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

GB/T 23706-2009

Geographic information -- Core profile of the spatial schema

地理信息 核心空间模式

(English Translation)

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Foreword

This standard is equivalent to using ISO 19137:2007 "core geographic information spatial mode" (in English).

For ease of use, this standard made the following editorial changes.

- a) will the "international standard" be replaced by "this standard";
- b) Remove the preface to the international standards;
- c) The standard classification of geometric elements in space with "GM _" (geometric) package prefix in this standard of "GM_" prefix is \u200b\u200bnot translation;
- d) For the class name, operation name, parameter name, variable name, element name, given at the time of the first occurrence of the corresponding Chinese name and in the subsequent English name in brackets retained, namely Chinese name + (English name),

directly behind the use of the English name, for example.

GM_ simplex (GM_Primitive), GM_ surface (GM_Surface);

e) For the translation of UML class diagram, only translations generic name UML diagram does not translate content on the graph in order to UML diagram Into implementation code, as well as the operation name, parameter names, variable names, controls and other descriptive class names in the element name;

f) international standard description in Figure D. 4 on the right object graph "BoundaryA. GM_SurfaceBoundary" to "Bound-aryB. GM_SurfaceBoundary ";

g) For ISO 19137:2007 and other international standards have been cited as identical with our standard, our present standard reference these national standards instead of the international standard corresponding to the remainder not equal to or modify our standards adopted as international standards, in the present Standards are referenced directly;

h) the standard method for the preparation of the implementation of GB/T 1.1-2000 "Standardization Guide Part 1. Standard structure and drafting of regulations Then ", GB/T 20000.2-2001" Standardization Guide Part 2. Adoption of International Standards Rules "requirements.

Appendix B of this standard is a normative appendix, Appendix A, Appendix C, Appendix D is informative appendix.

This standard by the National Standardization Technical Committee on Geographical Information (SAC/TC230) and focal points.

This standard drafting units. China National Institute of Standardization, Chinese Academy of Surveying and Mapping.

Introduction

This standard is GB/T 23707-2009 "Geographic Information Space Mode" section of the core geometry specific standard, it is easy to understand and Implementation costs low. This specific standards were deliberately narrow scope and limited in order to increase access to markets widely accepted.

This standard in a simple topology packet extension can develop into future versions of the standard part. Needs of many user groups are Beyond the scope of this International Standard, then they can define their own specific standards.

This standard supports 0,1,2-dimensional geometric primitive data types. It is in line with the national standard GB/T 23707-2009 of A. 1.1.3 a Conformance testing requirements. It belongs to ISO 19106 conformance class 1.

Appendix A lists the release of some of the standard specification supported. Appendix B

provides an abstract test suite for judging a

Application-specific standard mode or whether this core phase with special standards. Appendix C discusses how to extend this core specific standard. Attached Appendix D gives two examples.

GB/T 23706-2009/ISO 19137:2007 Geographic Information Core Spatial Mode

1 Scope

This standard defines the GB/T 23707-2009 core of a specific standard. This standard specifies the efficient creation based on ISO 19106 A minimum set of application modes required geometric elements.

This standard supports many have been developed and are widely used in many countries or internal organization of the joint space, and format data Description Language.

NOTE: According to the standard model and the data generated by many organizations to develop and use space model is the same, see Appendix A.

2 Conformance

The standard of abstract test suite in Appendix B.

3 Normative References

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 23707-2009 geographic information spatial patterns (ISO 19107:2003, IDT) ISO 19111:2003 Geographic information - Spatial referencing by coordinates

4 Terminology, definitions, symbols and abbreviations

This standard uses the GB/T 23707-2009 same terminology, definitions, symbols and abbreviations.

5.1 Class Diagram

Figure 1 depicts the GB/T 23707-2009 complete specific standard. GB/T 23707-2009 constraints were too Fig. 1

Expressed, described in the 5.2 to 5.11. This standard is limited to the following applications.

There is a mapping relationship between 1.1 --- geographic features and geometric primitives;

--- All geometric primitives are referring to a single coordinate reference system;

--- All curves consists of a number of line segments;

--- All surfaces by the number of plane components.

GB/T 23706-2009/ISO 19137:2007