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**GB/T 18978.151-2014**

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**Ergonomics of human-system interaction -- Part 151: Guidance  
on World Wide Web user interfaces**

人-系统交互工效学 第151部分：互联网用户界面指南  
(English Translation)

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## Foreword

GB/T 18978 "use of visual display terminals (VDTs) Ergonomic requirements for office" has been published in the following sections.

- Part 1. General;
- Part 2. Guide to mission requirements;
- Part 10. Dialogue principles;
- Part 11. Usability Guidelines;
- Part 12. information presentation;
- Part 13. User's Guide.

Since the international standard GB/T 18978 part corresponding ISO 9241 have been adjusted and expanded standard name from "significant use of visual Display terminals (VDTs) Ergonomic requirements for office "with" human - system interaction Ergonomics ", in order to harmonize with the ISO 9241, GB/T 18978 Standard name changed to "human -

system interaction ergonomics", section numbers and names also will work with some of the latest ISO 9241 number and name He said (see Appendix A) consistent.

GB/T 18978 "human - system interaction ergonomics" and "100" sub-series program includes the following sections.

- Part 100. Overview of software ergonomics;
- Part 110. Dialogue principles;
- Section 111. display principle;
- Part 112. multimedia principle;
- Part 113. GUI and control principles;
- Part 121. information display;
- Part 122. Media selection and combination;
- Part 123. Navigation;
- Part 124. User's Guide;
- Part 129. Personalized;
- Part 130. Dialogue technology selection and combination;
- Part 131. Menu dialogue;
- Part 132. Command dialogue;
- Part 133. direct manipulation dialogue;
- Section 134. Based on the dialogue fill in a form;
- Part 135. Natural language dialogue;
- Section 141. Information control group;
- Part 142. List;
- Part 143. Media Control;
- Part 151. Internet User Interface Guidelines;
- Part 152. interpersonal communication;
- Part 153. virtual reality;
- Section 171. Software Accessibility Guidelines.

This part of GB/T 18978 Part 151.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the translation method identical with ISO 9241-151:2008 "human - system interaction Ergonomics 151. Internet user community Guide to face. " Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- GB/T 18976-2003 human-centered design of interactive systems (ISO 13407:1999, IDT)

--- GB/T 18978.11-2004 use of visual display terminals (VDTs) - Part 11 office ergonomics requirements. available with guidelines (ISO 9241-11:1998, IDT)

--- GB/T 18978.13-2009 use of visual display section 13 Ergonomic requirements for terminals (VDTs) Office. Using User's Guide (ISO 9241-13:1998, IDT)

--- GB/T 20527.1-2006 multimedia user interface software ergonomics - Part 1. Design principles and framework (ISO 14915-1:2002, IDT)

--- Software ergonomics - Part 3 GB/T 20527.3-2006 multimedia user interface. Media selection and combination (ISO 14915-3:2002, IDT) this standard by the National Standardization Technical Committee learned Ergonomics (SAC/TC7) and focal points.

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## Introduction

Usability is a key factor in the success of website design, this view is widely recognized, but has yet to have an international consensus on Specifically for the Internet (WWW or Web) standard user interface usability.

Internet user interface, especially for an emphasis on usability issues, for the following reasons.

Internet users --- the knowledge, skills, language and many other aspects are different. For example, for professional experts in the field Internet user interface, may be less suitable for ordinary users.

--- Each user's purpose is not the same. For example, for certain tasks (for example, e-commerce transactions) to optimize the design of the site, you may it is not suitable to perform other tasks (for example, information gathering) users.

--- Different web browser or user agent rendering the page content is usually not the same way. For example, in the layout of individual pages Changes occur when different browsers rendered, sometimes the change is still very significant.

Internet users may experience inconsistent problems that exist not only between different

sites, even within the same site it will also appear. For example, links such as simple element, it is possible in a page, the underlined, another page with the mouse Standard hover triggered highlighted representation, while in the third page without any markup.

There are currently some good guidelines, many of which are specifically for the network, but these guidelines there is sometimes inconsistent, but also more difficult Practice. There are some standard, though not specifically for the Web UI, but for usability and user interface design to mention Provide useful guidelines. These standards include. ISO 9241-11, GB/T 18978.12, ISO 9241-13, ISO 9241 Part 14 through General guidelines Part 17 and ISO 9241-110, provide ergonomics for software user interface design; ISO 13407 is an interactive meter Computer systems embedded in user-centered design activities throughout the life cycle in order to achieve the goal to provide guidance system availability; ISO 14915 series of standards for the user interface, multimedia and hypermedia designed to provide guidance.

Advice and guidance provided in this section is mainly applied to the design of site content, or more generally speaking, it is suitable for the user to navigate and includes Design of network applications, including interactive exhibits and content. While some guidelines in this section also can be used in various user agent (For example, a web browser) or auxiliary tools (for example, network editing tools) user interface design, but two types of interface is not discussed in this section Object. This section does not cover technical implementation of the recommendations.

The main purpose of web design is to make the user interface including users with disabilities, including the widest possible group of users can access easy. although However, this section some guidelines for accessibility of Web UI is also very important, but this section is not intended to cover the full accessibility.

Ensuring and improving the information and communication technology (ICT) equipment, software and services to the general accessibility guidelines can be found in ISO 9241-20; About Software Detailed guidance user interface accessibility can be found in ISO 9241-171; on web content, user agents and web editing tools can reference guide See "Web Consortium web accessibility initiative." ISO 9241 was originally developed by the International Standards include 17 "Using a visual display terminal office ergonomic requirements" development Come. In the standard review process, States agreed to carry out substantial restructuring ISO 9241, widening its scope to other relevant standards which also included to make it more usable. The main title of the revised ISO 9241 "human - system interaction Ergonomics" will be able to reflect these changes, this title with ISO/TC159/SC4 overall title and scope of the technical committee are unanimous. Each part of the revised Standard by a series of numbered "hundreds" of standard components. Among them, the "100" series on software interface, "200" series on people-centered Design, "300" series on the visual display, "400" series of physical input devices, and so on.