

**Ergonomics of human-system interaction - Part 420:
Selection of physical input devices (ISO 9241-420:2011)**

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 9241-420:2011 sisaldab Euroopa standardi EN ISO 9241-420:2011 ingliskeelset teksti.

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English Version

Ergonomics of human-system interaction - Part 420: Selection of physical input devices (ISO 9241-420:2011)

Ergonomie de l'interaction homme-système - Partie 420:
Sélection des dispositifs d'entrée physiques (ISO 9241-
420:2011)

Ergonomie der Mensch-System-Interaktion - Teil 420:
Auswahlverfahren für physikalische Eingabegeräte (ISO
9241-420:2011)

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Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

This document (EN ISO 9241-420:2011) has been prepared by Technical Committee ISO/TC 159 "Ergonomics" in collaboration with Technical Committee CEN/TC 122 "Ergonomics" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2012, and conflicting national standards shall be withdrawn at the latest by January 2012.

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Endorsement notice

The text of ISO 9241-420:2011 has been approved by CEN as a EN ISO 9241-420:2011 without any modification.

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Introduction

Input devices provide the means for users to enter data into interactive systems. Generally speaking, an input device is a sensor that can detect changes in user behaviour (gestures, moving fingers, etc.) and transform them into signals to be interpreted by the interactive system.

This part of ISO 9241 gives guidance for selecting products on the basis of the relevant properties of the input devices, as outlined in ISO 9241-400, and the design criteria for products, as given in ISO 9241-410. It also includes test and evaluation methods for use at the workplace level. To accelerate the future development of test and evaluation methods, these are treated in separate annexes according to the maturity of the test procedure.

This part of ISO 9241 includes test and evaluation methods for application by user organizations. These methods can also be applied by test houses.

Ergonomics of human-system interaction —

Part 420:

Selection of physical input devices

1 Scope

This part of ISO 9241 provides guidance for the selection of input devices for interactive systems, based on ergonomic factors, considering the limitations and capabilities of users and the specific tasks and context of use. It describes methods for selecting a device or a combination of devices for the task at hand. It can also be used for evaluating the acceptability of trade-offs under the existing conditions.

The target users of this part of ISO 9241 are user organizations and systems integrators who tailor systems for a given context of use.

It is applicable to the following input devices: keyboards, mice, pucks, joysticks, trackballs, trackpads, tablets and overlays, touch-sensitive screens, styli and light pens. It does not specify design requirements or give recommendations for those devices.

NOTE 1 The selection guidance has been developed for the single-finger use of touchpads. Touchpads that allow the use of more fingers do exist; however, this part of ISO 9241 does not offer any guidance on their selection.

NOTE 2 The only physical component of a speech-recognition system is a microphone. Without proper knowledge of the context of use it is not possible to give guidance for selection.

2 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 9241-11, *Ergonomic requirements for office work with visual display terminals (VDTs) — Part 11: Guidance on usability*

ISO 9241-400, *Ergonomics of human-system interaction — Part 400: Principles and requirements for physical input devices*

ISO 9241-410, *Ergonomics of human-system interaction — Part 410: Design criteria for physical input devices*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 9241-400 and ISO 9241-410 and the following apply.

3.1

appropriateness

application of the concept of usability on entities that are combined for a specific purpose