

Assistive products - Guidelines on cognitive accessibility - Daily time management (ISO 21802:2019)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 21802:2021 sisaldab Euroopa standardi EN ISO 21802:2021 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 21802:2021 consists of the English text of the European standard EN ISO 21802:2021.
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Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 04.08.2021.	Date of Availability of the European standard is 04.08.2021.
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ICS 11.180.01

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English Version

**Assistive products - Guidelines on cognitive accessibility -
Daily time management (ISO 21802:2019)**

Produits d'assistance - Lignes directrices relatives à
l'accessibilité cognitive - Gestion quotidienne (ISO
21802:2019)

Technische Hilfen - Leitfaden zur kognitiven
Zugänglichkeit - Tägliches Zeitmanagement (ISO
21802:2019)

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European foreword

The text of ISO 21802:2019 has been prepared by Technical Committee ISO/TC 173 "Assistive products" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 21802:2021 by Technical Committee CEN/TC 293 "Assistive products and accessibility" the secretariat of which is held by SIS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2022, and conflicting national standards shall be withdrawn at the latest by February 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of ISO 21802:2019 has been approved by CEN as EN ISO 21802:2021 without any modification.

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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.

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 ISO documents 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).

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This document was prepared by Technical Committee ISO/TC 173, *Assistive products*.

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Introduction

The time-dependent society of today places high demands on every citizen. How we use and manage our time is of great importance for daily life including employment and other domains of participation and well-being. There are cultural differences in how time is understood and used, and performance can vary in differing environments. Time management behaviours relate positively to perceived control of time, job satisfaction and health, and negatively to stress. Children, adolescents and adults living with various types of impairment might need support with daily time management. People with limited ability to manage time show a heightened dependence on others and greater need for support, exacerbating their inferior status and vulnerability. This introduction summarises the concepts and research that inform this document.

The evidence for the effectiveness of cognitive assistive products supporting daily time management (e.g. reminder systems for adults with acquired brain injury) is strong. Time devices can be both digital and analogue and include both mainstream products like smartphones or alarm clocks, and assistive products. Time devices can compensate for a lack of time management skills, and can increase independence and participation. It is known that assistive products are not always used as intended, and that non-use is frequently associated with a decrease of independence in everyday activities.

People with cognitive impairment who find electronic planning devices beneficial tend to use them. People with cognitive impairment and a low level of daily time management who use advanced electronic planning devices tend to be more influenced by environmental factors, such as support from professionals and services. Well-designed electronic planning devices that are matched to the individual user's needs result in greater dependency on those devices of the user. In other words, greater usability of assistive products for time management is associated with greater independence of the user. Research has also highlighted the necessity of adaptation of electronic planning devices to the individual user, regardless of whether it is a mainstream product or a specifically designed assistive product for time management. Therefore, the more that producers of time devices consider making the products easy to understand, easy to manage and motivating (i.e. usable), the more benefit for the individual user, for his/her environment and for society. It is highly recommended to actively engage people with cognitive impairments in the development and evaluation of products used in daily time management.

Although termed cognitive 'accessibility', this document will also adopt the concept of 'usability' to ensure that design principles are based on the unique experiences of users rather than on assumptions of human abilities. Usability reflects a combination of dimensions of effectiveness, efficiency and satisfaction, so it is necessarily a more individual and subjective assessment than accessibility, incorporating psychosocial factors and perceptions of how well an environment enables participation and inclusion. Within this document, usability functions as a framework for specifying design goals and evaluating their achievement.

This document specifies guidelines that are relevant to creating a daily time management support system. It focuses on identifying the critical variables in the design and construction of products (and common exceptions) that affect their usability for people with cognitive impairment. The document provides directions on how to think when manufacturing a product, when giving support and service, and when matching the product to the needs of the person and the environment regarding daily time management. This is done by presenting examples of user needs in relation to daily time management functions followed by design recommendations. The categories are:

- a) Time awareness;
- b) Orientation to time;
- c) Time management;
- d) Adapting to time demands.

Assistive products — Guidelines on cognitive accessibility — Daily time management

1 Scope

This document specifies principles of cognitive accessibility within the area of daily time management.

This document gives guidelines for design application for features and functions known to increase the accessibility of products and systems used to support daily time management for people with cognitive impairment regardless of age.

This document does not provide test methods and specific instructions for measuring and reporting.

NOTE ANSI/RESNA CA-1:2016 specifies features, measurement methods, and documentation for reporting the universal design specifications that support inclusion of individuals with cognitive impairment that might be applicable and beneficial to use for evaluating products and systems used to support daily time management.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

adapting to time demands

carrying out actions and behaviours appropriately in the required sequence and within the time allocated

EXAMPLE Running to the station when in danger of missing the train.

Note 1 to entry: See Reference [5].

3.2

assistive product

any product (including devices, equipment, instruments and software), especially produced or generally available, used by or for persons with disability

- for participation;
- to protect, support, train, measure or substitute for body functions/structures and activities; or
- to prevent impairments, activity limitations or participation restrictions

[SOURCE: ISO 9999:2016, 2.3]