



**ISO 9241-115**

**Ergonomics of human-system  
interaction —**

Part 115:  
**Guidance on conceptual design,  
user-system interaction design,  
user interface design and  
navigation design**

*Ergonomie de l'interaction homme-système —*

*Partie 115: Recommandations relatives à la conception  
conceptuelle, la conception de l'interaction utilisateur-système,  
la conception de l'interface utilisateur et la conception de la  
navigation*

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<b>Foreword</b> .....	<b>v</b>
<b>Introduction</b> .....	<b>vi</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
3.1 Major subjects of designs.....	1
3.2 Modelling.....	2
3.3 Context of use, user needs and user requirements.....	3
3.4 Outcomes of use.....	4
3.5 Interactions and content.....	5
3.6 Navigation techniques.....	7
3.7 Links.....	7
<b>4 Human-centred design in the context of this document</b> .....	<b>9</b>
4.1 Human-centred design activities.....	9
4.2 General guidance.....	9
4.2.1 Mental model of the user.....	9
4.2.2 Support of appropriate user interface technology.....	9
4.2.3 Constraints on design.....	9
4.2.4 Overall consistency.....	10
4.2.5 Aesthetics.....	10
4.2.6 Accessibility.....	10
<b>5 Conceptual design</b> .....	<b>10</b>
5.1 General.....	10
5.2 Contents of a conceptual design.....	11
<b>6 User-system interaction design</b> .....	<b>11</b>
6.1 General.....	11
6.2 Types of interactions.....	12
6.3 The design of interaction scenarios.....	12
6.4 Compatibility of interaction scenarios.....	12
6.5 The design of user actions to be supported by the system.....	12
6.6 Interactions from the user's perspective.....	12
<b>7 User interface design</b> .....	<b>13</b>
7.1 General.....	13
7.2 Contents of a user interface design.....	13
7.2.1 Structure.....	13
7.2.2 User interface instances.....	13
7.2.3 User interface elements.....	14
7.3 Information architecture.....	14
7.3.1 Purpose of an information architecture.....	14
7.3.2 Contents of an information architecture.....	14
7.4 Information design.....	15
7.5 Design recommendations.....	15
7.5.1 User interface.....	15
7.5.2 User interface instances.....	15
7.5.3 User interface elements.....	16
7.5.4 Supporting different target devices.....	16
7.5.5 Accessibility.....	17
7.5.6 Innovative solutions.....	17
<b>8 Navigation design</b> .....	<b>17</b>
8.1 General.....	17
8.2 Contents of navigation sequence design.....	18
8.3 Navigation with additional user interface elements.....	18

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8.4.2	Navigation in linear structures.....	18
8.4.3	Use of tree structures.....	18
8.4.4	Navigation in tree structures.....	18
8.4.5	Use of network structures.....	19
8.4.6	Navigation in network structures.....	19
8.4.7	Navigation in hybrid structures.....	19
8.4.8	Navigation in dynamic structures.....	19
8.4.9	Determining navigation techniques.....	19
8.5	Guidance on the design of navigation to meet user needs.....	20
8.5.1	Minimizing user effort.....	20
8.5.2	Providing alternative navigation paths.....	20
8.5.3	Returning to an interrupted task.....	20
8.5.4	Supporting exploration.....	20
8.6	Guidance related to the use of links for navigation.....	20
8.6.1	Use of links.....	20
8.6.2	Use of system-activated links.....	20
8.6.3	Use of user-activated links.....	21
8.6.4	Use of permanent links.....	21
8.6.5	Use of temporal links.....	21
8.6.6	Duration of temporal links.....	21
8.6.7	Avoiding temporal link errors.....	21
8.6.8	Use of computed links.....	21
8.6.9	Recognizing computed links.....	22
8.6.10	Use of user-defined links.....	22
8.6.11	Supporting multiple sets of user-defined links.....	22
8.6.12	Discriminability of links.....	22
8.7	Guidance related to the use of general navigation functions.....	23
8.7.1	Providing users with navigation information.....	23
8.7.2	Providing search capabilities.....	23
8.8	Navigating across sessions.....	23
8.8.1	Saving the current state.....	23
8.8.2	Returning to a saved state.....	23
8.8.3	Restarting at a previous state.....	23
8.8.4	Exiting.....	24
<b>Bibliography</b>	.....	<b>25</b>

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This first edition of ISO 9241-115 cancels and replaces the first edition of ISO 14915-2:2003, which has been technically revised.

The main changes are as follows:

- much of the content of ISO 14915-2:2003 has been removed or simplified. The content which has been retained is included in [Clause 8](#);
- the Scope has been expanded significantly from just navigation design to "conceptual design, user-system interaction design, user interface design and navigation design". New material has been added accordingly.

A list of all parts in the ISO 9241 series can be found on the ISO website.

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Every interactive system has a user interface, regardless of whether or not its design was planned, organized and documented. Risks related to the use of interactive systems can increase due a lack of a planning, organization and documentation in their design.

Within this context, there are two main categories of design for interactive systems, each with their own sub-categories.

- 1) Human-centred design: this deals with the design of interactive aspects of the system and its uses.
  - Human-centred design focuses on satisfying user needs and meeting user requirements.
  - Human-centred design includes conceptual design, user-system interaction design, user interface design and navigation design.
- 2) Technical design: this enables the required interactions between humans and the interactive system from an internal design perspective.
  - Technical design is beyond the scope of this document (see ISO/IEC/IEEE 12207 for further information relating to the technical design of software systems).

ISO 9241-210:2019, 7.1 provides high-level guidance on the human-centred design of interactive systems and recognizes that "human-centred design activities can be incorporated in design approaches as diverse as object-oriented, waterfall, HFI (human factors integration), agile, and rapid development, etc." As stated in the introduction of ISO 9241-210:2019, "Human-centred design is an approach to interactive systems development that aims to make systems usable and useful by focusing on the users, their needs and requirements, and by applying human factors/ergonomics, and usability knowledge and techniques. This approach enhances effectiveness and efficiency, improves human well-being, user satisfaction, accessibility and sustainability; and counteracts possible adverse effects of use on human health, safety and performance."

ISO 9241-220 elaborates on ISO 9241-210 to identify processes, typical activities and process outcomes for enabling, executing and assessing human-centred design within organizations. Many of the process outcomes focus on attributes of the design of interactive systems.

While both ISO 9241-210 and ISO 9241-220 focus on design activities, there is a need for guidance on the outcomes of those design activities.

This document therefore focuses particularly on guidance concerning the outcomes of conceptual design, user-system design, user interface design and navigation design.