SLOVENSKI STANDARD
SIST EN ISO 19117:2006

01-september-2006

Geografske informacije – Prikazi in opisi geografskih podatkov (ISO 19117:2005)

Geographic information - Portrayal (ISO 19117:2005)

Geoinformation - Präsentation (ISO 19117:2005)

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Information géographique - Présentation (ISO 19117:2005)
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Ta slovenski standard je istoveten z: **EN ISO 19117:2006**

ICS:

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

SIST EN ISO 19117:2006 **en**

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 19117

July 2006

ICS 35.240.70

English Version

Geographic information - Portrayal (ISO 19117:2005)

Information géographique - Présentation (ISO 19117:2005)　　　　Geoinformation - Präsentation (ISO 19117:2005)

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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EN ISO 19117:2006 (E)

Foreword

The text of ISO 19117:2005 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 19117:2006 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 January 2007, and conflicting national
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Endorsement notice

The text of ISO 19117:2005 has been approved by CEN as EN ISO 19117:2006 without any
modifications.

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INTERNATIONAL STANDARD

ISO
19117

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Geographic information — Portrayal

Information géographique — Présentation

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Foreword

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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 19117 was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics*.

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Introduction

This International Standard is an abstract document and is not intended for direct implementation. It gives general guidelines to the application developers about the mechanism to be used to portray the feature instances of a dataset. The portrayal mechanism described makes it possible to have general rules valid for the whole dataset, and at the same time rules valid for a specific value of a feature attribute only. Different computer graphics standards use different attributes to visualize geometric primitives. For example, a line can be distinguished by thickness, width, colour, stippling, anti-aliasing, etc. This International Standard therefore includes a mechanism for declaring portrayal attributes as part of the portrayal specification.

In some cases whole feature classes have to be referenced and portrayed in a specific way, e.g. as symbols on nautical charts. Several symbol standards exist, and without a portrayal standard the application would have to set up a separate interface to each of these standards. With this International Standard all the supported symbol standards can be handled in a uniform way.

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INTERNATIONAL STANDARD ISO 19117:2005(E)

Geographic information — Portrayal

1 Scope

This International Standard defines a schema describing the portrayal of geographic information in a form understandable by humans. It includes the methodology for describing symbols and mapping of the schema to an application schema. It does not include standardization of cartographic symbols, and their geometric and functional description.

2 Conformance

Any portrayal catalogue and portrayal schema describing the portrayal of geographic information claiming conformance with this International Standard shall pass all the requirements of the abstract test suite presented in Annex A.

3 Normative references

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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 19101, *Geographic information — Reference model*

ISO/TS 19103:—[1]), *Geographic information — Conceptual schema language*

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

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

ISO 19115:2003, *Geographic information — Metadata*

ISO/IEC 19501:2005, *Information technology — Open Distributed Processing — Unified Modeling Language (UML) Version 1.4.2*

4 Terms and definitions

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

4.1
annotation
any marking on illustrative material for the purpose of clarification

NOTE Numbers, letters, symbols, and signs are examples of annotation.

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[1] To be published.

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4.2
class
description of a set of objects that share the same attributes, operations, methods, relationships, and semantics

[ISO/TS 19103]

NOTE   A class may use a set of interfaces to specify collections of operations it provides to its environment.

4.3
curve
1-dimensional **geometric primitive**, representing the continuous image of a line

[ISO 19107]

NOTE   The boundary of a curve is the set of points at either end of the curve. The first point is called the start point, and the last is the end point.

4.4
dataset
identifiable collection of data

[ISO 19115]

NOTE   The principles which apply to datasets may also be applied to dataset series and reporting groups.

4.5
external function
function not part of the application schema

NOTE   The electronic map in a car navigation system has to be displayed so that the up-direction of the map is always in the direction the car is moving. To be able to specify the rotation of the map, the current position of the car must be retrieved continuously from an external position device using an external function.

4.6
feature
abstraction of real world phenomena

[ISO 19101]

NOTE   A feature may occur as a type or an instance. Feature type or feature instance should be used when only one is meant.

4.7
feature attribute
characteristic of a feature

[ISO 19101]

EXAMPLE 1   A feature attribute named 'colour' may have an attribute value 'green' which belongs to the data type 'text'.

EXAMPLE 2   A feature attribute named 'length' may have an attribute value '82.4' which belongs to the data type 'real'.

NOTE 1   A feature attribute has a name, a data type, and a value domain associated with it. A feature attribute for a feature instance also has an attribute value taken from the value domain.

NOTE 2   In a feature catalogue, a feature attribute may include a value domain but does not specify attribute values for feature instances.

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4.8
feature portrayal rule set
collection of portrayal rules that apply to a feature instance

4.9
geographic information
information concerning phenomena implicitly or explicitly associated with a location relative to the Earth

[ISO 19101]

4.10
geometric primitive
geometric object representing a single, connected, homogenous element of space

[ISO 19107]

4.11
instance
object that realizes a class

[ISO 19107]

4.12
metadata
data about data

[ISO 19115]

4.13
point
0-dimensional geometric primitive, representing a position

[ISO 19107]

4.14
portrayal
presentation of information to humans

4.15
portrayal catalogue
collection of all defined portrayals

4.16
portrayal rule
rule that is applied to the feature to determine what portrayal specification to use

4.17
portrayal service
generic interface used to portray features

4.18
portrayal specification
collection of operations applied to the feature instance to portray it

4.19
spatial attribute
feature attribute describing the spatial representation of the feature by coordinates, mathematical functions and/or boundary topology relationships