



PC Basics II

***More Hardware/Software
Protection
Emergency/Errors
Safe Mode***

More Hardware

What are they? How do they connect? Any tips/troubleshooting?

Cable & DSL Modems - "Interpreter" for high-speed internet

Routers - Ties multiple computers/devices to create a LAN and tie it to a WAN

Hubs - A "splitter" allowing devices to take turns using something (PC hub, USB hub, etc)

USB Memory Sticks - Very cheap and very portable storage devices

Cell Phones - Coordinate with computer to share address book, pictures, songs, etc.

iPod/MP3 player - Portable music device that gets its content from a PC

Others?

More Software

Recap: Operating System, Support, Applications

Utilities (perform a "job")

Security, cleaning, backup, monitoring, filtering, controlling. May be part of Windows (scan disk, disk defragmenter, restore, backup) or they may be third party software (installed separately)

Windows Restore - set your computer back to a previous day (before the incident happened)

Start > All Programs > Accessories > System Tools > Windows Restore

Set computer back to previous date, select date, OK, etc.

Scan Disk - checks the cells of your hard drive for errors

Start > All Programs > Accessories > System Tools > Disk Cleanup

Choose drive (C, D) to scan and click OK. If asked, make sure you perform full/deep scan.

Defragmenter - over time, similar data is scattered or fragmented all over your hard drive, which makes your computer take longer to find and use that data. Defragmenting is re-organizing

Start > All Programs > Accessories > System Tools > Disk Defragmenter

Choose drive (C, D) and click Defragment button (turn off screen saver before doing this)

Back Up - back up a file, folder or drive easily. You can back up to a file and store on your desktop until you can transfer/email/upload it if necessary.

Start > All Programs > Accessories > System Tools > Back Up

Go through the Backup Wizard or manually select items to backup and where to back them up to.

Registry Cleaner - a downloadable free program for checking your registry for undesirable entries. Download from www.download.com (search Registry Cleaner).

Protection

Spyware has gotten to be a bigger problem than viruses. Viruses are not usually written to “damage” your computer. They typically just flood the internet with traffic which harms ISPs far more than users. Spyware, on the other hand, tends to clog up PC's, change or damage files and tie up Internet connections to the point the internet doesn't seem to work. Since spyware is different than viruses, anti-virus programs do not catch or remove spyware. Instead, you need spyware detection and removal programs. But there are even more threats than just viruses and spyware:

Software/Access & Ways to Protect

Some software or “access” considerations:

Viruses, spyware, worms, etc. - Regularly scan with updated security software

Crashes and errors - Shut down or restart occasionally, perform regular system scans or use hard drive maintenance software

Wireless signal tapping - Setup security codes on your Wireless modem to prevent signal tapping

Password and information leaking - Be smart about giving your information; leaving it out

User access - Open “Users” console in Control Panel to setup and restrict access to users

Other general tips:

- Don't open mysterious emails, especially with attachments
- Keep your computer in an open, common area so you can see what's going on
- Change your Internet password periodically
- Be patient with your computer; don't try to do too much or keep clicking if it's slow; instead close the program(s) and reboot if you need to

Hardware/Physical

Some hardware or “physical” considerations:

Surge protectors - Better protection from storm and power surges than normal power strips can provide.

Adequate power - Make sure the outlet you plug into is not overloaded and is properly protected.

Adequate ventilation - Keep your CPU off thick carpeting and in spot where it can get ventilation

Rain/spill damage prevention - Don't put near tables, open windows, sinks, etc.

Keep a clean CPU - Vacuum CPU by holding hose to a fan vent or open the case and vacuum out.

Cords/cables - Check cables and cords for any cuts or damage and tie them up and put out of reach of feet and pets.



Emergencies & Errors

“Common” Errors

Fatal Exception - refers to a program not responding properly. Restart program.

Server Not Responding (& other OE errors) - Most often a problem with your internet connection, but with email could also refer to email server settings (anti-virus program changing your servers, etc)

Page Not Found (& other IE errors) - Can also be internet connection issue, but often involves a mistyped web address or a web page that has moved or is not working.

Java Run-Time - error involving Java application on a web page. Either the Java app is not working OR Java is not enabled on your computer. Reset settings on Advanced tab of Internet Options.

Blue Screen - Usually a more serious Windows file violation. Try restarting computer.

Others??

“Common” Emergencies

Errors (like those listed above) - program or Windows errors following a conflict of some sort

Unexpected changes - settings, passwords, look/feel, icons, etc.

Non-responding programs - program stops working, screen goes weird in its “footprint”

Lock-ups - whole computer stops (no mouse, keyboard function)

Irreversible changes - Settings affecting computer operation that you can't find or reverse

Windows errors - Start-up, operational errors from Windows that force shut-down/restart/freeze

What to do about those emergencies/errors

Normal Program Restart - Close and restart program giving you problems.

Normal PC Restart - Close programs and restart computer.

End Task - Press Ctrl-Alt-Del keys, click Applications, click on non-responding program(s) and click the “End Now” button. You may also have to press “End Now” a second time.

Hard Boot - Just hold power button until computer goes off, wait 60 seconds and turn back on.

Windows Restore - Set Windows *settings* back to before problem began
Start > All Programs > Accessories > System Tools > Windows Restore
Set computer back to previous date, select date, OK, etc.

Program/System Restore - Use CD's from manufacturer to reload program/Windows. Usually this does not delete data or 3rd party software, but you should check with your computer manufacturer to get a good understanding of that their System Restore will do.

Reformat & Restore - This erases everything on your hard drive and reloads your Operating System so your computer is like brand new again. This is fairly technical and very final, so it is important that you seek professional computer help if you are not completely sure how to do this. It is important that you back up ALL data you wish to keep before you have this done.

Safe Mode

Safe Mode is a Windows environment where only the most necessary programs and drivers are running. It may or may not look really similar to your normal Windows operating system... it depends on what features and services you normally have running.

What is Safe Mode for?

Safe Mode is primarily used for diagnosing and fixing problems or doing some house cleaning and maintenance. You have limited options with files and programs that are running, especially when they are not running properly. Since Safe Mode eliminates all non-essential programs (common start-up files, automated programs, spyware, viruses, etc) you are free to clean out and make changes to programs or how Windows associates with them.

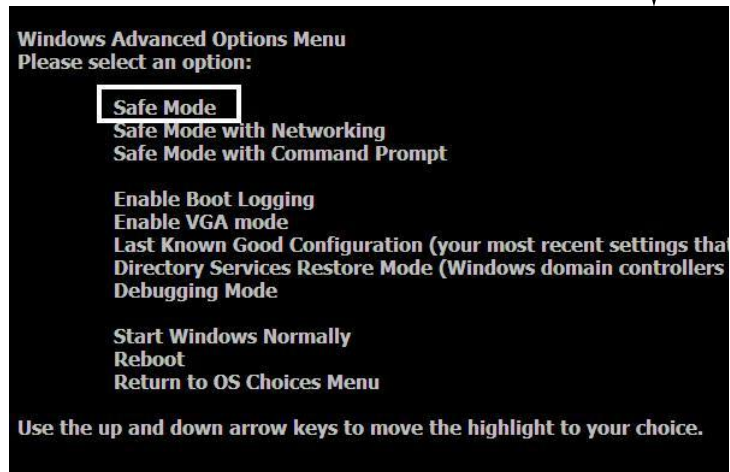
How do you get into Safe Mode?

There is a special procedure for getting into Safe Mode. Since timing is involved, you may have to try this more than once to get it right. First, restart your computer (or turn ON if currently off). Press the **F8** key repeatedly. Windows should stop loading and you should be presented with this screen

Once here, you can either choose **Safe Mode** or **Safe Mode with Networking** (if you need internet access to update your protection programs)

If you did not see this screen and Windows loaded as normal, restart and try again.

Windows will now start in Safe Mode. You should see "Safe Mode" in the corners and your wallpaper and icons may look different since automated programs and even your graphics card do not run in Safe Mode.



Now that you are in Safe Mode

Go ahead and open your Anti-Virus or Anti-Spyware programs and run a full scan. If you could not update them in normal mode and chose Safe Mode with Networking, go ahead and update them first. Typically, issues that could be seen but not removed in normal mode should be able to be removed now. From here, you can also add or remove programs from the Control Panel or fix any other issues (consult a technician if you are unsure or uncomfortable with what you are doing).

To exit Safe Mode and get back to Normal Windows

Simply shut off your computer or restart. Any time your computer starts, it will go into normal mode unless you push it to Safe Mode or the Setup Menu.