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Partie 24: Métamodèle dans RDF ISO/IEC 11179-3:2013

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Contents

Page

Foreword ... **iv**

Introduction ... **v**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**
3.1 Terms and definitions of metamodel constructs ... 1
3.2 Terms and definitions of concepts ... 3
3.3 Terms and definitions of knowledge organization systems ... 7

4 Modeling principles and mapping conventions ... **9**
4.1 Guiding principles of the ISO/IEC 11179-3:2013 Metamodel in RDF ... 9
4.2 Use of RDF and RDF based vocabularies ... 9
4.3 Schema conventions ... 10
4.4 UML Stereotypes ... 11

5 Overview of ISO/IEC 11179-3:2013 Metamodel in RDF ... **11**
5.1 Organization ... 11
5.2 Basic types metamodel region (ISO/IEC 11179-3:2013, 6.2) ... 11
5.3 Basic Classes metamodel region (ISO/IEC 11179-3:2013, 6.3) ... 12
5.4 Identification metamodel region (ISO/IEC 11179-3:2013, 7.2) ... 13
5.5 Designation and Definition metamodel region (ISO/IEC 11179-3:2013, 7.3) ... 14
5.6 Registration metamodel region (ISO/IEC 11179-3:2013, 8.1) ... 16
5.7 Concepts package (ISO/IEC 11179-3:2013, Clause 9) ... 17
5.8 Binary Relations package (ISO/IEC 11179-3:2013, Clause 10) ... 18
5.9 Data Description package (ISO/IEC 11179-3:2013, Clause 11) ... 18
5.10 Elements of ISO/IEC 11179-6 ... 21

Annex A (informative) **Summary of differences between ISO/IEC 11179-3:2013 and ISO/IEC 11179-3:2023, ISO/IEC 11179-31:2023 and ISO/IEC 11179-32:2023** ... **22**

Bibliography ... **26**

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Foreword

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A list of all parts in the ISO/IEC 19583 series can be found on the ISO and IEC websites.

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Introduction

The ISO/IEC 11179 series on Metadata registries (MDR) addresses the semantics of data, the representation of data, and the registration of the descriptions of that data. The semantic and representational components are described through attributes contained in the conceptual model of a metadata registry as specified in ISO/IEC 11179-3. ISO/IEC 11179-3 provides the basic conceptual model, including the basic attributes and relationships, for a metadata registry.

ISO/IEC 11179-3 defines a common conceptual model, but not a physical implementation. Therefore, the metamodel need not be physically implemented exactly as specified. However, it must be possible to unambiguously map between the implementation and the metamodel in both directions. If implementers can ensure such a mapping, it only partially addresses the issue of interoperability, even between registry products that can claim the same conformance level.

ISO/IEC 11179-3:2013Metamodel in RDF addresses interoperability from multiple perspectives. It defines a semantic and formal representation of the ISO/IEC 11179-3:2013 conceptual model based on the W3C Resource Description Framework (RDF). This model constitutes a machine readable representation, and can therefore be easily exchanged and explored using RDF based software tools. It can be used by implementers as a common target model for mapping between a specific implementation and the metamodel. Hence, implementers can use this to map against a common target model and more easily identify interoperability issues. A formal RDF model can also be instantiated and therefore serve as a direct exchange format between registry products.

ISO/IEC 11179-3:2013 has been withdrawn and replaced by ISO/IEC 11179-3:2023. The terms used in this document are those defined in ISO/IEC 11179-3:2013 and ISO/IEC 11179-6:2015.

Annex A provides a summary of the differences between ISO/IEC 11179-3:2013 and its successors ISO/IEC 11179-3:2023, ISO/IEC 11179-31:2023 and ISO/IEC 11179-32:2023.

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Information technology — Concepts and usage of metadata —

Part 24:
11179-3:2013 Metamodel in RDF

1 Scope

This document specifies the structure of ISO/IEC 11179-3:2013. It defines a mapping of the ISO/IEC 11179-3:2013 conceptual model to a formal schema representation based on the W3C Resource Description Framework (RDF). The schema is available as a separate artefact. This document specifies the principles and conventions that were followed to map classes, attributes, and associations of the conceptual model to a formal RDF schema.

This document does not provide detailed explanatory details about the ISO/IEC 11179 series or RDF. For more information, refer to References [7] to [9].

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 11179-3:2013[1)], *Information technology — Metadata registries (MDR) — Part 3: Metamodel for registry common facilities*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 11179-3:2013 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1 Terms and definitions of metamodel constructs

3.1.1
class
(metamodel) description of a set of *objects* (3.2.1) that share the same *attributes* (3.1.7), operations, methods, *relationships* (3.1.2), and semantics

[SOURCE: ISO/IEC ISO 11179-3:2013, 3.1.5]

1) Withdrawn and replaced by ISO/IEC 11179-3:2023, ISO/IEC 11179-30:2023, ISO/IEC 11179-31:2023 and ISO/IEC 11179-32:2023.

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