

# TECHNICAL REPORT

# ISO/IEC TR 19583-22

First edition  
2018-07

---

---

## Information technology — Concepts and usage of metadata —

Part 22:

### Registering and mapping development processes using ISO/IEC 19763

*Technologies de l'information — Concepts et utilisation des  
métadonnées —*

*Partie 22: L'enregistrement et mappant de processus de développement  
à l'aide de ISO/IEC 19763*



Reference number  
ISO/IEC TR 19583-22:2018(E)

© ISO/IEC 2018



## **COPYRIGHT PROTECTED DOCUMENT**

© ISO/IEC 2018

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  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms, definitions and abbreviated terms</b> .....	<b>1</b>
3.1 Terms and definitions.....	1
3.2 Abbreviated terms.....	2
<b>4 Assumptions</b> .....	<b>2</b>
4.1 Definition and registration of process models.....	2
4.2 Registration of mappings between process models.....	2
<b>5 The usage scenario</b> .....	<b>2</b>
5.1 Outline.....	2
5.2 Step 1: Define a model for the Standard Process Model and register it using ISO/ IEC 19763-5.....	3
5.3 Step 2: Define a process model for the past projects and register them using ISO/ IEC 19763-5.....	8
5.4 Step 3: Define a process model for the new project and register it using ISO/IEC 19763-5.....	11
5.5 Step 4: Define mappings between these models and register them using ISO/IEC 19763-10.....	15
<b>Bibliography</b> .....	<b>23</b>

## 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.

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](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

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

A list of all parts in the ISO/IEC 19583 series can be found on the ISO website.

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](http://www.iso.org/members.html).

## Introduction

The ISO/IEC 19583 series consists of Technical Reports showing how to implement ISO/IEC 11179 and ISO/IEC 19763.

When a software development project is started the project structure, consisting of processes, activities and tasks, is defined and described in the Project Initiation Document or Project Plan. The project deliverables are also defined in these documents. These documents are then maintained until the project is completed.

The project processes, activities and tasks can be modelled using a process model. A 'standard project process model' is defined in ISO/IEC/IEEE 12207 but the process model for each project should be defined and tailored to recognize the distinctive characteristics of that project. These tailored process models, and their associated deliverables, should be preserved so that the processes, activities, tasks and deliverables can be reused or adapted for new projects, enabling these new projects to be managed efficiently and effectively and at low risk.

ISO/IEC/IEEE 12207 establishes a common framework for software development, containing the processes, activities, and tasks that are to be applied during the whole lifecycle of a software product or service. In software development, each organisation establishes its standard processes based on the specification provided by ISO/IEC/IEEE 12207. During project initiation, the project manager defines the processes, activities, and tasks for the project by tailoring the standard processes so that the new project process model recognizes the distinctive characteristics of the project. For future projects with similar characteristics the new project will be more efficiently and effectively managed with higher quality deliverables produced at lower risk if an existing project process model can be easily reused.

[This is a preview - click here to buy the full publication](#)

# Information technology — Concepts and usage of metadata —

## Part 22:

# Registering and mapping development processes using ISO/IEC 19763

## 1 Scope

This document provides a usage scenario that utilizes the facilities defined in ISO/IEC 11179-3, ISO/IEC 19763-5 and ISO/IEC 19763-10 to demonstrate the registration of the mapping between process models. The availability of these registered process model mappings will help to promote the reuse of process models.

The scope of this document is limited to a discussion of the process models associated with software development projects and the deliverables produced during these projects.

This document describes a scenario that evaluates the combined usage of ISO/IEC 11179-3, ISO/IEC 19763-5 and ISO/IEC 19763-10 to enable the reuse of past knowledge of process models describing project processes and deliverables.

## 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 19763-1, *Information technology — Metamodel framework for interoperability (MFI) — Part 1: Framework*

ISO/IEC 19763-5, *Information technology — Metamodel framework for interoperability (MFI) — Part 5: Metamodel for process 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*