INTERNATIONAL STANDARD

ISO/IEC 19763-10

First edition
2014-12-15

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 19763-10:2014(E)

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 19763-10 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management and interchange*.

ISO/IEC 19763 consists of the following parts, under the general title *Information technology — Metamodel framework for interoperability (MFI)*:

— *Part 1: Framework*

— *Part 3: Metamodel for ontology registration*

— *Part 5: Metamodel for process model registration*

— *Part 6: Registry Summary*

— *Part 10: MFI Core model and basic mapping*

— *Part 12: Metamodel for information model registration*

The following parts are under preparation:

— *Part 7: Metamodel for service registration*

— *Part 8: Metamodel for role and goal registration*

— *Part 9: On demand model selection*

— *Part 13: Metamodel for forms registration*

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 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 part of ISO/IEC 19763 provides a core metamodel as the basis for the other parts of ISO/IEC 19763 and a metamodel for registering the mappings between models registered in those other parts of ISO/IEC 19763.

NOTE UML is a trademark of the Object Management Group.

Information technology — Metamodel framework for interoperability (MFI) —

Part 10: Core model and basic mapping

1 Scope

The primary purpose of this International Standard is to specify a metamodel framework for interoperability. This part of ISO/IEC 19763 specifies the metamodel that provides a facility to register administrative information and common semantics of models and mapping between two models.

This part of ISO/IEC 19763 does not specify the metamodel of models in a specific language, but provides a common core metamodel for the other parts of ISO/IEC 19763, 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.

This part of ISO/IEC 19763 also provides a metamodel for registering the mappings between two models registered in those other parts of ISO/IEC 19763.

This part of ISO/IEC 19763 utilises the common facilities specified in ISO/IEC 11179-3. ISO/IEC 11179 (all parts) specifies 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 part of ISO/IEC 19763 and other parts of ISO/IEC 19763.

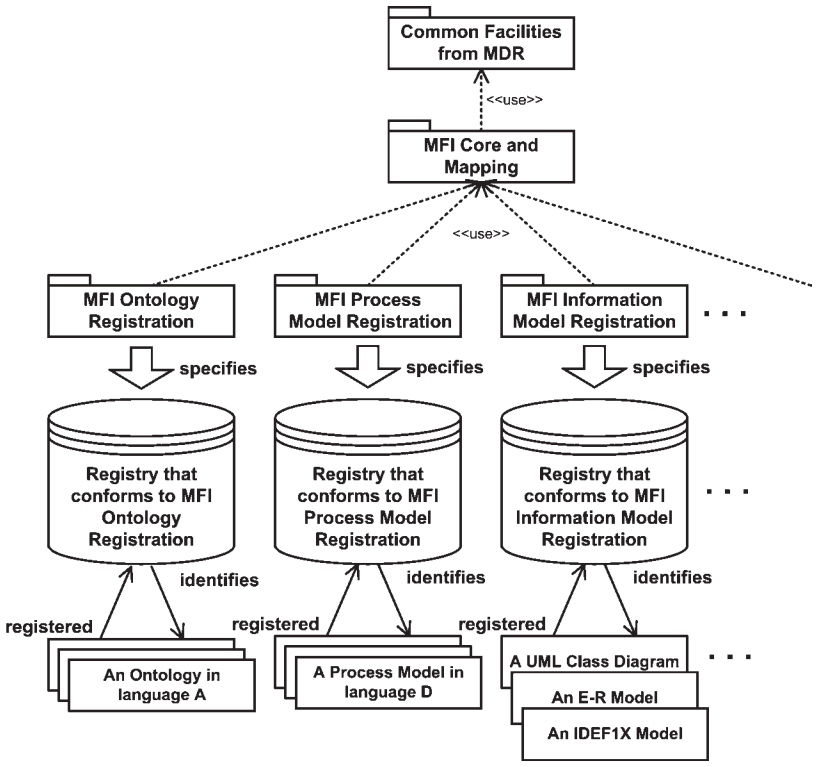

Figure 1 — Relationships between MFI Core and mapping and other parts

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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, *Information technology — Metadata registries (MDR) — Part 3: Registry metamodel and basic attributes*

ISO/IEC 11179-6, *Information technology — Metadata registries (MDR) — Part 6: Registration*

ISO/IEC 19763-1[1)], *Information technology — Metamodel framework for interoperability (MFI) — Part 1: Reference model*

ISO/IEC 19763-3:2010, *Information technology — Metamodel framework for interoperability (MFI) — Part 3: Metamodel for ontology registration*

1) This standard is under revision.