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ISO/IEC Voice command-1

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Information technology — User interfaces — Voice command — Part 1: Framework and general guidance

Technologies de l'information — Interfaces utilisateur — Commande de voix — Partie 1: Cadre et conseils généraux

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Foreword

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This part of ISO/IEC *Principal voice commands* was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 35, *User Interfaces*.

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ISO/IEC *Principal voice commands* consists of the following parts, under the general title *Information technology — User interfaces — Voice command*:

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- *Part 1: Framework and general guidance*
- *Part 2: Procedures for constructing and testing*
- *Part 3: Translation issues and inter-language issues for voice command*
- *Part 4: Management of spoken command registration*

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

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Comment [關4]: More detailed explanation will be required.

Information technology — User interfaces — Voice command — Part 1: Framework and general guidance

1 Scope

This part of ISO/IEC Principal voice command defines a framework and general guidance for essential voice commands.

This International Standard will propose a limited number of commands which could be memorized to facilitate the use of the information/communication technology (ICT) devices including computers, PDA's, tablets, mobile devices, car navigation systems, and business machines.

2 Conformance

A voice command system is conformant to ISO/IEC Principal voice commands International Standard, if it meets all requirements of Part 1,2,3 and 4 of ISO/IEC Principal voice commands International Standard.

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Comment [關6]: This will be replaced with Project No.

3 Normative references

The following referenced documents are indispensable for the application 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 24786: 2009: Information technology – User interfaces – Accessible user interface for accessibility settings

4 Terms and definitions

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

3.1

voice command

spoken command

spoken instruction to control ICT devices.

3.2

voice operation

function that allows users to operate a computer with voice commands through a microphone (e.g. the voice command "Switch to Mail" activates the email application) [ISO/IEC 24786:2009]

NOTE The voice commands usually follow an activation keyword (e.g. "Computer!") in order to be distinguished from other speech that is not intended as a voice command.

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Comment [關7]: More detailed explanation will be required.

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5 Requirements and recommendations

5.1 Overview

5.1.1 General

This clause provides a framework for use in the analysis, design, and implementation of voice commands.

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5.1.2 Attributes

The voice command shall have the following attributes.

- a) Name
- b) Word or phrase of command
- c) Function

EXAMPLE The name is "Conform operation", the word or sentence of command is "Yes", and the function is "To confirm the operation that the system requires the user to allow to do."

5.1.3 Declaration

The voice command shall be follow to the operation that declares the following word or phrase is the voice command to the system.

NOTE The declaration enable the system to distinguish whether the word or phrase spoken by the user is the voice command or just a general utterance.

EXAMPLE Saying "Computer!" is the declaration of voice command.

5.1.4 Uniqueness

Any two voice commands that have different functions shall not consists of the same word or phrase.

5.1.5 Syllables of word

If the voice command is consisted of one word, the word shall be consisted of **more than two syllables**.

Comment [関9]: To be discussed more

5.1.6 Words of phrase

If the voice command is consisted of more than two words, the voice command shall be consisted of **three words or less**.

Comment [関10]: To be discussed.

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Comment [関11]: More detailed explanation will be required.

5.2 Database of voice command

5.2.1 Registration of voice command

The standardized voice commands shall be registered to the database defined in Part 4 of this international standard.

5.2.2 Language of voice command to be registered in database

Voice command shall be registered in the database in at least one, ideally two, of the official languages of ISO and IEC. Provision shall be included in registration for adding as many equivalents in other languages as needed.

NOTE 1 In order to register a standardized voice command to the database, registration of a word/phrase in an official language of ISO/IEC is mandatory. The database **shall be able** to register as many other language equivalents (Chinese, English, French, German, Italian, Japanese, Russian, , , etc.) as needed.

NOTE 2 Translation and inter-language issues are described in Part 3 of this international standard.

5.2.3 Contents of database

The database shall contain the following contents.

- d) Index number
- e) Name 1
- f) Language 1
- g) Name 2 (etc.)
- h) Language 2 (etc.)
- i) Word or phrase of command
- j) Function

EXAMPLE 1, Conform operation, "Yes", To confirm the operation that the system requires the user to allow to do.

NOTE Neither pronunciation nor duration of word or phrase is registered in database.

5.2.4 Management of database

Procedures of management of the database shall conform to Part 4 of this international standard.

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