

Taking One Last Swat at the Y2k Bug

by Joe Stoddard

On Jan 1, 2000, millions of computers will interpret the date "00" as 1900 instead of 2000, and conclude that we've headed back to the good old days instead of forward into the 21st century. That means you might not be able to print invoices or finish a CAD drawing, and you might discover that your current remodeling job is scheduled to complete in 1901.

Even if you can get some applications to run, your data may not be usable. For instance, you might not be able to save a file because the computer will compare 00 to 99 and decide that it's an "older" version that will overwrite the current version. Or you may find that your interest calculations for a current construction loan could be completely out of whack because your spreadsheet can't sort on the date field properly.

I can't help you decide whether or not you should start stockpiling freeze-dried food. But I can help you take one last crack at making sure your PC and your data are going to make it through the night on Dec 31, 1999.

Five Layers of Y2k

The Y2k problem can affect five areas — hardware, operating systems, software, data files, and shared resources — each of which needs to be checked out separately and in relation to the other four. This applies not only to computers, but to other office machines that use electronic dates, such as faxes and copiers, and peripherals like printers and scanners.

I'll focus on PCs here, but Macs are not immune either. While it's true that

Mac hardware will probably not experience any Y2k problems, many Mac programs are recompiled from Windows software, so any built-in problems, will be incorporated into the Mac version.

Hardware. It's a pretty good bet that if you have a Y2k problem, it will be caused by the BIOS (Basic Input Output System). One duty of this program, which is permanently "burned" into a chip, is to keep track of the century for the computer's internal "real time clock" (RTC). Older BIOS's — and some as recent as 1997 — can't automatically change the century code, so "00" will become 1900, not 2000.

Operating systems. Most versions of Windows pass the date from the BIOS to any applications. In most cases, the default date is in two-digit format, which can cause trouble if an application can't interpret a 2-digit date, or if two applications interpret the same date differently. A new version of Excel or Lotus 1-2-3, for instance, might interpret 49 as 2049 while an older version might interpret it as 1949.

Software. While nearly every mainstream software publisher has devised Y2k patches and updates, some have dropped support for older products altogether. Also, the fix for one vendor's application may actually create problems with another's. This is especially true if you're still using DOS or Windows 3.x programs. And if you've got custom handwritten stuff, all bets are off.

Data. Even if your PC and software check out perfectly, you're still not off the Y2k hook. Spreadsheets, databases, contact managers, even word processing documents can be loaded with for-

mulas that calculate dates based on only the last two digits. These formulas may not work properly after the turn of the century. For example, a spreadsheet trying to calculate the age of an employee by using the current date in 2000 might return -78 (00-78) instead of 22 (2000-1978). Or an accounting program might age accounts receivable incorrectly because it can't sort dates ending with 00.

Shared resources. In a network, Y2k problems will extend beyond the server and individual workstations into all shared resources on the network. For example, an important accounting spreadsheet which is fundamentally Y2k compliant on your network server can be made unusable by a user on the network saving the file from a noncompliant computer that can't calculate the four-year date codes properly.

What To Do

The cure for Y2k ills is actually pretty straightforward, but can be time-consuming. Before attempting any solution, however, back up your data. If you've organized your data under a single folder, this will be a simple matter of copying that folder and its contents onto floppy or zip disks, a removable hard disk, or some other removable media. Copy critical files in their native format. Tape backups and other compressed or encrypted files created with "Microsoft Backup" or a similar program will be of no use unless you can restore them, which you may not be able to do after the century changes.

Diagnostics. Whatever you do, don't manually try to roll dates ahead "to see

what happens.” This could leave you with corrupted data and applications that will not launch. A safer approach is to run a Y2k diagnostic program that will create and analyze a mirror of the computer’s configuration, never touching the live data. There are dozens of such utilities available for free or cheap on the Internet from the mega-download sites, such as CNet’s www.download.com and www.shareware.com, and the NSTL testing lab at www.nstl.com. My favorite is a product called Check 2000 from Greenwich Mean Time Software (see Figure 1). A “lite” version is available free from the Web site at www.gmt-2000.com (the pro version download costs \$40; a network version is available as well).

Hardware fixes. If your BIOS is incompatible, you have three choices: Replace it by physically swapping it for a new chip; install a “terminate and stay resident” (TSR) program that loads when you turn the computer on; or download and install a permanent software patch (a “FlashBIOS”). A visit to the Web site of your computer’s manufacturer will tell you what options are available for your particular machine. If there are no links to BIOS information from the manufacturer’s site, you can find them on your own, but first you need to know which company provided your machine’s BIOS. To do this, watch the screen closely when the computer first starts to boot up — one of the very first things to appear will be the BIOS publisher and version. Hit the “pause” key to stop the computer and write down the information. The three major BIOS publishers are American Megatrends (www.ami.com), Phoenix Technologies (www.phoenix.com), and Award (www.award.com).

OS fixes. DOS and Windows 3.x users may find Y2k problems that can’t be solved. For Windows95/98/NT, patches and updates can be downloaded from Microsoft’s Web site (www.microsoft.com). It’s also a good idea to set the operating system to use only four-digit date codes (Figure 2, next page).

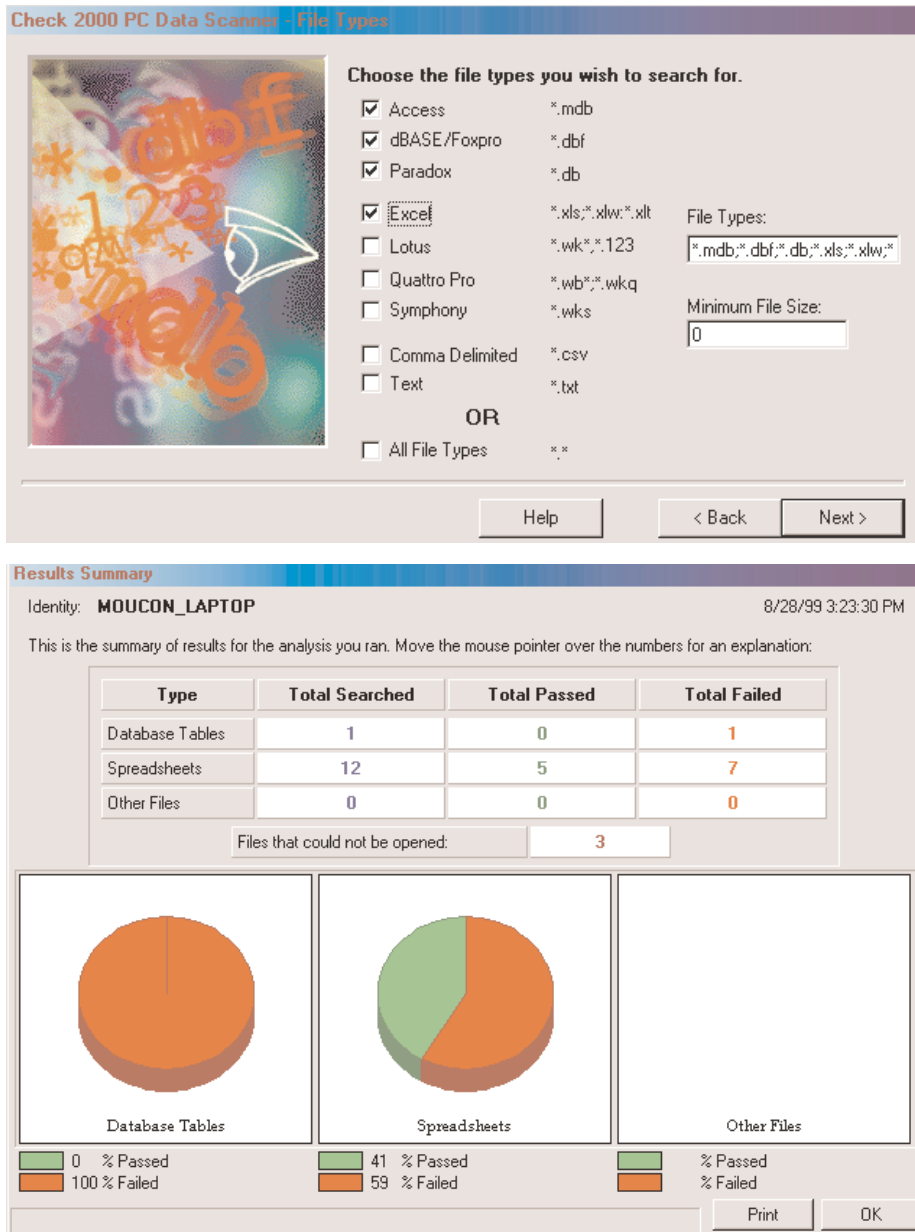


Figure 1. Utility software like Check 2000, which can be downloaded from the Internet, will test all aspects of the Y2k problem. For instance, you can test data files for selected applications (top), then generate reports on the results (above).

Software fixes. Once the hardware and operating system are ready for the next millennium, you’ll need to visit each publisher’s Web site to download and install the latest patches and updates. Be aware that the vendor’s idea of “compliant” may not be the same as yours, and that one “fix” could “unfix” something else.

Data dilemma. It’s fairly easy to get a computer to run properly after the new millennium, and not much more difficult to get your applications up to speed. But what about the years of data

you’ve accumulated to run your business? Here the waters get very muddy, because Y2k compliance is only important as it relates to your particular use of the data. A utility like Check 2000 can tell you which files have problems, but it will be up to you to decide what to do about them. Correcting problems with data may be as simple as changing some date preferences inside the program, or as tedious as rekeying by hand thousands of formulas that use date fields in a mission-critical spreadsheet.

One strategy is to prioritize which

files to fix based on how much you use the file and how important it is to your business. For example, customer billing files that have to be shared with an outside service bureau will certainly take priority over personal letterhead or a saved game of Doom. I also recommend “quarantining” all untested data files to a new directory, then moving them back into their original folders only after they’ve been tweaked and tested for Y2k compliance.



Joe Stoddard is a contributing editor at the Journal of Light Construction specializing in technology.

Figure 2. To change the way Windows handles the date, go to **Start | Settings | Control Panel | Regional Settings**, and select a four-digit date format as the default.

