

Conserving Energy with Your PC

by Leeon J. Pezok, Sr.

Saving money and energy conservation are hot topics in our world today. We don't need to discuss Global Warming or Gas Prices to understand the importance of power conservation – although those are key factors.

Modern computers feature power saving modes such as standby, hibernation, and the ability to turn off unused components like printers, monitors, and hard drives.

Device Conservation

Laptops have been able to shut off their built-in LCD monitor and Hard Drives for many years, allowing them to conserve energy while running on battery. Now, most modern desktops (and servers) have this capability. By automatically shutting off the hard drive and monitor when not using your computer, the energy consumption is reduced by nearly half.

Best Practice: Use the automatic features to turn off the monitor and hard drives – 15 to 20 minutes for each feature is good in most circumstances. Don't forget to use your printers power saving features!

Standby Mode

Standby mode turns off a computer's hard drive and monitor and reduces the motherboard's power consumption to the absolute minimum required to retain the memory contents. Resumption of the computer is usually very quick, less than one minute, and leaves the computer programs in memory just as before system standby.

Best Practice: Set the suspend mode to 45 minutes. Remember to save data before walking away from your computer.

Hibernation

Hibernation mode is useful for returning your computer to the last operating state, while conserving the same electricity as if the computer was turned off. The drawback is that the startup time from hibernation mode is just as long, and sometimes longer, as turning the computer on after a normal shutdown.

Best Practice: Use hibernation mode only where necessary, otherwise perform a normal shutdown and allow the machine to "refresh" when you next turn it on.

Turn It Off

It is simplistic, but effective. If you are not using your computer, shut it off. There are limitations to this, of course. If you are stepping away from your computer for an hour or so, it may be more damaging to your computer to turn it on and off, over and over, each day than it would be to leave it on.

Best Practice: Turn off your computer over-night and while you are away from it for more than a few hours.

Replace your old CRT (tube) based monitor with a new LCD monitor. LCD monitors use substantially less electricity than tube based monitors and they generate less heat, keeping your environment cooler.

LCD monitors are inexpensive and provide crisp graphics and more accurate colors when used at their native resolution.

The LCD panels in these monitors have a fixed number of pixels; when the video resolution is less than this maximum, most monitors enlarge the screen creating a fuzzy or soft appearance to graphics and text.

Best Practice: Use the highest (native) resolution of the LCD Monitor.

Standby uses more electricity than turning off the computer or using hibernation mode.

Even when your computer is turned off, electricity is flowing through the system board. During severe weather, unplug your computer to protect it from spikes and surges. Electrical spikes can follow your network and phone cables; don't forget to unplug them too.

Best Practice: Use an Uninterruptible Power Supply to protect your computer from power issues.

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