The answer is “no” if you need local support, if your hardware and software can’t support Windows 95 (which is generally the case for machines two years old or older), and if you aren’t willing to do the necessary preparation. You don’t have to change your operating environment—there is still plenty of life left in Windows 3.1 despite the greatly exaggerated reports of its impending demise.

The answer is “yes” if your hardware and software can comfortably support Windows 95, if you need Windows 95 software, and if you are able to support yourself. Being a trailblazer will expose you to many risks, as well as potential benefits, that staying with the pack does not.

If you are willing to take the risks, remember that changing operating systems is not for the faint of heart. Be sure that you are ready to do the necessary preparation to make the transition to Windows 95 as smooth as possible. You’ll need to evaluate your hardware to make sure it can support Windows 95, check that your software and networking applications are compatible with Windows 95, and take a series of other precautionary steps before taking the plunge.

**Hardware requirements**

Microsoft’s minimum requirements for Windows 95 are insufficient for practical use. Tests published by the computer press have resulted in more reasonable specifications. For instance, a special issue of *PC Week* (August 12, 1995) rated Windows 95 performance as “good” on a 80486 DX2 running at 33/66MHz with 12 MB of RAM. The same system with 8 MB of RAM was only rated as “acceptable.” Performance on 80386 DX systems, no matter the amount of memory, was rated as “unacceptable.” The *PC Week* specifications were for Windows 95 itself; Windows 95 applications may have higher requirements.

Your decision about whether to upgrade must take into account your current hardware configuration. Does your system have enough memory, a powerful enough microprocessor, and enough hard-disk space?
• Processor type and speed. A realistic minimum is an 80486 processor operating at 33 MHz. Faster 80486 processors or Pentium processors give better performance. With a slower processor you might be able to make up for performance inadequacies by increasing RAM to more than 8 MB.

• Memory (RAM). You can often offset the effect of a slower processor (see caveats above), by adding memory. A realistic minimum is 8 MB, which is the amount of RAM that most Windows 3.1 systems have been shipping with for the last few years. You continue to get performance gains as you increase the amount of available memory.

• Hard-disk space. Windows 95 requires about 40 MB just for the operating system. (You can do a “compact install” that takes 10 MB less space.) When thinking about disk space, consider the size of the Windows 95 applications you might add. Installing Windows 95 on a computer with a hard disk smaller than 200 MB may not give you enough room for your applications and data files.

Computers two years old or older are not good upgrade candidates, since all of the components (memory, hard disk, and processor) would have to be replaced or upgraded to make Windows 95 useful. Replacing such systems entirely would be more cost effective.

If you need to upgrade your hardware and the cost to upgrade is less than half the cost of a new system, then it is more cost effective to upgrade. However, you should also factor into this equation any costs associated with upgrading peripheral devices that are vital to your work. Peripherals are anything connected to your system, such as sound cards, video boards, CD-ROM drives, and printers. Although Microsoft says most peripherals work with Windows 95, contact the manufacturer for verification. Also, ask the manufacturers if you need updated drivers for their devices. Updated drivers should be on hand before you upgrade to Windows 95.

Check your software

Are there Windows 95 versions of applications you use? Are there applications that you want, or need, to use that are only available for Windows 95? If you are going to upgrade your operating system to Windows 95, you should upgrade your software since the benefits of the new operating system are only available with applications designed for Windows 95. Some applications, such as antiviral software, must be upgraded. If some of the applications that you use are not available for Windows 95, call the vendor to make sure the software will perform well under Windows 95.

The hardware requirements listed above are for Windows 95 only; applications typically have higher requirements. For example, the Microsoft Office requires a minimum of 16 MB of RAM if you want to run three of its applications simultaneously.

Penn is still in the process of testing Windows 95 compatibility with its currently supported software suite, as well as with PennNet. If you decide to upgrade, you will be ineligible not only for operating system support, but for application and networking support as well.

Final precautions

Before you do the actual upgrade, take the following precautions. (continued on next page)
• Check your system for viruses, which can damage the Windows 95 disks or disrupt the installation.

• Check for damaged files or bad sectors on your hard drive by running a disk-scanning utility like SCANDISK.EXE or Norton Disk Doctor from Norton Utilities. (The Windows 95 installation can do a similar procedure but doing it before the actual installation is an extra precaution.)

• Back up your hard drive so that you can recover your files if the upgrade doesn’t work the way you expected it to.

• Create a bootable disk containing your backup program in case you need to restore the files that you just backed up. This disk should also contain a disk repair utility, like Norton Utilities, and any other utilities you might need, like FDISK.EXE and FORMAT.COM, to repair your hard drive and get it back to its pre-Windows 95 state.

• Run a defragmentation utility to make available as much contiguous disk space as possible.

• Consider investing in one of the new utilities (e.g., Uninstaller 3.0 or CleanSweep) that analyze your system and identify problematic applications, utilities, or lines in the CONFIG.SYS and the AUTOEXEC.BAT files.

The Windows 95 Upgrade package includes either CD-ROM or disk media, and a 95-page book, Introducing Microsoft Windows 95, which is an installation guide and an introduction to Windows 95. The book does not offer detailed technical information about either the installation or Windows 95. The “Backing up your files” section tells you to save copies of your .ini, .dat, and other Windows 3.1 files but implies that backing up your personal data files is optional. This is not the case: The most important files on your computer are probably your personal files (e.g., your word-processing documents, your Excel spreadsheets, or e-mail in your Eudora directory).

The installation can be run from MS-DOS or Windows 3.1. Installation is highly automated: The most typical choices are set as defaults and a mouse click is all that is needed to select them. If you install Windows 95 in your current Windows directory, all program items that you had previously set up in Windows 3.1 will be available in Windows 95. The installation takes 30 to 60 minutes and requires 40 MB of storage.

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The future

With major publishers now plunging headfirst into Web distribution, it seems probable that e-journals will have a permanent place in the scholarly communication system. Which paradigms of coverage and cost will become predominant must be worked out over time by scholars, publishers, and librarians. As these paradigms develop, the Library will continue to proactively select appropriate e-journals, cataloging them fully on Franklin and organizing them for easy access and use.

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