

ICS 07.040, 35.240.70
CCS A 75



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

GB/T 19710.1-2023

Replacing GB/T 19710-2005

Geographic information - Metadata - Part 1: Fundamentals

地理信息 元数据 第1部分:基础

(English Translation)

Issued on: November 27, 2023

Implemented on: November 27, 2023

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative references	
3 Terms and Definitions	
4 Symbols and abbreviations	
4.1 Abbreviations	
4.2 Package abbreviation	
5 Consistency	
5.1 Conformance requirements	
5.2 Abstract test suite	
6 Metadata requirements	
6.1 Resource metadata	
6.2 Metadata application information	
6.3 Metadata base packages and dependencies	
6.4 Relationship between citation and responsible unit information package, metadata application information package and coverage information package	
6.5 Class diagram of resource metadata package	
6.6 Coverage, References and General Information Package	
6.7 Implementation Example	
6.8 Metadata implementation	
6.9 Discovering metadata	
6.10 Revision	
Appendix A (Normative) Abstract Test Suite	
Appendix B (Normative) Data Dictionary	
Appendix C (Normative) Metadata Extensions and Specific Standards	
Appendix D (Informative) Implementation Example	
Appendix E (Informative) Metadata Implementation	
Appendix F (normative) Geographical resource discovery metadata	
Appendix G (informative) Revision Notes	
Reference	

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting:

This document is Part 1 of GB/T 19710 "Geographical Information Metadata": GB/T 19710 has published the following parts:

---Part 1: Basics;

---Part 2: Imagery and Grid Data Extensions:

This document replaces GB/T 19710-2005 "Geographical Information Metadata": Compared with GB/T 19710-2005, except for structural adjustments and in addition to editorial changes, the main technical changes are as follows:

---Added "service metadata information" (see 6.5:14, Table B:14, E:5:8);

---Added metadata describing discovery services and non-service resources (see F:2, F:3);

---Deleted the concept of "core metadata" (see 6.5 of the:2005 version);

---Deleted the relevant content of "data quality information" (see A:2:4 and B:2:4 of the:2005 version);

---Deleted the "abbreviation" of the metadata element and the "field code" of the code (see Appendix B of the:2005 version):

This document is modified to adopt ISO 19115-1:2014 "Geographical Information Metadata Part 1: Basics":

Compared with ISO 19115-1:2014, this document has made the following structural adjustments:

---Chapter 2 ~ Chapter 4 correspond to Chapter 3 ~ Chapter 5 of ISO 19115-1:2014;

---Chapter 5 corresponds to Chapter 2 in ISO 19115-1:2014;

---Deleted 6:7 of ISO 19115-1:2014; 6:7~6:10 of this document correspond to 6:8~6:11 of ISO 19115-1:2014;

---Deleted B:3:11 and B:3:14 of ISO 19115-1:2014; B:3:11~B:3:12 of this document correspond to ISO 19115-1:2014 B:3:12~B:3:13; B:3:13~B:3:31 of this document correspond to B:3:15~B:3:33 of ISO 19115-1:2014;

The technical differences between this document and ISO 19115-1:2014 and their reasons are as follows:

---Added relevant content of CI_Telephone type code > (see B:3:6);

---Changed the DS_Plan Type Code > (see B:3:10) to suit the actual situation in my

country;

---Changed the MD_safety restriction classification code > (see B:3:12) to comply with GB/T 7156-2003 and national regulations relevant regulations;

---Added relevant content of MD_maintenance frequency code > (see B:3:19);

---Deleted MD_topic type code > line 11 "Intelligent Military" (see B:3:28);

---Changed Figure C:1 to eliminate ambiguity:

The following editorial changes have been made to this document:

---Incorporated the amendments to ISO 19115-1:2014/Amd:1:2018 and ISO 19115-1:2014/Amd:2:2020, involving the outer margin of the clause is marked with a vertical double line (||);

---Changed the normative reference documents and moved some documents to reference documents, including: ISO 19108, ISO 19107, ISO 19111, ISO 4217:2015;

---Replaced ISO 19101-1:2002 with the informative reference GB/T 33188.1-2016 (see 3.5);

---Deleted the multilingual and related parts of ISO 19115-1:2014, including: deleted the normative reference document ISO 639 (so There are some), 6:7, B:3:11, B:3:14, rows 64 and 65 of Table B:3, row 185 of Table B:9, Table B:18, Table B:18:1,

Table B:18:2 and some other associated elements, multilingual examples in Appendix D, and Appendix G; replace "(for example:

'C/Encoding is not defined and UTF-8 is not used?)" in row 18 of Table B:2 is changed to "(For example: 'C/ is not used in row 38 of Table B:2 resource, rather than the metadata of the dataset?)""; deleted "The version of this standard is in English and should be translated into National language or entity developing special standards", "Examples in D:1 are expressed in English: However, countries permitting the execution of this document

---Changed some figures to ensure consistency with the changed code table: A specialized class of DS_OtherAggregate has been added in Figure 1 DS_StereoMate, and added "DS_StereoMate (DS_ stereo image pair) is DS_" in the text description:

Specialized class of OtherAggregate(DS_Other Aggregation): ";Changed the DS_InitiativeTypeCode in Figure 7, which is consistent with B:3:10 Consistent; changed the MD_ClassificationCode of Figure 8 to be consistent with B:3:12; changed the MD_Mainte- of Figure 10

---Changed some examples to suit my country's national conditions: deleted "Dublin Core, FGDC" and changed "ISO Standard" to "National Standard" (see definition in row 23 of Table B:2); change "NOAAlevel1B" to "Ziyu-3 Satellite 1C Level" (see Table B:3 Line 55 definition); change "Laconte County, Laconte City, Laconte River and Laconte Mountain" to

"Huangshan City, Huangshan District and Huangshan", "When searching, the user can limit the search to only rivers are useful" changed to "When searching, the user can limit the search to Restricted to only mountains are useful" (see table B:3:1 row 72 definition); change "EPSG::4326" to "CGCS2000" (see

Table B:8 row 180 definition); change "2019:71" to "2000:0" (see table B:8 row 180b definition); change "by

ISO 4217 stipulates" is changed to "yuan or ten thousand yuan" (see definition in line 269 of Table B:11:5); "'DCW' is a 'global digital location' "The alias of the map" was changed to "'(land) Sandiao' is the alias of the 'Third National Land Survey'" (see line 363 of Table B:16 for the definition Delete the expression "country" in the second and third paragraphs of C:5; change D:2 Example 1 to "1:1 million national basic geographical information Data"; change "Sydney Harbor, Golden Gate Bridge" in E:5:4 to "Ningbo Zhoushan Port, Wuhan Yangtze River Bridge";

---Corrected printing errors: deleted the duplicate content in the definition in line 276 of Table B:12; changed the definition in line 278 of Table B:12:1 "Geodata" changed to "Resources" to remain consistent with line 277:

Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents:

Introduction

In recent years, advances in computer software and hardware in data management and analysis, especially the integration with geographically referenced observation activities, have enabled Our digital information solutions are widely used around the world: Increasingly, students outside the fields of geographic information science and information technology Branch, is producing, enhancing and updating digital geographic information: Given the increasing number, complexity, and diversity of geographic information resources, providing understanding Approaches to various aspects of these resources are becoming increasingly important:

A digital geographical data set is a simulation and description of the real world, used for computer analysis and graphic display of information: The model is a it is an abstract concept that requires approximation, simplification and omission of certain aspects, and is always only one of many possible "perspectives": To ensure that the data is not Misuse, settings and limitations affecting data production must be fully explained: Usually, most users of data are not data producers: Elements Data enables data producers to fully describe the resource so that users can understand its settings and limitations and evaluate the resource's suitability for their application needs:

sex: Providing appropriate documentation enables users unfamiliar with the data to better understand and use the data correctly: High-quality documentation will also Provide data