

## Gary North's Y2K Links and Forums Main Categories Page

It took me from early 1992 until late 1996 to come to grips emotionally with the Year 2000 Problem. You had better be a lot faster on the uptake than I was. We're running out of time.

I don't mean that society is running out of time to fix this problem. Society has already run out of time for that. There are not enough programmers to fix it. The technical problems cannot be fixed on a system-wide basis. The Millennium Bug will hit in 2000, no matter what those in authority decide to do now. As a system, the world economy is now beyond the point of no return. So, when I say "we," I mean you and I as individuals. We are running out of time as individuals to evade the falling dominoes.

I am the only person saying this in public as of mid-1997. All the others who discuss the Year 2000 Problem (y2k) are in the "increased awareness" business: "We must alert managers to the problem." I'm saying that it's way too late for the awareness strategy to work. The managers can't hire enough programmers to fix it. So, they won't bother. They'll just sell their stocks and quit.

Initially, you won't believe what's on this site. It's too overwhelming. The threat to your way of life is too great. You'll almost certainly go into what is called denial. But I have done my best to make this site an antidote to denial. Emotionally, you won't want to accept my analysis. But I have offered factual support my scenario -- more evidence than you are going to get from some skeptic who says, "Trust me: it's just not that big a problem." My recommendation: trust no one who offers no evidence.

It is a very big problem, worldwide in scope and without historical precedent (unless we count the Tower of Babel). At the same time, the y2k story is inherently implausible. How could a seemingly trivial computer programming tradition of the 1950's bring down the West's governments and banks? Yet it will. This possibility is not being discussed seriously today -- at least not in the popular media. (The one major exception was the NEWSWEEK cover story on June 2.) That a computer glitch could cause a worldwide economic depression that lasts a decade is not being discussed seriously by politicians -- at least not in public.

This problem was recognized over a decade ago. In the first entry in my "Compliance" category, I summarize an ad that was run in 1986 that warned about the Year 2000 Problem. If you think the world is going to meet the Jan. 1, 2000 deadline, read my summary. Then click the link and read the original ad. The response then was virtually zero. As far as actual budgeting goes, it still is. Nothing was done then; almost nothing is being done today. We have run out of time. (See the category, "Too Late?")

We have also run out of programmers who could conceivably fix the problem. There are approximately 500,000 mainframe programmers in the United States. We need another 500,000 to 700,000 experienced mainframe programmers in 1998 to make the repairs. (England needs an additional 300,000.)

There is another other problem: the typical large mainframe computer system has other arcane languages besides the more familiar COBOL imbedded in it -- in some systems, 20 or more. Sadly, hardly anyone still understands them.

The national power grid is the most important system at risk. If it goes down because of programming errors throughout the system, a 10-year depression would be a mild result. Every participant in the grid must be year 2000-compliant if the system is to be compliant. (See the category, "Power Grid.")

If the banking system is not compliant, the world's system of payments faces extinction. If people believe that their money is at risk because of a computer failure, there will be massive bank runs, all over the world. The banks will either be shut down by governments or else they will be bankrupted. Then how will you pay for anything? How will you pay your power company, water company, supermarket, or gasoline station? If consumers can't pay, suppliers will go out of business. Yet banks are not compliant. Neither is the banking system. Every participant must be year 2000-compliant if the system is to be compliant. I do not believe that the banking system will be compliant by Jan. 1, 2000.

If you think the banks' problems are not real, you need to get two questions answered before 1997 is over: (1) Why is no major money center bank Year 2000-compliant in 1997? (2) Why is Chase Manhattan Bank spending \$200,000,000 to \$250,000,000 to get its y2k problem solved? (See the category, "Banking.")

Ask two questions of anyone who assures you that fixing y2k is fairly easy, once management decides to do it: (1) Why isn't Social Security's team of 400 programmers finished with fixing its system, which contains 30 million lines of code. After all, they began the repairs in 1991. (2) Are Citicorp (400m lines) and Chase Manhattan Bank (200m lines) likely to finish their repairs on time, since they began fixing their systems in late 1995?

If the banks go down, programmers will not get paid. They will walk away, if they can. They will not complete their work on y2k. When the brighter ones figure this out in 1998 and early 1999, they will quit their jobs in the cities, where most mainframe computers are located, and take jobs repairing systems located in safe rural places. They will go to work for local public utilities. All talk about "realistic" y2k repair deadlines is unrealistic if the banks are closed by runs in 1999.

(Would you leave your savings in the bank for, say, 2% per year if you

suspected that a computer failure might wipe out your account in six months? Or would you go down, withdraw cash, and wait to see what happen six months later? Do you think you're the only person this clever?)

Then there is the telecommunications industry. What happens if the phones shut down? Banks would go bankrupt within a few weeks. This communications threat has been raised with respect to international telecommunications. The warning was sounded by the head of Britain's Telecoms Managers Association. (See "Domino Effect.")

Then there are the trains. They are govered by mainframe computers. The computers not only guide actual train movements, they tell management where the cars are. What if the computers go blind? Where is that car full of wheat, coal, or chemicals? How will anyone switch trains and cars from one track to another? If Company A gets its computers 2000-compliant, but company B doesn't, what happens to the national railway system? If Company B is compliant, but its fix does not match company A's fix, what happens to the system? (This problem affects every system, including banks.) If rail freight goes down, what happens to food supplies? (See the category, "Shipping and Transportation.")

What happens to Japan's commuter trains into Tokyo? What happens when Japanese housewives draw cash out of the already shaky Japanese banks? Those banks hold billions of dollars of U.S. Treasury debt. What if they start selling off this debt? What happens to the dollar? To U.S. interest rates? To the world's stock markets?

Systems. We are totally dependent on systems. These systems are in turn dependent on noncompliant software and hardware. If one component of a system fails, it threatens the entire system. If one system fails, it threatens other systems. (See the category, "Domino Effect.")

If a large organization actually completes its fix (doubtful), tests it (on what spare mainframe capacity?), and fixes any problems (such as a complete crash), tests it again, and the system survives, all it has to do is import one noncompliant piece of data from another computer, and the entire system could crash. So, to avoid this, compliant systems must break all contact with noncompliant systems. This destroys the larger system. Think "banking." Think "securities industry." What happens to the world's large, integrated, interdependent systems? They collapse.

Other Web sites don't deal with these sorts of problems. More of them should.

On this site, I have provided selected documents that discuss at least some of these problems. The governments of the world are saying as little as possible. This is understandable. Their job is to prevent panic. To admit that the Year 2000 Problem is inherently unsolvable this late in the process might create panic. So, we are told very little. But enough is trickling out to let us know that this is no minor problem.

I am regarded as an apocalyptic fanatic. Why? Because I have this odd theory: Until at least ONE Fortune 500 level corporation and ONE government above the county level announces, "We are Year 2000-compliant; all of our programmers are now working on routine maintenance," the Year 2000 Problem is not going to be solved. I am unaware of a single y2k-compliant organization anywhere on earth with over 20 million lines of code in its mainframe computer system. Citicorp has 400 million lines; AT&T has 500 million lines. Yet this Web site is regarded as extreme by its critics.

Please use the "mail document" or "send page" feature of your Web browser to send any of my comments and links on this site to friends and colleagues. The more we can do to alert each other, the more people will take defensive personal action.

Click on the category that interests you. I have added a few introductory remarks in front of each list of links and in front of each link. Click the link or read the on-page entry to see if my comments are consistent with the evidence I offer.

When you are finished reading, printing, downloading, or e-mailing any document, click the "Return to Main Categories Page" link at the bottom of the page. Then you can do additional searches.

At the bottom of the list is the category, "Discussion Forums." Click it to go to the forums. Some are open to everyone; some are closed. These are professional forums, where participants prefer to discuss technical or professional matters with a degree of privacy. While curious outsiders will no doubt invade these forums from time to time, it would be the decent thing to do to let people discuss their own profession's problems in private. Outsiders should spend their time on matters that will affect them directly and maybe catastrophically. There is not enough time remaining for anyone to waste it evesdropping.

I added these forums six months after I put up this Web site. I was being flooded by letters asking me to give personal advice. I cannot possibly do this for everyone. Legally, it is unwise for me to do this for anyone. So, I have provided a way for serious people who take this Web site seriously to get answers from each other and from the moderators who run the specialized open forums.

I have classified the documents under the following categories:

Last Updated Categories

22-Jul-97 Introduction

16-Jul-97 Government

05-May-97 Military

21-Jul-97 Banking

17-Jul-97 Stock Market

17-Jul-97 Litigation

22-Jul-97 Compliance

- 15-Jul-97* [Noncompliant Chips](#)
  - 22-Jul-97* [Too Late?](#)
  - 16-Jul-97* [No Silver Bullet](#)
  - 22-Jul-97* [Domino Effect](#)
  - 01-Jul-97* [Personal Computers](#)
  - 24-Feb-97* [Shipping and Transportation](#)
  - 22-Jul-97* [Power Grid](#)
  - 21-Jan-97* [Countdown Clock](#)
  - 14-Jul-97* [Discussion Forums](#)
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