



SLOVENSKI STANDARD
SIST EN ISO 19111:2020/oprA1:2021
01-januar-2021

Geografske informacije - Lociranje s koordinatami - Dopnilo 1 (ISO/DAM 19111:2020)

Geographic information - Referencing by coordinates - Amendment 1 (ISO/DAM 19111:2020)

Geoinformation - Koordinatenreferenzsysteme - Änderung 1 (ISO/DAM 19111:2020)

Information géographique - Système de références par coordonnées - Amendment 1 (ISO/DAM 19111:2020)

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07.040	Astronomija. Geodezija. Geografija	Astronomy. Geodesy. Geography
35.240.70	Uporabniške rešitve IT v znanosti	IT applications in science

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DRAFT AMENDMENT

ISO 19111:2019/DAM 1

ISO/TC 211

Secretariat: SIS

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Geographic information — Referencing by coordinates

AMENDMENT 1

Information géographique — Système de références par coordonnées
AMENDEMENT 1

ICS: 35.240.70

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ISO/CEN PARALLEL PROCESSING



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

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ISO 19111:2019/DAM 1:2020(E)**Introduction**

The purpose of this amendment is to correct an omission in the requirements for coordinate metadata.

CRS identification may be through either a full description or through reference to a full description in a register of geodetic parameters (ISO 19111:2019, 7.2). Coordinate epoch is required to be given with a coordinate set when those coordinates are referenced to a dynamic coordinate reference system. This requirement is described in the UML through constraints in the CoordinateMetadata class. A constraint applying when CRS identification is through reference to a register has been added to the description of the data model.

This amendment also updates the definition of coordinate operation (ISO 19111:2019, 3.1.8) by adding a note to indicate its relationship to the terms coordinate conversion, coordinate transformation and point motion operation.

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Geographic information — Referencing by coordinates

AMENDMENT 1

Page 3, 3.1.8, definition of coordinates operation

Add note to entry. The complete revised definition becomes:

3.1.8

coordinate operation

process using a mathematical model, based on a one-to-one relationship, that changes coordinates in a source coordinate reference system to coordinates in a target coordinate reference system, or that changes coordinates at a source coordinate epoch to coordinates at a target coordinate epoch within the same coordinate reference system

Note 1 to entry: Generalisation of coordinate conversion, coordinate transformation and point motion operation.

Page 17, 7.4, UML schema for Coordinates package

Replace Figure 5 with the following:

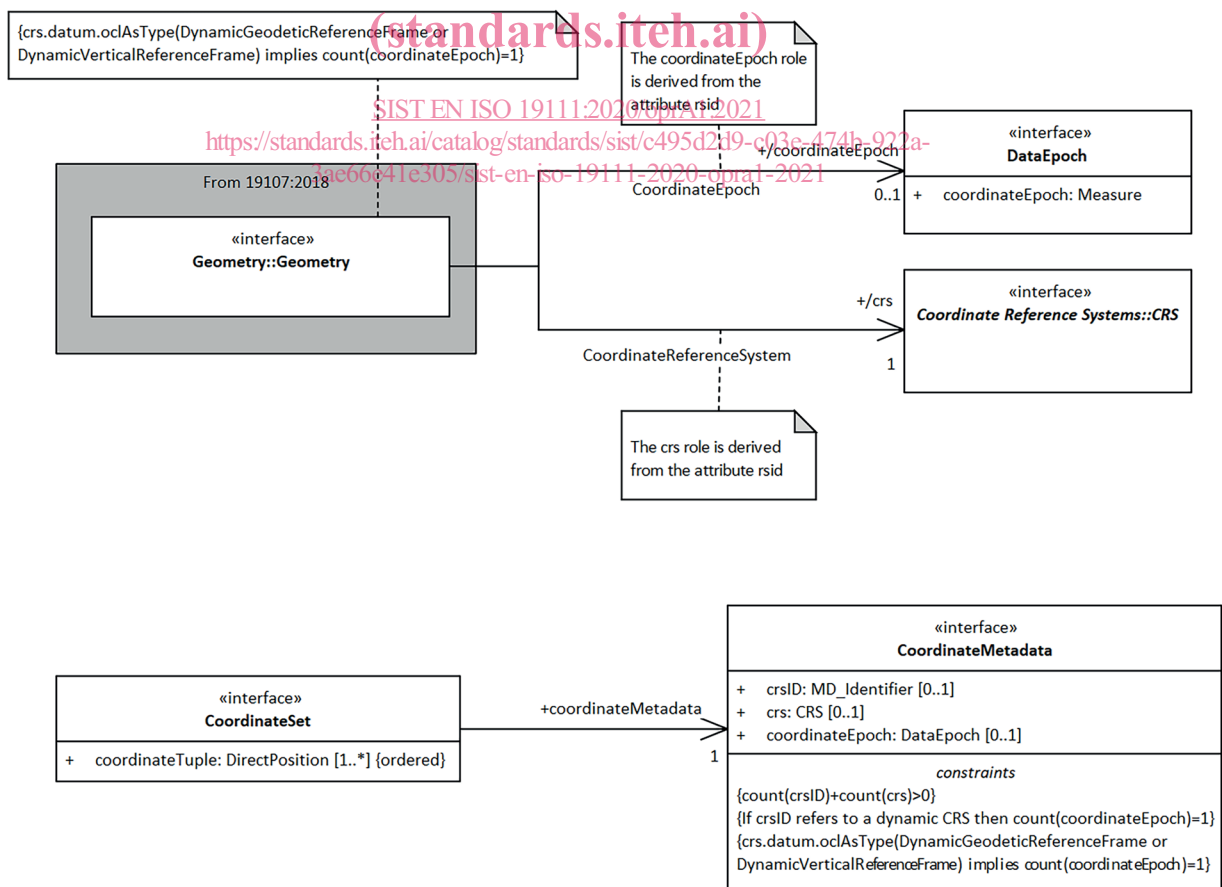


Figure 5 — UML diagram — Relationship of coordinates and coordinate metadata

ISO 19111:2019/DAM 1:2020(E)

Page 18, 7.4, UML schema for Coordinates package

Replace [Table 2](#) with the following:

Table 2 — Defining elements of Coordinates::CoordinateMetadata class

Definition:	metadata required to reference coordinates				
Stereotype:	Interface				
Class attribute:	Concrete				
Inheritance from:	(none)				
Public attributes:					
<u>Attribute name</u>	<u>UML identifier</u>	<u>Data type</u>	<u>Obligation</u>	<u>Maximum Occurrence</u>	<u>Attribute definition</u>
CRS ID	crsID	MD_Identifier	C	1	identifier of the coordinate reference system to which a coordinate set is referenced
CRS definition	crs	CRS	C	1	full description of the coordinate reference system to which a coordinate set is referenced
Coordinate epoch	coordinateEpoch	DataEpoch	C	1	epoch at which a coordinate set referenced to a dynamic CRS is valid
<p>iTeh STANDARD PREVIEW (standards.iteh.ai)</p>					
Note: Required if the CRS is dynamic.					
Constraints:					
{count(crsID)+count(CRS)>0}					
Remarks: See 7.2					
<p style="text-align: center;"> SIST EN ISO 19111:2020/oprA1:2021 https://standards.iteh.ai/catalog/standards/sist/c495d2d9-c03e-474b-922a-3ae66e41e305/sist-en-iso-19111-2020-oprA1-2021 </p>					
{crs.datum.oclAsType(DynamicGeodeticReferenceFrame or DynamicVerticalReferenceFrame) implies count(coordinateEpoch)=1}					
{if crsID refers to a dynamic CRS then count(coordinateEpoch)=1}					
Remarks: These constraints provide the conditionality for coordinate epoch.					