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STN P	**Geografické informácie Implementácia schémy XML Časť 1: Pravidlá kódovania (ISO/TS 19139-1: 2019)**	**STN P CEN ISO/TS 19139-1 01 9352**

Geographic information - XML schema implementation - Part 1: Encoding rules (ISO/TS 19139-1:2019)

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/19

Táto predbežná STN je určená na overenie. Pripomienky zasielajte ÚNMS SR najneskôr do 31. 1. 2021.

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English Version

Geographic information - XML schema implementation - Part 1: Encoding rules (ISO/TS 19139-1:2019)

Information géographique - Implémentation de schémas XML - Partie 1: Règles de codage (ISO/TS 19139-1:2019)

Geoinformation - Metadaten - XML-Schema Implementierung - Teil 1 (ISO/TS 19139-1:2019)

This Technical Specification (CEN/TS) was approved by CEN on 22 February 2019 for provisional application.

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European foreword

This document (CEN ISO/TS 19139-1:2019) 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.

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 CEN ISO/TS 19139:2009.

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Endorsement notice

The text of ISO/TS 19139-1:2019 has been approved by CEN as CEN ISO/TS 19139-1:2019 without any modification.

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ISO/TS 19139-1

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Geographic information — XML schema implementation —

Part 1: Encoding rules

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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 of 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 www.iso.org/iso/foreword.html.

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

This first edition of ISO/TS 19139-1 cancels and replaces ISO/TS 19139:2007, which has been technically revised.

A list of all parts in the ISO 19139 series can be found on the ISO website.

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

The importance of metadata describing digital geographic data is explained in detail in the text of ISO 19115-1, and other International Standards, e.g. ISO 19110, ISO 19119, ISO 19157. Those documents provide a structure for describing digital geographic data by defining metadata elements and establishing a common set of metadata terminology, definitions and extension procedures. These standards do not define encodings for those metadata.

To facilitate the standardization of implementations across the standards and in similar domain schemas, this document provides a definitive set of rules for encoding ISO metadata standards in Extensible Markup Language (XML). The resulting XML schemas are meant to enhance interoperability by providing a common specification for describing, validating and exchanging metadata. These rules are intended to be used in parallel to the rules in ISO 19136:2007, Annex E for encoding application schemas into XML/GML. The difference is that those rules are for data that represents features; these rules are for metadata about that data.

ISO 19118 describes the requirements for creating encoding rules based on UML schemas and the XML based encoding rules as well as introducing XML. This document uses the encoding rules defined in ISO 19118 and provides the specific details of their application with regards to deriving XML schema for the UML models for other metadata standards.

These rules were first used in creating ISO/TS 19115-3 as an XML encoding of ISO 19115-1, i.e. ISO/TS 19115-3 conforms to this document. They were also used to create ISO/TS 19157-2, an encoding of ISO 19157.

The standardization target of this document is XML implementations of metadata. This includes both other standards within the Geographic Information series and models developed by other organizations.

Geographic information — XML schema implementation —

Part 1: Encoding rules

1 Scope

This document defines XML based encoding rules for conceptual schemas specifying types that describe geographic resources. The encoding rules support the UML profile as used in the UML models commonly used in the standards developed by ISO/TC 211. The encoding rules use XML schema for the output data structure schema.

The encoding rules described in this document are not applicable for encoding UML application schema for geographic features (see ISO 19136 for those rules).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 19118, *Geographic information — Encoding*

W3C XMLName, Namespaces in XML. W3C Recommendation

W3C XMLSchema-1, XML Schema Part 1: Structures. W3C Recommendation

W3C XMLSchema-2, XML Schema Part 2: Datatypes. W3C Recommendation

W3C XML, Extensible Markup Language (XML) 1.0, W3C Recommendation

W3C XLink, XML Linking Language (XLink) Version 1.0. W3C Recommendation

