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## Information technology — Portable computer keyboard layouts

*Technologies de l'information — Dispositions de clavier pour  
ordinateur portable*



Reference number  
ISO/IEC 15412:1999(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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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

International Standard ISO/IEC 15412 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 35, *User interfaces*.

Annex A of this International Standard is for information only.

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## Introduction

The portable computer is used in a wide range of business environments. A significant number of users use a portable computer either as their primary working computer or in association with an office desktop computer; many users alternate between a portable and a desktop computer. For these reasons, the overall appearance and functional layout of a portable computer keyboard (together with its ergonomic characteristics) should be such as to allow the user to make a smooth transition between desktop and portable work environments to maintain adequate levels of productivity and satisfaction.

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# Information technology — Portable computer keyboard layouts

## 1 Scope

For the purposes of this International Standard, a portable computer is defined as a computer with a screen and an attached keyboard that is capable of running on battery power for extended periods of time and is relatively easy to transport from one location to another by a single individual.

This International Standard gives design guidance for product designers; this International Standard indicates those requirements and recommendations contained in ISO/IEC 9995 and ISO 9241-4:1998 that are to be considered in designing portable computers keyboards.

This International Standard strives to maintain consistency, as far as practical, between keyboards for portable computers and desktop computers. To accomplish this goal, this International Standard has reviewed ISO/IEC 9995 and ISO 9241-4:1998 to identify those design features of these two base standards which are to be followed, which are exempted from this International Standard and which are permitted variations.

This International Standard is intended primarily to apply to full size portable keyboards (e.g. A4). It may also apply to other keyboards outside this scope. ISO 9241-4 contains a proposed alternative method for conformance by a test based on user performance and subjective rating scales.

This International Standard consists of two major categories of guidelines for portable computers:

1. Layout characteristics
2. Physical (ergonomic) characteristics

## 2 Conformance

Conformance with this International Standard can be achieved by meeting all of the requirements in clauses 5 (Layout) and 6 (Physical).

ISO 9241-4 contains a proposed alternative method for conformance of the physical requirements. Conformance to clause 6 by a test based on this proposed test method is therefore possible.

## 3 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/IEC 9995 (all parts), *Information technology — Keyboard layouts for text and office systems*.

ISO 9241-4: 1998, *Ergonomic requirements for office work with visual display terminals (VDTs) — Part 4: Keyboard requirements*.

ISO 7000:1989, *Graphical symbols for use on equipment — Index and synopsis*.