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**Systems and software engineering -- Systems and software  
Quality Requirements and Evaluation (SQuaRE) -- Part 45:  
Evaluation module for recoverability**

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### Foreword

GB/T 25000 "System and Software Engineering Systems and Software Quality Requirements and Evaluation (SQuaRE)" has been or is planned to release the following section.

- Part 1. SQuaRE Guide;
- Part 2. Planning and Management;
- Part 10. System and software quality models;
- Part 12. Data quality model;
- Part 20. Measurement reference models and guidelines;
- Part 21. Quality measurement elements;
- Part 22. Use quality measurement;
- Part 23. System and software product quality measurement;
- Part 24. Data quality measurement;
- Part 30. Quality requirements;
- Part 40. Evaluation process;
- Part 41. Evaluation guidelines for developers, acquirers and independent reviewers;
- Part 45. Evaluation module for easy recovery;
- Part 51. Quality requirements and test details for Ready-to-Use Software Products (RUSP);
- Part 62. Ease of Use Test Report Industry Common Format (CIF).

This part is the 45th part of GB/T 25000.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This section adopts the redrafting method to modify the use of ISO /IEC 25045.2010 "system and software engineering systems and software quality requirements and Evaluation (SQuaRE) Evaluation Module for Resiliency.

The structural differences and reasons for this part and ISO /IEC 25045.2010 are as follows.

--- Due to the required clauses in the suspension section of ISO /IEC 25045.2010, for the normative expression, 5.1 and 5.1.2

The suspension section containing the required clauses at the beginning is modified to 5.1.1 and 5.1.3.1, and the original chapters are sorted in order.

The technical differences and reasons for this part and ISO /IEC 25045.2010 are as follows.

--- Revised the SQuaRE series of standard organization chart to maintain consistency with the latest technological achievements (see Figure 1);

--- Regarding the normative reference documents, this section has made technical adjustments to maintain the national standard with GB/T 25000 series.

The quasi-coordination and adjustment are concentrated in Chapter 2, "Regulatory Citations", and the specific adjustments are as follows.

\* Replace ISO /IEC 25000 with GB/T 25000.1 equivalent to the international standard;

\* Replace ISO /IEC 25010 with GB/T 25000.10 modified to international standards;

\* Replace ISO /IEC 25040 with GB/T 25000.40 modified to international standards;

--- Added the term "resistance" (see 4.4);

--- For the sake of understanding, change the "throughput" to "traffic volume".

The editorial differences between this section and ISO /IEC 25045.2010 are as follows.

--- In order to coordinate with the GB/T 25000 series of national standards, the name of the international standard was revised;

--- Removed the first paragraph of the third paragraph and scope of the ISO /IEC 25045.2010 introduction, the content of which is inconsistent with this standard (see Scope and scope);

--- Modified the ISO /IEC 25045.2010 introduction in the ISO /IEC 25040, ISO /IEC 25041 name errors (see introduction);

--- Deleted the "system detection and recovery" in Figure 3, there is no "system detection

and recovery" related content (see Figure 3);

--- Revised the table number and drawing number in Appendix A of ISO /IEC 25045.2010, and re-in accordance with the requirements of GB/T 1.1-2009

Sort (see Appendix A);

--- Revised the name of Table 13 of ISO /IEC 25045.2010, the original table name is "resource competition" and should be "data loss" (see Table A.4).

Please note that some of the content in this article may involve patents. The issuing organization of this document is not responsible for identifying these patents.

This part is proposed and managed by the National Information Technology Standardization Technical Committee (SAC/TC28).

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## Introduction

As the use of information technology continues to grow, so does the number of critical computer systems. These systems include. confidentiality, life, and

Various systems for security and security. The software quality of these systems is especially important because software failure can have serious consequences.

Evaluation is a systematic determination of the extent to which an entity meets its stated criteria. Software product quality evaluation is critical to software acquisition and development

important. The relative importance of various features of software quality depends on the intended use or target of the software portion of the system; the software product needs to

be evaluated

Price to determine if the relevant quality characteristics meet system requirements.

This section uses methods that involve two types of evaluation of recoverability. One is to use interference injection and operations based on common categories.

A list of disturbances of faults and events to evaluate the quality of the bearing. The other is based on defining a set of questions for each type of interference.

The evaluation system measures, analyzes, and resolves the degree of interference without human intervention to evaluate the quality measure of the autonomous recovery index.

The overall goal of the SQuaRE standard set is to develop a logically organized, rich and unified set of standards covering two main

Process. Software quality requirements specification and software quality evaluation supported by the software quality measurement process. The purpose of the SQuaRE standard set is to help

Those who develop and acquire software products with specifications and evaluations of quality requirements. The standard set establishes software product quality requirements

The specifications and their measurements, as well as the criteria for evaluation, include the use of development process attributes to match the quality model defined by the customer's quality. this

In addition, this series of standards provides recommended measures of the quality attributes of software products that can be used by developers, acquirers, and independent reviewers.

SQuaRE offers.

--- Terms and definitions;

--- Reference model;

---General guide;

--- Each division guide;

--- Standards for demand specification, planning and management, measurement and evaluation purposes.

SQuaRE includes standards for quality models and measurements as well as quality requirements and evaluations.

SQuaRE replaces the current ISO /IEC 9126 (GB/T 16260) series of standards and ISO /IEC 14598 (GB/T 18905) series

standard.