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(Expires 5 October 2000)

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

As this Interim Standard is reproduced from an international Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text 'ISO/IEC 15504' should read 'AS 15504(Int)'.

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Standards Australia invites comment of this Interim Standard from persons and organizations concerned with the subject. The date of expiry for comment is two years after publication at which time this Interim Australian Standard will either be confirmed, withdrawn or revised in the light of public comment.

During the life of this document the Committee will monitor all comment as it is received.

Attention is drawn to the fact that this document is an Interim Australian Standard and should be regarded as a developmental Standard liable to future alteration.

CONTENTS

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;