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Linux Watch

[feedback](#)

Overview

LCD Watch

OLED Watch

Watchpad 1.5

Pubs

Awards

Linux on a Wrist Watch 1999-2001



August 2000. IBM researchers are successfully running Linux and X11 (a popular graphics library) on a device the size of a wrist watch, demonstrating the viability of the operating system across all platforms, from large enterprise servers, to medium-sized and small servers, workstations, desktop systems, laptops and now the smallest intelligent devices.

With Linux rapidly becoming an industry standard, it's important that developers be able to create new applications across all platforms, including pervasive devices, and the intent of IBM's research is to further that work.

Designed to communicate wirelessly with PCs, cell phones and other wireless-enabled devices, the watch will have the ability to view condensed email messages and directly receive pager-like messages. In addition, the watch will provide users with calendar, address book and to-do list functions. Future enhancements will include a high-resolution screen and applications that will allow the watch to be used as an access device for various Internet-based services such as up-to-the-minute information about weather, traffic conditions, the stock market, sports results and so on.

The watch contains a powerful processor along with eight megabytes of flash memory and another eight megabytes of dynamic random access memory. Users interact with the watch through a combination of a touch-sensitive screen and a roller wheel. The watch also has both IR and RF wireless connectivity.

Among the technologies IBM is developing for small pervasive devices are packaging, displays, processors, hardware encryption, low power systems, wireless protocols, user interfaces, privacy models, middleware, and applications. Other devices that could leverage these technologies include PDAs, smart identification badges, and other wearable devices.

Several benefits accrue from the use of Linux in small pervasive devices. The availability of source code and a well-understood application programming environment makes it easy for students, researchers, and software companies to add new features and develop applications.

» [video clip.](#)

S:

operating system version 2.2

» Graphics

56 mm wide by 48 mm long by 12.25 mm thick (2.20" x 1.89" x 0.48")

board: 27.5 mm wide by 35.3 mm long (1.08" x 1.39")

: 44 gms (approx. 1.5 ounces)

sensitive display

lash memory, 8MB DRAM memory

radio Frequency wireless connectivity

rechargeable lithium-polymer battery

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