Ergonomic design of control centres

Part 1: Principles for the design of control centres (ISO 11064-1 : 2000)
English version of DIN EN ISO 11064-1



ICS 13.180; 25.040.10

Ergonomische Gestaltung von Leitzentralen – Teil 1: Grundsätze für die Gestaltung von Leitzentralen (ISO 11064-1: 2000)

European Standard EN ISO 11064-1: 2000 has the status of a DIN Standard.

National foreword

This standard has been published in accordance with a decision taken by CEN/TC 122 to adopt, without alteration, International Standard ISO 11064-1 as a European Standard.

The responsible German body involved in its preparation was the *Normenausschuss Ergonomie* (Ergonomics Standards Committee).

EN comprises 33 pages.



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English version

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Part 1: Principles for the design of control centres (ISO 11064-1 : 2000)

Conception ergonomique des centres de commande – Partie 1: Principes pour la conception des centres de commande (ISO 11064-1 : 2000) Ergonomische Gestaltung von Leitzentralen – Teil 1: Grundsätze für die Gestaltung von Leitzentralen (ISO 11064-1: 2000)

This European Standard was approved by CEN on 2000-12-15.

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 Management Centre 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 Management Centre 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

Management Centre: rue de Stassart 36, B-1050 Brussels

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Foreword

International Standard

ISO 11064-1: 2000 Ergonomic design of control centres – Part 1: Principles for the design of control centres, which was prepared by ISO/TC 159 'Ergonomics' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 122 'Ergonomics', the Secretariat of which is held by DIN, 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 2001 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 11064-1: 2000 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

Driven by demands for safer, more reliable and efficient operations, innovations in information technology have led to the increased use of automation and centralized supervisory control in the design of user-system interfaces and their associated operational environments. Notwithstanding these developments, the operator has retained a critical role in monitoring and supervising the behaviour of these complex automated systems. As the scale of automated solutions has grown, so have the consequences of equipment and human failures.

The job of the operator can at times be very demanding. The consequences resulting from inappropriate operator action in control rooms, such as acts of omission, commission, timing, sequence and so on, can be potentially disastrous. Accordingly, this part of ISO 11064 has been prepared to set up a generic framework for applying requirements and recommendations relating to ergonomic and human factors in designing and evaluating control centres with the view to eliminating or minimizing the potential for human errors.

A specific control centre project is often part of a design project for a larger system. The design of the control centre should not be developed separately from the objectives and goals associated with the context of this wider system. Consequently, it is necessary to view the ergonomic aspects of a control room design in relation to issues which, at first sight or by tradition, may seem to fall outside the scope of ergonomic design projects. These judgements will need to be taken on a case by case basis and are not necessarily resolved by a prescriptive approach.

This part of ISO 11064 includes requirements and recommendations for a design project of a control centre in terms of philosophy and process, physical design and concluding design evaluation, and it can be applied to both the elements of a control room project, such as workstations and overview displays, as well as to the overall planning and design of entire projects. Other parts of ISO 11064 deal with more detailed requirements associated with specific elements of a control centre.