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Information technology — Metamodel framework for interoperability (MFI) —

Part 5: Metamodel for process model registration

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

Partie 5: Métamodèle pour l'enregistrement du modèle de procédé

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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.

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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.

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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 7: Metamodel for service model registration*

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

— *Part 9: On demand model selection [Technical Report]*

— *Part 10: Core model and basic mapping*

— *Part 12: Metamodel for information model registration*

— *Part 13: Metamodel for form design registration*

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Introduction

Business process collaboration and integration is growing due to worldwide economic pressures to streamline product development and delivery, and reduce operational costs. Enterprises are merging and forming partnerships to address these issues. Providing for the registration of process models in a standard registry so that they can be discovered, understood and compared for use and integration, will help to promote interoperation within and across enterprises.

Business process modelling languages and notations are widely used to represent processes for different purposes. However, the differences in the syntax and semantics of process models hamper sharing and reusing them among enterprises. Therefore, it is necessary to provide a generic mechanism to support registration of administrative information and selected metadata about process models.

This part of ISO/IEC 19763 provides a metamodel to support the registration of selected metadata and semantics of process models for process discovery and reuse. It offers guidance which highlights the common semantics of process models, helps people clarify the structure of a process and the relationship between processes, and aids in discovering processes, regardless of the notation in which they were originally written. Any information related to the details of process modelling languages or the platform for process execution is not taken into account. In particular, although the registration information of process models can be used to support further discovery of web services in terms of the associations between process and web services, the process representing either the execution order within a web service or the orchestration of a set of web services is out of the scope of this part.

NOTE In this part, 'process' is meant to be 'business process', and 'process model' is meant to be 'business process model'.

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Information technology — Metamodel framework for interoperability (MFI) —

Part 5: Metamodel for process model registration

1 Scope

The primary purpose of the multipart standard ISO/IEC 19763 is to specify a metamodel framework for interoperability.

This part of ISO/IEC 19763 specifies the metamodel that describes a facility to register administrative information and selected metadata about process models. The metamodel specified in this part of ISO/IEC 19763 is intended to promote semantic discovery and reuse of process models within/across process model repositories. For this purpose, it provides selected metadata and common semantics of process models created with a specific process modelling language, including Business Process Model and Notation (BPMN)[1], UML (Unified Modelling Language) Activity Diagram[5] and EPC (Event-driven Process Chain)[7], etc. The metamodel can help discovery of the function and composition of a process, and promote reuse of its components at different levels of granularity. Figure 1 shows the scope of this part of ISO/IEC 19763.

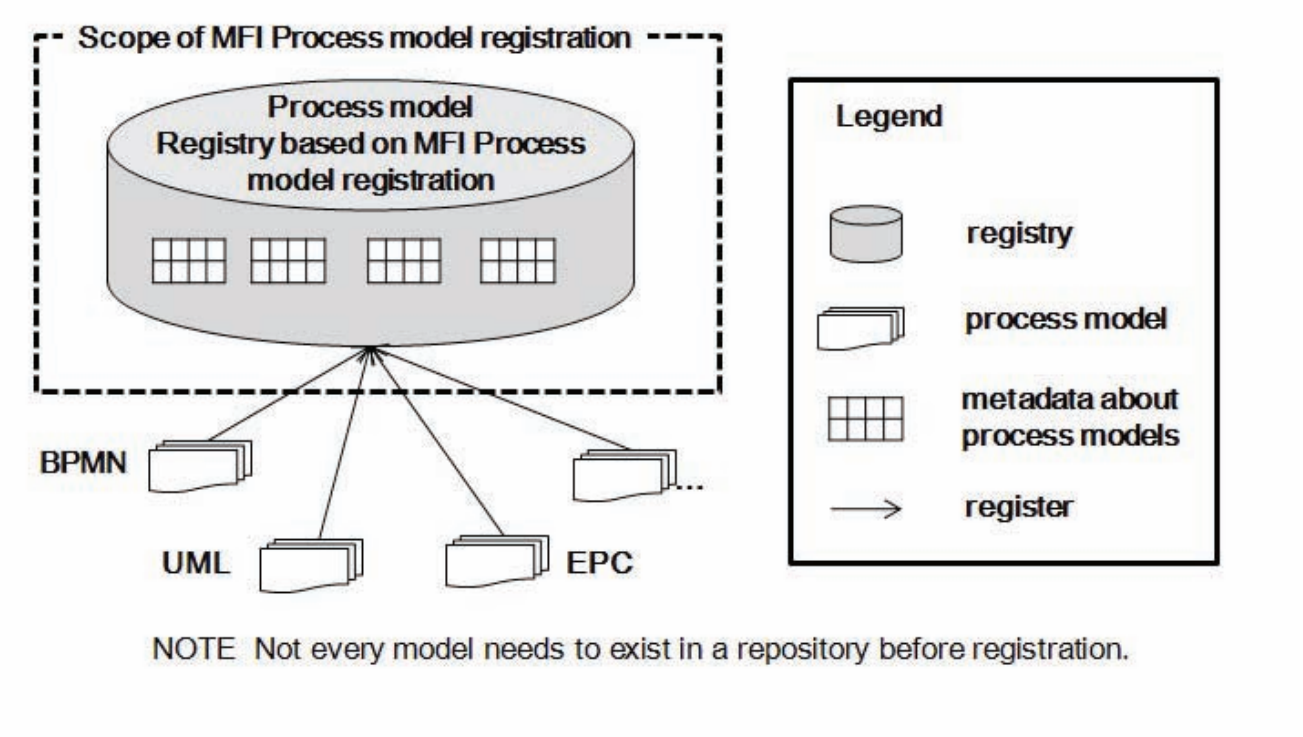


Figure 1 — The scope of MFI Process model registration

The following are outside the scope of this part of ISO/IEC 19763:

— details related to modelling notations or descriptive languages of process models;

— runtime environments or implementation platforms for executing processes.

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2 Normative references

The following referenced documents are indispensable for the application 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 19763-1, *Information technology — Metamodel framework for interoperability (MFI) — Part 1: Framework*

ISO/IEC 19763-7, *Information technology — Metamodel framework for interoperability (MFI)— Part 7: Metamodel for service model registration*

ISO/IEC 19763-8, *Information technology — Metamodel framework for interoperability (MFI) — Part 8: Metamodel for role and goal model registration*

ISO/IEC 19763-10, *Information technology — Metamodel framework for interoperability (MFI) — Part 10: Core model and basic mapping*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 19763-7, ISO/IEC 19763-8 and ISO/IEC 19763-10, and the following apply.

3.1.1
activity
set of cohesive *tasks* (3.1.21)

[SOURCE: ISO/IEC 12207:2008, 4.3, modified]

3.1.2
control constraint
restriction on the execution order for a given collection of *processes* (3.1.12)

3.1.3
dependency
relationship between *process model elements* (3.1.14), that specifies the *control constraints* (3.1.2)

3.1.4
event
occurrence of a particular set of circumstances

3.1.5
exit condition
constraint that, if true, will cause an operation to terminate before its completion

Note 1 to entry: The operation can be a process or a service operation.

3.1.6
goal
intended outcome of user interaction with a *process* (3.1.12) or *service* (3.1.18)

[SOURCE: ISO/IEC 19763-8:—, 3.1.1]

3.1.7
guard condition
condition that must be satisfied before an associated *process* (3.1.12) can execute

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