

TARKVARA- JA SÜSTEEMITEHNIKA
Juhised rakendustarkvara kasutajadokumentatsiooni
kavandamiseks ja koostamiseks
(ISO/IEC 18019:2004)

Software and system engineering
Guidelines for the design and preparation of user
documentation for application software
(ISO/IEC 18019:2004)

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

<p>Käesolev Eesti standard EVS-ISO/IEC 18019:2008 "Tarkvara- ja süsteemitehnika. Juhised rakendustarkvara kasutajadokumentatsiooni kavandamiseks ja koostamiseks" sisaldab rahvusvahelise standardi ISO/IEC 18019:2004 "Software and system engineering — Guidelines for the design and preparation of user documentation for application software" identset ingliskeelset teksti.</p>	<p>This Estonian Standard EVS-ISO/IEC 18019:2008 consists of the identical English text of the International Standard ISO/IEC 18019:2004 "Software and system engineering — Guidelines for the design and preparation of user documentation for application software".</p>
<p>Standardi avaldamise korraldas Eesti Standardikeskus.</p>	<p>Estonian standard is published by the Estonian Centre for Standardisation.</p>
<p>Standard EVS-ISO/IEC 18019:2008 on kinnitatud Eesti Standardikeskuse 25.08.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teataja 2008. aasta septembrikuu numbris.</p>	<p>This standard is ratified with the order of Estonian Centre for Standardisation dated 25.08.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p>
<p>Standard on kättesaadav Eesti Standardikeskusest.</p>	<p>The standard is available from Estonian Centre for Standardisation.</p>

Käsitlusala

Käesolev standard annab juhiseid rakendustarkvara kasutajadokumentatsiooni kavandamiseks ja koostamiseks. Ta kirjeldab seda, kuidas selgitada välja, millist teavet vajavad kasutajad, kuidas määrata, mil viisil tuleks seda teavet kasutajaile esitada, ning kuidas seejärel koostada seda teavet ja teha teda kättesaadavaks.

Käesoleva standardi eesmärkidel hõlmab rakendustarkvara järgnevalt loetletud tüüpe.

- Laiatarbe-tarkvarapaketid, st tarkvaratooted, mis töötatakse välja ja turustatakse ettemääratud tööde tegemiseks, kusjuures tarkvara ja tema juurde kuuluv dokumentatsioon komplekteeritakse hankimiseks ühe tervikuna.
- Büroorakenduste tarkvara, näiteks tekstiprotsessorid, tabeliprogrammid, andmebaasiprogrammid ja elektronposti programmid.
- Äritarkvara, näiteks äritegevuste jäädvustamise ja seire tarkvara, näiteks laohalduseks ja tellimuste töötluks.
- Spetsialistidele määratud eritarkvara, näiteks raamatupidamissüsteemid, graafilise disaini süsteemid ja tehnilise projekteerimise süsteemid.

Neist juhistest võib olla kasu ka dokumentatsiooni väljatöötamisel alljärgneva tarbeks, ehkki nad ei kata selle kõiki aspekte.

- Tarkvaratehnilised tooted arvutispetsialistidele.
- Programmeeritavate elektrooniliste või mehaaniliste süsteemide tarkvara.

See standard on määratud neile, kellel tuleb spetsifitseerida, kavandada ja koostada rakendustarkvara kasutajadokumentatsiooni, ja neile, kes neid tegevusi juhivad; nende hulka kuuluvad

- paberdokumentide loomise vahendite väljatöötajad,
- toodete projekteerijad,
- rakenduste väljatöötajad,
- projektijuhid,
- dokumenteerijad,
- programmeerijad,

- tõlkijad,
- lokaliseerimispersonal.

Standard on mõeldud kasutamiseks igat tüüpi organisatsioonides, sõltumata sellest, kas neil on eraldi dokumenteerimisosakond. Kõigil juhtudel saab teda kasutada kohalike standardite ja protseduuride alusena. Lugejailt eeldatakse kogemusi või teadmisi tarkvara väljatöötamise või dokumentatsiooni väljatöötamise protsesside alal.

See standard võib olla kasulik ka

- kuvatava dokumentatsiooni loomise vahendite väljatöötajaile,
- olemasoleva või pakutava rakendustarkvara hindajaile.

This document is a preview generated by EVS

ICS 35.080 Tarkvara

Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse poolt antud kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

Right to reproduce and distribute belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without permission in writing from Estonian Centre for Standardisation.

If you have any questions about standards copyright, please contact Estonian Centre for Standardisation:
Aru str 10 Tallinn 10317 Estonia; www.evs.ee; Phone: 605 5050; E-mail: info@evs.ee

Contents

Page

Foreword.....	vii
Introduction.....	viii
1 Scope.....	1
2 Terms and definitions.....	2
3 Overview.....	8
3.1 Forms of documentation.....	8
3.2 Deciding what form of documentation to use.....	9
3.2.1 General.....	9
3.2.2 Information that needs to be on the screen.....	9
3.2.3 Information that generally needs to be on paper.....	9
3.3 Overview of the structure of this International Standard.....	10
3.3.1 General.....	10
3.3.2 Checklists.....	12
4 The objectives phase.....	12
4.1 General.....	12
4.2 Collect and interpret project requirements and constraints.....	12
4.2.1 General.....	12
4.2.2 Product objectives.....	13
4.2.3 Sales objectives.....	14
4.2.4 Scheduling objectives.....	14
4.2.5 Usability objectives.....	15
4.2.6 Accessibility objectives.....	15
4.2.7 Modification requirements.....	15
4.2.8 Internationalisation and national cultural requirements.....	16
4.2.9 Translation requirements.....	16
4.2.10 Packaging requirements.....	17
4.2.11 Legal requirements.....	17
4.2.12 Security.....	18
4.2.13 Standards and conventions.....	18
4.2.14 Cost constraints.....	19
4.2.15 Documentation delivery and viewing mechanisms.....	19
4.2.16 Quality management.....	19
4.2.17 Provision of technical information.....	19
4.2.18 Approval authorities.....	20
4.2.19 Configuration management.....	20
4.2.20 Availability of resources.....	20
4.3 Documentation Proposal.....	21
5 The planning phase.....	23
5.1 General.....	23
5.2 Documentation plan.....	23
5.2.1 General.....	23
5.2.2 Standards.....	24
5.2.3 Version control and change control.....	24
5.2.4 Personnel.....	24
5.2.5 Equipment.....	25
5.2.6 Responsibilities.....	25
5.2.7 Cost estimates.....	26
5.2.8 Schedules.....	27
5.2.9 Prototypes and drafts.....	27

5.2.10	System tests	28
5.2.11	Reviews	28
5.2.12	Usability testing	29
5.2.13	Localisation and customisation	29
5.2.14	Approval	29
5.2.15	Maintenance, updating and future developments	30
5.3	Review of detailed documentation plans	30
6	The analysis and design phase	30
6.1	Audiences	31
6.1.1	Audience analysis	31
6.1.2	Learning stages and frequency of use	32
6.1.3	Working environments	32
6.1.4	Audience profiles	33
6.2	Tasks	34
6.2.1	Task analysis	34
6.2.2	Mapping audiences to tasks	35
6.2.3	Task characteristics	36
6.2.4	Task profiles	36
6.3	Information	36
6.3.1	Information needs	36
6.3.2	Context of use	36
6.3.3	Volume/amount of documentation	37
6.3.4	Media	37
6.3.5	Information profile	39
6.4	Usability	39
6.4.1	Define usability goals	39
6.4.2	Record usability goals	41
6.5	Structure of the documentation suite	41
6.5.1	General	41
6.5.2	Decide what information needs to be provided in the documentation	41
6.5.3	Group information needs into documents	41
6.6	Individual document structures	43
6.6.1	Prepare a list of contents	43
6.6.2	Define the document structure	43
6.7	Document writing style	46
6.7.1	General	46
6.7.2	Awareness and appreciation information	46
6.7.3	Installation instructions	46
6.7.4	Tutorials and task instructions	47
6.7.5	Quick reference information	47
6.7.6	Reference information	47
6.7.7	Diagrams	48
6.7.8	Graphs and charts	48
6.7.9	Illustrations of screen displays	48
6.7.10	Illustrations of printed output	49
7	The development and review phase	50
7.1	General	50
7.2	Prepare and issue drafts	50
7.3	Check and review drafts	51
7.3.1	General	51
7.3.2	Reviewing the information	52
7.3.3	Usability tests	53
7.3.4	System tests	54
7.3.5	Validation and field trials	54
7.4	Prepare subsequent drafts	55
7.5	Prepare document masters	55
7.6	Hand over the finished documentation	56
7.7	Localisation and customisation	56
7.8	Archiving	56

8	The evaluation and updating phase	57
8.1	General	57
8.2	Evaluate the documentation	57
8.3	Update the documentation	57
9	Guidelines for the design of documentation	57
9.1	Introduction	57
9.2	Product copyright and version details	58
9.3	Overview of the documentation	59
9.4	Process descriptions	59
9.5	Task descriptions	60
9.6	Explanations of fields and options	61
9.7	Names and uses of user interface options	62
9.7.1	Names	62
9.7.2	Uses	62
9.8	Descriptions of application functions	62
9.9	Information messages	64
9.9.1	Format	64
9.9.2	On-screen messages	65
9.10	Definitions of terms	66
9.11	Concepts	67
9.12	Exploitation information	67
9.13	Frequently asked questions	68
9.14	User-supplied content	68
9.15	Navigation	69
9.15.1	Introduction	69
9.15.2	Accessing on-screen information	70
9.15.3	Finding the right information - linking information in on-screen documentation	71
9.15.4	Knowing what the current information is	74
9.15.5	Knowing the current position within a topic	75
9.15.6	Finding the same information again	75
9.15.7	Switching between the application and the documentation	75
9.15.8	Printing information	76
9.15.9	Moving to a different topic	76
9.15.10	Obtaining clarification or amplification of current information	77
9.15.11	Browsing through information	77
9.15.12	Viewing topics in sequence	77
9.15.13	Exiting from the on-screen documentation	77
9.15.14	Finding user-supplied information	77
9.15.15	Sizes of topics and fragments	78
9.16	Presentation	78
9.16.1	Introduction	78
9.16.2	Windowing	79
9.16.3	Layout and grids	80
9.16.4	Colour	82
9.16.5	Presentation of text	84
9.17	Icons and signposts	90
9.17.1	When to use icons and signposts	90
9.17.2	Design of icons and signposts	90
9.17.3	Displaying the names of icons	91
9.18	Presentation of illustrations	92
Annex A	(informative) Process checklists	93
Annex B	(informative) Design checklist	98
Annex C	(informative) Evaluation of documentation	114
Annex D	(informative) Writing style and techniques	119
Annex E	(informative) Design and preparation of printed information	131
Annex F	(informative) Writing style guides — Contents	144

Annex G (informative) ISO/IEC 18019 and related standards	145
Bibliography	146

This document is a preview generated by EVS

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 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 18019 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 the correct way to use it. 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. Consequently their view of the product is positive, with the result that their view of the supplier is positive too. 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 many software products aim to have user interfaces that behave so intuitively that very little separate documentation is needed, this is rarely possible.

Documentation is an essential component of any product. Documentation design is crucial; the success or failure of an entire product can depend on it. The documentation can be the first tangible item that the user sees, and so influences the user's first impressions of the product.

Users of application software products generally have one important feature in common: they might be experts in the tasks for which they wish to use the software, but they are not, initially, experts in using the application software itself.

Although the guidance given in this International Standard covers all the activities and all the design decisions that need to be made, some of the activities can be extremely simple to carry out in some environments, as demonstrated by the following examples.

- If there are already established typographic and illustration standards and established development and production routes, very little design and planning will be needed in these areas.
- If the product being developed is for a single type of user with well-known user characteristics and well-defined tasks, very little user analysis will be needed.

ISO/IEC 18019 is based upon British Standards BS 7649:1993 and BS 7830:1996.

Software and system engineering — Guidelines for the design and preparation of user documentation for application software

1 Scope

This International Standard gives guidelines for the design and preparation of user documentation for application software. 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 then to prepare the information and make it available.

For the purposes of this International Standard, application software includes the types listed below.

- Consumer software packages, that is, software products designed and sold to carry out identified tasks, where the software and its associated documentation are packaged for acquisition as a unit.
- Software for office applications such as word processors, spreadsheets, databases and electronic mail.
- Business software, for example, software for recording and monitoring business activities, such as stock control and order processing.
- Specialist software for use by professionals, such as accounting systems, graphic design systems and engineering design systems.

These guidelines may also be helpful for developing documentation for the following, although it does not cover all the issues relating to them.

- Software engineering products for use by computer professionals.
- Software for programmable electronic or mechanical systems.

This International Standard is for use by people responsible for specifying, designing and preparing user documentation for application software and people who manage these activities, including.

- Developers of tools for creating hardcopy documentation.
- Product designers.
- Application developers.
- Project managers.
- Authors.
- Programmers.
- Translators.
- Localisation staff.

It is intended for use in all types of organisations, whether or not a dedicated documentation department is present. In all cases, it can be used as a basis for local standards and procedures. Readers are assumed to have experience or knowledge of software development or documentation development processes.

This International Standard may also be useful to.

- Developers of tools for creating on-screen documentation.
- People who are evaluating existing or proposed application software.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1

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.

2.2

active area

area of a screen interface that responds to user input

EXAMPLE A window, icon or text field.

2.3

active text

text displayed on the screen that responds to user input

2.4

alpha testing

first stage of testing before a product is considered ready for commercial or operational use; often performed only by users within the organisation developing the software (see also 2.11)

2.5

analysis

investigation and collection phase of development, that aims to specify types of users and their information needs

2.6

application software

software designed to help users perform particular tasks or handle particular types of problems, as distinct from software that controls the computer itself

2.7

application window

window (on-screen location) that presents an environment or application

2.8

appreciation information

awareness information

information that introduces the product to potential users, tells them what the software can do, how it can be used and helps them decide whether the product is appropriate to their needs