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Information technology — User interfaces — Voice commands —

Part 3: Translation and localization

Technologies de l'information — Interfaces utilisateurs — Commandes vocales —
Partie 3: Traduction et localisation

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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 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).

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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 ISO/IEC JTC 1, *Information technology*, Subcommittee SC 35, *User interfaces*.

A list of all parts in the ISO/IEC 30122 series can be found on the ISO website.

Introduction

Voice command is used for controlling ICT devices with the voice and in the language of the user. This technology is based on voice recognition, with some consideration for language tolerance (different accents or speech impairment while using a given language). It is also beneficial to the people who are operating the ICT device when/where they cannot use hands or fingers to operate it.

This document defines the principal standardized voice commands that will be commonly used in various ICT devices.

This document provides the issues concerning multilingualism of voice commands.

Information technology — User interfaces — Voice commands —

Part 3: Translation and localization

1 Scope

This document contains requirements and recommendations concerning multilingual voice commands and internationalization.

This document specifies the linguistic requirements and recommendations for translation and localization of spoken words or phrases for voice commands.

This document also includes how to determine the correct words or phrases for voice commands based on the various linguistic needs.

This document does not include technical issues.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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
local language
language that is used in that local area or country

4 Conformity

The voice command is conformant to this document if it meets all the requirements of Clause 5.

5 Requirements and recommendations

5.1 Localizing a voice command

5.1.1 General

When a voice command is proposed for the first time, its attributes such as Title or Phrases of voice command are described in ISO/IEC official languages (see ISO/IEC 30122-1). In order to use the voice command in the local areas where ISO/IEC official languages is not their local language, the attributes such as Title or Phrases of voice command are needed to be described in their local language. The local

words or phrases can be selected from the dictionary. Most correspondent words or phrases can be used as a localized voice command.

5.1.2 Compatibility

A speech recognition system used in the local area shall recognize the linguistic content of the local language. It should also be able to recognize the linguistic content of other languages.

NOTE: Other languages include ISO/IEC official languages that are commonly used worldwide. This is beneficial for people who are not from that local area.

5.2 Deciding on words or phrases for a voice command

5.2.1 General

5.2 outlines how to choose the words or phrases for a voice command. Cultural and linguistic adaptability is taken into account.

5.2.2 Stability of pronunciation

Words or phrases for a voice command shall be recognizable, regardless of pronunciation based on a speaker's geographic location, age and gender.

NOTE Japanese men and women do not always use the same phrase.

5.2.3 Common use

Words or phrases for a voice command shall be used commonly. If dialects or slang words are used for a voice command, standard words or phrases that have the same meaning shall also be registered in the voice command database (see ISO/IEC 30122-1 and ISO/IEC 30122-4).

5.2.4 Social and cultural acceptability

Words or phrases for a voice command shall be socially and culturally acceptable. Indecent words or phrases are not allowed to be used as a voice command.

Words or phrases giving an unpleasant feeling, including discriminatory terms, shall not be used for voice commands.

Words or phrases that are against public order or morals shall not be used for voice commands.

5.2.5 Accuracy of meaning

Words or phrases for a voice command should be used to express the functions of the system and requirements of the users correctly and without ambiguity for voice commands. Therefore, they should satisfy the following conditions.

— Users of voice commands should easily be able to guess the corresponding function from a voice command.

— There shall be no homonyms in other voice commands.

— Words or phrases shall not be ambiguous.

— Rhythm shall be controlled by the user.

5.2.6 Familiarity

Familiar words or phrases should be used because voice commands are used by presumed users often in presumed environments. Therefore, they should satisfy the following conditions.

— Words or phrases should be those that are commonly used.

— Words or phrases should be easy to remember (easy to comprehend).

— Words or phrases should have a high-frequency use in the device.

— In the case where foreign words are used, the words or phrases should be familiar such as a loanword.

— Usage of words or phrases should not deviate from the meanings generally given to them.

— Any compound term that is not used daily should not be used.

5.2.7 Consistency

Words or phrases for a voice command should be consistent within their local language. They also should be consistent with the expected knowledge and utilization experience of the presumed users.

— Words should be consistently used for the same meaning.

— There should be consistency in expression methods that are in an imperative form, functional selection, etc. in a perspective of grammar.