INTERNATIONAL STANDARD

ISO/IEC 19763-3

Third edition
2020-10

Information technology — Metamodel framework for interoperability (MFI) —

Part 3: Metamodel for ontology registration

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

Partie 3: Métamodèle pour l'enregistrement de l'ontologie

Reference number
ISO/IEC 19763-3:2020(E)

© ISO/IEC 2020

COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

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

Contents

Page

Foreword ... **v**

Introduction ... **vi**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms, definitions and abbreviated terms ... **1**
3.1 Terms and definitions ... 1
3.1.1 Terms on ontology ... 2
3.1.2 Other terms ... 2
3.2 Abbreviated terms ... 2

4 Conformance ... **3**
4.1 General ... 3
4.2 Levels of conformance ... 3
4.2.1 General ... 3
4.2.2 Conformance level 1 ... 3
4.2.3 Conformance level 2 ... 3
4.3 Degree of conformance ... 3
4.3.1 General ... 3
4.3.2 Strictly conforming implementation ... 3
4.3.3 Conforming implementation ... 3
4.4 Implementation conformance statement (ICS) ... 4

5 Structure of MFI ontology registration ... **4**
5.1 Overview of MFI ontology registration ... 4
5.2 Overview of Basic_Model package ... 4
5.3 Overview of Evolution_Model package ... 6
5.4 Association between MFI ontology registration and MFI core and mapping ... 7
5.5 Basic_Model package ... 8
5.5.1 Authoritative_Extent ... 8
5.5.2 Local_Item ... 8
5.5.3 Ontology_Language ... 9
5.5.4 Ontology_Whole ... 9
5.5.5 Registered_Ontology_Whole ... 9
5.5.6 Unregistered_Ontology_Whole ... 10
5.5.7 Reference_Registered_Ontology_Whole ... 10
5.5.8 Local_Registered_Ontology_Whole ... 11
5.5.9 Ontology_Component ... 11
5.5.10 Registered_Ontology_Component ... 12
5.5.11 Reference_Registered_Ontology_Component ... 12
5.5.12 Local_Registered_Ontology_Component ... 13
5.5.13 Ontology_Atomic_Construct ... 14
5.5.14 Registered_Ontology_Atomic_Construct ... 14
5.5.15 Unregistered_Ontology_Atomic_Construct ... 15
5.5.16 Reference_Registered_Ontology_Atomic_Construct ... 16
5.5.17 Local_Registered_Ontology_Atomic_Construct ... 16
5.6 Evolution_Model package ... 17
5.6.1 Item_Evolution ... 17
5.6.2 Registered_Ontology_Whole_Evolution ... 17
5.6.3 Registered_Ontology_Component_Evolution ... 18
5.6.4 Registered_Ontology_Atomic_Construct_Evolution ... 19

Annex A (informative) **List of Ontology_Languages** ... **20**

Annex B (informative) **Example of Basic_Model** ... **21**

Annex C (informative) **Example of Evolution_Model** ... **31**

© ISO/IEC 2020 – All rights reserved