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Geographic information - Portrayal (ISO 19117:2012)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

Geographic information - Portrayal (ISO 19117:2012)

Information géographique - Présentation (ISO 19117:2012)

Geoinformation - Darstellung (ISO 19117:2012)

This European Standard was approved by CEN on 13 March 2014.

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Foreword

The text of ISO 19117:2012 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 19117:2014 by 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of an identical text or by endorsement, at the latest by September 2014, and conflicting national standards shall be withdrawn at the latest by September 2014.

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Endorsement notice

The text of ISO 19117:2012 has been approved by CEN as EN ISO 19117:2014 without any modification.

Geographic information — Portrayal

Information géographique — Présentation





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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.

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.

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

This second edition cancels and replaces the first edition (ISO 19117:2005), which has been technically revised.

Introduction

This International Standard specifies a conceptual schema for portrayal data, in particular symbols and portrayal functions. Portrayal functions associate features with symbols for the portrayal of the features on maps and other display media. This schema includes classes, attributes, associations and operations that provide a common conceptual framework that specifies the structure of and interrelationships between features, portrayal functions, and symbols. It separates the content of the data from the portrayal of that data, to allow the data to be portrayed in a manner independent of the dataset. This framework is derived from concepts found in existing portrayal implementations, and specifies a conceptual standard for use in future implementations (for example OGC Symbology Encoding and Styled Layer Descriptor Profile of WMS).

This International Standard provides an abstract model for developers of portrayal systems so that they can implement a system with the flexibility to portray geographic data to a user community in a manner that makes sense to that community.

The principal changes in this revision are to expand the concept of portrayal rules to more generic portrayal functions, include definitions for symbols (including parameterized symbols), include both portrayal functions and symbols in portrayal catalogues, and define a core portrayal schema, and extensions for specialized cases.

This revision for the most part expands on the concepts in ISO 19117:2005, but concepts for portrayal specifications (as a symbol instead of an operation), portrayal catalogue (also includes symbols), and rules-based portrayal (multiple rules allowed) have been changed.

Geographic information — Portrayal

1 Scope

This International Standard specifies a conceptual schema for describing symbols, portrayal functions that map geospatial features to symbols, and the collection of symbols and portrayal functions into portrayal catalogues. This conceptual schema can be used in the design of portrayal systems. It allows feature data to be separate from portrayal data, permitting data to be portrayed in a dataset independent manner.

This International Standard is not applicable to the following:

- standard symbol collection (e.g. International Chart 1 – IHO);
- a standard for symbol graphics (e.g. scalable vector graphics [SVG]);
- portrayal services (e.g. web map service);
- capability for non-visual portrayal (e.g. aural symbology);
- dynamic rendering (e.g. on the fly contouring of tides);
- portrayal finishing rules (e.g. generalization, resolve overprinting, displacement rules);
- 3D symbolization (e.g. simulation modeling).

2 Conformance

Any portrayal catalogue, portrayal function and symbol describing the portrayal of geographic information claiming conformance with this International Standard shall pass the relevant tests of the abstract test suite presented in Annex A, and those portrayal extension requirements that are applicable to the extension or extensions being used.

Conformance classes are defined for the portrayal core, and the core plus extensions. These extensions provide additional functionality, and are not mutually exclusive of each other.

Core portrayal conformance classes

- Conformance class – portrayal core (general)
- Conformance class – portrayal core – symbol
- Conformance class – portrayal core – portrayal function
- Conformance class – portrayal core – portrayal catalogue

Portrayal function extension conformance classes

- Conformance class – portrayal core plus conditional function extension
- Conformance class – portrayal core plus context extension

Conformance class – portrayal core plus function symbol parameter extension

Symbol extension conformance classes

Conformance class – portrayal core plus compound symbol extension

Conformance class – portrayal core plus complex symbol extension

Conformance class – portrayal core plus reusable symbol component extension

Conformance class – portrayal core plus symbol parameter extension

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/TS 19103:2005, *Geographic information — Conceptual schema language*

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

ISO 19109:2005, *Geographic information — Rules for application schema*

ISO 19110:2005, *Geographic information — Methodology for feature cataloguing*

ISO 19111:2007, *Geographic information — Spatial referencing by coordinates*

ISO 19115:2003, *Geographic information — Metadata*

ISO/TS 19139:2007, *Geographic information — Metadata — XML schema implementation*

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

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