



# SLOVENSKI STANDARD SIST EN ISO 19112:2019

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Nadomešča:  
SIST EN ISO 19112:2005

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## Geografske informacije - Lociranje z geografskimi identifikatorji (ISO 19112:2019)

Geographic information - Spatial referencing by geographic identifiers (ISO 19112:2019)

Geoinformation - Raumbezug mit (geographischen) Identifikatoren (ISO 19112:2019)

Information géographique - Système de références spatiales par identificateurs géographiques (ISO 19112:2019)

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EUROPEAN STANDARD

EN ISO 19112

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN ISO 19112:2005

English Version

## Geographic information - Spatial referencing by geographic identifiers (ISO 19112:2019)

Information géographique - Système de références  
spatiales par identificateurs géographiques (ISO  
19112:2019)

Geoinformation - Raumbezug mit (geographischen)  
Identifikatoren (ISO 19112:2019)

This European Standard was approved by CEN on 26 April 2018.

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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## European foreword

This document (EN ISO 19112:2019) 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 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of an identical text or by endorsement, at the latest by September 2019, and conflicting national standards shall be withdrawn at the latest by September 2019.

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

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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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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ISO  
19112

Second edition  
2019-02

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**Geographic information — Spatial  
referencing by geographic identifiers**

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

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## ISO 19112:2019(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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html). (standards.iteh.ai)

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

This second edition cancels and replaces the first edition (ISO 19112:2003), which has been technically revised.

The main changes compared to the first edition are as follows:

- revision of the conceptual schema to meet current standards and harmonise with other ISO/TC 211 standards;
- introduction of the class LocationClass to replace the class SI\_LocationType;
- introduction of the class Location to replace the class SI\_LocationInstance;
- introduction of the class SpatialReferenceSystemUsingGeographicIdentifiers to replace the class SI\_SpatialReferenceSystemUsingGeographicIdentifiers;
- introduction of the class Gazetteer to replace the class SI\_Gazetteer;
- introduction of the class GeographicIdentifier;
- recognition that a gazetteer is a sub-type of Register as defined in ISO 19135-1, and that Location Class is an ItemClass and Location a RegisterItem in that context;
- changes to package identifiers.

The changes are elaborated in [Annex D](#).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

Geographic information contains spatial references that relate information represented in data or text to positions in geographic space.

Spatial references fall into two categories:

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

This document 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 based not 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:

- containment, where the position is within the geographic feature, for example in a country;
- 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. This aspect, known as linear referencing, is the subject of ISO 19148;
- 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 document is to specify ways to define and describe systems of spatial references using geographic identifiers. 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.

A spatial reference system using geographic identifiers is a collection of Location classes of different sub-types, while a gazetteer is a collection of Location instances (of one or more Location sub-types).

A common form of spatial referencing system using geographic identifiers is addressing. This is the subject of ISO 19160-1.

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