INTERNATIONAL STANDARD

ISO/IEC 17549-3

First edition
2023-05

Information technology — User interface requirements and recommendations on menu navigation —

Part 3: Navigation with one-direction devices

Technologies de l'information — Exigences et recommandations d'interface portant sur la navigation dans les menus —

Partie 3: Navigation au sein des dispositifs mono-touche

Reference number
ISO/IEC 17549-3:2023(E)

© ISO/IEC 2023



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2023

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

© ISO/IEC 2023 – All rights reserved

Contents

Page

Foreword ... **iv**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**

4 Conformance ... **3**

5 General description ... **3**
5.1 Purpose of single-switch device and double-switch device ... 3
5.2 Working principles ... 3

6 Requirements and recommendations for designing menus ... **3**
6.1 General ... 3
6.2 Ladder menu ... 3
6.3 Designing for one-direction device in the context of a tile menu ... 4
6.4 Indicators ... 4
6.5 Rules for loops and sub-loops ... 4
6.6 Rules applicable to menu navigation with a double-switch device ... 5
6.7 Rules applicable to menu navigation with a single-switch device ... 5
6.7.1 Simple automatic scrolling ... 5
6.7.2 Other types of automatic scrolling ... 5
6.7.3 Scanning speed ... 6
6.7.4 Scanning start and pause delays ... 6
6.7.5 Post-activation delay ... 6
6.7.6 Re-scan and skip scan ... 7
6.7.7 Scanning indicators ... 7

Annex A (informative) **Examples of devices with one-direction navigation** ... **8**

Bibliography ... **9**

© ISO/IEC 2023 – All rights reserved

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

ISO and IEC draw attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO and IEC take no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO and IEC had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents and https://patents.iec.ch. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 35, *User interfaces*.

A list of all parts in the ISO/IEC 17549 series can be found on the ISO and IEC websites.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

© ISO/IEC 2023 – All rights reserved

Information technology — User interface requirements and recommendations on menu navigation —

Part 3:
Navigation with one-direction devices

1 Scope

This document provides requirements and recommendations on the design of navigation methods for menu item selection with use on one-direction devices (using single or double-switch devices). It specifies requirements for menu navigation with one-direction devices in terms of time delay, loops and focus rendering.

This document is applicable to any information technology equipment on which the display area is associated with the one-direction devices.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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/IEC 17549-2:2020, *Information technology — User interface guidelines on menu navigation — Part 2: Navigation with 4-direction devices*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
one-direction device
control enabling navigation through menu items in a single direction

Note 1 to entry: A one-direction device can be made of a one-directional key and a one-activation key or a single activation key without any directional key.

Note 2 to entry: A one-direction device can be made of virtual or physical control.

EXAMPLE A one-direction device can be associated to a 3D or tactile gesture or vocal command, or a sip/puff switch. Such devices are mainly used by motor impaired users.

3.2
ladder menu
set of items displayed vertically or horizontally

© ISO/IEC 2023 – All rights reserved