

DIN EN ISO 19112

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Ersatz für
DIN EN ISO 19112:2005-05**Geoinformation –
Raumbezug mit (geographischen) Identifikatoren (ISO 19112:2019);
Englische Fassung EN ISO 19112:2019**

Geographic information –
Spatial referencing by geographic identifiers (ISO 19112:2019);
English version EN ISO 19112:2019

Information géographique –
Système de références spatiales par identificateurs géographiques (ISO 19112:2019);
Version anglaise EN ISO 19112:2019

Gesamtumfang 30 Seiten

DIN-Normenausschuss Bauwesen (NABau)

Nationales Vorwort

Dieses Dokument (EN ISO 19112:2019) wurde vom Technischen Komitee ISO/TC 211 „Geographic information/Geomatics“ in Zusammenarbeit mit dem Technischen Komitee CEN/TC 287 „Geoinformation“, dessen Sekretariat von BSI (Vereinigtes Königreich) gehalten wird, erarbeitet.

Das zuständige nationale Gremium ist der Arbeitsausschuss NA 005-03-03 AA „Geoinformation (SpA zu CEN/TC 287 und ISO/TC 211)“ im DIN-Normenausschusses Bauwesen (NABau).

Dieser europäische Norm-Entwurf enthält unter Berücksichtigung des DIN-Präsidialbeschlusses 1/2004 nur die englische Originalfassung von EN ISO 19112:2017 und ISO 19112:2017.

Für die in diesem Dokument zitierten Internationalen Normen wird im Folgenden auf die entsprechenden Deutschen Normen hingewiesen:

ISO 3166-1	siehe	DIN EN ISO 3166-1
ISO 19107:2003	siehe	DIN EN ISO 19107:2005-05
ISO 19111:2007	siehe	DIN EN ISO 19111:2007-10
ISO 19115-1:2014	siehe	DIN EN ISO 19115-1:2014-07
ISO 19135-1:2015	siehe	DIN EN ISO 19135-1:2016-02
ISO 19148	siehe	DIN EN ISO 19148

Änderungen

Gegenüber DIN EN ISO 19112:2005-05 wurde folgende Änderungen vorgenommen:

- a) Überarbeitung des konzeptuellen Schemas zur Erfüllung gegenwärtig gültiger Normen sowie zur Anpassung an weitere ISO/TC 211-Normen;
- b) Einführung der Klasse LocationClass, die die Klasse SI_LocationType ersetzt;
- c) Einführung der Klasse Location, die die Klasse SI_LocationInstance ersetzt;
- d) Einführung der Klasse SpatialReferenceSystemUsingGeographicIdentifiers, die die Klasse SI_SpatialReferenceSystemUsingGeographicIdentifiers ersetzt;
- e) Einführung der Klasse Gazetteer, die die Klasse SI_Gazetteer ersetzt;
- f) Einführung der Klasse GeographicIdentifier;
- g) Anerkennung, dass ein Gazetteer (Verzeichnis) einen Register-Untertyp, wie in ISO 19135-1 definiert, darstellt und dass in diesem Kontext eine LocationClass einer ItemClass und eine Location einem RegisterItem entspricht;
- h) Änderungen zu den Paketidentifikatoren.

Frühere Ausgaben

DIN EN ISO 19112: 2005-05

Nationaler Anhang NA (informativ)

Literaturhinweise

DIN EN ISO 3166-1, *Codes für die Namen von Ländern und deren Untereinheiten — Teil 1: Codes für Ländernamen*

DIN EN ISO 19107:2005-05, *Geoinformation — Raumbezugsschema (ISO 19107:2003); Englische Fassung EN ISO 19107:2005*

DIN EN ISO 19111:2007-10, *Geoinformation — Koordinatenreferenzsysteme (ISO 19111:2007); Englische Fassung EN ISO 19111:2007*

DIN EN ISO 19115-1:2014-07, *Geoinformation — Metadaten — Teil 1: Grundsätze (ISO 19115-1:2014); Englische Fassung EN ISO 19115-1:2014*

DIN EN ISO 19135-1:2016-02, *Geoinformation — Registrierungsverfahren für geographische Informationseinheiten — Teil 1: Grundsätze (ISO 19135-1:2015); Englische Fassung EN ISO 19135-1:2015*

DIN EN ISO 19148, *Geoinformation — Lineares Bezugssystem*

Nationaler Anhang NB (informativ)

Begriffe

3 Begriffe und Bezeichnungen

3.1 Begriffe

Für die Anwendung dieses Dokuments gelten die folgenden Begriffe.

ISO und IEC stellen terminologische Datenbanken für die Verwendung in der Normung unter den folgenden Adressen bereit:

- IEC Electropedia: verfügbar unter <http://www.electropedia.org/>
- ISO Online Browsing Platform: verfügbar unter <http://www.iso.org/obp>

3.1.1

Verzeichnis

(en: gazetteer)

Register von Lokalisierungen eines oder mehrerer Lokalisierungs-Untertypen, die Informationen zur Position enthalten.

Anmerkung 1 zum Begriff: Die positionsbezogene Information besteht nicht unbedingt aus Koordinaten und könnte stattdessen beschreibender Art sein.

3.1.2

räumlicher Identifikator

(en: geographic identifier)

räumlicher Bezug in Form eines Etiketts oder eines Codes zur Identifizierung einer Lokalität

BEISPIEL „Spanien“ ist ein Beispiel für ein Etikett (Ländername); „SW1P 3AD“ ist ein Beispiel für einen Code (Postleitzahl).

3.1.3

Lokalität

(en: location)

bestimmter Ort oder bestimmte Position

Anmerkung 1 zum Begriff: Eine Lokalität dient der Identifizierung eines geographischen Orts.

BEISPIEL „Madrid“, „Kalifornien“

3.1.4

räumlicher Bezug

(en: spatial reference)

Beschreibung der Position in der realen Welt

Anmerkung 1 zum Begriff: Dies kann in Form eines Etiketts, eines Codes oder eines Koordinatentupels sein.

[QUELLE: ISO 19111:2007, 4.4.3]

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.

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

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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.

This document supersedes EN ISO 19112:2005.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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.

Endorsement notice

The text of ISO 19112:2019 has been approved by CEN as EN ISO 19112:2019 without any modification.

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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.

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).

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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.

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 `LocationClass` 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.

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.