

ICS 07.040; 35.240.70  
CCS A 75



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

**GB/T 25530-2010**

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**Geographic information -- Services**

地理信息 服务

**(English Translation)**

**Issued on: December 1, 2010**

**Implemented on: March 1, 2011**

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**Issued by: General Administration of Quality Supervision, Inspection and  
Quarantine of the People's Republic of China**

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### Foreword

This standard is equivalent to the international standard ISO 19119.:2005 "Geographic Information Service" and ISO 19119.:2005/Amd.1..2008 Information Services Amendment 1. Extension of Service Metadata Model "(English version).

For ease of use, this standard has been modified as follows.

- a) The format of this standard has been implemented in GB/T 1.1-2000 "Standardized working guidelines Part 1. Standard structure and preparation Rules "requirements.
- b) Replace the word "international standard" with "this standard".
- c) prerequisites for the removal of international standards.
- d) For ISO 19119.:2005 normative references to other international standards have been adopted for our standards, this standard refers to this Some national standards replace the corresponding international standards. Including. ISO 19115.:2003, Geographicinformation-Metadata Instead of the Geographic Information Metadata (ISO 19115.:2003, MOD); ISO/IEC 10746-1.:1998 Informationtechnology-OpenDistributedProcessing-Referencemodel. Overview-Part 1 was replaced for the GB/T 18714.1-2002 "Information technology open distributed processing reference model Part 1. Overview" (ISO/IEC 10746-1.:1998, IDT); ISO/IEC 10746-2.:1996, Informationtechnology-OpenDistributed Processing-Referencemodel. Foundations is replaced by GB/T 18714.2-2002 "Information technology is open Distributed Processing Reference Model Part 2. Basic Concepts "(ISO/IEC 10746-2.:1996, IDT).
- e) For other international standards cited in the ISO 19119.:2005 standard references, which have been adopted for our national standards.

With our national standards instead of the corresponding international standards. Including. ISO 8601.:2000, Dataelementsand

interchangeformats-Informationinterchange-Representationofdatesandtimes is replaced by GB/T 7408-2005 "Data element and exchange format information exchange date and time representation"; ISO 19105.:2000, Geographicinformation-Conformanceandtesting was replaced by GB/T 19333.5 "Geographic Information Consistency and Test "; ISO 19107.:2003, Geographicinformation-Spatialschema was replaced by GB/T 23707-2009 "Geographic information space model"; ISO 19108.:2002, Geographicinformation-Temporalschema replaced for GB/T 22022-2008 "Geographic information time model"; ISO 19117.:2005, Geographicinformation-Portrayal was replaced by GB/T 24355-2009 "Geographic information representation"; ISO 19128.:2005, Geographic information-Webmapserverinterface is replaced by GB/T 25597-2010 "Geographic Information World Wide Web Map service interface ".

f) In order to embody the naming rules for class names in the UML diagram, and for the convenience of programmers directly using the associated class name, for the first time Appear in the text of the class name, such as SV \_ ServiceIdentification translated as. SV \_ service logo (SV \_ ServiceIdentification), then no longer translated, the direct use of SV\_ServiceIdentification. In the UML diagram not translated.

g) For the "class name or role name" in the table in Appendix C, the Chinese and English columns are used; for the " Name or role name "in English name in the former, the Chinese name in the brackets in the way.

h) Amend the "ISO 19100 Series Standards" to "Geographic Information Series National Standards" or "Geographic Information Series"

i) Corrected the formulation in the original acronym. J2EE, changed from "Java2EnterpriseEditionwithEJB" to "Java

## **2 EnterpriseEdition "; JINI, from" Sun'sopenarchitecturethatenablesdeveloperstocreate**

network-centricsservices "to" JavaIntelligent NetworkInfrastructure "; DTD, from "Documenttypedefinitions" is modified to "DocumentTypeDefinition"; EOSE, from "ExtendedOpen SystemsEnvironment Model "to" Extended OpenSystemsEnvironment "; HIS, from "InformationTechnologyHumanInteractionService" is modified to "HumanInteractionService";

JTA, modified from "JavaConnectorArchitecture" to "JavaTrasactionAPI"; ODMG, from "Object DatabaseManagementGroup "to" ObjectDataManagementGroup "; OGC, from" OpenGIS Consortium "modified to" OpenGeospatialConsortium "; OSE, from" OpenSystemsEnvironment " to "OpenSystemEnvironment"; XSLT, from "XMLStylesheetLanguageTransformations" repair Changed to "eXtensibleStylesheetLanguageTransformations"; deleted duplicate "MSMTS".

j) As a result of ISO 19119.:2005/Amd.1..2008, "Geographic Information Services Amendment 1. Extension of Service Metadata Model" Charged with table C.1, thus adding "C.1.4.4 Conditional Required (C)".

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

This standard is proposed by the National Geographic Information Standardization Technical Committee (SAC/TC230).

The drafting of this standard. Institute of Geographic Sciences and Resources, Chinese Academy of Sciences, Fujian Normal University.

## Introduction

The widespread use of computers and geographic information systems (GIS) has led to the growing use of geographic data analysis in multidisciplinary applications. With the development of information technology, the degree of social dependence on geography data is also growing. Geographic data sets meet the original goal of the data producer are increasingly being shared, exchanged and used for other purposes. GIS, remote sensing, automatic mapping and facility management (AM/FM), traffic points Analysis, geolocation systems and other geographic information technologies are entering a highly integrated phase.

This standard provides a software development framework for developers to use the common computing interface in an open information technology environment.

Source to access and process geographic data.

--- "provides a software development framework for developers" means that this standard is based on a comprehensive and common geographic data interoperability (That is, for the general application of a consensus) concept.

- "Access and processing" means that geodata users can query remote databases and control remote processing resources, and make full use of their His distributed computing technology, such as for temporary use, transfers software from a remote environment to a user's local environment.

--- "from a variety of resources" means that users can access a variety of ways to obtain the data and stored in a relational or non-relational database of various kinds of data.

- "Use of common computing interface" refers to the deployment of the standard interface to the various distributed software resources to provide reliable communication between.

- "in an open information technology environment" means that this standard contributes to geographic data processing from a single GIS, remote sensing and AM/FM and other closed system environment freed, because these closed system constraints of the

database, user interface, network and data Operation function.

Geographic information services

## 1 Scope

This standard identifies and defines the architectural patterns used for the Geographic Information Services interface and defines the architecture model and the open system Environment (OSE) model.

This standard gives a classification of geographic information services and gives a series of examples of geographic information services in service classification.

This standard describes how to create platform-independent service specifications and how to derive service specifications that are relevant to the platform.

This standard provides guidance for selecting and standardizing geographic information services from platform-independent and platform-related perspectives.

## 2 consistency

Any product that claims to be consistent with this standard is required to meet all the requirements of the Appendix A abstract test suite.

**Note:** The definition of abstract test suite is described in GB/T 19333.5-2003.

## 3 Normative references

The terms of the following documents are hereby incorporated by reference into this standard. Whichever is the date of the reference file, which is followed by all (Excluding corrigenda) or revisions do not apply to this standard, however, encourage the parties to reach an agreement under this standard Whether you can use the latest version of these files. For undated references, the latest edition applies to this standard.

Information technology - Open distributed processing reference model - Part 1. Overview (ISO/IEC 10746-1.

1998, IDT)

Information technology - Open distributed processing reference model - Part 2. Basic concepts (ISO/IEC 10746-2.:1996, IDT) GB/T 19710-2005 Geographic Information Metadata (ISO 19115.:2003, MOD) ISO/T S19103..2005 Geographic information conceptual pattern language (Geographicinformation-Conceptualschemalanguage) ISO/IEC TR14252.:1996 Information Technology POSIX Open Systems Environment (OSE) Guide (Informationtechnology-GuidetothePOSIXOpenSystemEnvironment (OSE))