

ICS 35.040
CCS A 24



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

GB/T 18391.1-2026

Replacing GB/T 18391.1-2009

**Information technology - Metadata registries (MDR) - Part 1:
Framework**

信息技术 元数据注册系统 (MDR) 第1部分: 框架
(English Translation)

Issued on: February 27, 2026

Implemented on: September 1, 2026

Issued by: State Administration for Market Regulation

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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 1 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 18391.1-2009 "Information Technology Metadata Registry System (MDR) Part 1: Framework", and is consistent with...

Compared with GB/T 18391.1-2009, apart from structural adjustments and editorial

changes, the main technical changes are as follows.

---Chapter 7 provides an overview of ISO/IEC 11179, including the original six parts, and adds sections on Parts 30 and 31.

Introduction to Parts 32, 33, 34, and 35;

---A new Chapter 8 has been added, which expands the relationship between this document and relevant standards, mainly including.

- 8.1 Interoperability Metamodel;
- 8.2 Metadata Registration System Module;
- 8.3 Achieve consistency of metadata registration system content;
- 8.4 Metadata interoperability and binding;
- 8.5 Metadata Concepts and Applications;
- 8.6 Format of data element values;
- 8.7 Gender Code;
- 8.8 General Data Types;
- 8.9 General Logic;
- 8.10 Top-level ontology.

This document is equivalent to ISO/IEC 11179-1:2023 "Information technology metadata registry system (MDR) Part 1: Framework".

The following minimal editorial changes have been made to this document.

---Added notes (see 5.3, 7.7, 8.1.2, 8.1.5, 8.1.6, 8.1.7, 8.1.8, 8.1.9, 8.2, 8.3.2, 8.3.3, 8.6, 8.8, 8.9).

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

GB/T 18391 describes the semantics of data, the representation of data, and the registration of data descriptions. Through these descriptions, semantics can be found...

Accurate understanding and useful description of data.

The purpose of GB/T 18391 is to promote.

- Standard description of data;
- A consistent understanding of data within and between organizations;
- Reuse and standardization of data across time, space, and application;
- Data collaboration and standardization within and between organizations;
- Management of data components;
- Reuse of data components.

Each part of GB/T 18391 is designed to address one aspect of the above-mentioned requirements, see Chapter 7.

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.