



PC Troubleshooting

(Basics)

SIR Area2

Computers & Technology

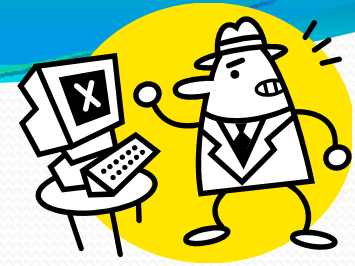
Dean Steichen Sept. 2010



Identify Your Problem

- Computer does not Boot or Boot completely?
- Computer Boots but Freezes later?
- Computer runs slowly?
- Some hardware component fails?
 - Examples: CD, DVD, Audio, WebCam, Printer, etc.
- Some program fails?
 - Examples: E-mail, Video Playback, etc.
- Internet Connection Fails?





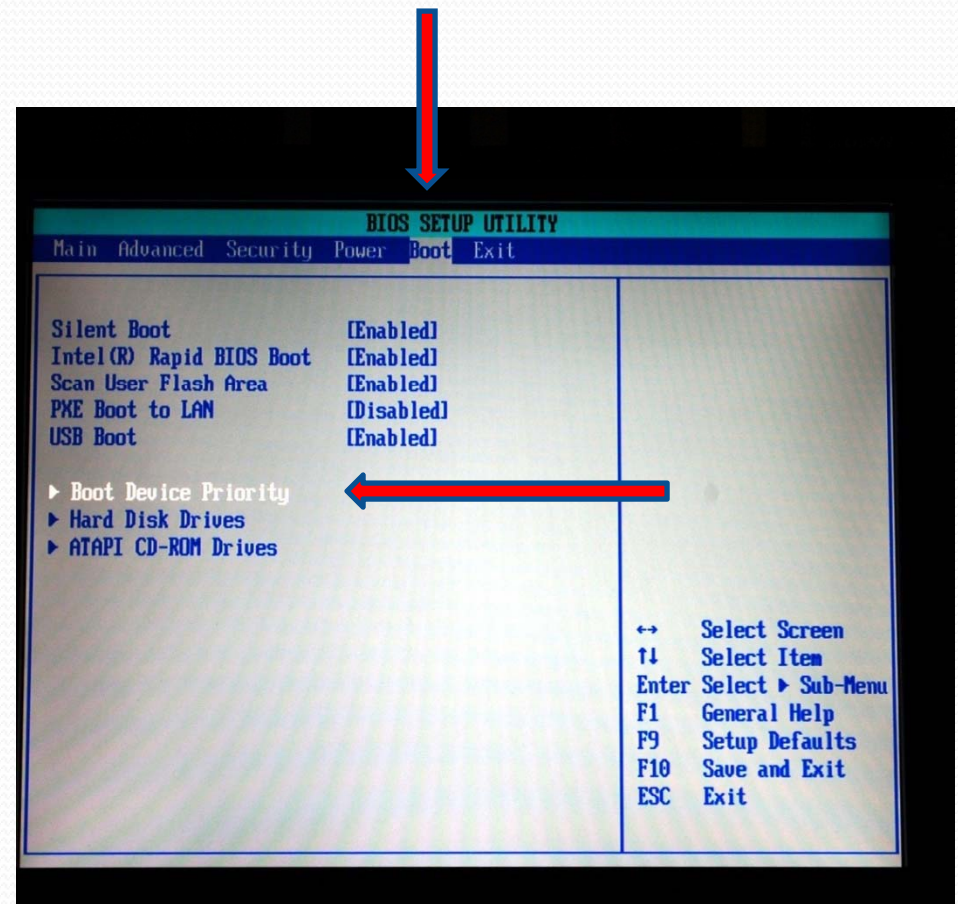
Boot Problems

- Check all power and data connections
- Verify Boot order (the order of devices Windows checks to boot from); set to boot from hard disk before diskette or CD/DVDs) [See How To Check Boot Order - CMOS \(Setup\)](#) Every BIOS does it differently so you will have to search for it. [Some BIOS offer it as a Boot Time Option so you don't need to enter the CMOS to set it.](#)
- Remove diskettes, CD/DVDs from drives
- Boot into “SAFE” mode (Hold F8 key) [See How To Enter SAFE Mode](#)
 - Run Disk Check and Defragment on C: Drive; shut down and re-Boot normally
 - Or try “Last Good Configuration”
 - Or try System Restore
- Call the Vendor and/or a “Professional” for Help



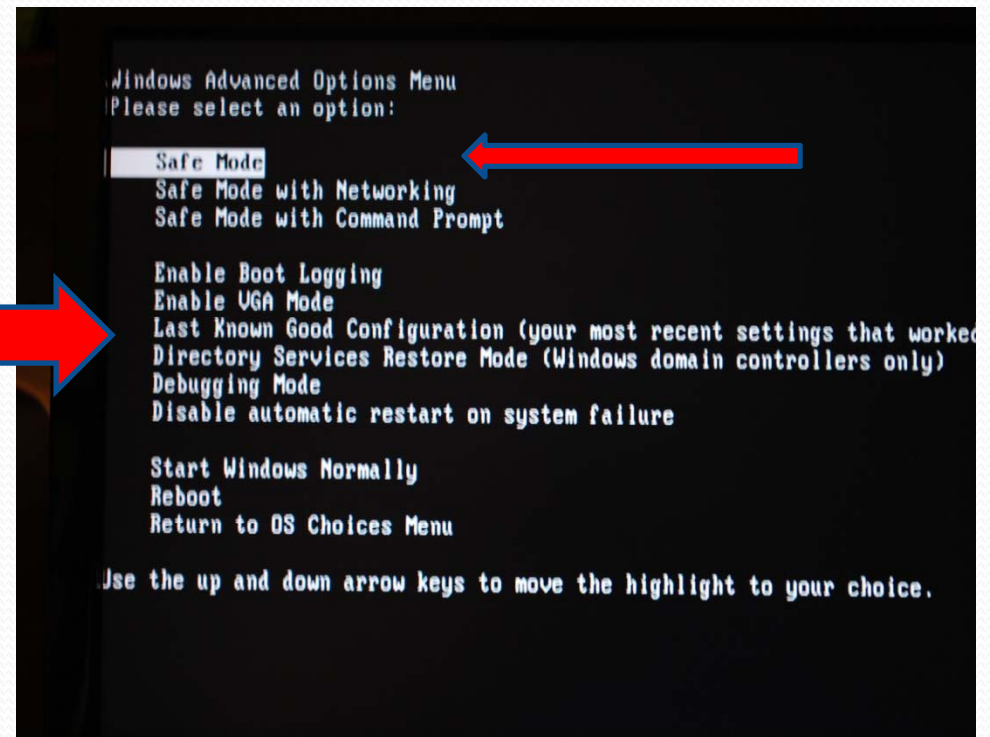
How To Check Boot Order – CMOS (Setup)

- **Enter CMOS (Setup) to check/reset Boot Order**
- Press DEL key, Esc key, F2 key, F10 key, Tab key or whatever your BIOS uses to initiate getting into Setup. Different BIOS uses different keys but you usually must press the appropriate key very soon after powering up the computer (before seeing the Vendor or Windows "Splash" screen) to enter Setup.
- Move to "Boot" Section



How To Enter SAFE Mode

- **Boot in SAFE mode**
- Press the F8 key after powering up but before seeing the Windows Splash screen. This usually requires repeated pressing of the F8 key immediately after powering up.



Computer Freezes

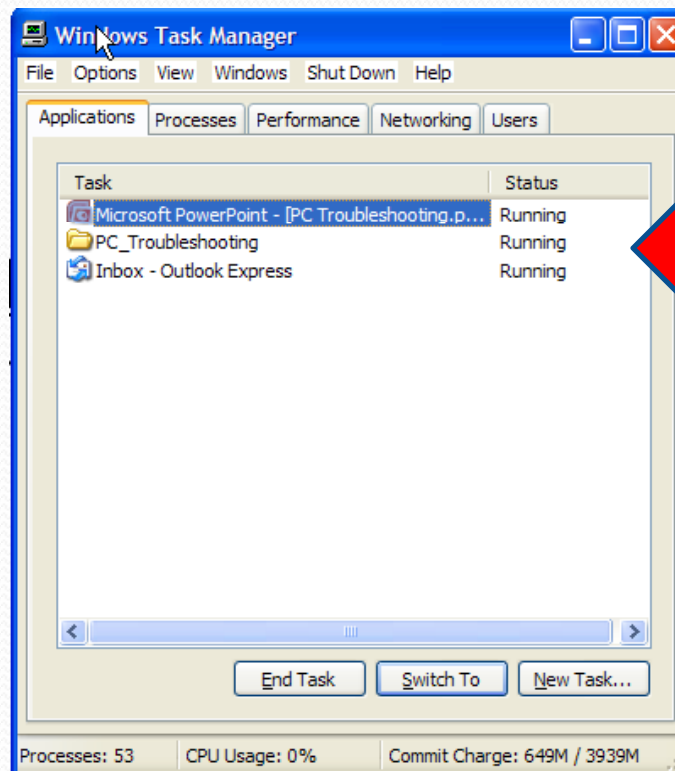


- Open Task Manager (Ctrl+Alt+Del keys) to see what is “not responding”; choose “End Task”. [See How To Open Task Manager](#)
- Press and hold your computer’s power button until the power is off. **Don’t unplug it.** Reboot and allow the scandisk program to run.
- If the problem repeats, note what program was running or what the computer was doing just before it froze. “Google” the problem description.
- You may have to re-install software or hardware



How To Open Task Manager

- Open Task Manager by pressing Ctrl, Alt and Del keys at the same time.



Will say "Not responding"
instead of Running

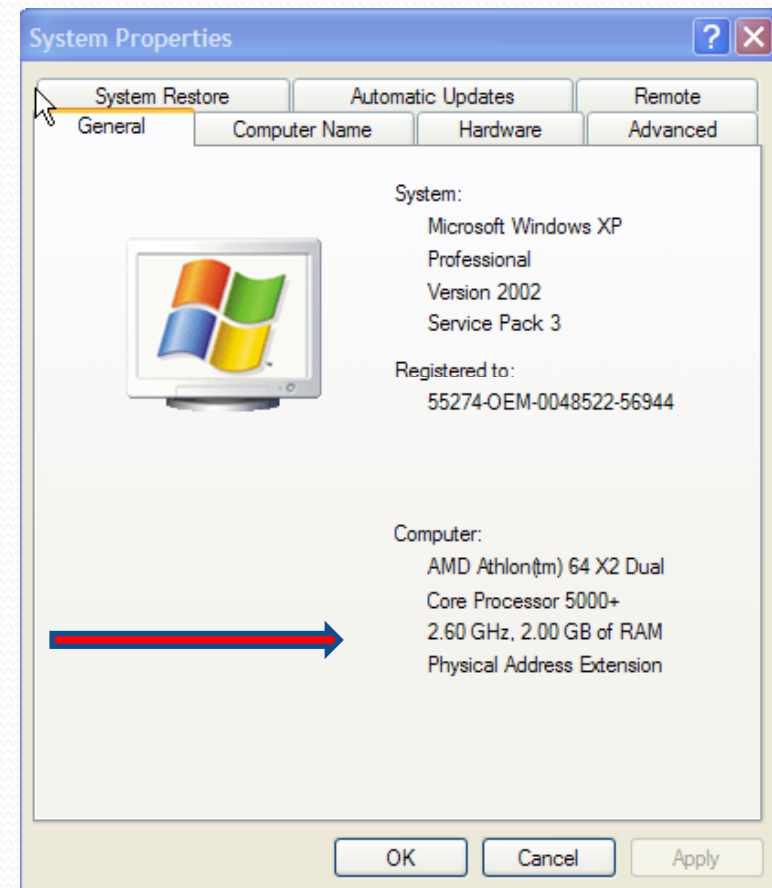
Computer Runs Slowly



- Do you have enough RAM? [See How To Check RAM](#)
 - XP Minimum 512MB; 1GB Recommended
 - Vista and Windows 7 Minimum 1GB; 2-4GB Rec.
- Run Windows Utilities or Equivalent Free programs
 - Disk Cleanup, Disk Error Check & Defragment [See How To Disk Cleanup & Check Disk & Defrag](#)
 - Free Equivalent programs –Ccleaner, AusLogics Disk Defrag, etc. [See Free Resources](#)
- Run an Anti-Virus Scan (e.g. Norton)
- Run an Anti-Spyware/Malware Scan (e.g. Malwarebytes)
- Remove un-necessary Startup programs (e.g. StartUpLite)
- Verify your IDE/ATA Controllers are using DMA mode
 - Windows drops DMA mode and converts to PIO when it encounters several read errors on a device (CD/DVD or Hard Disk)
 - [See How To Verify DMA Mode](#)

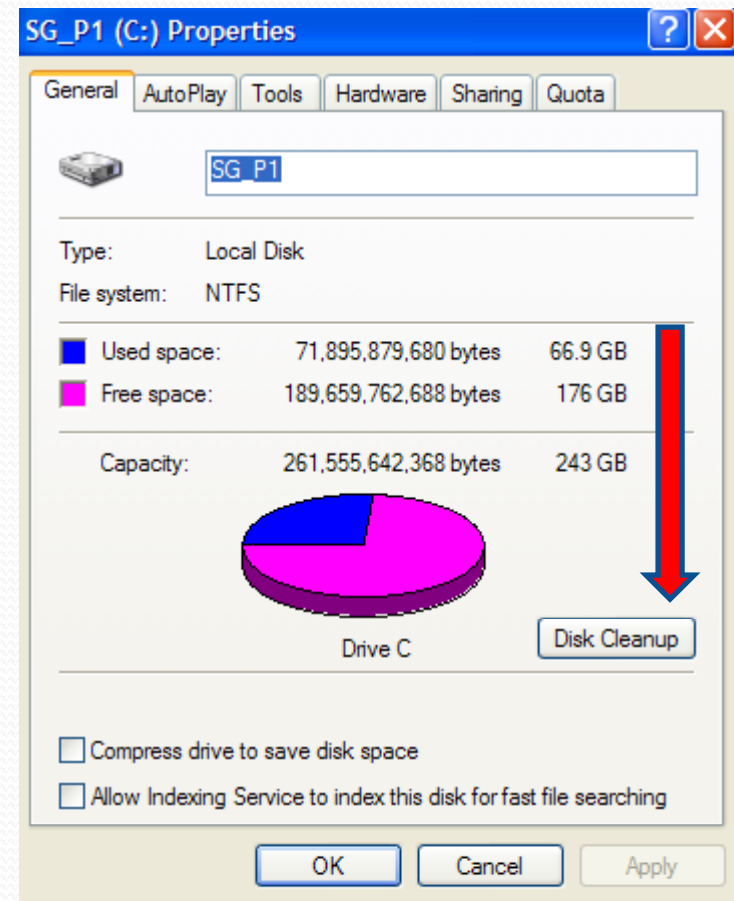
How to Check RAM

- **Check amount of RAM installed (Classic View of Control Panel)**
- Start, Control Panel, System, General Read RAM in the "Computer" section.



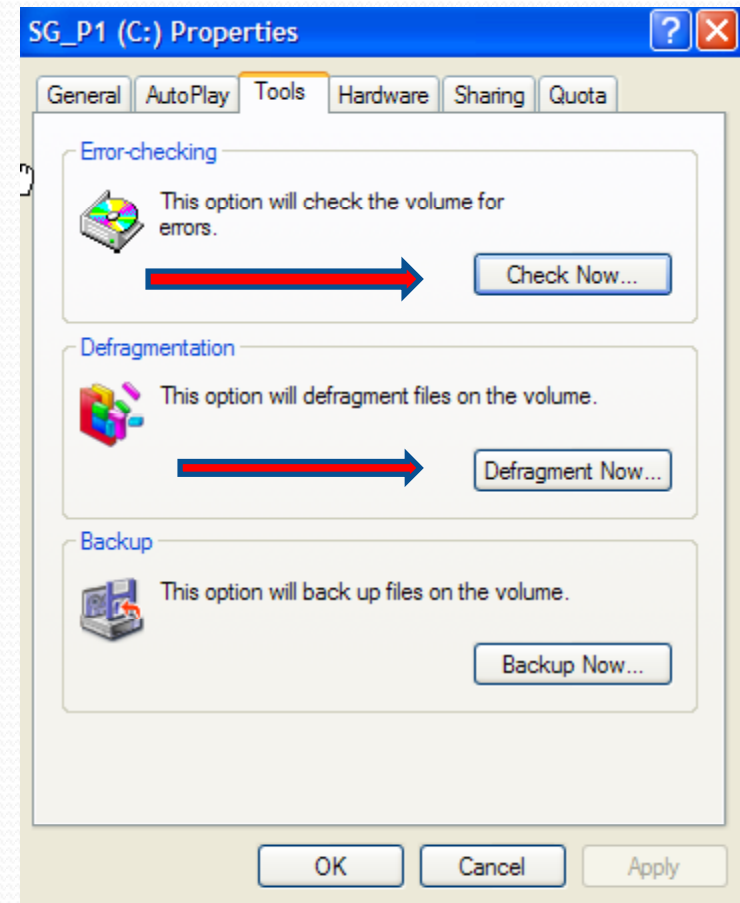
How To do Disk Cleanup

- **Disk Cleanup**
- Start, My Computer, Right click on your C: drive, Disk Cleanup



How to Check Disk & Defrag

- **Disk Check & Defragment**
- Start, My Computer, Right click on your C: drive, Properties, Tools, "Check now", and when that finishes click "Defragment now"
- You could use [FREE Resource](#) programs to do these tasks. They work faster and maybe better.



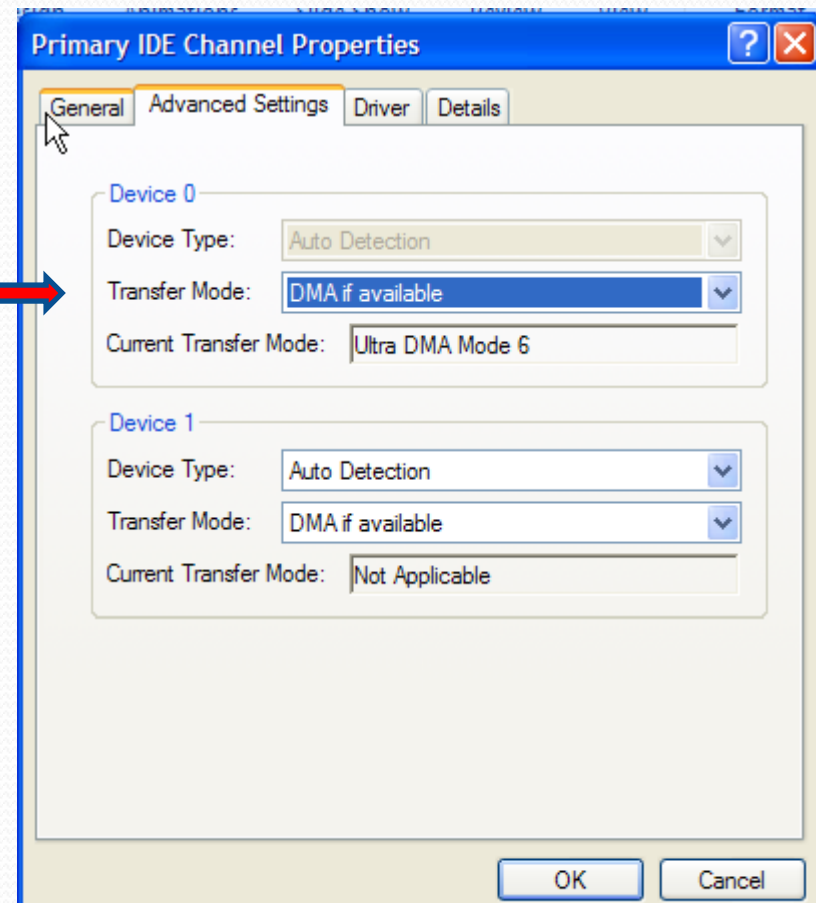
How To Verify DMA Mode

- **Verify DMA mode**

- Start, Control Panel, System, Hardware, Device Manager, IDE/ATAPI Controllers, Primary IDE Channel, Advanced Settings -Change Transfer Mode if it is not "DMA".

- **Reset IDE Controllers for DMA mode.**

- Start, Control Panel, System, Hardware, Device Manager, IDE/ATA Controllers, Right click Primary IDE Channel(s) , Properties, Advanced Settings. Reset Transfer Mode to DMA mode if it is PIO mode, Reboot. Do the same for the Secondary IDE Channel(s).





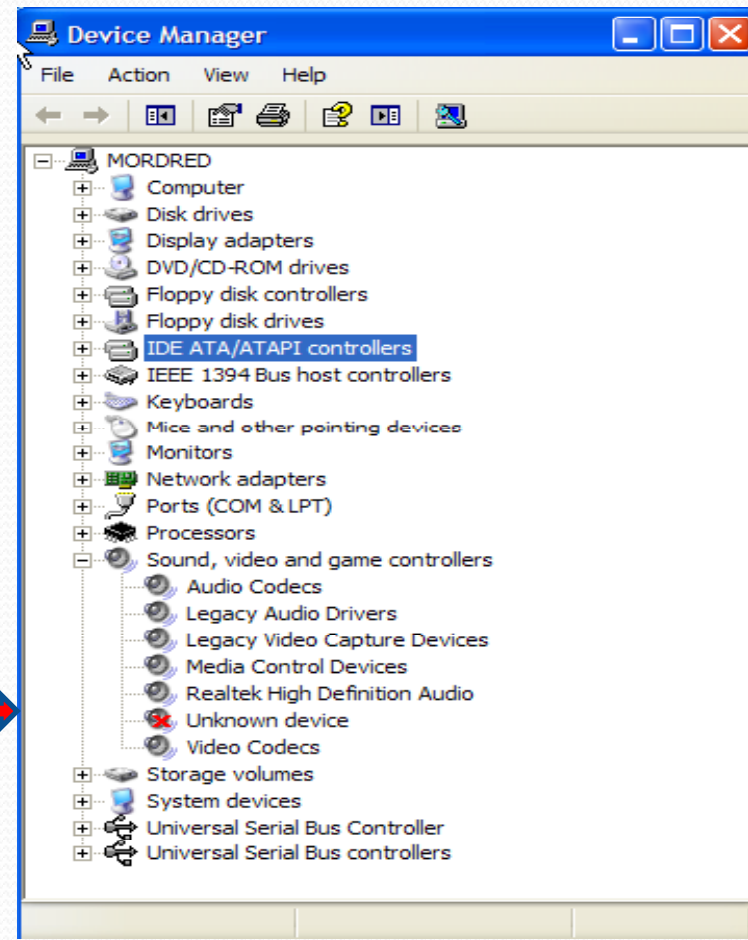
Hardware Problems

- Check Device Manager for Red or Yellow markers --
[See How To Check Device Manager](#)
- Check for updated device drivers from vendor or Microsoft and install them. [See How To Update Device Drivers](#)
- Remove device and re-install
- Replace device



How To Check Device Manager

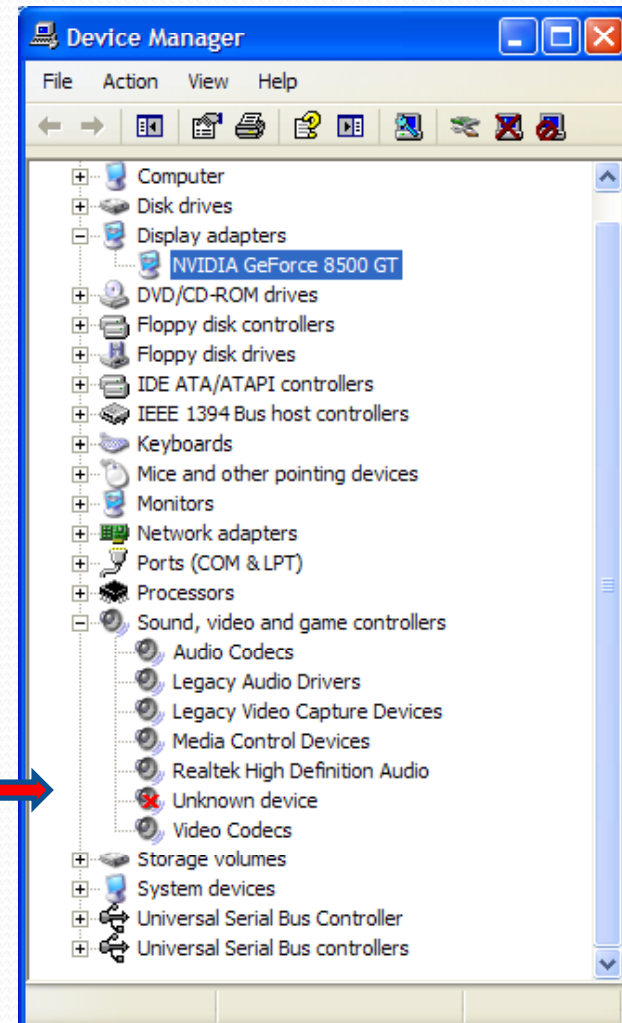
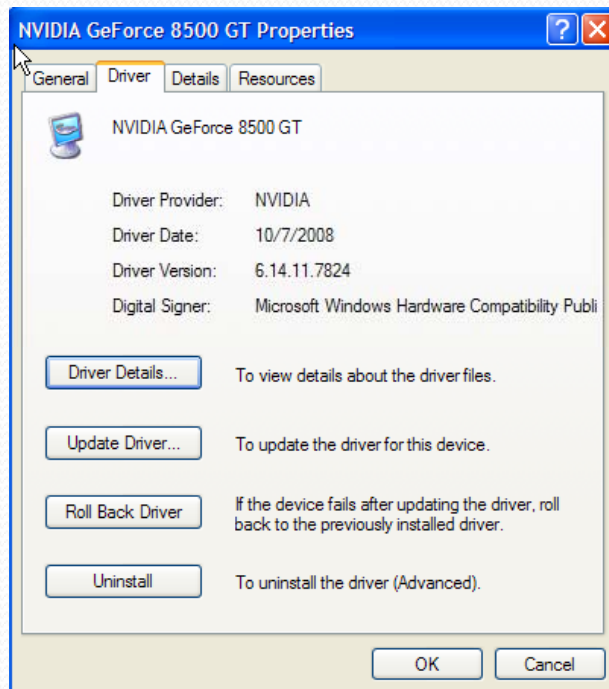
- **Device Manager -- (Classic View of Control Panel)**
- Start, Control Panel, System, Hardware, Device Manager, Work on any Red or Yellow marked devices or whatever device you are having a problem with.



How To Update Device Drivers

- **Update Device Drivers (Classic View of Control Panel)**
- Start, Control Panel, System, Hardware, Device Manager, double click on problem device(s), Driver, Update Driver

Example of updating Video Driver



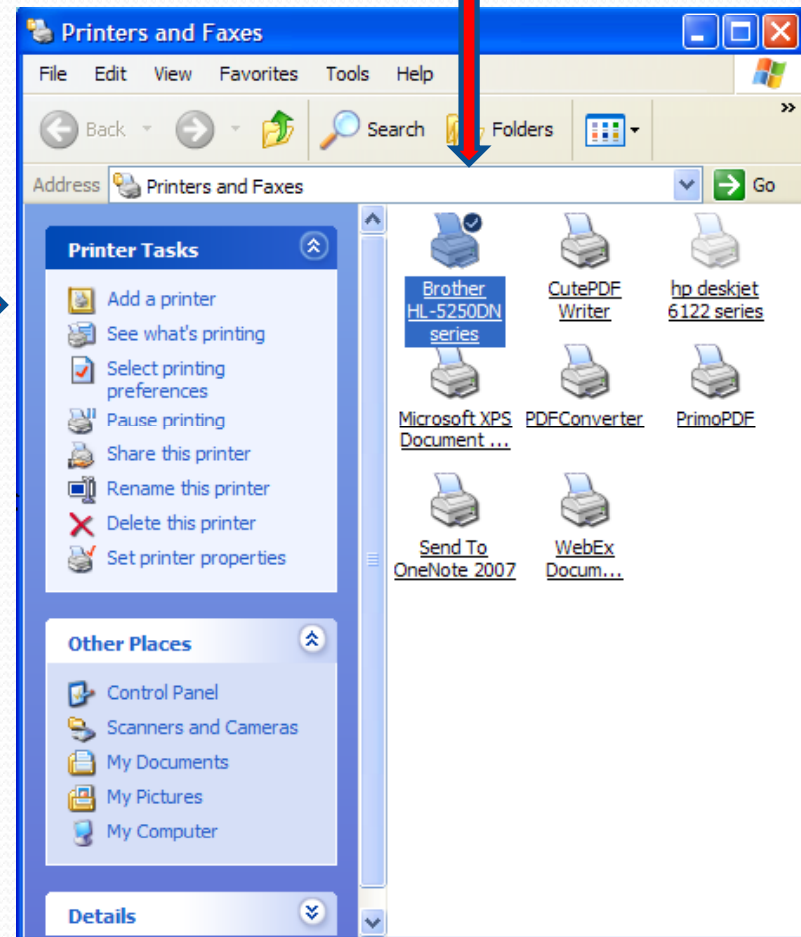


Printer Problems

- Check that your printer is set as the “Default” printer
- Select your printer and use the “Printer Tasks” menu to
 - See what’s printing
 - Select Printing Preferences
 - Pause Printing
 - Delete this Printer [See How To Check Printer](#)
- Try creating a test document using Wordpad and print it to test your print setup.
- You may need to delete and re-install your printer to fix your Printer problem

How to Check Printer

- **Printer Wizard**
- Start, Printers and Faxes or Start, Control Panel, Printers and Faxes ... Select your printer and use the Printer Tasks Menu to change Default printer, delete printers, add printers, etc.
- Right Clicking on the printer provides option to change “Default” Printer if you have more than one printer defined.



Software Problems



- Software problems are too numerous to document solutions here!
- Suggestions:
 - Note which program is failing.
 - Check the “Help Files”
 - “Google” the problem description
 - Re-install the program

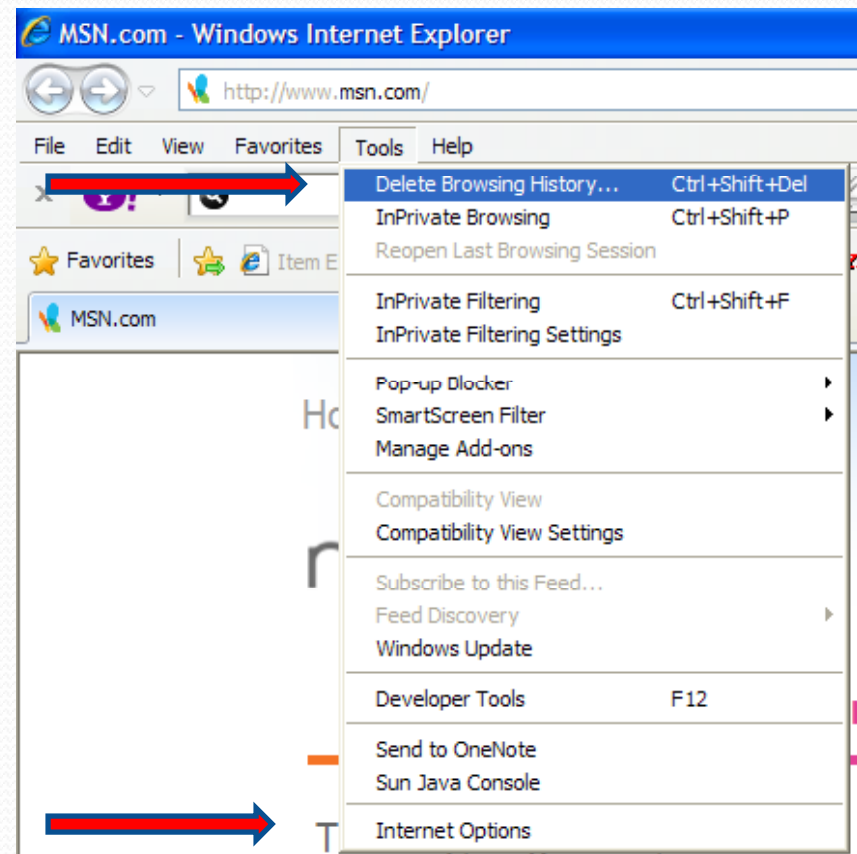
Internet Problems



- Delete Browsing History in Browser(s)
 - (e.g. Internet Explorer) [See How To Delete Browser History](#)
- Reset Modem and/or Router
 - Power them off, wait 30 seconds, power them up with the Modem first and the Router last
- Contact your Internet Service Provider and request Help

How to Delete Browser History

- **Delete Browser History**
- Internet Explorer Tools, “Delete Browsing History” Or Internet Explorer, Tools, Internet Options, General, “Delete Browsing History”





Free Resources 1

- Bart's PE Builder Disk
 - <http://barts-pe-builder.en.softonic.com/>
- Linux Boot Disk -- Ubuntu, Mandriva, or others.
 - <http://ubuntu.en.softonic.com/>
 - <http://www2.mandriva.com/downloads/>
- Utilities Disk or Folder --- Ccleaner, AusLogics Disk Defrag, Malwarebytes, StartUpLite
 - <http://www.piriform.com/>
 - <http://www.auslogics.com/en/>
 - <http://www.malwarebytes.com>
 - <http://www.malwarebytes.com> (Products)



Free Resources 2

- Bootable Anti-Virus Scanner Disk -- Bit-Defender Boot Disk, Kaspersky AV Boot Disk
- <http://www.techmixer.com/bitdefender-rescue-cd-with-auto-update-virus-definition-features/>
- <http://www.softpedia.com/get/Antivirus/Kaspersky-Rescue-Disk.shtml>
- Standalone AV Scanner Program -- Malwarebytes, Stinger, etc.
- <http://www.malwarebytes.com>
- <http://vil.nai.com/vil/stinger/>
- Bootable Memtest86 -- Test memory modules(RAM)
- <http://www.memtest86.com/download.html>