



ISO 9241-161

**Ergonomics of human-system
interaction —**

**Part 161:
Visual user-interface elements**

Ergonomie de l'interaction homme-système —

Partie 161: Éléments visuels de l'interface utilisateur

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This second edition cancels and replaces the first edition (ISO 9241-161:2016), which has been technically revised.

The main changes are as follows:

- revision of terms and definitions clause;
- addition of information on the relationship of input techniques and visual user-interface elements;
- revision of states of visual user-interface elements;
- addition of user-interface elements;
- revision of guidance on user-interface elements.

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In different communities in the interactive system development ecosystem, the use, the names and the understanding of user-interface elements differ significantly. One of the results is that users must cope with elements which differ in terms of keyboard entry and control, mouse behaviour, visual presentation of functionality and different options to control elements. Consistent element behaviour, functionality and rendering is crucial for the usability of user interfaces. This causes added efforts in all stakeholders in human-centred design activities, since this multitude must be managed in order to ensure high-quality collaboration of various specialists. Especially in the light of new emerging user-interface concepts and designs, a common definition of visual user-interface elements and the rationale for their selection as well as their use can be regarded as an effort to sustain cooperation and ensure a sound basis for professional conversation. This document, covering visual user-interface elements, in no way predetermines a visual style of the elements themselves, thus avoiding impressing determinants in creation, brand usage and style development, as outlined in [Figure 1](#). In addition, this document is laid out in an independent of platform specifics, so that no specific industrial user-interface style-guide, implementation technology or development process must be observed in order to conform to this document.

This document aims to provide information on visual user-interface elements to help those responsible for managing software design and re-design processes, create user interface specifications, guidelines, style-guides, design systems and visual concepts to identify, plan and design effective, efficient and satisfactory interactive systems.

Visual user-interface elements described in this document complement existing systems design approaches, methods or processes. They can be referenced in any kind of user interface strategy, regardless of the technology used for the user interface.

This document provides a comprehensive list of generic visual user-interface elements in whatever context these elements are being implemented. The guidance given in document is intended to be used in conjunction with other guidance on interaction techniques in the ISO 9241 series. It recognizes that additional elements can evolve. It also addresses derivatives, compositions (assemblies) and states of user-interface elements.

The information in this part of ISO 9241 is intended for use by those responsible for the selection and implementation of visual user-interface elements in interactive systems and for evaluating user interfaces. It is intended for use by those planning and managing platform specific aspects of user interface screen design. It also provides guidance for human factors and ergonomics and usability professionals involved in human-centred design. It addresses technical issues only to the extent necessary to allow users of this document to understand the relevance and importance of a consistent interface element usage and selection in the design process as a whole.

[Figure 1](#) shows an overview of different visual user interface properties that are used to build a user interface design.

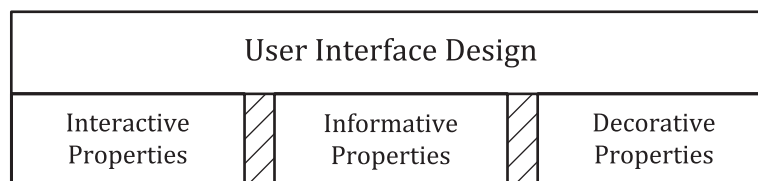


Figure 1 — Overview of different visual user interface properties