
**Information technology — Systems
and software Quality Requirements
and Evaluation (SQuaRE) —
Measurement of IT service quality**

*Technologies de l'information — Exigences de qualité et évaluation
des systèmes et du logiciel (SQuaRE) — Mesure de la qualité du
service informatique*

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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.

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 JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

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

0.1 General

This document is a part of the Systems and software Quality Requirements and Evaluation (SQuaRE) series of documents, which provides a set of measures for the quality characteristics of IT service that are defined in ISO/IEC TS 25011. It can be used for specifying requirements, measuring and evaluating the IT service quality, in conjunction with other SQuaRE series of documents.

The set of quality measures in this document are selected based on their practical value. They are not intended to be exhaustive, therefore users of this document are encouraged to refine them if necessary.

0.2 Quality measurement division

This document is a part of the ISO/IEC 2502n division that currently consists of the following documents:

- ISO/IEC 25020 — Quality measurement framework: provides a reference model and guideline for measuring the quality characteristics defined in ISO/IEC 2501n quality model division.
- ISO/IEC 25021 — Quality measure elements: provides a format for specifying quality measure elements and some examples of quality measure elements that can be used to construct software quality measures.
- ISO/IEC 25022 — Measurement of quality in use: provides measures including associated measurement functions for the quality characteristics in the quality in use model.
- ISO/IEC 25023 — Measurement of system and software product quality: provides measures including associated measurement functions for the quality characteristics in the product quality model.
- ISO/IEC 25024 — Measurement of data quality: provides measures including associated measurement functions for the quality characteristics in the data quality model.
- ISO/IEC TS 25025 — Measurement of IT service quality: provides quality measures useful for requirements and evaluation of IT service quality.

[Figure 1](#) depicts the relationship between this document and the other documents in the ISO/IEC 2502n division.

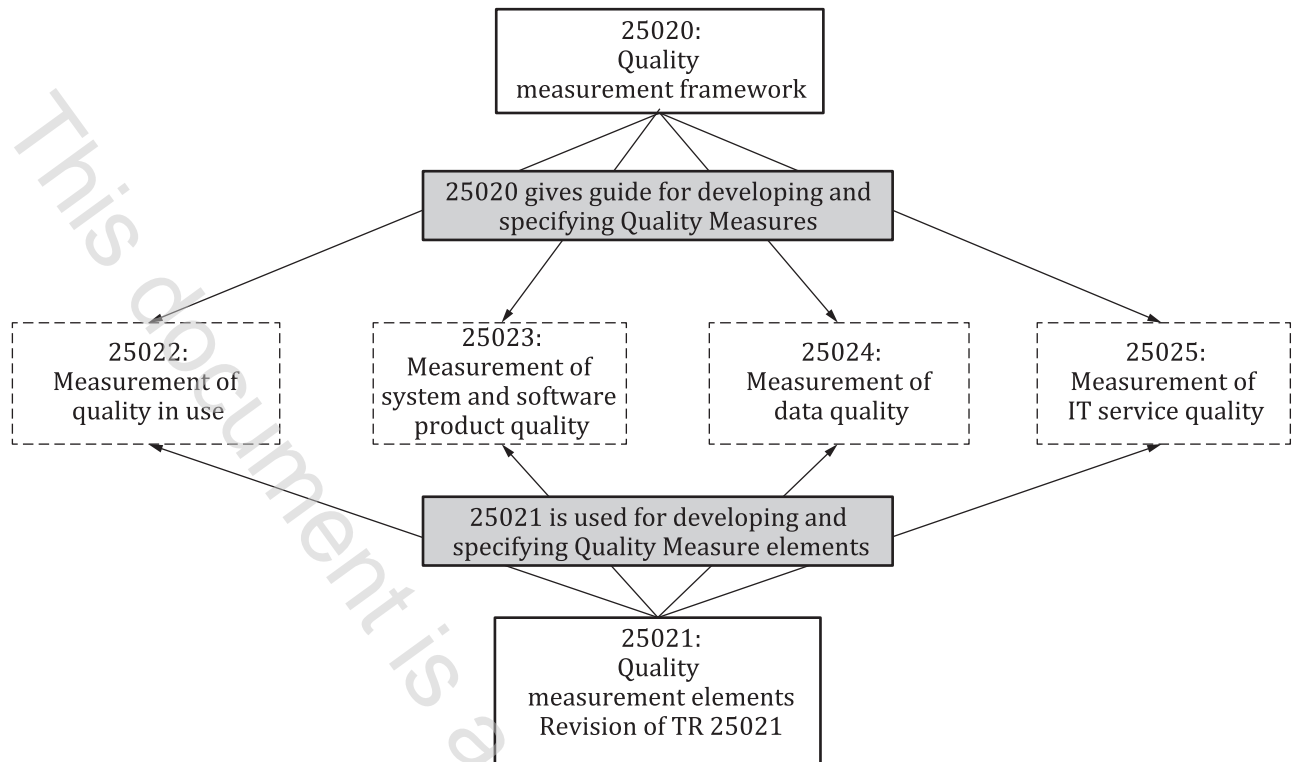


Figure 1 — Structure of the quality measurement division

0.3 Outline and organization of SQuaRE series

The SQuaRE series consists of five main divisions and an extension division. An outline of each division within the SQuaRE series is as follows:

- ISO/IEC 2500n — Quality management division. The standards that form this division define all common models, terms and definitions referred further by all other standards from the SQuaRE series. The division also provides requirements and guidance for the planning and management of a project.
- ISO/IEC 2501n — Quality model division. The standards that form this division provide quality models for system/software products, quality in use, data and IT service. Practical guidance on the use of the quality model is also provided.
- ISO/IEC 2502n — Quality measurement division. The standards that form this division include a system/software product quality measurement reference model, definitions of quality measures, and practical guidance for their application. This division presents internal measures of software quality, external measures of software quality, quality in use measures, data quality measures and IT service quality measures. Quality measure elements forming foundations for the quality measures are defined and presented.
- ISO/IEC 2503n — Quality requirements division. The standards that form this division help to specify quality requirements. These quality requirements can be used in the process of quality requirements elicitation for a system/software product to be developed, designing a process for achieving necessary quality, or as inputs for an evaluation process.
- ISO/IEC 2504n — Quality evaluation division. The standards that form this division provide requirements, recommendations and guidelines for system/software product evaluation, whether performed by independent evaluators, acquirers or developers. The support for documenting a measure as an Evaluation Module is also presented.

ISO/IEC 25050 to ISO/IEC 25099 are reserved for SQuaRE extension International Standards, Technical Specifications, Publicly Available Specifications (PAS) and/or Technical Reports.

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Information technology — Systems and software Quality Requirements and Evaluation (SQuaRE) — Measurement of IT service quality

1 Scope

This document defines quality measures useful for requirements and evaluation of IT service quality in terms of characteristics and sub-characteristics defined in ISO/IEC TS 25011.

This document contains a basic set of quality measures for each characteristic and sub-characteristic.

This document does not assign ranges of values of the quality measures to rated levels or to grades of compliance. Such values are defined based on the nature of the IT service, and so depends on factors such as category of the IT service or users' needs. Some attributes can have a desirable range of values, which does not depend on specific user needs but generic factors, for example, service downtime. This document includes, in [Annex A](#), considerations for the selection and application of quality measures.

The quality measures in this document are primarily intended to be used for quality evaluation and improvement of IT services during or after the development life cycle.

The main users of this document are people carrying out quality requirements specification and evaluation activities for IT services as part of the following:

- development: including requirements analysis, design, implementation, testing and deployment during the development life cycle;
- quality management: monitoring activities of quality assurance and performing quality control of an IT service;
- supply: making a contract with the user for supplying an IT service under the terms of a contract;
- acquisition: including IT service selection, when acquiring or procuring an IT service from a service provider;
- maintenance: improvement of an IT service based on quality measurement.

The relationship of this document to domain-specific IT service quality model and its precedence over this document is determined by the user in a specific context of use.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 25000, *Systems and software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — Guide to SQuaRE*

ISO/IEC TS 25011:2017, *Information technology — Systems and software Quality Requirements and Evaluation (SQuaRE) — Service quality models*

ISO/IEC 25021:2012, *Systems and software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — Quality measure elements*