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Information technology — Keyboard layouts for text and office systems —

Part 1:

General principles governing keyboard layouts

Technologies de l'information — Disposition des claviers conçus pour la bureautique —

Partie 1: Principes généraux pour la disposition des claviers

Reference number
ISO/IEC 9995-1:2009(E)



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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. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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.

ISO/IEC 9995-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 35, *User interfaces*.

This third edition cancels and replaces the second edition (ISO/IEC 9995-1:2006), which has been technically revised.

The main modifications to the set of parts of ISO/IEC 9995 are as follows.

- The editing section (Part 5) and the function section (Part 6) are merged into one editing and function section (Part 5).
- The new edition reduces the number of zones.
- The new edition relaxes the rules for allocation of symbols of group 1, level 3 in certain situations and more precise multiple group support is added.
- Part 3 adds support of extra Latin characters and adds multiple diacritics entry support for one character.

ISO/IEC 9995 consists of the following parts, under the general title *Information technology — Keyboard layouts for text and office systems*:

- *Part 1 : General principles governing keyboard layouts*
- *Part 2 : Alphanumeric section*
- *Part 3 : Complementary layouts of the alphanumeric zone of the alphanumeric section*
- *Part 4 : Numeric section*
- *Part 5 : Editing and function section*
- *Part 7 : Symbols used to represent functions*
- *Part 8 : Allocation of letters to the keys of a numeric keypad*

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Introduction

ISO/IEC 9995 defines a framework for the layout of all alphanumeric and numeric keyboards across the widest spectrum of today's and upcoming applications using keyboards. The functions to be performed by keyboards are grouped into three categories that correspond to the main physical sections of the keyboard.

Application of ISO/IEC 9995 in the design of keyboards will provide the user with a unified, predictable user-machine interface by dividing the keyboard into functional areas and sections and allocating functions to keys. One of the major tasks of a universal-usage keyboard is to accommodate the larger sets of characters required by the various applications for which keyboards are used today. This was achieved by permitting the allocation of more than one graphic character or control function to each of the keys of a keyboard, predominantly in the alphanumeric section.

ISO/IEC 9995 specifies the requirements for keyboard layouts and allocation of keycap imprints (including letters, numerals, symbols, and other markings) on alphanumeric and numeric input devices for all types of information and communication technology apparatus and systems including:

- personal computers, workstations, computer terminals, visual display terminals (VDTs);
- electronic typewriters and other machines with alphanumeric and numeric keyboards;
- mobile computer systems including ultra-mobile personal computers (UMPCs), personal digital assistants (PDAs) and multimedia devices with hardware keyboards (e.g. linear keyboards, foldable keyboards) or virtual keyboards (e.g. touchscreens, projection keyboards);
- electronic document scanners and multifunction devices incorporating alphanumeric and/or numeric keyboards;
- calculators, telephones and automated teller machines having alphanumeric and/or numeric keypads/keyboards.

The primary layout within the alphanumeric zone is established in most countries by a national standard or by national usage. Allocation guidelines are provided in ISO/IEC 9995-2. Complementary layouts are specified in ISO/IEC 9995-3.

ISO/IEC 9995 specifies the allocation of functions (graphic characters and/or control functions) to keys. The graphic characters and the control functions have been given common names intended to be familiar to the users of a keyboard. In general, keyboards are not expected to generate coded control functions, but the operation of a control function key can cause a number of coded control functions to appear in data interchange to achieve the desired effect.

The effects of those keys that affect keyboard states are specified in other parts of ISO/IEC 9995.