

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, definitions and abbreviated terms | 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 |