SLOVENSKI STANDARD
SIST EN ISO 9241-161:2016

01-junij-2016

Ergonomija medsebojnega vpliva človek-sistem - 161. del: Navodilo za vizualne elemente uporabniških vmesnikov (ISO 9241-161:2016)

Ergonomics of human-system interaction - Part 161: Guidance on visual user-interface elements (ISO 9241-161:2016)

Ergonomie der Mensch-System-Interaktion - Teil 161: Leitfaden zu visuellen User-Interface Elementen (ISO 9241-161:2016)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ergonomie de l'interaction homme-système - Partie 161: Éléments de l'interface utilisateur (ISO 9241-161:2016)

SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/c38855bd-3834-48ff-a82e-e02f7661cb3b/sist-en-iso-9241-161-2016

Ta slovenski standard je istoveten z: **EN ISO 9241-161:2016**

ICS:

13.180	Ergonomija	Ergonomics
35.180	Terminalska in druga periferna oprema IT	IT Terminal and other peripheral equipment

SIST EN ISO 9241-161:2016 **en,de**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

SIST EN ISO 9241-161:2016

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/c38855bd-3834-48ff-a82e-e02f7661cb3b/sist-en-iso-9241-161-2016

SIST EN ISO 9241-161:2016

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 9241-161

March 2016

ICS 13.180; 35.180

English Version

Ergonomics of human-system interaction - Part 161: Guidance on visual user-interface elements (ISO 9241-161:2016)

Ergonomie de l'interaction homme-système - Partie 161: Éléments de l'interface utilisateur (ISO 9241-161:2016)

Ergonomie der Mensch-System-Interaktion - Teil 161: Leitfaden zu visuellen User-Interface Elementen (ISO 9241-161:2016)

This European Standard was approved by CEN on 15 January 2016.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/5685fbc1-3824-48f-932e-
82fb1e13e0ca/sist-en-iso-9241-161-2016

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

© 2016 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

SIST EN ISO 9241-161:2016

Contents

Page

European foreword **3**

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/c38855bd-3834-48ff-a82e-e02f7661cb3b/sist-en-iso-9241-161-2016

SIST EN ISO 9241-161:2016

European foreword

This document (EN ISO 9241-161:2016) has been prepared by Technical Committee ISO/TC 159 "Ergonomics" in collaboration with Technical Committee CEN/TC 122 “Ergonomics” the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2016, and conflicting national standards shall be withdrawn at the latest by September 2016.

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

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Endorsement notice

The text of ISO 9241-161:2016 has been approved by CEN as EN ISO 9241-161:2016 without any modification.

SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/c38855bd-3834-48ff-a82e-e02f7661cb3b/sist-en-iso-9241-161-2016

SIST EN ISO 9241-161:2016

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/c38855bd-3834-48ff-a82e-e02f7661cb3b/sist-en-iso-9241-161-2016

SIST EN ISO 9241-161:2016

INTERNATIONAL STANDARD

ISO 9241-161

First edition
2016-02-15

Ergonomics of human-system interaction —

Part 161: Guidance on visual user-interface elements

Ergonomie de l'interaction homme-système —
Partie 161: Éléments de l'interface utilisateur

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/c38855bd-3834-48ff-a82e-e02f7661cb3b/sist-en-iso-9241-161-2016

Reference number
ISO 9241-161:2016(E)

© ISO 2016

SIST EN ISO 9241-161:2016

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/c38855bd-3834-48ff-a82e-e02f7661cb3b/sist-en-iso-9241-161-2016

COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

 © ISO 2016 – All rights reserved

SIST EN ISO 9241-161:2016

Contents

Page

Foreword ... **ix**
Introduction ... **xi**
1 Scope ... **1**
2 Normative references ... **1**
3 Terms and definitions ... **1**
4 Accessibility ... **4**
5 Relationship of input methods and visual user-interface elements ... **4**
6 States of visual user-interface elements ... **5**
7 Describing visual user-interface elements ... **5**
8 Visual user-interface elements ... **6**
8.1 Accordion ... 6
8.1.1 Description ... 6
8.1.2 Components ... 6
8.1.3 States ... 7
8.1.4 When to use an accordion ... 7
8.1.5 How to use an accordion ... 8
8.2 Analogue form element/slider ... 8
8.2.1 Description ... 8
8.2.2 Components ... 8
8.2.3 States ... 8
8.2.4 When to use an analogue form element ... 8
8.2.5 How to use an analogue form element ... 9
8.3 Carousel/Carrousel ... 9
8.3.1 Description ... 9
8.3.2 Components ... 9
8.3.3 States ... 10
8.3.4 When to use a carousel ... 10
8.3.5 How to use a carousel ... 10
8.4 Check box/check button ... 10
8.4.1 Description ... 10
8.4.2 Components ... 10
8.4.3 States ... 11
8.4.4 When to use a check box ... 11
8.4.5 How to use a check box ... 11
8.5 Collapsible container ... 12
8.5.1 Description ... 12
8.5.2 Components ... 12
8.5.3 States ... 13
8.5.4 When to use a collapsible container ... 13
8.5.5 How to use a collapsible container ... 13
8.6 Colour picker ... 13
8.6.1 Description ... 13
8.6.2 Components ... 13
8.6.3 States ... 13
8.6.4 When to use a colour picker ... 13
8.6.5 How to use a colour picker ... 13
8.7 Combination box/combo box ... 14
8.7.1 Description ... 14
8.7.2 Components ... 14
8.7.3 States ... 15
8.7.4 When to use a combination box ... 15

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/c38855bd-3834-48ff-a82e-c02f7661cb3b/sist-en-iso-9241-161-2016

© ISO 2016 – All rights reserved

SIST EN ISO 9241-161:2016

8.7.5 How to use a combination box ... 16
8.8 Cursor ... 16
8.8.1 Description ... 16
8.8.2 Components ... 16
8.8.3 States ... 16
8.8.4 When to use a cursor ... 16
8.8.5 How to use a cursor ... 16
8.9 Date picker ... 17
8.9.1 Description ... 17
8.9.2 Components ... 17
8.9.3 States ... 17
8.9.4 When to use a date picker ... 18
8.9.5 How to use a date picker ... 18
8.10 Dialogue box ... 18
8.10.1 Description ... 18
8.10.2 Components ... 18
8.10.3 States ... 19
8.10.4 When to use a dialogue box ... 19
8.10.5 How to use a dialogue box ... 19
8.11 Dropdown list box ... 19
8.11.1 Description ... 19
8.11.2 Components ... 20
8.11.3 When to use a dropdown list box ... 20
8.11.4 How to use a dropdown list box ... 21
8.12 Entry field/input field ... 21
8.12.1 Description ... 21
8.12.2 Components ... 21
8.12.3 States ... 21
8.12.4 When to use an entry field ... 22
8.12.5 How to use an entry field ... 22
8.13 Entry field with dialogue button ... 22
8.13.1 Description ... 22
8.13.2 Components ... 22
8.13.3 States ... 22
8.13.4 When to use an entry field with dialogue button ... 22
8.13.5 How to use an entry field with dialogue button ... 23
8.14 Geographical map ... 23
8.14.1 Description ... 23
8.14.2 Components ... 23
8.14.3 States ... 23
8.14.4 When to use a geographical map ... 23
8.14.5 How to use a geographical map ... 24
8.15 Group/group box ... 24
8.15.1 Description ... 24
8.15.2 Components ... 24
8.15.3 States ... 24
8.15.4 When to use a group ... 24
8.15.5 How to use a group ... 25
8.16 Handle ... 25
8.16.1 Description ... 25
8.16.2 Components ... 25
8.16.3 States ... 25
8.16.4 When to use a handle ... 26
8.16.5 How to use a handle ... 26
8.17 Hierarchical list/tree view/tree lists ... 26
8.17.1 Description ... 26
8.17.2 Components ... 26
8.17.3 States ... 27

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/e38855bd-3834-48ff-a82e-c02f7001cb3b/sist-en-iso-9241-161-2016

© ISO 2016 – All rights reserved

SIST EN ISO 9241-161:2016

8.17.4 When to use a hierarchical list ... 27
8.17.5 How to use a hierarchical list ... 27
8.18 Implicit designator ... 27
8.18.1 Description ... 27
8.18.2 Components ... 27
8.18.3 States ... 28
8.18.4 When to use an implicit designator ... 28
8.18.5 How to use an implicit designator ... 28
8.19 Instructive information ... 28
8.19.1 Description ... 28
8.19.2 Components ... 28
8.19.3 States ... 29
8.19.4 When to use instructive information ... 29
8.19.5 How to use instructive information ... 29
8.20 Input tokenizer ... 29
8.20.1 Description ... 29
8.20.2 Components ... 30
8.20.3 States ... 30
8.20.4 When to use an input tokenizer ... 30
8.20.5 How to use an input tokenizer ... 30
8.21 Label ... 31
8.21.1 Description ... 31
8.21.2 Components ... 31
8.21.3 States ... 31
8.21.4 When to use a label ... 31
8.21.5 How to use a label ... 31
8.22 Legend/chart key ... 31
8.22.1 Description ... 31
8.22.2 Components ... 32
8.22.3 States ... 32
8.22.4 When to use a legend ... 32
8.22.5 How to use a legend ... 32
8.23 Link/hyperlink ... 32
8.23.1 Description ... 32
8.23.2 Components ... 33
8.23.3 States ... 33
8.23.4 When to use a link ... 33
8.23.5 How to use a link ... 33
8.24 List box ... 34
8.24.1 Description ... 34
8.24.2 Components ... 34
8.24.3 States ... 34
8.24.4 When to use a list box ... 35
8.24.5 How to use a list box ... 35
8.25 List button/menu button ... 35
8.25.1 Description ... 35
8.25.2 Components ... 35
8.25.3 States ... 36
8.25.4 When to use a list button ... 36
8.25.5 How to use a list button ... 36
8.26 Menu/menu bar ... 36
8.26.1 Description ... 36
8.26.2 Components ... 37
8.26.3 States ... 37
8.26.4 When to use a menu ... 37
8.26.5 How to use a menu ... 38
8.27 Output pane ... 38
8.27.1 Description ... 38

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/c38855bd-3834-48ff-a82e-e021f061a53b/sist-en-iso-9241-161-2016

© ISO 2016 – All rights reserved

SIST EN ISO 9241-161:2016

8.27.2 Components ... 38
8.27.3 States ... 38
8.27.4 When to use an output pane ... 38
8.27.5 How to use an output pane ... 38
8.28 Pointer ... 39
8.28.1 Description ... 39
8.28.2 Components ... 39
8.28.3 States ... 39
8.28.4 When to use a pointer ... 39
8.28.5 How to use a pointer ... 39
8.29 Pop-up menu/contextual menu ... 40
8.29.1 Description ... 40
8.29.2 Components ... 40
8.29.3 States ... 40
8.29.4 When to use a pop-up menu ... 40
8.29.5 How to use a pop-up menu ... 40
8.30 Progress indicator ... 41
8.30.1 Description ... 41
8.30.2 Components ... 41
8.30.3 States ... 41
8.30.4 When to use a progress indicator ... 41
8.30.5 How to use a progress indicator ... 41
8.31 Prompt ... 41
8.31.1 Description ... 41
8.31.2 Components ... 41
8.31.3 States ... 42
8.31.4 When to use a prompt ... 42
8.31.5 How to use a prompt ... 42
8.32 Push button/command button ... 42
8.32.1 Description ... 42
8.32.2 Components ... 42
8.32.3 States ... 43
8.32.4 When to use a push button ... 43
8.32.5 How to use a push button ... 43
8.33 Radio button ... 43
8.33.1 Description ... 43
8.33.2 Components ... 44
8.33.3 States ... 44
8.33.4 When to use a radio button ... 44
8.33.5 How to use a radio button ... 45
8.34 Read only field/protected field ... 45
8.34.1 Description ... 45
8.34.2 Components ... 45
8.34.3 States ... 46
8.34.4 When to use a read only field ... 46
8.34.5 How to use a read only field ... 46
8.35 Scroll bar ... 46
8.35.1 Description ... 46
8.35.2 Components ... 46
8.35.3 States ... 47
8.35.4 When to use a scroll bar ... 47
8.35.5 How to use a scroll bar ... 47
8.36 Scroll handle/elevator/scroll box/thumb ... 47
8.36.1 Description ... 47
8.36.2 Components ... 48
8.36.3 States ... 48
8.36.4 When to use scroll handle ... 48
8.36.5 How to use scroll handle ... 48

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/e38855bd-3834-48ff-a82e-e02f7661eb3b/sist-en-iso-9241-161-2016

© ISO 2016 – All rights reserved

SIST EN ISO 9241-161:2016

8.37 Selection cursor ... 48
8.37.1 Description ... 48
8.37.2 Components ... 48
8.37.3 States ... 49
8.37.4 When to use a selection cursor ... 49
8.37.5 How to use a selection cursor ... 49
8.38 Selection indication ... 49
8.38.1 Description ... 49
8.38.2 Components ... 49
8.38.3 States ... 50
8.38.4 When to use a selection indication ... 50
8.38.5 How to use a selection indication ... 50
8.39 Selection list/choice list ... 50
8.39.1 Description ... 50
8.39.2 Components ... 51
8.39.3 States ... 51
8.39.4 When to use a selection list ... 51
8.39.5 How to use a selection list ... 51
8.40 Status information ... 52
8.40.1 Description ... 52
8.40.2 Components ... 52
8.40.3 States ... 52
8.40.4 When to use status information ... 52
8.40.5 How to use status information ... 52
8.41 Stepper/spin button ... 52
8.41.1 Description ... 52
8.41.2 Components ... 53
8.41.3 States ... 53
8.41.4 When to use a stepper ... 53
8.41.5 How to use a stepper ... 53
8.42 System message ... 53
8.42.1 Description ... 53
8.42.2 Components ... 54
8.42.3 States ... 54
8.42.4 When to use a system message ... 54
8.42.5 How to use system message ... 54
8.43 Tab set ... 55
8.43.1 Description ... 55
8.43.2 Components ... 55
8.43.3 States ... 55
8.43.4 When to use a tab set ... 55
8.43.5 How to use a tab set ... 56
8.44 Table ... 56
8.44.1 Description ... 56
8.44.2 Components ... 56
8.44.3 States ... 57
8.44.4 When to use a table ... 57
8.44.5 How to use a table ... 57
8.45 Text field ... 57
8.45.1 Description ... 57
8.45.2 Components ... 58
8.45.3 States ... 58
8.45.4 When to use a text field ... 58
8.45.5 How to use a text field ... 58
8.46 Time picker ... 58
8.46.1 Description ... 58
8.46.2 Components ... 58
8.46.3 States ... 59

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/e38855bd-3834-48ff-a82e-c02f7661cb3b/sist-en-iso-9241-161-2016

© ISO 2016 – All rights reserved

SIST EN ISO 9241-161:2016

8.46.4 When to use a time picker 59
8.46.5 How to use a time picker 60
8.47 Title 60
8.47.1 Description 60
8.47.2 Components 60
8.47.3 States 60
8.47.4 When to use a title 60
8.47.5 How to use title 61
8.48 Toggle button 61
8.48.1 Description 61
8.48.2 Components 61
8.48.3 States 61
8.48.4 When to use a toggle button 61
8.48.5 How to use a toggle button 61
8.49 Tool bar 62
8.49.1 Description 62
8.49.2 Components 62
8.49.3 States 62
8.49.4 When to use a tool bar 62
8.49.5 How to use a tool bar 62
8.50 Tool tip 62
8.50.1 Description 62
8.50.2 Components 63
8.50.3 States 63
8.50.4 When to use a tool tip 63
8.50.5 How to use a tool tip 63
8.51 Window 63
8.51.1 Description 63
8.51.2 Components 63
8.51.3 States 64
8.51.4 When to use a window 64
8.51.5 How to use window 64

Annex A (informative) **Choosing visual user interface elements** **65**

Bibliography **69**

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/e38855bd-3834-48ff-a82e-c021f001eb3b/sist-en-iso-9241-161-2016

© ISO 2016 – All rights reserved

SIST EN ISO 9241-161:2016

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

iTeh STANDARD PREVIEW
(standards.iteh.ai)

The committee responsible for this document is ISO/TC 159, *Ergonomics*, Subcommittee SC 4, *Ergonomics of human–system interaction*.

SIST EN ISO 9241-161:2016
https://standards.iteh.ai/catalog/standards/sist/38857ed3-3854-48f5-82e7-7661cb3b/sist-en-iso-9241-161-2016

ISO 9241 consists of the following parts, under the general title *Ergonomic requirements for office work with visual display terminals (VDTs)*:

— *Part 1: General introduction*

— *Part 2: Guidance on task requirements*

— *Part 5: Workstation layout and postural requirements*

— *Part 6: Guidance on the work environment*

— *Part 11: Guidance on usability*

— *Part 12: Presentation of information*

— *Part 13: User guidance*

— *Part 14: Menu dialogues*

— *Part 15: Command dialogues*

— *Part 16: Direct manipulation dialogues*

ISO 9241 also consists of the following parts, under the general title *Ergonomics of human-system interaction*:

— *Part 20: Accessibility guidelines for information/communication technology (ICT) equipment and services*

— *Part 100: Introduction to standards related to software ergonomics* [Technical Report]

— *Part 110: Dialogue principles*

© ISO 2016 – All rights reserved