



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 18978.304-2021

**Ergonomics of human-system interaction - Part 304: User
performance test methods for electronic visual displays**

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foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules of Standardization Documents"

drafted:

This document is part 304 of GB/T 18978: GB/T 18978 has released the following parts:

--- Ergonomic requirements for office use with visual display terminals (VDTs) - Part 1: Overview;

--- Ergonomic requirements for office use with visual display terminals (VDTs) - Part 2: Guidance on task requirements;

--- Ergonomic requirements for working with visual display terminals (VDTs) - Part 10: Dialogue principles;

--- Ergonomic requirements for office use with visual display terminals (VDTs) - Part 11: Usability Guidelines;

--- Ergonomic requirements for office use with visual display terminals (VDTs) - Part 12: Information presentation;

--- Ergonomic requirements for office use with visual display terminals (VDTs) - Part 13: User's Guide;

--- Ergonomic requirements for working with visual display terminals (VDTs) - Part 16: Direct operation dialogue;

--- Human-system interaction ergonomics - Part 143: Forms;

--- Ergonomics of Human-System Interaction Part 151: Guidelines for Internet User Interfaces;

--- Human-System Interaction Ergonomics Part 300: Overview of Electronic Visual Display Requirements;

--- Human-system interaction ergonomics - Part 304: User performance testing methods for electronic visual displays;

--- Human-system interaction ergonomics - Part 307: Analysis and compliance test methods for electronic visual displays;

--- Human-system interaction ergonomics Part 400: Principles and requirements for physical input devices:

This document is equivalent to ISO 9241-304:2008 "Human-System Interaction Ergonomics Part 304: User Performance of Electronic Visual Displays"

Efficiency Test Methods:"

The following minimal editorial changes have been made to this document:

--- Deleted "ISO 9241-3:1992/Amd:1:2000" in the scope of Chapter 1, this international standard has been abolished;

---Appendix A has been modified according to the current state of the ISO 9241 series of standards:

Please note that some content of this document may be patented: The issuing agency of this document assumes no responsibility for identifying patents:

Introduction

The GB/T 18978 ergonomics series of national standards correspond to the ISO 9241 series of international standards, and originally consisted of 17 parts:

This series of standards gives the ergonomic requirements for working with visual display terminals: ISO 9241 series carried out at the time of International Standards review

Major adjustments have been made, the scope has been expanded, and other relevant standards have been incorporated to make it easier to use: The general title of ISO 9241 "Human-system interaction tools

"Effective Learning" reflects the adjusted changes, and ISO 9241 aligns with the general title and scope of the ISO /TC159/SC4 subcommittee: Adjusted

The series of standards composed of multi-part standards are numbered with "hundreds", of which the 100 series is a software interface, and the:200 series is a human-centered design:

The 300 series involves visual displays, the 400 series involves physical input devices, etc: Appendix A gives the complete series of ISO 9241

Overview:

GB/T 18978 is intended to consist of the following series of standards:

---100 Series: Software Ergonomics: The purpose is to identify processes and methods related to software ergonomics:

---200 Series: Human-Centered Design: The aim is to provide human-centred design principles for the entire life cycle of interactive systems

and activities to provide requests and suggestions:

---300 series: monitors and monitor-related hardware: The purpose is to provide methods for the design and evaluation of visual displays, compliance with

Sexual measures and guidelines:

---400 series: physical input device: The purpose is to provide ergonomic design guidelines, selection procedures, testing and

evaluation method:

---500 Series: Workspace: The purpose is to give the ergonomic principles and methods of the interactive system space environment design:

---600 Series: Environmental Ergonomics: The purpose is to give environmental ergonomic requirements and the impact of the environment on people:

---700 series: control room: The purpose is to provide requirements, recommendations and guidance for the ergonomic design and assessment of controlled indoor spaces

policy:

---900 series: touch and touch interaction: The purpose is to provide guidelines for ergonomic interaction design and interaction evaluation of touch and touch:

For new display technologies for which there is no optical test method, Annex C of ISO 9241-3:1992 provides users with a test display

Alternative approach to monitor visual quality: Subsequently, Amd:1:2000 replaced the test methods in ISO 9241-3:1992, previously

The Appendix C of this became the normative appendix: ISO 9241-7:1998, ISO 9241-8:1997 and ISO 13406-2:2001 (these three standards later

are repealed and superseded by other parts of ISO 9241 "300" sub-series) This amendment is used as an alternative user performance test

method:

This document not only contains the content of the amendment list, but also adds its basic content, providing the

Guidelines for the general process of assessing the visual ergonomics of displays using user performance testing methods: The test methods specified in this document are only

applicable to text processing

User tasks for management and processing: However, testing procedures for the use of maps, processing and interpretation of photographs and moving images are expected to be developed at a later stage:

The procedure is intended for inclusion in a future edition:

The structure of this document differs from that of other standards in the ISO 9241 "300" sub-series due to the user performance testing method used in this document

Conformity testing of visual displays for text reproduction, rather than using the conformity approach given in GB/T 18978:307 (the standard

No compliance pathway is provided in relation to this document):

Human-System Interaction Ergonomics Part 304:

User Performance Testing Methods for Electronic Visual Displays

1 Scope

This document gives guidelines for evaluating the visual ergonomics of display technology using a user performance testing method that differs from ISO 9241-

Optical Test Methods in 305: This document helps ensure that the display meets the minimum requirements for visual ergonomics in a given use situation:

beg: This document deals only with the visual properties of the visual display, not the ergonomics or usability of the entire product of the visual display:

The general principles of this document apply to all color or monochrome visual displays in human-interactive systems: Displays include but are not limited to

Visual displays used in desktop and portable computers, mobile phones and mobile devices such as digital cameras and personal digital aids

visual displays, as well as status displays used in consumer electronics such as printers, car navigation systems, and microwave ovens: This document is about

The basic concept of visual performance and comfort testing has been expanded to use the end user's own performance and judgment to evaluate the display's performance:

quality, which encompasses a more diverse set of technologies, users, tasks and environments:

Due to its diverse nature, this document does not provide a single and universal test method applicable to all display technologies, but provides

Basic principles for developing test methods: The developed method can be used to