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**NATIONAL STANDARD OF THE
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Geographic information -- Geography markup language (GML)

地理信息 地理标记语言 (GML)

(English Translation)

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Foreword

This standard is equivalent to using ISO 19136:2007 "Geographic Information Geographic Markup Language (GML)" (in English), and made the following editorial modify.

- a) the preparation process of the present standard of implementation of national standards GB/T 1.1-2000, GB/T 20000.2-2001 requirements.
- b) "this International Standard" be replaced by "this standard";
- c) Remove the original cover and foreword international standards;
- d) who have been the equivalent of international standards adopted in this standard with the national standard code and replace the name of the corresponding international standards Code and name. No rest for the same or equivalent standards of international standards in this standard are a direct reference.
- e) In order to facilitate an understanding of the process of establishing GML application schema, increasing the informative annex NA.

Element specifies the coordinate reference system for the geometry of its constituent elements.

Geometry is the time value of the time feature attributes. It is similar to the geometry of space and time to measure the geometry of the specified time frame of reference.

Topological space or time used to represent a variety of topological relationships between the elements.

Units of measure dictionary provides definitions of physical quantities such as length, temperature, pressure, digital metrics, and metric conversion between units.

GB/T 23708-2009/ISO 19136:2007 Geographic Information Geographic Markup Language (GML)

1 Scope

Geography Markup Language (GML) is an XML encoding is consistent with the ISO 19118, ISO 19100 for transfer and storage in the series Conceptual models using standard modeling framework of geographic information, including spatial and non-spatial properties of geographic features.

This standard defines the XML Schema (Schema) syntax, mechanisms and conventions.

- Provides a description of the Open Geospatial mode applications, and businesses unrelated to the frame, means for transmission and storage as XML Geographic information;
- Allow specific standard support having a proper subset of GML framework descriptive power;
- Support in specific areas and information group describe geospatial model applications;
- Create and maintain links geographic application schemas and data sets;
- Support for storage and transmission mode applications and data sets;
- Share geographic application schemas and improve organizational capability information they describe.

Implementors may decide to GML to store geographic application schemas and information, or converting from other storage format on demand, but only with GML schema and data transmission.

NOTE: In the ISO 19109 described in UML and form a consistent application model is the basis of geographic information transmission and storage, this standard provides a model from which to Standard Rules GML application schema in XML schema representation of mapping, as well as consistent with the ISO 19109 mode application has a logical structure the XML-encoded data.

2.1 Conformance Requirements

The standard Chapter 7 - Chapter 19 defines the XML schema components, namely the GML schema, they will be applied in accordance with Chapter 21 to GML Application mode. Chapter 20 sets out specific standards GML rules for GML application schemas.

Only a few applications require the full capabilities of the GML schema describes. Therefore, this chapter defines a set of consistent support different applications Class, from the minimum requirements definition simple feature types to use the full functionality of the GML schema.

Most of the standard model components to achieve the ISO 19100 series of standards concept. Therefore, the standard definition of the class based on consistency Appropriate standard defined consistency classes.

Any claims that are consistent with these consistency class GML application schema, GML standard and special software should pass the corresponding abstract all test cases test suite.

Any person claiming to be consistent with this standard software should be noted that the GML application-specific standard supported by the implementation. GML specific standard should all through the corresponding test cases the specific standard GML abstract test suite.

2.2 GML application schema corresponding to the consistency of the class

Claiming conformance to this standard GML application schema should be consistent with Chapter 7 - Chapter 21 rules, and by A. 1 abstract test all relevant test cases test suite.

Based on the characteristics of GML application schema defines 12 different consistency classes. Table 1 lists these categories and abstract test suite for Corresponding clauses.

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