IEEE STANDARDS ASSOCIATION

# IEEE Standard for Adoption of ISO/IEC 26514:2008 Systems and Software Engineering--Requirements for Designers and Developers of User Documentation

IEEE Computer Society

Sponsored by the
Software & Systems Engineering Standards Committee

IEEE
3 Park Avenue
New York, NY 10016-5997
USA

27 January 2011

**IEEE Std 26514™-2010**

# IEEE Standard for Adoption of ISO/IEC 26514:2008 Systems and Software Engineering—Requirements for Designers and Developers of User Documentation

Sponsor

**Software & Systems Engineering Standards Committee**
of the
**IEEE Computer Society**

Approved 8 November 2010

**IEEE-SA Standards Board**

**Abstract:** This standard provides requirements for the design and development of software user documentation as part of the life cycle processes. It defines the documentation process from the viewpoint of the documentation developer. It also covers the documentation product. It specifies the structure, content, and format for user documentation, and also provides informative guidance for user documentation style. It is independent of the software tools that may be used to produce documentation, and applies to both printed documentation and on-screen documentation. Much of this standard is also applicable to user documentation for systems including hardware.
**Keywords:** information design, information development, procedures, software user documentation, user manual

The Institute of Electrical and Electronics Engineers, Inc.
3 Park Avenue, New York, NY 10016-5997, USA



**PDF: ISBN 978-0-7381-6505-9 STD97051**
**Print: ISBN 978-0-7381-6506-6 STDPD97051**

**IEEE Standards** documents are developed within the IEEE Societies and the Standards Coordinating Committees of the IEEE Standards Association (IEEE-SA) Standards Board. The IEEE develops its standards through a consensus development process, approved by the American National Standards Institute, which brings together volunteers representing varied viewpoints and interests to achieve the final product. Volunteers are not necessarily members of the Institute and serve without compensation. While the IEEE administers the process and establishes rules to promote fairness in the consensus development process, the IEEE does not independently evaluate, test, or verify the accuracy of any of the information or the soundness of any judgments contained in its standards.

Use of an IEEE Standard is wholly voluntary. The IEEE disclaims liability for any personal injury, property or other damage, of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication, use of, or reliance upon this, or any other IEEE Standard document.

The IEEE does not warrant or represent the accuracy or content of the material contained herein, and expressly disclaims any express or implied warranty, including any implied warranty of merchantability or fitness for a specific purpose, or that the use of the material contained herein is free from patent infringement. IEEE Standards documents are supplied "**AS IS**."

The existence of an IEEE Standard does not imply that there are no other ways to produce, test, measure, purchase, market, or provide other goods and services related to the scope of the IEEE Standard. Furthermore, the viewpoint expressed at the time a standard is approved and issued is subject to change brought about through developments in the state of the art and comments received from users of the standard. Every IEEE Standard is subjected to review at least every five years for revision or reaffirmation, or every ten years for stabilization. When a document is more than five years old and has not been reaffirmed, or more than ten years old and has not been stabilized, it is reasonable to conclude that its contents, although still of some value, do not wholly reflect the present state of the art. Users are cautioned to check to determine that they have the latest edition of any IEEE Standard.

In publishing and making this document available, the IEEE is not suggesting or rendering professional or other services for, or on behalf of, any person or entity. Nor is the IEEE undertaking to perform any duty owed by any other person or entity to another. Any person utilizing this, and any other IEEE Standards document, should rely upon his or her independent judgment in the exercise of reasonable care in any given circumstances or, as appropriate, seek the advice of a competent professional in determining the appropriateness of a given IEEE standard.

Interpretations: Occasionally questions may arise regarding the meaning of portions of standards as they relate to specific applications. When the need for interpretations is brought to the attention of IEEE, the Institute will initiate action to prepare appropriate responses. Since IEEE Standards represent a consensus of concerned interests, it is important to ensure that any interpretation has also received the concurrence of a balance of interests. For this reason, IEEE and the members of its societies and Standards Coordinating Committees are not able to provide an instant response to interpretation requests except in those cases where the matter has previously received formal consideration. A statement, written or oral, that is not processed in accordance with the IEEE-SA Standards Board Operations Manual shall not be considered the official position of IEEE or any of its committees and shall not be considered to be, nor be relied upon as, a formal interpretation of the IEEE. At lectures, symposia, seminars, or educational courses, an individual presenting information on IEEE standards shall make it clear that his or her views should be considered the personal views of that individual rather than the formal position, explanation, or interpretation of the IEEE.

Comments for revision of IEEE Standards are welcome from any interested party, regardless of membership affiliation with IEEE. Suggestions for changes in documents should be in the form of a proposed change of text, together with appropriate supporting comments. Recommendations to change the status of a stabilized standard should include a rationale as to why a revision or withdrawal is required. Comments and recommendations on standards, and requests for interpretations should be addressed to:

Secretary, IEEE-SA Standards Board
445 Hoes Lane
Piscataway, NJ 08854
USA

## Introduction

This introduction is not part of IEEE Std 26514-2010, IEEE Standard for Adoption of ISO/IEC 26514:2008, Systems and Software Engineering—Requirements for Designers and Developers of User Documentation.

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. This standard specifies the processes for designing and developing software user documentation, and provides the minimum requirements for these activities. It covers establishing project requirements, objectives, and constraints; audience and task analysis; user documentation design, development, and review. It is relevant to project managers, information designers and usability specialists, and information developers such as writers, editors, and illustrators. It applies to both printed and on-screen user documentation, whether produced concurrently with the software or subsequently. This standard is independent of the software tools that might be used to produce documentation. Much of its guidance is applicable to user documentation for systems including hardware as well as to software user documentation.

In addition to defining a standard process for the design and development of user documentation, this standard also covers the documentation product. This standard specifies the structure, content, and format for use documentation, and also provides informative guidance for user documentation style.

Earlier standards tended to view the results of the documentation process as a single book or multivolume set: a one-time deliverable. Increasingly, documentation designers 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 standard does not describe how to set up a content management system, it is applicable for documentation organizations practicing single-source documentation.

The IEEE contributed IEEE Std 1063™-2001, IEEE Standard for Software User Documentation, as a source for this standard. IEEE Std 26514-2010 completely supersedes and replaces IEEE Std 1063-2001.

This standard is part of a series including IEEE Std 26513™-2010, IEEE Standard for Adoption of ISO/IEC 26513:2009, Systems and Software Engineering—Requirements for Testers and Reviewers of Documentation. Other standards in the 2651N series are forthcoming to address requirements for user documentation management and for acquisition and supply of user documentation. It conforms to the information management and software documentation management processes required in ISO/IEC 15288:2008 (IEEE Std 15288™-2008), *Systems and software engineering — System life cycle processes*, and ISO/IEC 12207:2008 (IEEE Std 12207™-2008), *Systems and software engineering — Software life cycle processes*.

## Notice to users

## Laws and regulations

Users of these documents should consult all applicable laws and regulations. Compliance with the provisions of this standard does not imply compliance to any applicable regulatory requirements. Implementers of the standard are responsible for observing or referring to the applicable regulatory requirements. IEEE does not, by the publication of its standards, intend to urge action that is not in compliance with applicable laws, and these documents may not be construed as doing so.

## Copyrights



## Updating of IEEE documents

Users of IEEE standards should be aware that these documents may be superseded at any time by the issuance of new editions or may be amended from time to time through the issuance of amendments, corrigenda, or errata. An official IEEE document at any point in time consists of the current edition of the document together with any amendments, corrigenda, or errata then in effect. In order to determine whether a given document is the current edition and whether it has been amended through the issuance of amendments, corrigenda, or errata, visit the IEEE Standards Association web site at http://ieeexplore.ieee.org/xpl/standards.jsp, or contact the IEEE at the address listed previously.

For more information about the IEEE Standards Association or the IEEE standards development process, visit the IEEE-SA web site at http://standards.ieee.org.

## Errata

Errata, if any, for this and all other standards can be accessed at the following URL: http://standards.ieee.org/reading/ieee/updates/errata/index.html. Users are encouraged to check this URL for errata periodically.

## Interpretations

Current interpretations can be accessed at the following URL: http://standards.ieee.org/reading/ieee/interp/index.html.

## Patents

Attention is called to the possibility that implementation of this standard may require 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. The IEEE is not responsible for identifying Essential Patent Claims for which a license may be required, for conducting inquiries into the legal validity or scope of Patents Claims or determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance, 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 the IEEE Standards Association.

## Participants

At the time this standard was submitted to the IEEE-SA Standards Board for approval, the 26514 User Documentation Design Working Group had the following membership:

**Annette Reilly**, *Chair for Adoption*
**James Moore**, *Computer Society Liaison Representative to ISO/IEC JTC 1/SC 7*

The following members of the individual balloting committee voted on this standard. Balloters may have voted for approval, disapproval, or abstention.

Chris Bagge
Bakul Banerjee
Hugh Barrass
H Stephen Berger
Juris Borzovs
Pieter Botman
Lyle Bullock
Juan Carreon
Keith Chow
Paul Croll
Geoffrey Darnton
David Deighton
Thomas Dineen
Scott Duncan
Sourav Dutta
Kenneth Echeberry
Harriet Feldman
Andrew Fieldsend
Eva Freund
David Friscia
David Fuschi
Gregg Giesler
Randall Groves
John Harauz
George Hayhoe
Mark Henley
Frank Hill
Werner Hoelzl
Robert Holibaugh
Bernard Homes
Atsushi Ito
Mark Jaeger
Piotr Karocki
Rameshchandra Ketharaju
Thomas Kurihara
Susan Land
David Leciston
Daniel Lindberg
Greg Luri
Edward Mccall
James Moore
Finnbarr Murphy
Michael S. Newman
William Peti
Ulrich Pohl
Iulian Proi
Gerald Radack
Annette Reilly
Robert Robinson
Randall Safier
Helmut Sandmayr
Bartien Sayogo
Robert Schaa
Maud Schl h
David Schutz
Stephan Schwarm
Carl Singer
Steven Smith
Luca Spotorno
Thomas Starai
Walter Struppler
Marcy Stutzman
K Subrahmanyam
Thomas Tullia
David Walden
Paul Work
Oren Yuen
Janusz Zalewski

When the IEEE-SA Standards Board approved this standard on 8 November 2010, it had the following membership:

**Robert M. Grow,** *Chair*
**Richard H. Hulett,** *Vice Chair*
**Steve M. Mills,** *Past Chair*
**Judith Gorman,** *Secretary*

Karen Bartleson
Victor Berman
Ted Burse
Clint Chaplin
Andy Drozd
Alexander Gelman
Jim Hughes
Young Kyun Kim
Joseph L. Koepfinger*
John Kulick
David J. Law
Hung Ling
Oleg Logvinov
Ted Olsen
Ronald C. Petersen
Thomas Prevost
Jon Walter Rosdahl
Sam Sciacca
Mike Seavey
Curtis Siller
Don Wright

*Member Emeritus

Also included are the following nonvoting IEEE-SA Standards Board liaisons:

Satish Aggarwal, *NRC Representative*
Richard DeBlasio, *DOE Representative*
Michael Janezic, *NIST Representative*

Lisa Perry
*IEEE Standards Program Manager, Document Development*

Malia Zaman
*IEEE Standards Program Manager, Technical Program Development*

Jodi Haasz
*IEEE Senior Program Manager, International Standards Programs*

## Contents of IEEE Adoption of ISO/IEC 26514:2008

ISO/IEC 26514:2008 ..... 1

# IEEE Standard for Adoption of ISO/IEC 26514:2008 Systems and Software Engineering—Requirements for Designers and Developers of User Documentation

INTERNATIONAL STANDARD

**ISO/IEC 26514**

First edition
2008-06-15

# Systems and software engineering — Requirements for designers and developers of user documentation

*Ingénierie du logiciel et des systèmes — Exigences pour les concepteurs et les développeurs de la documentation de l'utilisateur*

Reference number
ISO/IEC 26514:2008(E)



ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

# Contents

Page


Foreword ... viii

Introduction ... ix

1 Scope ... 1

2 Conformance ... 3
2.1 Application of conformance ... 3
2.2 Conformance situations ... 3

3 Normative references ... 4

4 Terms and definitions ... 4

5 User documentation process within the systems/software life cycle ... 10

6 Project requirements, objectives, and constraints ... 13
6.1 Project objectives ... 13
6.2 User documentation requirements and constraints ... 14
6.3 Project goals and constraints ... 15
6.3.1 Project infrastructure and tools ... 16
6.3.2 Schedule constraints ... 16
6.4 Users and usability objectives ... 17
6.5 Interviewing technical contacts and other experts ... 19
6.6 Project planning ... 19
6.6.1 Quality management ... 20
6.6.2 Version control and change control ... 21
6.6.3 Availability of resources ... 21
6.6.4 Schedules ... 22
6.6.5 Cost estimating ... 23
6.6.6 Planning for localization and customization ... 24
6.7 Documentation proposal ... 24

7 Analysis and design ... 25
7.1 Audience and task analysis ... 25
7.1.1 Audience analysis ... 25
7.1.2 Audience profiles ... 27
7.1.3 Task analysis ... 28
7.2 User documentation design ... 30
7.2.1 Designing for use of content ... 31
7.2.2 Designing formats ... 31

8 Development and review ... 32
8.1 Prototypes and drafts ... 32
8.1.1 CM during development ... 33
8.1.2 Development of translated and localized documentation ... 33
8.2 Evaluation of documentation ... 34
8.2.1 Other roles in evaluation of documentation quality ... 35
8.2.2 Documentation review procedures ... 36
8.3 Documentation testing ... 38
8.3.1 Types of documentation tests ... 38
8.3.2 Usability tests ... 39

9 Production ... 40
9.1 Final assembly and review ... 40
9.2 Approval ... 40
9.3 CM ... 41

9.4 Updating and maintenance ..... 41

10 Structure of documentation ..... 41
10.1 Overall structure of documentation ..... 42
10.1.1 Structure of instructional mode documentation ..... 43
10.1.2 Structure of reference mode documentation ..... 43
10.2 Structure of documentation according to audience needs ..... 43
10.3 Size of topics in onscreen documentation ..... 45
10.4 User documentation components ..... 46
10.5 Placement of user documentation components ..... 47
10.5.1 Initial components ..... 47
10.5.2 Placement of critical information ..... 47

11 Information content of user documentation ..... 47
11.1 Completeness of information ..... 48
11.2 Accuracy of information ..... 48
11.3 Content of identification data ..... 48
11.4 Information for use of the documentation ..... 49
11.5 Concept of operations ..... 50
11.6 Information for general use of the software ..... 51
11.7 Information for procedures and tutorials ..... 52
11.7.1 Preliminary information for procedures ..... 52
11.7.2 Procedural steps ..... 52
11.7.3 Completion information for procedures ..... 53
11.7.4 Tutorials ..... 54
11.8 Information on software commands ..... 54
11.9 Explanations of data entry fields ..... 55
11.10 Content of error messages and problem resolution ..... 55
11.11 Content of warnings and cautions ..... 56
11.12 Information on terminology ..... 57
11.13 Information on related information sources ..... 57
11.14 User-supplied content ..... 58

12 Presentation format of documentation ..... 59
12.1 General ..... 59
12.2 Use of printed or on-screen formats ..... 60
12.3 Selection of appropriate media and format ..... 61
12.3.1 Comparison of media ..... 61
12.3.2 Relationship of information displays to the application's displays ..... 63
12.4 Context-sensitive information ..... 63
12.5 Accessible documentation ..... 64
12.5.1 Provide understandable documentation ..... 64
12.5.2 Provide user documentation in accessible electronic form ..... 65
12.5.3 Provide text alternatives in on-screen documentation ..... 65
12.5.4 Write instructions without unnecessary device references ..... 65
12.5.5 Provide documentation on accessibility features ..... 65
12.6 Consistency of formats ..... 65
12.7 Consistency of terminology ..... 66
12.8 Layout of screens and pages ..... 67
12.8.1 Grids ..... 67
12.8.2 Non-scrolling areas ..... 68
12.8.3 Arrangement of windows ..... 68
12.8.4 Formats for information area (text) ..... 69
12.8.5 Formats for headings ..... 69
12.8.6 Blank space and borders ..... 69
12.8.7 Vertical spacing ..... 70
12.9 Legibility ..... 70
12.9.1 Typefaces and text size ..... 71
12.9.2 Highlighting text ..... 71
12.9.3 Lines of text ..... 72
12.10 Formats for lists ..... 72

 

**12.11 Formats for representing user interface elements** ... 73
**12.11.1 Representing control and command input** ... 73
**12.11.2 Representing special keyboard keys** ... 73
**12.12 Use of color** ... 74
**12.13 Navigational features** ... 75
**12.13.1 Using formats to indicate position within a topic** ... 75
**12.13.2 Finding the same information again** ... 76
**12.13.3 Viewing topics in sequence** ... 76
**12.13.4 Formats for active areas** ... 76
**12.13.5 Linking information** ... 77
**12.14 Documentation formats for finding information** ... 77
**12.14.1 Table of contents** ... 77
**12.14.2 Menus** ... 78
**12.14.3 List of illustrations** ... 79
**12.14.4 Index** ... 79
**12.14.5 Search capability** ... 80
**12.15 Formats for warnings, cautions, and notes** ... 80
**12.16 Format for instructions** ... 81
**12.17 Formats for user-supplied annotations** ... 81
**12.18 Formats for illustrations** ... 81
**12.18.1 When to use an illustration** ... 81
**12.18.2 Level of detail in illustrations** ... 82
**12.18.3 Identification of illustrations** ... 82
**12.18.4 Consistent presentation of illustrations** ... 82
**12.18.5 Placement of illustrations** ... 83
**12.18.6 Illustrations of screen displays** ... 83
**12.18.7 Illustrations of printed output** ... 84
**12.18.8 Tables** ... 85
**12.19 Icons and signposts** ... 85
**12.19.1 When to use icons and signposts** ... 85
**12.19.2 Design of icons and signposts** ... 85
**12.19.3 Displaying the names of icons** ... 86
**12.20 Documentation packaging** ... 87

**Annex A** (informative) **User documentation style guide content** ... 88
**A.1 Writing style** ... 88
**A.2 Language** ... 88
**A.3 Spelling** ... 88
**A.4 Grammar and usage** ... 88

**Annex B** (informative) **Writing style and techniques for user documentation** ... 89
**B.1 General** ... 89
**B.2 Style for sentences** ... 90
**B.3 Style for paragraphs** ... 94
**B.4 Style for quick-reference information** ... 95
**B.5 Style for installation instructions** ... 95
**B.6 Style for tutorials and task instructions** ... 96
**B.7 Style for describing user interface elements** ... 96
**B.8 Style for descriptions and explanations** ... 96
**B.9 Style for on-screen information** ... 97
**B.10 Style for lists** ... 97

**Annex C** (informative) **User documentation style for translation and localization** ... 98
**C.1 General** ... 98
**C.2 Terminology** ... 98
**C.3 Style for translation** ... 99
**C.4 Cultural factors** ... 100

**Annex D** (informative) **Design, development, and production of printed information** ... 102
**D.1 Introduction** ... 102
**D.2 Design** ... 102
**D.3 Production phase** ... 110

**Annex E** (informative) **Checklists for user documentation** ..... **114**
**E.1 Checklist for printed manuals** ..... **114**
**E.2 Checklist for online help** ..... **117**
**Annex F** (informative) **Requirements clauses and checklist for the documentation process** ..... **121**
**Annex G** (informative) **Requirements clauses and checklist for documentation products** ..... **127**
**Bibliography** ..... **141**

## List of Figures

Figure 1 — Sample process of defining the usability goals for an electronic mail system ..... 18
Figure 2 — Sample contents list for a documentation proposal ..... 25
Figure 3 — Sample list of audiences for part of an order fulfillment system ..... 26
Figure 4 — Sample of an audience hierarchy ..... 26
Figure 5 — Sample audience profile ..... 28
Figure 6 — Sample task list for an electronic mail system ..... 28
Figure 7 — Sample task hierarchy ..... 29
Figure 8 — Using audience information needs to determine document content ..... 44
Figure 9 — Using information type and usage to determine delivery method ..... 45
Figure 10 — Sample presentation of an example ..... 50
Figure 11 — Sample overview for a software product module ..... 51
Figure 12 — Sample function description for a spreadsheet function ..... 55
Figure 13 — Sample definition of a term ..... 57
Figure 14 — Sample links to related information ..... 58
Figure 15 — Sample grid for a help system navigator and a topic window ..... 68
Figure 16 — Example of a contents list ..... 78
Figure 17 — Sample text menu ..... 79
Figure 18 — Use of two scales for screen displays ..... 84
Figure D.1 — Example of an A5 page grid ..... 107
Figure D.2 — Example of an A5 page ..... 108

## List of Tables

Table 1 — Audience mapping matrix ..... 30
Table 2 — Components of documentation ..... 46

Table 3 — Example of procedures with the elements marked ..... 53

Table 4 — Sample Information Profile for one task and one audience ..... 61

Table 5 — Advantages and disadvantages of various media ..... 62

Table 6 — Examples of access methods ..... 64

Table B.1 — Example of conditions presented as a table ..... 91

Table D.1 — Methods of producing multiple copies ..... 103

# 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.

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

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 an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 26514 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

# Introduction

Anyone who uses application software needs accurate information about how the software will help the user accomplish a task. The documentation may be the first tangible item that the user sees and therefore 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. Hence, 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 aim 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 that intelligently exchange information with one another. Further, most software designs include underlying rules and calculations, or algorithms, that affect the results a user can obtain when using the software. Such underlying programming mechanics are discernable by users, but only through laborious testing. For these reasons and more, 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 should be regarded as an integral part of the software life cycle process. If done properly, documentation or information management is a big enough job to require process planning in its own right.

This International Standard was developed to assist users of ISO/IEC 15288:2008, *Systems and software engineering — System life cycle processes*, or ISO/IEC 12207:2008, *Systems and software engineering — Software life cycle processes*, to design and develop documentation as part of the software life cycle processes. It defines the documentation process from the documentation developer's standpoint.

NOTE Other International Standards in the ISO/IEC 265NN family are in preparation or planned to address the documentation and information management processes from the viewpoints of managers, assessors and testers, and acquirers and suppliers.

In addition to defining a standard process, this International Standard also covers the documentation product. This International Standard specifies the structure, content, and format for documentation, and also provides informative guidance for user documentation style.

Earlier standards tended to view the results of the documentation process as a single book or multivolume set: a one-time deliverable. Increasingly, documentation designers 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 (CMS), it is applicable for documentation organizations practicing single-source documentation.

This International Standard is independent of the software tools that may 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 user documentation.

This International Standard conforms to ISO/IEC 12207:2008 as an implementation of subclause 7.2.1, Software Documentation Management Process, for software user documentation. This International Standard may be used as a conformance or a guidance document for documentation products, projects, and organizations claiming conformance to ISO/IEC 15288:2008 or to ISO/IEC 12207:2008.

The primary sources for this International Standard are previous standards IEEE Std 1063-2001, *IEEE standard for software user documentation,* and ISO/IEC 18019:2004, *Software and system engineering — Guidelines for the design and preparation of user documentation for application software.*

# Systems and software engineering — Requirements for designers and developers of user documentation

## 1 Scope

This clause presents the scope, purpose, organization, and candidate uses of this International Standard.

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

The first part of this International Standard covers the user documentation process for designers and developers of documentation. It describes how to establish what information users need, how to determine the way in which that information should be presented to the users, and how to prepare the information and make it available. It is not limited to the design and development phase of the life cycle, but includes activities throughout the information management and documentation processes.

The second part of this International Standard provides minimum requirements for the structure, information content, and format of user documentation, including both printed and on-screen documents used in the work environment by users of systems containing software. It applies to printed user manuals, online help, tutorials, and user reference documentation.

This International Standard neither encourages nor discourages the use of either printed or electronic (on-screen) media for documentation, or of particular documentation development or management tools or methodologies.

This International Standard may be helpful for developing 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;
- documentation produced for installers, computer operators, or system administrators who are not end users;
- maintenance documentation describing the internal operation of systems software;
- documentation incorporated into the user interface itself.