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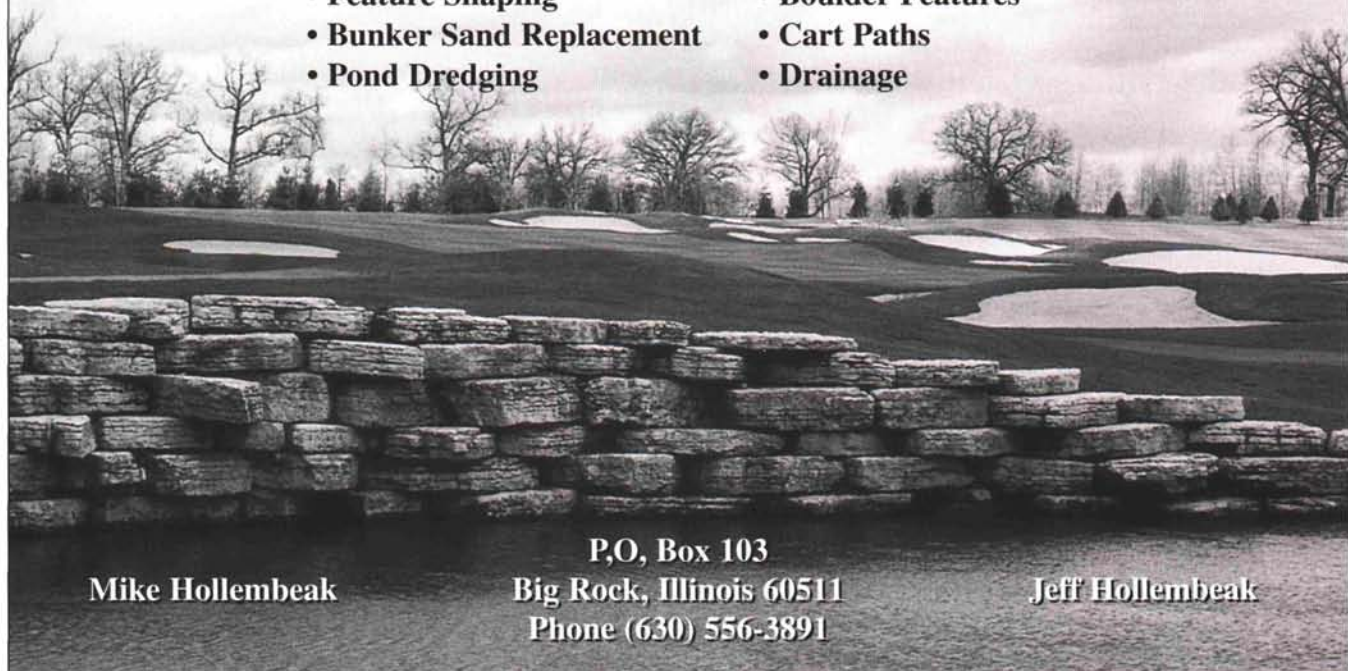


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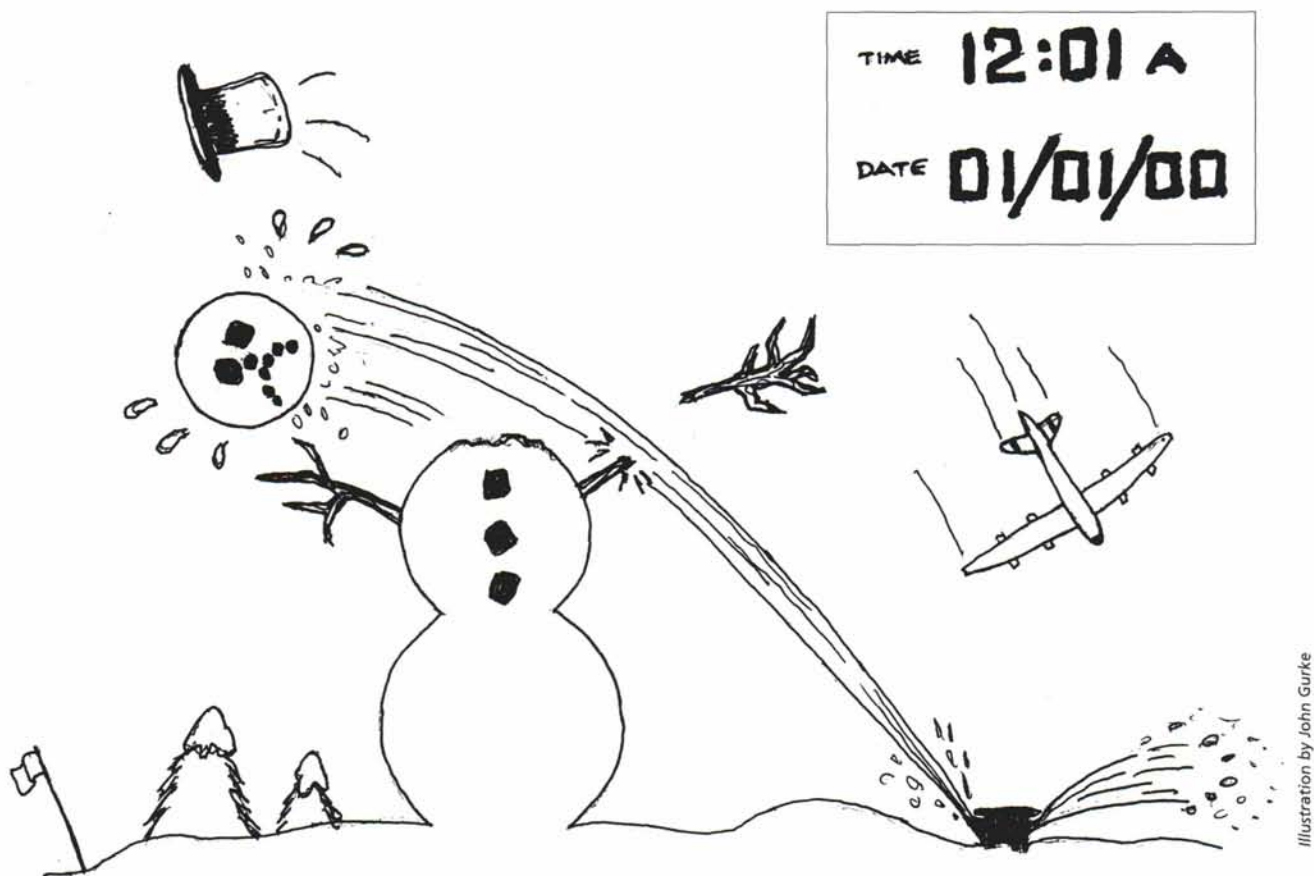


Mike Hollembeak

P.O. Box 103
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Jeff Hollembeak

Y2K, Ready or Not



Darin Ayres

Recently, my boss suggested that I consider writing an article concerning the year 2000 issue, or Y2K bug, and how it may (or may not) affect our industry. I took the hint and voila! Here it is. For the benefit of those who have been in hiding the last few years or, more likely, those who are at least slightly confused by the whole situation, I'll attempt to describe this dilemma and shed some virtual light on the problem. My goal: by the end of this article (assuming you read the whole thing), you'll have a better grasp of the Y2K issue, including how it may touch our professional and personal lives. I'll also make some suggestions as to how to prepare for 1/1/00 and beyond.

The origins of the Y2K bug

The Y2K bug is actually a by-product of decisions made in the late 1960s/early 1970s when computer programmers initiated a two-digit numbering convention for years. The programmers did this to save memory storage space and money—back then, one megabyte of memory cost up to \$1,000. For example, 1998 was coded as 98; 1999 is coded as 99. The Y2K issue relates to the fact that computers will read the year 2000 as 00. How is this a problem, you may wonder? Because computers were programmed to record a date as just another number, they recognize the progression of time as the number increasing ... 98, 99, etc. On January 1, 2000, however, 99 will become 00—a lesser number—on

many computer systems, which will begin to produce significant errors or may cease to function altogether. Obviously, the computer applications most affected by this phenomenon will be those involving spreadsheets and databases, featuring dates and calculations.

The Y2K problem extends far beyond simple data processing, however. Manufacturing, security, communications—indeed, any system controlled or influenced by internal or external computer processing or data—all are vulnerable. So you will be directly impacted by your personal “Y2K compliance” and by the compliance of every vendor, service provider, banker, customer or other third

(continued on page 14)

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Y2K, Ready or Not
(continued from page 12)

party connected to your system or engaged with you in the exchange or use of information.

How Y2K could affect us professionally

Fortunately, January is a relatively slow time of year for our industry. We are conducting most of our work indoors: performing equipment maintenance, painting, etc. However, January is also typically the time of year when we order parts for equipment or chemicals and supplies for the coming season. The Y2K bug has the potential to disrupt this activity. Hopefully, as the year unfolds, our suppliers will have taken steps to eliminate any residuals of the Y2K bug (surely there will be some) so that by March or April, matters will be under control.

Computer-controlled irrigation systems are widespread now,

and these definitely have the potential to be affected by the Y2K problem as well. Toro has assured me that all of their irriga-

Computer-controlled irrigation systems are widespread now, and these definitely have the potential to be affected by the Y2K problem as well.

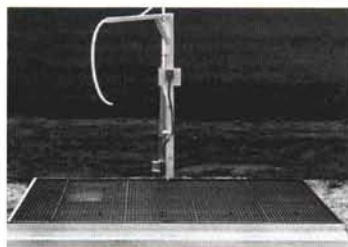
tion-control software is fully compliant. Feel free to contact Toro's NSN if you would like more information. The company will fax you a four-page debriefing of the situation, as well as levels of compliance of various computer

systems used to run their software. It is well worth the phone call if you have any concerns—or even if you don't have any concerns! All of you Rainbirdies out there can breathe easy, too. I have received a certificate of compliance from Rainbird stating that "Rainbird irrigation controllers are Y2K-compliant" and that "any Rainbird product manufactured within five years of the year 2000 that is found to be noncompliant, will be replaced or repaired at no cost to the user." Again, if you are interested in further details, contact your tech rep.

The following are a few suggestions related to other aspects of the workplace that may be vulnerable to Y2K:

- Accounting/bookkeeping/payroll—Make sure your club's accounting software is compliant to insure a smooth

(continued on page 16)



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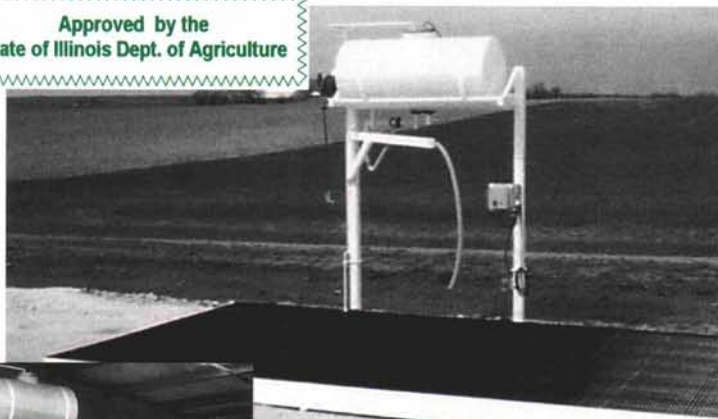
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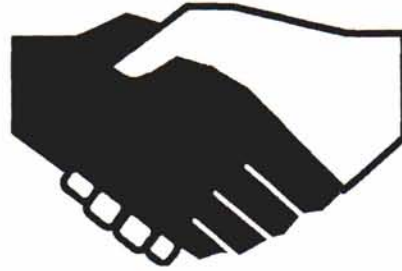
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Y2K, Ready or Not

(continued from page 14)

transition to the new millennium.

- Utilities—Think of the utilities that serve your facility as more than electrical current or natural gas flowing through a pipe. They are the terminal your business uses to interact with networks of producers, brokers and transmission services, all of which collect power or gas from many different places to supply your needs. Systems can fail anywhere along that supply chain. At present, the outlook is less than ideal. The SEC requires large, publicly traded companies—including large energy companies—to report Y2K spending to date. The results so far are disappointing. Up to now, some of these companies have spent a mere fraction of their Y2K budgets—as little as 19, 16 even 12%. Of interest: the largest corporate Y2K budget in North America belongs to General Electric, which has set aside \$550 million.
- Mail/delivery services—Again, given a complex network heavily reliant on date-specific information, be prepared for some problems.

How Y2K could affect us personally

Many of the issues that concern us in the workplace will also concern us on the home front. But Y2K could touch our personal lives in unique ways. Here, then, are some of the potential areas of concern, some of which have been the subject of silly rumors while others are quite legitimate.

- Food availability—We may see some shortages, especially of imported fruits and vegetables, but the availability of the staples should not be a problem.

- Home security systems—Given a plethora of different manufacturers, you may or may not be affected. Call your respective tech rep for compliance information.

- Home appliances—The good news: no appliances will cease to

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function. However, select appliances that are date-aware, such as VCRs and camcorders, will display the wrong date but will otherwise function normally. Contact the manufacturers for more information. Many companies have their own Web sites that include information on the Y2K compliance of all their products.

- Gas and oil availability—An extremely complex supply network exists for these commodities and it is expected to meet current demands. Furthermore, with various storage facilities capable of holding about 563 million barrels of oil, a “buffer” will be in place pending any problems. Oil and gas will continue to flow, but the price may very well go up. The potential pitfall here is that the oil industry is one of the most computerized in the world. Also, many of the systems in use pre-date 1990, when few embedded systems manufacturers contemplated Y2K issues. Translation: some oil drilling, refining and distribution systems are going to fail. The bottom line is that a combination of market jitters (oil is a very volatile commodity) and the cost of Y2K remediations may very well result in increasing oil and gas costs.

- Telephone service—The phones in our homes will work if they don’t have any clock functions. If you have a phone with date-aware features manufactured more than two years ago, you should investigate. Check with the manufacturer for compliance. In general, telephone networks in the U.S. are making good progress on Y2K upgrades. But there are many small local exchanges that may not be ready. The consensus, however, is that major metropolitan areas should see few, if any, problems.

- Health care—The feeling here is not to schedule any surgery on 1/1/00 unless you know the hospital has completed rigorous Y2K testing of its back-up power system, medical equipment and computer systems. Most equipment isn’t date-dependent; however, several

(continued on page 18)



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Y2K, Ready or Not

(continued from page 16)

types record the date or use a clock to control medicine dosage and the like. So stay healthy. Oh, and yes, your pacemaker will still work.

- Automobiles—Yes, your car will still run. Ignore claims that your car “will suddenly stall on the road” at midnight January 1, 2000. There is absolutely no evidence to indicate that the computers in your vehicle will stop working, as they are not date-dependent.
- Air travel—No, planes will not be falling out of the skies above. Air travel in 2000 will be safe. Air travel will not, however, be convenient. If you stay domestic and fly to major airports you should be all right. If you travel out of the country or to smaller airports, be prepared for the possibility of a longer stay than expected. So those of you who think it would be fun to go to some remote island in the Pacific to experience the new millennium—consider yourselves forewarned!
- Money and banking—Come 1/1/00, banks will probably still be the safest place for your money. They will not “lose” your money, but it may be misplaced or temporarily inaccessible. The main concern will be liquidity and accessibility of money. On January 1, some ATMs may malfunction. Also, some automatic deposit or payment systems may be fouled up.

A checklist for personal Y2K readiness

We can do many things to prepare for 1/1/00. Unfortunately, many things remain out of our hands; we must rely on other organizations to do their part.

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Right now, let's focus on those preparations within our grasp. The first thing to do is make sure your computer—and any software on it—is Y2K-compliant. Several sites on the Internet exist to help you screen your PC and even provide testing programs. If you are looking for a quick test, check out Oscar Miles' test, posted in the GCSAA's members forum online.

Then check the homepages of all your software manufacturers for their respective compliance information. Be wary of older versions of Microsoft Office as well as other word processors and spreadsheets. Check your personal/business finance software titles, such as Quicken. Expect that you may need to spend some money. For example, you may have to replace some outdated software, or if your computer is old, you may have to replace it as well.

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Your next step is to get on the phone. Call your electric service provider, your phone company and long-distance carrier. Call your gas company, your city's water department, etc. In other words, call anyone and everyone you do business with, and get the rundown on their Y2K compliance. As we draw nearer to 1/1/00, make sure you get specific answers one way or another. If you aren't completely satisfied with their answers, act accordingly.

As for financial preparations . . . I'm no financial advisor, nor do I play one on TV, but I've uncovered a lot of recommendations for protecting you and your money. First, get back on the phone and call all your banking institutions—banks, credit unions, lenders, etc. Check on their compliance progress. Contact all of your credit card companies, too. Since some ATMs are likely to temporarily malfunction, put aside some cash to pay for necessities if you normally rely on your debit or ATM card. Errors in the system will not result in money being pulled out of your accounts, though you should keep receipts at all times anyway. If you don't already, start balancing your checkbook so you have accurate records to use if your account is damaged by a Y2K-related error. If you rely on credit cards, carry some extra cash since plastic is dependent on a lot of technology, some of which may fail. The Federal Reserve plans to put \$50 billion in extra cash into circulation during 1999 to make this possible without causing inflationary pressure.

*Call your electric
service provider,
your phone company
and long-distance carrier.*

*Call your gas company,
your city's water
department, etc.*

*In other words, call
anyone and everyone
you do business with,
and get the rundown
on their Y2K compliance.*

*As we draw nearer to
1/1/00, make sure
you get specific answers
one way or another.*

Finally, don't put all your money under the mattress. This has always proven to be a bad strategy for the individual and society as a whole. The more demand for cash, the higher the cost of cash. It drives inflation and inflation leads to panics that are more destructive than the technical glitches we've been talking about.

Famous last words

In summary, we have no doubt that the advent of 2000 will cause some problems. Unfortunately, no one really knows with certainty how severe the problems will be. All we can do is prepare as best we can. Make phone calls, get your financial situation under control and most important, think rationally and logically. Don't behave like Barbra Streisand and lock yourself in your house on December 31 waiting for the world to come to a halt. Nor

(continued on page 22)

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