

Personal Digital Assistant (PDA)

Small handheld device that comprises an electronic visual display. Original PDAs utilized a stylus with handwriting recognition for input. Additional means of input include keyboard and voice recognition. Functions of PDAs include: calculator, calendar, appointment book, address book, game machine, global positioning system, digital audio recorder, and digital still and/or video camera. Modern PDAs may include: send and receive e-mail over wired or wireless networks, surf the Web, interface with a computer, send and receive phone calls, display videos, play music.

- **Product Classification**

- APL (WHO Assistive Product Priority List): 26 (Personal digital assistants (PDAs))
- ISO 9999:20226: 223306 (Portable computers and personal digital assistants (PDAs))

- **Possible configuration variants**

- Speech output.
- Screen magnification.

- **Possible accessories or optional components**

- Software that can be run on a PDA that can perform a number of functions in addition to those included in the usual configuration.
- Software (such as the Jogger) which presents behavioral prompts and cues for the user at pre-programmed times and recording the user's responses; customized for the user, these prompts can assist the user to perform job tasks, perform household chores, tasks to be completed before leaving work, take medication, and more.
- Additional ports including those for compact flash drive, infrared, serial, USB and headphones.
- Peripherals such as docking cradle, AC power adapter, serial cable, carrying case, external speaker, and speaker cable.

- **Product goals**

Activities or functions the product is mainly intended to support, according to WHO ICF Classification:

- Carrying out daily routine [d230].
- Using communication devices and techniques [d360]

- **Indicated impairments**

Difficulties the product is mainly intended to address, according to the WHO ICF Classification:

- Memory functions [b144].
- Attention functions [b140].
- Calculating [d172].
- Orientation functions [b114].

- **Contraindicated impairments**

Difficulties for which the product may be inappropriate:

- Blindness. *Unless used with variants: Speech output [b210]*
- Severe vision loss. *Unless used with variants: Screen magnification [b210]*
- Hand dexterity. *Unless used with variants: Voice recognition [b265]*

- **Indicated environments**

Specific environments in which the product should be used:

None specified.

- **Contraindicated environments**

Environments in which the product may be inappropriate:

- Areas where a mobile network or access to Wi-Fi is not available (for connection by the device).

- Other indicated factors

Other factors or situations the product is intended to address:

- Personal information management.

- Other contraindicated factors

Other factors or situations in which the product may be inappropriate:

- Use by people with limited familiarity with modern technology.
- Users who are not literate to the extent needed to use the device.

- Points to be considered in product selection

- The environment in which the device will primarily be used.
- The input technique should match the individual's functional abilities.
- The output of the PDA should match the individual's functional abilities.
- The specific tasks the device will perform.
- The capabilities of the device should match the specific tasks it will perform.
- PDAs have been essentially replaced by smart phones and tablet computers. Are newer devices more appropriate? PDAs have been mostly displaced by the widespread adoption of highly capable smartphones specifically those based on iOS and Android.

- Points to be considered in product fitting

- The user's specific needs must be considered to properly set up and program the device.
- The user should be trained to use the device properly including setting it up and programming it, if necessary.

- Points to be considered in product use

- Appropriate software and applications to accomplish desired tasks.
- If necessary, appropriate mounting, particularly for wheelchair users.

- Points to be considered in product maintenance / follow-up

- Maintain good battery life.
- Software and operating system should be kept current.

- Examples of products available on the market

- Live product search in the EASTIN website <https://www.eastin.eu/en/searches/products/list?iso=223306>

Source

This Fact Sheet was compiled in 2021 by an international team of experts, to provide the initial knowledge base for a project ("An online system to assist the selection of assistive product") supported by the World Health Organization in 2020-2021 within the GATE Initiative (Global collaboration on Assistive Product). Fact Sheets were compiled for each of the 50 types of products included in the WHO APL (Assistive Product Priority List).

The team was composed of Renzo Andrich (Italy, group leader), Natasha Layton (Australia), Stefan von Prondzinski (Italy), Jerry Weisman (USA), Silvana Contepomi (Argentina) and Hasan Minto (Pakistan).

The project led to a prototype online tool called ASPREX (ASsistive PProduct EXplorer). At the end of the project, it was transferred to a WHO collaborating center (the Global Disability Hub in the UK), in view of possible future developments.