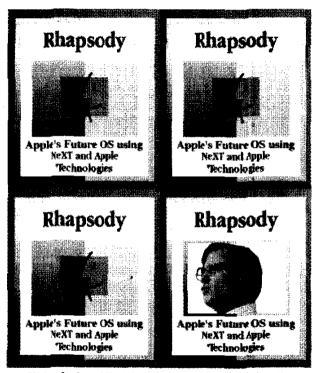# Waxing not-quite-rhapsodic

New operating system has Mac look, but Next feel / **Simson L. Garfinkel**

Mixing Apple and Next, both founded by Steve Jobs (inset).

LAST MONTH APPLE Computer made good on its promise and shipped the first release of its next-generation Rhapsody operating system for Apple PowerPC computers.

Rhapsody is the first tangible fruit of Apple's $400 million acquisition of Next Software earlier this year. Although it holds a lot of promise, this "developers' release" also shows just how much work remains to be done before the operating system is ready for prime time.

First, some terminology and history.

An operating system is software that controls a computer's hardware and the way it interacts with the user. Some operating systems are tied to a specific kind of computer: Apple's Mac OS runs only on Macintosh computers, and Microsoft's Windows 95 operating system only runs on PC-compatible machines. Some operating systems, such as Windows NT, can be "ported" from one kind of computer to another.

In 1985, Steve Jobs was thrown out of Apple Computer, the company he cofounded, and he set up shop in Palo Alto at a company he mischievously called Next – as in "the next big thing." In 1988 his company premiered the NextCube, a beautiful black computer that ran a magical, easy-to-use, and easy-to-program, operating system called NextStep. Many people who used NextStep fell in love with it, but the computers bombed because it was too slow and expensive.

In 1993 Next focused on software, porting its operating system to PCs and Sun Microsystems and Hewlett-Packard workstations. Then, in a surprise move, Sun bought an equity stake in Next. The two said they would develop a new version of the Next software used to develop applications, called OpenStep, for both Sun's Solaris operating system and Windows NT.

But Sun lost interest over the next two years as its Java language gained in popularity.

And that's where things stood until the end of 1996, when Jobs sold Next to the folks at Apple.

Apple is now embarking on an ambitious strategy of developing a Next-derived operating system, Rhapsody, while continuing to evolve Mac OS to satisfy current customers. Not surprisingly, this has caused confusion.

If NextStep was everything Steve Jobs said it was, some people are asking, why isn't Apple abandoning Mac OS? The reason is simple: Apple makes money selling Mac OS products. Although Rhapsody is great technology, it is not ready for the average user. To get Rhapsody ready, Apple needs to generate cash to fund development.

The company plans to release two versions of Rhapsody in 1998. The Premiere Release should be shipped early in the year, Apple says, and will be designed for software developers and large corporations that want to evaluate the technology. Then, probably in September or October, the company will ship the Rhapsody Unified Release. The Unified operating system will have all of the NextStep/OpenStep features as well as Mac OS applications.

I've had a chance to put the Rhapsody version through its paces. Remember, this version is for developers, not consumers.

It is a curious mix of technologies. The system has the look of a Macintosh running Mac OS 8 – that is, the menus and windows look like those on the Mac. But Rhapsody doesn't work like the Mac; it works like Next.

For example, if you are looking at a folder on a Mac and you want the files to be sorted by date instead of name, you simply click on the words "Last Modified." But with Rhapsody, the maneuver takes an extra mouse click.

Another big difference between Mac OS and Rhapsody is the layout of the files on the hard drive. With Mac OS, all the system files are hidden in a special directory called the System Folder. Underneath its Mac-like visage, Rhapsody is really Berkeley 4.4 Unix, a complicated operating system with nearly a dozen directories with names such as /cores, /dev, and /lib.

Like Microsoft Windows, Rhapsody has a command-line interface at its heart. The system is controlled by countless configuration files. And even though there are simple-to-use graphical programs for administrating the system, occasionally you have to get in there with a text editor and just "fix it."

One positive difference for Rhapsody is stability. While my Mac crashes all the time, I was unable to crash Rhapsody.

The best thing about this new operating system is it gives developers all the power of NextStep. Sitting down at a Rhapsody machine, two programmers can turn out a major application in just three to six months. Apple is banking that Rhapsody's ease of development will help programmers create thousands of new applications, which should ultimately attract new customers to the platform.

But delivering a superior platform for developing applications is only half of what Apple has to do. It also needs to simplify Rhapsody – make it attractive to the same sort of people who enjoy using their Macs. Apple could start by making Rhapsody more Mac-like: Besides the Macintosh look, it needs the Mac feel.