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NWIP, Software and Systems Engineering - Developing user **Document Title:**

documentation in an agile environment

SC₇ **Document Source:**

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Document Status: This document is circulated to JTC 1 National Bodies for concurrent

review. If the JTC 1 Secretariat receives no objections to this proposal by

the due date indicated, we will so inform the SC 7 Secretariat

Action ID: ACT

Due Date: 2009-10-19

No. of Pages: 29

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New Work Item Proposal

PROPOSAL FOR A NEW WORK ITEM

Date of presentation of proposal:	Proposer:
2009-07-19	ISO/IEC JTC 1/SC 7
Secretariat:	ISO/IEC JTC 1 N XXXX
Canada	ISO/IEC JTC 1/SC 7 N 4498

A proposal for a new work item shall be submitted to the secretariat of the ISO/IEC joint technical committee concerned with a copy to the ISO Central Secretariat.

Presentation of the proposal - to be completed by the proposer.

Title: Software and systems engineering – Developing user documentation in an agile environment

Scope (and field of application):

This standard will support the interest of technical authors and associated roles responsible for producing user documentation for software and systems developed within an agile environment. This standard will include the process standard approach to standardisation to specify the way in which user documentation can be developed in agile projects.

This standard is intended neither to encourage nor to discourage the use of any particular agile development tools or methodologies.

This standard will provide guidance on the use of documentation processes in software and systems projects that are using agile methodologies. It will not be limited to the development phase of the life cycle of user documentation, but will include activities throughout the user documentation lifecycle.

This standard is intended for use in all organisations that are using agile development methodologies, or who are considering implementing their projects using these techniques. Readers will be assumed to have experience or general knowledge of traditional user documentation processes.

Purpose and justification:

Agile development is a development method that has evolved from a variety of non-traditional techniques and is rapidly being adopted in the software and systems industry. Because of the nature of agile development methods, the traditional means of developing the end user documentation (both manuals and onscreen) as described in the ISO/IEC 2651X series of standards are not entirely applicable. Guidance is widely available on the methodology associated with agile development for the software development community, but this is mainly aimed at the developers of agile software, and currently there is almost no guidance available to technical writers and associated roles on how to produce quality user documentation in this environment. This standard seeks to provide guidance to technical authors and related roles on how to adapt the processes described in the ISO/IEC 2651X series of standards to develop quality user documentation.

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	Validity	Explanation
/ WORK ITEM PROPOSAL - DJECT ACCEPTANCE CRITE	RIA	
Date of circulation: Closii 2009-07-19	ng date for voting: 10-19	Signature of Secretary: W. Suryn
Voting on the proposal - Each P-r obligation to vote within the time lim circulation).	nits laid down (normally	three months after the date of
Comments with respect to the pr It is proposed to assign this new ite		a recommendations thereon:
as an annex, if necessary		Secretariat - attach a separate page
Does the proposed standard conce - If yes, please provide full informat		ıs?
Are there any known requirements -If yes, please specify on a separate	e page	
Will the service of a maintenance and If yes, have you identified a potential yes, indicate name	tial candidate?	
Signature:		
Preparatory work offered with tar	get date(s)	
Co-operation and liaison		
See the SC 7 Documentation Study	Group report SC7 N32	256.
Relevant documents to be consid		
c. Extended Timeframe		
b. Accelerated Timeframe		
_Xa. Default Timeframe		
And which standard development tr	ack is recommended fo	or the approved new work item?
more than one International S a multi-part International Stan an amendment or amendmen a technical report, type	dard consisting ofts to the following Interi	
Helsinki resolution 825)		26515 from set requested per JTC 1/5
	proved, willon or the lo	llowing document(s) is (are) expected to

1	1	
A.1 Market Requirement	Essential _X_ Desirable Supportive	
A.2 Regulatory Context	Essential Desirable Supportive Not Relevant _X_	
B. Related Work		
B.1 Completion/Maintenance of current standards	Yes No_X_	
B.2 Commitment to other organisation	Yes No_X_	
B.3 Other Source of standards	Yes No_X_	
C. Technical Status		
C.1 Mature Technology	Yes _X_ No	
C.2 Prospective Technology	Yes No_X_	
C.3 Models/Tools	Yes No	
D. Conformity Assessment and Interoperability		
D.1 Conformity Assessment	Yes No_X_	
D.2 Interoperability	Yes No_X_	
E. Cultural and Linguistic Adaptability	Yes NoX	
F. Other Justification		

Notes to Proforma

- **A. Business Relevance.** That which identifies market place relevance in terms of what problem is being solved and or need being addressed.
- A.1 Market Requirement. When submitting a NP, the proposer shall identify the nature of the Market Requirement, assessing the extent to which it is essential, desirable or merely supportive of some other project.
- A.2 Technical Regulation. If a Regulatory requirement is deemed to exist e.g. for an area of public concern e.g. Information Security, Data protection, potentially leading to regulatory/public interest action based on the use of this voluntary international standard the proposer shall identify this here.
- **B. Related Work.** Aspects of the relationship of this NP to other areas of standardisation work shall be identified in this section.
- B.1 Competition/Maintenance. If this NP is concerned with completing or maintaining existing standards, those concerned shall be identified here.
- B.2 External Commitment. Groups, bodies, or fora external to JTC 1 to which a commitment has been made by JTC for Co-operation and or collaboration on this NP shall be identified here.
- B.3 External Std/Specification. If other activities creating standards or specifications in this topic area are known to exist or be planned, and which might be available to JTC 1 as PAS, they shall be identified here.
- **C. Technical Status.** The proposer shall indicate here an assessment of the extent to which the proposed standard is supported by current technology.
- C.1 Mature Technology. Indicate here the extent to which the technology is reasonably stable and ripe for standardisation.
- C.2 Prospective Technology. If the NP is anticipatory in nature based on expected or forecasted need, this shall be indicated here.
- C.3 Models/Tools. If the NP relates to the creation of supportive reference models or tools, this shall be indicated here.

D. Conformity Assessment and Interoperability

- D.1 Indicate here if Conformity Assessment is relevant to your project. If so, indicate how it is addressed in your project plan.
- D.2 Indicate here if Interoperability is relevant to your project. If so, indicate how it is addressed in your project plan
- **E. Cultural and Linguistic Adaptability** Indicate here if cultural and linguistic adaptability is applicable to your project. If so, indicate how it is addressed in your project plan.
- **F. Other Justification** Any other aspects of background information justifying this NP shall be indicated here

ISO/IEC TC /SC SC7 N

Date: 2009-07-10

ISO/IEC WD 26515

ISO/IEC TC /SC SC7/WG 2

Secretariat: BSI

Software and systems engineering — Developing user documentation in an agile environment

Élément introductif — Élément central

Warning

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The **table of contents** is an optional preliminary element, but is necessary if it makes the document easier to consult. The table of contents shall be entitled "Contents" and shall list clauses and, if appropriate, subclauses with titles, annexes together with their status in parentheses, the bibliography, indexes, figures and tables. The order shall be as follows: clauses and subclauses with titles; annexes (including clauses and subclauses with titles if appropriate); the bibliography; indexes; figures; tables. All the elements listed shall be cited with their full titles. Terms in the "Terms and definitions" clause shall not be listed in the table of contents.

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member 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 shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 26515 was prepared by Technical Committee ISO/TC, , Subcommittee SC SC7, Software and systems engineering.

This second/third/... edition cancels and replaces the first/second/... edition (), [clause(s) / subclause(s) / table(s) / figure(s) / annex(es)] of which [has / have] been technically revised.

The **foreword** shall appear in each document. It shall not contain requirements, recommendations, figures or tables.

It consists of a general part and a specific part. The general part (supplied by the Central Secretariat of ISO) gives information relating to the organization responsible and to International Standards in general, i.e.

- a) the designation and name of the committee that prepared the document,
- b) information regarding the approval of the document, and
- information regarding the drafting conventions used, comprising a reference to the ISO/IEC Directives, Part 2.

The specific part (supplied by the committee secretariat) shall give a statement of significant technical changes from any previous edition of the document and as many of the following as are appropriate:

- d) an indication of any other international organization that has contributed to the preparation of the document;
- e) a statement that the document cancels and replaces other documents in whole or in part;
- f) the relationship of the document to other documents.

Introduction

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

Projects that implement agile development focus on providing rapid and frequent deliveries of high value software. These methods often involve detailed planning only for the short term, and the implementation of processes in parallel, rather than planning for an entire project in distinct phases as would be expected in traditional projects.

Although agile development methods often advocate less life-cycle documentation, the users of a software product still expect and require quality user documentation to be provided with these software products. Technical authors, and other personnel involved in the production of user documentation must both understand the agile development processes used by their organisation, and they must also work in an agile way to most effectively produce relevant and useful user documentation.

Because of the nature of agile development methods, the traditional means of developing the end user documentation (both print and onscreen) as described in the current ISO/IEC 2651X series of standards are not entirely applicable.

This International Standard will be developed to assist users of ISO/IEC 15288:2002 Systems engineering—Systems life cycle process, or ISO/IEC 12207:1995/AMD 1:2002/AMD 2, Information technology – Software, and ISO/IEC 2651N series of standards to provide guidance to technical authors and related roles on how to adapt the processes described in the ISO/IEC 2651N series of standards to develop quality user documentation. It provides information about common agile development methods and terminology, and how to adapt the documentation process to work most effectively within the agile development approach to produce quality user documentation for customers.

When completed and approved, we expect that this International Standard could be used with other standards in the ISO/IEC 2651X series--for example, ISO/IEC 26514 Requirements for designers and developers of user documentation—by those preparing user documentation in an agile environment.

The International Standard will be independent of the agile methodology that may be used to produce the software and user documentation products. Much of its guidance is applicable to user documentation for systems including hardware as well as to software user documentation.

This International Standard will conform with ISO/IEC 12207:2008, Information technology — Software life cycle processes, as an implementation of the user documentation part of 6.1: Documentation. When completed and approved, this International Standard may be used as a conformance or a guidance document for products, projects and organizations claiming conformance to ISO/IEC 15288:2002 and/or ISO/IEC 12207:2008. The primary sources for this new standard are ISO/IEC 26514:2008, ISO/IEC 26513, and ISO/IEC 26511...

WORKING DRAFT ISO/IEC WD 26515

Software and systems engineering — Developing user documentation in an agile environment

1 Scope

This standard will support the interest of technical authors and associated roles responsible for producing user documentation for software and systems developed within an agile environment. This standard will include the process standard approach to standardisation to specify the way in which user documentation can be developed in agile projects.

This standard is intended neither to encourage nor to discourage the use of any particular agile development tools or methodologies.

This standard will provide guidance on documentation processes appropriate for software and systems projects that are using agile methodologies. It will not be limited to the development phase of the life cycle of user documentation, but will include activities throughout the user documentation lifecycle.

This standard is intended for use in all organisations that are using agile development methodologies, or who are considering implementing their projects using these techniques. Readers will be assumed to have experience or general knowledge of traditional user documentation processes.

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, Systems and software engineering -- System life cycle processes and/or ISO/IEC 12207:2008, Systems and software engineering -- Software life cycle processes.

2.1 Definition of conformance

Having tailored the selected software life cycle processes, the organization or project may claim conformance to this International Standard for its documentation process.

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. When using this International Standard as a guide, replace the term "shall" with "should".

This 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 comply with its mandatory requirements, or altering its non-mandatory recommendations and approaches to reflect the particular software and documentation product more explicitly. Tailoring decisions made by the acquirer should be specified in the contract.

NOTE: ISO/IEC 12207:2008 Annex A defines the Tailoring process.

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

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 life cycle process:

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

b) When conformance is claimed for a project, the project plans or the contract shall document the tailoring of the documentation requirements;

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

c) When conformance is claimed for a multi-supplier program, it may be the case that no individual project may claim conformance because no single contract calls for all the required activities. Nevertheless, the program, as a whole, may claim conformance if each of the required activities are produced by an identified party. The program plans shall document the tailoring of the required tasks, and their assignment to the various parties, as well as the interpretation of any clauses of the standard that reference "the contract";

This standard may be included or referenced in contracts or similar agreements when the parties (called the acquirer and the producer or supplier) agree that the supplier shall deliver user documentation testing or reviewing and editing services in accordance with the standard. This standard may also be adopted as an inhouse standard by a project or organization that decides to test or assess documentation in accordance with the 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. The following normative documents contain provisions that, through reference in this text, constitute provisions of this International Standard. Parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative documents:

ISO/IEC 12207:2008, Systems and software engineering -- Software life cycle processes.

ISO/IEC 15288:2008, Systems and software engineering -- System life cycle processes.

ISO/IEC 26514:2008 Systems and software engineering—Requirements for designers and developers of user documentation.

ISO/IEC 26511:xxxx Systems and software engineering—Requirements for managers of developers of user documentation.

ISO/IEC 26513:xxxx Systems and software engineering—Requirements for testers and reviewers of user documentation.

The **Normative reference(s)** clause is an optional element that gives a list of the referenced documents cited in the document in such a way as to make them indispensable for the application of the document.

In principle, the referenced documents shall be documents published by ISO and/or IEC. Documents published by other bodies may be referred to in a normative manner provided that

- a) the referenced document is recognized by the ISO and/or IEC committee concerned as having wide acceptance and authoritative status as well as being publicly available,
- b) the ISO and/or IEC committee concerned has obtained the agreement of the authors or publishers (where known) of the referenced document to its inclusion and to its being made available as required the authors or publishers will be expected to make available such documents on request,
- the authors or publishers (where known) have also agreed to inform the ISO and/or IEC committee concerned of their intention to revise the referenced document and of the points the revision will concern, and
- d) the ISO and/or IEC committee concerned undertakes to review the situation in the light of any changes in the referenced document.

The list shall be introduced by the following wording:

"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."

The above wording is also applicable to a part of a multipart document.

The list shall not include the following:

- referenced documents which are not publicly available;
- referenced documents which are only cited in an informative manner;
- referenced documents which have merely served as bibliographic or background material in the preparation of the document.

Such referenced documents may be listed in a bibliography.

Normative references may be dated or undated.

Dated references are references to

- a) a specific edition, indicated by the year of publication, or
- b) a specific enquiry or final draft, indicated by a dash.

Subsequent amendments to, or revisions of, dated references will need to be incorporated by amendment of the document referring to them.

NOTE In this context a part is regarded as a separate document.

References to specific divisions or subdivisions, tables and figures of another document shall always be dated.

<u>Undated references</u> may be made only to a complete document or a part thereof and only in the following cases:

- a) if it is accepted that it will be possible to use all future changes of the referenced document for the purposes of the referring document;
- b) for informative references.

ISO/IEC WD 26515

Undated references shall be understood to include all amendments to and revisions of the referenced document.

For dated references, each shall be given with its year of publication, or, in the case of enquiry or final drafts, with a dash together with a footnote "To be published.", and full title. The year of publication or dash shall not be given for undated references. When an undated reference is to all parts of a document, the publication number shall be followed by the indication "(all parts)" and the general title of the series of parts (i.e. the introductory and main elements, see ISO/IEC Directives, Part 2, 2001^[1], Annex D).

4 Terms and definitions

Throughout this standard, the term *documentation* refers to software user documentation. Use of the terminology in this standard is for ease of reference and is not mandatory for conformance with the standard. For the purposes of this standard, the following terms and definitions apply. The Software and Systems Engineering Vocabulary ISO/IEC 24765 should be referenced for terms not defined in this clause. This source is available at the following web site: http://www.computer.org/sevocab.

4.1

accessibility

successful access to information and use of information technology by people who have disabilities

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

4.2

audience

category of users sharing the same or similar characteristics and needs (for example, purpose in using the documentation, tasks, education level, abilities, training, experience) that determine the content, structure and use of the intended documentation

NOTE: There may be a number of different audiences for a software product's documentation (for example, management, data entry, maintenance).

4.3

author

person designing or developing user documentation

4.4

caution

Advisory in software user documentation that performing some action may lead to consequences that are unwanted or undefined, such as loss of data or an equipment problem. (See also warning and note)

4.5

context sensitive help

information displayed relevant to the user's current location in the application

4.6

critical information

Information on the safe use of the software, the security of the information created with the software, or the privacy of the information created by or stored with the software.

4.7

customization

process of adapting a product to the needs of a particular user or group of users

4.8

design

phase of development concerned with determining what documentation shall be provided in a product and what the nature of the documentation shall be

4.9

development

process of preparing documentation as designed

4.10

display, noun

information presented on a screen or in a window of a screen

4.11

document, noun

an item of documentation

4.12

document set

A collection of documentation that has been segmented into separately identified volumes or products for ease of distribution or use.

4.13

efficiency

Relation of the level of effectiveness achieved to the quantity of resources expended.

NOTE: Time on task is the main measure of efficiency. Also Completion Rate/Mean Time-On-Task (defect rates vs time to achieve task).

4.14

effectiveness

Relation of the goals of using the product to the accuracy and completeness with which these goals may be achieved.

NOTE: Common measures include percent task completion, frequency of defects, frequency of assists, frequency of accesses to help or documentation.

4.15

embedded documentation

information that is delivered as an integral part of a piece of software

EXAMPLE: On-screen help.

4.16

function

part of an application that provides facilities for users to carry out their tasks, such as a module, a command, a dialogue box, a transaction screen and their equivalents

4.17

illustration

Graphic element set apart from the main body of text and normally cited within the main text.

NOTE: In this standard, the term *illustration* is used as the generic term for tables, figures, exhibits, screen captures, flow charts, diagrams, drawings, icons, and other graphic elements.

4.18

internationalization

process of developing information so that it is suitable for an international audience and may be localized

4.19

link

navigation method that takes the user from one item of on-screen documentation to another item

4.20

localization

process of creating a national or specific regional linguistic version of a product

NOTE: Localization may be carried out separately from the translation process.

4.21

navigation

process of accessing on-screen documentation and moving between different items of information

4.22

on-screen documentation

information about the software that is intended to be read on the computer screen by the user while using the software

4.23

printed documentation

information about the software that is provided either in printed or electronic form, and intended to be printed by the customer or end-user

4.24

platform

computing environment with a particular user or programming interface, including hardware and operating system, supporting execution of application programs

4.25

pop-up

embedded, context sensitive information that is displayed only when requested, next to the associated software object

4.26

procedure

Ordered series of steps that a user follows to do one or more tasks.

4.27

product

complete set of computer programs, procedures and associated documentation designed for delivery to a user. See also **software**

4.28

product authority

person with overall responsibility for the capabilities and quality of a product

4.29

project

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

4.30

project manager

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

4.31

satisfaction

a user's subjective response when using the product.

NOTE: Questionnaires are often used to measure user satisfaction and associated attitudes such as usefulness and ease of use.

4.32

software

the part of a product that is the computer program or the set of computer programs

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

4.33

software user documentation

Electronic or printed body of material that provides information to users of software.

4.34

step

One element of a procedure. A step contains one or more actions.

4.35

style

Set of editorial conventions covering grammar, terminology, punctuation, capitalization, and diction of a software user document.

4.36

system test of user documentation

Testing conducted with both the software and the documentation to evaluate that the documentation is fit for purpose and supports the users sufficiently in their use of the software.

4.37

technical contact

person responsible for providing an author with technical information about a product or for checking the technical accuracy of drafts of user documentation

4.38

topic

individually named chunk of information on a single subject that is presented within the printed documentation or that may be retrieved and displayed separately as part of the on-screen documentation

NOTE: For on-screen documentation, the system may present a topic without user intervention.

EXAMPLE: Instructions on how to print the current document.

4.39

tutorial

Instructional procedure in which the user exercises software functions using sample data supplied with the software or documentation.

4.40

user

Person who employs software to perform a task.

4.41

user documentation

information that is supplied with the software to help the users in their use of that software

4.42

warning

Advisory in software user documentation that performing some action may lead to serious or dangerous consequences. (See also: caution and note)

7

5 Methods and terminology used in agile development

Provide an introduction for users who may not be familiar with what agile development means, and the terminology used. Expand in the sections in this clause to provide an overview of the different types of process, and the differences between them.

5.1 Agile development principles and values

Explain something of the history of agile development, and the key principles and values. What are the benefits, why do people use agile? Discuss the agile manifesto, and some explanation of what the values of the manifesto are, and why. Discuss how agile is different from the traditional waterfall model, and the considerations that these might raise.

5.2 Common methodologies & lifecycle models

In this section describe the major agile development methodologies and the related life cycle models. Provide brief definitions of the particular 'buzz words'/'jargon' from each one, and what they have in common. This is explanations of the methodologies, not a recommendation for the approaches. We can provide references in this section & the bibliography.

- 5.2.1 Iterative development
- 5.2.2 Extreme programming
- 5.2.3 Scrum
- 5.2.4 Lean
- 5.2.5 Others?

5.3 Design techniques

5.3.1 User stories

The use of user stories is important for determining, describing and prioritising customer requirements. The user stories and associated resources are important in defining how the software will work for the users, and provide an important source for the design of the software for the user, how the software will be tested and what the user documentation must contain. This section will provide an explanation of user stories, and related artefacts such as personas and use cases, and describe how they can be used as part of the user documentation development process. Describe the difference between these – sometimes the terminology is used to mean different things in different organisations, so will include the ISO or other appropriate descriptions, and references.

Provide an example of a user story.

5.3.2 Persona/user roles

Describe persons, and provide examples.

5.3.3 Use cases

Describe use cases, and provide examples of use cases.

5.4 Agile teams

This section will provide an overview of agile teams, including the roles that you would expect to find in the team, the dynamics of the team, and the collaborative methods used. This section is important because the way that agile teams are structured and work together is quite different to traditional teams. An effective team is one of the key factors in making an agile project work, so this is worth explaining, and providing a context for where the technical author fits into the team. This can also cover aspects such as the roles in the team, the size in the team, and the issues around membership of multiple teams, for example.

Agile methodology assumes a very straightforward approach, creating products that require the coordination of several different organizations coming together on a specific timeline requires much more cross-functional support work and a bigger picture of the product with dependencies tracked. Large groups include the notion of a centralized documentation team (not single authors reporting directly into development) where "specialists" such as production specialists or documentation engineers perform common build and automation tasks for everyone, and possibly even technical writers may be assigned to write overarching or overview documentation that is single sourced with several products. Although this is not the normal approach to agile development, it will be relevant for large organisations and should be addressed.

5.5 Daily stand-up meetings

Daily stand-up meetings, scrums, etc. are common to many agile methodologies and should be described in terms of how they differ from traditional, and other meetings in agile, and what their purpose is in the agile development environment (for example, for status tracking and problem resolution). It is important for writers to be involved in these meetings, but they also need to ensure that they are getting the right value out of them. They should be a useful communication method, rather than a place to discuss defect numbers for example.

5.6 Stakeholder involvement

In agile, the stakeholders in the project can be much more visible than they might be in traditional development methods, so their roles in the project should be described. The involvement of stakeholders is important for the user documentation process because it provides opportunities to get customer requirements, customer priorities and customer feedback. The stakeholders may also include personnel related to the development of user documentation such as the information architect, graphic designer, or user documentation manager.

In larger software companies, there may be other organizations that support the technical writer on the agile team, such as a information architect, but also a possible centralized documentation team that supports infrastructure tasks. In pure agile, as mentioned earlier, focus is on the sprint and no thought is given to the infrastructure that has to be in place in order to support the sprint.

5.7 Benefits of agile processes to the user documentation

A summary of the ways that agile methodologies can benefit the quality of the user documentation, covering:

- Discussion of the benefits for the writers from agile development, such as earlier involvement in the development process, ability to influence software design, closer interaction with developers, testers, usability and other development roles, trust and empowerment, and so on.
- Discussion of the benefits for the quality of the documentation from agile development, including reducing duplication, producing only the documentation the user wants/needs, getting customer feedback early, and so on.

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6 Relationship between user documentation and life cycle documentation

When agile development methods are pitched and discussed there is often some confusion when the subject of 'documentation' is raised. In particular the fact that using agile development methods should reduce the amount of documentation produced in a project. This section will clarify what 'agile documentation' is – that is, the different approaches to both lifecycle documentation associated with a project and the user documentation. Agile does not mean that there will be reduced user documentation as such, but as a result of following an agile process, teams may reduce the amount of user documentation whilst improving quality, because only the user documentation that is required and is of value to the customer will be produced.

6.1 Agile lifecycle documentation

Provide a brief description of the typical products produced as part of the lifecycle documentation, for example project plan, high level design proposal, tests, problem reports, risk statements, and customer satisfaction reports. The reduction in the amount of lifecycle documentation, such as much less detailed design specifications also mean that the technical authors may have to work in a different way in order to access the information that they need to produce the user documentation.

6.2 Design and user documentation

Provide a more specific overview of design of software in an agile project and any associated documentation such as user stories, personas, and use cases. Provide guidance on how these documents or discussions can contribute to the design and development of the user documentation.

6.3 Single source documentation

An important part of agile development is minimising the amount of unnecessary work and duplication of effort. The change to using agile development methods may mean that the technical writers may be asked to produce or contribute to lifecycle documentation that they may not have been previously involved in developing. To minimise duplication and speed the time to produce material, the user documentation may itself become the design specification for the product under development. This approach can have knock-on effects such as changing the order in which user documentation is produced or tested--for example, the user documentation may exist before the code is implemented, and both can be tested at the same time earlier in the cycle in conjunction with function/system test, rather than waiting until the end.

7 Documentation management and planning in an agile environment

This section will refer to the 26511 for detailed information about the documentation management process, but provides guidance on aspects specific to agile development that a user documentation manager may need to know about or deal with.

7.1 Moving to an agile process from a waterfall process

When organisations first move or suggest moving to agile development, there can be a lot of resistance. Describe some of the reasons for the resistance--what are the perceived issues and concerns that need to be dealt with? Provide practical guidance for what the personnel developing user documentation should expect and what they need to do to change over to a new process. What tasks and behaviours are likely to lead to most success? What does the user documentation manager need to consider and change?

7.2 Scheduling for early and continuous delivery of valuable user documentation

Provide guidance on scheduling in an agile environment, in particular for producing user documentation, and the ways in which this approach might differ from traditional methods. Iterations must be based on a sizing of the work in that iteration, and the development team must include the sizings from the technical author for the development of the documentation, as well as time for adequate testing. Other considerations are involved in

scheduling (and possibly resource allocation and other related topics), as well as issues such as how to schedule for translations or manufacturing cycles.

An iteration may require the delivery of an infrastructure task, which is not necessarily completed by the technical author.

One other consideration is what will the technical author be doing during an iteration where there are no documentation deliverables? For example, there may be an iteration where development may focus on performance? Will the technical author be able to work on other documentation that supports the overall release of the product, not necessarily the iteration? What if the development team wants them to do product testing instead – how does the documentation manager resolve this if there is a backlog of documentation to complete for the larger release?

7.3 Monitoring and analysing progress in an agile environment

A follow on from the last section – how do you track progress of the user documentation team. What are the potential issues and how can they be resolved within an agile environment? How is this different from traditional methods? What methods are used in agile already, and when might they be most successful? Agile projects tend to cause panic in managers because they may feel they have lost control of the project. As the responsibility is with the team, there is a tendency to then micromanage and demand too much status information, thus contradicting the agile principles, so effective methods of managing without micromanagement will probably make for a more successful project.

7.4 Working in collaborative and self organising teams

As mentioned previously, the way agile teams work is very different from traditional teams. This section should include a discussion of the operation of these teams from the manager's point of view--for example, resourcing, team allocation, location of the members of the team, and facilitating teams working over multiple locations/mobile working. Different sized teams, tasks allocation, and so on will also be addressed.

Consider also the situation where you cannot devote a full-time technical writing resource to a single agile team. What happens if you have to share technical writers between teams?

7.5 Handling changing requirements

A principle of agile is that a high priority user requirement can come in at any point, and the agile team may be required to deal with those items immediately, even if doing so means stopping their current work and rescheduling it. Guidance should be provided on how changing or new requirements can be handled.

7.6 User documentation quality in an agile environment

Agile development has a focus on getting functional code out of the door to the customer, above adhering to processes. This approach doesn't mean that there are no processes, but that sometimes speed is more import than elegance. The team must still seek to provide the user with a quality product with high value, and this maxim applies equally to the user documentation. It is therefore important to ensure that the user documentation meets the quality expected by the user, but without the use of heavy-weight processes. This section should provide some guidance on how to ensure quality documentation in this environment.

7.7 Improving the user documentation process in an agile environment

The iterative process in agile development provides the opportunity to improve the process used in the development organisation. At the end of each iteration, the agile teams and the user documentation development teams should discuss the successes and failures of the previous iteration in order to determine process enhancements or improvements that should be made. This section should talk about mechanisms for process change and improvement.

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7.8 Management of tasks across iterations

Not all user documentation work will necessarily take place in a single iteration--for example, work related to an information architectural strategy may need to be completed over multiple iterations. Tasks that fit into the bigger picture need to be considered and planned, in addition to tasks defined for the individual iterations. Some tasks may be done in special iterations, or may be done at other set points in a project's lifecycle, that may have an impact on the user documentation for example, acceptance test, translation, accessibility testing and so on. Guidance should be given in this section of dealing with issues such as when and how to include fixes to problems and other user documentation maintenance.

8 User documentation tasks in each iteration

Provide a high level overview of the documentation activities that need to be performed in an iteration. Agile development has the same stages at traditional processes, but they may be compressed, performed at the same time, or re-sequenced. Provide a brief description of the activities; these will then be covered in more detail in the relevant sections. These activities include the following, and align with 26514 and 26513.

- 8.1 Design
- 8.2 Develop
- 8.3 Review
- 8.4 Test

9 Designing and developing documentation in an agile environment

This section will refer to the 26514 for detailed information about the documentation design and development processes, but provides guidance on aspects specific to agile development that information architects and technical authors, and other related personnel may need to know about or deal with. This section should be targeted at the same audience as 26514.

9.1 Acquiring user documentation requirements

Describe how this process may be different between traditional and agile, and include specific considerations for agile. How might the design process in agile development change what the authors are provided with in order to produce the user documentation?

9.2 Prioritising user documentation requirements

Provide guidance on how to prioritise the requirements

9.3 Deciding what and what not to write

In contrast to traditional methods, the agile methodologies may not require you to provide user documentation for every function, or to make it completely thorough. Therefore guidance should be provided on deciding what to include, what not to include, and what is 'good enough' in terms of document quality and coverage.

10 Testing and reviewing documentation in an agile environment

10.1 Review

Provide guidance on when and how reviewing can be done in iterations and how to fit this process into agile.

10.2 Testing

Provide guidance on when and how testing of user documentation can be done in iterations and how to fit this process into agile.

10.3 Assessing customer satisfaction

Provide guidance on when and how to get customer satisfaction information about user documentation, and how the feedback can be fed back into the agile process, and following iterations.

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Annex A (normative)

Annex title

A.1 General

Annexes shall appear in the order in which they are cited in the text. Each annex shall be designated by a heading comprising the word "Annex" followed by a capital letter designating its serial order, beginning with "A", e.g. "Annex A". The annex heading shall be followed by the indication "(normative)" or "(informative)", and by the title, each on a separate line. Numbers given to the clauses, subclauses, tables, figures and mathematical formulae of an annex shall be preceded by the letter designating that annex followed by a full-stop. The numbering shall start afresh with each annex. A single annex shall be designated "Annex A".

Normative annexes give provisions additional to those in the body of the document. Their presence is optional. An annex's normative status (as opposed to informative) shall be made clear by the way in which it is referred to in the text, by an indication in the table of contents and under the heading of the annex.

<u>Informative annexes</u> give additional information intended to assist the understanding or use of the document. They shall not contain requirements, except as described in the following paragraph. Their presence is optional. An annex's informative status (as opposed to normative) shall be made clear by the way in which it is referred to in the text, by an indication in the table of contents and under the heading of the annex.

Informative annexes may contain optional requirements. For example, a test method that is optional may contain requirements but there is no need to comply with these requirements to claim compliance with the document.

A.2 Clause

A.2.1 Subclause (level 1)

A.2.1.1 Subclause (level 2)

A paragraph.

A.2.1.1.1 Subclause (level 3)

A paragraph.

A.2.1.1.1.1 Subclause (level 4)

A paragraph.

A.2.1.1.1.2 Subclause (level 4)

A paragraph.

A.2.1.1.2 Subclause (level 3)

A paragraph.

A.2.1.2 Subclause (level 2)

A paragraph.

A.2.2 Subclause (level 1)

A paragraph.

A.3 Clause

- **A.3.1** A level 1 subclause without a title.
- **A.3.1.1** A level 2 subclause without a title.
- **A.3.1.1.1** A level 3 subclause without a title.
- **A.3.1.1.1.1** A level 4 subclause without a title.
- **A.3.1.1.1.2** A level 4 subclause without a title.
- **A.3.1.1.2** A level 3 subclause without a title.
- **A.3.1.2** A level 2 subclause without a title.
- **A.3.2** A level 1 subclause without a title.

Annex B (informative)

Which styles correspond to which element — Quick reference guide

Element			Style name ^a
Any element of text for which the correct style to use is not known with certainty or for which no other style of the template is suitable			Special
Annex	heading, status and	title	ANNEX
Bibliography	reference entry		bibliography
	title		zzBiblio
Clause	body of document		Heading 1*
	annexes		a2
Definition			Definition
Displayed mathematical	formula		Formula
and chemical formulae	variables list		dl
Example			Example
Figure	footnote		Figure footnote
	note		Note
	title		Figure title
Figure footnote			Figure footnote
Footnote	reference		Footnote Reference*
	text		Footnote Text*
Foreword	text		Foreword
	title		zzForeword
Index	entry		Index 1*
	entry heading		Index Heading*
	"Index" title		zzIndex
Introduction	text		Normal*
	title		Introduction
List	ordered	level 1	List Number*
		level 2	List Number 2*
		level 3	List Number 3*
		level 4	List Number 4*
	unordered	level 1	List Continue*
		level 2	List Continue 2*
		level 3	List Continue 3*
		level 4	List Continue 4*

	Element		Style name ^a
Normative reference	cross-reference to a normative reference defined in the "Normative references" clause in "Normative references" clause		ExtXref
			RefNorm
Note integrated in text, fig	gures and tables		Note
Paragraph			Normal*
Subclause with title	annexes	level 1	a3
		level 2	a4
		level 3	a5
		level 4	a6
	body of text	level 1	Heading 2*
		level 2	Heading 3*
		level 3	Heading 4*
		level 4	Heading 5*
		level 5	Heading 6*
Subclause without title	level 1		p2
	level 2		р3
	level 3		p4
	level 4		p5
	level 5		p6
Table	note		Note
	table footnote		See Table footnote.
	text	9 pt (recommended)	Table text (9)
		8 pt, for large tables	Table text (8)
		7 pt, for very large tables	Table text (7)
		10 pt (not recommended)	Table text (10)
	title		Table title
Table footnote	identification letter of the table footnote		TableFootNoteXref
	reference		TableFootNoteXref
	text		Table footnote
Table of contents "Contents" title			zzContents
	entries	level 1	TOC 1*
		level 2	TOC 2*
		level 3	TOC 3*
		level 4	TOC 4*
		level 5	TOC 5*
		level 6	TOC 6*
		unnumbered elements	TOC 9*

	Style name ^a	
Term	cross-reference to a term defined in the "Terms and definitions" clause	Defterms
	in the "Terms and definitions" clause in a terminology document	Term(s)
	reference number	TermNum

^a Style names marked with an asterisk are based on predefined Microsoft styles. These styles are recognized by the various linguistic versions of Word and their names will be translated automatically into the language of the Word version which you are using. For these Microsoft styles, the user will need to derive the correspondence between the name displayed and that given in this table; for example, if the same document is opened using English and French versions of Word, text styled "Footnote Reference" in the English version is called "Appel de note" in the French version.

Bibliography

- [1] ISO/IEC Directives, Part 2, Rules for the structure and drafting of International Standards, 2001
- [2] ISO/IEC TR 10000-1, Information technology Framework and taxonomy of International Standardized Profiles Part 1: General principles and documentation framework
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- [4] ISO 128-30, Technical drawings General principles of presentation Part 30: Basic conventions for views
- [5] ISO 128-34, Technical drawings General principles of presentation Part 34: Views on mechanical engineering drawings
- [6] ISO 128-40, Technical drawings General principles of presentation Part 40: Basic conventions for cuts and sections
- [7] ISO 128-44, Technical drawings General principles of presentation Part 44: Sections on mechanical engineering drawings
- [8] ISO 31 (all parts), Quantities and units
- [9] IEC 60027 (all parts), Letter symbols to be used in electrical technology
- [10] ISO 1000, SI units and recommendations for the use of their multiples and of certain other units
- [11] ISO 690, Documentation Bibliographic references Content, form and structure
- [12] ISO 690-2, Information and documentation Bibliographic references Part 2: Electronic documents or parts thereof

A **Bibliography**, if present, shall appear after the last annex. The drafting rules set out in ISO 690^[11] shall be followed.

The bibliography may include

- documents that are not publicly available,
- documents which are only cited in an informative manner, and
- documents which have merely served as bibliographic or background material in the preparation of the document.

For online referenced documents, information sufficient to identify and locate the source shall be provided. Preferably, the primary source of the referenced document should be cited, in order to ensure traceability. Furthermore, the reference should, as far as possible, remain valid for the expected life of the document. The reference shall include the method of access to the referenced document and the full network address, with the same punctuation and use of upper case and lower case letters as given in the source (see ISO 690-2^[12]).

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