

Convergent View



GEORGE SCHUSSEL

WIN 95: I'M LOOKING AT THE BIGGER PICTURE

In its 1994 wrap-up, "The Year in Review," *PC Week* listed Windows 95 as one of the six "biggest letdowns of the year." I don't agree. Yes, Microsoft is well known for frequent and major slippage in target dates for delivery of operating systems. But the same is true for IBM and for anyone else who has ever been in the business of building operating systems.

The delay, however, offers us a chance to review what's likely to happen to desktop operating systems and what impact those developments will have on Microsoft as a business.

First of all, what accounts for the interest in Windows 95? Well, there are about 50,000 current copies of Windows 95 that have been distributed to beta users. Most users are finding the release stable and usable.

Microsoft is saying that the reason for the projected delivery delay from June to August is to ensure compatibility and performance for legacy DOS and Win16 applications. That's a good idea. Anything less than 100 percent compatibility will be a serious problem for Microsoft and its users. Consumer products must be perfect—remember Pentium?

The fact is, end users really don't find that it matters whether Microsoft delivers Windows 95 in August or several months later. Desktop users aren't going anywhere else. The three 32-bit operating systems that are alternatives for their consideration are Unix, Mac, and OS/2.

Because of its difficulty of use and divergence among various versions, Unix is not considered as having any chance of capturing the client side of client/server computing. Even Novell has given up on the idea that Unix (or DRDOS) will play any substantial role on the client.

As for Apple Computer's Mac O/S, it has no chance of emerging as a dominant player. The PC market has, in the majority, rejected the notion of a superior, but mostly closed, technology. Had Apple made a decision in the late 1980s or early 1990s to license the Mac O/S and technology openly, it probably could have made a serious run at doubling or even

tripling the approximately 10 percent market share that it now holds.

Since the anticipation is that Windows 95 is/will be as good or better than Mac (whether that's true or not), the market will not abandon Microsoft for Apple at this time. Which leaves IBM's OS/2 Warp as the most likely candidate to capture serious market share from Microsoft on the desktop.

Warp is an impressive upgrade from OS/2 version 2.1. I've been using Warp for several months now, since its mid-beta release, and it offers some important improvements over Windows 3.x, especially in the area of memory management and program isolation.

The big problem with OS/2 is that most of the applications that I want to run are based on Windows. In a report published last May, International Data Corp. noted that the applications/OS ship rate for OS/2 was 1/22, while for Windows it was 1/1. That's

a huge difference. When you add the fact that Windows outships OS/2 by at least 8/1, then it's clear that the Windows application market is at least 100 times larger than OS/2's.

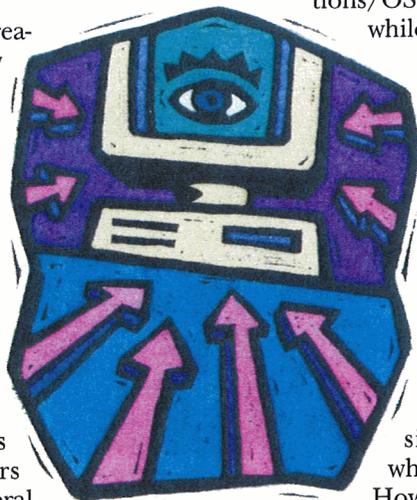
In turn, my response has been to consider OS/2 an environment and run Windows sessions under OS/2. That way, you can run many more Windows applications simultaneously than you can when using Windows 3.x alone.

However, I have found some key problems in doing so.

One problem is that your applications run slower, which IBM acknowledges and, granted, is livable. In my case (I use loads of applications including communications, multiple hard-drive partitions, some with Stacker and on a Thinkpad using the suspend/resume option many times a day), OS/2 is less robust than Windows alone.

The system simply crashes too often. When you have to invest 30 minutes or so in rebuilding your desktop each time, it's discouraging. So, in spite of having an advanced desktop environment which is DOS-friendly at least one year before Windows 95, I don't see Windows users migrating to Warp.

All this means that most desktop users will prefer to wait for Microsoft to deliver its 32-bit



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Windows client O/S, whether that delivery takes place in August, October, or January. (Q: What's the number-one reason people think Microsoft picked "95" as part of the Windows 95 name? A: It's the year it was scheduled to ship in!) Microsoft's spring beta is slated for a distribution of 400,000.

At this time, though, it looks like more than 400,000 people are begging to be in that program. Most software programs don't sell 400,000 copies in a lifetime!

Once it arrives, Windows 95 will sweep the industry like a tornado, unlike anything the industry has seen before, and with a far greater impact than Windows 3.0 initially had.

I have seen estimates of Windows 95 installs

the 10 million per year replacement market for existing machines.

This gives a first order estimate of 25 million copies per year for the first three years after Win 95 ships. With Microsoft's royalty rate yielding \$35 per copy, this translates into slightly under \$1 billion revenue per year.

Win 95, however, is going to create the loudest sucking sound you've ever heard for Microsoft Office. At a yield to Microsoft of perhaps \$100 per copy and installing on, say, two-thirds of Win 95 sites, Office should bring another \$1.5 billion per year or so into Microsoft's coffers.

I expect that Win 95 will significantly increase the popularity of Windows NT, since the new 32-bit applications for Win 95 will mostly run compatibly on NT.

Already, NT has started competing vigorously with NetWare for the network operating system market. By 1997, it should present a serious alternative to Unix in the higher per-

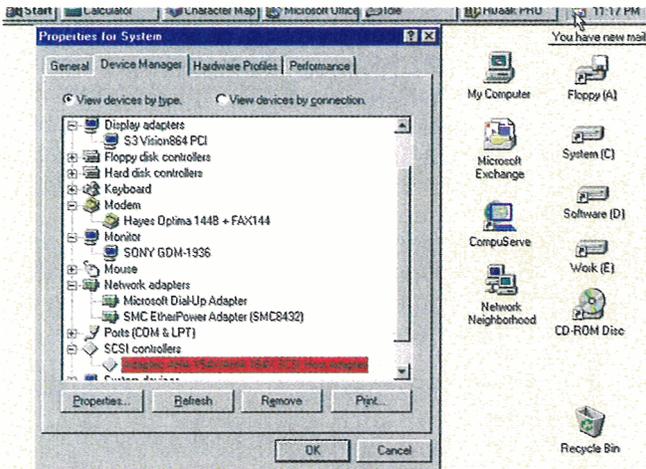
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formance end of the market. Add to these OS businesses the myriad other Microsoft businesses, such as Quicken, FoxPro, SQL Server, OLE, and Back Office, and you have the picture of ajuggernaut.

There are very few business situations in our economy when a company can count for sure on customers for a major new product without worrying about losing those customers to a competitor. That's the situation that Microsoft has with Win 95.

In the old days, even IBM had to worry about losing customers to IBM plug-compatible suppliers like Amdahl. It seems that if Windows 95 is delivered in 1995 (yet another subject) Microsoft's stock price should appreciate from the strong cash flow picture painted above. That will mean the company's capitalization could escalate to the point where it will be in a position to once again challenge IBM for the position of computer company with the highest market capitalization. All this could happen before Bill Gates turns 40. That would make all this one of the biggest business news stories of the 20th century.

George Schussel is the founder and chairman of Digital Consulting Inc. (DCI) in Andover, Mass. He can be reached at CompuServe 74407,27422.



within the first year of shipping that range from 5 million to 20 million. I think that the lower range of these estimates seems hopelessly pessimistic. In the 1995 to 1996 time frame, PCs will be shipping at a rate of at least 20 million per year. Microsoft will exert considerable pressure on PC manufacturers to pre-install Windows 95 on all machines.

I would guess that they will succeed at the 75 percent level. In addition, there will be the migration market of existing Win 3.x and DOS machines to upgrade.

According to a Forrester Research Inc. report published in December, managers plan to install Win 95 "with blinding speed—so long as Microsoft delivers a fairly stable system with all the promised bells and whistles."

By the time Win 95 ships, the installed base of PCs will be about 70 million, about 30 million of which (some with hardware upgrades) will be capable of running the new O/S. Therefore, it would seem that in the initial two-to-three-year period after Win 95 ships, 15 million new PCs will be sold with Win 95 per year, in addition to