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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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Geographic information -- Conceptual schema language

地理信息 概念模式语言

(English Translation)

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References

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method equivalent to using ISO 19103:2015 "geographical information conceptual model language." the Chinese documents that have a consistent correspondence with the normatively cited international documents in this standard are as follows.

---GB/T 4880.1-2005 Language Name Code Part 1. 2-letter Code (ISO 639-1:2002, MOD)

---GB/T 4880.2-2000 Language Name Code Part 2. 3-letter Code (eqvISO 639-2.1998)

---GB/T 4880.3-2009 Language Name Code Part 3. 3-letter code for all languages (ISO 639-3:2007, IDT) this standard is proposed by the National Bureau of Surveying and Mapping Geographic Information.

This standard is under the jurisdiction of the National Geographic Information Standardization Technical Committee (SAC/TC230).

Introduction

The important goal of the series of geographic information standards is to establish a framework for data exchange and service interoperability across multiple operating environments.

Making, adopting and consistently using Conceptual Language (CSL) to describe geographic information is an important foundation for achieving this goal. Geographic Information Standards the use of formalized CSLs is required to strictly stipulate various modes as the basis for data exchange and defining interoperability services. This standard deals with How to adopt and use CSL to develop a computer-interpretable geographic information model or model.

This standard includes two aspects. First, choose a CSL that can express geographical information closely. This standard determines that unified modeling will be UML's static structure diagram, its associated Object Constraint Language (OCL), and a set of basic type definitions, as a description the conceptual model language of geographic information; Second, this standard provides guidelines for how to use UML to establish geographic information models. These models are the basis of the current interoperability goal.

One of the purposes of using the UML model in the Geographic Information Standards series is to provide a mapping for the model-based coding model (ISO 19118).

Provides the basis, but also provides the basis for the implementation of the specification in the implementation of other standards for the implementation of specific standards.

This standard describes the general metamodel of the UML using the geographic information standard series. The specific content of the application model modeling is Described in ISO 19109.

Geographic Information Conceptual Modeling Language

1 Scope

This standard provides rules and guidelines for the use of conceptual pattern languages in the context of geographic information and defines the conceptual pattern language as a unified modeling language.

Language (UML).

This standard provides a Unified Modeling Language (UML)-specific standard.

The standard target type of this standard is the UML model that describes geographical information.

2.1 Overview

This standard defines three types of consistency.

---UML version;

---type of data;

--- Model document.

In keeping with this standard, the use of the concept mode language should meet all the requirements of one of the following three conformity categories.

Conformance requirements correspond to the abstract test suite in Appendix A.

2.2.1 UML2 Conformance

Table 1 describes UML2 conformance classes.

Table 1 UML2 Conformance

Conformity class identifier UML2 UML2 model for standardizing target type geographic information rely ISO/IEC 19505-2:2012, Chapter 2 OCL2.3.1 Requirements 6.2 to 6.12, except all requirements of requirement 2, also include the requirements of Appendix D 26 Test all the tests in A.1.2

2.2.2 UML1 Conformance Mapping to UML2

Table 2 describes the conformance classes mapped from UML1 to UML2.

Table 2 UML1 Conformance Mappings to UML2

Conformity class identifier UML1 Standardized goal type geographic information UML1 model