
**Systems and software engineering —
Systems and software Quality
Requirements and Evaluation
(SQuaRE) — Product quality model**

*Ingénierie des systèmes et du logiciel — Exigences de qualité et
évaluation des systèmes et du logiciel (SQuaRE) — Modèles de qualité
du produit*



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Foreword

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

This second edition of ISO/IEC 25010, together with the first edition of ISO/IEC 25002 and the first edition of ISO/IEC 25019, cancels and replaces ISO/IEC 25010:2011, which has been technically revised.

The main changes are as follows:

- This document revises the product quality model part of ISO/IEC 25010:2011. The other parts are moved to ISO/IEC 25002 on quality models overview and usage and ISO/IEC 25019 on quality-in-use model. The quality characteristics and subcharacteristics of the product quality model are revised for the purpose of better understanding and fitting the state of the art of ICT (information and communication technology).
- The target of the product quality model has been extended to include various types of ICT product and information system.
- Safety has been added as a quality characteristic with subcharacteristics, i.e. operational constraint, risk identification, fail safe, hazard warning and safe integration.
- Usability and portability have been replaced with interaction capability and flexibility respectively.
- Inclusivity and self-descriptiveness, resistance, and scalability have been added as subcharacteristics of interaction capability, security, and flexibility respectively.
- User interface aesthetics and maturity have been replaced with user engagement and faultlessness respectively.
- Accessibility has been split into inclusivity and user assistance.

— Several characteristics and subcharacteristics have been given more accurate names and definitions.

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

ICT (information and communication technology) products, including software products, are increasingly used to perform a wide variety of organizational and personal activities. Realization of goals and objectives for personal satisfaction, organizational success and/or human safety relies on high-quality ICT products. High-quality ICT products are essential to providing value and avoiding potential negative consequences for the stakeholders. The term “product” is used for ICT products which can include software, data, hardware and communication facilities, and other ICT products throughout this document. A product has a variety of influences on many classes of stakeholders including those who develop, acquire, and use the product. Stakeholders also include customers of businesses using the product, as well as the public under the influence of information systems using the product under real operation.

A comprehensive specification and evaluation of the target product is a key factor in ensuring value to stakeholders. This can be achieved by defining the necessary and desired quality characteristics associated with the stakeholders' goals and objectives for the system. This includes quality characteristics related to the product and data as well as the impact the system has on its stakeholders. It is important that the quality characteristics be specified, measured, and evaluated whenever possible using validated or widely accepted measures and measurement methods. The quality model in this document can be used to establish requirements, their criteria for satisfaction and the corresponding measures. A comparison with the product quality model in ISO/IEC 25010:2011 is given in [Annex A](#).

This document is intended to be used in conjunction with the other documents in the SQuaRE family of International Standards (ISO/IEC 25000 to ISO/IEC 25099).

This document is a part of the SQuaRE family of International Standards. [Figure 1](#) illustrates the organization of the SQuaRE family of International Standards. Similar standards are grouped into divisions. Each division provides guidance and resources for performing a different function in ensuring system and software product quality. This document belongs to the quality model division and is aligned with ISO/IEC 25002 belonging to the quality management division.

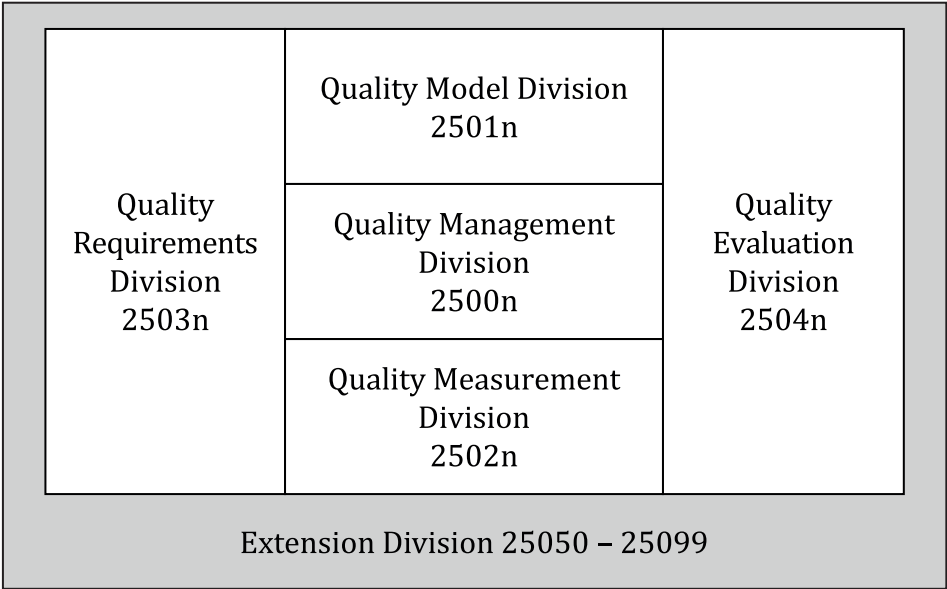


Figure 1 — Organization of SQuaRE family of International Standards

- The divisions within the SQuaRE family are;
- ISO/IEC 2500n - quality management division. The International Standards that form this division define all common models, terms, and definitions referred to by all other International Standards from the SQuaRE family. This division also provides requirements and guidance for a supporting