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मसौदा भारतीय मानक

सूचना प्रौद्योगिकी- मेटाडेटा पंजीकरण (एमडीआर)
भाग 3 पंजीकरण मेटामॉडल और बुनियादी विशेषताएं
(पहला पुनरीक्षण)

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Draft Indian Standard
Information technology — Metadata registries (MDR)
Part 3: Metamodel for registry common facilities
(First Revision)

ICS 35.040.50

Data Management System Sectional Committee, LITD 15	Last Date for Comments: 08 July 2025

NATIONAL FOREWORD

(Formal clauses will be added later)

This draft Indian Standard (Part 3) (First Revision) which is identical to 'ISO/IEC 11179-3:2023 Information technology — Metadata registries (MDR) Part 3: Metamodel for registry common facilities' issued by the International Organization Standardization (ISO) and International Electrotechnical Commission (IEC) will be adopted by the Bureau of Indian Standards (BIS) on the recommendations of the Data Management System Sectional Committee and approval of the Electronics and Information Technology Division Council.

This Standard was first published in 2019 and was identical with ISO/IEC 11179-3: 2013. The first revision has been undertaken to align it with the latest version of ISO/IEC 11179-3:2023.

The main changes are as follows:

— this fourth edition presents a metamodel for the Common Facilities of a Basic Registry which has potential use for more than just metadata;

— the previous edition has been split into multiple parts to make it more manageable;

— the Basic Attributes (formerly Clause 12) have been moved to ISO/IEC 11179-30: Basic attributes of metadata;

— the Data Description region (formerly Clause 11) has been moved to ISO/IEC 11179-31: Metamodel for data specification registration;

— the Concepts region (formerly Clause 9) and the Binary Relations region (formerly Clause 10) have been moved to ISO/IEC 11179-32: Metamodel for concept system registration;

— simplification of the UML used to describe the metamodels, such as:

— elimination of use of stereotypes;

— addition of an explicit 'Item' class as the superclass of all types of registry items;

— removal of role names on associations;

— removal of redundant specification of attributes and associations in the text;

— refactoring of some of the packages to reduce dependencies, including:

— moving the Concept class to the Basic and Core package where it is referenced from multiple metamodel regions, including: the Data Specification package in ISO/IEC 11179-31, the Concept System package in ISO/IEC 11179-32, the Data Set package in ISO/IEC 11179-33 and the Model package in ISO/IEC 11179-35;

— moving the Context class to the Basic and Core package where it is referenced from the Designation and Definition package in this document, the Data Specification package in ISO/IEC 11179-31 and the Data Set package in ISO/IEC 11179-33;

— moving the Slot class to the Basic and Core package, a more appropriate location than the Identification package;

— a Classification region has been restored, based on the style of ISO/IEC 11179-3:2003[12], to remove dependency on the Concept System region for classification;

— adding a generic mapping facility among registry items;

— a change to the formatting of the text in Clauses 5 through 11 and Annexes B and C, to better align with ISO Directives and ISO House Style, see 5.3.2.

The text of ISO/IEC Standard may be approved as suitable for publication as an Indian Standard without deviations. Certain conventions and terminologies are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard', and

b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies:

International Standard	Corresponding Indian Standard	Degree of Equivalence
ISO/IEC 11179-6:2023, Information technology — Metadata registries (MDR) — Part 6: Registration	IS/ISO/IEC 11179-6: 2015 Information Technology — Metadata Registries (MDR) Part 6 Registration	Identical with ISO/IEC 11179-6 : 2015

The technical committee has reviewed the provisions of the following International Standard referred in this adopted draft standard and has decided that it is acceptable for use in conjunction with this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies:-

International Standard	Title
ISO/IEC 11404:2007,	Information technology — General-Purpose Datatypes (GPD)

Scope of ISO/IEC 11179-3: 2023 is as follows:

"This document specifies the information to be recorded in a metadata registry in the form of a conceptual data model:

— Clause 5 specifies the approach used to model a metadata registry;

— Clause 6 specifies the Core Model of the registry, including basic types and classes to be reused in extending the model. The core model defines a generic "registry item", from which any type of item that needs to registered can be sub-classed;

— Clause 7 specifies the metamodel for Identification of registry items;

— Clause 8 specifies the metamodel for Designation and Definition of registry items;

— Clause 9 specifies the metamodel for Registration of registry items;

— Clause 10 specifies the metamodel for Classification of registry items;

— Clause 11 specifies the metamodel for Mapping among registry items."

Note: - The Technical content of this document has not been enclosed as these are identical with the corresponding ISO/IEC Standard. For details please refer to ISO/IEC 11179-3: 2023 or kindly contact

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