INTERNATIONAL STANDARD

ISO/IEC 19763-10

Second edition
2023-07

Information technology — Metamodel framework for interoperability (MFI) —

Part 10: Core model and basic mapping

Technologies de l'information — Cadre du métamodèle pour l'interopérabilité (MFI) —

Partie 10: Modèle de base et de cartographie de base

Reference number
ISO/IEC 19763-10:2023(E)

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management and interchange*.

This second edition cancels and replaces the first edition (ISO/IEC 19763-10:2014), which has been technically revised.

The main changes are as follows.

— The Core Model has been revised to extend the facilities provided by ISO/IEC 11179-3 *Information technology — Metadata registries (MDR) — Part 3: Metamodel for registry common facilities* (part of the fourth edition of ISO/IEC 11179) to allow models to be registered in a metadata registry. The previous edition of ISO/IEC 11179-3 has been modularized and technically revised.

— The Basic Mapping facility has been removed as an extended mapping facility is provided by ISO/IEC 11179-3:2023, Clause 11.

A list of all parts in the ISO/IEC 19763 series can be found on the ISO and IEC websites.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

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Introduction

Industrial consortia have engaged in the standardization of domain-specific business objects including business process models and software components using common modelling facilities and interchange facilities such as UML[1)] and XML. They are very active in standardizing domain-specific business process models and standard modelling constructs such as data elements, entity profiles and value domains.

However, to promote interoperability across business domains, a generic framework for registering a variety of models and the mapping between them is required. This document provides a core metamodel as the basis for the other parts of the ISO/IEC 19763 series. The primary purpose of the multipart standard ISO/IEC 19763 is to specify a metamodel framework for interoperability.

The model registries specified in this document and the other parts of the ISO/IEC 19763 series utilise the common facilities specified in ISO/IEC 11179-3. The ISO/IEC 11179 series of standards specify a Metadata Registry (MDR). These common facilities provide the ability to identify and register models and their associated model elements and modelling languages within a metadata registry used to register models.

Figure 1 shows the relationship between this document and the other parts of the ISO/IEC 19763 series.

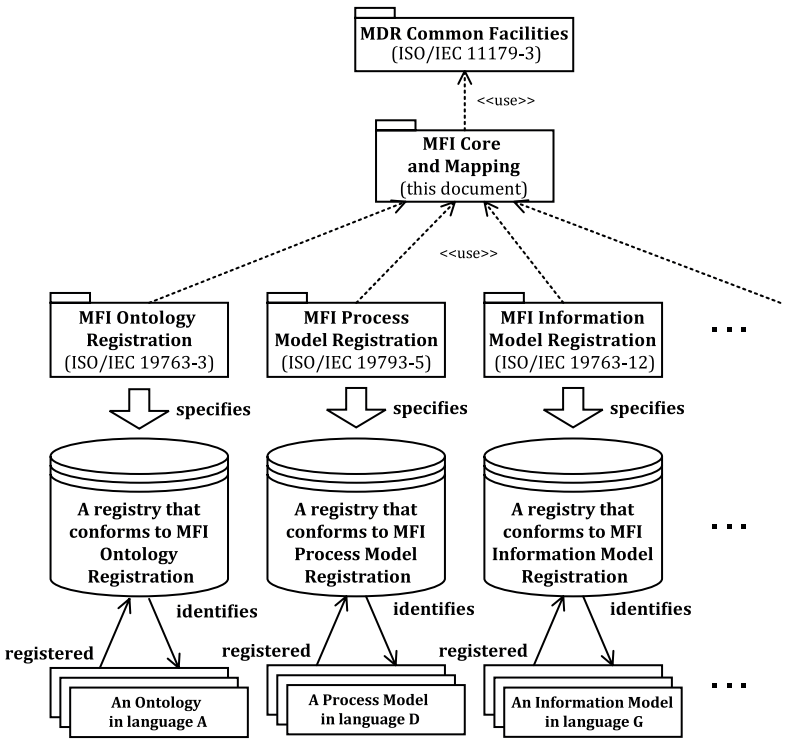


Figure 1 — Relationships between this document and other documents of the ISO/IEC 19763 series

To maintain compatibility with the ISO/IEC 11179 series, this document uses bold font to highlight metamodel constructs in Clauses 6 and 8, both for those constructs specified in this document and for those constructs specified in ISO/IEC 11179-3.

1) UML is a trademark of the Object Management Group This information is given for the convenience of users of this document and does not constitute an endorsement by ISO or IEC of the product named.

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Information technology — Metamodel framework for interoperability (MFI) —

Part 10: Core model and basic mapping

1 Scope

This document specifies the metamodel that provides a facility to register administrative information and common semantics of models.

This document does not specify the metamodel of models in a specific language, but provides a common core metamodel for the other parts of the ISO/IEC 19763 series, each of which specifies a metamodel for a registry that can register models of a specific type, such as ontologies, process models or information models, in a number of different languages.

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 11179-3:2023, *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 and the following apply.

ISO and IEC maintain terminology 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
model
representation of some aspect of a domain of interest using a normative modelling facility and modelling constructs

Note 1 to entry: models can be used to express a set of information requirements, processes, services, roles, goals or some other aspect of a domain of interest

[SOURCE: ISO/IEC 19763-1:2023, 3.1]

3.2
model element
element or component in a *model* (3.1)

Note 1 to entry: Examples of model elements are a representation of an entity type in an information model, a representation of an event in a process model, a representation of a service operation in a service model, or a representation of an actor in a role and goal model.

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