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Part 12: Keyboard group selection

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Partie 12: Technologies de l'information — Disposition des claviers conçus pour la bureautique — Partie 12 : Sélection des groupes sur clavier

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Foreword

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

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 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).

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) or the IEC list of patent declarations received (see http://patents.iec.ch).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of 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 www.iso.org/iso/foreword.html.

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 9995 series can be found on the ISO website.

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.

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Introduction

Many keyboard layouts are used over the whole world. This document specifies a way to navigate between keyboard groups, so a user can use more than one collection of characters, for example, to write text in more than one language, or input names of persons or places in different scripts.

Many graphic operating environments offer a way to click on an icon to change the keyboard group. This document offers an alternative way to change keyboard group in a few keyboard strokes, and in a standardized way, only using characters that are widely available on keyboards across the world.

This document builds on ISO/IEC TR 15440.

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Information technology — Keyboard layouts for text and office systems —

Part 12:
Keyboard group selection

1 Scope

This document specifies mechanisms to choose between the keyboard groups specified in the ISO/IEC 9995 series, national keyboards standards, or other keyboard definitions.

These mechanisms primarily become useful when the stipulated marking on the key top can be dynamically displayed on the key top.

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 9995-1, *Information technology — Keyboard layouts for text and office systems — Part 1: General principles governing keyboard layouts*

ISO/IEC 9995-9:2016, *Information technology — Keyboard layouts for text and office systems — Part 9: Multi-lingual, multiscript keyboard layouts*

ISO/IEC 10646, *Information technology — Universal Coded Character Set (UCS)*

ISO/IEC 15897, *Information technology — User interfaces — Procedures for the registration of cultural elements*

ISO/IEC 24757, *Information technology — Keyboard interaction model — Machine-readable keyboard description*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 9995-1, ISO/IEC 9995-9 and the following apply.

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

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

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

3.1
group
logical state of a keyboard providing access to a collection of graphic characters or elements of graphic characters whose subsets are called levels

Note 1 to entry: A group gives access to one collection of characters. Typically, when more than one language is used, multiple groups are required.

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Note 2 to entry: Usually these graphic characters or elements of graphic characters logically belong together and may be arranged on several levels (up to 3) within a group.

Note 3 to entry: The input of certain graphic characters, such as accented letters, may require access to more than one group.

Note 4 to entry: On physical keyboards, each group is normally labelled using a distinct column on a key, and levels are stacked vertically within that column, except when stated otherwise in certain situations. On on-screen keyboards, a group is normally shown one level at a time. There is usually a button to choose the group (or language) and another button, or more, to choose the level.

3.2
level
logical state of a keyboard providing access to a subset of a collection of graphic characters or elements of graphic characters which form a group

Note 1 to entry: Usually these graphic characters or elements of graphic characters logically belong together, such as the capital forms of letters.

Note 2 to entry: In certain cases, the level selected may also affect function keys.

Note 3 to entry: On physical keyboards, levels of a same group are normally labelled in a column on a key, except when stated otherwise in certain situations. On on-screen keyboards, it is normal that only one level be shown per panel at a time.

Note 4 to entry: For ergonomic reasons, the ISO/IEC 9995 series limits the number of levels per group to 3, in order to avoid typing a character with more than 2 fingers. When there is a need to enter more than 3 levels with a key, another group (with its own levels) is defined. It is possible to define implementation-defined methods for group selection, as long as the methods prescribed in different parts of the ISO/IEC 9995 series are provided. Characters in more than one group need not be always labelled on a key of a physical keyboard.

3.3
superselect sequence
sequence of key strokes to begin selection of a keyboard group

3.4
input method
means to enter a character that has a corresponding encoding in a character set

4 Conformance

An application is in conformance with this document if it meets the requirements of Clause 5.

5 Mechanisms for general selection of keyboard groups

5.1 Superselect sequence

The superselect sequence of this document is the same as that of ISO/IEC 9995-9, which is frequently the *Level 3 select* key (sometimes labelled AltGr or Alt on a keyboard) combined with a tab. The superselect sequence is then followed by the selection characters described in subclause 5.3. If the *Level 3 select key* is not available on a specific keyboard, the implementation shall specify the alternate key.

5.2 Terminating sequence

The terminating sequence referenced in subclause 5.3 is done by hitting the Return key, as described in each case.

5.3 Selection of standardized groups

Examples of the use of the specifications of this subclause are given in Annex A.

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