

First edition  
2015-03-01

Corrected version  
2017-04

---

---

**Information technology — Process  
assessment — Requirements for  
process reference, process assessment  
and maturity models**

*Technologies de l'information — Évaluation du processus —  
Exigences relatives au modèle de référence du processus, au modèle  
d'évaluation du processus et au modèle de maturité*

Sample Document

get full document from [standards.iteh.ai](https://standards.iteh.ai)



Reference number  
ISO/IEC 33004:2015(E)

© ISO/IEC 2015

# Sample Document

get full document from [standards.iteh.ai](https://standards.iteh.ai)



## **COPYRIGHT PROTECTED DOCUMENT**

© ISO/IEC 2015, Published in Switzerland

All rights reserved. Unless otherwise specified, 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  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
[copyright@iso.org](mailto:copyright@iso.org)  
[www.iso.org](http://www.iso.org)

# 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 Term(s) and definition(s)</b> .....                                | <b>1</b>  |
| <b>4 Requirements for process models</b> .....                          | <b>1</b>  |
| <b>5 Process reference models</b> .....                                 | <b>2</b>  |
| 5.1 Introduction.....                                                   | 2         |
| 5.2 Process reference model purpose and scope.....                      | 2         |
| 5.3 Requirements for process reference models.....                      | 2         |
| 5.4 Process descriptions.....                                           | 2         |
| 5.5 Verifying conformity of process reference models.....               | 3         |
| <b>6 Process assessment models</b> .....                                | <b>3</b>  |
| 6.1 Introduction.....                                                   | 3         |
| 6.2 Process assessment model scope.....                                 | 4         |
| 6.3 Requirements for process assessment models.....                     | 4         |
| 6.3.9 Mapping process assessment models.....                            | 5         |
| 6.3.10 Expression of assessment results.....                            | 6         |
| 6.4 Verifying conformity of process assessment models.....              | 6         |
| <b>7 Maturity models</b> .....                                          | <b>6</b>  |
| 7.1 Introduction.....                                                   | 6         |
| 7.2 Maturity model scope.....                                           | 6         |
| 7.3 Requirements for a maturity model.....                              | 7         |
| 7.3.4 Scale of organizational process maturity.....                     | 7         |
| 7.3.5 Process descriptions.....                                         | 7         |
| 7.3.6 Rules for deriving maturity level from process quality level..... | 8         |
| 7.4 Verifying conformity of maturity models.....                        | 8         |
| <b>Bibliography</b> .....                                               | <b>9</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 WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

This second edition cancels and replaces clauses of ISO/IEC 15504-2:2003 and ISO/IEC 15504-7:2008, which have been technically revised.

This corrected edition cancels and replaces the edition ISO/IEC 33304:2015 which has been editorially revised. The main changes compared to the previous edition are as follows:

- duplicated clauses in [6.3](#) have been corrected; and
- minor editorial changes have been made to the foreword to align it with current editorial rules.

## Introduction

This International Standard provides requirements for the construction and verification of process reference models, process assessment models, and maturity models.

This International Standard is part of a set of International Standards designed to provide a consistent and coherent framework for the assessment of process quality characteristics, based on objective evidence resulting from implementation of the processes. The framework for assessment covers processes employed in the development, maintenance, and use of systems across the information technology domain and those employed in the design, transition, delivery and improvement of services. The set of International Standards, as a whole, addresses process quality characteristics of any type. Results of assessment can be applied for improving process performance, or for identifying and addressing risks associated with application of processes.

The set of International Standards ISO/IEC 33001:2015 to ISO/IEC 33099, termed the ISO/IEC 330xx family, defines the requirements and resources needed for process assessment. The overall architecture and content of the series is described in this International Standard. General issues relating to the application of conformity assessment to the assessment of process quality characteristics and organizational process maturity are addressed in ISO/IEC 29169.

Several International Standards in the ISO/IEC 330xx family of standards for process assessment are intended to replace and extend parts of the ISO/IEC 15504 series of Standards. Annex A in ISO/IEC 33001 provides a detailed record of the relationship between the ISO/IEC 330xx family and the ISO/IEC 15504 series.

# Sample Document

get full document from [standards.iteh.ai](https://standards.iteh.ai)