

Plugged In

Battling the system

PowerBook 1400 series' hardware is impressive, but MacOS needs an upgrade / **Simson L. Garfinkel**

APPLE'S EXCITING new PowerBook 1400 series demonstrates the company's triumph of hardware design over software engineering. These high-powered laptops offer unique, innovative features and incredible CPU power at a price competitive with the best PC laptops. Sadly, they are bogged down by what many consider to be Apple's crown jewel: the aging Macintosh System 7 operating system.

For much of the past year, it's been almost impossible to buy a PowerBook. The company had a series of manufacturing problems with its 5300-series, yet nevertheless managed to badly underestimate the market's demand for them.

The 1400 series is a breath of fresh air. The system hardware is well-designed, upgradeable and user-friendly. Weighing between 6.5 and 7 pounds, the new PowerBooks all come with a big bright 11.3-inch color display. The system's full-size keyboard and integrated palm rest are kind to my fingers. The trackpad is easy to use too — easier than a mouse, I think, and it doesn't get greasy and need cleaning the way my older PowerBook's track ball did.

The new PowerBooks come with an impressive array of pre-loaded software, including America Online 2.7, Apple's fax

software, Claris Organizer, ClarisWorks 4.0, Netscape Navigator, NewsWatcher, Adobe Acrobat, QuickTime VR, speech recognition software and Real Audio. It would take hours to download this software over the Internet or many hundreds of dollars to buy.

Unlike Apple's older laptops, the 1400 series is also quite expandable. Without shutting the system down, you can remove the laptop's floppy disk drive and slide in Apple's 6x CD-ROM drive. Two PCMCIA slots let you plug in Ethernet or modems. Underneath

the grille above the keyboard you'll find another expansion bay where you can install an external video adapter kit and another Ethernet interface, and two empty slots for RAM modules.

The 1400 is built for multimedia. The microphone has decent sound quality. The speaker is loud, although tinny. Fortunately, there are stereo microphone and headphone jacks on the back of the machine.

Playing a CD continuously, I got two hours of run time out of the battery pack. Apple claims four hours of battery life when using all of the power management features. Batteries for this machine are a pricey \$150 each.

But despite this impressive array of hardware and built-in

Models available

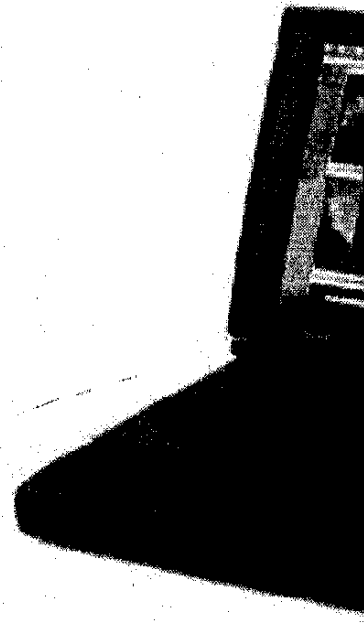
PowerBook 1400cs: 117MHz PowerPC 603e, 12MB RAM, 750MB hard disk, no CD-ROM: \$2,499

PowerBook 1400cs: 117 MHz PowerPC 603e, 16MB RAM, 750MB hard disk, 6x CD-ROM: \$2,899

PowerBook 1400c: 117 MHz PowerPC 603e, 16MB RAM, 1GB hard disk, 6x CD-ROM, active-matrix display: \$3,499.

PowerBook 1400c: 133 MHz PowerPC 603e with 128K level 2 cache, 16MB RAM, 1GB hard disk, 6x CD-ROM, active matrix display: \$3,999

The PowerBook 1400 series comes packed with preloaded software.



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software, the PowerBook 1400 is dragged down by MacOS, Apple's Macintosh operating system.

The 1400 comes preinstalled with a specially manufactured version of Apple's 7.5.3 operating system. As a backup, a copy is also provided on a bootable CD-ROM. That's important, because neither Apple's standard System 7.5.3 operating system nor the company's new System 7.5.5 will run on the 1400: They are both missing drivers for this new machine.

Initially, I couldn't get the PPP dialer to work with a modem connected to the system's external serial port. I got around the problem by sliding in a Megahertz CruiseCard 28.8 PC Card modem, which worked flawlessly. A week later, the problem with the PowerBook's serial port and external modem mysteriously went away. Soon a more serious problem developed: Built-in programs

stopped working, reporting (erroneously) that they would only run on MacOS System 7.1 and above.

I called Apple's toll-free technical support hotline (1-800-SOS-APPLE) and they suggested that I reinstall the operating system from scratch. I did, and haven't had any MacOS problems since.

What I have had problems with, though, is a variety of MacOS extensions and third-party applications. Unlike Microsoft's Windows 95 and NT operating systems, MacOS 7.5 doesn't have memory protection. This means that one misbehaving application program can – and frequently does – crash the entire computer.

Another problem is speed. The 117 MHz PowerPC 603e processor inside my PowerBook 1400c is a good deal faster than a 150 MHz Pentium processor.

Unfortunately, programs like Microsoft Word, Corel Word Perfect and even Eudora still crawl on this machine. Even the Mac's pull-down menus are sluggish. That's because large parts of Apple's operating system haven't been rewritten for the PowerPC microprocessor. Only one program, Adobe FrameMaker, shows off the PowerPC, running circles around the same program running on Windows 95 or on a Sun SPARCstation.

Apple promises that it will be shipping a better, faster, more stable operating system sometime in 1997, but the company has made that promise before.

The PowerBook 1400 series is an excellent machine for somebody who wants a portable Macintosh, but MacOS needs work before current Windows 95 users can even consider switching.

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