

Australian/New Zealand Standard™

Information technology—Process assessment

Part 1: Concepts and vocabulary



AS/NZS ISO/IEC 15504.1:2005

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Part 1: Concepts and vocabulary

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT-015, Software and Systems Engineering. It supersedes AS 15504.1(Int)—1998.

This Standard is identical with, and has been reproduced from ISO/IEC 15504-1:2004, *Information technology—Process assessment—Part 1: Concepts and vocabulary*.

The objective of this Standard is to provide software and systems engineering industry with overall information on the concepts of process assessment and its use in the two contexts of process improvement and process capability determination.

This Standard is Part 1 of AS/NZS 15504 *Information technology—Process assessment*, which is published in parts as follows:

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

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References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
ISO		AS/NZS ISO	
9000	Quality management systems— Fundamentals and vocabulary	9000	Quality management systems— Fundamentals and vocabulary
ISO/IEC		AS	
2382	Information technology—Vocabulary	1189	Data processing—Vocabulary
2382-1	Part 1: Fundamental terms	1189.1	Part 1: Fundamental terms
2382-20	Part 20: System development	1189.20	Part 20: System development
		AS/NZS ISO/IEC	
12207	Information technology—Software life cycle processes	12207	Information technology— Software life cycle processes
		AS/NZS	
15288	Systems engineering—System life cycle processes	15288	Systems engineering—System life cycle processes

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INTRODUCTION

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

ISO/IEC 15504-2 sets out the minimum 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 15504-4 identifies process assessment as an activity that can be performed either as part of a process improvement initiative or as part of a capability determination approach. The purpose of process improvement is to continually improve the organization's effectiveness and efficiency. The purpose of process capability determination is to identify the strengths, weaknesses and risks of selected processes with respect to a particular specified requirement through the processes used and their alignment with the business need.

ISO/IEC 15504-5 contains an exemplar Process Assessment Model that is based upon the Process Reference Model defined in ISO/IEC 12207 Amd 1 Annex F and Amd 2. An assessment is carried out utilizing conformant Process Assessment Model(s) related to one or more conformant or compliant Process Reference Models.

AUSTRALIAN/NEW ZEALAND STANDARD

Information technology—Process assessment**Part 1:
Concepts and vocabulary****1 Scope**

This part of ISO/IEC 15504 provides overall information on the concepts of process assessment and its use in the two contexts of process improvement and process capability determination. It describes how the parts of the suite fit together, and provides guidance for their selection and use. It explains the requirements contained within ISO/IEC 15504, and their applicability to performing assessments.

Readers of this guide should familiarize themselves with the terminology and structure of the document suite, and then reference the appropriate parts of the suite for the context in which they propose to conduct an assessment. A more detailed description of the use of ISO/IEC 15504 is given in clause 4.

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 9000:2000, *Quality management systems — Fundamentals and vocabulary*

ISO/IEC 2382-1:1993, *Information technology — Vocabulary — Part 1: Fundamental terms*

ISO/IEC 2382-20:1990, *Information technology — Vocabulary — Part 20: System development*

ISO/IEC 12207:1995, Amd 1:2002, Amd 2:2004. *Information technology — Software life cycle processes*

ISO/IEC 15288:2002, *Systems engineering — System life cycle processes*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 9000, ISO/IEC 2382-1, ISO/IEC 2382-20, ISO/IEC 12207 and ISO/IEC 15288 and the following apply.

3.1**acquirer**

the stakeholder that acquires or procures a product or service from a supplier

[ISO/IEC 15288]

NOTE Other terms commonly used for an acquirer are buyer, customer, purchaser. The acquirer may at the same time be the owner, user or operating organization.

3.2**assessed capability**

the output of one or more relevant process assessments conducted in accordance with the provisions of ISO/IEC 15504

3.3**assessment constraints**

restrictions placed on the use of the assessment outputs and on the assessment team's freedom of choice regarding the conduct of the assessment

3.4**assessment indicator**

sources of objective evidence used to support the assessors' judgement in rating process attributes

EXAMPLE Work products, practice, or resource

3.5**assessment input**

information required before a process assessment can commence

3.6**assessment instrument**

a tool or set of tools that is used throughout an assessment to assist the assessor in evaluating the performance or capability of processes, in handling assessment data and in recording the assessment results

3.7**assessment output**

all of the tangible results from an assessment (see *assessment record*)

3.8**assessment participant**

an individual who has responsibilities within the scope of the assessment

NOTE Examples include but are not limited to the assessment sponsor, assessors, and organizational unit members.

3.9**assessment process**

a determination of the extent to which the organization's standard processes contribute to the achievement of its business goals and to help the organization focus on the need for continuous process improvement

[ISO/IEC 12207 Amd 1]

3.10**assessment purpose**

a statement, provided as part of the assessment input, which defines the reasons for performing the assessment

3.11**assessment record**

an orderly, documented collection of information which is pertinent to the assessment and adds to the understanding and verification of the process profiles generated by the assessment

3.12**assessment scope**

a definition of the boundaries of the assessment, provided as part of the assessment input, encompassing the organizational limits of the assessment, the processes to be included, and the context within which the processes operate (see *process context*)

3.13**assessment sponsor**

the individual or entity, internal or external to the organizational unit being assessed, who requires the assessment to be performed, and provides financial or other resources to carry it out

3.14**assessment team**

one or more individuals who jointly perform a process assessment

3.15**assessor**

an individual who participates in the rating of process attributes

NOTE An assessor is either a competent assessor or a provisional assessor.

3.16**attribute indicator**

an assessment indicator that supports the judgement of the extent of achievement of a specific process attribute

3.17**base practice**

an activity that, when consistently performed, contributes to achieving a specific process purpose

3.18**capability dimension**

the set of elements in a Process Assessment Model explicitly related to the Measurement Framework for Process Capability

NOTE The attributes are organized into capability levels, comprising an ordinal scale of process capability.

3.19**capability indicator**

an assessment indicator that supports the judgement of the process capability of a specific process

NOTE An attribute indicator is a specific instance of a capability indicator.

3.20**competent assessor**

an assessor who has demonstrated the competencies to conduct an assessment and to monitor and verify the conformance of a process assessment

3.21**defined process**

a process that is managed (planned, monitored and adjusted), and tailored from the organization's set of standard processes according to the organization's tailoring guidelines

NOTE A defined process has a maintained process description; and contributes work products, measures, and other process improvement information to the organization's process assets. A project's defined process provides a basis for planning, performing, and improving the project's tasks and activities of the project.

3.22**generic practice**

an activity that, when consistently performed, contributes to the achievement of a specific process attribute

3.23**indicator**

(see *assessment indicator*)