PPCUG

NEWS

A PUBLICATION OF THE PRINCETON PC USERS GROUP

Monday April 8, 2002

Add a 2ⁿᵈ Hard Drive to Your System

Paul Kurivchack
PPCUG

**With the low prices and incredibly large Hard Drives available today,
adding a second hard drive to your PC is easy.
Paul will demonstrate the steps necessary to add that new drive including the use of
Partition Magic 7.0 to format and partition the new drive.**

At

Lawrence Library

Meetng Rooms 1 & 2
US 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 implies endorsement of its programs*

In this issue

Alan Goldberg speaking about the various Windows Operating Systems from the perspective of the Information Services Department of Princeton University at the March General Meeting.

Digital Photo by: Tom Carman

About PPCUG

General Meetings

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

7:00-7:45 PM: Social Time / Tech Corner

7:45 PM: Meeting Comes to Order

8 PM: Featured Presentation

For information about upcoing meetings or joining PPCUG call 908-218-0778 to leave a message.

Board Meetings

For Meeting Location, Date and Time, call 908-218-0778

Board meetings are open to All.

Board Members

President:
    Paul Kurivchack 908-218-0778
Vice-President:
    Tom Carman 732-828-6055
Secretary:
    Don Arrowsmith 609-883-9874
Treasurer:
    Tom Carman 732-828-6055
Members-At-Large:
    Jon Abolins 609-883-8126
    Vic Laurie 609-924-1220
    Kim Goldenberg 609-671-9188
    Sol Libes 609-520-9024

Chairpersons

Hospitality:
    Bill Hawryluk 609-655-0923
Member Records:
    Paul Kurivchack 908-218-0778
Newsletter Editor:
    Paul Kurivchack 908-218-0778
Program Coordinator:
    Sol Libes 609-520-9024
Web Master:
    Jon Abolins 609-883-8126

Web Site

http://www.ppcug-nj.org

Annual Dues Rates

Normal dues rate is $30 per year.
    New Members Only: after February, the rate is $2.50 per month times the number of months remaining in the year.

Presidents Message
by Paul Kurivchack

TCF2002 is coming up on May 4 and 5. Again this year, we will be there hosting the Parcel Pickup Area. It is a great service to the festival attendees and is also a hoot just to see what many people perceive as priceless treasures. We still need your help in making our only fund-raiser a success. The sign up sheet will be on the front table at the April meeting. If you can spare the time on either Saturday or Sunday, please sign up. If you can't make the meeting and want to work, remind me by shooting me a quick e-mail (kurivchp@optonline.net) so we can count you in. Hopefully it will be a fun two days of sunny weather and some great bargains.

Again last month we had a great turnout to hear Alan Goldberg of Princeton University present his perspective of Windows operating systems and the decision process they went through in evaluating Windows XP. It is nice to know that big organizations just don't run out and install a new operating system on hundreds of PC's without doing some serious testing. As a home user, we do not have the luxury to have an extra PC sitting around or the time to build one up with the new OS and test with many of the applications we use regularly. We just go out and purchase the OS and install it and that is too bad, not to have that testing done. Alan did an excellent job of detailing the steps the university went through in testing the various OS's and offered some great web sites that provide excellent technical advice and direction in resolving many issues you may have after installing the new OS or any other applications. His perspectives on upgrading and the effects they will have should help us all make a better decision when it is time to upgrade to the latest OS or to stay put with what we currently are running.

Speaking of upgrading, this month I will cover the steps needed to add a second hard drive from opening the cover and hooking up the cables to setting up the partitions and formatting the new drive. I will cover the partitioning using the time tested Partition Magic 7.0. This is a two-part event, hardware installation and software setup. It should be a fun night if all goes well. Come see how easy it really is to work on your own PC.

See you all on the 8th.

Windows Tips: File Systems

By: Vic Laurie - PPCUG

There are many possible ways to organize the information, programs, and data that we store on our computer hard drives. The system of collecting information together in "files" which in turn are grouped in "directories" or "folders" provides a method for naming and addressing information that is familiar to most PC users. But the mechanics of how the information is actually physically placed on the hard drive and retrieved is not something most of us ever think about. Nonetheless, with the advent of Windows XP and its file system, NTFS 3.1 (also known as NTFS 5.1, the numbering isn't consistent), the time has come when this seemingly esoteric subject should not be ignored. PC users who are changing over to XP from Windows 9X/Me should be aware that NTFS (New Technology File System) has characteristics unfamiliar to most home PC users, whose systems employ a different file system called FAT (File Allocation Table). Those upgrading an older computer to Windows XP will face the decision of which file system to use. Those who buy a new computer with XP will almost certainly have NTFS already installed. In either event some knowledge of the workings of the file systems would seem desirable even for the average PC user. I don't pretend to be an expert on file system architecture but in this article I will outline some of the characteristics of the two different file systems, FAT and NTFS, and their pros and cons.

Disk Organization

Before discussing some of the issues it is necessary to outline briefly some basics about the way disks are organized. Before a physical medium such as a disk can store data it must be put into a state usable by the computer operating system. In order for the system to be able to systematically allocate information to disk space, disks are divided up into little boxes or *sectors*. Low-level formatting assigns 512 bytes to each sector. (A number other than 512 could be used but standard practice has settled on this particular size.) These sectors in turn are grouped into *clusters* (sometimes called "allocation units" by Microsoft) by the operating system. All clusters are given the same size during a high-level format and typically run from 2 to 16 sectors. Each file then occupies one or more of these clusters. (It is also possible to have a file system that directly assigns sectors to files, as is done by the file system HPFS in the IBM operating system OS/2.) The cluster size depends on the operating system and several variables, including the size of the hard disk or its partitions, and is a key factor in determining operating system efficiency and speed.

In addition to the area where files for data and programs are stored, there are several other distinct areas set aside on the disk for basic system operations. Without going into the gory details, which depend on the particular operating system, there is an area (or areas) for boot processes and an area (or areas) providing information on the physical location and the properties of the data and program files. After the BIOS is finished at bootup, the boot area(s) provide the means for continuing the computer startup process and for loading the operating system. Each operating system carries this out in its own different way. Each oper-

ating system also has its own particular way of storing information about the attributes and actual physical whereabouts of individual files. When the computer operation requires a specific file for some purpose, it is this file information that allows the system to find and load that file from disk into RAM for processing. Here FAT and NTFS have completely different approaches.

FAT File System

FAT gets its name from the use of a kind of database called a File Allocation Table that contains an entry for each cluster on the disk. The FAT system has been in use by Microsoft since before DOS 1 (the first version was devised by a teenager named Bill Gates) and has undergone several revisions. There are versions called FAT12, FAT16, and FAT32. The numbers refer to the number of bits used for the cluster entries in the table. More recent PC users may find it hard to believe but in 1987 the FAT system then in use (in DOS 3) was unable to read a hard drive (or more accurately, volume) bigger than 32 MB. (That's right, 32 _mega_bytes). By the time of DOS 6, the upper limit had been enlarged in several steps to 2 GB but the ever increasing size of hard disks made yet another revision necessary. With Windows 95B, FAT32 was introduced, increasing the upper limit to 2 terabytes (theoretically but not practically). These continual problems with disk size arose from several causes, including the fact that the number of entries in FAT is limited by the finite number of bits used for describing the location of a cluster. For example, FAT16 can hold no more than 2^{16} or 65,526 cluster entries (actually somewhat less). Another factor is that the number of sectors per cluster is also limited.

A further problem with bigger disks is the large amount of wasted space or "slack". Since there are a fixed number of clusters available, larger disks mean that the cluster size has to be increased in order to fill the available space. However, this results in more and more unutilized disk space since a typical file is rarely close to an even multiple of a cluster size. For example, a FAT32 system uses 16 KB clusters for partition sizes between 16 and 32 GB. A 20 KB file would require two 16 KB clusters actually occupying 32 KB of space. A mere 1 KB file still requires 16 KB of space. A typical large disk might have 30% or even 40% of its space wasted this way. (Don Arrowsmith has discussed one example in the January PPCUG Newsletter, http://www.ppcug-nj.org/newsltrs/jan02.pdf.) Making smaller partitions alleviates slack but with 80 GB disks now common, and ever-bigger ones on the way, the number of partitions required becomes unwieldy.

Another problem is file fragmentation. Although a file may require several clusters, the clusters need not be in close physical proximity on the disk. When a file is loaded to the disk the operating system chooses unused clusters wherever it finds them. If many files consist of widely separated parts, the time required to retrieve them for program use inevitably slows the system (hence the need for defragging).

.
It has to be remembered that the FAT system was first devised when the computer environment was very different from what

PartitionMagic 7.0

Software Review
By: paul Kurivchack - PPCUG

Writing this review on Partition Magic 7.0 is timely as it will be an integral part of my presentation at the April general meeting on adding a second hard drive to your PC. Partition Magic, is the tried and true hard drive management tool just keeps getting easier to use and more powerful. Some of the new features include the ability to merge and convert NTFS (WinNT/2000) partitions, support for up to 80 GB drives and external USB drives.

As prices continue to fall and storage capacities increase, hard drive management is now even more important that ever. What do I mean by that? Well if you go out and pick up one of the new 80 GB drives available, do you just fdisk and format it for the full 80 GB? You can, but it could pose backup problem down the road if the single partition should some how become corrupt. If the drive was partitioned into two or more logical drives then there are places to move data if possible or worst case, data lost is kept to a minimum. Also using Partition Magic allows for adjusting the size of a partition or merge two partitions on the fly if you run out of space (It will not help when there is no space left on the drive itself). Another area that is becoming important to many users is multiple operating systems on a single PC. But what happens if there is only a single partition? Create the additional partition and then use PowerQuests answer to multi-booting, BootMagic application to create the multi-boot menu.

Partition Magic 7.0 still works down to 486 PC's and all varieties of Windows from Win95 up to and including Windows XP. Installation is a breeze from the CD and takes under ten minutes. More importantly during the install is the creation of the Rescue Disks (have two blank floppies available). Once installed, launch PartitionMagic and a very clean and simple main window appears. Here is where all the action takes place in using PartitionMagic.

The Main Window

All-important information about the installed hard drives appears in this window. The Main window has not changed significantly over the years, which helps keep its familiarity with infrequent use or earlier versions. The menu/toolbar, the tree view, a Disk Map (scrollable to see all disks), the partition list and the Wizards. The Disk Map is very useful as it displays the capacity of the drive to scale with the various partitions represented by different colors in a graphical bar graph format. For those who like a list, then the Partition List will appeal to them. The list displays additional info that cannot be shown in the Disk Map view such as the type, total size, used and unused size, status (Active or None) and lastly whether the drive is primary or logical. Lastly there are the wizards that will walk you through the creation, resize, copy merge or redistribute free space of the drive. The wizards are a step-by-step method that helps prevent mistakes from being made. For the first time user, the instruction manual and on-line help are great. The manual even provides explanations of many of the partitioning terminology along with sample scenarios of some typical configurations, which can be used as a guide. No stone is left unturned.

Using PartitionMagic

Once the drive size and partitions are identified making the changes are easy and straightforward. Every operation pops up its own dialog window with drop downs or blank windowpanes that require the user to enter the appropriate information. After all the info is entered, start the process running (Some processes run from a few minutes to hours). Some functions such as Resize/Move partitions display the information as both a graphical bar graph and numeric listing. Click and drag the separation handles on the bar graph to increase or decrease the partition size. Limits are also shown for minimum or maximum size. For precise sizing, enter the exact size value in the appropriate windowpane. All windows are very clear and concise offering enough options without overloading the user.

Creating and merging partitions are two key features of PartitionMagic. Creating partitions is as easy as could be. Select the drive, decide if the partition will be a primary (bootable) or logical, give it a volume label and enter the size. Click OK and off it goes creating the partition. On new hard drives, after the partitions are created, formatting the drive to accept the data is required and PartitionMagic has a formatting function build right in.

Merging partitions that contain data is very neat feature that works extremely well. No longer do you have to move your data to another drive to delete a partition. Just merge the two and all the data will be automatically moved. Quite amazing! Also when merging partitions it does take a long time to complete. This is based upon the volume of data being merged. PowerQuest adds an application called DriveMapper that scans the merged partition and automatically updates the drive letter references so applications will run properly.

Some of the other key features are the ability to convert partitions from FAT to FAT32 or NTFS and vice versa.

Lastly I want to talk about a feature I find the most useful and important. The Rescue Disks.

Rescue Disks

The Rescue Disks are exactly what the name infers but so much more. I have been a user of Partition Magic since version 2 (Reviewed Versions 4.0 and 5.0 for PPCUG News) and a believer of the Rescue Disks for a long time. While running Partition Magic from within Windows is quite the norm, I find running it from DOS mode better (while not as fast, doing reboots are easier). The Rescue Disks are fully bootable disks that load Partition Magic into memory. This is helpful if a new unformatted hard drive is being installed or if you do not want to install the application on a customers or friends PC. Boot the PC via the floppy and in less than 3 minutes, a functional but not as graphical display of the Main window appears with all of the tools needed to manage the hard drive via the menu lists (No wizards). Create, format, move or merge partitions. Also the

it is today. Indeed, the PC as we know it did not even exist. FAT was intended for systems with very little RAM and small disks. It required much less in the way of system resources than did the file systems in Unix and other big computer systems and did its job well when systems were small. NTFS and Windows XP are practical for consumer PCs today only because the available resources of RAM and hard drive size have reached levels far exceeding anything imagined when FAT was first put into use.

NTFS

In the early 1990's Microsoft, recognizing that DOS based Windows was inadequate for the much heavier demands of business and industry, began work on different software designed for much larger systems than the home PC. At first this was a joint effort with IBM, using what became IBM OS/2 and employing a file system named HPFS (High Performance File System). As we all know, the cooperative attempt did not work out and the two companies soon went their own way. Microsoft developed the various Windows NT versions, which then morphed into Windows 2000 and now Windows XP. Each one of these operating systems has its own version of the file system NTFS, which has also undergone evolution.

Going into the details of NTFS architecture would be too overwhelming for this current article so I will limit myself to a few points. (Those who are keen on the subject can read the long discussion beginning at http://www.pcguide.com/ref/hdd/file/ntfs/arch.htm.) NTFS is much more flexible than FAT. Its system areas are almost all files instead of the fixed structures used in FAT. Since files are used, the system areas can be modified, enlarged, or moved as is needed. An example of one of the several system files is the Master File Table (MFT). The MFT is a sort of relational database with a variety of information about all the files on the disk. If a file is small (1 KB or less) the MFT may even hold the file itself. For larger files NTFS uses clusters in assigning disk space but in a way different from FAT. The cluster size will not normally exceed 4 KB. A type of individual file compression is built in so that the problems with slack do not arise.

Because it is intended for multi-user environments, NTFS has much more security built in. For example, the XP Professional version (not the Home version) allows permissions and encrypting to be applied to individual files. While much more secure, XP is accordingly much harder to tinker with. That makes trouble-shooting and system tweaking more problematical. It also means that the user has to be very careful when setting up passwords and permissions on a system. Forgetting a password has much more serious consequences than it did in Windows 98.

The MFT and other system files occupy quite a bit of space so NTFS is not intended for small disks. Also the amount of memory required is substantial. These system overhead requirements, which formerly limited the use of Windows NT to larger computers, have largely disappeared as a factor with newer PCs and their much larger amounts of RAM and very large hard drives.

FAT32 or NTFS?

As Windows XP and its successors (already in development) inevitably replace the DOS/9X/Me family of operating systems in home computers, the file system NTFS will become the standard. Sooner or later, most of us will probably be using it. Any PC purchased from now on will normally be set up that way. Eventually the question of which file system to use will become moot. However, during the transition period, PC users who are upgrading need to consider whether to stick to FAT for the time being or to make the change to NTFS. During an upgrade installation, Windows XP can make the change or, if desired, will make it later. Note that the conversion typically uses the very small 512-byte cluster size, which can cause a noticeable loss of system speed. For that reason, some recommend that only a clean install of Windows XP is advisable if you want to use NTFS. Returning to FAT32 is not possible without use of third-party software such as *Partition Magic 7*.

In *Scot's Newsletter*, Scot Finnie has a good discussion on the advantages as well as certain problems of NTFS at http://www.scotfinnie.com/newsletter/19.htm#filesys, http://www.scotfinnie.com/newsletter/20.htm#filesys and http://www.scotfinnie.com/newsletter/21.htm#filesys . He has interviewed David Golds, Microsoft's group product manager for file systems and storage. With regard to upgraders, Golds is quoted as saying, "For machines upgraded from 9x, I would probably stick with FAT volumes, unless I specifically wanted the security and functionality that NTFS offers," (http://www.scotfinnie.com/newsletter/19.htm)

As I have previously written (http://pages.zdnet.com/hampsi/Articles/xp.htm) I am using a dual-boot system so my own choice has been to stick with FAT32 for now. I also want to keep the option of using a DOS disk for troubleshooting. Once I am more familiar with Windows XP, I will go over to NTFS for the XP volume. In the meantime I want to be able to continue using legacy equipment and software until the time comes when the entire system, peripherals and software are replaced.

Additional References
For a detailed discussion of FAT look at
http://www.pcguide.com/ref/hdd/file/index-c.html and
http://www.pcguide.com/ref/hdd/file/clust.htm
For a detailed discussion of NTFS see
http://www.pcguide.com/ref/hdd/file/ntfs/index.htm

Other useful discussions of the FAT system:
http://www.zdnet.com/pcmag/pctech/content/16/07/os1607.001.html
http://www.pcnineoneone.com/howto/fat1.html.

Microsoft briefly discusses FAT *vs.* NTFS at
http://www.microsoft.com/windowsxp/expertzone/columns/russel/october01.asp.
Details on NTFS are at
http://www.microsoft.com/techNet/prodtechnol/winxppro/reskit/prkc_fil_simi.asp and
http://www.microsoft.com/hwdev/tech/storage/ntfs-preinstall.asp.

My Favorite E-Mail Program

By: Sigrid Forman - Tyler Computer Club

Many of us use e-mail on a daily basis and we use different e-mail programs depending on what we want from it. Here are a few that are available. Free Programs...such as Juno do not require you to have an Internet account with anyone. They simply let you send and receive e-mail (including attachments) without any Internet surfing. This means that you have no monthly or hourly charge to worry about. E-mail programs that require an Internet account. This is what most of use, be it thru providers like AOL, Prodigy, MSN or an independent internet provider such as Gower, Ballistic, Flashnet, Cox-Internet etc. where you would use programs such as Outlook Express, Netscape Messenger, Eudora or my favorite Incredimail. http://www.incredimail.com/

Many of you have not heard of it, and I would like to take this opportunity to speak a little about it. Incredimail is provided to you free of charge...unless you choose to get the full program ($29), which basically provides support (which I have used and is pretty good) and allows you to preview your messages on the server prior to you downloading them. It comes with a demo program of Letter Creators (you're allowed to make 1-3 letters before you have to purchase the full version at $39...or get both for the price of $49). IM offers you e-cards, letter backgrounds, sounds and animation that you can add to personalize your e-mail. It also comes with a mail notifier (of your choice), which will tell you when you have new mail. You can even make your own handwritten signature to add to your mail. The thing I like about Incredimail (IM) is that I have such a large variety of letter backgrounds to choose from that I can add to personalize my e-mails. Besides the basic ones that come standard in the program, there are many more backgrounds, e-cards, animation and sounds that can be added (all free of charge) without having to make your own...if you're not talented enough like me...by going to Incredimails's multimedia web gallery, or to one of the many IM websites where you can find a variety of all of these plus help with problems you may encounter. These sites also list other sites where you can learn how to make your own backgrounds using either Letter Creator or using a different program such as Paint Shop Pro. One of the IM letter sites I went to (http://groups.yahoo.com/group/A_S-A-F-E_Place/) offers a link to tutorial classes at http://enchanted1designs.com/abcs/about.html that have at least 2 tutorial links every week for the following subjects: psp (paint shop pro), eye candy (plug-in for psp), blade pro (plug-in for psp), sig tags, making letters for LC/Incredimail & 20/20. Classes last for 8 weeks & have a top limit of 30 "students" per class. The owners of this tutorial site, Becky & Candy, said, "We have had great success with the classes so far & have high hopes of it's continuous success! Hey... If I'm in the class, they can't be bad. Right??? So check it out!!

Ok, some people (I won't mention any names Wayne) don't like me to use this program because it takes a little longer to download than a standard e-mail, but at least I don't use sound which DOES take a long time to due to the midi or wav file attachment... All you have to remember is that the more you add to an e-mail, the longer it will take to download. If someone does not like receiving these "stationary" e-mails, ask them to let you know and you can then select a "no background" and they will receive a standard e-mail with a white background. Most people do not mind that it takes a little longer since there are so many neat backgrounds or sidebars (including your own pictures) that can be seen and that they can "snag" or add to their own collection just by viewing yours. One thing about e-mail programs, you **do** have a few choices. You do not have to stay with the default selection that is given you. Use your imagination. Use it in color. Use it with pictures...it's all up to you!!

Sigrid Foreman can be reached at:sigrid@tyler.net

This article is brought to you by the Editorial Committee of the Association of Personal Computer User Groups (APCUG), an International organization to which this user group belongs.

Rescue Disks support Windows 3x or Linux machines. Finish the work required and reboots the PC into its normal operation system.

Conclusion

PartitionMagic 7.0 continues to be the leader in hard drive management. It simply works and works well. It is a tool that anyone who builds PC's, experiments with operating systems or just wants to feel secure in having separate data partitions should have.

Visit www.powerquest.com for additional informatio.

Special thanks goes to Gene Barlow of User Group Relations for this evaluation copy of PartitionMagic 7.0 and his continued support of PC User Groups.

TRENTON COMPUTER FESTIVAL

TCF ™

MAY 4 & 5 2002

PPCUG Member E-mail Directory

Name Last	First	E-Mail Address
Abolins	John D.	jda-ir@njcc.com
Adler	Seymour	syadler@aol.com
Arrowsmith	Donald L.	donaldarrowsmith@yahoo.com
Axelrod	Albert	aaxelrod@erols.com
Best	John J.	jjbest57@alum.mit.edu
Bolge	Eleanor	embolge@jersey.net
Briggs	George R.	grolbriggs@aol.com
Canavan	Thomas	tcanavan1@aol.com
Caris	Paul D.	pd_caris@csi.com
Carman	Thomas	tom_carman@compuserve.com
Chilton	Neal W.	chilforce@aol.com
Cohen	Jon	jon@njcc.com
Colucci	Frank E.	DasWeb1@aol.com
Crossley	Helen M.	CrossleyHM@aol.com
Davis	Perry J.	perrydavis@compuserve.com
Dinkins-Belton	Joyce	Joyce8NJ@aol.com
Dodge	William B.	b-mdodge@juno.com
Duggins	Marsha	msd@gfol.noaa.gov
Edge, Jr.	Lewis A.	lewis@edgeassoc.com
Einthoven	Bella	einthoven@mail.eclipse.net
Foulkes	Frank	ffoulkes1@aol.com
Gibson	Dawson H.	gibbygib@worldnet.att.net
Goldenberg	Kim	kim
Gunther	Bruce W.	bg1509@hotmail.com
Hansen	George	gphansen5@yahoo.com
Hardy	Wayne	wayne99@att.net
Hawryluk	Bill	bhawr@aol.com
Henry	Chuck	chenry@eclipse.net
Holly	Lois	lois@audet.com
Johnson	Florence	kredit@erols.com
Juelch	H. Karl	karljnj@nerc.com
Kerslake	David	AcuraOwner@aol.com
Ketchel	Joseph	buddyjoe227@aol.com
Keinerman	Irma	rafiki@iopener.net
Kleinerman	Milton	kukumafi@Juno.com
Konvalinka	John W.	jkonvalinka@msn.com
Koosman	Milton	miltonk2@aol.com
Krisak	Bill	BobKrisak@worldnet.att.net

Name Last	First	E-Mail Address
Kurivchack	Paul	kurivchp@optonline.net
Landis	Houston E.	judge@alumni.princeton.edu
Laurie	Vic	hampsi@yahoo.com
Lazar	Joseph	joelazar@nerc.com
Lewis	Lloyd N.	Budnorth@juno.com
Libes	Sol	sol@libes.com
Markward	Margaret	mteragram@aol.com
Metzler	Joseph	76116.3117@compuserve.com
Middleton	Frank	ftmprob@nerc.com
Miller	Douglas E.	D.N.Miller@worldnet.att.net
Mintz	Herman	hmintz4@aol.com
Montani	Linda	l.montani@worldnet.att.net
Mooney	William P.	wmo8350722@aol.com
Mosho	Martin	martinmosho@att.net
Oldenburg	Thomas A.	oldenburg-ta@worldnet.att.net
Olson	Gaylord	go@electrim.com
Papier, Jr.	Philip B.	papierp@bellatlantic.net
Phadke	Laxman G.	lgphadke@comcast.net
Pitcher	Barbara	bpitcher@ets.org
Rothstein	Rick	rich_web@email.com
Shinkfield	David	d.shinkfield@worldnet.att.net
Sked	Bill	billsked@aol.com
Stockwell	Hunt	hunt.stockwell@cornell.edu
Suber	Michael J.	mpsuber@juno.com
Tayyabkhan	Mike	tayyabkhan@aol.com
Walker	Clarke	Clarke_Walker@compuserve.com
Tenner	Edward	tenner@clarity.princeton.edu
Walthall	Ronald K.	ronwalthall@prodigy.net
Weinberg	Robert	bweinb@att.net
Weiss III	Edward A.	eweiss@nerc.com
Williams	Ken	krw1948@worldnet.att.net
Willis	Robert S.	rsw9999@cs.com
Willis	Lloyd	lwillis1@prodigy.net
White	Jonathan A.	jawhite@yes-llc.com
Shah	Sonal	sonals@microsoft.com
Stroiney	John	johnstro@microsoft.com

(Last Update: March 25, 2002)
Send Updates to kurivchp@optonline.net for inclusion in this listing.

Important!

If the Library is closing due to bad weather the auto-attendent attached to the 609-882-9246 number is changed to give patrons information about the Library closing.

# Minutes for the General Meeting
March 11, 2002

By: Don Arrowsmith

Paul opened the formal part of the meeting at 7:48 with a reminder to sign up for duty at the PPCUG Parcel Pickup table at the TCF computer festival on May 4 and 5. We said farewell to Jonathan White who is moving to San Diego. Questions from the floor concerned repairs to monitors and reliability of AT&T dialup Internet service. Most of the visitors who were in attendance said that they located PPCUG via our web site.

At 8:02 speaker Alan Goldberg began his presentation by noting that a mention of the Princeton Macintosh User Group in the current US1 newspaper lists him as being the deceased co-founder of PMUG. He noted that Windows XP becomes happier as more RAM is added. A passport account is strongly suggested by WXP but is not required and there is a registry hack to remove the annoying messages. Princeton University uses Microsoft's Systems Management Server (SMS) to deploy updated software and configuration changes to the many desktop machines in use. One feature of SMS allows a support person to take control (with permission) of a user's PC to do troubleshooting. WXP includes and expands on this feature calling it Remote Assistance.

Alan mentioned that the penalty for hacking at PU for both students and staff is dismissal. A problem in early adopting WXP is the delay by the hardware and software manufacturers in making the necessary changes to their drivers and applications. Extensive printer support exists in WXP. Alan suggests referring to MS's Hardware Compatibility List (http://www.microsoft.com/hcl/) or using this page http://www.microsoft.com/windowsxp/pro/howtobuy/upgrading/checkcompat.asp to check for hardware and software trouble flags. Princeton always waits for the first service pack to be released for a product before putting it into general use so it will be a while before PU starts to use WXP.

Recommended web sites were: www.thescreensavers.com, www.wininternals.com, www.powerquest.com, www.symantec.com. Worthwhile newsletters can be subscribed at: www.searchwin2000.com, www.langa.com, www.thenakedpc.com. An extensive collection of tips and registry hacks for Win NT/2000/XP can be found at www.jsiinc.com. Alan's three suggestions for trouble free computing are: a) Make regular backups, b) Use a virus scanner and keep it current, and c) Clean the dust bunnies from inside your PC case on occasion.

Add a 2nd Hard Drive!
April 8, 2002
Lawrence Library
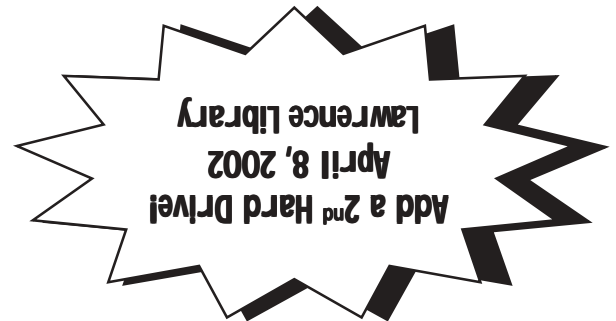
Princeton PC Users Group
P.O Box 291
Rocky Hill, NJ 08553