A/UX Version 3.0: Description

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TOPIC --

This article describes version 3.0 of the A/UX operating system.

DISCUSSION ---

The Apple A/UX 3.0 operating system integrates the Macintosh System 7
interface with industry-standard UNIX.

You can simultaneously run Macintosh, UNIX, X Window System, MS-DOS,
and Motif applications -- each appearing in a window on the Macintosh
desktop. You can switch from one application to another and copy
and paste among these different applications.

A/UX complies with all relevant UNIX standards, combining features from two
different versions of UNIX: AT&T's System V and Berkeley Software
Distribution (BSD) 4.3. A/UX then adds the familiar Macintosh desktop and
a high level of Macintosh-UNIX integrations so that you can perform UNIX
tasks in whatever way is most comfortable:

- Using the UNIX command line

- Using the Macintosh graphical interface

- Using the X Window System interface

- Using Macintosh-style front ends to standard UNIX commands

Features

- Standards Compliance
  - AT&T UNIX System V, Release 2, Version 2
  - Compliant with the System V Interface Definition (SVID); passes the
    System V Verification Suite (SVVS)
  - BSD 4.3 extensions, including signals, job control, groups, sockets,
    TCP/IP and Berkeley File System
  - Certified by the U.S. government as compliant with FIPS #151-1 (IEEE
    POSIX 1003.1 -- 1991 and ISO 9945-1 standards)

- UNIX Command-line Interpreters for UNIX Shell Windows
  - Bourne Shell
  - Korn Shell (1988)
  - C Shell

- Installation and System Administration
  - Autorecovery
  - Autoconfiguration
  - Scripts for system administration functions
  - One-button Easy Install option to install the entire A/UX system
  - Modular installation to select parts of the system
  - New version of Apple Hard Disk SC Setup

- Macintosh Ease of Use and UNIX Functionality
  - UNIX command-line builder (Commando)
  - UNIX terminal emulator or "shell" windows (CommandShell)
  - Macintosh-style text editing (TextEditor)
  - Printer and AppleShare file access via the Chooser
  - AppleTalk Network selection via control panels
  - X Window System (X11 for A/UX and MacX 1.1.7)
  - Macintosh-style startup and shutdown
  - Access to Macintosh file systems on hard drives, floppy disks, CD-ROM,
    and AppleShare file servers

- Applications Supported
  - Macintosh applications (those that adhere to the guidelines in the
    publication "Inside Macintosh and A/UX Toolbox: Macintosh ROM
    Interface")
  - UNIX applications
  - X Window System applications
  - Macintosh hybrid applications (make A/UX system calls)
  - UNIX hybrid applications (make Macintosh Toolbox calls)
  - MS-DOS applications (using SoftPC from Insignia Solutions, Inc.)
  - Motif applications (OSF/Motif for A/UX is available from Integrated
    Computer Solutions)

- Development Tools
  - Text editing and processing utilities (TextEditor, and the traditional
    UNIX tools: vi, ex, ed, ditroff, nroff, tbl, eqn, grap, and pic)
  - Assembler, C compiler, and ANSI standard Fortran compiler
  - Shared libraries
  - Language tools (lint, lex, yacc)
  - Debuggers (adb, dbx, sdb)
  - Linker (ld)
  - Source control (sccs, rcs, make, and other UNIX tools)

- 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, including Danish, Dutch, Finnish, Flemish, French, German,
    Italian, Norwegian, Portuguese, Spanish, and Swedish

- Additional Hardware and Software Support

- Serial printing lets you print documents on a serially connected LaserWriter or ImageWriter printer
- SuperDrive allows you to store data on and retrieve data from 400K, 800K, or 1.44MB floppy disks
- Slot Manager and Serial Manager enable use of Macintosh applications that access the Macintosh Toolbox Slot Manager and Serial Manager software
- Sound input and output (Macintosh Sound Manager)
- Macintosh Communications Toolbox lets an application "talk" to the Macintosh Toolbox without requiring the application to designate a communications protocol
- 24-bit mode lets older Macintosh applications that are not 32-bit clean run in A/UX

- Networking and Communications
  - Macintosh built-in file sharing via LocalTalk or EtherTalk
  - TCP/IP networking including BSD 4.3 remote login and execution, resource sharing, file transfer, electronic mail, and domain name services
  - CSL/IP support allowing connection to a TCP/IP-based network over a serial connection
  - Automounter for dynamic mounting of remote data as needed
  - Transparent file sharing over Ethernet or serial lines using NFS Version 4.1
  - Network Information Service (NIS), providing a distributed look-up service
  - AppleTalk printing and file sharing client services via LocalTalk or Ethernet
  - AppleTalk protocol support including ADSP for UNIX and Macintosh applications
  - MacTCP 1.1, allowing use of Macintosh applications that access TCP/IP connectivity
  - X Window System server and client applications

- Highlights of hardware supported
  - Macintosh Quadra 700, Macintosh Quadra 900, Quadra 950 and all Macintosh II personal computers, and the Macintosh SE/30
  - Apple 20MB, 40MB, 80MB, 160MB, and 400MB hard disk drives and compatible third-party hard disk drives
  - Apple 400K, 800K, and 1.44MB floppy disk drives
  - Apple Ethernet NB Card, compatible third-party Ethernet cards, and on-board Ethernet
  - AppleCD SC drive, which provides CD-ROM support for both UNIX and Macintosh file systems, including support for many compatible third-party CD-ROM drives
  - LaserWriter IIf, LaserWriter IIg, LaserWriter IINT, LaserWriter IINTX, LaserWriter Plus, Personal LaserWriter NT, ImageWriter II, ImageWriter LQ, and StyleWriter printers
  - Apple Scanner and Apple OneScanner
  - All Macintosh monitors and compatible third-party monitors, including support for multiple monitors
  - All domestic Macintosh keyboards and European Macintosh keyboards

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System Requirements
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- One of the following personal computers:
  Macintosh SE/30, Macintosh II with a Paged Memory Management Unit
  (PMMU), Macintosh IIx, Macintosh IIsi with a NuBus or 030 Direct Slot
  Adapter card, Macintosh IIcx, Macintosh IIci, Macintosh IIfx, Macintosh
  Quadra 700, Macintosh Quadra 900, and Macintosh Quadra 950

- A minimum of 5MB RAM, 8MB recommended (MacX requires 8MB when
  running on A/UX)

- An Apple hard drive or the equivalent (80MB minimum, 160MB recommended)

- An Apple monitor, and video card if necessary (or an equivalent monitor
  compatible with A/UX 3.0)

- Optional Apple Ethernet NB Card, on-board Ethernet, or an equivalent
  Ethernet card compatible with A/UX 3.0

- An AppleCD SC drive or the equivalent (required to install A/UX 3.0 from
  the A/UX 3.0 CD-ROM)

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