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Y2K bug

The Y2K bug was a computer flaw, or bug, that may have caused problems when dealing with dates beyond December 31, 1999

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A computer flaw, the so-called "Millennium Bug," led to anxiety and the Y2K (Year 2000) scare. When complex computer programs were first written in the 1960s, engineers used a two-digit code for the year, leaving out the "19." As the year 2000 approached, many believed that the systems would not interpret the "00" correctly, therefore causing a major glitch in the system.

PHOTOGRAPH BY EMORY KRISTOF



ENCYCLOPEDIC ENTRY VOCABULARY

The Y2K bug was a computer flaw, or bug, that may have caused problems when dealing with dates beyond December 31, 1999. The flaw, faced by computer programmers and users all over the world on January 1, 2000, is also known as the "millennium bug." (The letter K, which stands for kilo (a unit of 1000), is commonly used to represent the number 1,000. So, Y2K stands for Year 2000.) Many skeptics believe it was barely a problem at all.

When complicated computer programs were being written during the 1960s through the 1980s, computer engineers used a two-digit code for the year. The "19" was left out. Instead of a date reading 1970, it read 70. Engineers shortened the date because data storage in computers was costly and took up a lot of space.

As the year 2000 approached, computer programmers realized that computers might not interpret 00 as 2000, but as 1900. Activities that were programmed on a daily or yearly basis would be damaged or flawed. As December 31, 1999, turned into January 1, 2000, computers might interpret December 31, 1999, turning into January 1, 1900.

Banks, which calculate interest rates on a daily basis, faced real problems. Interest rates are the amount of money a lender, such as a bank, charges a customer, such as an individual or business, for a loan. Instead of the rate of interest for one day, the computer would calculate a rate of interest for *minus* almost 100 years!

Centers of technology, such as power plants, were also threatened by the Y2K bug. Power plants depend on routine computer maintenance for safety checks, such as water pressure or radiation

Transportation also depends on the correct time and date. Airlines in particular were put at risk, as computers with records of all scheduled flights would be threatened after all, there were very few airline flights in 1900.

Y2K was both a software and hardware problem. Software refers to the electronic programs used to tell the computer what to do. Hardware is the machinery of the computer itself. Software and hardware companies raced to fix the bug and provided "Y2K compliant" programs to help. The simplest solution was the best: The date was simply expanded to a four-digit number. Governments, especially in the United States and the United Kingdom, worked to address the problem.

In the end, there were very few problems. A nuclear energy facility in Ishikawa, Japan, had some of its radiation equipment fail, but backup facilities ensured there was no threat to the public. The U.S. detected missile launches in Russia and attributed that to the Y2K bug. But the missile launches were planned ahead of time as part of Russia's conflict in its republic of Chechnya. There was no computer malfunction.

Countries such as Italy, Russia, and South Korea had done little to prepare for Y2K. They had no more technological problems than those countries, like the U.S., that spent millions of dollars to combat the problem.

Due to the lack of results, many people dismissed the Y2K bug as a hoax or an end-of-the-world cult.

Images

- [National Geographic News: 10 Failed Doomsday Prophecies](#)

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