

Dangers of holding the **POWER** button!

By Nick Patterson

When shutting down a computer using the Operating System, Windows for example, will close all programs (prompting you to save files that are being edited, etc.), stops the harddrive arm that's moving across the disks and parks it safely, locks the paging file, closes access to registry, records information for the next startup, and dismounts all storage volumes and media readers.

A hard shutdown (holding power button until computer turns off) does not allow any of this to take place. If files are open, only the previous state of the files before being opened will remain. If the hard drive is writing data, that will be interrupted, leaving the possibility for corrupt data, or in some cases, a completely corrupted hard drive since the little arm that is moving across the harddrive came to an abrupt stop and scratched the disk. It is also one of the causes of the "NTLDR is missing, press CTRL ALT DEL to restart" message.

A regular shutdown also disconnects power in a certain order for the hardware, and undue stress is imposed when doing a hard shutdown on the hardware, since everything's designed to be turned off in a certain order. While everything **appears** to shutdown at once, there's microsecond intervals. *Note that I did not say it necessarily damages the hardware, just puts extra stress on it, possibly leading to a shorter hardware life.

We recommend to always use a UPS (Uninterrupted Power Supply), it's a battery that if there is a power failure the UPS will continue running the system while telling it to do a normal shutdown. Certain UPS's can also condition the power going to the system making it cleaner. The Cleaner the power, the longer computer power supplies last.

Another danger besides power loss or hard shutdowns is power fluctuations which can occur during a blackout, brownout, electrical storm, or other reasons, so be sure to use a quality surge protector.

Try to figure out why the computer is freezing or running poorly early on so you are not forced to repeated hard shutdowns. Our Technical Support is available 24/7 and will be able to assist with issues before its too late and hardware needs to be replaced.

Please see the next article to follow for a How-To guide to restarting the computers/software in your Papertech System