The New York Society Library Presents:



Basic PC Repair

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GETTING STARTED (back up your compute	r)	Page 03
HARDWARE PROBLEMS (check hardware first)		Page 04
OPERATING SYSTEM (boot in safe mode)		Page 05
DRIVERS AND SOFTWA (check Event Viewer)	RE	Page 06
SYSTEM RESTORE (roll back in time)		Page 07
SYSTEM REPAIR (patch up problems)		Page 08
SYSTEM REINSTALL (admit defeat and start	fresh)	Page 09

PC REPAIR GETTING STARTED



 $\frac{\text{BACK UP YOUR COMPUTER}}{\text{Start} \rightarrow \text{Programs} \rightarrow \text{Accessories} \rightarrow \text{Windows Explorer}}$

If your computer starts up, perform a backup immediately.

Don't worry about backing up the entire hard drive. Only back up files that you've created or had sent to you. The operating system and installed programs all have their own installation CDs. If disaster strikes, you will need to install these programs directly from their own CDs instead of from your backup.

- To make backups easier, store all of your original files (letters, writing, e-mail, photos, etc) in one folder on your computer. This folder can be divided into sub-folders.
- Back up your data onto a memory key or external hard drive. Consider storing non-sensitive documents online (either with Google Docs or by e-mailing the files to yourself). Keep copies of all of your original material in a location away from your computer.
- To backup your files, open Windows Explorer. Click the checkmark next to "Local Disk C:" to expand the column. Find your folder (i.e. "My Documents") and click and hold the left mouse button down. Drag the entire folder onto memory key or external hard drive. Release the left mouse button. The files will start copying onto the new drive.
- Once everything is backed up, remove the memory key or external hard drive from your icomputer.

PC REPAIR HARDWARE PROBLEMS



If your <u>computer</u> does not start up (or shut down):

- Hold the power button down for three or more seconds. If that doesn't work:
- Unplug the computer and wait for at least a minute.
- Replug the computer and turn it on.
- If it does not start up, test the wall outlet and power cable.
- Check to make sure the monitor is working properly.

If your <u>laptop</u> does not start up (or shut down):

- Unplug it and remove the battery.
- Replug the laptop with no battery and turn it on.
- If it starts up, reinsert the battery.
- If it doesn't start up, check the outlet and power cable to make sure everything is plugged in properly.



Does your keyboard have a light on front at startup?

- If not, are you using a USB keyboard?
- Do you have connections for a PS/2 keyboard?
- Try plugging in a PS/2 keyboard at startup (it's hard-wired

PC REPAIR OPERATING SYSTEM

Windows Advanced Options Menu Please select an option: Safe Mode Safe Mode with Networking Safe Mode with Command Prompt Enable Boot Logging Enable VGA Mode Last Known Good Configuration (your most recent settings that worked) Directory Services Restore Mode (Windows domain controllers only) Debugging Mode Disable automatic restart on system failure Start Windows Normally Reboot Use the up and down arrow keys to move the highlight to your choice.

SAFE MODE

If you can see power on your computer, monitor and keyboard, and your computer still won't fully start up, try booting your computer in Safe Mode (minimal drivers and no networking).

To boot your computer into Safe Mode:

- Turn the power to your computer on
- Once your computer starts listing installed hardware (but before entering the Windows), start tapping the F8 key repeatedly.
- If successful, you will be presented with a Windows Advanced Options Menu. Select "Safe Mode" from the menu using your arrows key.
- If unsuccessful, reboot your machine (you may need to unplug it) and try again.

Once your computer has started in safe mode, try figuring out what is causing the startup problem:

- Write down any error messages at startup
- Find a computer with an Internet connection and enter the error message, with quotes, into Google. Confirm solution with multiple websites.
- If there are no error messages, check the Event Viewer, then reboot the machine into regular mode.

PC REPAIR DRIVERS & SOFTWARE

Event Viewer					↔₽		×
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🛐 Event Viewer (Local)	Application 444 event(s)						
- Martin Application	Туре	Date	Time	Source	Category	Event	^
Security	Information	2/18/2006	8:02:22 PM	MsiInstaller	None	11728	
System	SError	2/18/2006	8:02:18 PM	.NET Runtime	None	0	
	SError	2/18/2006	12:16:26	Microsoft Office 11	None	1000	
	Information	2/18/2006	12:09:00	Microsoft Office 11	None	1001	
	SError	2/18/2006	12:08:45	Microsoft Office 11	None	1000	
	SError	2/17/2006	8:43:44 PM	Application Hang	(101)	1002	
	SError	2/17/2006	8:43:41 PM	Application Hang	(101)	1002	
	SError	2/17/2006	7:44:32 PM	Application Hang	None	1001	
	SError	2/17/2006	7:44:29 PM	Application Hang	(101)	1002	
	Information	2/17/2006	12:32:09 PM	MsiInstaller	None	11707	
	Information	2/17/2006	1:00:59 AM	MSSQL\$SQLEXPRESS	(2)	17403	
	Information	2/16/2006	7:13:49 PM	Winlogon	None	1002	
	Information	2/16/2006	5:55:50 PM	.NET Runtime Optimiza	None	1104	
	Information	2/16/2006	5:55:50 PM	.NET Runtime Optimiza	None	1102	
	Information	2/16/2006	5:55:50 PM	.NET Runtime Optimiza	None	1100	
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	Information	2/16/2006	5:55:50 PM	.NET Runtime Optimiza	None	1100	×
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EVENT VIEWER

Start \rightarrow Settings \rightarrow Control Panel \rightarrow Administrative Tools \rightarrow Event Viewer

If you can boot your computer up, use the Event Viewer to gather information about hardware, software, and system problems.

Check all three of these Event Logs:

- <u>Application Log</u> contains events logged by applications or programs. A database program might record a file error in the application log.
- <u>Security Log</u> records events such as valid and invalid logon attempts, as well as events related to resource use such as creating, opening, or deleting files or other objects.
- <u>System Log</u> contains events logged by system components. The failure of a driver or other system component to load during startup is recorded in the system log.

Note the date/time and Event ID of the error message. Write down the complete error message.

Microsoft has their own site for error messages (<u>http://support.microsoft.com/kb/308427</u>) but I prefer EventID: <u>http://www.eventid.net/</u>

Enter your Error Number and scroll through the causes and solutions for this problem.

PC REPAIR SYSTEM RESTORE

System Restore Selec	t a Restore Point		0 Hedd
The followin restore poin Possible typ manual rest created who 1. On this	g calendar displays in bold all of th ts that are available for the select es of restore points are: system d ore points (restore points created en certain programs are installed). ca lendar, click a bold date.	ne dates that have restore points available. The list displays the ted date. heckpoints (scheduled restore points created by your computer), by you), and installation restore points (automatic restore points 2. On this list, click a restore point.	
Sun Mor 29 3 5 12 19 2 26 2 5 5	February, 2006 > 1 Tue Wed Thu Fri Sat 0 31 1 2 3 4 5 7 8 9 10 11 3 14 15 16 17 18 0 21 22 23 24 25 7 28 1 2 3 4 5 7 8 9 10 11	Thursday, February 16, 2006 5:22:02 PM Software Distribution Service 2.0 5:10:53 PM Installed Microsoft Office Standard Edition 20 5:03:48 PM Installed MiSQL Query Browser 1.1 5:03:48 PM Installed MSQL Query Browser 1.1 4:22:210 PM Installed Macromedia Contribute 3.11 4:27:10 PM Installed CuteFIP 7 Professional 4.17:43 PM Installed Macromedia Dreamweaver 8 4	Cancel

SYSTEM RESTORE

Start \rightarrow Programs \rightarrow Accessories \rightarrow System Tools \rightarrow Systems Restore

If you are unable to fix the problem in Safe Mode using information from the Event Viewer, you may wish to use System Restore. This will roll your computer back chronologically, ideally to a time when it worked properly. You will lose any customizations you've done after the restore date.

To access System Restore in Windows XP:

- Click Start, and then click Help and Support.
- Under Pick a Task, click Undo changes to your computer with System Restore.
- Follow the instructions on the wizard.

To access System Restore in Windows Vista:

• Type <u>restore</u> into the Start menu search box

PC REPAIR SYSTEM REPAIR



SYSTEM REPAIR

(Manufacturers CD)

If you are unable to fix your problem with any of the above tips, try repairing your hard drive:

- Find the original installation CD and insert it into your computer.
- Restart your computer and make sure it boots from your CD.
- If your computer doesn't boot from CD, you will need to change a BIOS (basic in/out system) setting to boot from CD (example: Press <F2> to enter BIOS setup" at startup).
- Select "System Repair" from any of the menus (will differ with each manufacturer's disk). In the above illustration (for a Dell Computer), the option would be "To repair a Windows XP installation using Recovery Console, Press R"
- Let System Repair attempt to find and fix the problem.

A system repair *should* keep all your original files and software intact.

PC REPAIR SYSTEM REINSTALL

Windows XP Professional Setup
The following list shows the existing partitions and unpartitioned space on this computer.
Use the UP and DOWN ARROW keys to select an item in the list.
• To set up Windows XP on the selected item, press ENTER.
• To create a partition in the unpartitioned space, press C.
• To delete the selected partition, press D.
15360 MB Disk Ø at Id Ø on bus Ø on atapi [MBR]
C: Partition1 [FAT32] 15359 MB < 13469 MB free>

SYSTEM REINSTALL (Manufacturers CD) http://www.windowsreinstall.com/

If system repair doesn't fix your problem, it's time to consider a complete system reinstall. This will wipe out your entire hard drive and restore your computer to how you received it when you first bought it (i.e. no personal information or software programs).



For a system reinstall, it's probably best to buy a new hard drive, install it as your primary hard drive (master) and keep your secondary drive (slave) as backup. You may still be able to retrieve information off of it.

PC REPAIR NOTES: