



Overview

The Apple® AUX® operating system, version 2.0.1, gives users access to the familiar, intuitive desktop of the Macintosh® computer within the UNIX® environment. By using AUX 2.0.1, users can run multiple Macintosh productivity applications, UNIX applications, and X Window System applications simultaneously.

AUX 2.0.1 is a complete UNIX implementation that incorporates the easy-to-use Macintosh desktop. This industry-standard, multitasking operating system is uniquely capable of meeting the varied needs of large corporations, government, universities, and technical users who require UNIX. AUX complies with the relevant UNIX standards, and supports industry-standard networking, communications, and windowing system products.

AUX is available on all models of the Macintosh II personal computer and on the Macintosh SE/30 personal computer.

Features

Benefits

- Macintosh look and feel
- Support for the MultiFinder® environment
- Macintosh-style startup and shutdown
- Support for 32-bit Color QuickDraw® software

- Provides the benefits of the intuitive, graphics-based Macintosh desktop with point-and-click access to all your work.
- Allows you to open multiple applications concurrently.
- Lets you easily integrate information from multiple applications by cutting and pasting between them.
- Allows you to continue working with applications while performing other tasks.
- Allows you to easily start up and shut down without needing to know the technical details of the AUX environment.
- Gives you access to the full range of Macintosh graphics capabilities, including true color and full grayscale.

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- Support for multiple types of applications within the Macintosh desktop environment, including
 - UNIX System V/BSD 4.3 applications
 - Macintosh applications
 - X Window System applications (add-on)
 - Hybrid applications (UNIX applications that use the Macintosh Toolbox)

- Lets you run multiple UNIX, Macintosh, and X Window System applications simultaneously from the Macintosh desktop.

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- UNIX integration
 - UNIX shell windows on the Macintosh desktop
 - Mouse-driven text editor
 - Macintosh and UNIX file systems
 - Commando (UNIX command builder)
 - Cut-and-paste text editing
 - Printer and AppleShare® file server selection through the Chooser

- Provides traditional UNIX shells (C, Korn, or Bourne) from within Macintosh windows.
- Lets you edit text files using a Macintosh and mouse-driven editors, and eliminates the need to learn a text editor such as vi.
- Allows point-and-click access to UNIX, BSD, and Macintosh file systems.
- Lets users—even those who use UNIX only occasionally—build UNIX commands from menu selections.
- Lets you cut and paste text between UNIX, Macintosh, and X Window System applications.
- Simplifies selecting a printer or AppleShare file server through the use of the Chooser, a standard Macintosh desk accessory.

Features

Benefits

- Enhanced compliance with additional UNIX standards, including
 - IEEE POSIX 1003.1-1990
 - Berkeley File System
 - NFS (Network File System), Version 3.2
 - Shared libraries
 - X Window System support

- Complies with all relevant UNIX standards (including AT&T SVID, IEEE POSIX 1003.1-1990, and FIPS #151-1), letting you port existing UNIX applications to A/UX with minimal effort.

- Built-in Macintosh networking capabilities, including
 - AppleTalk® printing support
 - AppleShare file access

- Allows Macintosh applications to share printers and use AppleShare files over an AppleTalk network system, using on-board LocalTalk® or EtherTalk® (sharing the same Ethernet board with TCP/IP protocols).

- Additional hardware and software support
 - Macintosh IIx

- Run on all Macintosh II systems, as well as the Macintosh SE/30.

- Serial printing

- Lets you print documents on a serially connected LaserWriter® printer or ImageWriter® printer.

- SuperDrive⁵

- Allows users to store data on and retrieve data from 400K, 800K, or 1.44 MB floppy disks.

- Slot, Serial, and Sound Managers

- Allows use of Macintosh applications that access the Macintosh Toolbox Slot, Serial, and Sound Managers software.

- Sound

- Supports applications that take advantage of Macintosh sound capabilities.

- MacTCP®

- Allows use of Macintosh applications that access MacTCP for TCP/IP connectivity.

- Macintosh Communications Toolbox

- Lets an application "talk" to the Toolbox, without requiring the application to designate a communications protocol.

- International support

- Accepts 8-bit characters and alternative character sets, so that Macintosh and A/UX developers can create A/UX applications in many languages, such as Danish, Dutch, Finnish, Flemish, French, German, Italian, Norwegian, Portuguese, Spanish, and Swedish.

Product Details

Standards compliance

- The AUX operating system is source-licensed from AT&T, and meets System V Interface Definition (SVID) specifications. Extensions from Berkeley Software Distribution (BSD) Release 4.3 are included. AUX 2.0.1 complies with both the Federal Information Processing Standard (FIPS) #151-1, the IEEE POSIX 1003.1-1990, and ISO 9945-1.

Macintosh applications execution

- Macintosh applications that adhere to the specifications for the Macintosh 32-bit environment (referred to as “32-bit clean”), as documented in Inside Macintosh, run in the AUX environment without change. Most major Macintosh productivity applications, such as Microsoft Word 4.0, Wingz, MacWrite II, and HyperCard®, are 32-bit clean. In addition, as a transitional step, AUX 2.0.1 offers an optional 24-bit mode. Selected during logon, this mode allows execution of older Macintosh applications that are not 32-bit clean. Macintosh Toolbox features—including printing, sound, and color—are supported in AUX 2.0.1.

MultiFinder

- With MultiFinder, the interface for AUX, users can run Macintosh and UNIX applications concurrently, and can switch between Macintosh and UNIX applications quickly and easily.

UNIX integration

- AUX integrates the functionality of UNIX with the Macintosh MultiFinder environment. Users have point-and-click access to every file on their system. They can use a Macintosh mouse-driven editor for text files, cut and paste text between applications, and select printers and Apple file servers in the familiar Macintosh way. AT&T, BSD, and Macintosh

filesystems are accessible seamlessly through icons on the desktop.

Multitasking and virtual memory support

- AUX 2.0.1 supports the execution of multiple processes simultaneously. Under MultiFinder, multiple Macintosh applications can run simultaneously, as they can when you use MultiFinder with the Macintosh operating system. At the same time, multiple UNIX and X Window System applications can run in Macintosh windows. AUX also provides virtual memory, allowing users to run more applications than the physical memory in the system can hold.

Communications

- AUX provides standard UNIX communications, such as `cu` and `uucp`, as well as more advanced communication standards from UNIX (TCP/IP) and Macintosh (AppleTalk). Users can connect TCP/IP networks using Ethernet or serial lines (SLIP). With TCP/IP, users can take advantage of X Window System, Berkeley Networking Services, NFS, and Network Information Services. Users can also connect to AppleTalk networks using EtherTalk (sharing the Ethernet connection with TCP/IP protocols) or LocalTalk. With AppleTalk, users can take advantage of AppleTalk printing and AppleShare file services (client only).

Text editing and processing

- AUX 2.0.1 provides a Macintosh-style mouse-driven text editor, as well as the standard UNIX text-editing and processing utilities, including `vi`, `ex`, `ed`, `ditroff`, `nroff`, `tbl`, `eqn`, and `pic`. AUX 2.0.1 also includes the `TranScript` utility from Adobe Systems for formatting output to LaserWriter printers.

Programming

- AUX 2.0.1 offers an assembler, a C compiler, an ANSI standard Fortran compiler, debuggers, the Source Code Control System (SCCS), and related tools to assist in developing new applications or porting existing software to AUX. AUX 2.0.1 also includes a set of UNIX libraries that allow C programs to access the functionality of the Macintosh Toolbox, so that AUX applications can present the graphics-based user interface familiar to Macintosh users, as well as the traditional UNIX appearance. Numerous other languages and tools are available from third-party developers.

Apple CDSC support

- The Apple CDSC® drive can be used as a read-only UNIX or Macintosh file system of up to 500 MB, giving information systems providers an inexpensive distribution medium. The AUX Macintosh environment also supports the Macintosh HFS file system on CDs.

System administration

- AUX 2.0.1 simplifies configuration and recovery. It automatically configures the smallest kernel possible, and simplifies the addition of new drivers. In addition, AUX 2.0.1 keeps redundant copies of crucial files so that, in the event of a damaging system crash, it can automatically restore the system to be ready to return to the network.
- UNIX scripts are provided to aid in system administration functions such as connection of peripherals and modification of user information.

System Requirements

To use the Apple A/UX operating system Version 2.0.1, you'll need

- One of the following personal computers
- Macintosh SE/30
- Macintosh II with an Apple Paged Memory Management Unit (PMMU)
- Macintosh IIX

- Macintosh II si with a NuBus or 030 Direct Slot Adapter card
- Macintosh IIcx
- Macintosh IIci
- Macintosh IIfx
- A minimum of 4 megabytes of RAM
- An Apple hard disk (minimum 80 megabytes) or the equivalent

- An Apple monitor (or equivalent) that is compatible with A/UX 2.0.1

Optional Equipment

- For Ethernet connectivity, an Apple EtherTalk N/C Card or the equivalent
 - Additional memory
 - An Apple CDSC drive
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Technical Specifications

Portability standard

- AT&T UNIX System V, Release 2, Version 2
- Compliant with the System V Interface Definition (SVID); passes the System V Verification Suite (SVS)
- BSD 4.3 extensions, including signals, job control, groups, sockets, Berkeley Networking Services, subnets, and Berkeley File System
- Compliant with FIPS #151-1
- Compliant with IEEE POSIX 1003.1–1990

Applications supported

- Macintosh applications that adhere to Inside Macintosh specifications
- AT&T and BSD UNIX applications
- X Window System applications (with add-on package)
- Hybrid applications (UNIX applications using the Macintosh Toolbox)

Macintosh look and feel environment

- Macintosh MultiFinder
- Macintosh-style startup and shutdown
- Support for 32-Bit Color QuickDraw

UNIX integration

- UNIX command builder
- UNIX shell windows
- Mouse-driven editing
- X Window System support (add-on)
- Cut-and-paste text editing
- Printer and AppleShare file server selection through the Chooser

UNIX command-line interpreters for UNIX shell windows

- Bourne Shell
- Korn Shell (1988)
- C Shell

Development tools

- Editing and processing utilities (Macintosh mouse editor, vi, ex, ed, ditroff, nroff, tbl, eqn, and pic)
- Assembler, C compiler, and ANSI standard Fortran compiler
- Shared libraries
- Lint, lex, yacc
- Debuggers (abd, sdb)
- Linker (ld)
- Source control (SCCS, make, and other UNIX tools)

Communications

- TCP/IP over Ethernet or over serial connection (SLIP)
- AppleTalk printing and file sharing client services via LocalTalk or EtherTalk
- Transparent file sharing over Ethernet or serial lines using NFS Version 3.2

- Remote log-in and execution, resource sharing, file transfer, and electronic mail with Berkeley Networking Services (from BSD 4.3)
- Domains and subnets X Window System for A/UX (add-on)

Highlights of hardware supported

- All Macintosh II personal computers and the Macintosh SE/30
- Apple 20MB, 40MB, 80MB, and 160MB hard disk drives
- Apple 400K, 800K, and 1.44MB floppy disk drives
- Apple CDSC drive, which provides CD-ROM support for both LaserWriter IINT, LaserWriter IINTX, and LaserWriter Plus printers; ImageWriter II and ImageWriter LQ printers
- All Macintosh monitors and compatible third-party monitors
- All domestic Macintosh keyboards and nonextended European Macintosh keyboards

System administration

- Autorecovery
- Autoconfiguration
- Scripts for system administration functions

Ordering Information

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| Macintosh IIfx A/UX System | OrderNo. B0266LLB | With your order, you'll receive <ul style="list-style-type: none">Macintosh IIfx personal computer with A/UX 2.0.1 installed on an internal 160MB hard disk; 4MB of RAM |
| Macintosh IIci A/UX System | OrderNo. B0264LLB | <ul style="list-style-type: none">Macintosh IIci personal computer with A/UX 2.0.1 installed on an internal 80MB hard disk; 4MB of RAM |
| Macintosh IIcx A/UX System | OrderNo. B0263LLB | <ul style="list-style-type: none">Macintosh IIcx personal computer with A/UX 2.0.1 installed on an internal 80MB hard disk; 4MB of RAM |
| A/UX 2.0 External 80MB Hard Disk | OrderNo. B0267LLB | <ul style="list-style-type: none">A/UX 2.0.1 installed on an Apple external 80MB hard disk |
| A/UX 2.0.1 CD-ROM | OrderNo. B0270LLB | <ul style="list-style-type: none">A/UX 2.0.1 installed on a single compact disc, with the floppy disks required to install A/UX onto a hard disk |
| A/UX 2.0.1 Floppy Disk Products | OrderNo. B0269LLB | <ul style="list-style-type: none">File index disks, with 800K floppy disks containing A/UX 2.0.1, as well as the floppy disks required to install A/UX onto a hard disk |
| A/UX 2.0.1 Tape Product | OrderNo. B0268LLB | <ul style="list-style-type: none">A/UX 2.0.1 installed on a 40MB tape cartridge (QIC-100 format), with the floppy disks required to install A/UX onto a hard disk |
| Each of the products just listed includes a 16-user right-to-use license for one system, a limited warranty statement, and an A/UX 2.0 accessory kit, which contains the following. | | <ul style="list-style-type: none">Manual: A/UX Installation GuideFive utility floppy disksManual: A/UX EssentialsManual: Setting Up Accounts and Peripherals for A/UXManual: <i>Road Map to A/UX Documentation</i> |

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| Manual Sets | A/UX Manuals--User Kit | OrderNo. M0429LL/A | <ul style="list-style-type: none"> • A set of manuals for users who want to use A/UX with traditional UNIX commands |
| | A/UX Manuals--Administrator Kit | OrderNo. M0431LL/A | <ul style="list-style-type: none"> • A set of manuals for system administrators of A/UX systems and work groups |
| | A/UX Manuals--Programmer Kit | OrderNo. M0430LL/A | <ul style="list-style-type: none"> • A set of manuals for users who are developing applications for A/UX |
| | A/UX Manual Bundle | OrderNo. B0274LL/A | <ul style="list-style-type: none"> • Includes one of each manual set listed here |
| Update Products | A/UX Update Tape Product | OrderNo. B0271LL/B | <ul style="list-style-type: none"> • A 40-MB tape cartridge (QIC-100 format) updating any version previous to A/UX 2.0 to Version 2.0.1 |
| | A/UX Update CD-ROM Product | OrderNo. B0273LL/B | <ul style="list-style-type: none"> • A single compact disc updating any version previous to A/UX 2.0 to Version 2.0.1 |
| | A/UX Update Floppy Disk Product | OrderNo. B0272LL/B | <ul style="list-style-type: none"> • Floppy disks updating any version previous to A/UX 2.0 to Version 2.0.1 |
| | A/UX Update Manual Kit | OrderNo. B0275LL/B | <ul style="list-style-type: none"> • A set of manuals updating the manuals of any version previous to A/UX 2.0 to Version 2.0.1 |
| | A/UX Incremental Software Release Product | OrderNo. M0516LL/A | <ul style="list-style-type: none"> • Floppy disks and documentation updating A/UX 2.0 to A/UX 2.0.1. This product can only be installed on A/UX 2.0. |
| Licensing Products | A/UX Right To Update | OrderNo. M0741LL/A | <ul style="list-style-type: none"> • The right to update one system with any previous version of A/UX to A/UX 2.0.1. (Available only to customers who purchased directly from Apple Computer, Inc., and who have signed the "right to copy" agreement.) |
| | A/UX Right To Copy | OrderNo. M0740LL/A | <ul style="list-style-type: none"> • The right to copy A/UX 2.0.1 to one system. (Available only to customers who purchased directly from Apple Computer, Inc., and who have signed the "right to copy" agreement.) |

For the name of your nearest authorized Apple A/UX and X Window System dealer, call 1-800-538-9696.



Apple A/UX Operating System Version 2.0.1

Related Products and Services

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|-------------------------------------------------|---------------------------------------------------|
| Apple 68851 Paged Memory Management Unit (PMMU) | Order No. M0221 |
| Apple EtherTalk NB Card | Order No. M0405 |
| Apple CDSC Drive | Order No. M2700/B |
| Apple Hard Disk 80SC | Order No. M2688/A |
| X Window System for A/UX | Order No. M0411LL/A |
| Inside Macintosh | Available from APDA ^s (described next) |
| Technical Answerline | Order No. M0594LL/A |
| A/UX Subscription Service | Refer to appropriate data sheet for details. |

Information for Programmers and Developers

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| The Apple Programmers and Developers Association (APDA) provides a wide range of development products and documentation—from Apple and other suppliers—for programmers and developers who work with Apple equipment. For information about APDA, contact: | <p>APDA Apple Computer, Inc. 20525 Mariani Avenue, MS33G Cupertino, CA 95014 1-800-282-APDA (1-800-282-2732) Fax: 408-562-3971 Telex: 171-576 AppleLink[®]: address APDA</p> |
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| If you plan to develop Apple-compatible hardware or software products for sale through retail channels, you can get valuable support from Apple Developer Programs. Write to: | <p>Apple Developer Programs Apple Computer, Inc. 20525 Mariani Avenue, MS51W Cupertino, CA 95014</p> |
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Product specifications are subject to change without notice.
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