Computer Corner

– graphic by Linda Windler, Thoroughbred Systems , Inc.

by Merle and Linda Windler
Thoroughbred Systems, Inc., Topeka, Kan.

This new feature to *The Kansas Lifeline* will address a handful of frequently asked computer questions in each edition. Readers are invited to e-mail questions to krwa@krwa.net to be answered in future articles.

Q. What is the difference between a CD-R disk and a CD-RW disk?

Both are round plastic disks with embedded metallic data recording layers that provide 650 Megabytes or more space to record data. Both have a pregrooved spiral track, like phonograph records of old, to guide the laser and record data from the inside to the outside of the disc in a single continuous spiral. The laser creates marks in the dye layer as binary code data (0s and 1s, sort of like Morse code) that is then unencoded for playback. On a CD-R, the composition of the dye is permanently transformed by exposure to the laser so since each part of the disk can only be written once - it is not possible to delete files and then reuse the space. New CD burning software will allow a CD-R to be recorded in multi-session mode, allowing data to be appended to the disc. When used as an archival disk, i.e., choosing non multi-session, the CD-R disk can be written to once and only once and may not be altered later. The difference, besides that a CDRW costs a bit more, is CDRWs are like the old floppy disks where data can be copied, pasted then later erased. The same disk space can be reused and written over – typically up to 1,000 times.

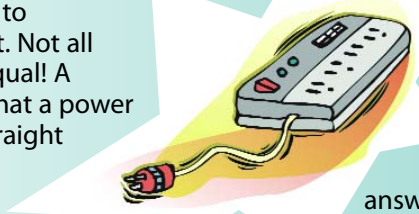
CD-R format is recommended for archival records, particularly when dealing in financial information. A monthly record made to a disk that cannot be altered is better evidence as to the day-to-day and month-to-month business of the office during an audit than a disk that can be changed. The other benefit is that a changeable disk like a CDRW or a CDR recorded in multi-session mode is more prone to developing errors and becoming unreadable.

Q. I picked up a six plug power strip to use with my computer but a friend told me I needed a surge protector like her's. The strips are similar in appearance; what is the difference?

The purpose of a simple power strip is to provide more places to plug devices in than the wall outlet offers. While a surge protector serves this function as well, it is also endowed with the ability to provide some protection from electronic surges that may come over the line. Simply put, electricity does not always enter a home or office uniformly. It can come in waves. This is especially true during

high usage times when the power company is trying to keep up with demand. At times like these, lights dim and brighten as the waves of electricity surge to meet the need. These spikes can be devastating to sensitive computer components. Such minor surges are usually handled by even the least expensive surge protectors.

The most extreme example of electrical surge is the one the power company doesn't bill us for, the lightening strike. In the case of a lightening strike, the closer the hit the more capacity the surge protector needs in order to successfully protect equipment. Not all surge protectors are created equal! A simple explanation would be that a power strip allows the juice to pass straight through; a surge protector is constructed with circuitry to limit peaks in the waves of electricity returning the excess to ground or absorbing it before reaching expensive electronics.



If a surge protector's packaging guarantees against lightning, be sure to read the fine print. This is not actually a guarantee that the device makes the equipment invulnerable to lightning. The guarantee may just be to replace the surge protector if it fails and fries a computer.

Guarantees on more expensive strips may promise to replace computer equipment. In that case, the purchase is a surge strip that includes an insurance policy for valuable equipment. To believe that a surge strip is an absolute protection is like believing the Titanic to be unsinkable. Remember, no surge strip can guarantee against possible loss of data and no company can replace that critical information. Protecting data is the reason doing backups is so important.

In a nuclear blast, the closer the hit, the deeper the shelter needs to be. With a lightning strike, the closer the hit, the better the surge protection needs to be. In both cases a direct hit is likely to have its way! So the best rule in protecting equipment is to buy a decent surge protector and don't run a computer during a thunderstorm. Likewise, when away from home or office and there is a chance of storms, unplug the computer or have quality recent backups and keep the office equipment insurance policy paid up! No matter what, always do frequent backups and keep them in a safe area that won't go up in smoke along with the computer!

Q. What is an AVR, and do I need one?

Head and shoulders above the run-of-the-mill surge protector is a device known as an AVR or Automatic Voltage Regulator. This device, also known as a Voltage Stabilizer, maintains voltage within required limits despite variations in input voltage or load. An AVR is a device with electronic circuitry designed to maintain a constant level in the amount of voltage on an electric line. It eliminates power spikes and brownouts, which can cause harm to sensitive electronics. While a mere surge protector only limits "peeks" or "spikes" of energy, the AVR provides a constant even flow and greater protection.

Who should have one of these? The answer is anyone who wants topnotch protection and is willing to part with $90 or more. Those who have clear indicators of voltage problems in a home or office such as lights that dim from the operation of such items as compressors, pumps, or air conditioners, are candidates for an AVR. Anyone with a persistent problem with voltage should seriously consider this investment.

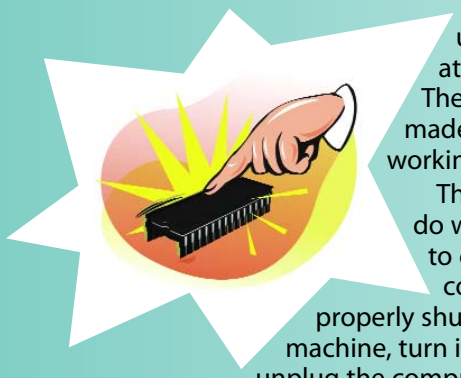
Q. I'm told that a buildup of dust in my computer can lead to problems. Do I need to buy expensive canned air to clean my computer out with or can I just use my air compressor?

Even in the cleanest of offices dust will find its way into the computer. Offices usually have a lot of paper that creates paper dust. Some computers that come in for repair, when opened, reveal dust bunnies the size of cotton balls. This example is extreme, but any layer of dust can lead to overheating of components.

In addition, dust and cobwebs absorb moisture from the air. Water conducts electricity which can cause a completed circuit that may fry sensitive components in a computer.

Naturally, keeping a clean computer is important but the answer to this common question, "Can I use my air compressor to blow the dust out of my computer?" is a resounding NO! Unlike moisture-free canned air, air compressor tanks condense moisture (that's why there's a drain at the bottom of the tank); an air compressor blows moist air. Water is the last thing sensitive electronics need.

When faced with a great deal of dust or pet hair, people will sometimes employ the use of a vacuum cleaner, but beware! Don't place a metal vacuum attachment against your electronic components. Metal conducts electricity and one touch to your sensitive RAM chips can provide a very large repair bill. It is best to use plastic attachments. There are vacuums made especially for working on electronics.



The first thing to do when preparing to clean a computer is to properly shut down the machine, turn it off and then unplug the computer. When using canned air for a light cleaning, the plastic straw provided with the can of air can be used in the computer's openings like the CD and floppy drives, the power supply fan grill, and any other vents to blow out some of the dust that's been sucked in by the computer fan.

If a more thorough cleaning is desired, remove the case lid. Remember, there are many components that are extremely sensitive to static shock. It is best to not work on an open computer in clothing that promotes static charges like a sweater. Even be aware of the flooring. Carpet will cause extra static. Be sure to discharge any static from your body by touching metal before working on the computer. If static is a serious problem in office or home there are a variety of static dischargers on the market. They include everything from a band worn on the wrist to pads that sit under the computer to pads that sit under the desk.

If the inside of the computer is caked with substances like nicotine from smoking or grease from a kitchen, merely blowing out or vacuuming may not be adequate. There are products on the market that can remove those substances without harming the electronics, if they are used properly. But usually, such an extensive cleaning is best left to those with some experience.

Q. My new computer came with Microsoft Vista as the operating system on it and some of my software programs won't run. Also, my programs keep giving me an error message in Vista. What can I do?

Yes, it's true... a lot of older software programs will not run under Vista. In many cases there may be only one REAL alternative. That is to purchase a software upgrade specifically designed to work with the new Vista operating system.

Programs that have reported problems running under Vista include, but are not limited to:

CompuServe, Skype, Office 1997 and earlier, Grisoft's AVG 7.5 Free Edition, many older versions of Roxio and Nero DVD/CD Authoring programs, ActiveSync, Windows Mobile 2002 or older, Photoshop CS, Guitar Pro 5, The Shield Antivirus 2006 and 2007, Corel WPX3; OmniPage, and lots of graphics and gaming software.

In the water industry many telemetry, meter reading systems,

Commerce Bank
Member FDIC
Manhattan Locations
727 Poyntz Avenue (Main Bank)
1350 Westloop (West Bank)
17th and Anderson (KSSU Branch)
785-537-1234
commercebank.com

and office management programs still do not support Vista. It's always wise to make sure software and hardware will "play together" nicely before making major purchases.

One possible solution is to run the program in Compatibility Mode. To do this, Right Click on the .EXE file for the program to be used. Select PROPERTIES and COMPATIBILITY options. Then, select the version of Windows that the program was originally designed to run on. If it doesn't work, try another.

Another, possible solution is to use the "Run As" feature and run as Administrator. Right Click on the .EXE file for the program to be run. Select RUN AS... and select Administrator mode while entering the appropriate Administrator password.

As a last resort a possible solution is to disable the new Vista User Account Control (UAC) security feature.

Open up Control Panel and type in user account into the search box. See the link for "Turn User Account Control (UAC) on or off". Click it. Uncheck the box, and reboot computer.

Some older windows programs will continually lockup in Vista with a message "202 memory error" prompt.

Right click on the .EXE file and choose "Run as Administrator", click "Allow" (Assuming the UAC has already been disabled).

Q. What is this UAC stuff they keep talking about in Vista? And should I REALLY disable it?

User Account Control (UAC) is a new security feature intended to be an addition to the several layers of protection most users already have along with antivirus, firewalls, and malware detector programs.

In Vista, users are expected to only run administrative privileges when required. Users will run all operations as a regular, non-administrative user. This includes people logged in as administrative accounts. Even if logged in as an administrator on a Windows Vista machine, you will still be running tasks as a regular user. Vista runs Users with the absolute minimum privileges needed to do most tasks. Whenever there is a need to do something that requires administrative permissions, there will be a prompt to confirm an intended action and a wish to continue.

If logged in as a regular, non-admin user, there will be a prompt to type in the username and password for an administrator account before the action can be completed. The UAC prompts will be activated when trying to do any of the following:

- Installations (hardware, drivers, ActiveX controls, updates)
- Changing system settings (firewall, network adapter settings, UAC itself, modifying parental controls)
- Changing another user's settings
- Working with anything owned by another user of this computer (such as their files)
- Running an application that has been specifically tagged to run in admin mode as a compatibility issue.
- Software installs and system configuration changes most commonly trigger UAC when Vista is first set up.

Microsoft highly recommends that as a user, DO NOT disable the UAC. If this is done it will activate a red X shield icon and cause it to appear on the taskbar, warning constantly of the security risk. Microsoft recommends a user to not turn the UAC off unless no other workable solution to software problems can be found.

UAC provides an extra degree of protection against malware that attempts to run as an administrator. If the UAC dialog pops up by itself without a user taking some action which should trigger it, possibly a malicious program has been triggered silently in the background. Close attention should be paid to which program triggered it and where it resides (the user can find out by clicking the Details tab). If in doubt, hit Cancel. It's always nice to know that UAC can let a user know when a program is being executed administratively without permission. The security protection that UAC provides in Vista is similar to security features that have been around for some time in the Mac and Unix world. It's meant to address how privileged elevation is managed in Windows and to provide a means for people to elevate privileges to the admin level, only when they're needed. And, give the computer user some additional protection against programs that might take actions on the computer not in the owner's best interests

If readers have any computer questions for Computer Corner, please let us know by e-mailing questions or comments to krwa@krwa.net. Happy Computing!