TECHNICAL REPORT

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Software and systems engineering — Software testing —

Part 6: Guidelines for the use of ISO/IEC/IEEE 29119 (all parts) in agile projects

Ingénierie du logiciel et des systèmes — Essais du logiciel —

Partie 6: Lignes directrices pour l'utilisation de l'ISO/IEC/IEEE 29119 (toutes les parties) dans les projets agiles

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee ISO/IEC JTC1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

A list of all parts in the ISO/IEC/IEEE 29119 series can be found on the ISO and IEC websites.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

Introduction

The purpose of ISO/IEC/IEEE 29119 (all parts) is to define an internationally agreed set of standards for software testing that can be used by any organization when performing any form of software testing.

This document facilitates understanding of how ISO/IEC/IEEE 29119 (all parts) applies to agile life cycles.

ISO/IEC/IEEE 29119-1 introduces software testing concepts and vocabulary. This document uses the concepts and vocabulary of ISO/IEC/IEEE 29119-1.

ISO/IEC/IEEE 29119-2 comprises test process descriptions that define the software testing processes at the organizational level, test management level and dynamic test levels. It supports dynamic testing, functional and non-functional testing, manual and automated testing and scripted and unscripted testing, and can be utilized within any lifecycle model, including agile lifecycles and methodologies.

ISO/IEC/IEEE 29119-3 defines software test documentation. The requirements specified for templates and examples of test documentation defined in ISO/IEC/IEEE 29119-3 can be met in standard or tailored agile lifecycles and methodologies.

ISO/IEC/IEEE 29119-4 defines test design techniques, which can be utilized in any lifecycle, including agile.

ISO/IEC/IEEE 29119-5 addresses the use of keywords to support automated testing.

This document provides a mapping of agile concepts to ISO/IEC/IEEE 29119-2. It also explains how ISO/IEC/IEEE 29119-2 can be adopted under specific agile methodologies and demonstrates how the test documentation templates defined in ISO/IEC/IEEE 29119-3 can be implemented in agile lifecycles.

Clause 4 maps agile practices and artefacts to corresponding clauses of ISO/IEC/IEEE 29119-2. Annex A provides a mapping from The Scrum Guide[6] to ISO/IEC/IEEE 29119-2 clauses. Annex B provides a mapping from all clauses of ISO/IEC/IEEE 29119-2 to the agile practices and artefacts covered under Clause 4. Annex C provides an example mapping of typical test artefacts used in agile to ISO/IEC/IEEE 29119-3. Annex D provides examples of agile test artefacts and explains how they comply with ISO/IEC/IEEE 29119-3.

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1 Scope

This document provides guidance for the application of ISO/IEC/IEEE 29119 (all parts) in agile life cycles. This document is intended for (and not limited to) testers, test managers, business analysts, product owners, Scrum masters and developers involved in agile projects. The mappings provided in this document are designed to benefit any team or organization that is either moving away from traditional/waterfall life cycles and into agile or vice versa as well as new organizations that are commencing agile as their chosen life cycle. It is designed to be understandable regardless of the reader's familiarity with ISO/IEC/IEEE 29119 (all parts).

2 Normative references

There are no normative references in this document.