



D Bit

Developer of **Ersatz-11**, a software PDP-11 emulator for MS-DOS, [Windows](#), [Linux](#), [OS/2](#), and [bare-metal](#) PCs giving emulation speed far faster than the PDP-11/93. The [free demo version](#) may be used for 30-day commercial evaluation, or unlimited personal/hobby use. Information about commercial versions is available [here](#). Take a live RSX11M+ V4.6 system for a test drive [here](#).



PDP-11 Emulation System

[Click here to try out a live RSX11M+ V4.6 demo system](#)

Ersatz-11 emulates an entire PDP-11 system in software while running on low-cost PC hardware. It outperforms all of the hardware PDP-11 replacements on the market, outstripping them by a particularly wide margin in disk-intensive applications. Hardware PDP-11 replacements that use a Q-bus, Unibus, or ISA bus for I/O can't come close to Ersatz-11's disk performance because they are limited to the speed of the I/O bus for all disk transfers, regardless of actual disk (or disk cache) speed. Ersatz-11 avoids this bottleneck since it uses the PC's main memory and takes advantage of the tight disk-to-memory coupling in modern PCs.

Ersatz-11 is by far the least expensive PDP-11 replacement product on the market. It quickly pays for itself in reduced maintenance, power, and climate control costs. Since its CPU is powered by the PC's processor and not a special-purpose processor card, there's no expensive custom hardware to maintain, and future upgrades to the PC's processor will make its PDP-11 emulation even faster.

Orders for Ersatz-11 are usually shipped out the same day.

[Ersatz-11 features](#) (Note: not all are available in Demo version)

Processor emulation:

- PDP-11/03, PDP-11/04, PDP-11/05, PDP-11/10, PDP-11/20, PDP-11/23, PDP-11/24, PDP-11/34a, PDP-11/40, PDP-11/44, PDP-11/45, PDP-11/53, PDP-11/60, PDP-11/70, PDP-11/73, PDP-11/74^[1], PDP-11/83, PDP-11/84, PDP-11/93, or PDP-11/94 CPU with individually selectable CPU features
- FP11/FPF11/FPJ11/etc. floating point processor
- 4 MB main memory
- KW11L line clock (50/60 Hz, settable)
- Display register (using special hardware, in DOS versions only)

(^[1]experimental feature provided without support)

Disk devices:

A very wide range of PDP-11 disk devices may be emulated using several forms of physical media. Click [here](#) for information.

Tape devices:

Similarly, a variety of PDP-11 tape devices are supported. Click [here](#) for a list.

Serial ports:

E11 emulates RS232 and 20 mA serial ports and multiplexors using external ports and/or emulated VT100 sessions. Click [here](#) for details.

Network interfaces:

The efficient Ethernet subsystem allows DECnet, LAT, TCP/IP, or other protocols to work through a regular PC Ethernet card, with higher throughput than the original PDP-11 ports. Click [here](#) for more information.

Video displays:

VT11, VT30, and Terak 8510/a graphics displays are emulated in all but the Linux version of E11.

Bus adapters:

The "full" versions of E11 include support for Q-bus and Unibus adapters, so that real hardware may be attached to the virtual PDP-11. Click [here](#) for information.

Miscellaneous devices:

E11 also supports digital I/O devices, graphics devices, and programmable clocks, as well as dynamically installable plug-ins which allow custom or user-written device emulations to be added to E11 at runtime. Click [here](#) for information.

Other features:

- Versatile command language for controlling and monitoring emulation
- Configuration may be modified without halting or rebooting emulator
- Extensive logging facilities for capturing controller commands, terminal and line printer output, and Ethernet traffic
- Automatic configuration of floating CSR/vector addresses
- Automatic selection of controller types based on emulated CPU type (for devices such as the RL11/RLV12 whose Q-bus and Unibus versions have programming differences)

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