A voyage around OS/2

In the first of a new series of regular columns Terence Green outlines OS/2. He explains what it is, why it deserves serious consideration, and whether you should Warp this way or that.

There's a lot of confusion around as to what OS/2 is, and why it deserves consideration; much of it caused by the fact that most PC-based operating systems are still being designed on the fly. However, the day when a "How do I…" question about some work-related task (such as transferring a presentation between PCs in London and Cairo) doesn't drag the operating system into view as well, has yet to arrive.

To set the scene for my first column in *PCW* we'll take a short trip around OS/2. But initially a word about hardware because, as so many Windows 95 upgraders are discovering, all hardware is not created equal. Reliable hardware is crucial to a reliable operating system function. Inevitably, any large piece of software has bugs and if the hardware is flaky to start with, you're asking for trouble.

Hardware matters

Operating systems are tricky customers. Having assessed several versions of DOS, Windows, Windows NT and OS/2 over the years, the main problem has to be with getting them to a state where you can begin to form opinions about their value as applications platforms.

Having to use IBM PC-compatible hardware doesn't help. Maybe PCI (peripheral component interconnect) and Plug & Play will resolve most of the hardware issues in due course. Perhaps the PowerPC, which has a more clearly-defined hardware specification, will provide a viable alternative choice. By then we'll all be running 32-bit operating systems on 150MHz processors with 32Mb RAM, at a guess.

However, it has taken nearly 15 years for the IBM PC to progress from its insufficiently rigorous initial specification to PCI spec, and Plug & Play is in its infancy, so for now we are stuck with the haphazard PC.

That wasn't so bad when most of us started with DOS or Windows already running on our PCs. That's half the battle won. Problems may arise later but the basic system works. As users upgrade to Windows 95 now, many of us are finding (as did those who upgraded earlier to OS/2 or Windows NT) that hardware matters. Issues that DOS doesn't care about, and Windows glosses over, come to the fore when any operating system attempts to resolve them.

Sound cards that use the same address for a MIDI port as an Adaptec SCSI card don't cause problems under DOS/Windows if you never use the MIDI port. But any operating system that plans to be more reliable than DOS/Windows needs to somehow resolve that conflict. So it's worth remembering that you can improve the reliability of any operating system by dealing with hardware conflicts. Unfortunately, the best way to do this with a standard PC is to make a list of all the IRQs (interrupt request lines), port addresses, and DMA (direct memory access) channels that your peripheral cards use. There's no middle path between this and buying an entirely Plug & Play system.

What is OS/2?

OS/2 began in the early eighties as a Microsoft replacement for MSDOS. IBM got involved as a joint development partner and things went pear-shaped for a while until 1990 when OS/2 1.3 appeared.

By this time, the idea of OS/2 as a DOS replacement had long ago foundered, but OS/2 1.3 is a remarkably stable base for Microsoft LAN Manager and IBM LAN Server which, at the time, shared quite a lot of code. But by this time, Microsoft and IBM's relationship was on the rocks and Microsoft dropped OS/2 in order to concentrate on bringing out Windows NT (which it did in 1993).

Meanwhile, IBM wrestled with the successor to OS/2 1.3. Finally, in 1992, they shipped OS/2 2.0. It supported DOS, Windows, and OS/2 applications. The Windows bit was okay provided you didn't try anything too complicated. Nevertheless, it was quite an achievement when it worked at all.

Wot, no apps?

I must answer the question; "Why does OS/2 have no applications…?" Actually, there are lots, but there are two reasons why there aren't more: one is that most Windows applications run just fine on OS/2 Warp; the other is a developer issue.
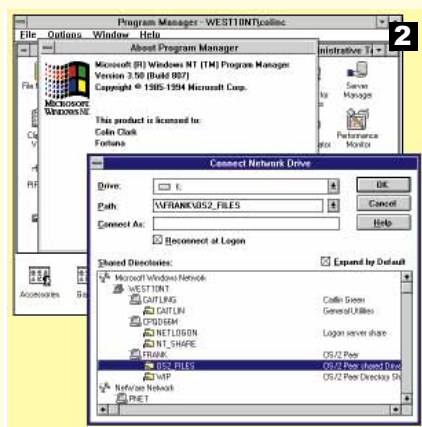
Applications which exploit 32-bit operating systems aren't trivial creations. Both OS/2 and Windows NT have suffered from a lack of general applications to match the choice on Windows 3.1. Microsoft developed Windows 95 in part to drive the development of 32-bit applications for Windows NT. For nearly two years now we've known that Windows 95 was imminent. Developers had to keep their existing Windows 3.1 products competitive while developing new Windows 95 applications. OS/2 just didn't get a look in.

Now that Windows 95 is available it will be interesting to see how quickly Win95 applications appear that truly exploit the 32-bit sub-system. And if Windows 95 proves less reliable than OS/2, how soon will those applications be ported over to the other 32-bit desktop OS (OS/2 Warp) given that it is easier to port 32-bit applications between platforms than to port 16-bit applications to 32-bit?

Fig 1 *OS/2 Warp Red Pack runs Microsoft Windows*

Fig 2 *OS/2 Warp Connect Peer Services, in the Windows NT network browser*

There were few OS/2 applications but the DOS multitasking worked rather well. OS/2 2.0 was a mix of 16-bit and 32-bit code, so IBM gradually reduced the 16-bit components until Warp shipped as a complete 32-bit system.

Initially, OS/2 shipped with the Win-OS/2 sub-system, a special version of Windows which was compiled to run under OS/2. IBM can do this because it owns derivative rights to Windows 3.1 code. Later, IBM shipped OS/2 for Windows which doesn't include Win-OS/2 because it can run Microsoft Windows 3.1 (after a little tweaking). The two versions; one with, and one without Win-OS/2, were carried through to Warp (also known as OS/2 version 3).

Warped or unWarped?

Current products are known as "Warp with Win-OS/2" and "Warp without Win-OS/2" — which might give you an idea as to why people say IBM marketing is not a patch on Microsoft's. Within IBM they're known as Blue Box and Red Box, after the packaging. Blue Box with Win-OS/2 is preferable to the Red Box version, which is an upgrade for Windows users who can install it directly over their existing Windows, or Windows for Workgroups, with a minimum of fuss. The idea is that when these users upgrade, they move to the full-pack Blue Box version with Win-OS/2.

The most recent version of OS/2 Warp to ship is Warp Connect, mainly intended for business users because it includes a bunch of network connectivity options that enable OS/2 workstations to be clients in OS/2, Windows, and NetWare networks.

All OS/2 Warp versions ship with a large set of bundled applications in the Bonus Pack. Some, such as the Internet Access Kit, are rather good; some are "Lite" versions of nifty, full-featured software such as Faxworks; and others just have foolish names like IBM Works.

Warp Serrver

At times, it has been hard to decipher IBM's approach to OS/2 — sometimes it seems as if they're aiming it at home users, and other times at large corporates. The next Warp variant to ship will be Warp Server which is going to be pitched against Windows NT and Microsoft Back Office. This seems to suggest that corporate users are Warp's ambition but that's the wrong way to look at the positioning of Warp. The point of Warp Server is that it is an applications server. This is much the same tack that Microsoft is taking with Office 95 and Back Office; focusing on the applications platform rather than the operating system.

So it isn't important whether Warp is a home user or corporate operating system. What*is* important is the applications you run on it. If you want reliable Internet access software you can find it in Warp's Internet Access Kit (IAK). If you want to mount an applications server on a network, you can look to Warp Server. The same operating system is behind both. Warp and the IAK will run on an 8Mb 486 at home, and Warp Server on a dual Pentium SMP box with 32Mb of RAM in the office. Both home and business-critical applications run on Warp.