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## INTERNATIONAL STANDARD

## ISO/IEC/ IEEE 26512

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# Systems and software engineering — Requirements for acquirers and suppliers of user documentation

Ingénierie du logiciel et des systèmes — Exigences pour acquéreurs et fournisseurs de documentation utilisateur





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NY 10016-5997, USA
E-mail stds.ipr@ieee.org
Web www.ieee.org

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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.

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

The main task of ISO/IEC JTC 1 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 called to the possibility that implementation of this standard may require the use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. ISO/IEEE is not responsible for identifying essential patents or patent claims for which a license may be required, for conducting inquiries into the legal validity or scope of patents or patent claims or determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance or a Patent Statement and Licensing Declaration Form, if any, or in any licensing agreements are reasonable or non-discriminatory. Users of this standard are expressly advised that determination of the validity of any patent rights, and the risk of infringement of such rights, is entirely their own responsibility. Further information may be obtained from ISO or the IEEE Standards Association.

ISO/IEC/JEEE 26518:2011 was prepared by Joint Technical Committee ISO/IEC JTC 1, Information technology, Subsemmittee SC 7, Software and systems engineering, in cooperation with the Software and Systems Engineering Standards Committee of the IEEE Computer Society, under the Partner Standards Development Organization cooperation agreement between ISO and IEEE.

This first edition of ISO/IEC/IEEE 26512 cancels and replaces ISO/IEC 15910:1999, which has been technically revised.

#### Introduction

This International Standard was developed to assist users of ISO/IEC 15288:2008 (IEEE Std 15288-2008) or ISO/IEC 12207:2008 (IEEE Std 12207-2008) to acquire or supply software user documentation and documentation services as part of the software life cycle processes. It defines the documentation process from the acquirer's standpoint and the supplier's standpoint. The accurate description of the requirements for user documentation is essential in order to ensure that the documentation meets the needs of its users. This International Standard addresses the identification, definition, and fulfillment of user documentation requirements as part of the acquisition and supply processes.

This International Standard covers the requirements for information items used in the acquisition of user documentation products: the Acquisition Plan, Document Specification, Statement of Work, Request for Proposals, and the Proposal. It also discusses the use of a Documentation Management Plan and a Document Plan as they arise in the acquisition and supply processes.

This International Standard is independent of the software tools that can be used to produce documentation, and applies to both printed documentation and on-screen documentation. Much of its guidance is applicable to user documentation for systems including hardware as well as software.

Earlier standards tended to view the results of the documentation process as a single book or multi-volume set: a one-time deliverable. Increasingly, documentation acquirers and suppliers recognize that most user documentation is now produced from managed re-use of previously developed information (single-source documentation) adapted for new software versions, or presentation in various on-screen and printed media. While this International Standard does not describe how to set up a content management system, it is applicable for documentation organizations practising single-source documentation, as well as for acquirers and suppliers of one-time deliverables.

Anyone who uses application software needs accurate information about how the software will help the user accomplish a task. The documentation can be the first tangible item that the user sees, and so influences the user's first impressions of the software product. If the information is supplied in a convenient form and is easy to find and understand, the user can quickly become proficient at using the product. Therefore, well-designed documentation not only assists the user and helps to reduce the cost of training and support, but also enhances the reputation of the product, its producer, and its suppliers.

Although software developers intend to design user interfaces that behave so intuitively that very little separate documentation is needed, this is rarely possible. Today's software offers increasingly robust functionality, not only within applications, but also across applications which intelligently exchange information with one another. Further, most software includes underlying rules and calculations, or algorithms that affect the results a user can obtain when using the software. These underlying programming mechanics are discernable by users, but only through laborious testing. For these and other reasons, user documentation remains an essential component of usable software products.

Documentation is often regarded as something done after the software has been implemented. However, for high-quality software documentation, its development needs to be regarded as an integral part of the software life cycle. In fact, quality documentation or information management services are important enough to require specific planning.

Related standards for those acquiring and supplying software user documentation include ISO/IEC 26514:2008 (IEEE Std 26514-2010), Systems and software engineering — Requirements for designers and developers of user documentation, and ISO/IEC 26513:2009 (IEEE Std 26513-2010), Systems and software engineering — Requirements for testers and reviewers of user documentation. Other International Standards are in preparation or planned to address the documentation and information management processes from the viewpoint of managers and agile projects.

This International Standard is consistent with ISO/IEC 12207:2008 (IEEE Std 12207-2008) as an implementation of the Acquisition and Supply processes, which comprise the Agreement processes, and of the Information Management and Software Documentation Management Processes.

This International Standard is intended for use in all types of organizations, whether they have a dedicated documentation department or not. It can be used as a basis for local standards and procedures. Readers are assumed to have experience or knowledge of general agreement processes for acquisition and supply of products and services.

The order of clauses in this International Standard does not imply that the acquisition activities need to be performed in this order, nor that documentation needs to be developed in this order or presented to the user in this order.

In each clause, the requirements are media-independent, as far as possible.

The checklists in Annexes A and B can be used to track conformance with the requirements of this International Standard for acquirers and suppliers of documentation products.

The Bibliography contains references to source material used in the development of this International Standard, as well as sources of additional information that might be useful to acquirers and suppliers.



# Systems and software engineering — Requirements for acquirers and suppliers of user documentation

#### 1 Scope

This International Standard supports the interest of software users in having consistent, complete, accurate, and usable documentation. It addresses both available approaches to standardization: a) process standards, which specify the way that documentation products are to be acquired and supplied; and b) documentation product standards, which specify the characteristics and functional requirements of the documentation.

As defined in ISO/IEC 12207:2008 (IEEE Std 12207-2008) and ISO/IEC 15288:2008 (IEEE Std 15288-2008), the acquisition and supply activities comprise the agreement processes of the software life cycle. Acquisition and supply of user documentation and user documentation services are specializations of those processes. User documentation services can be acquired and supplied for any part of the software documentation management or information management process, such as:

- documentation or information management;
- information design and development;
- documentation editing and review coordination;
- documentation testing, particularly usability testing;
- documentation production and packaging;
- documentation distribution and delivery;
- advice on the selection and implementation of documentation tools and supporting systems;
- documentation process improvement.

This International Standard provides an overview of the software user documentation and information management processes which may require acquisition and supply of software user documentation products and services. It applies the Agreement processes (acquisition and supply) to software user documentation, and addresses the preparation of requirements for software user documentation. These requirements are central to the user documentation specification and Statement of Work discussed in this International Standard. This International Standard also addresses requirements for primary document outputs of the acquisition and supply process: the Request for Proposal and the Proposal for user documentation products and services.

This International Standard is intended for use in acquiring or supplying either printed or electronic (on-screen) documentation. It is independent of documentation development or management tools or methodologies.

This International Standard might be helpful for acquiring and supplying the following types of documentation, although it does not cover all aspects of them:

- documentation of products other than software;
- multimedia systems using animation, video, and sound;

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- computer-based training (CBT) packages and specialized course materials intended primarily for use in formal training programs;
- maintenance documentation describing the internal operation of systems software;
- documentation incorporated into the user interface.

This International Standard is applicable to acquirers and suppliers of user documentation, including a variety of specialists:

- business analysts who identify the tasks that the intended users will perform with the software;
- managers of the software development process or the documentation process;
- managers of the acquisition process, and those who authorize and approve acquisitions:
- managers and authors involved in proposal preparation.

It can also be consulted by those with other roles and interests in the documentation process:

- information designers and architects who plan the structure, format, and content requirements of documentation products in a documentation set or web-accessible suite;
- experienced authors and editors who develop the written content for user documentation;
- graphic designers with expertise in electronic media;
- user interface designers and ergonomics experts working together to design the presentation of the documentation on the screen;
- usability testers, documentation reviewers, subject matter experts;
- developers of tools for creating on-screen documentation.

#### 2 Conformance

This International Standard may be used as a conformance or a guidance document for projects and organizations claiming conformance to ISO/IEC 15288:2008 (IEEE Std 15288-2008) or ISO/IEC 12207:2008 (IEEE Std 12207-2008).

#### 2.1 Definition of conformance

This International Standard is meant to be tailored so that only necessary and cost-effective requirements are applied. Tailoring may take the form of specifying approaches to conform to the requirements of this International Standard, or altering its recommendations to reflect the particular software and documentation product or service more explicitly. The acquirer may involve other parties, including potential suppliers or any necessary third parties (such as regulators), before contract award, in determining the acquirer's requirements for tailoring of this International Standard for the project. Annex A (normative) of ISO/IEC 12207:2008 (IEEE Std 12207-2008) describes the Tailoring Process. Tailoring decisions made by the acquirer should be specified in the contract.

NOTE The acquirer determines whether the term "contract" or "agreement" is to be used in the application of this International Standard.

Throughout this International Standard, "shall" is used to express a provision that is binding, "should" to express a recommendation among other possibilities, and "may" to indicate a course of action permissible within the limits of this International Standard.

Use of the nomenclature of this International Standard for the parts of user documentation (that is, chapters, topics, pages, screens, windows) is not required to claim conformance.

#### 2.2 Conformance situations

Conformance may be interpreted differently for various situations. The relevant situation shall be identified in the claim of conformance:

- a) When conformance is claimed for an organization, the organization shall make public a document declaring its tailoring of the acquisition or supply process.
- b) When conformance is claimed for a project using user documentation services, the project plans or the contract shall document the tailoring of the documentation management process.

NOTE 1 One possible way for an organization to deal with clauses that cite "the documentation plan" is to specify that they shall be interpreted in the project plans for any particular documentation project.

NOTE 2 A project's claim of conformance is typically specified with respect to the organization's claim of conformance.

This International Standard may be included or referenced in contracts or similar agreements when the parties (called the acquirer and the supplier) agree that the supplier will deliver documentation in accordance with this International Standard. It may also be adopted as an in-house standard by a project or organization that decides to acquire documentation from another part of the organization in accordance with this International Standard.

#### 3 Normative references

The following referenced documents are indispensable for the application 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 12207:2008 (IEEE Std 12207-2008), Systems and software engineering — Software life cycle processes

ISO/IEC 15288:2008 (IEEE Std 15288-2008), Systems and software engineering — System life cycle processes

ISO/IEC/IEEE 24765:2010, Systems and software engineering — Vocabulary