2000: Zero hour it isn't

Millennium bug will pose woes, but it's not high-tech doomsday some fear / **Simson L. Garfinkel**

WE HAVE JUST 730 days left. Just two years from today, 1999 will be a memory, and Jan. 1, 2000, will be ushered in.

Although there's some disagreement as to whether that date marks the beginning of the next millennium – the erudite among us maintain 2000 is actually the last year of the 20th century, not the first year of the 21st – one thing is clear: 2000 is sure to spell trouble for many computer systems.

The problem, as you surely have heard by now, is that instead of using four digits to store a particular year, many computer programs written over the last 40 years try to save a little space and only store two digits (for instance, 98 for 1998). While this has worked great since the dawn of the computer age in the 1950s, just two years from now this basic chronological assumption will no longer apply.

There are many stories floating around about problems that have already cropped up because of this so-called millennium bug. When banks started issuing credit cards in 1996 with a 2000 expiration date – or 00, as was printed on the cards – some cash registers refused to accept the cards, insisting they had expired 96 years ago.

When the scope of the problem became clear, credit card companies came up with a simple solution: They stopped issuing cards with expiration dates after 12/99 until most banks and merchants could fix their systems. That work is now largely done, and once again we are starting to see credit cards that expire in the next millennium.

There are a few key lessons to learn from this story. The most important is that Year 2000 problems, as the industry calls them, are surmountable for companies that are willing to commit the necessary resources to fixing them. Another lesson is that these problems are already cropping up – even though theoretically we still have 730 days before zero hour. Companies that ignore them will suffer.

But what probably won't happen is global computational gridlock come Jan. 1, 2000 – although many publications have run articles predicting just that.

"The whole problem is overblown," says Thomas D. Oleson at IDC, a market research firm. One reason, he says, is that many businesses have already encountered Year 2000 problems and solved them.

When he was a programmer in the 1960s, Oleson says, he had to use four-digit years because he was writing programs that computed actuarial tables, and he needed to make projections about people who would be living well into the 21st century. Banks that sell 30-year mortgages needed to solve their Year 2000 problem in 1970. The Options Clearing Corporation in Chicago, which sells five-year contracts, had to become Year 2000 compliant in 1995.

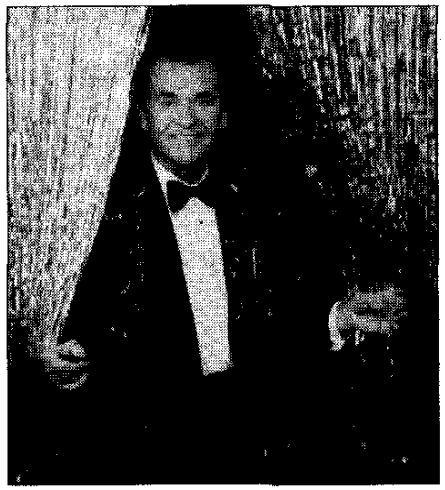
IDC recently completed a survey of 400 companies that does much to dispel many of the Year 2000 myths floating around. According to the survey's respondents, 67 percent say Year 2000 problems have not inflated programmer's salaries, and 87 percent say the demand for Year 2000-aware programmers has not caused a high degree of personnel turnover.

Perhaps most encouraging is that 22 percent of the companies say they are already Year 2000 compliant, 60 percent say the necessary changes are under way, and 9 percent say no changes are required. Only 9 percent say they have not yet addressed the problem.

That's good news – unless one of those 9 percent happens to be your bank, and you discover you can't withdraw any money on Monday, Jan. 3, 2000.

Is a bank with computers trapped in the 1900s a realistic thing to worry about? Not really, says Oleson. "Almost all banks, almost all insurance companies" have already dealt with their millennium problems, he says. There is simply too much money on the table, and these companies know how dependent they are on their computers. "The sky is just not going to fall."

But that doesn't mean 2000 is likely to be a cakewalk. According to both IDC's results and another survey by the Yankee Group, many businesses have adopted exceedingly aggressive schedules that call for finishing all the work sometime in 1998 and spending 1999 testing the software. These schedules have little if any margin for error.



Dick Clark may ring in New Year's come 2000, but otherwise, the landscape will not be the same.

"It's a real problem," says Gopi Bala, Yankee Group's director of management strategies research. And it's a problem that many companies still don't quite fully appreciate. In the Yankee Groups survey of 25 companies, one of the biggest problems Bala discovered is that companies are not making sufficient contingency plans for what to do when their Year 2000 solutions don't work as intended on the first day of that year.

Contingency planning is crucial, says Bala. Unfortunately, only a third of the companies the Yankee Group surveyed have done any contingency planning at all.

Will the Year 2000 problem affect people using personal computers at home or in small offices? Not really, says Bala. "I don't believe there is going to be this Doomsday scenario where a person sees gibberish" on their computer screen. "If anything, they may have to make a phone call" to get a new version of a program.

People who have older PCs – say, computers with the Intel 91286 or 91386 microprocessor – may find they need to manually reset their computers' clocks on Jan. 1, 2000. And some application programs might have trouble on the day after Feb. 28, 2000. That's because 2000 is a leap year.

For home users, the best protection against Year 2000 problems is to make regular backups of your computer programs. This way, if you do have some lurking problem, you'll be able to get a new version of your application program and restore your old data.

Of course, you should be backing up your data anyway. Think of the Year 2000 problem as just one more reason to go out and buy yourself a tape drive.

Technology writer Simson L. Garfinkel can be reached at plugged-in@simson.net.