The Cursor

Monthly Newsletter of the
Washington Area Computer User Group

Presidential Bits

July 2007 Meeting

By Paul Howard

Our members' computers must all be purring like kittens, 'cause we didn't have much action in the troubleshooting department at our June PC Clinic. Bob Rott brought a laptop that was stubbornly resistant to group ministrations — perhaps a thoroughly corrupted operating system?

Jorn Dakin brought in a desktop system for a cooling transplant, and yours truly learned that there are 60 millimeter chassis fans, as well as 60 mm CPU heat sink fans. Unfortunately, my failure to be specific meant Jorn had picked up the wrong type. Hopefully, he was able to exchange it for the needed profile, which is very slim in thickness, vs. about an inch thick for the chassis-mount style.

Most of the meeting was taken up with Gene Barlow's Perfect Backup Approach presentation on CD. This presentation features the capabilities of Acronis True Image, which Gene's company, User Group Resources, represents. You can learn more at: http://ugr.com/backup.html

Our July 21st meeting at the Fairfax County Government Center will feature an area I can only recall being discussed once before in the eight years I've been a member of WAC - Computer Game consoles. Geof Goodrum will introduce us to Sony's PlayStation 3.

Geof will demonstrate several PS3 titles. MotorStorm is an intense, off-road driving game. Blazing Angels is a World War II flying game. Geof notes that "The graphics detail is amazing in HD."

He will also show some PS One and PS2 games to demo backwards compatibility. Geof plans to demonstrate underlying Linux operating system features for this console, either Gentoo Linux or Yellow Dog Linux.

Depending on time availability, we hope to have some brief demos of useful PC utilities. Watch the web site and your email for more details. Please plan to join us - your attendance is important!

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Lloyd's Web Sites for July, 2007

by Lloyd Johnson, WACUG Member

http://www.wacug.org/ is the URL for the Washington Area Computer User Group. Visit it for past issues of Web Sites with hyperlinks

1. In New York City discounts a
   www.hotels.com, hotelcoupons.com or destinationcoupons.com

2. A big list of Annoyances for Windows Vista, XP and 98.
   www.annoyances.org

3. Teaching children about saving and investing
   www.ici.org/funds/inv/resources_young.html

4. Nature is responding to global warming. Lilacs, apples and grapes are blooming several days earlier than they did in the 1960's
   www.climateandfarming.org

5. Want to visit a farm?
   www.farmstop.com
   or www.agritourismworld.com

6. Find out your dog's age in human years
   www.DogAge.com

7. Keep wasps out of your yard with a fake wasp nest about $8.50
   www.leevalley.com

8. Interpret your dreams. Find out about the symbols in your dreams.
   www.thecuriousdreamer.com

9. Golfer's Paradise. More than 20,000 course descriptions, equipment reviews, and tips
   www.golflink.com

10. Smithsonian Photography Initiative
    http://photos.si.edu

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GNU/Linux SIG

By Geof Goodrum, WACUG

iPhone Challenged by OpenMoko

Apple's iPhone™, which integrates a cell phone with a multimedia computing device, generated a lot of anticipation and news stories before it became available to the public on June 29th. The downside is the iPhone is a closed device with only one service provider, AT&T. Besides the high initial cost of the iPhone ($499 for 4GB version, $599 for 8GB memory version), the cell service contract costs $59.99 to $219.99 per month with a two year service agreement (http://www.wireless.att.com/cell-phone-service/specials/iPhone.jsp). AT&T also failed to anticipate the initial rush of users by not upgrading their network as their competitors have, leaving many users unable to get service or setup their new phones (http://www.theregister.co.uk/2007/07/03/stingy_att_iphone_network_snafu/).

Open Source competition is on its way. The OpenMoko Project (http://www.openmoko.org/), sponsored by Taiwanese computer manufacturer First International Computer, Inc. (FIC, http://www.fic.com.tw/), started in March 2006 on an open platform that provides iPhone like smartphone capabilities without locking the consumer into a particular vendor or service provider. OpenMoko is itself built upon the OpenEmbedded project, which is a Linux-based development environment for embedded devices like handheld computers. End users will be able to customize the phone by installing only the software applications they want, and companies can develop and deploy custom applications for their employees and customers. Both stylus and finger driven applications are on the OpenMoko roadmap, including music player, video player, GPS navigation, games, RSS feed reader, picture viewer, web browser, instant messaging, calendar and sketchbook.

FIC currently distributes the Neo1973 hardware platform as part of a developer's kit, with a schedule for mass market in October 2007. However, one developer already reported some success getting OpenMoko running on a Treo680.

The table, on pages 4 & 5, is slightly edited from the OpenMoko wiki web page (http://wiki.openmoko.org/wiki/IPhone), comparing features of the Apple iPhone and the FIC Neo1973 (note that the iPhone has neither GPS nor a replaceable battery):

Linux CD of the Month

In addition to the monthly CD described below, WAC can provide CD-R and DVD±R media for any downloadable GNU/Linux operating system distribution (e.g. Fedora Core, Mandriva, Ubuntu, Debian, Knoppix). Please note that download versions of commercial distributions do not include official technical support nor printed documentation.

Discs are available only by pre-order. Contact Geof Goodrum by phone (703-370-7649) or e-mail (linux@wacug.org) at least 48 hours before meeting day to order or for more information. Single CD-R discs are available with a $3 donation; GNU/Linux distributions on multiple CD-Rs or single DVD±R are available with a $6 donation.

July 2007

GCompris – v8.3.2. Free GNU General Public License source code and executable package by Bruno Coudoin. GCompris is an educational software suite comprising of numerous activities for children aged 2 to 10. GCompris currently offers more than 100 activities, including:

- Computer Discovery: keyboard; mouse; mouse gestures
- Algebra: table memory; enumeration; double entry table; mirror image
- Science: the canal lock; the water cycle; the submarine; electric simulation
- Geography: place the country on the map
- Games: chess; memory; connect 4; oware; sudoku
- Reading: reading practice
- Other: learn to tell time; puzzle of famous paintings; vector drawing; cartoon making

GCompris is free software, which means that you can adapt it to your own needs, improve it and, most importantly, share it with children everywhere.

Lincity-NG – v1.1.0. Free GNU General Public License source code and packages for Fedora 7 and Debian. LinCity-NG is a City Simulation Game. It is a polished

Linux from page 3

Feature	iPhone	Neo1973
Announced	2007-01-09	2006-11-07
Dimensions	115 x61 x 11.6 mm	120.7 x 62 x18.5 mm
Weight	135 g	184 g
Screen	3.5" 320x480 at 160ppi, multi-touch	2.8" 480x640 at 285 ppi, maybe multi-touch later
Storage	4 or 8 GB	64 MB (expandable with 2 GB micro SD) - 256MB om GTA02 Unconfirmed expandable with 8 GB microSD
CPU	Samsung SSL8900 (_Source_)	Samsung s3c2410 SoC @ 266 MHz (Source) - Samsung 2442 @ 400 MHz SoC and SMedia 3362 Graphics Accelerator in GTA02
RAM		128MB
Wireless	GSM, WiFi (b/g), EDGE, Bluetooth 2.0 EDR with A2DP	Quad-band GSM, GPRS Class12/CS4 2.5G (Not EDGE), Bluetooth 2.0 EDR, WiFi: Atheros AR6K in GTA02
Embedded devices	2mpix camera, accelerometer, ambient light sensor, proximity sensor	GPS, 2 buttons, _2 3D Accelerometeres_ in GTA02
Operating system	OS X (an optimised but full version of OS X)	OpenMoko Linux (Source code available)
Software	Basic PDA + PMP software included. Software can only be created by authorized companies (Source)	Basic PDA included. Software can be created by normal users.
Video	Playback and No recording(?)	No recording. Maybe playback
Audio	Playback and recording	Playback and recording, including playback of audio files via GSM and recording/playback of voice calls. 2x1 watt stereo speaker comment on performance, 2.5 mm jack
Connectors	USB 2.0 on proprietary iPod connector	Standard USB 1.1 (unpowered), with a Mini-B receptor (can be connected via adapter to both host and client devices), _e_xposed 12C, SPI and debug board connector inside case in all vesions and Debug Board v2 (JTAG amd serial console) in Advanced version.

Table continues next page

Feature	iPhone	Neo1973
Opening case	voids warranty	Advanced version comes with guitar tick and Torx T6 screwdriver so you can *open case*.
Battery	Up to 5 hours Talk / Video / Browsing. Up to 16 hours Audio playback. Non-replacable battery	replaceable 1.2 Ah battery charged via USB
Ready for use	Yes	Yes
Ready for sale	US: June 29, 2007, EU: 2007 Q4 Asia: 2008	Rabbit's friends and relations: Feb 2007 Limited availability: 2007-03-05 Worldwide availability: Phase 1 was delayed, shipping date now 2007-07-09 Retail launch: October 2007
Price	USD 499 for 4 GB version (2 year contract required)	Phase 1 device (GTA01B_v04): USD 300 (base model), USD 450 including additional development hardware Phase 1.5 device (GTA02): USD 450 (base), USD 600 (including development hardware)
Community	unknown	IRC:#openmoko on freenode.net Discussion list, Wike, Be informed when it is sold
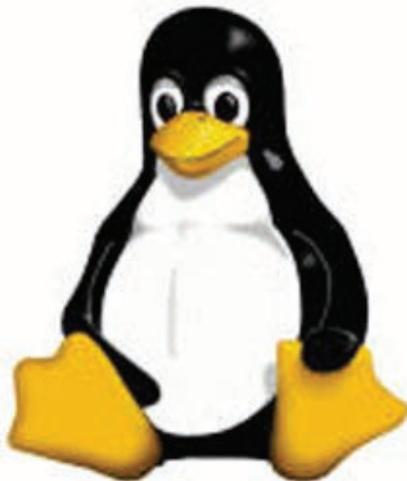
and improved version of the classic LinCity game with a new iso-3D graphics engine and a completely redone and modern GUI. LinCity-NG requires the X-Window System and OpenGL.

Nessus - v2.2.10. Free GNU General Public License source code and executable by Tenable Network Security, Inc. Nessus scans local and networked computers - whether they are running Windows, Mac OS X or a Unix-like system - for missing patches and security vulnerabil-

ities, and recommends how to fix them with reports in HTML (web browser) format. Nessus uses plug-ins to detect new vulnerabilities, with daily updates via subscription. Nessus has a graphic configuration interface, and includes options for thorough (potentially disruptive) and safe scans. The "Nessus" Project was started by Renaud Deraison in 1998 to provide the Internet community with a free, powerful,

up-to-date and easy to use remote security scanner. Nessus is currently rated among the top products of its type throughout the security industry and is endorsed by professional information security organizations such as the SANS Institute. While Tenable continues to support this Open Source version, Nessus v3 has better performance and is available under a proprietary license as a free download directly from Tenable.

Nmap – v4.20. Free GNU General Public License source code and RPM executable package for Red-Hat, Fedora and Mandriva by Fyodor. Nmap ("Network Mapper") is a utility for network exploration and security auditing. It was designed to rapidly scan large networks, although it works fine against single hosts. Nmap uses raw IP packets in novel ways to determine what hosts are available on the network, what services (application name and version) those hosts are offering, what operating systems (and OS versions) they are running, what type of packet filters/firewalls are in use, and dozens of other characteristics. Working together with

What is PCI Express?

By Brian K. Lewis, PhD, Regular Columnist, The Sarasota PC Monitor, Sarasota PCUG, Florida
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bwsail at yahoo dot com

Let's start this off with an explanation of PCI (Peripheral Component Interconnect). These are the slots in the motherboard of your computer used for connecting peripheral devices directly to computer bus. Now you're asking what is the computer bus? Essentially, the bus is the electrical means for a peripheral device to connect to the computers chipset. The chipset is the interconnection between the peripherals, the main processor and system memory. (Got all that?)

The original PCI bus released in 1992 had a maximum communication rate of 33 MHz. This allows data transmission at a maximum rate of 133 megabytes per second (MB/sec.). The bus is used by such things as the sound system, video card, network adapters, parallel and serial ports.

In the PCI system all data are transmitted in parallel. In parallel transmission many "wires" or connections are required for each PCI slot or integrated device. For example, if you have a 32 bit data transmission path from the PCI slot to the chipset, this requires 32 connecting wires just for data. Additional wires are required for control signals. With six PCI slots you can have more than 1,000 wires required for the connections. Each wire should be exactly the same length so that all the data arrive simultaneously. However, in a computer it is impossible for each wire to be exactly the same length. So as the speed of devices increased, data started arriving out of order. Therefore, the receiver had to delay until all the data were available before it could be processed. Another aspect of PCI is that all the devices share the bus at the same time so the actual data rate per device will be significantly less than the maximum rate. It's like having a speed limit of 65 miles per hour on a multi-lane highway.

When all the traffic lanes are full, everything slows down. Think Chicago or Atlanta in rush hour!

Shortly after PCI was introduced, the arrival of 3-D video cards made PCI obsolete for graphics purposes. That resulted in the development of the AGP slot in the motherboard for AGP video cards. AGP uses a separate bus and this freed up bandwidth on the PCI bus for other peripherals. The AGP-8X system can transmit data at the rate of 2.134 gigabytes per second (GB/sec.). In spite of the removal of the data intensive video card transmissions, the number of high-speed peripherals being added to computers quickly saturated the PCI bus and it remained a data transport bottleneck. Additional problems arise as communication can only be made in one direction at a time. Today, many communications networks utilize bidirectional traffic.

In 2004 the PCI Express (PCIe) bus started showing up on computer motherboards. This is quite different from the original PCI bus and in the strictest definition is not a true bus. It is described as a high performance, scalable, point to point serial bus. Now, that statement requires some further explanation as I'm sure it is not immediately clear to all of you. It certainly wasn't to me the first time I read it.

First, consider the "serial" relationship. In a serial device the data is transmitted in a single stream rather than in several parallel streams. This is like reducing a multi-lane highway to one lane in each direction. That should slow things down instead of speeding it up! But in PCIe the clue is that you now have a point to point relationship. That means the

device is connected directly to the chipset and does not have to share bandwidth with other devices. It is like having a high speed commuter corridor that bypasses all the slow traffic on the rest of the multi-lane highway. You may have multiple PCIe connections to the chipset. To prevent problems the connections occur through a system similar to a router. This router passes the data packets from each device in an ordered manner with a minimum of delay and contributes to the speed and accuracy of the transmission. Because this is a point to point connection with each device having its own pathway, this is not a bus under the strict definition of a computer bus. It is also important to note that PCIe transmission occurs in data packets.

The connections are in dual pairs so there is a possibility of a simultaneous bidirectional transmission. One pair is used for transmission and the other for receiving. As mentioned above, data is transmitted in packets, rather than in a continuous stream. Each packet contains an identifier so the data can be reassembled at the receiving end. This allows the receiver to work with multiple inputs. The data is encoded in what is called 8b/10b. This means that eight data bits are packaged with two information bits in a ten-bit package. (See how much simpler it is to call this 8b/10b?) Also consider that this is the method used for data and voice transmission on the Internet. Hard drives have moved to an SATA interface that is a serial connection instead of the parallel IDE connection. Gigabit ethernet cards are also designed with a serial connection. More devices are moving to serial connectivity to gain addi-

tional speed and reliability.

The scalable part of the PCIe bus is in its ability to work with more than one pair of connections. These are called x1 (or times 1), x4, x8 or x16. The x1 version (two data pairs) can transmit the encoded data at a bidirectional rate of 500 MB/s or 250 MB/s in each direction. The x16 version (32 data pairs) can transmit at a rate of 8 GB/s. This is the combined bidirectional rate. The rate in one direction is half this figure. There is a second version of PCIe in the works, PCIe 2.0. This is expected to double the current transmission speeds and provide other benefits.

PCIe slots in the motherboard come in various sizes depending on the number of lanes they use for connection. These vary from the smallest connector for the x1 version to the largest for x16. It is the 16x version that is currently found on new motherboards which supports the latest graphics (video) cards. Unlike the AGP slots, the x16 slot can be used for peripherals other than the video card.

Another interesting aspect of PCIe is one means by which it achieves its high data rates. It is called "low-voltage differential signaling". Another phrase that I had better explain a little more. As I mentioned earlier, connections occur in a pair of "lanes" in each direction. One of the lanes carries a "positive" image of the data and the other carries a "negative" or "inverted" image. The transmission of the data follows strict rules such that any noise that occurs will affect both lines. When the data is reassembled at the destination, the receiver collects both signals, inverts the negative back to positive and sums both signals. This effectively removes the noise from the signal.

PCIe is also backward compatible with PCI devices and software that uses PCI devices. The configuration space and programmability of PCI Express devices are unchanged from traditional PCI. In fact, all operating systems can boot without modification on a PCI Express architecture. Programs originally written for PCI devices can run unchanged on PCI Express devices because the PCIe layer is transparent to the application software. This provides benefits to users who don't have to upgrade software applications to work with newer hardware.

PCIe has another characteristic that greatly improves on PCI. It has an active power management (APM) system. When a PCIe link is not in use it does require that the link remain active so that the transmitter and receiver remain synchronized. It is the role of the APM to reduce the power level whenever the link is inactive. The catch is that when data needs to be transmitted there is a recovery time to allow full activation of the transmitter/receiver. The longer the recovery time, the lower the power usage. Overall, the systems are designed for the lowest power usage with the shortest recovery time.

There is a gradual transition from the motherboard with combined PCIe/PCI slots to those that will have only PCIe slots as more PCIe plug-in cards become available. This will also affect the size of the motherboard and the ultimate size of the computer. The specification for the PCIe mini-card allows for a card half the size of a standard PCI mini-card. Most of these mini-cards may be destined for laptop computers. However, some desktop designs

that take advantage of all PCIe input are far smaller than the standard desktop computer. Some of the new small box computers utilize these smaller motherboards.

So when you get your next computer you should now have a better understanding of the role of the PCIe slots it contains.

Dr. Lewis is a former university & medical school professor. He has been working with personal computers for more than thirty years.

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The Inside Security Recovery Toolkit (INSERT)

By Dick Maybach, a Member of the Brookdale Computer User Group, New Jersey
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Most of us use an OEM (original equipment manufacturer) version of Windows supplied by the vendor who built our PC. Although we often receive a Windows CD-ROM, it is not the same as the disk included with the retail version of Windows. In particular, we must go to our PC hardware vendor for Windows support, rather than to Microsoft, and we can't use the OEM CD-ROM to install Windows on a new computer or to repair an existing installation. Instead, we can only restore the software to the state it was in the first time we turned on the PC.

This will delete all our data, as well as any applications we've installed. While XP is usually quite stable, problems such as virus infections, operator errors, and hardware and software failures can cripple a PC to the extent that it won't even run. This means that without a good recent backup or good recovery software, all of our data will be lost.

A particularly powerful recovery tool is INSERT, a version of Linux designed to correct problems in Windows, Linux, and the latest Macintosh PCs. INSERT is a "live CD", which means it does not use the hard disk at all, but runs directly from the CD-ROM drive; as a result, it can run even on a PC with an inoperable hard disk. It has a graphical user interface and many useful maintenance applications, including those for file-system repair, data recovery, virus scanning, network analysis, and Internet browsing. In this short article I'll just introduce INSERT; you can download a tutorial on it from What's New section of the BCUG Web site, www.bcug.com, and this includes instructions on how to obtain the software for free.

After any serious problem, your first action should be to copy all your data to an external (usually a USB) drive. Especially if the problem is a failing hard disk, you have no time for experimenting; just copy everything in My Documents. INSERT has file managers that let you do this graphically, much as you would with Windows Explorer. However, Linux is not Windows, and you should get some experience with INSERT before the next PC disaster. In particular, Linux uses different designations for hard disks than does Windows. The first ATA hard disk is hda and its first parti-

tion is hda1. (On most PCs, hda1 is c: in Windows.) If this disk has a second partition, it is hda2 (usually d: in Windows). If you have a second ATA drive, it is hdb in Linux. SATA, SCSI, and USB drives are designated sda, sdb, sdc, etc. Before you can access the information on a storage device, you must mount it. Fortunately, INSERT has a graphical mounting tool that lets you mount a device with a mouse click; see the tutorial for more information.

When INSERT is running, neither Windows nor any of its programs are running. This means that any viruses are dead and hence are easier to deal with, since they cannot hide themselves. INSERT has the clam virus scanner – a Linux program that looks for Windows viruses. With this you can clean up any infections before you restart Windows.

INSERT has tools to manipulate entire partitions. These allow you to change partition sizes and create new ones. You can also move your entire file system to a new disk – handy if you are replacing your c: drive with a new and larger one. If you are selling an old PC, there are tools to wipe your hard disk completely clean, which avoids giving the new owner your passwords, checkbook files, tax returns, etc. It also has tools to recover damaged files. Finally, it is possible to damage a hard disk's master boot record (mbr) or a partition boot record, which prevents Windows from booting, even though none of its files are damaged. The retail version of Windows has the tools fixmbr and fixboot to repair such problems, but these aren't present in the OEM

version. INSERT allows you to repair damaged mbrs and boot sectors.

With INSERT you can also reset Windows passwords and edit its registry (if you are sufficiently courageous or desperate). You can edit boot.ini; this is a text file, which if corrupted, will prevent Windows from booting. There are also programs to explore the hardware, view files, and look at any connected networks. All in all, INSERT is an especially valuable maintenance tool, especially if you are responsible for maintaining several PCs. Other maintenance programs are available, in particular the Ultimate Boot CD and the System Rescue CD, but I've found that INSERT is the easiest to use and has the most complete set of tools.

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Visit http://www.inside-security.de/insert_en.html for more information about INSERT

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Fix That Fan

By Jim Sanders, Editor, The Orange Bytes, North Orange County Computer Club, California
www.noccc.org
jsanders-that-ligasmicro.com

Photos are on page 10

Cheap (Sleeve Bearing) fans die young. Bet on it. The cheaper the system, power supply, cooler, etc., the cheaper the fan. A cheap ball bearing fan may be just as bad. When you hear that sleeve bearing fan (or a ball bearing fan for that matter) rattle, notice a fan is barely turning, or not turning at all, fix it!

As shown in photo #1 of a fan out of a power supply, get the fan out where you can work on it. On the side where the wires go into the middle, carefully peel back the label/sticker that covers the shaft area. The round item in the middle of the sticker in photo #2 is a metal hole plug. The better fans have a rubber plug that seals well and is almost invisible at times. The really cheap fans don't have a plug over the shaft area. If the fan still turns without much effort, just oiling it may make it well again. Apply a few drops of a good light machine oil such as, 3in1, Singer sewing machine, even ATF, but not the 30wt for your car engine, in the shaft hole. Sewing machine oil works well. Be careful not to get any oil on the surface where the label/sticker needs to be re-applied. This has to be put back in place to cover the opening and keep the oil in place.

If you get oil on the fan surface, it can be removed with acetone or ***MEK*** *(See Editor' note at the end of this article)*. If the label gets wrecked, I have found that on a clean surface a piece of black electrical tape works well. If you don't have a good applicator, see photo #3, use a toothpick.

Spin the fan some to work the oil onto the shaft. Re-assemble and you are likely to have a fan that quietly moves air again. If the fan is so gummed up that it is hard to move the blades, you will need to remove the retaining ring (C-ring) on the shaft. This allows the shaft to be pulled out of the bearing, see photo #4, so that both can be cleaned with a good strong solvent before oiling. I like the effectiveness of Methyl

Ethyl Ketone or MEK. A pipe cleaner works well for cleaning the inside of the bearing, especially on the smaller fans.

Arguably, this is more work than it is worth, but it is not always easy to find a replacement fan.

The video card fans and the motherboard chipset fans can be near impossible to locate. Even if you find a replacement fan, oiling the fan before putting it into service may be a good idea as manufacturers seem to be chintzy about the amount of oil in new fans.

PS - Clean the crud off the fan before you replace it. In fact, if you have access to an air compressor regulated at about 90 PSI, it is a great idea to take a blow gun attachment on the end of an air hose and blow out the entire system keeping the tip about six inches away from parts. The little duster cans are better than nothing, but really don't have the horse power to do a good job.

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Editor's Note: *MEK is a chemical that should be used with caution.* http://www.epa.gov/ttn/atw/hlthef/methylet.html

Bottom line - replace the fan, don't use potentially hazardous chemicals to attempt rehab.
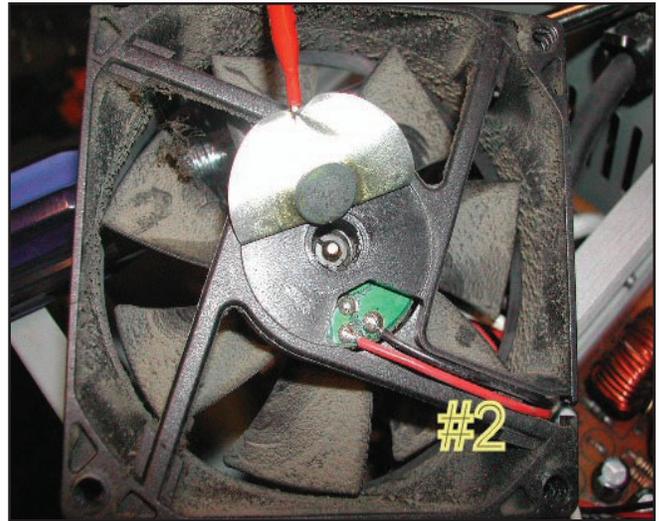
Photo #1

Photo #2

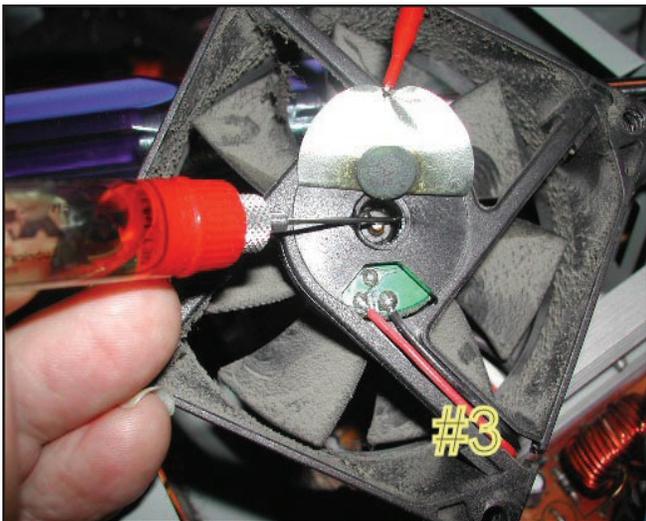**Photo #3**

Photo #4

Nessus, Nmap helps you to secure your network. A graphic interface is included.

GNU/Linux Distibution Updates - Security and bug fix monthly updates for Fedora 7.

Kernel Source - The latest versions of 2.4 and 2.6 kernel source code for all platforms.

The Cursor

The 2007 WAC Board of Directors, SIG Leaders and other Volunteers

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The Cursor provides news, commentary and product information to members of the Washington Area Computer User Group.

Send membership inquiries and address changes to: membership@wacug.org
Send article submission and reprint requests to the Editor: cursor@wacug.org

2007   WAC Membership/Renewal Application

Dues are collected on an Annual basis and includes three coupons redeemable for WACUG Software Disks, and WAC's monthly newsletter, *The Cursor*, in PDF format

Individual/Corporate/Family Dues: $25.00
$12 annual surcharge for delivery of the Cursor by 1st Class mail

Remit payment in person at the WAC Membership table on meeting day, or by mail to:
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Make checks payable to WAC. Please do not send cash by mail.   *Thank you for joining WAC!*
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State: _____ Zip: _____
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Membership Survey: Help us to help you by completing this survey. List the computer systems you own / use (in order of preference)

_____

_____

Operating System(s): _____

Modem(s): _____

Printer(s): _____

Other Hardware: _____

Favorite Software: _____

Connection: (circle one)   Dial-up   or   Broadband

Circle Your Interests: Photo Printing   Investing   Games
Digital Photography   Internet Access   Education   Music
Graphics/Animation   Genealogy   Video   Finance
Programming Language(s) _____
Hardware Upgrades/Repair   List others below

Next WAC Meetings: • Jul 21   • Aug 18   • Sept 15   • Oct 13   •Nov 17

Call (703) 370-7649 for the latest meeting information or Visit our Web Site at:
http://www.wacug.org

July Meeting will be held
at the Fairfax County
Government Center,
Fairfax, VA

Go through front entrance,
then follow the hall to the
left to Meeting Room 2&3
the right

Service Desks Open at
12:30 Meeting Starts at
1:00 PM
FREE ADMISSION
BRING A FRIEND!
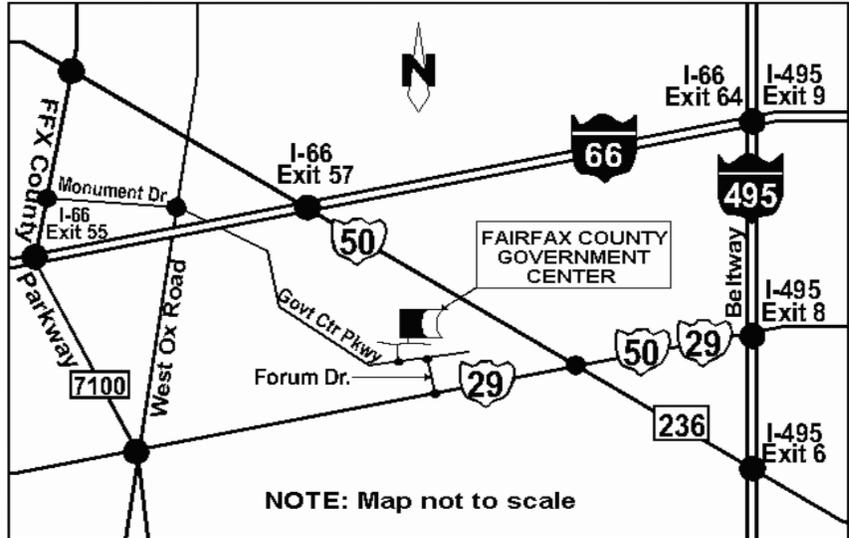
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Internet Services – E-mail and the Web

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The Internet is a network of networks used to transmit messages, which might be web pages. Somehow things arrive at where they are supposed to go. It is the services that go over these networks that make the Internet useful. The two best known services today are e-mail and the World Wide Web.

Different Internet connections work in different ways. If your computer can get to the Internet, it will most likely have a piece of software known as a browser. The browser helps make the connection to the Web and translate a bunch of code into what looks like a web page. It is possible to work without a browser, if you know a bunch of Unix commands and do not want anything fancy.

The best known browser is Internet Explorer. It comes with most PCs today. Macs from Apple come with a browser called Safari. A PC might also come with a browser called Netscape. A computer that I bought a few months ago has both Internet Explorer and Netscape There are other browsers that you can purchase or download, such as Opera, that are reputed to work better. I find that Internet Explorer works fine for me.

The http:// of a web address might not have to be typed into the browser and tells the Internet that you want something on the World Wide Web. Letters, such as htm at the end of address indicates that the site follows a standard type of coding. Most browsers will assume you want the Web unless you enter something different and automatically insert this coding. It is not necessary to type in some of the stuff at the very end of the address. Usually browsers are not used to get to other Internet services.

The World Wide Web is a way to find and send pages of information. People, businesses, schools, government agencies and others establish their presence and put up sites with whatever they want. Some are reliable and some are pure junk or worse. Many ISPs will allow subscribers to put up personal web pages, that are usually pretty identifiable as personal pages.

Colleges, universities, and government agencies will usually maintain websites as part of their mission. These tend to be pretty reliable sources of information. Stores and other business are usually advertising what they sell and are good in their way. There are also spoof pages that may look like the real thing or go to places such as porno sites. Much of the information on the Web is advertisement supported. The World Wide Web is a wild place with some good stuff and some horrible things.

There is so much out on the Web that special services known as search engines are used to find information. At one time, there were a number of these engines, each with its own quirks. A few years ago, one called Ask Jeeves was considered pretty good. Now most people use either Google or Yahoo. Microsoft is also pushing one that they have, but it has not yet grown as popular as the others. You type in a word or two and some hits appear. If you are lucky, the first hit gives you what you want. On the other hand, you may get thousands of hits, with none looking very likely.

In addition to the browser, some software also usually resides on a computer to allow for special features of Web sites. These are things such as Flash, QuickTime, and Adobe Reader. They might allow for movements on the page, video clips, stable or locked pages of text and graphics, and similar things.

E-mail is a message system that holds items on a central server until requested. If you want, this server could be in your house, but is usually at an ISP or similar location. A computer being used as a server must remain on constantly. Anything sent to you, is held on this server until you request it. You send messages in the other direction by using someone's e-mail address. Those message will go to the server for that person.

If someone is online, a message might reach the intended party in seconds. If the person is not online, it can sit on the server indefinitely. A message and response can take under a minute if both parties are available.

One can use a mail reader, or client in Tech-speak, to receive, read, respond to, and send e-mail messages. Usually, a mail reader will accept all messages on the server. Another way to get the messages is go to a special web site and select the ones that are wanted. If you get 30 messages, 20 of them might a type of junk known as spam. You can open the 10 that you want and delete the 20 that you do not without them ever being on your machine. With the web site method, messages can be retrieved

from the server from any computer, even in a foreign country.

The most common e-mail reader is probably Outlook Express from Microsoft. It comes with the operating system on a PC or a download of Internet Explorer. I even used it when I had a Mac a couple years ago. There are others that are fancier and do some things that Outlook Express does not do.

Hilton Kaufman serves as the technical support person for the procedures writing unit of an Illinois state agency, where higher level technical support personnel are concerned with the details of Internet connections and services. As such, he uses the software provided to him to create forms, convert documents into PDFs, advise members of his unit as to how to use the available software, and similar tasks. For his home computer, he can go all out and get a powerful machine that allows him to do things like playing games and surf the web without getting in trouble. He has prepared a number of articles aimed at novice users on the basics of standard computer programs.

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Checkmate

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Man-vs-machine has been a theme that has intrigued the public for many ears. The Turk was a chess playing automaton that was a sensation in Europe in the 1770s. The Turk was a wooden cabinet with a chess board on top played by a life-sized mannequin dressed in Turkish style. This mysterious device could play against and often defeat human chess opponents including Napoleon Bonaparte and Benjamin Franklin. In truth, the Turk was a clever illusion as the cabinet concealed a human chess expert who moved the Turk's arm and played the games. The Turk was created by Wolfgang von Kempleur and was not only a success in Europe but later in the United States. Eventually the Turk was no longer popular and was destroyed in a fire in Philadelphia in 1864. Edgar Allen Poe wrote a widely read 1836 essay proposing that the Turk concealed a human chess player.

The best known of the man-vs-machine devices was the world-famous Deep Blue. Deep Blue began as a chess program named Chipset (later Deep Thought) and was created by Fenghsuing Hsu and Thomas Anantharman at Carnegie Mellon University. The creators later joined IBM Corporation which supported the development of the system. Deep Thought was eventually renamed Deep Blue, a twist on IBM's corporation nick name, Big Blue. Deep Blue was a RS/6000 SP parallel processor with specialized microchips for chess and calculated 200 million chess moves per second. Deep Blue lost a six-game match to world chess champion, Gary Kasperov, in 1996. But in the 1997 rematch, Deep Blue made history by defeating Kasperov 3.5 games to 2.5 games.

Many in the chess world believe that Gary Kasperov is the greatest human chess player. He had never lost a game previously and was unnerved at his loss and began ascribing almost human features to the computer. While Deep Blue had access to all of Kasperov's games, Kasperov was not allowed to see Deep Blue's previous games for study. He received $400,000 for his loss and would have received $700,000 if he had won. IBM retired Big Blue after the match.

Another famous chess playing computer was Deep Fritz backed by a German company ChessSise and written by two programmers, Franz Marsh and Mathias Feist. The word, deep, is a nod to IBM's Deep Blue. Deep Fritz was in the news in 2001 when a chess match ended in a 4-4 tie with Russian chess expert, Vladimir Krammick.

In 2003, the long awaited chess match between Gary Kasperov and Deep Junior, a three-time world champion computer developed by Amir Ban and Shay Bushinsky who were both from Israel was played in New York City. The match ended in a 3.0 to 3.0 tie. Kasperov quipped to his mother, "at least I didn't lose." Well, this subject is getting too "deep" for me. Now I don't have to worry about anymore literary "moves" since I have been officially "checkmated."

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How I Find My "Deleted" Emails

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Old Emails are one of my most frequent retrievals from my backed-up files.

My current rate of email accumulation is about 20-30 a day. I've forced myself to maintain my accumulated emails in my Inbox and Sent Emails folders to a maximum of not more than 1,000 each. So periodically I just arbitrarily "lope off" the oldest one-half to one month or so of emails. I try to manage some of these by placing them into other folders but that isn't very effective for me.

What this procedure means is that frequently I find myself wishing I still had that old "deleted" email. (The latest one was the Acoustica email sending us Spin it Again software.)

How do I retrieve that email after I've "deleted" it from my Inbox or Sent Items? Here is how I do it with Internet Explorer 6.

Sometime ago I found out where IE stores my emails. What I did then was to move the place where my emails are stored by default to a folder named "Toms emails" in my "My Documents" folder. (How to do this is briefly outlined in the addendum at the end of this article.)

My basic backup procedure is to frequently, at least once a week but usually more frequently, and usually daily with very active folders, copy the contents of my My Documents folder to an external USB connected 300 GB Maxtor drive and to other similar portable USB drives (a 100 GB SimpleTec, and a 40 GB Pocketec hard drive) that are stored away from my computer.

When I do this of course I am backing up the current contents of all my emails at the moment the My Documents backup is performed. (Actually, any true backup procedure will work.)

So, when I want one of those old emails that had been arbitrarily "loped" off the tail end, I do the following:

1. Open Outlook Express and set it to Work Offline so that new emails are not loaded in with old ones (only needed if you are continuously on-line). You may set IE to Work Offline as follows: With IE open select File, and then check Work Offline. No new emails can come in under this mode.

2. Now close OE.

3. With Windows Explorer I find the folder "Toms emails" in My Documents and rename it to "Toms emails Today"

4. Then I try to guess what backup might have the particular email I'm looking for from among the various backups I have on the external USB drives.

5. With Windows Explorer I find the folder "Toms emails" on that external backup copy.

6. Then I Copy that folder and Paste it into my current My Documents folder.

7. I now see two email folders in My Documents; "Toms emails" which just was Pasted from the backup copy and the folder "Toms emails Today" which had been renamed earlier.

8. Next I open IE again.

9. It asks me "Do you want to work online?"

10. Be sure to say NO!

11. I then try to locate the desired email; sometimes I use IE's Find capability to do this. Hopefully, I have guessed correctly and I find the desired email the first guess.

12. I open it and then copy it to my Desktop by choosing File and then Save As and Save To Desktop.

13. Now I close IE and with Windows Explorer find the folder "Toms emails", the one I just loaded from the backup, and from which I retrieved the desired email, and I delete it.

14. Next I rename "Toms emails Today" back to "Toms emails"

15. Then I open IE and say Yes I want to Work Online.

16. I find the email that I had copied to my desktop and double-click on it to open in IE. I can then save it back into my current emails and do whatever I wanted to do with it.

And that what I do to find that old "deleted" email! Of course it only works for so long as you maintain those backup copies – in my case about six months.

Addendum: How you may change the default location where your e-mails are stored in Outlook Express.

In OE, first select the Tools menu, and then Options tab. On the pop-up screen, click the Maintenance tab, then click the Store Folder button.

Outlook Express will show you where it is currently keeping your e-mail files.

You may then select <u>Change</u> and a <u>Browse</u> window will appear where you may chose to indicate the new place you wish to store your emails.