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AS/NZS ISO/IEC/IEEE 29119.2:2015

Australian/New Zealand Standard™

Software and systems engineering—Software testing

Part 2: Test processes

STANDARDS Australia

STANDARDS NEW ZEALAND
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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee IT-015, Software and Systems Engineering. It was approved on behalf of the Council of Standards Australia on 9 June 2015 and on behalf of the Council of Standards New Zealand on 11 June 2015.
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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT-015, Software and Systems Engineering.

The objective of this Standard is to specify test processes that can be used to govern, manage and implement software testing for any organization, project or smaller testing activity. It comprises generic test process descriptions that define the software testing processes.

This Standard is identical with, and has been reproduced from ISO/IEC/IEEE 29119-2:2013, *Software and systems engineering—Software testing,* Part 2: *Test processes*.

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

(a) In the source text 'this part of ISO/IEC/IEEE 29119' should read 'this Australian/New Zealand standard'.

(b) A full point substitutes for a comma when referring to a decimal marker.

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

Reference to International Standard		*Australian/New Zealand Standard*	
ISO/IEC 12207	Systems and software engineering—Software lifecycle processes	AS/NZS ISO/IEC 12207	Systems and software engineering—Software lifecycle processes

Only normative references that have been adopted as Australian or Australian/New Zealand Standard have been listed.

Attention is called to the possibility that implementation of this Standard may require the use of subject matter covered by patent rights. By publication of this Standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. ISO/IEEE is not responsible for identifying essential patents or patent claims or determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance or a Patent Statement and Licensing Declaration Form, if any, or in any licensing agreements are reasonable or non-discriminatory. Users of this Standard are expressly advised that determination of the validity of any patent rights, and the risk of infringement of such rights, is entirely their own responsibility. Further information may be obtained from ISO or the IEEE Standards Association.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the annexes to which they apply. A 'normative' annex is an integral part of a Standard, whereas an 'informative' annex is only for information and guidance.

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INTRODUCTION

The purpose of the ISO/IEC/IEEE series of software testing standards is to define a generic process model for software testing that can be used by any organization when performing any form of software testing. It comprises test process descriptions that define the software testing processes at the organizational level, test management level and dynamic test levels. Supporting informative diagrams describing the processes are also provided. ISO/IEC/IEEE 29119 supports dynamic testing, functional and non-functional testing, manual and automated testing, and scripted and unscripted testing. The processes defined in this series of international standards can be used in conjunction with any software development lifecycle model. Each process is defined using the generic process template that is provided in ISO/IEC TR 24774:2010 Guidelines for Process Description, and covers the purpose, outcomes, activities, tasks and information items of each test process.

Testing is a key approach to risk mitigation in software development. This part of ISO/IEC/IEEE 29119 follows a risk-based approach to testing. Risk-based testing is a best-practice approach to strategizing and managing testing, as it allows testing to be prioritized and focused on the most important features and quality attributes.

The concepts and vocabulary that support this series of international standards are defined in ISO/IEC/IEEE 29119-1 Concepts and definitions. Templates and examples of test documentation that are produced during the testing process are defined in ISO/IEC/IEEE 29119-3 Test documentation. Software test design techniques that can be used during testing are defined in ISO/IEC/IEEE 29119-4 Test techniques.

This series of international standards aims to provide those responsible for software testing with the information required to manage and perform software testing in any organization.

NOTES

AUSTRALIAN/NEW ZEALAND STANDARD

Software and systems engineering—Software testing

Part 2: Test processes

1 Scope

This part of ISO/IEC/IEEE 29119 specifies test processes that can be used to govern, manage and implement software testing for any organization, project or smaller testing activity. It comprises generic test process descriptions that define the software testing processes. Supporting informative diagrams describing the processes are also provided.

This part of ISO/IEC/IEEE 29119 is applicable to testing in all software development lifecycle models.

This part of ISO/IEC/IEEE 29119 is intended for, but not limited to, testers, test managers, developers and project managers, particularly those responsible for governing, managing and implementing software testing.

2 Conformance

2.1 Intended usage

The requirements in this part of ISO/IEC/IEEE 29119 are contained in Clauses 6 to 8. This part of ISO/IEC/IEEE 29119 provides requirements for a number of test processes suitable for use during the complete software lifecycle. It is recognized that particular projects or organizations may not need to use all of the processes defined by this part of ISO/IEC/IEEE 29119. Therefore, implementation of this part of ISO/IEC/IEEE 29119 typically involves selecting a set of processes suitable for the organization or project. There are two ways that an organization can claim to conform to the provisions of this part of ISO/IEC/IEEE 29119.

The organization shall assert whether it is claiming full or tailored conformance to this part of ISO/IEC/IEEE 29119:

2.1.1 Full conformance

Full conformance is achieved by demonstrating that all of the requirements (i.e. shall statements) of the full set of processes defined in this part of ISO/IEC/IEEE 29119 have been satisfied.

2.1.2 Tailored conformance

When this part of ISO/IEC/IEEE 29119 is used as a basis for establishing a set of processes that do not qualify for full conformance, the subset of processes for which tailored conformance is claimed, is recorded. Tailored conformance is achieved by demonstrating that all of the requirements (i.e. shall statements) for the recorded subset of processes have been satisfied.

Where tailoring occurs, justification shall be provided (either directly or by reference), whenever a process defined in Clauses 6, 7 and 8 of this part of ISO/IEC/IEEE 29119 is not followed. All tailoring decisions shall be recorded with their rationale, including the consideration of any applicable risks. Tailoring decisions shall be agreed by the relevant stakeholders.

EXAMPLE Where organizations follow information item management processes in standards such as ISO 15489 (Information and documentation - Records management) or ISO 9001 (Quality management systems - Requirements) or