# INTERNATIONAL STANDARD



First edition 2008-11-15

# Ergonomics of human-system interaction —

Part 300:

Introduction to electronic visual display requirements

Ergonomie de l'interaction homme-système —

Partie 300: Introduction aux exigences relatives aux écrans de visualisation électroniques

## **Document Preview**

ISO 9241-300:2008

https://standards.iteh.ai/catalog/standards/iso/73521e1f-5f99-4cee-98e9-a6536c9610a4/iso-9241-300-2008



Reference number ISO 9241-300:2008(E)

#### PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

# iTeh Standards (https://standards.iteh.ai) Document Preview

#### <u>ISO 9241-300:2008</u>

https://standards.iteh.ai/catalog/standards/iso/73521e1f-5f99-4cee-98e9-a6536c9610a4/iso-9241-300-2008



#### **COPYRIGHT PROTECTED DOCUMENT**

#### © ISO 2008

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office Case postale 56 • CH-1211 Geneva 20 Tel. + 41 22 749 01 11 Fax + 41 22 749 09 47 E-mail copyright@iso.org Web www.iso.org Published in Switzerland

### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member 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 shall not be held responsible for identifying any or all such patent rights.

ISO 9241-300 was prepared by Technical Committee ISO/TC 159, *Ergonomics*, Subcommittee SC 4, *Ergonomics of human-system interaction*.

ISO 9241 consists of the following parts, under the general title *Ergonomic requirements for office work with visual display terminals (VDTs)*:

- Part 1: General introduction
- Part 2: Guidance on task requirements

— Part 4: Keyboard requirements ISO 9241-300:200

tps://standards.iteh.ai/catalog/standards/iso/73521e1f-5f99-4cee-98e9-a6536c9610a4/iso-9241-300-2008 — Part 5: Workstation layout and postural requirements

- Part 6: Guidance on the work environment
- Part 9: Requirements for non-keyboard input devices
- Part 11: Guidance on usability
- Part 12: Presentation of information
- Part 13: User guidance
- Part 14: Menu dialogues
- Part 15: Command dialogues
- Part 16: Direct manipulation dialogues
- Part 17: Form filling dialogues

#### ISO 9241-300:2008(E)

ISO 9241 also consists of the following parts, under the general title Ergonomics of human-system interaction:

- Part 20: Accessibility guidelines for information/communication technology (ICT) equipment and services
- Part 110: Dialogue principles
- Part 151: Guidance on World Wide Web user interfaces
- Part 171: Guidance on software accessibility
- Part 300: Introduction to electronic visual display requirements
- Part 302: Terminology for electronic visual displays
- Part 303: Requirements for electronic visual displays
- Part 304: User performance test methods for electronic visual displays
- Part 305: Optical laboratory test methods for electronic visual displays
- Part 306: Field assessment methods for electronic visual displays
- Part 307: Analysis and compliance test methods for electronic visual displays
- Part 308: Surface-conduction electron-emitter displays (SED) [Technical Report]
- Part 309: Organic light-emitting diode (OLED) displays [Technical Report]
- Part 400: Principles and requirements for physical input devices
- Part 410: Design criteria for physical input devices
- Part 920: Guidance on haptic and tactile interactions 1\_300 2008

For the other parts under preparation, see Annex A.

### Ergonomics of human-system interaction —

### Part 300: Introduction to electronic visual display requirements

#### 1 Scope

This part of ISO 9241 provides an introduction to the other parts in the ISO 9241 "300" subseries, and explains its modular structure. The ISO 9241 "300" subseries establishes requirements for the ergonomic design of electronic visual displays. These requirements are stated as performance specifications, aimed at ensuring effective and comfortable viewing conditions for users with normal or adjusted-to-normal eyesight. Test methods and metrology, yielding conformance measurements and criteria, are provided for design evaluation.

The ISO 9241 "300" subseries is applicable to the visual ergonomics design of electronic visual displays for a diversity of tasks in a wide variety of work environments.

### 2 Normative references S://standards.iteh.ai)

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 9241-300:2008

ISO 9241-302, Ergonomics of human-system interaction — Part 302: Terminology for electronic visual displays

ISO 9241-303, Ergonomics of human-system interaction — Part 303: Requirements for electronic visual displays

ISO 9241-304, Ergonomics of human-system interaction — Part 304: User performance test methods for electronic visual displays

ISO 9241-305, Ergonomics of human-system interaction — Part 305: Optical laboratory test methods for electronic visual displays

ISO 9241-306, Ergonomics of human-system interaction — Part 306: Field assessment methods for electronic visual displays

ISO 9241-307, Ergonomics of human-system interaction — Part 307: Analysis and compliance test methods for electronic visual displays

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 9241-302 apply.

#### 4 Conformance

Conformance shall be achieved by the use of an applicable compliance method according to ISO 9241-307, with consideration of the related test method or methods specified in ISO 9241-304, ISO 9241-305 and/or ISO 9241-306. If a compliance method cannot be established, ISO 9241-303 shall be used as a design guideline for applying ISO 9241-304, ISO 9241-305 or ISO 9241-306, as relevant to the devising question.

#### 5 Overview of the ISO 9241 "300" subseries

The structure of the ISO 9241 "300" subseries (see Table 1) — itself part of the ISO 9241 series of ergonomics standards (see Annex A) — is intended to maximize the future extendibility of the subseries, allowing it to cover new technologies, tasks and environments, while at the same time minimizing that portion of its content that will be needed by a particular user.

- ISO 9241-302 defines terms that are common to the entire subseries.
- ISO 9241-303 presents the basic ergonomics guiding principles and performance requirements, independent of technology, task and environment, based on human performance criteria. These requirements cannot be assessed as such, since every requirement has to be assessed using a test method applicable to the particular technology, task and environment in question.
- ISO 9241-304 specifies test methods based on user tests that can be performed in usability laboratories meeting the quality criteria of ISO/IEC 17025.
- ISO 9241-305 includes test methods based on optical measurements, electrical measurements and observation which can be performed in optical labs meeting the quality criteria of ISO/IEC 17025.
- ISO 9241-306 includes test methods based on optical measurements and observation, which are suitable for field assessment in the actual workplace.
- ISO 9241-307 establishes compliance routes for different contexts of use (display technologies, tasks, environments and user groups).
- ISO/TR 9241-308 gives guidelines for surface-conduction electron-emitter displays (SED).
- ISO/TR 9241-309 gives guidelines for organic light-emitting diode (OLED) displays.

Future developments in science and technology are to be covered by frequent amendments to ISO 9241-304, ISO 9241-305, ISO 9241-306 and ISO 9241-307. In this manner, and whenever necessary, out-dated methods can be replaced by the state-of-the-art: the main core of information represented by the standards themselves will remain unchanged over an extended period of time; while amendments are used to cover new developments, their form and brevity making it quicker and easier to define internationally standardized methods and criteria for display ergonomics.

ISO 9241-												
300	302	303		304		305		306		307	308	309
Introduction	Terminology	Ergonomics requirements		User Optical performance laboratory test methods		Field assessment methods		Analysis and compliance test methods		SED	OLED	
			1	Method 1	1	Method 1	1	Method 1	1	Method 1		
			2	Method 2	2	Method 2	2	Method 2	2	Method 2	а	а
			п	Method n	п	Method n	п	Method n	п	Method n		
<sup>a</sup> As Technical Reports ISO/TR 9241-308 and ISO/TR 9241-309 are entirely informative in nature and do not have to be reviewed until the data they provide are considered to be no longer valid or useful.												

Table 1 — Structure	of ISO 9241	"300" subseries
---------------------	-------------	-----------------