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Simultaneous interpreting — Equipment — Requirements

Interprétation simultanée — Équipement — Exigences

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Foreword

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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 document 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).

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This document was prepared by Technical Committee ISO/TC 37, Language and *terminology*, Subcommittee SC 5, *Translation, interpreting and related technology*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/SS A07, *Translation and Interpretation services*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 20109:2016), which has been technically revised.

The main changes are as follows:

— Clause 2 has been updated;

— two different situations regarding the location of the parties have been introduced;

— requirements relating to sound have been aligned with other standards and/or improved as to ensure necessary sound quality transmitted to interpreters;

— detailed requirements for video displays have been added;

— specifications on interpreting system microphone behaviour have been added;

— a measurement method for the values pertaining to hearing protection has been added.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document specifies equipment for simultaneous interpreting, as well as the quality of sound and image transmitted to interpreters and from interpreters to the participants of a communicative event. Technological progress has led to profound changes in how interpreters perform their services. They can interpret in interpreting booths in the room in which the communicative event takes place, but either the entire team of interpreters or part of it can also be working from an interpreting hub, or interpreters can perform their services from an individual environment controlled by themselves. Different equipment can be used in different situations to optimize performance. This document takes these different situations into account.

Other relevant standards that can be applied in conjunction with this document, as required, are ISO 17651 (all parts), ISO 22259 and ISO 24019.

Simultaneous interpreting — Equipment — Requirements

1 Scope

This document specifies requirements for the equipment needed for simultaneous interpreting and for the quality of sound and image transmitted to interpreters and from interpreters to the audience, irrespective of the place in relation to speakers, signers, the audience and other interpreters.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 639, *Code for individual languages and language groups*

ISO 9241-303, *Ergonomics of human-system interaction — Part 303: Requirements for electronic visual displays*

ISO 9241-410:2008/Amd 1:2012, *Ergonomics of human-system interaction — Part 410: Design criteria for physical input devices — Amendment 1*

ISO 22259:2019, *Conference systems — Equipment — Requirements*

ISO 24019:2022, *Simultaneous interpreting delivery platforms — Requirements and recommendations*

ISO 24503, *Ergonomics — Accessible design — Tactile dots and bars on consumer products*

IEC 60268-1:2010, *Sound system equipment — Part 1: General*

IEC 60268-4, *Sound system equipment — Part 4: Microphones*

ITU-T P.58, *Head and torso simulator for telephonometry*

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
interpreter
person who interprets

[SOURCE: ISO 20539:2023, 3.1.13]

3.2
interpreting
interpretation
rendering spoken or signed information from a source language into a target language in spoken or signed form, conveying both the meaning and language register of the source language content

[SOURCE: ISO 20539:2023, 3.1.11]

3.3
simultaneous interpreting
mode of *interpreting* (3.2) performed while a *speaker* (3.5) or *signer* (3.6) is still speaking or signing

[SOURCE: ISO 20539:2023, 3.4.12]

3.4
signed language interpreting
interpreting (3.2) between two signed languages or between a signed language and a spoken language

[SOURCE: ISO 20539:2023, 3.4.3]

3.5
speaker
person addressing others using spoken language

[SOURCE: ISO 20539:2023, 3.4.5]

3.6
signer
person addressing others using signed language

[SOURCE: ISO 20539:2023, 3.4.6]

3.7
communicative event
encounter between two or more parties during which information is transmitted

[SOURCE: ISO 20539:2023, 3.4.32]

3.8
booth
simultaneous interpreting booth
self-contained unit enclosing the *interpreter's* (3.1) workspace

Note 1 to entry: One of the purposes of booths is to provide insulation, both from the noise transmitted from the booth's external environment into the booth itself and vice versa, and from noise passing from one booth to another.

[SOURCE: ISO 20539:2023, 3.5.2.1]

3.9
interpreter interface
equipment containing controls used by the *interpreter* (3.1) to facilitate *simultaneous interpreting* (3.3)

EXAMPLE Controls for listening, viewing, speaking, signing.

[SOURCE: ISO 20539:2023, 3.5.2.8]

3.10
hard console
interpreter console
interpreter interface (3.9) containing physical controls for listening and speaking

[SOURCE: ISO 20539:2023, 3.5.2.9]

3.11
soft console
interpreter interface (3.9) which runs on a computer or portable IT device and has onscreen controls

[SOURCE: ISO 20539:2023, 3.5.2.10]

3.12
microphone
transducer which converts sound into an electrical signal

[SOURCE: ISO 20539:2023, 3.5.2.30]

3.13
headphone
transducer which converts an electrical signal into sound, designed to be worn close to the ear

[SOURCE: ISO 20539:2023, 3.5.2.34]

3.14
headset
one or two *headphones* (3.13) combined with a *microphone* (3.12)

[SOURCE: ISO 20539:2023, 3.5.2.37]

3.15
video display
electronic device which represents information in a visual form

[SOURCE: ISO 20539:2023, 3.5.2.43]

3.16
interpreting system
combination of interpreting equipment and system for language distribution

Note 1 to entry: An interpreting system can require the use of *booths* (3.8) conforming to ISO 17651-1 or ISO 17651-2, equipped with *interpreter interfaces* (3.9) conforming to this document, or a *portable interpreting system* (3.17) conforming to this document.

[SOURCE: ISO 20539:2023, 3.5.2.27]

3.17
portable interpreting system
lightweight equipment with battery-operated components used in *simultaneous interpreting* (3.3) allowing the *interpreter* (3.1) and *participants* (3.24) to move around

[SOURCE: ISO 20539:2023, 3.5.2.6]

3.18
simultaneous interpreting delivery platform
SIDP
virtual environment used in *simultaneous interpreting* (3.3) for managing the processing of audio and video signals during the transmission of information from *speakers* (3.5) or *signers* (3.6) to distant *interpreters* (3.1) and the interpreters' renditions to a distant *audience* (3.25)

[SOURCE: ISO 20539:2023, 3.5.2.7]

3.19
relay interpreting
interpreting (3.2) in which the source language content is another *interpreter's* (3.1) rendition

[SOURCE: ISO 20539:2023, 3.4.18]

3.20
relay status
indication of the source of an *interpreter interface's* (3.9) *incoming channel* (3.22)

Note 1 to entry: The source can be the *floor* (3.21), direct *interpreting* (3.2), *relay interpreting* (3.19) or double relay interpreting.

[SOURCE: ISO 20539:2023, 3.5.2.16]

3.21
floor
audio output of conference system or *simultaneous interpreting delivery platform* (3.18) conveying auxiliary input and input from *microphones* (3.12), excluding input originating from *interpreters* (3.1) *interpreting* (3.2) from a spoken language

[SOURCE: ISO 20539:2023, 3.5.2.12]

3.22
incoming channel
electric circuit serving as a path for an audio or video signal to an *interpreter interface* (3.9)

[SOURCE: ISO 20539:2023, 3.5.2.13]

3.23
outgoing channel
circuit serving as a path for an audio or video signal from an *interpreter's* (3.1) *microphone* (3.12) or camera which, when activated by the interpreter, transmits the interpreter's i*nterpreting* (3.2)

Note 1 to entry: Each language in which interpreting is provided at a conference is allocated an outgoing channel.

[SOURCE: ISO 20539:2023, 3.5.2.14]

3.24
participant
person who takes an active part in a *communicative event* (3.7)

[SOURCE: ISO 20539:2023, 3.4.33]

3.25
audience
group of listeners or spectators at a *communicative event* (3.7)

[SOURCE: ISO 20539:2023, 3.4.36]

4 Location of the parties in a communicative event

4.1 General

Parties in a communicative event can participate from the same room or from a separate location. Different measures can be taken in order to provide the interpreter with the required audio-visual input, depending on the location of the interpreter in relation to the speaker or signer, participant, other interpreter and audience.

Technical requirements generally applicable for all situations are defined in Clause 5.

Technical requirements for situations in which the individual interpreter is in the same room as the speaker or signer, participant, other interpreter and audience are defined in Clause 6.

Technical requirements for situations in which the individual interpreter is at a location separate to that of one or more speakers or signers for the duration of their contributions or the entirety of the communicative event are defined in Clause 7.

There can be individual interpreters in the same room or at a location separate to that of one or more speakers or signers for the duration of their contributions or the entirety of the communicative event within one and the same communicative event. Therefore, the applicable requirements and recommendations for every individual interpreter shall be observed when applying the provisions of this document.

4.2 Same room

The interpreter is in the same room as the speaker or signer, participant, other interpreter and audience.

The interpreting booths, whether they are permanent (see ISO 17651-1) or mobile (see ISO 17651-2), are in the room in which the communicative event is taking place.

The interpreter has a direct view of the speaker or signer, audience and the room.

Latency is very short so that the delay between the direct sound from the room and the sound input in the interpreter's headphone cannot be perceived. See Clause 6.

4.3 Separate location

The interpreter is at a location separate to that of one or more speakers or signers or other interpreters for the duration of their contributions or the entirety of the communicative event. The interpreter views said speakers or signers contributing from a separate location on a video display.

Where the interpreter is also separate to the audience, the interpreter views the audience on a video display.

Latency is less critical because the sound and image signals of the speaker can be synchronized before reaching the interpreter. See Clause 7.

5 Generally applicable requirements

5.1 Requirements relating to sound

5.1.1 General

All audio signal processing shall be digital.

A conference system operated in combination with an interpreting system shall conform to Annex B.

5.1.2 Digital input and output

The interpreting system's nominal digital input and output level shall be −30 dB_{FS}.

5.1.3 Sound pressure level

The nominal sound pressure level is referenced to a sinusoidal frequency of 1 kHz measured under free field conditions, and shall result in an interpreting system's level of −30 dB_{FS}. Sound pressure levels shall conform to Table 1.