

May 2006 Volume 22 Number 5

# PPCUG NEWS

A PUBLICATION OF THE PRINCETON PC USERS GROUP

## Will Your Next Computer Be HDTV?

Alfred Poor

**Monday, May 8, 2006**

Five years ago, buying a personal computer was a confusing challenge. You were confronted by bewildering jargon and acronyms, misinformed sales staff, conflicting claims, unfamiliar brands, and rapidly-changing technology, which made it difficult to make a knowledgeable decision about an expensive investment that had to last five to 10 years. These same circumstances describe the HDTV market today.

We have "personal computers" all over the house: personal video recorders, large-screen displays, home networks for entertainment content, and even fascinating new uses for the Internet. This fast-paced presentation will explore everything from current and near-future display technologies to IPTV -- Internet Protocol television -- that will forever change our home entertainment landscape.

Alfred Poor is editor and publisher of "Alfred Poor's HDTV Resource Center" where he writes a daily "HDTV Almanac." He is co-host of the Personal Computer Show, heard Wednesday evenings on WBAI in New York, and online and via podcast at [www.pcradioshow.org](http://www.pcradioshow.org).

Lawrence Library Meeting Rooms 1 & 2  
US Alternate Route 1 South & Darrah Lane, Lawrenceville, NJ

*Meetings of an organization at any of the facilities of the Mercer County Library System  
in no way imply endorsement of its programs.*

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### Coming Schedule

June 12 -----	Joel May on Understanding eXcel
July 10-----	Paul Kurivchack on Microsoft's next OS—Vista
August 14 --	Martin Mosho on How to Start a Successful eBay Business
Sept. 11-----	Kim Goldenberg ON Building Your Own PC
Oct. 16 -----	Vic Laurie on Searching the Web for Medical Information
Nov. 13 -----	Hank Kee on Wireless Network Security

## About PPCUG

### General Meetings

Second Monday of the month at the Lawrenceville Library, Alternate Route 1 and Darrah Lane.

7:00 PM: Social Time / Tech Corner

7:30 PM: Meeting comes to Order

7:45 PM: Featured presentation

For information about upcoming meetings or joining PPCUG, see:

<http://www.ppcug-nj.org>

or email us at:

**ppcug.nj@gmail.com**

(Please include "OK" in the subject line.)

### Board Meetings

Board meetings are open to all members. Notice of an upcoming meeting will be posted on the web site.

### Board Members

#### *President:*

Clarke Walker 609-883-5262

#### *Vice-President:*

Tom Carman 732-828-6055

#### *Secretary:*

vacant

#### *Treasurer:*

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#### *Newsletter Editor:*

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#### *Program Coordinator:*

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#### *Web Master:*

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### 2006 Annual Dues

Dues are \$40 per calendar year with a mailed newsletter or \$20 per year with online access to the newsletter.

New members pay \$3.25 or \$1.75 per month times the number of months remaining in the current year.



## Minutes of the April Meeting

The meeting started at 7:30 p.m. by President Clarke Walker.

Dave Whittle show us some software that he picks for their usefulness.



Dave Whittle by Judge Landis



## Pictures from the April Meeting

by Judge Landis, [judge@alumni.princeton.edu](mailto:judge@alumni.princeton.edu)  
Member of the Princeton PC Users Group



\*\*\*\*\*  
 \* **Help Wanted** \*  
 \* **Secretary** \*  
 \* The group is in need of a Secretary to take minutes of the \*  
 \* meetings. Also to read and respond to club email. Please see \*  
 \* Joe Budelis for more information. \*  
 \* \*\*\*\*\*



## President's Message

Well since the last meeting we have had a string of beautiful days except the Saturday of TCF. There was still a good crowd for indoor exhibits and the many talks. But the rain and cool temperature put a damper on the outdoor flea market.

I started with about 25 in the audience for my talk on putting "Video to DVD". By the end of the talk there were about 75 people. It is good to be presenting before the keynote speaker, Dr. Gregory Olsen. I handed out invitations to our May meeting so make our guests feel welcome.

- Clarke Walker



## Link of the Month

Getting tired of reading books, well as a member of the Mercer County Library you can listen to books at: <http://www.listennj.com/>

Have you discovered a useful link? Then share it with the members of the P PC UG.



## To defrag, or not to defrag?

by Cary Holzman., [Carey@CareyHolzman.com](mailto:Carey@CareyHolzman.com)  
Freelance Writer

To defrag, or not to defrag? If you're looking for ways to speed WinXP machines, then the answer is Not.

Defragmenting, of course, is the process of reorganizing all data on a hard disk drive so that each file is arranged into a single uninterrupted, or contiguous, location on the disk. Many system builders and technicians have been taught, and still believe, that defragmenting hard disk drives on a regular basis keeps PCs operating at peak performance. But that idea is behind the times.

While it was true that defragmenting helped older PCs, it no longer applies. Today we have 7200-RPM (rotations per minute) hard disk drives with improved seek and latency times; many also contain an 8 or 16 MB cache buffer. Let's not forget Windows XP's ultra-efficient New Technology File System (NTFS). For PCs, servers, and workstations equipped with these innovations, defragmenting no longer makes much improvement, if any, to system performance.

This is even more of an issue with the new Serial ATA hard disk drives, which are quickly becoming the new standard. Examples of SATA drives include the Seagate Barracuda line <http://www.seagate.com/cda/newsinfo/newsroom/releases/article/0%2C%2C2733%2C00.html> and new 10,000-RPM IDE (Integrated Drive Electronics) hard-disk drives, such as the Western Digital <http://www.wdc.com/en/products/Products.asp?DriveID=40> Raptor.

Still, defragmenting remains an important task. Why? For one, power consumption and heat can be di-

rectly related to an excessively fragmented hard drive. When the computer's operating system requests data, if a file is not contiguous, then extra seeking on the disk may be required. But a more important consideration is disk failure. Should a hard drive fail, the likelihood of successfully recovering data from the dead or damaged drive improves significantly if the data is contiguous rather than randomly scattered about the drive platters.

The software companies that create defragmentation software would like you to believe that their software does improve system performance. But my own in-house testing refutes that, as do recent findings from Steve Gibson, PC World and other system testers.

## So What Works?

Since defragging the disk won't do much to improve Windows XP performance, here are 23 suggestions that will. Each can enhance the computer's performance and reliability. Best of all, most of them will cost you nothing.

1.) To decrease a system's boot time and increase system performance, use the money you save by not buying defragmentation software -- the built-in Windows defragmenter works just fine -- and instead equip the computer with an Ultra-133 or Serial ATA hard drive with 8 or 16MB cache buffer.

2.) If a PC has less than 512 MB of RAM, add more memory. This is a relatively inexpensive and easy upgrade that can dramatically improve system performance.

3.) Ensure that Windows XP is utilizing the NTFS file system. If you're not sure, here's how to check: First, double-click the My Computer icon, right-click on the C: Drive, then select Properties. Next, examine the File System type; if it says FAT32, then back-up any important data. Next, click Start, click Run, type CMD, and then click OK. At the prompt, type CONVERT C: /FS:NTFS and press the Enter key. This process may take a while; it's important that the computer be uninterrupted and virus-free. The file system used by the bootable drive will be either FAT32 or NTFS. I highly recommend NTFS for its superior security, reliability, and efficiency with larger disk drives.

4.) Disable file indexing. The indexing service extracts information from documents and other files on the hard drive and creates a "searchable keyword index." As you can imagine, this process can be quite taxing on any system.

The idea is that the user can search for a word, phrase, or property inside a document, should they have hundreds or thousands of documents and not know the file name of the document they want. Windows XP's built-in search functionality can still perform these kinds of searches without the Indexing service. It just takes longer. The OS has to open each file at the time of the request to find what the user is looking for.

Most people never need this feature of search. Those who do are typically in a large corporate environment where thousands of documents are located on at least one server. If you have no need for this search feature, I recommend disabling it. Here's how: First, double-click the My Computer icon. Next, right-click on the C: Drive, then select Properties. Uncheck "Allow Indexing Service to index this disk for fast file searching." Next, apply changes to "C: subfolders and files," and click OK. If a warning or error message appears (such as "Access is denied"), click the Ignore All button.

5.) Update the PC's video and motherboard chipset drivers. Also, update and configure the BIOS. For more information on how to configure your BIOS properly, see this article on my site. <[www.careyholzman.com/bios/index.html](http://www.careyholzman.com/bios/index.html)>

6.) Empty the Windows Prefetch folder every three months or so. Windows XP can "prefetch" portions of data and applications that are used frequently. This makes processes appear to load faster when called upon by the user. That's fine. But over time, the prefetch folder may become overloaded with references to files and applications no longer in use. When that happens, Windows XP is wasting time, and slowing system performance, by pre-loading them. Nothing critical is in this folder, and the entire contents are safe to delete. It will automatically rebuild itself with current frequently used applications in no time.

7.) Once a month, run a disk cleanup. Here's how: Double-click the My Computer icon. Then right-click on the C: drive and select Properties. Click the Disk Cleanup button -- it's just to the right of the Capacity pie graph -- and delete all temporary files.

8.) In your Device Manager, double-click on the IDE ATA/ATAPI Controllers device, and ensure that DMA is enabled for each drive you have connected to the Primary and Secondary controller. Do this by double-clicking on Primary IDE Channel. Then click the Advanced Settings tab. Ensure the Transfer Mode is set to "DMA if available" for both Device 0 and Device 1. Then, repeat this process with the Secondary IDE Channel.

9.) Upgrade the cabling. As hard drive technology improves, the cabling requirements to achieve these performance boosts have become more stringent. Be sure to use 80-wire Ultra-133 cables on all of your IDE devices with the connectors properly assigned to the matching Master/Slave/Motherboard sockets. A single device must be at the end of the cable; connecting a single drive to the middle connector on this type of ribbon cable will cause signaling problems. With Ultra DMA hard drives, these signaling problems will prevent the drive from performing at its maximum potential. Also, because these cables inherently support "cable select," the location of each drive on the cable is VERY important. For these reasons, the cable is designed so drive positioning is explicitly clear.

10.) Remove all spyware from the computer. Use free programs such as AdAware by Lavasoft [www.lavasoft.com](http://www.lavasoft.com) or SpyBot Search & Destroy [www.safer-networking.org](http://www.safer-networking.org). Once these programs are installed, be sure to check for and download any updates before starting your search. Anything either program finds can be safely removed. Any free software that requires spyware to run will no longer function once the spyware portion has been removed; if you really want the program even though it contains spyware, simply reinstall it. The applications mentioned above are great for removing Spyware once it's been installed. To prevent the installation of 80% or more of future Spyware, download and install Microsoft's FREE anti-spyware utility <[www.microsoft.com](http://www.microsoft.com)> and installing JavaCoolSoftware's SpywareBlaster [www.javacoolsoftware.com/spywareblaster.html](http://www.javacoolsoftware.com/spywareblaster.html) For more information about what Spyware is and how you unknowingly get infected with it, visit this Web <<http://www.tuglet.com/URLMRecordsTheURLThing.asp?nID=162957&f=www.webpronews.com/it/operatingsystems/wpn-22-20030610RemovingSpyware.html>> Pro News page.

11.) Remove any unnecessary programs and/or items from Windows Startup routine using the MSCONFIG utility. Here's how: First, click Start, click Run, type MSCONFIG, and click OK. Click the StartUp tab, then uncheck any items you don't want to start when Windows starts. Unsure what some items are? Visit the WinTasks Process Library at [www.liutilities.com/products/wintaskspro/processlibrary/](http://www.liutilities.com/products/wintaskspro/processlibrary/). It contains known system processes, applications, as well as spyware references and

explanations. Or quickly identify them by searching for the filenames using Google or another Web search engine.

12.) Remove any unnecessary or unused programs from the Add/Remove Programs section of the Control Panel.

13.) Turn off any and all unnecessary animations, and disable active desktop. In fact, for optimal performance, turn off all animations. Windows XP offers many different settings in this area. Here's how to do it: First click on the System icon in the Control Panel. Next, click on the Advanced tab. Select the Settings button located under Performance. Feel free to play around with the options offered here, as nothing you can change will alter the reliability of the computer, only its responsiveness.

14.) If you are an advanced user who is comfortable editing their registry, try some of the performance registry tweaks offered at Tweak XP <[www.tweakxp.com/performance\\_tweaks.aspx](http://www.tweakxp.com/performance_tweaks.aspx)>

15.) Visit Microsoft's Windows update site regularly and download all updates labeled Critical. Download any optional updates at your discretion.

16.) Update your anti-virus software on a weekly, even daily, basis. Make sure you have only one anti-virus software package installed. Mixing anti-virus software is a sure way to spell disaster for performance and reliability.

17.) Make sure you have fewer than 500 fonts installed on the computer. The more fonts you have, the slower the system will become. While Windows XP handles fonts much more efficiently than did the previous versions of Windows, too many fonts -- that is, anything over 500 -- will noticeably tax the system.

18.) Do not partition the hard drive. Windows XP's NTFS file system runs more efficiently on one large partition. The data is no safer on a separate partition, and a reformat is never necessary to reinstall an operating system. The same excuses people offer for using partitions apply to using a folder instead. For example, instead of putting all your data on the D: drive, put it in a folder called "D drive." You'll achieve the same organizational benefits that a separate partition offers, but without the degradation in system performance. Also, your free space won't be limited by the size of the partition; instead, it will be limited by the size of the entire hard drive. This means you won't need to resize any partitions, ever. That task can be time-consuming and also can result in lost data.

19.) Check the system's RAM to ensure it is operating properly. I recommend using a free program called MemTest86 [www.memtest86.com/](http://www.memtest86.com/) The download will make a bootable CD or diskette (your choice), which will run 10 extensive tests on the PC's memory automatically after you boot to the disk you created. Allow all tests to run until at least three passes of the 10 tests are completed. If the program encounters any errors, turn off and unplug the computer, remove a stick of memory (assuming you have more than one), and run the test again. Remember, bad memory cannot be repaired, only replaced.

20.) If the PC has a CD or DVD recorder, check the drive manufacturer's Web site for updated firmware. In some cases you'll be able to upgrade the recorder to a faster speed. Best of all, it's free.

21.) Disable unnecessary services. Windows XP loads a lot of services that your customer most likely does not need. To determine which services you can disable, visit the Black Viper site <<http://majorgeeks.com/page.php?id=12>> for Windows XP configurations.

22.) If you're sick of a single Windows Explorer window crashing and then taking the rest of your OS down with it, then follow this tip: open My Computer, click on Tools, then Folder Options. Now click on the View tab. Scroll down to "Launch folder windows in a separate process," and enable this option. You'll have to reboot your machine for this option to take effect.

23.) At least once a year, open the computer's cases and blow out all the dust and debris. While you're in there, check that all the fans are turning properly. Also inspect the motherboard capacitors for bulging or leaks. For more information on this leaking-capacitor phenomena, you can read numerous articles on my site.

Following any of these suggestions should result in noticeable improvements to the performance and reliability of your and your customers' computers. If you still want to defrag a disk, that's okay, just remember that the main benefit will be to make your data more retrievable in the event of a crashed drive.

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By Carey Holzman, freelance writer; co-host of the nationally syndicated talk show Computer America; instructor at Glendale Community College in Arizona; owner of a computer-repair business, and author of The Healthy PC. He enjoys sleeping in his free time. [www.careyholzman.com](http://www.careyholzman.com) / [Carey@CareyHolzman.com](mailto:Carey@CareyHolzman.com)



## Donating & Recycling Old Computer & Electronic Equipment

by Sol Libes, [sol@libes.com](mailto:sol@libes.com)

Member of the Princeton PC Users Group

Disposal of old computers, printers, copiers, fax machines, etc., is a problem. You may have to pay to properly dispose of many types of older equipment. There are non-profit organizations (<http://www.usedcomputer.com/nonprof.html>) who want to receive equipment that they can either use or resell. They are not interested in receiving equipment that they will just have to pay to dispose of.

Most states have passed laws that prohibit the dumping of items such as monitors, computers and printers, and are requiring that these items be properly disposed of. If you cannot find a non-profit organization that will accept your equipment at no charge, contact a recycling center (listed below) to properly dispose of your equipment. Also, watch your local news for special electronics recycling days that are held in many towns. Many communities in the Mercer, Somerset, and Middlesex counties have computer and electronic hardware recycling programs. Below is a listing of them. If you know of others please send an email to me or the newsletter editor.

**When disposing of old computers you should erase all you personal data from the hard disk drive.** For information on how and what to clean from you drive go to the following website <http://www.techsoup.org/howto/articles/hardware/page1356.cfm>

### Princeton

The Township accepts equipment at the Princeton Works Garage, located at the intersection of Valley Road, Route 206, and Witherspoon Street. Call Janet at 688-2566 Ext:478, between 8am and 3:30pm, Monday-Friday, to arrange a drop off appointment.

### Somerset County

The county accepts computer equipment at the Somerset County Recycling Center, 40 Polhemus Ave. Bridgewater, on the first Saturday of the month from 9am-2pm. Call 732-469-3363 to check time and hours.

## Middlesex County

The county accepts equipment at: Hesstech LLC, 45 Executive Avenue, Edison, on the 1<sup>st</sup> Saturday of the month from 9am-1pm and on the 3<sup>rd</sup> Monday of the month.

## Mercer County

The county accepts electronic equipment twice a year at the John C. Dempster Fire School on Lawrence Station Road, off Quakerbridge Road, in Lawrence Township. Typical dates are the 3<sup>rd</sup> Saturday of March and September. The dates are usually published in local newspapers.



## From the History Folder:

Here is a picture that Bud sent me for last month's P PC UG News and I unfortunately forgot to include.

- The Editor



Bud next to his home computer.



*\*\* There is no restriction against any non-profit group using these articles as long as they are kept in context with proper credit given the author. The Editorial Committee of the Association of Personal Computer User Groups (APCUG), an international organization of which Princeton PC Users Group is a member, brings their respective articles to you. \*\**

***All unattributed articles are solely the fault of the editor.***



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