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Australian STANDARD

# Software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — Requirements for quality of Ready to Use Software Product (RUSP) and instructions for testing

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# Software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — Requirements for quality of Ready to Use Software Product (RUSP) and instructions for testing

Originated as AS/NZS ISO/IEC 25051:2007.
Revised and redesignated as AS ISO/IEC 25051:2019.

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# Preface

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee IT-015, Software and Systems Engineering, to supersede AS/NZS ISO/IEC 25051:2007, *Software engineering—Software product Quality Requirements and Evaluation (SQuaRE)—Requirements for quality of Commercial Off-The-Shelf (COTS) software product and instructions for testing*.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to establish:

(a) quality requirements for Ready to Use Software Product (RUSP);

(b) requirements for test documentation for the testing of RUSP, including test plan, test description, and test results; and

(c) instructions for conformity evaluation of RUSP.

It includes also recommendations for safety or business critical RUSP.

This Standard is identical with, and has been reproduced from, ISO/IEC 25051:2014, *Software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — Requirements for quality of Ready to Use Software Product (RUSP) and instructions for testing.*

As this document has been reproduced from an International Standard, the following applies:

(i) In the source text "this International Standard" should read "this Australian Standard".

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

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms "normative" and "informative" are used in Standards to define the application of the appendices or annexes to which they apply. A "normative" appendix or annex is an integral part of a Standard, whereas an "informative" appendix or annex is only for information and guidance.

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# Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 25051 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*. This second edition cancels and replaces the first edition (ISO/IEC 25051:2006), which has been technically revised. It also incorporates the Technical Corrigendum ISO/IEC 25051:2006/Cor.1:2007.

The main changes are as follows:

— English and French titles corrected;

— modification of RUSP definition, scope and examples;

— harmonization with the current SQuaRE series.

ISO/IEC 25051 is a part of the SQuaRE series of International Standards, which consists of the following divisions:

— Quality Management Division (ISO/IEC 2500n);

— Quality Model Division (ISO/IEC 2501n);

— Quality Measurement Division (ISO/IEC 2502n);

— Quality Requirements Division (ISO/IEC 2503n);

— Quality Evaluation Division (ISO/IEC 2504n);

— Extension Division (ISO/IEC 25050: – ISO/IEC 25099).

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# Introduction

Ready to Use Software Product (RUSP) are used in an increasingly wide variety of application areas and their correct operation is often vital for business, safety and personal applications.

Ready to Use Software Product (RUSP) are packages sold to the acquirer who had no influence on its features and other qualities. Typically the software is sold pre-wrapped or downloaded via web store with its user documentation. A software product, which a user can use anytime thorough Cloud Computing may be considered as RUSP. The information provided on the cover of the package or the supplier website is often the only means whereby the manufacturer or marketing organization can communicate with the acquirer and user. It is therefore important that essential information is given to enable acquirers to evaluate the quality of the Ready to Use Software Product (RUSP) for their needs.

Selecting high quality Ready to Use Software Product (RUSP) is of prime importance, because Ready to Use Software Product (RUSP) may have to be operational in various environments and selected without the opportunity to compare performance among similar products. Suppliers need a way to ensure confidence in services given by the Ready to Use Software Product (RUSP) to the users. Some suppliers may choose a conformity evaluation group for evaluation or certification to assist them in providing this confidence.

In addition, when users require assurances that business or safety critical risks are involved, those assurances may need to be addressed by the user using techniques chosen by the user after the purchase. It is not the intent of this International Standard to specify minimum safety or business critical quality requirements for RUSP; however, informative guidance is given. (See Annex A.)

ISO/IEC 25051:2006 was developed based on ISO/IEC 9126-1:2001 and replaced ISO/IEC 12119:1994. This second edition of ISO/IEC 25051 is a revision of ISO/IEC 25051:2006, in order to conform to ISO/IEC 25010:2011, which replaced ISO/IEC 9126-1:2001 quality model.

These items are the major points for revising this International Standard, which provides a set of requirements for Ready to Use Software Product (RUSP) and requirements for testing a Ready to Use Software Product (RUSP) against its requirements.

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# Australian Standard®

# Software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — Requirements for quality of Ready to Use Software Product (RUSP) and instructions for testing

## 1 Scope

This International Standard is applicable to Ready to Use Software Product (RUSP).

In this International Standard, the term "RUSP" is used as an adjective and stands for "Ready to Use Software Product".

NOTE 1 Examples of Ready to Use Software Product (RUSP) include but are not limited to text processors, spreadsheets, database control software, graphics packages, software for technical, scientific or real-time embedded functions, human resources management software, sales management, smartphone application, freeware and web software such as generators of websites/pages.

NOTE 2 Open source software is not part of Ready to Use Software Product (RUSP).

This International Standard establishes:

a) Quality requirements for Ready to Use Software Product (RUSP);

b) Requirements for test documentation for the testing of Ready to Use Software Product (RUSP), including test plan, test description, and test results;

NOTE The collection of documents for test is called "test documentation".

c) Instructions for conformity evaluation of Ready to Use Software Product (RUSP).

It includes also recommendations for safety or business critical Ready to Use Software Product (RUSP).

This International Standard deals only with providing the user with confidence that the Ready to Use Software Product (RUSP) will perform as offered and delivered. It does not deal with the production realization (including activities and intermediate products, e.g. specifications). The quality system of a supplier is outside the scope of this International Standard.

The intended users of this International Standard include:

a) suppliers when:

1) specifying requirements for a Ready to Use Software Product (RUSP);

2) assessing their own software products against the claimed performance;

3) issuing declarations of conformity (ISO/IEC 17050);

4) applying for certificates or marks of conformity (ISO/IEC Guide 23);

b) certification bodies that may wish to establish a certification scheme (international, regional or national) (ISO/IEC Guide 28);

c) testing laboratories which will have to follow the instructions for testing when testing for a certificate or a mark of conformity (ISO/IEC 17025);

d) accreditation bodies for accrediting registration or certification bodies and testing laboratories;

e) potential acquirers who may:

1) compare the requirements for the intended work task with the information in product descriptions of existing software products;

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