



Rhapsody in view

Mac goes mad with new products and Cliff Joseph looks at **what's behind OS X.**

It's not often that you get an entire new operating system with which to play but Apple has finally taken the wraps off the UK version of OS X Server. On top of that, the standard Mac OS was due to be upgraded from version 8.5 to 8.6 just as we went to press on this issue. Rumour has it that this will be a larger upgrade than the relatively minor number change from 8.5 to 8.6 implies, so we'll try and cover that in next month's column if we can.

Then there's the release of QuickTime 4.0, and the forthcoming launch of P1 — the long-awaited new portable version of the iMac. In other words, it's going to be a busy summer for Mac fans.

For now, though, let's concentrate on Mac OS X Server. It's probably worth going over the background of this product first, just to bring you up to date on Apple's somewhat complicated plans for its operating systems.

When Apple bought NeXT a couple of years ago, the plan was to use the NeXTSTEP software as the basis for an entirely new operating system called Rhapsody. This was intended to provide 'modern' features, such as protected memory and pre-emptive multitasking, that were lacking in the ageing Mac OS. These features essentially mean that your Mac should crash a lot less often and that it is easier to recover from crashes when they do happen.

Although Rhapsody was meant to completely replace the current Mac OS, Apple made sure that it could run existing Mac software by including an emulation component called the Blue Box. But, if software developers wanted to take advantage of

Rhapsody's new features they needed to produce entirely new versions of their programs especially for Rhapsody.

Apple's market share was on the decline at the time and this seemed a bit too much to ask of software developers whose loyalty to Apple was already stretched to the limit. So Apple decided

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▲ ALTHOUGH OS X SERVER IS AN ENTIRELY NEW OPERATING SYSTEM, IT STILL HAS THE TRADITIONAL MAC-LIKE INTERFACE

to rewrite the Rhapsody plan. Instead of replacing the Mac OS, Rhapsody would be merged with the Mac OS to create yet another new operating system called OS X (pronounced 'OS Ten'). This would provide the advanced features of Rhapsody while ensuring compatibility with the existing Mac software.

Unfortunately, this change of plan put Apple a bit behind schedule. OS X will not be finished until later this year or early 2000. In the meantime, Rhapsody was primed and ready to go and even

though it might not have been suitable for use as a mainstream desktop operating system, Apple realised that Rhapsody could provide the basis of an efficient server operating system.

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■ Not quite Unix

OS X Server is based on a version of Unix known as BSD (Berkeley Standard Development) 4.4. There are a few technical details which mean that OS X Server does not comply with the exact specifications required to use the Unix trademark. But, to all intents and purposes, OS X Server is a version of Unix with a Mac-like interface built on top of it.

The operating system has two main applications. It can either be used as a server for Mac networks, or as a web server. At the moment, it does not provide file-sharing facilities to PC clients when acting as a conventional network server. However, any computer be it Mac, PC or Unix, can gain access to web sites or services running on OS X Server when it is used as a web server.

One of Apple's aims with OS X Server is to combine the simplicity of the Mac interface with the power of Unix. Apple has worked closely with the developers of the Apache web server to produce a version of Apache that is included along with OS X Server, and Apple claims that a G3 Mac running OS X Server can be fully configured as a web or network server in

less than half an hour. It has also included a copy of the WebObjects application server so, for £349 (ex VAT) you're getting OS X Server itself, plus Apache and WebObjects, which seems like a pretty good deal to me.

The other main target audience for OS X Server are owners of large Mac networks, such as publishing companies and educational users. In these environments, OS X Server provides all the standard file-sharing services you would expect from a server, with a claimed capacity of more than 1,000 simultaneous users and 4,000 open documents. However, Apple has additionally implemented some interesting new features.

The NetBoot option allows the server to store a single version of the conventional Mac OS, which can then be used to boot any number of clients. This simplifies configuration and maintenance of Mac clients on the network as the system administrator has only to update the version of the system software that is stored on the server. All the machines that boot off the server are then updated automatically.

The single problem here is that the only Macs which can use the NetBoot feature are iMacs and the latest G3

PowerMacs — the blue and white ones.

▼ **APPLE CLAIMS ITS NETWORK ADMIN TOOLS ARE SO EASY TO USE THAT YOU CAN SET UP A SERVER IN HALF AN HOUR**

ON THE QTSS

When it launched OS X Server, Apple also announced that certain parts of the operating system would be released as 'open source' code. This means that developers outside Apple can take the OS X code and modify it in order to add new features.

Apple plans to do the same thing with its new QuickTime Streaming Server (QTSS). As its name implies, the QuickTime Streaming Server is a server application which can

be used to deliver streaming QuickTime video files over the internet.

The current market-leader in the streaming video market is the RealProducer range of products, developed by RealNetworks. The Real software can cost thousands of dollars, though, so by releasing QTSS as open source, Apple is attempting to make a big splash in the internet streaming video market.

Going to open source additionally means that other, non-Macintosh,

companies will be able to use QTSS in their own products. Apple claims that IBM and Silicon Graphics are both planning to incorporate QTSS into specialised high-end video server products of their own.

The good news for Mac owners is that QTSS is free, although it needs a G3 Mac with an OS X server to run on.

➔ **For free** downloads and to get further information, just visit Apple's web site at www.apple.com.

Older Macs cannot use NetBoot but all PowerMacs and Macs based on the 68040 processor can use another feature called the Macintosh Manager. These machines have to boot their operating system from their own hard disk but you can use the Mac Manager to save an 'environment' file onto the server. This file stores details of any applications or files you use which are stored on the

server, along with personal preferences such as desktop pictures, fonts or bookmarks that have been saved in your web browser.

The next time you log on to the network you can use the Macintosh Manager to reload your personal settings once more even if you are using a completely different machine. This will particularly appeal to sites such as schools and colleges, where students often have to share machines, because it will enable them to transfer their personal settings from one machine to another.

Apple has lacked a really solid server operating system in the past, and it looks as if OS X Server has put that right at last. More importantly, the Unix underpinnings of OS X Server will form the basis of the mass-market, desktop version of OS X. So, if you get the chance, take a look at OS X Server because it is an indication of the shape of things to come for all Mac users.

PCW CONTACTS

Cliff Joseph welcomes your feedback on the Mac column. He can be contacted via the PCW editorial office (address, p10) or by email at mac@pcw.co.uk

