ISO/IEC 11179-1:2023-01 (E)

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

Contents

Page

Foreword v

Introduction vii

1 Scope 1

2 Normative references 1

3 Terms,definitionsandabbreviatedterms 1
3.1 Terms related to modelling constructs 1
3.2 General terms 2
3.3 Terms used in the 11179 metamodel 7
3.4 Abbreviated terms 11

4 Theory of terminology 12

5 Metadata 12
5.1 General 12
5.2 Concepts 13
5.2.1 General 13
5.2.2 Management 13
5.3 Fundamental model of data elements 13
5.4 Data elements in data management and interchange 15

6 Metadata registries 15
6.1 General 15
6.2 Fundamentals of registration 16

7 Overview of ISO/IEC 11179 17
7.1 General 17
7.2 ISO/IEC 11179-1 -- Part 1: Framework 17
7.3 ISO/IEC TR 11179-2 -- Part 2: Classification 17
7.4 ISO/IEC 11179-3 -- Part 3: Metamodel for registry common facilities 17
7.5 ISO/IEC 11179-30 -- Part 30: Basic attributes of metadata 18
7.6 ISO/IEC 11179-31 -- Part 31: Metamodel for data specification registration 18
7.7 ISO/IEC 11179-32 -- Part 32: Metamodel for concept system registration 18
7.8 ISO/IEC 11179-33 -- Part 33: Metamodel for data set registration 19
7.9 ISO/IEC 11179-34 -- Part: 34 Metamodel for computable data registration 20
7.10 ISO/IEC 11179-35 -- Part 35: Metamodel for model registration 20
7.11 ISO/IEC 11179-4 -- Part 4: Formulation of data definitions 20
7.12 ISO/IEC 11179-5 -- Part 5: Naming principles 20
7.13 ISO/IEC 11179-6 -- Part 6: Registration 21

8 Relationship to other JTC 1/SC 32 standards, TRs and TSs on metadata 21
8.1 ISO/IEC 19763 series -- Metamodel framework for interoperability (MFI) 21
8.1.1 General 21
8.1.2 ISO/IEC 19763-1 -- Part 1: Framework 22
8.1.3 ISO/IEC 19763-10 -- Part 10: Core model and basic mapping 22
8.1.4 ISO/IEC 19763-6 -- Part 6: Registry summary 23
8.1.5 ISO/IEC 19763-3 -- Part 3: Metamodel for ontology registration 23
8.1.6 ISO/IEC 19763-5 -- Part 5: Metamodel for process model registration 23
8.1.7 ISO/IEC 19763-7 -- Part 7: Metamodel for service model registration 24

8.1.8 ISO/IEC 19763-8 -- Part 8: Metamodel for role and goal model registration 24
8.1.9 ISO/IEC TR 19763-9 -- Part 9: On-demand model selection 24
8.1.10 ISO/IEC 19763-12 -- Part 12: Metamodel for information model registration 24
8.1.11 ISO/IEC TS 19763-13 -- Part 13: Metamodel for form design registration 25
8.1.12 ISO/IEC 19763-16 -- Part 16: Metamodel for document model registration 25
8.2 ISO/IEC 19773 Metadata Registries (MDR) modules 25
8.3 ISO/IEC 20943 series -- Procedures for achieving metadata registry content consistency 26
8.3.1 General 26
8.3.2 ISO/IEC TR 20943-1 -- Part 1: Data elements 26
8.3.3 ISO/IEC TR 20943-3 -- Part 3: Value domains 27
8.3.4 ISO/IEC TR 20943-5 -- Part 5: Metadata mapping procedure 27
8.3.5 ISO/IEC TR 20943-6 -- Part 6: Framework for generating ontologies 27
8.4 ISO/IEC 20944 series -- Metadata Registries Interoperability and Bindings (MDR- IB) 27
8.4.1 General 27
8.4.2 ISO/IEC 20944-1 -- Part 1: Framework, common vocabulary and common provisions for conformance 28
8.4.3 ISO/IEC 20944-2 -- Part 2: Coding bindings 28
8.4.4 ISO/IEC 20944-3 -- Part 3: API bindings 28
8.4.5 ISO/IEC 20944-4 -- Part 4: Protocol bindings 28
8.4.6 ISO/IEC 20944-5 -- Part 5: Profiles 28
8.5 ISO/IEC 19583 series -- Concepts and uses of metadata 28
8.5.1 General 28
8.5.2 ISO/IEC TR 19583-1 -- Part 1: Metadata concepts 28
8.5.3 ISO/IEC TR 19583-21 -- Part 21: 11179-3 data model in SQL 29
8.5.4 ISO/IEC TR 19583-22 -- Part 22: Registering and mapping processes using ISO/IEC 19763 29
8.5.5 ISO/IEC TR 19583-23 -- Part 23: Data element exchange (DEX) 29
8.6 ISO/IEC 14957 Representation of data element values -- Notation of the format 29
8.7 ISO/IEC 5218 Codes for the representation of human sexes 29
8.8 ISO/IEC 11404 General purpose datatypes 29
8.9 ISO/IEC 24707 Common Logic (CL) 29
8.10 ISO/IEC 21838 series -- Top level ontologies 30
8.10.1 General 30
8.10.2 ISO/IEC 21838-1 -- Part 1: Requirements 30
8.10.3 ISO/IEC 21838-2 -- Part 2: Basic Formal Ontology (BFO) 30
8.10.4 ISO/IEC 21838-3 -- Part 3: Descriptive ontology for linguistic and cognitive engineering (DOLCE) 31
8.10.5 ISO/IEC 21838-4 -- Part 4: TUpper 31

9 Conformance 31

Bibliography 32