



If You Own A Computer, Expect Problems

MAYBE YOU'VE THOUGHT ABOUT TOSSING AN ANNOYING COMPUTER OUT A WINDOW, BUT YOU PROBABLY DIDN'T DO IT. THE BETTER CHOICE IS TO FIGURE OUT WHAT'S ANNOYING YOU AND FIX IT.

The manager of a repair shop once told me about a guy who did toss his computer out a window. He may have opened the window first, but I don't recall that part, and it probably felt satisfying at the time. Then he realized that he needed the data on the computer and that he needed a new computer. No matter how satisfying, it was a costly experience.

The beginning of the personal computer era is often considered to be June 1977, when the first Apple II computers were sold, so about 44 years.

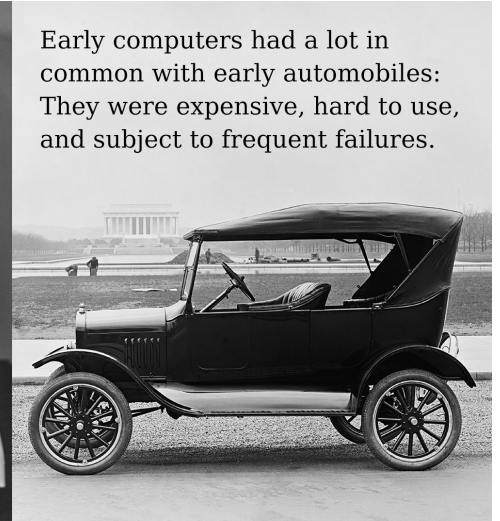
Just as personal computers had already been available for several years before 1977, automobiles had been around for nearly 25 years when the Ford Model T was introduced in 1908.

Computers changed considerably more in their first 44 years than cars did, but they're still not as easy to use as automobiles, even 1952 automobiles. Early car owners needed to be mechanics. There was oil to change, flat tires to repair, and numerous other tasks that had largely been relegated to service stations and auto dealerships by the 1950s.

Better, But Not Perfect

EVEN THOUGH TODAY'S COMPUTERS ARE MUCH EASIER TO USE THAN THOSE WE HAD SEVERAL DECADES AGO, THEY'RE STILL NOT EXACTLY EASY TO USE.

Before grumbling too much about the computer on your desk, think back: The first computer I owned required swapping cartridges to run the various programs. DOS was a big advancement because users could close a word processor and open a spreadsheet without having to reboot the computer, but



Early computers had a lot in common with early automobiles: They were expensive, hard to use, and subject to frequent failures.

using both programs simultaneously was not yet possible.

Both Apple and Microsoft developed graphical user interfaces based on inventions at Xerox's Palo Alto Research Center. Microsoft and IBM developed OS/2, and then

Microsoft abandoned that work for Windows. Twenty years ago, Apple released OSX (now MacOS). Microsoft stopped renaming operating systems when they got to Windows 10, or so we thought. Now Windows 11 is just around the corner.

Some of us thought that computers might someday be capable of diagnosing and fixing their own problems, just as a modern automobile can adjust its engine.

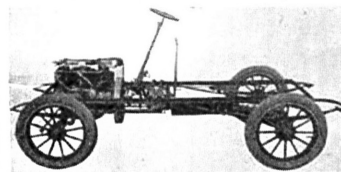
Today's operating systems and many applications can update themselves. Both MacOS and Windows operating systems have built-in diagnostic tools that can resolve a lot of problems. But not all of them.

Between what applications and operating systems can do for themselves and users who can apply logic and critical thinking to problems that crop up, sometimes complex problems can be resolved even by those who have little or no technical background.

THE ZENT AUTOMOBILE FOR 1905 PRICE, \$1350.00

This motor car has many new practical features, the value of which will make themselves manifest on examination.

The engine is a 3 cylinder, vertical, air-cooled type, developing 18 H. P. The cooling system is especially noteworthy, the cooling tubes being set in grooves which are milled in the cylinder. These tubes are open at both ends.



Further Specifications: Wheel base, 99"; tread, 56 1/2"; Wheels, 30"; Tires, 3 1/2"; Weight, 1400

lbs. Side entrance, roomy, detachable tonneau. The ZENT is the simplest, lightest and strongest car of its kind in the world. Write for agency proposition.

ZENT AUTOMOBILE MFG. CO., Bellefontaine, Ohio
EARLY AUTOMOBILES DID LITTLE, BUT HAD HIGH PRICES. \$1350 IN 1905 EQUATES TO \$41,300 IN TODAY'S DOLLARS. THE \$2000 COMPUTERS SOLD IN 1985 DID LITTLE. THAT'S THE EQUIVALENT OF \$5200 TODAY.

Being a Computer Operator

EARLY COMPUTER USERS DIDN'T NEED TO UNDERSTAND HOW COMPUTERS WORKED, BUT THAT HELPED. THEY DID NEED TO LEARN HOW TO INSTRUCT THE MACHINE TO DO SOMETHING USEFUL.

Today's operating systems and many applications fix some problems automatically, but there's no shortage of things that can go wrong.

So we have to be prepared either to sort things out on our own, have a professional make a house call, or leave the computer at a service shop for several days. Computers that are under warranty can be sent back to the manufacturer for servicing, but even fast turnaround will leave the user without a computer for a week, possibly more.

Diagnosing problems takes time because what may seem to be the obvious cause can be unrelated to the actual cause.

Finding and Fixing Problems

SOMETIMES THE ONLY VIABLE OPTIONS ARE CALLING FOR AN ON-SITE TECHNICIAN OR FIXING THE PROBLEM YOURSELF. HERE'S AN EXAMPLE:

In early June, my primary computer shut down without warning. No blue screen. No error messages. Just immediate power off. There were no new applications or hardware. Diagnostics that I run weekly had indicated no reason for concern.

Level	Date and Time	Source	Event ID	Task Category
Information	6/6/2021 9:34:29 AM	Service Control M...	7026	None
Error	6/6/2021 9:34:29 AM	Service Control M...	7000	None
Error	6/6/2021 9:34:29 AM	Service Control M...	7009	None
Information	6/6/2021 9:34:27 AM	dokan1	1	None

Event 7000, Service Control Manager

General Details

The Freemake Improver service failed to start due to the following error:
The service did not respond to the start or control request in a timely fashion.

The culprit?

Level	Date and Time	Source	Event ID	Task Category
Information	6/6/2021 9:52:01 AM	EventLog	6005	None
Information	6/6/2021 9:52:01 AM	EventLog	6009	None
Error	6/6/2021 9:52:01 AM	EventLog	6008	None
Information	6/6/2021 9:51:41 AM	HAL	16	None

Event 6008, EventLog

General Details

The previous system shutdown at 9:37:57 AM on 6/6/2021 was unexpected.

TWO ERRORS THAT RETURNED REFERENCES TO AN APPLICATION THAT WAS NO LONGER PRESENT OCCURRED MOMENTS BEFORE THE SYSTEM CRASH, WHICH MADE IT APPEAR THAT THIS MIGHT BE THE SINGLE CAUSE OF THE PROBLEM. THAT TURNED OUT NOT TO BE ENTIRELY CORRECT, BUT IT WAS PART OF WHAT EVENTUALLY REVEALED THE UNDERLYING ISSUE THE PROBLEM. BECAUSE OF THE WAY THE CRASH OCCURRED, THE EVENT VIEWER WAS UNABLE TO PROVIDE ANY BETTER CLUES.

THE CULPRIT: A USB 3 HUB THAT HAD PROBABLY BEEN DAMAGED BY A SERIES OF POWER SURGES BECAUSE IT WASN'T PROTECTED BY A UPS UNIT HAS BEEN REPLACED WITH AN IDENTICAL MODEL.

Overheating didn't seem to be a problem, but I vacuumed the air inlets on the computer and on the four-bay disk stack to ensure that the vents were clear. The computer ran properly for about three hours and then quit again.

The access lights on the disk stack blinked rhythmically, not just when data was being read or written, indicating a possible problem with it. When I connected the disk stack to a Mac, there was no problem, so it wasn't a failure with the disks or the enclosure.

If the drives were OK and the computer was OK, the primary remaining variable was the USB system, so I opened the Event Viewer to see if it might offer clues.

Components for a program I had removed well over a year ago were still present and the system was trying to start a service that no longer existed. The crash occurred moments later.

After I removed all references to the non-existent application, the computer ran without an error for 18 hours. I thought I had found the problem, but the immediate power-down crash occurred again after two days.

Before I could investigate further, two brief power outages occurred within a few minutes



of each other — just enough to take down anything not protected by a UPS unit. That included two USB hubs.

The computer would not boot unless I disconnected the USB hubs. Next, I had to determine which hub had failed. With hub one connected and hub two disconnected, the computer booted; when hub two was connected and hub one was disconnected, the computer failed to boot. Bingo!

Without careful testing, I might have replaced the disk enclosure for \$200 or the computer for about \$2000. Neither would have fixed the problem. Instead, replacing a faulty USB 3 hub for \$50 did the trick.

A series of interrelated issues had combined to expose the underlying problem with a piece of hardware that had apparently been marginal for quite some time and was finally pushed into failure mode by power outages.

All of the peripherals had to be present to diagnose the problem, so taking the computer, two monitors, a disk enclosure, and several other USB devices to a repair shop was out of the question. Having a technician on-site would have required two weeks to conduct all the tests and wait to see if the problem had really been resolved.

So it's a good idea to know enough about the hardware, operating system, and software to work through what is sometimes a long diagnostic process. 🤖