



**SLOVENSKI STANDARD**  
**SIST EN 301 549 V1.1.1:2014**  
**01-maj-2014**

---

**Zahteve za dostopnost pri javnem naročanju izdelkov in storitev IKT v Evropi**

Accessibility requirements for public procurement of ICT products and services in Europe

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

**Ta slovenski standard je istoveten z:** EN 301 549 Version 1.1.1

SIST EN 301 549 V1.1.1:2014

<https://standards.iteh.ai/catalog/standards/sist/71dac97e-94cd-482a-aelc-b942eb7369c5/sist-en-301-549-v1-1-1-2014>

**ICS:**

33.030	Telekomunikacijske uporabniške rešitve	Telecommunication services. Applications
--------	--	---

**SIST EN 301 549 V1.1.1:2014** **en**

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 301 549 V1.1.1:2014](#)

<https://standards.iteh.ai/catalog/standards/sist/71dac97e-94cd-482a-ae1c-b942eb7369c5/sist-en-301-549-v1-1-1-2014>

# EN 301 549 v1.1.1 (2014-02)



European Standard

## iTeh STANDARD PREVIEW **(standards.iteh.ai)**

### Accessibility requirements suitable for public procurement of ICT products and services in Europe

<https://standards.iteh.ai/catalog/standards/sist/71dac97e-94cd-482a-aec1c-b942eb7369c5/sist-en-301-549-v1-1-2014>



---

Reference

DEN/HF-00125

---

Keywords

accessibility, HF, ICT, procurement

**CEN**

Avenue Marnix 17  
B-1000 Brussels - BELGIUM

Tel: + 32 2 550 08 11  
Fax: + 32 2 550 08 19

**CENELEC**

Avenue Marnix 17  
B-1000 Brussels - BELGIUM

Tel.: +32 2 519 68 71  
Fax: +32 2 519 69 19

**ETSI**

650 Route des Lucioles  
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00  
Fax: +33 4 93 65 47 16

## iTeh STANDARD PREVIEW (standards.iteh.ai)

Siret N° 348 623 562 00017 - NAF 742 C  
Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° 7803/88

[SIST EN 301 549 V1.1.1:2014](#)

<https://standards.iteh.ai/catalog/standards/sist/71dac97e-94cd-482a-aec1c-b942eb736723/SIST%20EN%20301%20549%20V1-1-2014>

Individual copies of the present document can be downloaded from:  
<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status.  
Information on the current status of this and other ETSI documents is available at  
<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:  
[http://portal.etsi.org/chaircor/ETSI\\_support.asp](http://portal.etsi.org/chaircor/ETSI_support.asp)

---

**Copyright Notification**

No part may be reproduced except as authorized by written permission.  
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2014.  
© Comité Européen de Normalisation 2014.  
© Comité Européen de Normalisation Electrotechnique 2014.  
All rights reserved.

DECT™, PLUGTESTS™, UMTS™ and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.  
3GPP™ and LTE™ are Trade Marks of ETSI registered for the benefit of its Members and  
of the 3GPP Organizational Partners.  
GSM® and the GSM logo are Trade Marks registered and owned by the GSM Association.

---

# Contents

Contents.....	3
Intellectual Property Rights.....	15
Foreword.....	15
Introduction .....	15
1    Scope .....	16
2    References .....	16
2.1    Normative references.....	16
2.2    Informative references .....	17
3    Definitions and abbreviations.....	18
3.1    Definitions .....	18
3.2    Abbreviations.....	21
4    Functional performance.....	21
4.1    Meeting functional performance statements .....	21
4.2    Functional performance statements .....	22
4.2.1    Usage without vision.....	22
4.2.2    Usage with limited vision.....	22
4.2.3    Usage without perception of colour .....	22
4.2.4    Usage without hearing.....	22
4.2.5    Usage with limited hearing .....	22
4.2.6    Usage without vocal capability.....	23
4.2.7    Usage with limited manipulation or strength .....	23
4.2.8    Usage with limited reach.....	23
4.2.9    Minimize photosensitive seizure triggers.....	23
4.2.10    Usage with limited cognition .....	23
4.2.11    Privacy .....	23
5    Generic requirements .....	24
5.1    Closed functionality .....	24
5.1.1    Introduction (Informative).....	24
5.1.2    General .....	24
5.1.2.1    Closed functionality.....	24
5.1.2.2    Assistive technology.....	24
5.1.3    Non-visual access .....	24
5.1.3.1    General .....	24
5.1.3.2    Auditory output delivery including speech.....	24
5.1.3.3    Auditory output correlation .....	25
5.1.3.4    Speech output user control .....	25
5.1.3.5    Speech output automatic interruption .....	25
5.1.3.6    Speech output for non-text content.....	25
5.1.3.7    Speech output for video information .....	25
5.1.3.8    Masked entry .....	25
5.1.3.9    Private access to personal data .....	26
5.1.3.10    Non-interfering audio output .....	26
5.1.3.11    Private listening volume .....	26
5.1.3.12    Speaker volume .....	26
5.1.3.13    Volume reset.....	26
5.1.3.14    Spoken languages .....	26
5.1.3.15    Non-visual error identification .....	27
5.1.3.16    Receipts, tickets, and transactional outputs .....	27
5.1.4    Functionality closed to text enlargement.....	27
5.1.5    Visual output for auditory information.....	27
5.1.6    Operation without keyboard interface .....	27
5.1.6.1    Closed functionality.....	27

5.1.6.2	Input focus .....	27
5.2	Activation of accessibility features .....	28
5.3	Biometrics .....	28
5.4	Preservation of accessibility information during conversion .....	28
5.5	Operable parts .....	28
5.5.1	Means of operation .....	28
5.5.2	Operable parts discernibility .....	28
5.6	Locking or toggle controls .....	28
5.6.1	Tactile or auditory status .....	28
5.6.2	Visual status .....	28
5.7	Key repeat .....	29
5.8	Double-strike key acceptance .....	29
5.9	Simultaneous user actions .....	29
6	ICT with two-way voice communication .....	29
6.1	Audio bandwidth for speech (informative recommendation) .....	29
6.2	Real-time text (RTT) functionality .....	29
6.2.1	RTT provision .....	29
6.2.1.1	RTT communication .....	29
6.2.1.2	Concurrent voice and text .....	30
6.2.2	Display of Real-time Text .....	30
6.2.2.1	Visually distinguishable display .....	30
6.2.2.2	Programmatically determinable send and receive direction .....	30
6.2.3	Interoperability .....	30
6.2.4	Real-time text responsiveness .....	30
6.3	Caller ID .....	30
6.4	Alternatives to voice-based services .....	31
6.5	<i>iTeh STANDARD PREVIEW</i> Video communication .....	31
6.5.1	General (informative) .....	31
6.5.2	Resolution .....	31
6.5.3	Frame rate .....	31
6.5.4	Synchronization between audio and video .....	31
6.6	Alternatives to video-based services .....	31
7	<i>https://standards.iteh.ai/catalog/standards/sist-en-301-549-v1.1.1-2014</i> ICT with video capabilities .....	32
7.1	Caption processing technology .....	32
7.1.1	Captioning playback .....	32
7.1.2	Captioning synchronization .....	32
7.1.3	Preservation of captioning .....	32
7.2	Audio description technology .....	32
7.2.1	Audio description playback .....	32
7.2.2	Audio description synchronization .....	32
7.2.3	Preservation of audio description .....	33
7.3	User controls for captions and audio description .....	33
8	Hardware .....	33
8.1	General .....	33
8.1.1	Generic requirements .....	33
8.1.2	Standard connections .....	33
8.1.3	Colour .....	33
8.2	Hardware products with speech output .....	33
8.2.1	Speech volume gain .....	33
8.2.1.1	Speech volume range .....	33
8.2.1.2	Incremental volume control .....	34
8.2.2	Magnetic coupling .....	34
8.2.2.1	Fixed-line devices .....	34
8.2.2.2	Wireless communication devices .....	34
8.3	Physical access to ICT .....	34
8.3.1	General (informative) .....	34
8.3.2	Clear floor or ground space .....	34
8.3.2.1	Change in level .....	34
8.3.2.2	Clear floor or ground space .....	35
8.3.2.3	Approach .....	35

8.3.2.3.1	General.....	35
8.3.2.3.2	Forward approach .....	35
8.3.2.3.3	Parallel approach.....	36
8.3.2.4	Knee and toe clearance width.....	36
8.3.2.5	Toe clearance.....	36
8.3.2.6	Knee clearance.....	37
8.3.3	Reach range for ICT .....	37
8.3.3.1	Forward reach.....	37
8.3.3.1.1	Unobstructed high forward reach.....	37
8.3.3.1.2	Unobstructed low forward reach.....	38
8.3.3.1.3	Obstructed reach .....	38
8.3.3.2	Side reach .....	38
8.3.3.2.1	Unobstructed high side reach.....	38
8.3.3.2.2	Unobstructed low side reach.....	39
8.3.3.2.3	Obstructed side reach .....	39
8.3.4	Visibility.....	39
8.3.5	Installation instructions .....	40
8.4	Mechanically Operable parts .....	40
8.4.1	Numeric keys .....	40
8.4.2	Operation of mechanical parts.....	40
8.4.2.1	Means of Operation of mechanical parts.....	40
8.4.2.2	Force of operation of mechanical parts.....	40
8.4.3	Keys, tickets and fare cards.....	40
8.5	Tactile indication of speech mode .....	40
9	Web .....	40
9.1	General (informative).....	40
9.2	Web content requirements .....	41
9.2.1	Non-text content.....	41
9.2.2	Audio-only and video-only (pre-recorded).....	41
9.2.3	Captions (pre-recorded).....	41
9.2.4	Audio description or media alternative (pre-recorded).....	41
9.2.5	Captions (live).....	41
9.2.6	Audio description (pre-recorded).....	41
9.2.7	Info and relationships .....	42
9.2.8	Meaningful sequence.....	42
9.2.9	Sensory characteristics .....	42
9.2.10	Use of colour .....	42
9.2.11	Audio control .....	42
9.2.12	Contrast (minimum) .....	42
9.2.13	Resize text .....	42
9.2.14	Images of text .....	42
9.2.15	Keyboard.....	42
9.2.16	No keyboard trap.....	42
9.2.17	Timing adjustable .....	42
9.2.18	Pause, stop, hide .....	42
9.2.19	Three flashes or below threshold.....	42
9.2.20	Bypass blocks .....	42
9.2.21	Page titled.....	43
9.2.22	Focus Order .....	43
9.2.23	Link purpose (in context) .....	43
9.2.24	Multiple ways .....	43
9.2.25	Headings and labels.....	43
9.2.26	Focus visible .....	43
9.2.27	Language of page .....	43
9.2.28	Language of parts .....	43
9.2.29	On focus .....	43
9.2.30	On input.....	43
9.2.31	Consistent navigation .....	43
9.2.32	Consistent identification .....	43
9.2.33	Error identification .....	43
9.2.34	Labels or instructions .....	43

9.2.35	Error suggestion .....	44
9.2.36	Error prevention (legal, financial, data) .....	44
9.2.37	Parsing.....	44
9.2.38	Name, role, value .....	44
9.3	WCAG 2.0 conformance requirements.....	44
10	Non-web documents.....	44
10.1	General (informative) .....	44
10.2	Document success criteria .....	45
10.2.1	Non-text content.....	45
10.2.2	Audio-only and video-only (pre-recorded) .....	45
10.2.3	Captions (pre-recorded).....	46
10.2.4	Audio description or media alternative (pre-recorded) .....	46
10.2.5	Captions (live).....	46
10.2.6	Audio description (pre-recorded) .....	46
10.2.7	Info and relationships .....	47
10.2.8	Meaningful sequence.....	47
10.2.9	Sensory characteristics .....	47
10.2.10	Use of colour .....	47
10.2.11	Audio control .....	47
10.2.12	Contrast (minimum) .....	48
10.2.13	Resize text .....	48
10.2.14	Images of text.....	48
10.2.15	Keyboard.....	49
10.2.16	No keyboard trap.....	49
10.2.17	Timing adjustable.....	49
10.2.18	Pause, stop, hide .....	50
10.2.19	Three flashes or below threshold.....	50
10.2.20	Empty clause .....	50
10.2.21	Document titled .....	51
10.2.22	Focus order .....	51
10.2.23	Link purpose (in context) .....	51
10.2.24	Empty clause .....	51
10.2.25	Headings and labels.....	51
10.2.26	Focus visible .....	51
10.2.27	Language of page .....	52
10.2.28	Language of parts .....	52
10.2.29	On focus .....	52
10.2.30	On input.....	52
10.2.31	Empty clause .....	53
10.2.32	Empty clause .....	53
10.2.33	Error identification .....	53
10.2.34	Labels or instructions .....	53
10.2.35	Error suggestion .....	53
10.2.36	Error prevention (legal, financial, data) .....	53
10.2.37	Parsing.....	54
10.2.38	Name, role, value .....	54
10.2.39	Caption positioning .....	54
10.2.40	Audio description timing.....	54
11	Software .....	55
11.1	General (informative) .....	55
11.2	Non-Web software success criteria.....	55
11.2.1	Non-Web software success criteria (excluding closed functionality) .....	55
11.2.1.1	Non-text content (screen reading supported).....	55
11.2.1.2	Audio-only and video-only (pre-recorded).....	56
11.2.1.3	Captions (pre-recorded).....	56
11.2.1.4	Audio description or media alternative (pre-recorded).....	57
11.2.1.5	Captions (live) .....	57
11.2.1.6	Audio description (pre-recorded) .....	57
11.2.1.7	Info and relationships .....	57
11.2.1.8	Meaningful sequence .....	58

11.2.1.9	Sensory characteristics .....	58
11.2.1.10	Use of colour .....	58
11.2.1.11	Audio control.....	58
11.2.1.12	Contrast (minimum).....	59
11.2.1.13	Resize text .....	59
11.2.1.14	Images of text .....	59
11.2.1.15	Keyboard .....	60
11.2.1.16	No keyboard trap .....	60
11.2.1.17	Timing adjustable .....	60
11.2.1.18	Pause, stop, hide .....	61
11.2.1.19	Three flashes or below threshold.....	61
11.2.1.20	Empty clause .....	62
11.2.1.21	Empty clause .....	62
11.2.1.22	Focus order.....	62
11.2.1.23	Link purpose (in context) .....	62
11.2.1.24	Empty clause .....	62
11.2.1.25	Headings and labels.....	62
11.2.1.26	Focus visible .....	63
11.2.1.27	Language of software .....	63
11.2.1.28	Empty clause .....	63
11.2.1.29	On focus .....	63
11.2.1.30	On input.....	63
11.2.1.31	Empty clause .....	64
11.2.1.32	Empty clause .....	64
11.2.1.33	Error identification .....	64
11.2.1.34	Labels or instructions.....	64
11.2.1.35	Error suggestion.....	64
11.2.1.36	Error prevention (legal, financial, data).....	64
11.2.1.37	Parsing .....	65
11.2.1.38	Name, role, value.....	65
11.2.2	Non-Web software requirements (closed functionality).....	65
11.2.2.1	Non-text content .....	65
11.2.2.2	Audio-only and video-only (pre-recorded).....	66
11.2.2.2.1	Pre-recorded audio only.....	66
11.2.2.2.2	Pre-recorded video-only.....	66
11.2.2.3	Empty clause .....	66
11.2.2.4	Audio description or media alternative (pre-recorded).....	66
11.2.2.5	Empty clause .....	66
11.2.2.6	Empty clause .....	66
11.2.2.7	Info and relationships .....	66
11.2.2.8	Meaningful sequence.....	67
11.2.2.9	Empty clause .....	67
11.2.2.10	Empty clause .....	67
11.2.2.11	Empty clause .....	67
11.2.2.12	Empty clause .....	67
11.2.2.13	Resize text .....	67
11.2.2.14	Images of text .....	67
11.2.2.15	Keyboard .....	68
11.2.2.16	Empty clause .....	68
11.2.2.17	Empty clause .....	68
11.2.2.18	Empty clause .....	68
11.2.2.19	Empty clause .....	68
11.2.2.20	Empty clause .....	68
11.2.2.21	Empty clause .....	68
11.2.2.22	Empty clause .....	68
11.2.2.23	Empty clause .....	68
11.2.2.24	Empty clause .....	68
11.2.2.25	Empty clause .....	68
11.2.2.26	Empty clause .....	69
11.2.2.27	Language of software .....	69
11.2.2.28	Empty clause .....	69
11.2.2.29	Empty clause .....	69

11.2.2.30	Empty clause .....	69
11.2.2.31	Empty clause .....	69
11.2.2.32	Empty clause .....	69
11.2.2.33	Error Identification .....	69
11.2.2.34	Empty clause .....	69
11.2.2.35	Empty clause .....	69
11.2.2.36	Empty clause .....	70
11.2.2.37	Parsing .....	70
11.2.2.38	Name, role, value .....	70
11.3	Interoperability with assistive technology .....	70
11.3.1	Closed functionality .....	70
11.3.2	Accessibility services .....	70
11.3.2.1	Platform accessibility service support for software that provides a user .....	70
11.3.2.2	Platform accessibility service support for assistive technologies .....	71
11.3.2.3	Use of accessibility services .....	71
11.3.2.4	Assistive technology .....	71
11.3.2.5	Object information .....	71
11.3.2.6	Row, column, and headers .....	71
11.3.2.7	Values .....	72
11.3.2.8	Label relationships .....	72
11.3.2.9	Parent-child relationships .....	72
11.3.2.10	Text .....	72
11.3.2.11	List of available actions .....	72
11.3.2.12	Execution of available actions .....	72
11.3.2.13	Tracking of focus and selection attributes .....	72
11.3.2.14	Modification of focus and selection attributes .....	72
11.3.2.15	Change notification .....	73
11.3.2.16	Modifications of states and properties .....	73
11.3.2.17	Modifications of values and text .....	73
11.4	Documented accessibility usage .....	73
11.4.1	User control of accessibility features .....	73
11.4.2	No disruption of accessibility features <small>SIST EN 301 549 V1.1.1:2014</small> .....	73
11.5	User preferences <a href="https://standards.iteh.ai/catalog/standards/sist/71dac97e-94cd-482a-aclc-h942eh7369c5/sist-en-301-549-vl-1-1-2014">https://standards.iteh.ai/catalog/standards/sist/71dac97e-94cd-482a-aclc-h942eh7369c5/sist-en-301-549-vl-1-1-2014</a> .....	73
11.6	Authoring tools .....	74
11.6.1	Content technology .....	74
11.6.2	Accessible content creation .....	74
11.6.3	Preservation of accessibility information in transformations .....	74
11.6.4	Repair assistance .....	74
11.6.5	Templates .....	74
12	Documentation and support services .....	74
12.1	Product documentation .....	74
12.1.1	Accessibility and compatibility features .....	74
12.1.2	Accessible documentation .....	75
12.2	Support services .....	75
12.2.1	General (informative) .....	75
12.2.2	Information on accessibility and compatibility features .....	75
12.2.3	Effective communication .....	75
12.2.4	Accessible documentation .....	75
13	ICT providing relay or emergency service access .....	76
13.1	Relay services requirements .....	76
13.1.1	General (informative) .....	76
13.1.2	Text relay services .....	76
13.1.3	Sign relay services .....	76
13.1.4	Lip-reading relay services .....	76
13.1.5	Captioned telephony services .....	76
13.1.6	Speech to speech relay services .....	76
13.2	Access to relay services .....	76
13.3	Access to emergency services .....	77
Annex A (informative): WCAG 2.0 .....		78
A.1	Electronic attachment .....	78

Annex B (informative): Relationship between requirements and functional performance statements .....	79
B.1    Relationships between clauses 5 to 13 and the functional performance statements .....	79
Annex C (normative): Determination of compliance .....	86
C.1    Introduction.....	86
C.2    Blank clause .....	86
C.3    Blank clause.....	86
C.4    Functional performance .....	87
C.5    Generic requirements .....	87
C.5.1    Closed functionality .....	87
C.5.1.1    Introduction .....	87
C.5.1.2    General .....	87
C.5.1.2.1    Closed functionality .....	87
C.5.1.2.2    Assistive technology .....	87
C.5.1.3    Non-visual access .....	87
C.5.1.3.1    General.....	87
C.5.1.3.2    Auditory output delivery including speech .....	87
C.5.1.3.3    Auditory output correlation.....	87
C.5.1.3.4    Speech output user control.....	88
C.5.1.3.5    Speech output automatic interruption .....	88
C.5.1.3.6    Speech output for non-text content .....	88
C.5.1.3.7    Speech output for video information.....	88
C.5.1.3.8    Masked entry.....	88
C.5.1.3.9    Private access to personal data.....	89
C.5.1.3.10    Non-interfering audio output .....	89
C.5.1.3.11    Private listening volume .....	89
C.5.1.3.12    Speaker volume.....	89
C.5.1.3.13    Volume reset.....	89
C.5.1.3.14    Spoken languages.....	90
C.5.1.3.15    Non-visual error identification .....	90
C.5.1.3.16    Receipts, tickets, and transactional outputs.....	90
C.5.1.4    Functionality closed to text <a href="#">enlarge</a> .....	90
C.5.1.5    Visual output for auditory information.....	90
C.5.1.6    Operation without keyboard interface <a href="#">enlarge</a> .....	91
C.5.1.6.1    Closed functionality .....	91
C.5.1.6.2    Input focus .....	91
C.5.2    Activation of accessibility features .....	91
C.5.3    Biometrics .....	91
C.5.4    Preservation of accessibility information during conversion .....	91
C.5.5    Operable parts .....	92
C.5.5.1    Means of operation .....	92
C.5.5.2    Operable part discernibility .....	92
C.5.6    Locking or toggle controls .....	92
C.5.6.1    Tactile or auditory status .....	92
C.5.6.2    Visual status.....	92
C.5.7    Key repeat .....	92
C.5.8    Double-strike key acceptance.....	93
C.5.9    Simultaneous user actions .....	93
C.6    ICT with two-way voice communication.....	93
C.6.1    Audio bandwidth for speech .....	93
C.6.2    Real-Time Text (RTT) functionality.....	94
C.6.2.1    RTT provision .....	94
C.6.2.1.1    RTT communication .....	94
C.6.2.1.2    Concurrent voice and text .....	94
C.6.2.2    Display of Real-Time Text .....	94
C.6.2.2.1    Visually distinguishable display .....	94
C.6.2.2.2    Programmatically determinable send and receive direction .....	95
C.6.2.3    Interoperability .....	95
C.6.2.4    Real-Time Text responsiveness .....	95
C.6.3    Caller ID.....	96
C.6.4    Alternatives to voice-based services .....	96
C.6.5    Video communication .....	96

C.6.5.1	General .....	96
C.6.5.2	Resolution.....	96
C.6.5.3	Frame rate .....	96
C.6.5.4	Synchronization between audio and video .....	96
C.6.6	Alternatives to video-based services .....	97
C.7	ICT with video capabilities.....	97
C.7.1	Caption processing technology .....	97
C.7.1.1	Captioning playback.....	97
C.7.1.2	Captioning synchronization.....	97
C.7.1.3	Preservation of captioning .....	97
C.7.2	Audio description technology .....	97
C.7.2.1	Audio description playback .....	97
C.7.2.2	Audio description synchronization .....	98
C.7.2.3	Preservation of audio description .....	98
C.7.3	User controls for captions and audio description .....	98
C.8	Hardware .....	98
C.8.1	General .....	98
C.8.1.1	Generic requirements.....	98
C.8.1.2	Standard connections .....	98
C.8.1.3	Colour .....	98
C.8.2	Hardware products with speech output .....	99
C.8.2.1	Speech volume gain.....	99
C.8.2.1.1	Speech volume range .....	99
C.8.2.1.2	Incremental volume control .....	99
C.8.2.2	Magnetic coupling .....	99
C.8.2.2.1	Fixed -line devices .....	99
C.8.2.2.2	Wireless communication devices .....	99
C.8.3	Physical access to ICT.....	100
C.8.3.1	General .....	100
C.8.3.2	Clear Floor space .....	100
C.8.3.2.1	Change in Level .....	100
C.8.3.2.2	Operating area .....	100
C.8.3.2.3	Approach //standards.iteh.ai/catalog/standards/sist/71dac97e-94cd-482a-aclc- C.8.3.2.3.1 General .....	100
C.8.3.2.3.2	b942eb7369c5/sist-en-301-549-vl-1-1-2014	100
C.8.3.2.3.3	Forward Approach.....	101
C.8.3.2.3.4	Parallel Approach .....	101
C.8.3.2.4	Knee and Toe clearance width .....	101
C.8.3.2.5	Toe Clearance .....	101
C.8.3.2.6	Knee Clearance .....	102
C.8.3.3	Reach range for free-standing ICT .....	102
C.8.3.3.1	Forward reach .....	102
C.8.3.3.1.1	Unobstructed high forward reach .....	102
C.8.3.3.1.2	Unobstructed low forward reach .....	102
C.8.3.3.1.3	Obstructed reach.....	103
C.8.3.3.2	Side reach.....	103
C.8.3.3.2.1	Unobstructed high side reach .....	103
C.8.3.3.2.2	Unobstructed low side reach .....	103
C.8.3.3.2.3	Obstructed side reach .....	104
C.8.3.4	Visibility .....	104
C.8.3.5	Installation instructions.....	104
C.8.4	Mechanically Operable parts .....	104
C.8.4.1	Numeric keys .....	104
C.8.4.2	Operation of mechanical parts .....	105
C.8.4.2.1	Means of Operation of mechanical parts .....	105
C.8.4.2.2	Force of operation of mechanical parts .....	105
C.8.4.3	Keys, tickets and fare cards .....	105
C.8.5	Tactile indication of speech mode .....	105
C.9	Web content .....	105
C.9.1	General (informative) .....	105
C.9.2	Web content requirements .....	106
C.9.2.1	Non-text content .....	106
C.9.2.2	Audio-only and video-only (pre-recorded).....	106

**THIS STANDARD PREVIEW****(standards.iteh.ai)**

SIST EN 301 549 V1.1.1:2014

C.9.2.3	Captions (pre-recorded) .....	106
C.9.2.4	Audio description or media alternative (pre-recorded) .....	106
C.9.2.5	Captions (live) .....	106
C.9.2.6	Audio description (pre-recorded) .....	106
C.9.2.7	Info and relationships .....	107
C.9.2.8	Meaningful sequence .....	107
C.9.2.9	Sensory characteristics .....	107
C.9.2.10	Use of colour .....	107
C.9.2.11	Audio control .....	107
C.9.2.12	Contrast (minimum) .....	107
C.9.2.13	Resize text .....	108
C.9.2.14	Images of text .....	108
C.9.2.15	Keyboard .....	108
C.9.2.16	No keyboard trap .....	108
C.9.2.17	Timing adjustable .....	108
C.9.2.18	Pause, stop, hide .....	108
C.9.2.19	Three flashes or below threshold .....	109
C.9.2.20	Bypass blocks .....	109
C.9.2.21	Page titled .....	109
C.9.2.22	Focus Order .....	109
C.9.2.23	Link purpose (in context) .....	109
C.9.2.24	Multiple ways .....	109
C.9.2.25	Headings and labels .....	110
C.9.2.26	Focus visible .....	110
C.9.2.27	Language of page .....	110
C.9.2.28	Language of parts .....	110
C.9.2.29	On focus .....	110
C.9.2.30	On input .....	110
C.9.2.31	Consistent navigation .....	111
C.9.2.32	Consistent identification .....	111
C.9.2.33	Error identification .....	111
C.9.2.34	Labels or instructions .....	111
C.9.2.35	Error suggestion .....	111
C.9.2.36	Error prevention (legal, financial, data) .....	111
C.9.2.37	Parsing .....	112
C.9.2.38	Name, role, value .....	112
C.9.3	WCAG 2.0 conformance requirements .....	112
C.10	Documents .....	112
C.10.1	General .....	112
C.10.2	Document success criteria .....	112
C.10.2.1	Non-text content .....	112
C.10.2.2	Audio-only and video-only (pre-recorded) .....	113
C.10.2.3	Captions (pre-recorded) .....	113
C.10.2.4	Audio description or media alternative (pre-recorded) .....	113
C.10.2.5	Captions (live) .....	113
C.10.2.6	Audio description (pre-recorded) .....	113
C.10.2.7	Info and relationships .....	113
C.10.2.8	Meaningful sequence .....	113
C.10.2.9	Sensory characteristics .....	114
C.10.2.10	Use of colour .....	114
C.10.2.11	Audio control .....	114
C.10.2.12	Contrast (minimum) .....	114
C.10.2.13	Resize text .....	114
C.10.2.14	Images of text .....	114
C.10.2.15	Keyboard .....	114
C.10.2.16	No keyboard trap .....	115
C.10.2.17	Timing adjustable .....	115
C.10.2.18	Pause, stop, hide .....	115
C.10.2.19	Three flashes or below threshold .....	115
C.10.2.20	Empty clause .....	115
C.10.2.21	Document titled .....	115
C.10.2.22	Focus order .....	115

C.10.2.23	Link purpose (in context) .....	116
C.10.2.24	Multiple ways .....	116
C.10.2.25	Headings and labels .....	116
C.10.2.26	Focus visible .....	116
C.10.2.27	Language of page .....	116
C.10.2.28	Language of parts .....	116
C.10.2.29	On focus .....	116
C.10.2.30	On input .....	117
C.10.2.31	Empty clause .....	117
C.10.2.32	Error identification .....	117
C.10.2.33	Labels or instructions .....	117
C.10.2.34	Error suggestion .....	117
C.10.2.35	Error prevention (legal, financial, data) .....	117
C.10.2.36	Parsing .....	117
C.10.2.37	Name, role, value .....	118
C.10.2.38	Caption positioning .....	118
C.10.2.39	Audio description timing .....	118
C.10.2.40	Software .....	118
C.11.1	General .....	118
C.11.2	Non-Web software success criteria .....	118
C.11.2.1	Non-Web software success criteria (excluding closed functionality) .....	118
C.11.2.1.1	Non-text content (screen reading supported) .....	118
C.11.2.1.2	Audio-only and video-only (pre-recorded) .....	118
C.11.2.1.3	Captions (pre-recorded) .....	118
C.11.2.1.4	Audio description or media alternative (pre-recorded) .....	119
C.11.2.1.5	Captions (live) .....	119
C.11.2.1.6	Audio description (pre-recorded) .....	119
C.11.2.1.7	Info and relationships .....	119
C.11.2.1.8	Meaningful sequence .....	119
C.11.2.1.9	Sensory characteristics .....	119
C.11.2.1.10	Use of colour .....	120
C.11.2.1.11	Audio control .....	120
C.11.2.1.12	Contrast (minimum) .....	120
C.11.2.1.13	Resize text .....	120
C.11.2.1.14	Images of text .....	120
C.11.2.1.15	Keyboard .....	120
C.11.2.1.16	No keyboard trap .....	121
C.11.2.1.17	Timing adjustable .....	121
C.11.2.1.18	Pause, stop, hide .....	121
C.11.2.1.19	Three flashes or below threshold .....	121
C.11.2.1.20	Empty clause .....	121
C.11.2.1.21	Empty clause .....	121
C.11.2.1.22	Focus order .....	121
C.11.2.1.23	Link purpose (in context) .....	121
C.11.2.1.24	Empty clause .....	122
C.11.2.1.25	Headings and labels .....	122
C.11.2.1.26	Focus visible .....	122
C.11.2.1.27	Language of software .....	122
C.11.2.1.28	Empty clause .....	122
C.11.2.1.29	On focus .....	122
C.11.2.1.30	On input .....	122
C.11.2.1.31	Empty clause .....	122
C.11.2.1.32	Error identification .....	122
C.11.2.1.33	Labels or instructions .....	123
C.11.2.1.34	Error suggestion .....	123
C.11.2.1.35	Error prevention (legal, financial, data) .....	123
C.11.2.1.36	Parsing .....	123
C.11.2.1.37	Name, role, value .....	123
C.11.2.2	Non-Web software requirements (closed functionality) .....	124
C.11.2.2.1	Non-text content .....	124

C.11.2.2.2	Audio-only and video-only (pre-recorded) .....	124
C.11.2.2.2.1	Pre-recorded audio-only .....	124
C.11.2.2.2.2	Pre-recorded video-only .....	124
C.11.2.2.3	Empty clause .....	124
C.11.2.2.4	Audio description or media alternative (pre-recorded) .....	125
C.11.2.2.5	Empty clause .....	125
C.11.2.2.6	Empty clause .....	125
C.11.2.2.7	Info and relationships .....	125
C.11.2.2.8	Meaningful sequence .....	125
C.11.2.2.9	Empty clause .....	125
C.11.2.2.10	Empty clause .....	125
C.11.2.2.11	Empty clause .....	125
C.11.2.2.12	Empty clause .....	125
C.11.2.2.13	Resize text .....	125
C.11.2.2.14	Images of text .....	126
C.11.2.2.15	Keyboard .....	126
C.11.2.2.16	Empty clause .....	126
C.11.2.2.17	Empty clause .....	126
C.11.2.2.18	Empty clause .....	126
C.11.2.2.19	Empty clause .....	126
C.11.2.2.20	Empty clause .....	126
C.11.2.2.21	Empty clause .....	126
C.11.2.2.22	Empty clause .....	126
C.11.2.2.23	Empty clause .....	126
C.11.2.2.24	Empty clause .....	126
C.11.2.2.25	Empty clause .....	126
C.11.2.2.26	Empty clause .....	126
C.11.2.2.27	Language of software .....	127
C.11.2.2.28	Empty clause .....	127
C.11.2.2.29	Empty clause .....	127
C.11.2.2.30	Empty clause .....	127
C.11.2.2.31	Empty clause .....	127
C.11.2.2.32	<a href="http://standards.itech.ai/catalog/standards/sist/71dac97e-94cd-482a-aclc-42eb7369c5/sist-en-301-549-v1-1-2014">http://standards.itech.ai/catalog/standards/sist/71dac97e-94cd-482a-aclc-42eb7369c5/sist-en-301-549-v1-1-2014</a>	127
C.11.2.2.33	Error Identification .....	127
C.11.2.2.34	Empty clause .....	127
C.11.2.2.35	Empty clause .....	127
C.11.2.2.36	Empty clause .....	128
C.11.2.2.37	Parsing .....	128
C.11.2.2.38	Name, role, value .....	128
C.11.3	Interoperability with assistive technology .....	128
C.11.3.1	Closed functionality .....	128
C.11.3.2	Accessibility services .....	128
C.11.3.2.1	Platform accessibility service support for software that provides a user interface .....	128
C.11.3.2.2	Platform accessibility service support for assistive technologies .....	128
C.11.3.2.3	Use of accessibility services .....	129
C.11.3.2.4	Assistive technology .....	129
C.11.3.2.5	Object information .....	129
C.11.3.2.6	Row, column, and headers .....	129
C.11.3.2.7	Values .....	130
C.11.3.2.8	Label relationships .....	130
C.11.3.2.9	Parent-child relationships .....	130
C.11.3.2.10	Text .....	131
C.11.3.2.11	List of available actions .....	131
C.11.3.2.12	Execution of available actions .....	131
C.11.3.2.13	Tracking of focus and selection attributes .....	131
C.11.3.2.14	Modification of focus and selection attributes .....	132
C.11.3.2.15	Change notification .....	132
C.11.3.2.16	Modifications of states and properties .....	132
C.11.3.2.17	Modifications of values and text .....	133
C.11.4	Documented accessibility usage .....	133
C.11.4.1	User control of accessibility features .....	133
C.11.4.2	No disruption of accessibility features .....	133