by Linda Windler

Computer troubles. Repair, upgrade – what to do?

Problems with an existing computer often initiate the desire to make a change. No busy office wants to suddenly be without such a crucial tool nor do workers want the headache of needing to retrieve and restore lost information or, heaven forbid, lose records altogether. When problems arise owners may lose confidence in the equipment and perhaps rightfully so. But, each situation must be scrutinized individually; the problem might not even be related to the hardware.

Operating system files essential to the computer can become corrupt and cause all kinds of problems. This corruption can take place when computers are shutdown improperly, are exposed to power outages, improper removal of software programs, or other poor user actions, and viruses or spy-ware infection. But, guess what? Sometimes Windows just 'ups' and corrupts its own files without any help from the human element. If problems in Windows are the root of the trouble, it may not be necessary to invest in new equipment after all.

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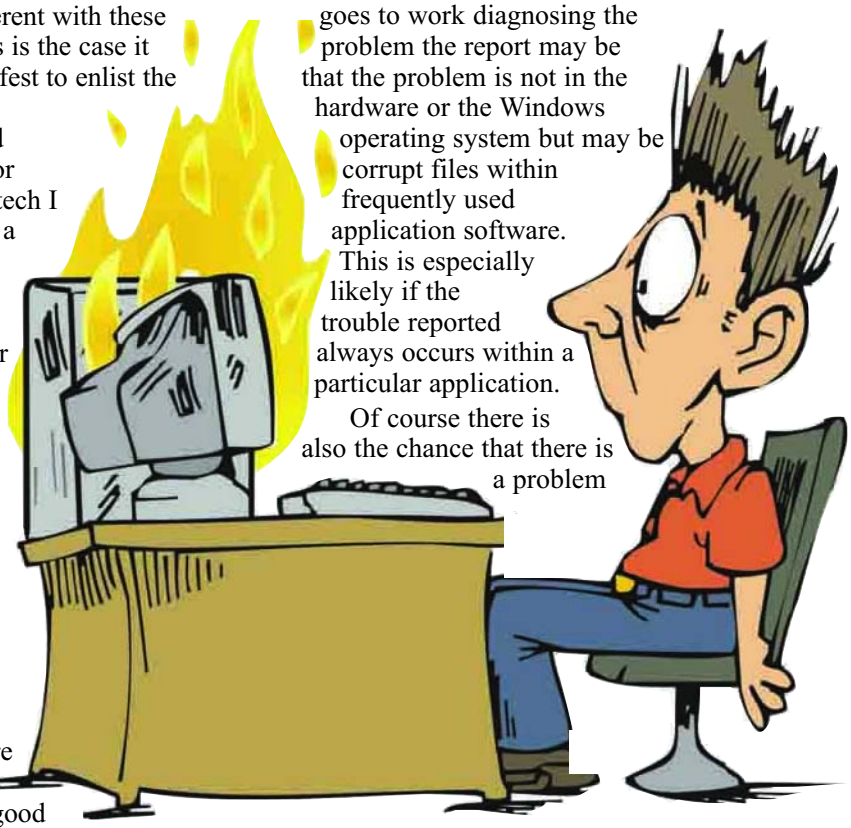
That is not to say that the computer will heal itself. There is still bound to be some time or expense or both involved in rectifying the problem. Sometimes the only good answer is to reformat (completely erase) the hard drive where all data and programs are stored. This requires recent backups and the need to have the original operation system CDs and application software available. And yes, the vital key codes and driver disks will also be needed.

When is a tech a "tech?"

There are self-help utility programs available that can often help avert the need to reformat the hard drive. But if anyone is only now learning of them from this article, it is not likely that he/she would have the experience to avoid pitfalls inherent with these tools. If this is the case it might be safest to enlist the help of an experienced technician or "tech." By tech I don't mean a daughter's 'computer wiz' boyfriend or the computer hacker who lives down the street. For every skilled and capable amateur computer technician, there are several more that claim to be. Use good judgment in enlisting help for computer woes. The kind of help that just makes matters worse is not what is needed. Unfortunately, even those working in the industry are sometimes less competent than they should be. For that reason it is good to know something about the person hired to take the reins of your electronic workhorse. If one doesn't have the luxury of knowing, they shouldn't be afraid to ask. If the answers are in rapidfire 'computerease,' remind the tech that a lay person wants to have a fair idea of what operation is to be performed and why. A competent tech will be happy to explain the situation in simple, understandable terms.



ILLUSTRATIONS BY LINDA WINDLER

Software or hardware?

Once a trustworthy technician goes to work diagnosing the problem the report may be that the problem is not in the hardware or the Windows operating system but may be corrupt files within frequently used application software. This is especially likely if the trouble reported always occurs within a particular application.

Of course there is also the chance that there is a problem in the program itself, a 'glitch' in the software. However, if the same program has been used trouble-free for a long time in that same version this is an unlikely conclusion unless there has been some other change in the computer

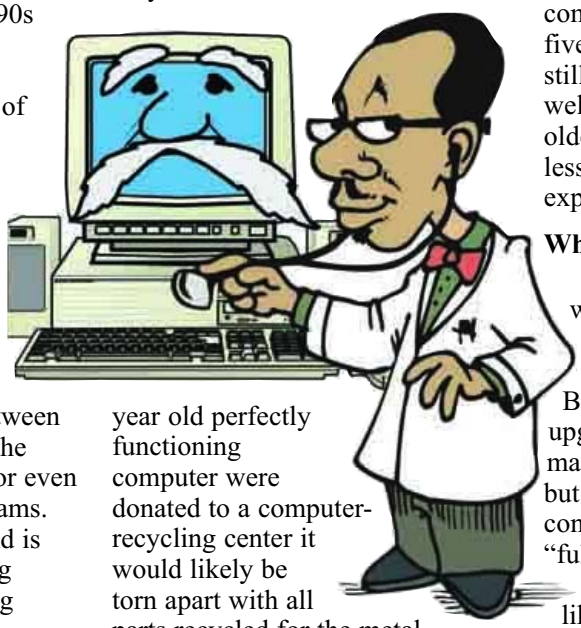
that has caused an incompatibility. These types of problems are often hard to track down especially when it requires going back and forth between different software and even hardware manufacturers. As an example, in the mid '90s Gateway Computers used a particular modem chip incompatible with a version of the remote access modem software PC Anywhere. Eventually the chip company and the software company both addressed the problem and got it fixed.

Incompatibility can exist between application software and hardware like in the example above, or between a program and a version of the Windows operating system or even between two software programs. This situation is common and is illustrated by people thinking 'more is better' and installing multiple virus checkers on a computer. One program can believe that the activity of the other is an enemy attack and acts accordingly. Speaking of attack, always consider the possibility of virtual vandalism. Obviously computers exposed to the Internet are at greater risk of contracting a virus than those that are not, however a virus can be passed from one computer to another by inserting an infected disk. Don't believe a computer on a network is safe just because it is not used to access the Internet. If no precautions have been made to protect that machine from its networked brothers accessing the Internet, it too is vulnerable.

After a computer's checkup, and if the computer is not very old, the technician may make recommendations of how to upgrade the machine for a reasonable investment. No matter what is done, keep good backups. Retrieving data from a troubled machine can be very expensive.

New means "new"

If the machine is more than five years old and having problems, the answer is a no brainer. Buy new! If one doesn't think five years is very old consider this. If a five year old perfectly functioning computer were donated to a computer-recycling center it would likely be torn apart with all parts recycled for the metal and plastic salvage. If a computer had been purchased with the idea that it would serve for 10 to 20 years like a farm tractor, the buyer may be disappointed. Even if a computer could function for 20 years, the rest of the world would pass it by. Don't blame the computer. Even though it may be five years old, the computer may still operate and function just as well as it did when it was new. An older computer doesn't become less capable. Growing human expectations make it seem so.



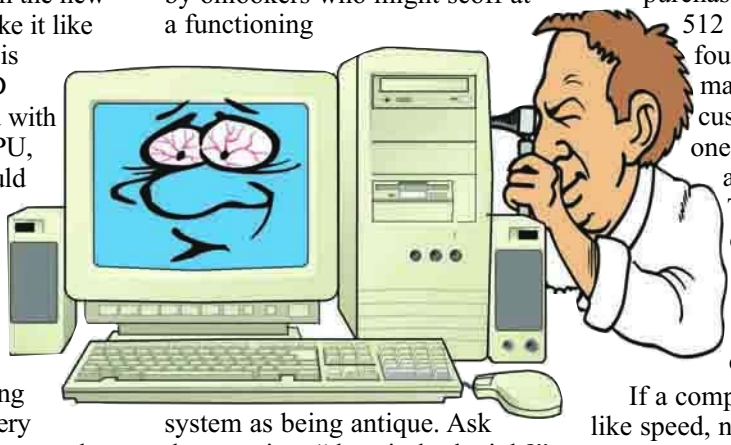
What is an upgrade really?

I have seen people mortified when a tech explains that a machine is not worth upgrading. "But the man at Best Buy told me it was fully upgradeable," they protest. He may have been telling the truth but only if money is not a consideration. How might the term "fully upgradeable" be defined? If the answer is to make it act like a newly purchased computer, a complete 'upgrade', switching out of parts, may be doable but not practical. If a computer is even

a couple of years old it has the older slower technology of an IDE hard drive. To upgrade to today's technology, an old drive needs to be replaced with a new, larger SATA drive. Of course the motherboard everything attaches to won't take a SATA drive and memory sticks that were attached to the old motherboard won't fit on the new one. If the goal is to make it like new – modern memory is needed anyway. The CD drive would be replaced with a new DVDRW. The CPU, the computer brain, would also have to be replaced. And if this computer is to be like a new one, the operating system will have to be upgraded to Windows XP Professional. The long and short of it is that every component in an old computer has improved over the years. So to be "fully upgraded", every component would have to go. It's likely that the old case wouldn't fit the new motherboard or at least wouldn't have those handy USB ports on the front. The entire process would be folly. I say folly because now a technician is being paid for the hours it takes to swap out all the old computer parts in order to retain a case and power supply that might not even be usable. When done, all that is left is a pile of now worthless parts, a new computer with a big bill for parts, the tech's assembly time and other associated costs to build it. A new computer with a spanking new warranty would likely cost less and the old computer could be kept and used for a less intense task like that of a dedicated e-mail machine.

Backups, part of the decision

If a computer is more than five years old the likely best choice would be to buy new. The hard drive on a computer is rated from the factory to last an average of five to seven years. After five years it is in the danger zone, but that is not to say a perfectly working six year old computer should be scrapped because of age. If the owner is satisfied with its capabilities and software in use is compatible then I say, "More power to you." Don't be coerced by onlookers who might scoff at a functioning



system as being antique. Ask the question, "does it do the job?" As always, do regular backups in case the life of the computer comes to an abrupt end. Remember, when depending on an old backup system like zip or tape, if anything happens to the old computer the old backup drive may go with it. In that case retrieving the information is not impossible but extra work at extra expense might be needed to restore the data.

Making smart upgrade decisions

I am not suggesting that a little facelift to an older computer (usually under five years old) is out of the question. I recently consulted on a computer that another technician had "upgraded." He told the customer, "If you move from Windows 98 to Windows XP the computer will run faster." The customer paid for an operating system upgrade. Now the computer barely performs at all. Why? Because a computer with only 128 Megabytes of RAM, plenty for Windows 98, was expected to run the newly installed Windows XP without adding the RAM to do the job. While Windows XP, when used properly, will run faster on the Internet than Window 98, it is a much hungrier operating system and gobbles up RAM like no operating system before it. We never recommend new computer purchases having less than 512 megabytes of RAM, four times that of the old machine. Most of our customers get at least one gigabyte, eight times as much as they had. The technician described above only did half the job and left the customer with an almost unusable computer.

If a computer has a problem like speed, noise or frequent shutdowns, the first step is to get a handle on what the problem is. Then the decision can be made to repair or move to a newer computer.

Software upgrades complete the package

Remember, and this is very important, when buying a new computer communicate with software provider(s) for recommendations and to see if a software upgrade cost should be added to the budget. Usually a new computer means a change to a newer version of Windows which may also precipitate the need to upgrade some application software. If help is needed in transferring data and setting up programs or assistance in a network setup, discuss these matters with the technician in advance to properly prepare for any downtime and expense. The changeover will go more smoothly when knowing what to expect and plan for.