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

GB/T 18391.2-2026

Replacing GB/T 18391.2-2009

**Information technology - Metadata registries (MDR) - Part 2:
Classification**

信息技术 元数据注册系统 (MDR) 第2部分: 分类
(English Translation)

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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 2 of GB/T 18391 "Metadata Registry System for Information Technology (MDR)", which has been published.

The following section.

---Part 1: Framework;

---Part 2: Classification;

---Part 3: Metamodel of Public Facilities in the Registration System;

---Part 4: Formation of Data Definitions;

---Part 5: Naming and Identification Principles;

---Part 6: Registration.

This document replaces GB/T 18391.2-2009 "Information Technology Metadata Registry System (MDR) Part 2: Classification", and is consistent with...

Compared with GB/T 18391.2-2009, apart from structural adjustments and editorial

changes, the main technical changes are as follows.

- The meaning of classification has been added (see Chapter 4);
- The role of classification schemes has been added (see Chapter 5);
- Added types of classification schemes (see Chapter 6);
- The requirements for a good classification scheme have been added (see Chapter 7);
- Chapter 5 and Appendix A of GB/T 18391.2-2009 have been revised and supplemented and are now included as a new Appendix A, providing metadata annotations.

The use of classification in the registration system.

This document is equivalent to ISO/IEC TR11179-2:2019 "Information technology metadata registry system (MDR) Part 2: Subsystems" the document type has been changed from ISO/IEC technical report to my country's national standard.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Information Technology Standardization Technical Committee (SAC/TC28).

Introduction

This document focuses on the section called the classification area in the Metadata Registry (MDR) model. The classification area allows for the registration and management of a...

A complete classification scheme or a portion thereof. A classification scheme can be used to categorize classifiable items; it is an application to metadata registries.

The type of any metadata item.

Numerous attempts have been made regarding the design of classification schemes, and the establishment and promotion of classification structures based on them. Classification schemes can be used to discover and utilize...

Information related to topics of interest to users. For the purposes of this document, tags, keywords, category lists, hierarchical structure, thesaurus, and classification methods are included.

Both ontology and classification schemes are carefully considered and determined types of classification schemes, each with different functions. These classification schemes are relevant to groups.

The objects in the MDR (Mechanical Design and Research) have potential uses.

When classifying a classifiable item in the MDR, the classification schemes covered in this document serve the following purposes.

- Derive and form other management items;
- Ensure proper inheritance of attributes and attribute values;
- Derive names from the controlled vocabulary;
- Eliminating ambiguity;
- Identify the concepts of superior, corresponding, and subordinate management items;
- Identify the relationships between management items;
- Derived or clarified the meaning of items related to the classification;
- Development of names and definitions to support modular design.

Each of the classification schemes mentioned above has its advantages and disadvantages, laying the foundation for its specific function. For example. tags and keywords.

Keywords are a quick way for users to locate potentially useful categorizable items; the thesaurus is a more structured way to categorize descriptive terms.

They are categorized into broader, narrower, and more relevant classification categories; the classification method provides a classification structure that strengthens the general classification...

The inheritance function from class to specific classification terms; together with related epistemology, ontology will provide a rich and rigorously defined classification structure.

(Such as a directed acyclic graph with multiple inheritances), it can transmit the information needed by the software, such as providing useful intelligence in intelligent information services.

Agents and mediators. When classification methods are used to classify data elements or value ranges, end users can more easily understand the relationships between data elements or value ranges.

data.

Appendix A provides examples of classification schemes using external standards or controlled vocabulary when registering with a metadata registry system.

GB/T 18391 is proposed to consist of twelve parts.

---Part 1: Framework. This section presents the overall framework of this series of standards, including data elements, value ranges, data element concepts, conceptual domains, and concepts and generalizations.

It introduces fundamental concepts such as the concept system, providing context that connects the various parts.

---Part 2: Classification. This section elaborates on the meaning and significance of classification, and explains how to apply a classification scheme to other aspects of the registration system.

Classification standards.

---Part 3: Metamodel of the Registration System's Public Facilities. The Metadata Registry (MDR) is defined using the Unified Modeling Language (UML).

The core metamodel.

---Part 30: Basic Metadata Attributes. Describes the basic attributes of data elements and related metadata in order to avoid issues that may arise from a lack of complete metadata.

Used according to the registration system.

---Part 31: Data Specification Registration Metamodel. Provides extensions to the Metadata Registry (MDR) system for registering descriptive data elements.

Metadata for related concepts.

---Part 32: Conceptual System Registration Metamodel. Provides extensions to the Metadata Registry (MDR) system for registering descriptive conceptual entities.

Metadata of the system.

---Part 33: Dataset Registration Metamodel. Provides extensions to the Metadata Registry (MDR) system for registering descriptive datasets, Metadata of a dataset.

---Part 34: Computable Data Registry Metamodel. Provides extensions to the Metadata Registry (MDR) system for registering computable data descriptions.

Metadata of the calculation data.

---Part 35: Model Registration Metamodel. Provides extensions to the Metadata Registry (MDR) system for registering descriptive models and related metadata.

Metadata of the metamodel.

---Part 4: Forming Data Definitions. Provides guidance on how to develop clear data definitions.

---Part 5: Naming and Identification Principles. These guidelines provide direction on how to assign names to managed items.

---Part 6: Registration. Provides information on assigning a unique identifier to each data component and how registration applicants can register with the registration authority.