

The BeBox

Moving beyond the limitations of today's computing architectures.

The BeBox™ from Be, Inc. combines supercharged hardware, an innovative new operating system, and a host of powerful sound, graphics, and video capabilities—all at an extremely affordable price. It's the first true real-time system that features multiple processors, preemptive multitasking, fast I/O, and a wide range of expansion options.

The BeBox allows you to run multiple high-performance, graphics-intensive programs, synchronize music and sound, view and edit videos, and access the Internet—all at the same time. It features a built-in database that's always accessible, so you can continually store, retrieve, and update key information from multiple sources. No other product on the market can equal its performance in its price range. It's a system that has already excited developers and is capturing the imagination of a wide spectrum of computer users.



Twice the power: The BeBox features two PowerPC 603 CPUs

BeBox Hardware

Hardware specifications for the introductory model of the BeBox:

Microprocessors

- 2 PowerPC 603 CPUs, running at 66 MHz
 - Fixed-point unit
 - Load store unit
 - Floating-point unit
 - 8 K data cache
 - 8 K instruction cache
 - Memory management unit

Memory

- Supports up to 8, 72-pin SIMMs
- Can accommodate up to 256 MB with 32 MB SIMMs

Disk Drives

- 1 PC-standard, 1.44 MB, 3.5" floppy disk drive
- On-board support for both IDE and SCSI devices
- Drive bays
 - 2 internal 3.5" half-height drive bays
 - 2 exposed 5.25" half-height drive bays for CD-ROM drives, Syquest drives, etc. (can be used as a single, full-height bay)

Display Controllers

- Supports PCI SuperVGA controllers, such as the #9 GXE 64

Networking

- Supports industry-standard ISA Ethernet cards, such as the NE 2000, 3Com 3C503, or compatibles
- Serial modems on serial ports

Interfaces

- 3 internal full-length PCI card slots @ 33 MHz
- 5 internal full-length ISA card slots
- PCI SCSI II controller for connection of up to 7 SCSI devices
 - Internal 50-pin ribbon cable connector
 - External 50-pin SCSI II connector
- IDE controller for PC-standard hard drives
- Standard PC keyboard connector
- PS/2 mouse connector
- Parallel port
- 2 MIDI ports: one in and one out per channel
- 4 RS-232 serial ports with 16550 UARTs
- 2 high-resolution joystick ports
- 3 infrared controller ports
- "GeekPort," supporting general I/O with A/D & D/A
- 16-bit sound system
 - RCA line-in jacks
 - RCA line-out jacks
 - 3.5 mm stereo microphone jack
 - 3.5 mm stereo headphone jack

Clock/Calendar

- Standard PC clock/calendar chip

Electrical Requirements

- 100 to 240 V AC single phase line voltage
 - 60 or 50 Hz frequency
 - 110-220 switch
- 240 W max power (does not include external devices)
- Switched display power convenience outlet

Size

- Height: 15.68 in. (39.8 cm)
- Width: 8.28 in. (21.0 cm)
- Depth: 18.15 in. (46.1 cm)

Operating Environment

- Operating temperature
 - 50° to 105° F (10° to 40° C)
- Storage temperature
 - 40° to 116.6° F (-40° to 47° C)
- Relative humidity
 - 5% to 95% noncondensing
- Maximum altitude
 - 10,000 ft. (3,050 m)

Be System Software Specifications

Software specifications for the introductory model of the BeBox:

Fast Microkernel

- Virtual memory
- Preemptive multitasking (multithreading) on multiple processors (up to 8 PowerPC CPUs in future BeBox models)
- Automatic allocation of threads to processors for the most efficient execution
- Protected address spaces
- Shared memory areas for efficient interapplication cooperation
- Loadable device drivers

Integrated Database

- Extensible database coupled to the file system
- Data stored in system-defined or application-defined tables
- Query results updated as the data changes ("live" queries)

Client-Server Architecture

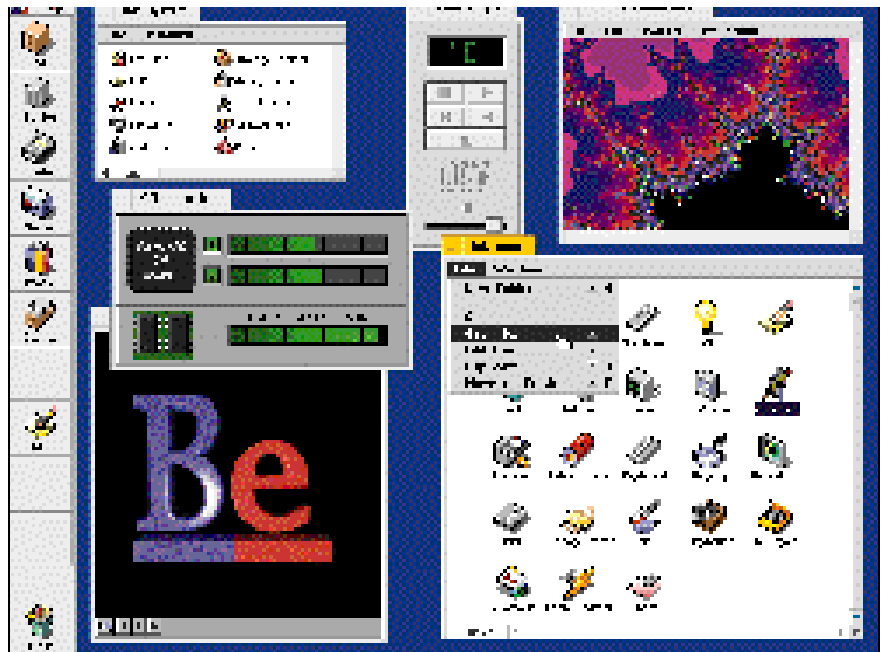
- Servers simplify client applications by taking over low-level tasks
- Increased performance and reliability
- The Application Server handles user-interface work common to all applications
- The Storage Server makes the database available to every application

Real-Time Architecture for Processing Audio and Video Data

- Transportation of media buffers through a pipeline of interested handlers
- Reliable real-time response
- High-level, object-oriented access to audio and video drivers
- Synchronization to an internal clock or to an external one (for example, MIDI or SMPTE)
- Prioritization to protect time-critical tasks
- MIDI support

Graphical and Interactive User Interface (GUI)

- Ready-made windows provided by the Application Server
- Window-specific graphics environments
- A graphical browser for operating the machine and viewing the file system and database
- Off-the-shelf modules for many graphical components (like buttons, scroll bars, and editable text fields)



You can run many high-performance applications at once on the BeBox. The Be system software automatically distributes the load across both PowerPCs.

Networking

- TCP/IP built in
- Direct and dial-up PPP
- FTP and TELNET protocols (**ftp**, **ftpd**, and **telnet** tools)

Object-Oriented C++ Application Framework

- User Interface Kit, Multimedia Kit, MIDI Kit, Networking Kit, Database Kit, and others for developing a wide variety of applications
- Interapplication messaging
- Application architecture designed for multithreading (for example, every window has its own thread of execution)

Development Environment

- Bundled Metrowerks® CodeWarrior™ development environment for the BeBox
- Libraries, header files, and developer documentation provided with every BeBox
- Dynamically linked ("shared") libraries

Important:

Product specifications are subject to change without notice. Please consult the Be worldwide-web site (<http://www.be.com>) or call Be for the latest complete specifications.



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