quality element and its data quality subelement "completeness, commission" is an example of a value resulting from applying a data quality measure to the data specified by a data quality scope. A data quality result of "true" with a data quality value type of "boolean variable" is an example of comparing the value (90) against a specified acceptable conformance quality level (85) and reporting an evaluation of a kind, pass or fail.
- 4.10 data quality scope**
extent or characteristic(s) of the data for which quality information is reported