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Interim Australian Standard™

**Information technology—
Software process assessment
Part 1 : Concepts and introductory
guide**

This Interim Australian Standard was prepared by Committee IT/15, Software Engineering. It was approved on behalf of the Council of Standards Australia on 2 September 1998 and published on 5 October 1998.

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PREFACE

This Interim Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT/15, Software Engineering, and is the result of a consensus among the Joint Committee representatives that it be produced as an Australian Standard. It is identical with, and has been reproduced from, ISO/IEC TR 15504-1:1998, *Information Technology—Software Process Assessment, Part 1: Concepts and Introductory Guide*.

The objective of this Interim Standard is to provide acquirers, suppliers and assessors with the concepts of software process assessment and its use in the two contexts of process improvement and process capability determination. This Part describes how the Parts of the suite fit together, and provides guidance for their selection and use.

This Interim Standard is Part 1 of AS 15504, *Information technology—Software process assessment*, which when complete will consist of the following Parts:

- Part 1: Concepts and introductory guide (this Standard)
- Part 2: A reference model for processes and process capability
- Part 3: Performing an assessment
- Part 4: Guide to performing assessments
- Part 5: An assessment model and indicator guidance (in preparation)
- Part 6: Guide to competency of assessors
- Part 7: Guide for use in process improvement
- Part 8: Guide for use in determining supplier process capability
- Part 9: Vocabulary

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Introduction

Overview

ISO/IEC TR 15504 provides a framework for the assessment of software processes. This framework can be used by organizations involved in planning, managing, monitoring, controlling, and improving the acquisition, supply, development, operation, evolution and support of software.

ISO/IEC TR 15504 provides a structured approach for the assessment of software processes for the following purposes:

- 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 suitability of its own processes for a particular requirement or class of requirements;
- by or on behalf of one organization with the objective of determining the suitability of another organization's processes for a particular contract or class of contracts.

The framework for process assessment

- encourages self-assessment;
- addresses the adequacy of the management of the assessed processes;
- takes into account the context in which the assessed processes operate;
- produces a set of process ratings (a process profile) rather than a pass/fail result;
- is appropriate across all application domains and sizes of organization.

For an organization to improve product quality it must have a proven, consistent and reliable method for assessing the state of its processes and must have a means of using the results as part of a coherent improvement programme.

The use of process assessment within an organization should encourage

- the culture of constant improvement and the establishment of the proper mechanisms to support and maintain that culture;
- the engineering of processes to meet business requirements;
- the optimization of resources.

This will result in capable organizations that maximize their responsiveness to customer and market requirements, minimize the full life-cycle costs of their products and as a result maximize end-user satisfaction.

Purchasers will benefit from the use of process assessment. Its use in capability determination will

- reduce uncertainties in selecting suppliers of software intensive systems by enabling the risks associated with the contractor's capability to be identified before contract award;
- enable appropriate controls to be put in place for risk containment;