INTERNATIONAL STANDARD

ISO/IEC/IEEE 26511

Second edition
2018-12

Systems and software engineering — Requirements for managers of information for users of systems, software, and services

Ingénierie des systèmes et du logiciel — Exigences pour les gestionnaires de l'information pour les utilisateur de systèmes, logiciels, et services

Reference number
ISO/IEC/IEEE 26511:2018(E)

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Published in Switzerland

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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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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 a standard requires approval by at least 75 % of the national bodies casting a vote.

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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*, in cooperation with the Software & Systems Engineering Standards Committee of the IEEE Computer Society of the IEEE, under the Partner Standards Development Organization cooperation agreement between ISO and IEEE.

This second edition of ISO/IEC/IEEE 26511 cancels and replaces ISO/IEC/IEEE 26511:2011, which has been technically revised. The main changes compared to the previous edition are as follows:

— increased emphasis on strategic planning to develop a comprehensive content strategy;

— introduction of comprehensive information for managing the translation and localization process;

— comprehensive requirements for conducting a user needs assessment;

— comprehensive requirements for managing an ongoing project;

— focused information on customer quality and project productivity and efficiency measurements; and

— information on process maturity.

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Introduction

Effective management of information for users makes information for users usable, accurate, and delivered when needed by the users. Information managed effectively is produced efficiently and maintained in response to software and system updates and changing user requirements. This document addresses the management of information for users in terms of the overall strategic direction of the information, its initial development, and its subsequent updates.

The role of the information-development manager is comprehensive. The manager is responsible for strategic planning, project planning, project management, staff development and assessment, translation, production and delivery, and quality and productivity measurements. The manager may delegate some or all of these responsibilities to well-qualified staff members.

Information development takes place in organizations of all types, including government entities, corporations, and non-profit organizations.

Effective, well-designed, appropriately delivered information for users increases the return on investment for the development of a software or systems product. It helps to reduce the cost of training and support, enabling the users to decrease the time required to productively use a product. As such, it enhances the reputation of the product, its producer, and its suppliers.

The development of effective information for users should be regarded as an integral part of the software and systems lifecycle processes from the planning and design stages onwards.

This document was developed to assist users of ISO/IEC/IEEE 15288:2015, *Systems and software engineering — System life cycle processes* or ISO/IEC/IEEE 12207:2017, *Systems and software engineering — Software life cycle processes* to manage information for users as part of the Information Management process. This document defines the information-management process from the information-development manager's point of view. It was developed to assist those who provide input to, perform, and evaluate information-development.

NOTE Other documents in the ISO/IEC 265NN family address the documentation and information management processes from the viewpoint of information designers and developers, testers and reviewers, and acquirers and suppliers.

Beyond the development and production of user manuals, help systems, or sets of information for a single software product, it applies to a broader range of information management opportunities, including information for those who install, implement, administer, and operate software, services, and systems for end users. Frequently, information-development managers are responsible for the development and reuse of information (content management) for the following:

— updates of user information as the software or system is updated;

— reuse or adaptations of information to support related products;

— multiple translated or localized versions of information for users; and

— a portfolio of unrelated information-development projects being managed concurrently within an organization.

This document is not intended to advocate the use of either printed or electronic media for information for users or any particular information management, content management, information testing, or project management tools or protocols.

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Systems and software engineering — Requirements for managers of information for users of systems, software, and services

1 Scope

This document supports the needs of users for consistent, complete, accurate, and usable information. It provides requirements for strategy, planning, managing, staffing, translation, production, and quality and process-maturity assessment for managers of information for users. It specifies processes and procedures for managing information for users throughout the product- or systems-development life cycle. It also includes requirements for key documents produced for managing information for users, including strategic and project plans.

This document provides an overview of the information-management processes that are specific for the management of information for users. It addresses the following activities:

— developing a comprehensive strategy for information development;

— assessing user information needs;

— planning and managing an information-development project;

— staffing and forming information-development teams;

— reviewing and testing information for users;

— managing the translation process;

— publishing and delivering information for users;

— evaluating customer satisfaction and information quality;

— measuring productivity, efficiency, and costs; and

— evaluating organizational maturity.

The guidance in this document applies to multiple project management approaches, including both agile and traditional practices. Traditional practices can encompass predictive, waterfall, or other top-down management methods. Where certain practices are common in agile project management, they are noted.

This document is applicable for use by managers of information for users or organizations with information developers. This document can also be consulted by those with other roles and interests in the process of developing information for users:

— managers of the product and system development process;

— acquirers of information for users prepared by suppliers;

— experienced information developers who prepare information for users;

— human-factors experts who identify principles for making information for users more accessible and easily used; and

— user interface designers and ergonomics experts working together to design the presentation of information.

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This document can be applied to manage the following types of information for users, although it does not cover all aspects of them:

— information for user assistance, training, marketing, and systems documentation for product design and development, based on reuse of user information topics;

— multimedia marketing presentations using animation, video, and sound;

— information developed for virtual and augmented reality presentations;

— computer-based training (CBT) packages and course materials intended primarily for use in formal training programs; and

— information describing the internal operation of products.

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/IEEE 12207:2017, *Systems and software engineering — Software life cycle processes*

ISO/IEC/IEEE 15288:2015, *Systems and software engineering — System life cycle processes*

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