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Information technology — Virtual keyboards user interfaces —

Part 1: General guidance and requirements

Technologies de l'information — Interface utilisateur des claviers virtuels —

Partie 1: Recommandations et exigences générales

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Foreword

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

A list of all parts in the ISO/IEC 22121 series can be found on the ISO and IEC websites.

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 and www.iec.ch/national-committees.

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Introduction

Virtual keyboards are spreading exponentially; with the rise of mobile phones and devices, most users in the world will have to use such interfaces for communication, work or leisure.

Virtual keyboards are mainly designed for text input but can offer various additional functionalities such as navigation, text prediction or gaming.

Due to their virtual nature, they offer unlimited possibilities to interact through different ways. This can generate trouble on the user side because from one device to another, and even in the same device, user can be faced with different practices. But it is also a great opportunity for users with disabilities to get an adapted keyboard to their specific needs, and also for standard users in a specific situation to find adapted keyboards that fit well to their situation.

The ISO/IEC 22121 series consists of the following parts:

— ISO/IEC 22121-1 (this document) provides an overview of what virtual keyboards are. It describes virtual keyboards such as audio keyboards, visual on-screen keyboards and tactile keyboards.

— ISO/IEC 22121-2 provides guidelines on the design of standard on-screen tactile keyboards that are mainly focused on visualization: they are visually displayed, and keys are pointed at.

— ISO/IEC 22121-3 provides guidelines on the design of specific keyboards dedicated to specific interaction modes that do not constrain user to point at keys and that can offer a wide range of displays.

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Information technology — Virtual keyboards user interfaces —

Part 1: General guidance and requirements

1 Scope

This document provides general requirements and recommendations for all forms of virtual keyboards including audio keyboards, on-screen or projected keyboards.

This document does not apply to physical keyboards that use real material keys or adaptable keys, which can be customized to user needs, for example with LCD display.

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 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
on-screen keyboard
virtual keyboard (3.3) displayed on any type of screen

Note 1 to entry: On-screen keyboards are one specific type of virtual keyboards, probably the most common, that use a screen to display a keyboard.

Note 2 to entry: This type of virtual keyboard can be used on personal computer screens, mobile phones, tablets, TVs, kiosks and whiteboards.

3.2
physical keyboard
mechanical or electronic input device using an arrangement of buttons or keys

Note 1 to entry: Some physical keyboards can be adaptable (for example, using LCD screens instead of keys with printed symbols and characters).

3.3
virtual keyboard
software alternative to a *physical keyboard* (3.2)

Note 1 to entry: Virtual keyboards include audio keyboards, visual *on-screen keyboards* (3.1), tactile keyboards and projected keyboards.

EXAMPLE 1 Visual on-screen keyboards are available on touch screens.

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