
**Information technology — User
interfaces — Face-to-face speech
translation —**

**Part 1:
User interface**

*Technologies de l'information — Interface utilisateur — Face-à-face
discours traduction —*

Partie 1: Interface utilisateur

Sample Document

get full document from standards.iteh.ai



Reference number
ISO/IEC 20382-1:2017(E)

© ISO/IEC 2017

Sample Document

get full document from standards.iteh.ai



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2017, 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

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Abbreviated terms	2
5 Overview of face-to-face speech translation	2
5.1 General	2
5.2 Service flow	3
5.3 Service types	4
5.4 Service mode	4
5.5 Service situation	4
6 Functional requirements	4
6.1 User communication requirements	4
6.1.1 General	4
6.1.2 Required	4
6.1.3 Optional	4
6.2 User interface requirements	5
6.2.1 General	5
6.3 User device requirements	5
6.3.1 General	5
6.4 Accessibility requirements	5
6.4.1 General	5
7 Functional components of face-to-face speech translation	6
7.1 Service protocol among functional components	6
7.2 User communication functional block	7
7.2.1 General	7
7.2.2 Steps for user communication	7
7.2.3 Translation session connection	8
7.2.4 Translation session disconnection	9
7.2.5 Translation session end condition	10
7.3 User interface functional block	11
7.3.1 General	11
7.3.2 Setup of the initial translation environments	11
7.3.3 Correction/selection function of speech recognition results:	12
7.4 User device functional block	12
7.4.1 General	12
7.4.2 SRWC pairing function for search for users and VI control	12
7.4.3 Wearable device functions	12
7.4.4 Communication between devices and message representation	13
7.5 Accessibility functional block	13
7.5.1 General	13
7.5.2 Multi-modal input functions	13
7.5.3 Multi-modal output functions	13
7.5.4 Voice input and output functions	13
7.5.5 Accessibility functions for the application user interface (UI)	13
7.5.6 Simple language, or controlled language function	13
Annex A (informative) Comparison of standardization activities for speech translation	14
Bibliography	15

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form a 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 organizations 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.

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 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 and IEC 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 voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 35, *User interfaces*.

A list of all parts in the ISO/IEC 20382 series can be found on the ISO website.

Introduction

It is important to consider people with special requirements to ensure that they can gain the same benefits from ICT. One of those special requirements is to help people to avoid language barriers in global environments. Automatic speech translation systems have existed for a long time, but they have functional limitations as well as technical ones with regard to usability and accessibility.

One reason for these limitations is the diversity of the languages currently used. It is difficult to support many languages by one or several speech translation systems. A flexible and interoperable standardized framework is needed to work with all different languages, utilizing many speech translation systems already developed in many countries. Other considerations to make a natural and usable speech translation service possible include applying users' characteristics within the system, such as emotion, speech style, gender type and other attributes. To reflect those characteristics in the output speech translation, a standardized user interface should reflect the input and output data and transfer them to the user's device.

The main purpose of this document is to help users of different languages by providing speech translation service in easier and more convenient ways with a standardized user interface for face-to-face speech translation.

Sample Document

get full document from standards.iteh.ai

Sample Document

get full document from standards.iteh.ai

Information technology — User interfaces — Face-to-face speech translation —

Part 1: User interface

1 Scope

This document specifies face-to-face speech translation designed to interoperate among multiple translation systems with different languages. It also specifies the speech translation features, general requirements and functionality, thus providing a framework to support a convenient speech translation service in face-to-face situations. This document is applicable to user interfaces for speech translation and communication protocols for setting up a translation session among users. This document is not applicable to defining the speech translation engine itself.

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/IEC 20382-2:2017, *Information technology — User interface — Face-to-face speech translation — Part 2: System architecture and functional components*

3 Terms and definitions

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

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

- IEC Electropedia: available at <http://www.electropedia.org/>;
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

face-to-face

arrangement where two users are physically in the same location

3.2

short range wireless communication

SRWC

wireless transmission that uses signals that travel from a few centimetres to several metres

EXAMPLE Bluetooth.