

## **Ergonomic requirements for office work with visual display terminals (VDT's) - Part 12: Presentation of information**

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display terminals (VDT's) - Part 12: Presentation of  
information

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 9241-12:2001 sisaldab Euroopa standardi EN ISO 9241-12:1998 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.06.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 9241-12:2001 consists of the English text of the European standard EN ISO 9241-12:1998.</p> <p>This document is endorsed on 18.06.2001 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>This standard provides ergonomic recommendations for the presentation of information and specific properties of presented information on text-based and graphical user interfaces used for office tasks.</p>	<p><b>Scope:</b></p> <p>This standard provides ergonomic recommendations for the presentation of information and specific properties of presented information on text-based and graphical user interfaces used for office tasks.</p>
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**ICS** 13.180, 35.180

**Võtmesõnad:** computer peripheral equipment, data display, data terminal equipment, display devices, ergonomics, office machines, organization of data, specifications, text processing

ICS 13.180; 35.180

**English version**

**Ergonomic requirements for office work with visual  
display terminals (VDTs)**

**Part 12: Presentation of information  
(ISO 9241-12 : 1998)**

Exigences ergonomiques pour travail  
de bureau avec terminaux à écrans  
de visualisation (TEV) – Partie 12:  
Présentation de l'information  
(ISO 9241-12 : 1998)

Ergonomische Anforderungen für  
Bürotätigkeiten mit Bildschirm-  
geräten – Teil 12: Informations-  
darstellung (ISO 9241-12 : 1998)

This European Standard was approved by CEN on 1998-12-16.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**

## Foreword

International Standard

ISO 9241-12 : 1998 Ergonomic requirements for office work with visual display terminals (VDTs) – Part 12: Presentation of information,

which was prepared by ISO/TC 159 'Ergonomics' of the International Organization for Standardization, has been adopted by CEN/CS as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by June 1999 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

## Endorsement notice

The text of the International Standard ISO 9241-12 : 1998 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

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## Introduction

ISO 9241 is a multipart International Standard that deals with both the hardware and software ergonomic aspects of the use of VDTs. The description of the parts, their interrelationships, and a description of the expected users of the parts is described in ISO 9241-1.

This part of ISO 9241 deals with the visual presentation of information using visual display terminals (VDTs). It includes (in clause 4) design objectives which provide high level guidance on the presentation of information. This part of ISO 9241 is concerned with the organization of information and with the usage of coding techniques in order to improve user performance and satisfaction. Clauses 5 to 7 provide recommendations for display design and apply generally to all dialogue techniques. This part of ISO 9241 can be used in conjunction with other forms of guidance. For example, ISO 9241-10 ([2] in annex B) provides seven principles, each of which can be supported by presenting information on displays in appropriate ways.

This part of ISO 9241 serves the following types of users:

- a) The user interface designer, who will apply this part of ISO 9241 during the development process.
- b) The buyer, who will reference this part of ISO 9241 during the product procurement process, and whose end-users will gain from the potential benefits provided by the standard.
- c) Those responsible for ensuring products meet the recommendations in this part of ISO 9241.
- d) Designers of user interface development tools to be used by interface designers.
- e) Writers of software industry standard guides to be used by interface designers, for example, "interface style guides".

Other common sources of guidance include software industry "interface style guides". Once technical issues about the nature of the system hardware and software have been considered, additional guidance can be provided which generally helps to increase the consistency of the interface design. Typically, these industry style guides describe a specific way of implementing the type of higher level general guidance offered in this part of ISO 9241.

The ultimate beneficiary of this part of ISO 9241 will be the end-user at the VDT. Although it is unlikely that the end-user will read this part of ISO 9241 or even know of its existence, its application by designers, buyers, and evaluators should provide user interfaces that are more usable, consistent and that enable greater productivity.

This part of ISO 9241 consists of general recommendations and conditional recommendations concerning presentation of information. General recommendations apply to most users, tasks, environments, and technology. In contrast, conditional recommendations are those that apply only within the specific context for which they are relevant (e.g. particular kinds of users, tasks, environments, technology). Conditional recommendations have an "if-then" structure. The recommendations were developed primarily by reviewing the existing relevant literature and empirical evidence, then generalizing and formulating this work into recommendations for use by the interface designer and/or evaluator.

## 1 Scope

This part of ISO 9241 provides ergonomic recommendations for the presentation of information and specific properties of presented information on text-based and graphical user interfaces used for office tasks. It provides recommendations for the design and evaluation of visual presentation of information including coding techniques. These recommendations can be utilized throughout the design process (for example as guidance for designers during design, as a basis for heuristic evaluation, as guidance for usability testing). The coverage of colour is limited to ergonomic recommendations for the use of colour for highlighting and categorizing information (see ISO 9241-8 for additional recommendations for the use of colour).

This part of ISO 9241 does not address auditory presentation of information.

Interface design depends upon the task, the user, the environment and the available technology. Consequently, this part of ISO 9241 cannot be applied without a knowledge of the design and the context of use of the interface, and it is not intended to be used as a prescriptive set of rules to be applied in its entirety. Rather, it assumes that the designer has proper information available concerning task and user requirements and understands the use of available technology (this may require consultation with a qualified ergonomics professional as well as empirical testing with real users).

**NOTE 1** Although this is an International Standard, some of the conditional recommendations are based on Latin-based language usage and may not apply, or may need to be modified, for use with a different language. For example, in right-to-left languages those conditional recommendations oriented towards left-to-right reading may need to be modified and adapted. In applying those conditional recommendations that assume a specific language base (e.g. alphabetic ordering of coding information, items in a list), care should be taken concerning the intent of this part of ISO 9241 when translation is required to a different language.

**NOTE 2** Providing users with the capability to alter the interface to suit their own needs has become a popular approach to software interface design. This is often a desirable feature of the interface. However, providing users with customization capabilities is not an acceptable substitute for an ergonomically designed interface (e.g. default windows, colour settings). Note that customization of the presentation of information may result in deviations from this part of ISO 9241.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 9241. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 9241 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 9241-3:1992, *Ergonomic requirements for office work with visual display terminals (VDTs) — Part 3: Visual display requirements.*

ISO 9241-8:1997, *Ergonomic requirements for office work with visual display terminals (VDTs) — Part 8: Requirements for displayed colours.*

ISO 9241-11:1998, *Ergonomic requirements for office work with visual display terminals (VDTs) — Part 11: Guidance on usability.*

ISO 9241-14:1997, *Ergonomic requirements for office work with visual display terminals (VDTs) — Part 14: Menu dialogues.*

ISO 9241-15:1997, *Ergonomic requirements for office work with visual display terminals (VDTs) — Part 15: Command dialogues.*

ISO 9241-17:1998, *Ergonomic requirements for office work with visual display terminals (VDTs) — Part 17: Form filling dialogues.*

ISO/IEC 11581-3:—<sup>1)</sup>, *Information technology — User-system interfaces and symbols — Icon symbols and functions — Part 3: Pointers.*

### 3 Definitions

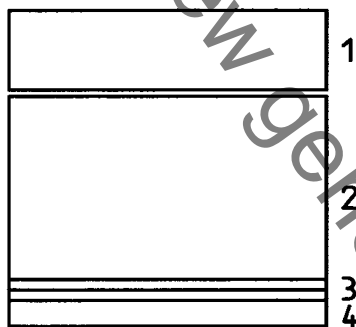
For the purposes of this part of ISO 9241, the following definitions apply.

#### 3.1

##### **area**

section or region of a display or window

See figure 1.



##### **Key**

- 1 Identification area
- 2 Input/output area
- 3 Control area
- 4 Message area

**Figure 1 — Possible layout of different areas**

1) To be published.