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Information technology — Process assessment —

Part 4: Guidance on use for process improvement and process capability determination

Technologies de l'information — Procédés d'évaluation —

*Partie 4: Conseils sur l'utilisation pour l'amélioration de processus et la
détermination de capacité de processus*

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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.

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 15504-4 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and system engineering*.

This first edition cancels and replaces ISO/IEC TR 15504-7:1998 and ISO/IEC TR 15504-8:1998, which have been technically revised.

ISO/IEC 15504 consists of the following parts, under the general title *Information technology — Process assessment*:

- *Part 1: Concepts and vocabulary*
- *Part 2: Performing an assessment*
- *Part 3: Guidance on performing an assessment*
- *Part 4: Guidance on use for process improvement and process capability determination*

The following part is in preparation:

- *Part 5: An exemplar Process Assessment Model*

The complete series will replace ISO/IEC TR 15504-1 to ISO/IEC TR 15504-9.

Introduction

ISO/IEC 15504 provides a framework for process assessment and sets out the minimum requirements for performing an assessment in order to ensure consistency and repeatability of assessment ratings. Process assessment is applicable in the following circumstances:

- by or on behalf of an organization with the objective of understanding the state of its own processes for process improvement;
- by or on behalf of an organization with the objective of determining the capability of another organization's processes for a particular contract or class of contracts, or to determine the capability of its own processes for a particular requirement or class of requirements.

This informative part of ISO/IEC 15504 provides guidance on how to utilize a conformant process assessment within a process improvement programme or within either type of process capability determination.

ISO/IEC 15504-1 provides a general introduction to the concepts of process assessment and a glossary for assessment related terms.

ISO/IEC 15504-2 sets requirements for performing an assessment that ensure consistency and repeatability of the ratings. The requirements help to ensure that the assessment output is self-consistent and provides evidence to substantiate the ratings and to verify compliance with the requirements.

ISO/IEC 15504-3 provides guidance for interpreting the requirements for performing an assessment.

ISO/IEC 15504-5 contains an exemplar Process Assessment Model that is mapped to ISO/IEC 12207:1995/Amd.1:2002 as a Process Reference Model.

Information technology — Process assessment —

Part 4:

Guidance on use for process improvement and process capability determination

1 Scope

This part of ISO/IEC 15504 provides guidance on how to utilize a conformant process assessment within a process improvement programme or a process capability determination. This part of ISO/IEC 15504 is for information only.

The guidance provided does not presume specific organizational structures, management philosophies, life cycle models or development methods, although some of the examples and tables within the text are based upon processes from ISO/IEC 12207.

In the case of process improvement, the concepts and principles are appropriate for the full range of different business goals, application domains and sizes of organization, so that all types of organizations may use them. In the case of process capability determination, this guidance is applicable within any customer–supplier relationship, and to any organization wishing to determine the process capability of its own processes.

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 12207, *Information technology — Software life cycle processes*

ISO/IEC 15504-1, *Information technology — Process assessment — Part 1: Concepts and vocabulary*¹⁾

ISO/IEC 15504-2, *Information technology — Process assessment — Part 2: Performing an assessment*

1) To be published.