
**Software ergonomics for multimedia user
interfaces —**

**Part 2:
Multimedia navigation and control**

*Ergonomie des logiciels pour les interfaces utilisateur multimédias —
Partie 2: Navigation et contrôle multimédias*



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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 14915-2 was prepared by Technical Committee ISO/TC 159, *Ergonomics*, Subcommittee SC 4, *Ergonomics of human-system interaction*.

ISO 14915 consists of the following parts, under the general title *Software ergonomics for multimedia user interfaces*:

- *Part 1: Design principles and framework*
- *Part 2: Multimedia navigation and control*
- *Part 3: Media selection and combination*

Introduction

This part of ISO 14915 applies to both the presentation of content and interaction techniques for user control of computer-based multimedia applications in general, including stand-alone and networked-delivered applications. These applications can vary in size and complexity (e.g. a single web page, a catalogue or an interactive simulation).

This part of ISO 14915 provides specific guidance related to multimedia navigation and control that relates to the three aspects inherent in designing multimedia user interfaces identified in ISO 14915-1:

- content design;
- interaction design;
- media design.

Content design is based on the cognitive needs of the various different users and the different tasks involved in an application. Content design also takes into account various approaches to organize the content to provide support for different methods of exploring the content.

Interaction design focuses on the presentation of this content to users and the methods that will be provided to users for them to interact with this content.

Media design focuses on making use of particular media objects to implement the content and interaction designs.

This part of ISO 14915 is concerned with the navigation between, and control of, various media objects, presentation segments, and content chunks. Specific guidance on media design is provided in ISO 14915-3.

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Software ergonomics for multimedia user interfaces —

Part 2: Multimedia navigation and control

1 Scope

This part of ISO 14915 provides recommendations and requirements for the design of multimedia user interfaces with respect to the following aspects: design of the organization of the content, navigation and media-control issues. This part of ISO 14915 is limited to the design of the organization of the content and does not deal with the design of the content in general. Design issues within a single medium (e.g. the lighting of a film sequence) are only addressed with respect to the ergonomic issues related to user controls.

This part of ISO 14915 provides

- a framework for the structuring of multimedia applications,
- information and recommendations on the design of navigation structures and navigation mechanisms for use within multimedia applications, and
- information and recommendations on the design of controls for use within multimedia applications.

It does not specifically address entertainment applications, although some recommendations can also be applicable to that domain.

ISO 14915 does not address implementation issues. The ergonomic requirements can be realised through very different mechanisms, e.g. the delivery system, a scripting language or the application.

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

ISO 9241-13, *Ergonomic requirements for office work with visual display terminals (VDTs) — Part 13: User guidance*

ISO 9241-16:1999, *Ergonomic requirements for office work with visual display terminals (VDTs) — Part 16: Direct manipulation dialogues*

ISO 14915-1, *Software ergonomics for multimedia user interfaces — Part 1: Design principles and framework*

ISO/TS 16071, *Ergonomics of human-system interaction — Guidance on accessibility for human-computer interfaces*