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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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Foreword

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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.

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ISO/IEC/IEEE 26512:2011 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee 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;

- 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*

4 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC/IEEE 24765:2010 and the following apply.

4.1
accessibility
usability of a software or documentation product, service, environment, or facility by people with the widest range of capabilities

[ISO/IEC 26514:2008]

NOTE Although “accessibility” typically addresses users who have disabilities, the concept is not limited to disability issues.

4.2
analysis
investigation and collection phase of development that aims to specify types of users and their informational needs

[ISO/IEC/IEEE 24765:2010]

4.3
audience
category of users sharing the same or similar characteristics and needs (for example, reason for using the documentation, tasks, education level, abilities, training, experience)

NOTE There can be different audiences for documentation (for example, management, data entry, maintenance) that determine the content, structure, and use of the documentation.

[ISO/IEC 26514:2008]

4.4
change control procedure
actions taken to identify, document, review, and authorize changes to a software or documentation product that is being developed

NOTE The procedures ensure that the validity of changes is confirmed, that the effects on other items are examined, and that those people concerned with the development are notified of the changes.

[ISO/IEC 26514:2008]

4.5
configuration management
discipline applying technical and administrative direction and surveillance to

— identify and document the functional and physical characteristics of a configuration item,

— control changes to those characteristics,

— record and report change processing and implementation status, and

— verify compliance with specified requirements

4.6
critical information
information describing the safe use of the software, the security of the information created with the software, or the protection of the sensitive personal information created by or stored with the software

[ISO/IEC 26514:2008]

4.7
customization
adaptation of a software or documentation product to the needs of a particular audience

[ISO/IEC 26514:2008]

4.8
design
⟨documentation⟩ stage of documentation development that is concerned with determining what documentation will be provided in a product and what the nature of the documentation will be

[ISO/IEC 26514:2008]

4.9
development
⟨documentation⟩ activity of preparing documentation after it has been designed

[ISO/IEC 26514:2008]

4.10
document
separately identified piece of documentation which could be part of a documentation set

[ISO/IEC 26514:2008]

4.11
document set
collection of documentation that has been segmented into separately identified volumes or files for ease of distribution or use

[ISO/IEC 26514:2008]

4.12
documentation
information that explains how to use a software product

[ISO/IEC 26514:2008]

NOTE The information may be provided as separate documentation or as embedded documentation (or both). In this International Standard, the term "documentation" is synonymous with the terms "user documentation" and "software user documentation." Other forms of documentation (for example, "system documentation") are clearly identified as such.

EXAMPLES Printed manuals, on-screen information, standalone online help.

4.13
embedded documentation
documentation that is accessed as an integral part of software (see also separate documentation)

[ISO/IEC 26514:2008]

EXAMPLES Pop-up help, help text on a screen.

4.14
escrow
source code and documentation that is kept in the custody of a third party until specified contractual conditions have been fulfilled

[ISO/IEC 26514:2008]

4.15
illustration
graphic element set apart from the main body of text and normally cited within the main text

NOTE In this International Standard, the term "illustration" is used as the generic term for tables, figures, exhibits, screen captures, flow charts, diagrams, drawings, icons, and other types of graphics.

[ISO/IEC 26514:2008]

4.16
implementation
⟨documentation⟩ activity during which user documentation is created according to the design, tested, and revised

4.17
internationalization
process of developing information so that it is suitable for an international audience

[ISO/IEC 26514:2008]

cf. **localization** (4.18)

4.18
localization
creation of a national or specific regional version of a product

[ISO/IEC 26514:2008]

cf. **internationalization** (4.17)

NOTE Localization can be performed separately from the translation process.

4.19
menu
〈on-screen documentation〉 list of topics from which the user can choose

[ISO/IEC 26514:2008]

4.20
on-screen documentation
documentation that is intended to be read on the screen by the user while using the software

[ISO/IEC 26514:2008]

EXAMPLES Pop-up help, help text on a screen.

4.21
printed documentation
documentation that is either provided in printed form, or provided in electronic form for the customer or user to print

[ISO/IEC 26514:2008]

4.22
process
set of interrelated or interacting activities which transform inputs into outputs

[ISO 9000:2005]

4.23
product
complete set of software and documentation

[ISO/IEC 26514:2008]

4.24
product authority
person or persons with overall responsibility for the capabilities and quality of a product

[ISO/IEC 26514:2008]

4.25
project
set of activities for developing a new product or enhancing an existing product

[ISO/IEC 26514:2008]

4.26
project manager
person with overall responsibility for the management and running of a project

[ISO/IEC 26514:2008]

4.27
quality management
coordinated activities to direct and control an organization with regard to quality

[ISO/IEC TR 19759:2005]

4.28
separate documentation
documentation that can be used independently of the software

[ISO/IEC/IEEE 24765:2010]

EXAMPLE Printed manuals and standalone hypertext systems.

4.29
software
program or set of programs used to run the computer

[ISO/IEC 26514:2008]

NOTE For the purposes of this International Standard, the term "software" does not include on-screen documentation.

4.30
style
set of language-specific editorial conventions covering grammar, terminology, punctuation, capitalization, and word choice of documentation

[ISO/IEC 26514:2008]

4.31
technical contact
person responsible for providing a documentation developer with technical information about a software product or for checking the technical accuracy of drafts of documentation

[ISO/IEC 26514:2008]

4.32
topic
small part of a document that deals with a single subject

[ISO/IEC 26514:2008]

NOTE In printed documentation, a topic is equivalent to a section (heading, subheading) and its content. In on-screen documentation, a topic consists of a title (heading) and information about a subject (typically, a task or a concept or reference information). For on-screen documentation, the system might present a topic without user intervention.

EXAMPLE Instructions on how to print the current document.

4.33
tutorial
instructional procedure in which the user exercises software functions often using sample data that is supplied with the software or documentation

[ISO/IEC 26514:2008]

4.34
usability
extent to which a software or documentation product can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use

[ISO/IEC 25062:2006]

4.35
user
person who performs one or more tasks with software; a member of a specific audience

[ISO/IEC 26514:2008]

4.36
user documentation
information to describe, explain, or instruct how to use software

[ISO/IEC 26514:2008]

4.37
user interface
ensemble of software and hardware that allows a user to interact with a computer system

[ISO/IEC 26514:2008]

5 User documentation within a system/software life cycle

5.1 Software documentation management process

Acquirers and suppliers of user documentation work within the life cycle of the software product. Life cycle processes are defined in ISO/IEC 12207:2008 (IEEE Std 12207-2008). Clause 7.2.1 of ISO/IEC 12207:2008 (IEEE Std 12207-2008) describes the activities of the software documentation management process as process implementation; design and development; production; and maintenance. The Contract shall specify which of the Software Documentation Management process activities are required:

- process implementation, which includes setting objectives; project planning, management, and control; preparation of a documentation plan;
- analysis and design, which includes preparing the documentation designs for the project; collecting information about the software product and users, their tasks, and their needs for information, and designing documentation based on those needs;
- development and review, which includes structuring the content for usability, applying the documentation design by creating the written and graphic content, implementing the information in the specified media, and evaluating the user documentation with the rest of the product;
- production, which includes the integration, preparation, reproduction, and packaging and delivery of the documentation;
- maintenance, which includes keeping the documentation accurate throughout the software product life cycle, including modifications for improved usability.

Development of the user documentation should be part of the same processes as the software product life cycle, and ideally performed in conjunction with development of the software, so that the software and the user documentation may be acquired and maintained together. The specification of all the documentation, including on-screen documentation and printed documentation, should be a part of the development of the software product as a whole, not a separate exercise. Although accurate user documentation cannot be

completed until the software product has been fully developed, the user documentation and the software product both benefit from concurrent development.

NOTE Software systems documentation prepared by software developers is rarely suitable for end user documentation, as it describes how the software functions rather than providing instructions for user tasks.

For simplicity, the life cycle stages are presented as if there were a clear starting point for developing documentation and a clear end point. There is not a single sequence of activities, however, that can be followed in all cases for all products and all types of information. For example, design and implementation activities for on-screen documentation are very closely inter-linked, as are analysis and design, and the way they link together varies between projects.

The classic documentation development process applies to the life cycle of a single new software product with a single new user manual, but it is much more likely that software and user documentation are designed and developed under more complex circumstances, such as the following:

- A previously documented software product is being upgraded, offered in a new version or on different operating system platforms, or customized as part of system integration, and previous documentation must be revised.
- Previous documentation must be converted to a different format or different media, or in different languages or versions, such as tutorials, online help, or advanced reference guides.
- Previous documentation must be adapted or used as models for different software products acquired or supplied by an organization.

Acquiring documentation is greatly assisted by the presence of other documentation produced during the software life cycle, such as a documentation plan, system design document, system test plan, release records, and problem reports. Other documentation specific to the documentation process may be useful, such as style guides and organizational procedures for information management and documentation reviews.

NOTE ISO/IEC 15289:2006, *Systems and software engineering — Content of systems and software life cycle process information products (Documentation)*, provides recommended comments for the required documents throughout a system/software life cycle.

5.2 Information management process

Rather than focusing on supplying a single book or help system, user documentation acquirers and suppliers perform their tasks to support the Information Management process, whose activities are defined in ISO/IEC 15288:2008 (IEEE Std 15288-2008), *Systems and software engineering — System life cycle processes*, Clause 6.3.6.3, and in Figure 1 below. The Contract shall specify which of the Information Management process activities are required.

Information Management Process

a) Define the items of information that will be managed during the system life cycle and, according to organizational policy or legislation, maintained for a defined period beyond.

b) Designate authorities and responsibilities regarding the origination, generation, capture, archiving and disposal of items of information.

c) Define the rights, obligations and commitments regarding the retention of, transmission of and access to information items.

NOTE Due regard is paid to information and data legislation, security and privacy, such as ownership, agreement restrictions, rights of access, intellectual property and patents. Where restrictions or constraints apply, information is identified accordingly. Staff having knowledge of such items of information are informed of their obligations and responsibilities.

Figure 1 (Sheet 1 of 2) – The information management process

d) Define the content, semantics, formats and medium for the representation, retention, transmission and retrieval of information.

NOTE The information may originate and may terminate in any form (e.g., verbal, textual, graphical, numerical) and may be stored, processed, replicated and transmitted using any medium (e.g., electronic, printed, magnetic, optical). Pay due regard to organization constraints, e.g., infrastructure, inter-organizational communications, distributed project working. Relevant information storage, transformation, transmission and presentation standards and conventions are used according to policy, agreements and legislation constraints.

e) Obtain the identified items of information.

NOTE This may include generating the information or collecting it from appropriate sources.

f) Maintain information items and their storage records according to integrity, security and privacy requirements.

NOTE Record the status of information items, e.g., version description, record of distribution, security classification. Information should be legible and stored and retained in such a way that it is readily retrievable in facilities that provide a suitable environment, and that prevent damage, deterioration and loss.

g) Define information maintenance actions.

NOTE This includes status reviews of stored information for integrity, validity and availability and any needs for replication or transformation to an alternative medium. Consider the need to either retain infrastructure as technology changes so that archived media may be read or the need to re-record archived media using new technology.

h) Retrieve and distribute information to designated parties as required by agreed upon schedules or defined circumstances.

NOTE Information is provided to designated parties in an appropriate form.

i) Provide official documentation as required.

NOTE Examples of official documentation are certification, accreditation, pilot license and assessment

j) Archive designated information, in accordance with the audit and knowledge retention purposes.

NOTE Select the media, location and protection of the information in accordance with the specified storage and retrieval periods, and with organization policy, agreements and legislation.

k) Dispose of unwanted, invalid or unverifiable information according to organization policy, and security and privacy requirements.

NOTE It is advisable to keep a record of the disposed information to comply with certain audit or legal requirements.

Figure 1 (Sheet 2 of 2) – The information management process

6 User documentation agreement processes within a system/software life cycle

6.1 User documentation acquisition process

6.1.1 Purpose of the acquisition process

The acquisition process provides the means for conducting business with a supplier of user documentation products or services in support of an operational system, or of elements of a system being developed. The purpose of the acquisition process is to obtain the product or service that satisfies the need expressed by the acquirer. The process begins with the identification of customer needs and ends after the acceptance of the product or service.

6.1.2 Outcomes of the acquisition process

As a result of successful performance of the acquisition process:

- documentation needs and goals are defined;
- acquisition strategies are defined;
- product and/or service acceptance criteria are defined;
- an agreement is developed that clearly expresses the expectations, responsibilities, and liabilities of both the acquirer and the supplier;
- one or more suppliers are selected;
- documentation or documentation services are delivered and accepted, satisfying the acquirer's stated need;
- specified constraints such as cost, schedule, and quality are met.

6.2 User documentation acquisition activities and tasks

The acquirer shall implement the following activities in accordance with applicable organizational policies and procedures to achieve the outcomes of the acquisition process:

1) acquisition preparation;
2) supplier selection;
3) contract agreement;
4) contract management and monitoring;
5) acquirer acceptance;
6) closure.

NOTE The activities and tasks in this process can apply to one or more suppliers.

6.2.1 Acquisition preparation

This activity consists of the following tasks:

1) describing the need;
2) defining the user documentation requirements;
3) identifying an acquisition strategy;
4) preparing an acquisition plan;
5) preparing a request for proposal;
6) advertising acquisition requirements in a Request for Proposal.

6.2.1.1 Describing the need

The acquirer shall describe a need to acquire or enhance a user documentation product or service.

6.2.1.2 Defining the user documentation requirements

The acquirer shall define and analyze the software system requirements relating to user documentation. If the software has critical requirements for safety or security, the user documentation requirements shall require inclusion of critical information and documentation of how the user will comply with the safety, security, and other critical requirements. The user documentation requirements should consider the need for support related to software usability testing. Clause 7 provides additional detail on requirements specification for user documentation.

The acquirer may perform the definition and analysis of documentation requirements by itself or may retain a supplier to perform this task. If the acquirer retains a supplier to perform requirements analysis, the acquirer shall retain approval authority for the analyzed requirements.

6.2.1.3 Identifying an acquisition strategy

The acquirer shall identify its acquisition strategy after performing make/buy analyses and considering the criteria of risk, cost, and benefits for each option. Options include one or more of the following:

- develop the user documentation or obtain the service internally;
- develop the user documentation or obtain the service through an agreement with a supplier;
- adapt or enhance existing user documentation items.

6.2.1.4 Preparing an acquisition plan

The acquirer shall prepare, document, and perform an acquisition plan. The plan shall contain the following as a minimum:

- requirements for the user documentation;
- planned audience for the user documentation;
- type of contract to be employed;
- responsibilities of the organizations involved and identification of the product authority;
- approach for developing and maintaining the information and the documentation;
- risks considered as well as methods to manage the risks;
- the acceptance strategy and conditions (criteria).

The acquisition plan should contain a schedule for the acquisition activities. The acquirer should establish a procedure for supplier selection including the proposal evaluation criteria and requirements compliance weighting.

6.2.1.5 Preparing the Request for Proposal

The acquirer should document the acquisition requirements (which are included in the Request for Proposal). The content of the acquisition requirements depends upon the acquisition strategy that is selected from the options described in sub-clause 6.2.1.3.

For acquisitions of documentation, the acquirer shall prepare a Documentation Specification described in Clause 8 and include it in the Request for Proposal. Clause 10 describes the contents of the Request for Proposal. The acquisition requirements should be given to the organization selected for performing the acquisition activities.

6.2.1.6 Advertising the acquisition requirement in a Request for Proposal

The acquirer shall identify potential suppliers and communicate the request for user documentation services to the identified suppliers.

6.2.2 Supplier selection

The acquirer should select one or more suppliers based upon the evaluation of the suppliers' proposals. The acquirer should also assess the supplier's capability to complete the documentation or services as specified in the Request for Proposal.

NOTE 1 If a supplier that meets the technical requirements is not identified, but one is identified that has acceptable experience and capabilities, and agrees to an affordable cost, the documentation requirements and the acquisition plan may be modified. For example, the schedule may be modified so that the user documentation is produced in phases along with the software development, or only the critical and most frequently used tasks may be documented.

NOTE 2 ISO/IEC 26514:2008 (IEEE Std 26514-2010) includes requirements for user documentation content.

6.2.3 Contract agreement

The acquirer shall prepare and negotiate a contract with the supplier that addresses the acquisition requirements, including the cost and schedule of the software product or service to be delivered. Acquirers and suppliers should agree on the overall schedules for the project, time, and cost.

The agreement between the acquirer and the supplier should clearly express the expectation, responsibilities, and liabilities of both parties. The contract shall address intellectual property, usage, ownership, warranty, and licensing rights associated with the user documentation or other deliverables. The contract shall define the delivery media for documentation products. The contract shall specify the product authority and acceptance criteria for the deliverable user documentation product or service.

The acquirer shall include or reference the process for tailoring requirements in the contract.

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

6.2.4 Contract management and monitoring

When the contract is underway, the acquirer shall cooperate with the supplier to provide necessary information in a timely manner and promptly resolve pending issues. The acquirer shall provide reviews of drafts and interim deliverables within the time specified in the contract. The acquirer shall monitor the supplier's activities in accordance with the agreed upon review, reporting, and testing processes.

The acquirer should incorporate input from the documentation supplier into the project’s problem management processes. Documentation developers are frequently the earliest reporters of software issues.

The acquirer shall control changes to the contract by negotiating with the supplier as part of a change control mechanism. The acquirer and the supplier shall evaluate changes to the contract for user documentation for their impact on the overall software project plans, costs, benefits, quality, and schedule.

The contract change control mechanism should address the change management roles and responsibilities, level of formality of the proposed change requests and contract renegotiation, and communication to the affected stakeholders.

Documentation can be affected by changes to the design of the software or to the training or support plans. Therefore the implications of such changes should be assessed before approval is given. When product changes are made, the acquirer should immediately notify the suppliers, so that they work only with up-to-date information.

NOTE Small changes to a system can cause major changes to documentation, while major changes to a system do not always require major changes to the documentation. For example, modifying a system menu might be a small change to the software itself but might have major implications for the entire structure of a user manual. In contrast, completely revising the methods used within the software for some complex operation might be a major task in developing the software, but might not affect the user's view of the software at all, and therefore might need no changes to the documentation.

6.2.5 Acquirer acceptance

The acquirer should prepare for acceptance based on the defined acceptance strategy and criteria. As specified in the contract, the acquirer shall conduct acceptance review and acceptance testing of the deliverable user documentation product or service and shall accept it from the supplier when the agreed upon acceptance conditions are satisfied. A product or service may be supplied incrementally and payment or other agreed upon consideration may be provided in increments.

As stated in the agreement, the acquirer may take the responsibility for the configuration management and information management of the delivered user documentation. As agreed, the supplier may provide continuing information management and documentation maintenance services for the acquirer.

6.2.6 Acquisition closure

The acquirer shall make payment or provide other agreed upon consideration to the supplier for the product or service performed. When the supplied product or service has satisfied the conditions of the agreement and identified open items have been satisfactorily closed, the acquirer concludes the agreement by providing payment or other agreed upon consideration and notification of conclusion of the agreement.

6.3 User documentation supply process

6.3.1 Purpose of the supply process

For user documentation, the purpose of the supply process is to provide a user documentation product or service to the acquirer that meets the agreed upon requirements. The supply process provides the means for conducting a project in which the result is a user documentation product or service that is delivered to the acquirer.

6.3.2 Outcomes of the supply process

As a result of successful performance of the supply process:

1) an acquirer for a product or service is identified;

2) a response to an acquirer's request is produced (a proposal);

3) an agreement is established between the acquirer and the supplier (as in the acquisition process);

4) products and services that meet the agreed upon requirements are produced and delivered.

6.4 User documentation supply activities and tasks

The supplier shall implement the following activities in accordance with applicable organizational policies and procedures to achieve the outcomes of the supply process:

1) opportunity identification and evaluation;

2) proposal preparation;

3) contract agreement;

4) contract performance;

5) delivery;

6) closure.

The supplier may have subcontractors or second-tier suppliers. The supplier shall manage and control its subcontractors in accordance with the Acquisition process. The supplier shall flow down the contractual requirements necessary to ensure that the documentation product or service delivered to the acquirer is developed or performed in accordance with the prime contract requirements.

6.4.1 Opportunity identification and evaluation

The supplier should identify potential acquirers or representatives of acquirers for the supplier's user documentation services.

If the potential acquirer has not clearly defined requirements or prepared an acquisition plan, the supplier may perform a needs assessment, assist in requirements definition, or submit an unsolicited proposal for user documentation services.

If the acquisition process is being used and a request for proposals has been issued, the supplier should conduct a review of requirements in the request for proposal, taking into account organizational policies and other regulations.

The supplier should decide whether or not to bid on the request for proposals.

6.4.2 Proposal preparation

The supplier shall conduct a review of the acquisition requirements. The supplier should determine how to apply its organization processes to manage the project and ensure the quality of the deliverable user documentation product or service. The supplier should consider acquirer involvement and feasibility of achieving the requested schedule. The supplier should consider availability of resources, including access to the software being documented and to the documentation and information management systems and tools, as well as human resources.

The supplier shall prepare a Proposal in response to the Request for Proposal. Clause 11 provides more information on documentation proposals.

6.4.3 Contract agreement

The supplier shall negotiate and decide whether to enter into a contract with the acquirer to provide the user documentation or documentation service.

6.4.4 Contract execution

The supplier shall apply the information management and documentation management processes as tailored for the contract to produce the agreed upon deliverables. The supplier shall conduct a review of the contract requirements to define the framework for managing and assuring the project and for ensuring the quality of the deliverable documentation product or service. The supplier shall implement and perform the project management plan and documentation plan.

The supplier shall provide the acquirer access to the supplier's and subcontractors' facilities and to draft versions of user documentation products as specified in the contract and project plans.

6.4.4.1 Project Management Plan

The supplier shall develop and document a project management plan. Items to be considered in the plan shall include but are not limited to the following:

- project organizational structure and authority and responsibility of each organizational unit, including the acquirer, external stakeholders, independent test organizations, and other suppliers involved in the software project;
- work breakdown structure of the tasks to be performed together with budgets, staffing, physical resources, and schedules associated with the tasks;
- management of the quality characteristics of the user documentation or services;
- separate plans for quality may be developed;
- methods for assuring that the safety, security, and other critical requirements of the software products are appropriately documented for the users;
- change control of versions of the information and documentation;
- acquirer involvement, for example in reviews, informal meetings and communications, reporting, modification and change processing; approval, acceptance, and access to facilities;
- resources for scheduling, tracking, and reporting;
- user involvement in requirements identification, usability testing, and user acceptance;
- risk management for potential technical, cost, or schedule risks;
- control of proprietary or sensitive information, including compliance with export controls;
- processes for protecting intellectual property and licensing rights;
- infrastructure, such as access to software being documented, equipment, facilities, usability test environments, standards, procedures, and tools;
- processes for problem identification, recording, analysis, and resolution.

NOTE The problem management process for the user documentation should be integrated with problem management for the software. This allows software issues identified while preparing documentation to be concurrently resolved.

The contract may specify whether the supplier's project management plan or any portion of it will be delivered to the acquirer.

6.4.4.2 Documentation Plan

The supplier shall use the user Documentation Specification (Clause 8) to prepare a Documentation Plan. The Documentation Plan shall formally describe the scope of the planned documentation, as well as its structure, format, and content. The Documentation Plan should:

- reflect important documentation analysis and design decisions;
- generally cover the entire documentation suite, including, for example, user manuals, online documentation, help text, and quick reference cards;
- provide the purpose of the documentation for the intended audience;

- include draft tables of contents for the documentation, with estimated page or topic counts.

NOTE 1 ISO/IEC 26514:2008 (IEEE Std 26514-2010) provides detailed requirements for documentation design.

After approval, the Documentation Plan should be placed under change control with the other project plans. The Documentation Plan should be distributed to all relevant parties; this distribution should include documentation development staff, and may include acquirer staff and subcontractors (e.g., printers, typesetters, translators). If subsequent changes are made to the Documentation Plan (and agreed to by the supplier and acquirer), the acquirer and the supplier shall ensure that all stakeholders are notified of the change.

NOTE 2 It is more difficult and more expensive to make major alterations to document structures or styles once development has started than it is to modify the design at the planning stage.

6.4.4.3 Quality management

The supplier shall monitor and control the progress and the quality of the user documentation products or services throughout the contract. This shall be an ongoing, iterative task: monitoring progress of technical performance, costs, and schedules, and reporting project status. The supplier shall provide the acquirer with evaluation, review, audit, testing, and problem resolution reports, as specified in the contract.

6.4.4.4 Configuration management

The supplier shall apply configuration control of versions of the documentation. In accordance with the contract, the supplier should determine:

- at which level version control is to apply, for example, whether it applies to a single file of information or to all the information for a particular module;
- the milestones within the project at which new versions are to be created, for example, after each set of tests;
- how changes to each version are to be controlled;
- how version control is to be applied to localized and customized versions;
- the backup and archive procedures;
- how records are kept of the history of each version, so old versions can be re-created if necessary;
- at what stage, if any, the documentation becomes part of the software for version control purposes.

The supplier may request modification to the contract as part of the change control mechanism.

6.4.5 Product/service delivery and support

The supplier shall deliver the user documentation product or service as specified in the contract.

6.4.6 Closure

The supplier shall accept and acknowledge payment or other agreed upon consideration. The supplier shall transfer the responsibility for the product or service to the acquirer, or other party, as specified by the contract.

7 Defining user documentation requirements and constraints

7.1 Aspects of requirements and constraints

This clause is a specialization of ISO/IEC 12207:2008 (IEEE Std 12207-2008) processes for stakeholder requirements definition and requirements analysis. The purpose of the process implementation (initiation) activity is to understand the project objectives, requirements, and constraints. User documentation requirements and constraints are initially defined by the acquirer as part of acquisition initiation and are included in the Statement of Work or User Documentation Specification in the Request for Proposal. The acquirer and supplier of user documentation shall gather or receive information about the wider context of the entire project to understand the requirements and constraints that affect the design and schedule for the documentation components. Requirements and constraints should consider the following aspects:

- requirements and objectives for the software product;
- scale of the project, particularly the work that will require user documentation;
- development and operating environment for the software;
- requirements and constraints for the user documentation, such as the documentation policy and standard formats and styles set by the producer of the software product;
- constraints that may apply to the project cost, schedule, staffing, and equipment;

NOTE If documentation design is not taken into account in the design of the software, the documentation might not be adequately concise, and therefore documentation development costs might be higher than necessary.

- intended acquirer and end-users for the software product and the documentation including requirements for international audiences;
- usability and accessibility requirements;
- documentation media for the deliverables;
- legal and/or statutory requirements;
- acquirer-supplied information, facilities, tools, and materials.

The organization should keep a record of the source of each requirement, so that it may be tracked back to its origins and its validity may be verified.

7.2 Schedule constraints

After a date for delivering the application has been agreed upon, it is important to use the date in all activities of user documentation planning. When the project schedules are being defined, the acquirer should remember documentation development cannot be completed until the software design is completed.

The following considerations in the overall software project schedule will influence the documentation schedule:

- When will the alpha, beta, and acceptance testing start, and be completed?
- What is the delivery date for the finished product?
- When does the documentation need to be ready?
- What other milestones apply to the project, such as dates for early releases?

- What are the major dependencies between different activities in the overall project?
- If the product is to be localized or customized, what are the required delivery dates for the various localized and customized versions and when does the documentation need to be ready?.

The amount of time needed for the following documentation activities may be significant; the acquirer should allow time for them in the project's schedules:

- authors to observe and use the software or prototypes of the software during the development stage;
- performance of technical work necessary to include the embedded documentation in the product;
- graphics to be created and screen captures to be taken;
- technical contacts to supply information and to check the accuracy of drafts;
- draft documentation being validated in field trials and usability trials (documentation development schedules for preparing such drafts will affect the timing of these exercises and trials);
- incorporation of amended pages;
- translation, if required:
- production of media, printing and packaging, if required.

7.3 Usability requirements

The acquirer should formulate usability requirements for the user documentation and specify how usability will be tested and measured. Usability requirements are a logical source of acceptance criteria. If the acquirer specifies that the supplier should test the product, the acquirer shall fully define the usability standard against which the documentation is to be measured. This includes specifying the measurement technique, recording process, and representative test subjects.

Usability measures for the documentation, independent of the usability of the software, may include the time for the following:

- learning about the contents of the documentation, particularly if more than one document is supplied;
- understanding the documentation structure and to learn how to use it;
- finding information, once the user is familiar with the documentation;
- performing a specified task using the instructions in the documentation.

NOTE ISO/IEC 26513:2009 (IEEE Std 26513-2010) provides requirements for user documentation testing, including usability testing.

7.4 Product modification requirements

The acquirer should describe plans for making modified versions of the software product available to users, because modifications can affect all aspects of the documentation design. Modifications may include completely new versions, major upgrades, or minor updates supplied to existing users; customizations for specific users; or temporary corrections (patches). The requirements should specify the time scale for modifying the documentation and the delivery format of documentation updates.

NOTE If future versions of the product are intended, but not considered in the design of the documentation, the costs may be significantly higher.

7.5 Localization and translation requirements

The acquirer shall clearly define all languages to which the documentation may be translated. For some products that are to be exported, there might be a legal requirement for all or part of the documentation to be translated. Even if a supplier is not providing the translation or localization services, requirements for translation or localization will affect the design, schedule, wording, examples, and illustrations of the primary language version.

NOTE 1 If the product is to be translated or localized and those costs are not taken into account in the design of the software and the documentation, these costs may be significantly higher than necessary. The higher costs will be incurred for every translated or localized version.

Localization may apply to products to be made available in other countries using the same language as the source country. Cultural issues may need to be taken into account, both in the software or service and in the documentation.

NOTE 2 There may be variations in the target language: for instance Spanish versus Mexican Spanish, and UK English versus US English.

Translations of unapproved draft documentation may incur extra cost for rework. To give the translators more time to complete their work, the translation process may begin when the documents are almost complete. When complete, any subsequent changes to the documentation may be identified electronically and then translated.

After translation, the acquirer shall verify that the software or service and its documentation are consistent. A native speaker of the target country should check all localized or translated user documentation to ensure it is suitable for use in that country.

7.6 Legal requirements

The acquirer shall clearly define any legal requirements affecting the product that may impact documentation design. The acquirer may provide text and graphics (logotypes) approved by its legal advisers to address requirements set by:

- local (state or provincial), national, and international law;
- copyright status of the document;
- copyright status of text, graphics, and other material included in the documentation from other sources;
- data protection;
- acknowledgements of, and permissions for, the use of non-original material in the document;
- trademarks and logotypes;
- escrow conditions;
- licensing;
- intellectual property rights;
- trade secrets;
- proprietary information;
- non-disclosure requirements;

- professional certifications;
- warranties, whether expressed or implied, and guarantees.

NOTE Legally required text will vary by location for international documentation.

7.7 Security requirements

The acquirer shall specify security requirements, including the prevention of copying of the software and its documentation and the protection of sensitive personal data. The acquirer should specify whether it is necessary to check the integrity of on-screen documentation to allow for deliberate or accidental changes to its content made by the user.

7.8 Standards and conventions

The acquirer shall specify any mandatory standards for the documentation, such as:

- International Standards (e.g., ISO) publications;
- national standards for the countries in which the product will be used;
- industry standards for the system on which the product will run;
- industry standards for the system on which the on-screen documentation will be viewed;
- accessibility standards and requirements;
- company, product, or operating system standards and conventions.

The acquirer shall identify its applicable organizational policies and style guides. The acquirer should establish an order of precedence if there are conflicts among the standards and between the standards and the contract.

The acquirer shall identify if the user documentation product will be part of a suite of products and the tools already specified for developing, maintaining, delivering, and viewing documentation for that suite. Use of an interoperable set of open, standardized tools should reduce the cost of maintaining documentation.

7.9 Quality management requirements

The documentation services acquired using this International Standard should be carried out under the control of the quality management system being used for the product development. Users of this International Standard should operate a quality management system, which can be independently assessed for ISO 9001 compliance.

8 User Documentation Specification

In the acquisition and supply processes, the Documentation Specification establishes the scope of the deliverable and is the basis of its acceptance criteria and cost estimates. At a minimum, the Documentation Specification shall include the title or name, purpose and content, and intended audience of the documentation.

Documentation should give the specified audience information to assist them in performing their tasks, while using the software. The documentation purpose should be specified as to whether it is instructional, reference material, or both.

In the initial specification, user documentation content should be defined at a high level in terms of user tasks or topics. It may also be defined by the expected number of software functions, programs, pages, commands, or screens.

The specified documentation shall provide sufficient information for a clear understanding of:

- the purpose, functions and characteristics of the software;
- how to install or use the software;
- contractual rights and responsibilities while using the software.

The specification shall include requirements for accessibility of user documentation to the intended audience.

NOTE 1 An example of requirements for software accessibility, known as Section 508 of the Rehabilitation Act, can be found at the URL listed in the bibliography.

The documentation specification should also indicate the intended media for delivery of the documentation to the users. The user documentation specification may indicate the expected structure or components of the documentation suite, such as installation guide, quick reference card, online help, and reference manual.

NOTE 2 ISO/IEC 26514:2008 (IEEE Std 26514-2010) provides requirements and guidance for the design of user documentation suites.

The acquirer should set durability targets for individual printed documents and media according to their expected use. Constraints on packaging include:

- local, state or provincial, or national requirements for recycling packaging materials;
- whether the software or service and the documentation are to be packaged together;
- whether there is an organizational style for packaging;
- whether the packaging should be the same as used for previous versions or for similar products;
- what medium will be used to distribute the software product and the documentation;
- what methods will be used to physically ship the product.

9 User documentation Statement of Work

The Statement of Work defines the services, tasks, and processes that the supplier will provide. It should clearly define the scope and all requirements of the documentation project in a manner and level of detail that is understood by the supplier. The acquirer should determine which processes of this International Standard are appropriate for the acquisition and specify any acquirer requirements for tailoring those processes.

The acquirer shall specify who is responsible for the following:

- technical accuracy of the documentation;
- usability of the documentation with the software or service and vice versa;
- suitability of the documentation for the market;
- editorial quality of the documentation, including both text and illustrations;
- tests and reviews of the documentation;

- production of the documentation, including tools support;
- internationalization, translation, and localization;
- packaging and shipping of the software and the documentation;
- final approval of all the documentation.

The Statement of Work should include the project management and control processes to be performed by the acquirer and the supplier. The Statement of Work shall also define the contract milestones at which the supplier's progress shall be reviewed as part of monitoring the acquisition.

The acquirer should specify if any of the processes are to be performed by parties other than the supplier, so that suppliers may, in their proposals, define their approach to supporting the work of other parties. The extent of supplier or third-party involvement in testing or verifying the user documentation should be defined. The acquirer shall define the scope of those tasks that reference the contract.

NOTE In ISO/IEC 15289:2006, the SOW is part of the contents of the Contract (or agreement) information item.

10 Request for Proposal

10.1 Request for Proposal topics

The acquirer shall include the following topics in the User Documentation Request for Proposal to enable the supplier to prepare an appropriate proposal. The topics do not need to be in this order and may have different titles.

a) objectives and scope statement;

b) system and documentation requirements: documentation specification and statement of work. (Clauses 7, 8, and 9);

c) requirements for management, quality, and supporting processes;

d) supplier capabilities and experience;

e) instructions for bidders;

f) list of deliverable user documentation products or services;

g) terms and conditions, including the product authority, acceptance criteria, and delivery requirements;

h) proposal evaluation criteria.

NOTE The contents of a Request for Proposal are defined in ISO/IEC 15289:2006 and are here made specific for user documentation products and services.

10.2 Project objectives

The overriding project objective should be to develop a product that meets user needs. Both the acquirer and the supplier should avoid constraints for the documentation that change the product in terms of the real problems which it should solve, and the range of hardware and operating systems for which it is being developed.

10.3 Requirements for supporting processes

The Request for Proposal may require the supplier to support or provide input for related processes, such as project management, information management, configuration management, quality assurance, validation and verification, security, and problem management.

The acquirer shall specify change control procedures for the project in accordance with the configuration management system in use. The documentation development activities recommended in this International Standard may be carried out under the control of the configuration management system being used for the software product development. Users of this International Standard should operate a configuration management system, as addressed by IEEE Std 828-2005, *IEEE Standard for Software Configuration Management Plans*.

10.4 Supplier capabilities and experience

The acquirer may request a description of the supplier's related experience, organizational capabilities, and individual resources' experience in related work. These should be included in the proposal evaluation criteria.

The acquirer may require submission of statement of skills and experience of key resources of each team member, both from the supplier's organization and from subcontractors. The acquirer should state whether statements of skills and experience are considered as commitments to provide the named resource, or as representative of the supplier’s capabilities.

10.5 Instructions for bidders

The instructions for bidders specify the content (and in some cases, the organization and format) that the acquirer expects to see in the proposal. Instructions for bidders produce a uniform structure for proposals, supporting proposal evaluation.

10.6 List of deliverable user documentation products or services

The acquirer shall clearly identify in the Request for Proposal the items it will provide during the contract. These items should include:

- relevant software specifications, record formats, screen and report layouts, CASE tool output, and other software design information necessary for the preparation of the documentation;
- access to an operating copy of the software, either onsite or remotely; hardware and software for using prototype or other versions of the software;
- technical contacts who will supply information, discuss technical details with authors, answer technical questions, and check drafts of the documentation;
- a timely and accurate resolution process for questions raised by the supplier's staff;
- typical users for audience analysis and usability testing;
- a schedule of the milestones for each phase of the software and the documentation project, including draft submission dates; review completion dates; and the final delivery date;
- legal, security, and regulatory notices to be included in the documentation;
- applicable standards, style and format guidelines, and other related materials (unless generally available).

The list of deliverable items should be related to the expected project schedule. Unless an absolute due date is an essential requirement, delivery schedules in the Request for Proposal should be expressed in terms of

days or weeks after contract award, or before software beta product release, or other relative dates, such as release of the primary language version for documentation to be translated.

The acquirer shall specify who is responsible for providing the supplier with technical information about the product. The acquirer should also specify the methods to be used to supply information, including consultations with technical contacts; written specifications; the software product itself (possibly development or prototype versions). The supplier shall distribute these items and information to those documentation development staff who require them.

The supplier may offer to obtain and provide items which would be inconvenient for the acquirer to provide.

10.7 Terms and conditions

In some cases, the material given by the acquirer to the supplier is required to be kept confidential and secured. The Request for Proposal should specify the level of confidentiality or security the acquirer requires from the supplier for the material passed to the supplier.

It shall be the responsibility of the acquirer to ensure that all of the material delivered by the acquirer to the supplier is complete and correct when delivered, and that it is kept up to date during the contract.

The acquirer and supplier shall ensure that none of the material provided infringes the intellectual property rights of any other party.

Contracts for documentation should define the ownership of rights. This may involve assignment of the future copyright in the documentation from the documenter to the acquirer. The assignment of copyright is then effective when and as the documentation is produced.

10.8 Proposal evaluation criteria

The Request for Proposal should indicate at least the relative weight of factors in the evaluation, such as ability to meet the technical requirements; experience; compliance with proposal instructions; project management; and cost.

11 Documentation proposal

11.1 Documentation proposal contents

The supplier should define and prepare a proposal in response to the Request for Proposal, including its recommended tailoring of this International Standard.

In the instructions for bidders, acquirers often specify the format of the proposal response, and include as part of the proposal evaluation how well the supplier complied with “their format”.

Whether the Request for Proposal instructions for bidders define a “fill-in-the-blanks” response, or allow the proposer to design its own format, generally the following key sections of any proposal should be included:

1) Executive summary;

2) Understanding of requirements;

3) Scope;

4) Processes;

5) Experience, capabilities, and available resources;

6) Schedule;

7) Deliverables;

8) Price proposal.

NOTE Not all of these sections will be used in all proposals. The sections used will depend on the needs of the particular project.

11.2 Understanding of requirements

The supplier shall review the initial requirements and ensure they are accurate and realistic. The following should be emphasized in the requirement review, as they may have a significant impact on the proposed price and schedule:

- cost and scheduling constraints;
- suggestions about the style and content of the documentation;
- page size and book format; specific constraints on the maximum number of pages (for printed documentation) or file size (for on-screen documentation);
- languages into which the documentation is to be translated;
- infrastructure tools, protocols, languages, and procedures to be used;
- availability of reusable material from existing documentation. If the same information is needed in both embedded and separate documentation for users performing the same tasks, then that information may be used in both types of documentation, in each place and structured appropriately.

The acquirer may request a point-by-point acceptance to each requirement in the Documentation Specification or Statement of Work. However, the supplier should respond with further analysis of any unusual, complex, or unclear requirements, demonstrating its expertise and capability for meeting the requirements.

The supplier should determine the level of risk and type of risks from its review of the requirements and requested schedule. The supplier should allow time for learning how to use any new tools and becoming familiar with the software (preferably by using it).

The supplier should include a statement referencing any standards to which the organization is claiming conformance, such as the ISO 9000 series of standards.

The supplier may demonstrate its understanding of the requirements based on evaluation of existing documentation, evaluations of localized and/or internationalized documentation, customer or user feedback from previous versions, and explanation of new product features.

If the stated requirements limit the design options so that users cannot be given a suitable set of documentation, the supplier should:

- question the requirements, explaining the reasons for the discrepancy;
- suggest alternative solutions.

11.3 Scope of the project

The scope section of the proposal should indicate what services and deliverable user documentation are to be included in the resulting contract. The scope section should align with the pricing and cover the same effort. The scope discussion may indicate work that is excluded, or planned for future phases.

11.4 Processes

The process section responds to the Statement of Work and demonstrates how the supplier will use its information management, documentation, management, and supporting processes to control and complete the work.

EXAMPLE The supplier may describe how its user documentation will support the accessibility features of the software product and how the documentation will itself be accessible. For on-screen documentation, file formats will need to be able to be read by screen reading programs, which in turn can output to speech synthesis or refreshable-Braille output devices. Illustrations will have meaningful titles and descriptions, and special consideration will be given in on-screen documentation to the logical structure, graphics, “page turning”, alert messages, entry fields, headings, and hypertext links.

The supplier may include a preliminary or sample project management plan or documentation plan as part of its proposal.

The supplier should explain how it will back up and care for the acquirer's data. The supplier should specify how it will return, retain, or dispose of information provided by the acquirer at the end of the contract.

The supplier should explain how it will support version control.

11.5 Experience, capabilities, and available resources

The supplier should describe its experience in similar projects. Related experience may be expressed by a client list or descriptions of similar projects. It may be useful to include in the proposal samples of similar documentation produced by the supplier, to indicate the intended style or format.

The supplier should describe the structure of the team in which the documentation development staff will work; and may include a team selection plan. Large organizations often want to know who the suppliers’ subcontractors are and how they were selected.

As applicable for the project, human resources may include:

- project managers;
- experienced authors for developing user documentation (rather than software designers or software engineers to do the work);
- editors;
- graphic designers with expertise in electronic media;
- user interface designers and ergonomics experts to design the presentation of the documentation on the screen;
- usability specialists for conducting usability tests and advising on matters concerning human abilities, limitations, and accessibility;
- testers to ensure the documentation matches the installation and operational use of the software;
- legal reviewers or contacts managers;
- managers and systems administrators for content management systems;
- translators.

Other facilities and resources may include hardware and software for producing the documentation itself, prototype or other versions of the software to be used by authors to obtain information about the software being documented; usability laboratory space and staff; media vendors, printers, and packaging vendors.

11.6 Schedule

The supplier should state its compliance with the requested schedule. The supplier may propose an alternate schedule that would be more cost-effective. The schedule should indicate the allowable time for the acquirer to review and approve deliverables.

11.7 Deliverables

The supplier shall identify draft and final deliverable user documentation products and services. The deliverables should specify the number of printed copies, whether electronic copies are to be provided, disk and file formats (including software versions), and where they will be delivered.

11.8 Price proposal

The supplier shall specify the price of fixed price products and services, or the rates for services. The price may be subdivided as specified in the Request for Proposal. The price should be consistent with the scope of work, level of risk, processes, and deliverables included in the proposal.

Annex A
(informative)

Requirements clauses and checklist for acquirers

For the convenience of users of this International Standard, this annex identifies those clauses which contain requirements for acquirers of documentation products. The following list identifies the location of the specific requirements for use when verifying conformance.

Clause no.	Guideline	Applicability		Conformance			
		Yes or No	Reason not applicable	Yes	Partial	No	Comments
6.2	The acquirer shall implement the following activities in accordance with applicable organizational policies and procedures to achieve the outcomes of the acquisition process: [List of activities follows]						
6.2.1.1	The acquirer shall describe a need to acquire or enhance a user documentation product or service.						
6.2.1.2	The acquirer shall define and analyze the software system requirements relating to user documentation.						
6.2.1.2	If the software has critical requirements for safety or security, the user documentation requirements shall require inclusion of critical information and documentation of how the user will comply with the safety, security, and other critical requirements.						
6.2.1.3	The acquirer shall identify its acquisition strategy after performing make/buy analyses and considering the criteria of risk, cost, and benefits of each option.						
6.2.1.4	The acquirer shall prepare, document, and perform an acquisition plan.						

Clause no.	Guideline	Applicability		Conformance			
		Yes or No	Reason not applicable	Yes	Partial	No	Comments
6.2.1.5	For the acquisition of user documentation, the acquirer shall prepare a Documentation Specification described in Clause 8 and include it in the Request for Proposal.						
6.1.2.6	The acquirer shall identify potential suppliers and communicate the request for user documentation services to the identified suppliers.						
6.2.3	The acquirer shall prepare and negotiate a contract with the supplier that addresses the acquisition requirements, including the cost and schedule of the software product or service to be delivered.						
6.2.3	The acquirer shall include or reference the process for tailoring requirements in the contract.						
6.2.4	When the contract is underway, the acquirer shall cooperate with the supplier to provide necessary information in a timely manner and promptly resolve pending items.						
6.2.4	The acquirer shall provide reviews of drafts and interim releases within the time specified in the contract.						
6.2.4	The acquirer shall monitor the supplier's activities in accordance with agreed upon review, reporting, and testing processes.						
6.2.4	The acquirer shall control changes to the contract by negotiating with the supplier as part of a change control mechanism.						
6.2.4	The acquirer and supplier shall evaluate changes to the contract for user documentation for their impact on the overall software project plans, costs, benefits, quality, and schedule						