

The Silver Lining in the Year 2000 Cloud: 10 Reasons to Welcome the Millennium

BY LELAND G. FREEMAN

The world will not end on January 1, 2000. You've heard the horror stories about bank accounts disappearing and airplanes falling out of the sky, but if there's a Stephen King side to the Year 2000, there's also a Dale Carnegie side.

TO anyone challenged by the task of changing date fields on millions of lines of computer code, it may be difficult to think about the Year 2000 with any degree of fondness. But give a little thought to life beyond January 1, 2000, and it will be clear that the Year 2000 cloud has a silver lining. Among the positive side effects to the millennium milieu are the following:

1. Software maintenance will become an IT priority.

Many IT organizations have been sloppy with their software portfolios. This is especially problematic for large, mature companies that continue to rely on legacy systems.

Companies that are using programs based on source code written 20 years ago are likely to be missing thousands, maybe even millions, of lines of code. The original source code may have been stored on punch cards or tapes that were tossed out because someone thought they would never be needed again. With all of the downsizing, rightsizing, rehosting, outsourcing, re-engineering, and restructuring that took place during the last couple of decades, it's become all too easy to misplace or even lose valuable software assets. Even if code is not lost, the company may have multiple versions of source for the same program and may not know which version is currently running.

Many IT managers don't even realize the severity of this problem. A leading consulting firm recently interviewed 20 managers, asking each if they were missing source code. Without exception, they all said they were not. Each of the 20 was then asked to inventory their portfolios. Again, without exception, all 20 found they were missing significant amounts of source code.

Once the organization passes through the denial stage, the first thing IT managers need to do to prepare for the Year 2000 is to put their software portfolios in order. Hopefully, the discipline instilled by the Year 2000 will last well beyond January 1, 2000.

If they learn nothing else from the Year 2000, IT organizations should passionately appreciate that software is an essential company asset that must be carefully organized and managed. As a result of the Year 2000, software maintenance should no longer be the last thing IT organizations think about.

2. Outdated software will be retired. Each step of the Year 2000 process – inventory, remediation, and testing – presents an opportunity for enhancing the quality of the IT organization's entire software portfolio. In some cases, existing applications merely need to be better maintained. In other cases, applications should be scrapped.

Increasingly, IT organizations are using triage strategies to reduce the scope of the Y2K project. They divide their software applications into three groups: those that are most critical to the organization, those that are marginal, and those that can be scrapped. Efforts should concentrate on the first category and perhaps the second, if time permits.

Applications that are scrapped will typically be those that perhaps should have been jettisoned years ago but that have remained in place because of inertia or insufficient funding. Regardless, the end result will be a more up-to-date, more efficient, better-organized, well-maintained software portfolio.

3. The shift to client/server platforms will accelerate. Because of the time commitment, cost, and complexity, some IT organizations have been slow to shift from mainframes client/server platforms. The Year 2000 is a catalyst that will accelerate this shift. When successfully accomplished, client/server migrations have achieved two major benefits: abandonment of lethargic mainframe code and of any accompanying Year 2000 problems.

It is important, however, to realize that client/server technology is not the Year 2000 panacea. First, there's the difficulty of designing, building, implementing and then crossing over to the newer platform. With less than 700 days until the new century, these tasks become Herculean. Second, for those applications that have been migrated, there is no guarantee that flawed date-processing logic did not reincarnate itself in the client/server world. Organizations still need to be diligent in checking the compliance of their migrated applications.

4. Architectures and platforms will be standardized. The need for standardized architectures and platforms is widely recognized. Changes made to comply with the Year 2000 will create an opportunity to upgrade. PC hardware with out-of-date BIOS chips will be replaced. Vendor-supplied software products will also be replaced with the latest Year 2000-compliant releases. In general, the overall quality of the architecture will be modernized.

5. The development of new technology will accelerate. There's nothing like a crisis to spur technological development. Just as every war results in major advances in weaponry and medical care, the Year 2000 will produce important tools that can be applied to other situations.

The Source Recovery Company's technology for recovering source code is one example of this. The technology existed before the Year 2000 problem was even thought about, but to meet Year 2000 needs, SRC has been forced to automate and increase the rate at which it can recover code.

If not for the Year 2000, this technology would have progressed at a slower pace. As

a result of the Year 2000, the technology will be available for other applications, such as Europe's planned conversion to the Eurodollar.

Other examples of new and improved technology brought about by the Year 2000 crisis include the use of structured methodologies, automated code analyzers, and test bed facilities. While many of these capabilities can trace their roots to the mid-1980s and the early days of CASE (Computer-Aided Software Engineering), they are now demonstrating their worth to organizations that are in the midst of a crisis. Again, these new technologies will be useful for programming and software maintenance even after the Year 2000.

While some are predicting an economic crisis as a result of the Year 2000, clearly, some companies will see the Year 2000 as an opportunity to gain a competitive advantage by addressing the problem thoroughly and using it as a driving force to operate more efficiently and productively.

It is worth noting that some of the best new products and services are coming from vendors that didn't even exist a year or two ago. Hopefully, after they have a positive experience, companies buying these services will be more open minded about which vendors they purchase new technologies from in the future.

6. IT will play a greater role in many organizations. The role of IT has been evolving, but Y2K will advance it by a quantum leap.

In many organizations, there has been a tradition of positioning IT as a necessary evil – as something that has to be tolerated rather than embraced as a tool to drive business growth. Yet, IT can create competitive advantages by helping companies improve productivity, distribution, time to

market, and more. Those IT departments that respond to the opportunities created by the Year 2000 will catch the attention of senior management and increase long-term influence on the organization.

At many of the companies where the Year 2000 is being given the attention it warrants, Year 2000 project managers are meeting regularly with senior-level managers on both strategy and implementation issues. The bilateral communication is likely to continue beyond the Year 2000. After the Year 2000, senior managers – and IT managers – will have a better understanding of the IT infrastructure and its potential role in the company's future success.

7. Companies will develop processes that can handle mass changes. There's not only a silver lining to the Year 2000 cloud, there's also a gold lining.

It will take a new kind of company to deal with the Year 2000 crisis – a company that can effectively initiate and implement mass change throughout an organization. Companies that are able to effect such change successfully will have the processes and personnel in place that enable them to respond quickly to competitive, technological, political, or regulatory opportunities – or threats – well beyond the Year 2000.

8. Staffing procedures will improve. As anyone who tries to hire or retain a dozen or so COBOL programmers will discover, the human resource issues of the Year 2000 are as difficult to address as the technology issues.

The Year 2000 will force human resource managers to be both resourceful and competitive. Companies that have relied solely on full-time employees may find themselves outsourcing work, hiring contract workers, and bringing in part-time programmers – all new experiments in resource planning.

Human resource departments would be wise to use the Year 2000 crucible to develop human resource policies that will help them attract and retain the best individuals beyond the Year 2000.

9. "Best practice" standards will be defined. Every phase of a Year 2000 project presents an opportunity for establishing "best practice" standards that can be applied to virtually every

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other IT project. Because the Year 2000 project is much larger than any other IT project, it also provides an ideal opportunity to test the effectiveness of an organization's existing standards.

As with ISO 9000 certification, the best practice standards will have a trickle-down effect. Organizations with best practice standards influenced by the Year 2000 will require that their vendors adhere to the same standards – and those vendors will pass along new standards to their stakeholders.

10. The Year 2000 will help define corporate leaders. A crisis always brings out both the best and the worst in people. Just as IT managers who have their heads in the sand are likely to be out of work after the Year 2000, those who play leadership roles are likely to enhance their careers significantly.

Take a broader look, though, and recognize that the Year 2000 is not just a technology crisis, but a business crisis. Companies that respond to the crisis, rather than ignore it, are likely to see their stock prices rise. The stock market may even view a company's reaction

to the Year 2000 as characteristic of a company's overall business philosophy. Companies that are able to create an opportunity from a crisis such as the Year 2000 will be viewed and valued as leaders.

While some are predicting an economic crisis as a result of the Year 2000, clearly, some companies will see the Year 2000 as an opportunity to gain a competitive advantage by addressing the problem thoroughly and using it as a driving force to operate more efficiently and productively. Rather than creating an economic meltdown as some predict, the Year 2000 crisis may become the catalyst for defining a new breed of winners on Wall Street.

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