

OS/2 2.0

Better Than Windows? You Decide!

By Douglas A. Hamilton

LA is the Limited Availability release of OS/2 2.0 being offered by IBM to selected customers who'd made plans based on IBM's earlier promises to ship 2.0 by year-end. It is not something you should expect to find at your local Egghead. Many customers received copies that were actually hand-duplicated by their local account representatives, after being downloaded from IBM's internal mainframe network over the New Year's holiday. We were a little luckier here at Windows Magazine; the disks supplied to us in early January were clearly professionally duplicated. Still, the manual consisted of piles of loose sheets run off on a copier; they weren't even stapled together.

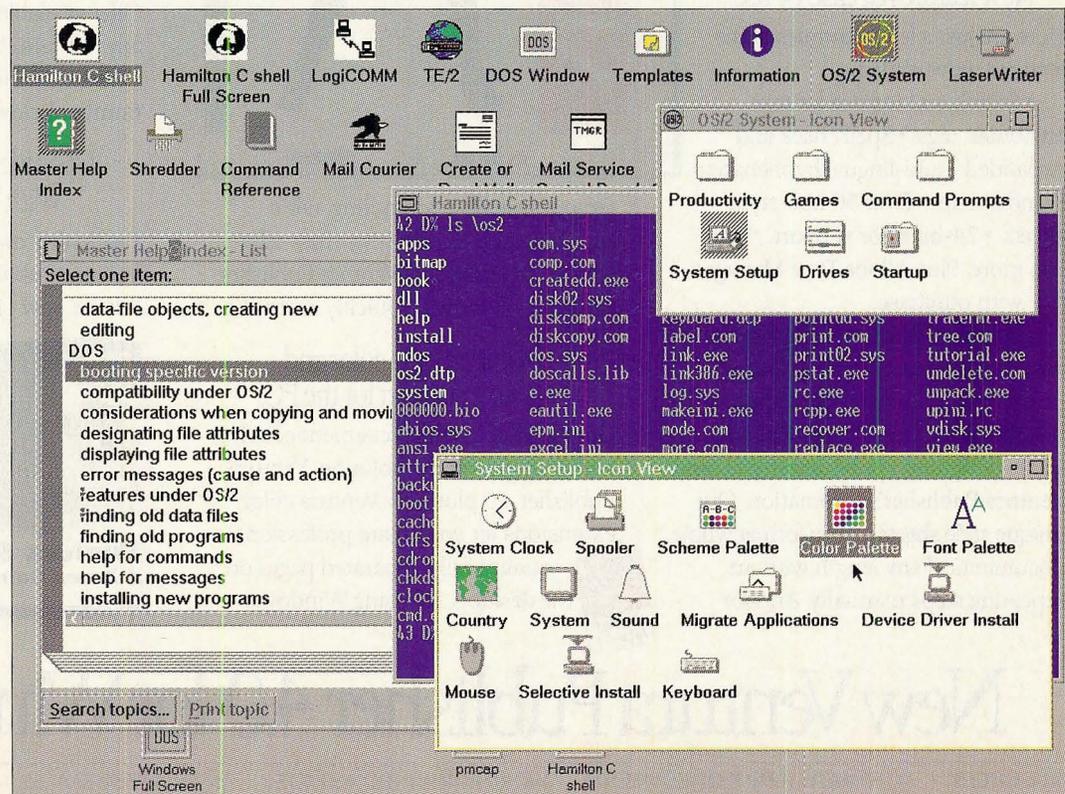
The LA build differs from the upcoming General

Availability (GA) release in several respects other than packaging: although it does run Windows applications, it runs them in a separate full-screen session; at GA, Windows applications will be running on the Presentation Manager (PM) desktop in what's being called "seamless Windows." Second, the LA build is still using the older 16-bit graphics engine; while the performance is quite good, the 32-bit engine in the GA build should be faster. Finally, the LA release is still beta; not everything works quite right—and it does crash occasionally.

OS/2 2.0 is IBM's attempt to gain greater acceptance of OS/2 with a dramatically improved product featuring multiple virtual DOS machines (VDMs) and built-in support for Windows applications, true 32-bit code, support for clones and a new Macintosh-like desktop environment called the Workplace Shell (WPS).

This is a big system. The first thing you notice is its sheer size. It comes in an enormous pile of 20 high-density disks (twice the size of OS/2 1.3), making for one massive install. It takes an hour just to feed in all the disks. A complete installation fills a 30-megabyte disk partition.

There are a couple different strategies for installing 2.0 on a system where you'd also like to run DOS or OS/2 1.3. If you already have DOS on C: and go through the standard 2.0 installation (choosing not to reformat your hard drive for IBM's high performance file system, which is not compati-



OS/2 version 2.0's Workplace Shell is a very different environment than the Windows Program Manager.

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ble with DOS), you'll automatically end up with dual boot. Both DOS and OS/2 2.0 will coexist on the same C: drive and, when you power up the system, whichever you ran last will come up. To switch back and forth, there's a boot utility. To go from OS/2 to DOS, type "boot /dos." To go from DOS to OS/2, type "boot /os2."

What the boot utility does is slosh the boot record and configuration files for OS/2 and DOS in the root directory in and out of the \os2\system directory. It then automatically restarts the system, booting the other operating system.

If you need to run more than just DOS or OS/2 2.0 on the same system, IBM has added an optional feature called Boot Manager, a little program that sits in a special 1 megabyte disk partition. At power up, it puts up a menu asking which system you'd like to boot. On my system, I set it up for DOS 5.0, OS/2 1.3 and OS/2 2.0, but Boot Manager could also be used with AIX and potentially other operating systems as well. The idea is to create separate C: partitions for DOS and OS/2 1.3 and another partition (either C: or D:) for OS/2 2.0. Once it's running, only one C: partition is visible at a time, but all the other partitions (Drives D: or whatever) can always be visible.

Boot Manager works well but is tricky to set up and requires repartitioning your disk. If you're going to use 3 systems like I did, figure a minimum of 4 to 5 hours to get everything repartitioned, reformatted, installed and configured and set up the way you want.

Installation

The rest of the installation is fairly simple, if time-consuming. Once you get past disk 4, there's a graphical install program with lots of options for selectively installing only as much of the system as desired. It's a nice piece of work but it's not perfect. I have a Postscript printer on a serial port and it led me through a series of questions about what model printer I had and what port it was on...

What it did not ask me about was the baud rate and handshake being used. Figuring out how to set those parameters wasn't easy since not even the Master Help Index gave any clue. (Hint: double click on the icon for comm port on the printer's Settings Output page.)

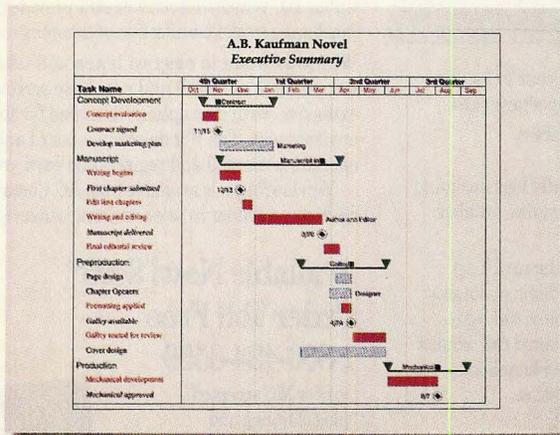
But even if the install program were perfect, nothing is ever going to make a 20-disk install something any of us wants to do more than once in this life. I would have much preferred to see the



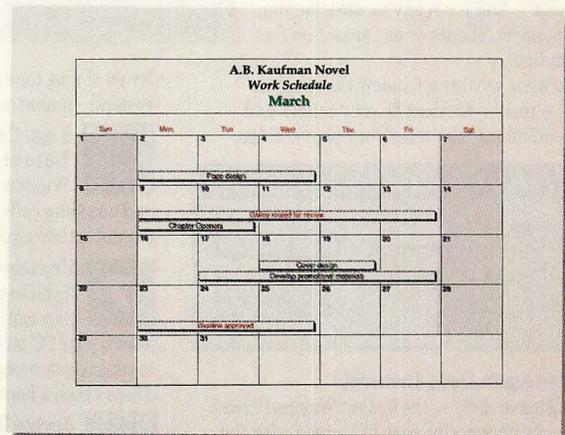
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installation broken up into more manageable chunks—perhaps the base system, then the virtual DOS machines, then the Windows support and all the applets separately.

In the GA release, I'm told there will be options for installing over a network. That will certainly make it less painful. Another option IBM should consider is a CD-ROM version of OS/2.

Clunky applets

The applets, the small sample applications bundled with 2.0 in answer to those offered with Windows, are, with a few exceptions, a clunky waste of more than 6 megabytes. There is, for example, a spreadsheet that is easily the worst ever devised. There isn't even a way to copy or format a cell. The solitaire program does offer a cheat button, but the graphics are crude compared to the Windows version. The music editor would annoy small children. And most of the rest of the "productivity" tools, the appointment and time management stuff, etc., struck me as junk.

The only really useful applets seemed to be the drawing program by Micrografx, the enhanced text editor, and some of the smaller utilities for searching files, editing icons or displaying the contents of

the clipboard. In a system this big, I'd have preferred the installation not be larded up with so much stuff of such questionable merit.

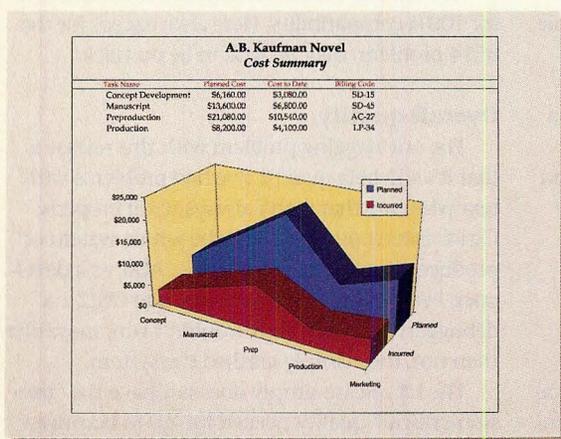
Workplace Shell

The centerpiece of 2.0 is a new user interface. The Workplace Shell (WPS) replaces the old Group Manager (similar to Windows' Program Manager) menus seen on OS/2 1.3. Under WPS the whole desktop functions as one giant menu, customized with icons for all your most frequently used applications.

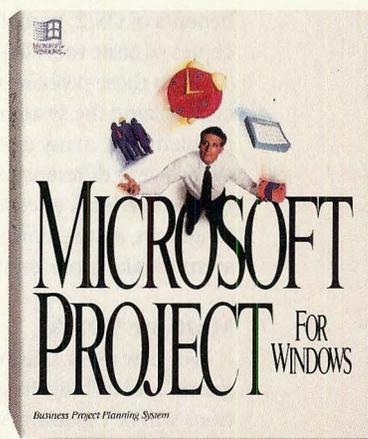
Individual icons represent objects such as programs, files, printers, folders (collections of objects) and special objects such as the shredder (used to delete objects). Folders can be nested arbitrarily. To put an object into a folder or move it back out, simply drag it, pressing and holding the right button as you drag. It's also possible to copy an object, either by right-clicking and selecting copy or by dragging it while pressing the Ctrl key.

One special folder is the templates folder; open that folder, and you'll find templates for all the objects you might have on the desktop. To install a new program, one simply "tears off" a program template, dragging it with the mouse to the desktop or perhaps dropping onto (into) a folder. Menus

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pop up asking the pathname of the program, how it should be run, etc.

A stylistic element used quite effectively by WPS is a notebook with tabs like a Rolodex. An especially nice example is the Master Help Index. Clicking on a topic opens a hypertext window with how-to advice for most common problems.

Another example of the object orientation is the way the color palette works. To change the color of an object, e.g., the desktop itself or a title bar, you pick from a rainbow palette of colors and drag the desired color to the object; it instantly changes. The font palette works the same way.

The WPS is cleverly done, but it's still a work in progress as we go to press. It does crash—worse, some functionality taken for granted under 1.3 is gone or mangled. Under 1.3, for example, the title bar and icon for the command processor changed as commands were typed. That's gone in the LA build (though I hear it may be back by GA).

By default, minimizing an application shrinks it back into the original icon. That can make it difficult to see what's running if the icon is inside a folder that's since been closed. Worse, if you start something that needs a new window from the command line, and then minimize it, there's no icon whatsoever. The only way to get at it is by clicking both buttons on the desktop and choosing your program off a pop-up menu.

Also by default, clicking on the icon for something that's already running doesn't open another copy, it just pops up the current one. That's okay for some things, but it does cripple one of the real benefits of OS/2, namely that one can run multiple copies of basic tools like the command processor.

Both these problems can be fixed (mostly) by customizing the system setup, but they illustrate a problem that many existing OS/2 users will face: WPS is very different that what they're used to and takes some work to customize. WPS is also, in my judgment, a little slower to use. Basic operations seem to take more keystrokes and mouse clicks.

Multiple VDM's

For new users, OS/2's ability to run DOS programs, and its built-in support for Windows applications will be especially welcome. VDM's can be run either on the PM desktop or full-screen, and you can switched back and forth on the fly. Performance is quite good. In a window, screen updates were a bit slow on my 16MHz 386, but full-screen, I couldn't see any difference from running on genuine DOS.

Options allow you to customize every detail of the VDM: the amount of extended or expanded RAM being simulated, how the mouse and keyboard should work and what version of DOS is emulated. It's even possible to boot a genuine copy

of DOS in a VDM; I had no trouble, for example, booting DOS 5.0 from diskette in a VDM while accessing files on my HPFS drives since OS/2 was sitting underneath, managing the file system.

IBM claims virtually any DOS application should run in a VDM, even if it requires specialized device drivers. I saw nothing that would refute that claim.

Built-in Windows support

When you hear talk of how IBM has included real Windows code into 2.0, believe it. Starting up a Windows full-screen session works by starting a VDM to run `\os2\mdos\winos2\win.com`. Out of curiosity, I tried running it under genuine DOS and somewhat to my surprise, it came right up. It really is a genuine copy of Windows (albeit slightly doctored to talk with the PM desktop).

What IBM has not included are all the Windows applications like File Manager, etc. Presumably, once seamless Windows arrives, there will be little need for these tools since 2.0 provides its own alternatives—assuming that you don't mind using them.

When I first tried running Windows on my 8514, I was appalled. The performance was awful. Then, in the midst of preparing a borrowed PS/2 P70 (with a plasma VGA display) for a demonstration, I noticed that Windows ran nicely on that machine—indistinguishably from Windows on DOS. Digging deeper, I learned the problem was a known bug in the LA build's 8514 driver that requires them to intercept all the 8514 calls in software. I've been promised that will be fixed by GA.

As with the VDMs, IBM claims to be shooting for 100% compatibility. Here also, except for the 8514 problem, they do look to be on track.

Overall quality

The one nagging problem with this release is that it's still beta quality. I've had problems with text windows that won't always scroll properly, Ctrl-C interrupts that crash the whole system or produce other bizarre results, etc. Also, as a developer, I was hampered by the fact that OS/2 1.x debuggers like CodeView wouldn't run; more often than not, they simply crashed the system.

The LA release simply does not have the "mission-critical" quality needed for 2.0 to become a success. But perhaps IBM will meet GA with a high quality product offering all the functionality—particularly the VDM's and Windows support—that's been promised. Stay tuned. ■

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