Macintosh vs Windows 95

#10 Silly Windows Tricks

Summary

Let's depart from our usual Macintosh® Advantage format to take a quick look at the most common question Apple is getting these days: Does a computer that looks more like an Apple® Macintosh computer necessarily work like an Apple Macintosh?

Apple believes the answer to that question is no, at least so far as Windows 95 is concerned. This note examines the evidence in several areas: the file system, hardware/software integration, and application installation and configuration.

This is part of a series of short reports on the contrasts between a Macintosh computer and a PC with Windows 95. To see previous entries in the series, visit us on the Internet at http://www.apple.com/whymac/

The Evidence

None of the problems we cite below are the sort of "killers" that would likely cause Windows 95 to fail in the marketplace. But they help to highlight the difference between the hype for Windows 95 and the reality of it. These are not all of the problems we're aware of in Windows 95 (not even close), but they do give a taste of the sort of issues computer customers should think about.

Is DOS is still there?

"Windows 95 isn't the brand new operating system that Microsoft claimed it would be. It is simply the latest revision to the same old DOS and Windows and subject to the same old problems of stability, of running out of resources when running complex work loads."
—*Marketing Computers* magazine, May 1995

The file system. One of the most troubling aspects of Windows 3.1 for users has been navigating the arcane DOS file system, with its three-character extensions, path names, and forbidden characters. Windows 95 puts a more attractive interface on top of that file system, but it's still there, and users still need to understand it. For example, the three-character extension is still needed to identify file types (it just isn't displayed), path names are still used (and reported back by the operating system in many error messages), and special characters used by the DOS file system cannot be used in file names (including * ? " / \ .). Using them by mistake can cause invalid-filename messages or create unpredictable results (for example, encasing a file name in "double quotes" causes that name to be saved without the three-character extension, making it hard for the user to open the file).

By contrast, the only character forbidden in a Macintosh filename is the colon, :, and the operating system automatically replaces it with a hyphen when the user types it.

One area in which Windows 95 has made progress is allowing longer file names. But the long names are pasted on top of the old DOS file system. The real name of the file is an old-style eight-character name abbreviated by Windows 95 automatically from the long name. This can cause confusion when files are shared between Windows 95 users and users of DOS and Windows 3.1 (which won't display the long names). Confusion also results when using existing DOS and Windows 3.1 applications under Windows 95. The problems are troubling enough that Microsoft recommends users, particularly those in workgroups, create special naming conventions. They recommend starting long filenames with short significant words or with a legal 8.3 filename.* Thus the user assumes the burden of designing long filenames with the eight-character encoding scheme in mind.

With Macintosh, the user sees and can edit the real file name, and there's no name problem when exchanging files with others.

Configuration files. The CONFIG.SYS and AUTOEXEC.BAT files are still supported by Windows 95, for use by DOS and existing Windows applications. So unless a user buys only completely new Windows 95 applications, CONFIG.SYS and AUTOEXEC.BAT are still loaded and can still cause problems.

Windows 95 itself relies on other configuration files, especially one called IO.SYS. In some cases it can be edited from within Windows, but in other cases Microsoft's own technical documentation advises the user to edit it directly with a text editing program.

Coordination of hardware and software. Apple designs Macintosh hardware and software in tandem, so they work together well. The PC architecture often requires the user to provide that hardware/software integration. Here are two examples:

Multimedia Features

Because Microsoft doesn't control the hardware design of PCs, it has to specify multimedia features item by item. This leaves the user to do the integration. Here are excerpts from the three-page list of features that Microsoft recommend users look for in a multimedia PC:**

- A sound card with 16-bit DAC and 16-bit ADC
- CD-ROM drive with multisession support
- Support for 8, 11, 22, and 44 kilohertz waveforms
- General MIDI support
- 16-voice polyphony
- MIDI streams
- Avoid waveform synthesis
- Mixer that supports input from WAV, MIDI, Redbook, and AUX
- 3-bit volume control on each input, with a logarithmic taper
- All sources are within -10db and without attenuation, to prevent the mixer from clipping

Apple believes it would be very difficult for the average PC customer to find this information, let alone understand it. By contrast, here's Apple's recommended multimedia configuration: Buy a Macintosh computer with a CD-ROM drive installed.

Floppy Drives

One of the most-promoted features of Windows 95 is its ability to automatically recognize when a CD has been inserted into the computer. But what doesn't get reported is that Windows 95 does not sense when a floppy disk has been inserted. The user has to tell the software what is happening, by clicking on the A: drive icon. When the disk is removed, its image remains on the screen, unchanged, unless the user selects the "Refresh" menu command. If the user attempts to open one of the files displayed for a disk that's not present, cryptic error messages can result ("invalid directory" and others).

By contrast, the Macintosh operating system senses when a disk is inserted or removed and displays the appropriate icons.

Trouble with applications. One of the central promises of Windows 95 is that it will make installing applications much easier, especially games. This is likely to be a major competitive issue this fall, considering the extensive problems reported with PC software installation last Christmas.

Unfortunately, Microsoft's own documentation shows that the applications transition to Windows 95 may be difficult. Of 2,530 current Windows programs tested, Microsoft reported technical problems of varying severity with 732—roughly 30% of the programs tested.

Some 124 of those programs sometimes or always require MS-DOS mode, meaning they may have the same complex configuration issues that DOS programs did in the past. The user also has to reboot the computer to enter DOS mode, and reboot it again to exit. The problems in the other programs range from minor to very significant. Here are a few examples of popular consumer programs and the problems Microsoft reported with them:

- 7th Guest: Some versions of PAS 16 require IRQ 5 and DMA 3.
- After Dark 3.0 for Windows: General protection fault (system crash) occurs when running Bad Dog screen saver if Windows 3.x GRP files are installed.
- The Daedalus Encounter 1.1: System crashes occur in MSNOTIFY.QTC.
- Dark Forces 1.0: Demo requires MS-DOS mode; sound card detection must be run twice during installation.
- Doom 2: Will not run in a DOS VM on systems that are paging through MS-DOS.
- Myst 1.02: Users of S3 video cards must place the entry "optimize = driver" in the QTW.INI file.
- Quicken 4.0 for Windows: Home inventory will create blank records when entering data; trying to read or edit these records will cause a system crash.

In many of these cases, the program can apparently be made to run by a technically skilled person who knows what to do. And no doubt the Windows programs in question will eventually be upgraded to fix the problems. The question is whether those 30% of Windows programs that have problems will be fixed by the Christmas selling season—and for those that aren't, how many families will be confused and frustrated again this Christmas.

Conclusion

As we said before, we're not trying to argue that Windows 95 will be a failure in the marketplace. Current Windows users who are completely committed to it, and have enough money to finance the upgrade, will generally see it as an improvement over Windows 3.1. However, people who are considering both Macintosh and a PC with Windows 95 deserve to understand exactly what they're getting into.

Questions or Comments?

You can send e-mail to the Macintosh Platform Marketing team at competition@applelink.apple.com

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***Windows 95 Resource Kit, Microsoft Press, 1995, pages 706-708.*