PPCUG

NEWS

A PUBLICATION OF THE PRINCETON PC USERS GROUP

Monday August 13, 2001

UPGRADE YOUR PC!
PART 2 - BOOT UP!

TOM CANAVAN & PAUL KURIVCHACK WILL SHOW YOU THE INNER WORKINGS
OF YOUR PC, EXPLAIN A SIMM FROM A DIMM
AND HOW TO REPLACE ANYTHING INSIDE THE METAL CASE.

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

Comcast Marketing Representative explaining the advantages of using Comcast@Home high speed intenet service at the July general meeting.

Digital Photo by Ed Weiss

Coming Events

September 10, 2001 - Genealogy

John Konvalinka will speak on geneology.

October 15, 2001 - GIMP GNU Image Manipulation

Jon Abolins will explain what GIMP is and how it is used. *(Note: Third Monday)*

November 19, 2001 - Palm Pilot, more than a PDA

Cass Lewart will demonstrate there is more to a Palm Device than just the calendar & contacts. *(Note: Third Monday)*

December 10, 2001 - Elections & Holiday Party

Presidents Message
by Paul Kurivchack

This months meeting should prove to be very interesting. When Tom Canavan and I did the presentation of upgrading your PC back in May we just held up the various parts to the audience, this month technology takes over in the form of a video camera. Using our new projector and my camcorder, we will be able to project the images up n the screen for all to see. This will be a big step in making this presentation even more informative.

Secondly, our upgrading presentation is also timelier than ever. Prices for PC's CPU's and memory are at their lowest ever. I purchased a bare bones PC (Celeron 700, fan, power supply, case and floppy) for $140. Memory is under $30 for 256MB. While not everyone will be adventeragous to build, their own PC, with the down economy, prices for many components make upgrading adventurous. But why pay someone seventy or eighty dollars an hour to do the upgrade when you can do it yourself. So tell all your friends and neighbors about the August meeting on PC upgrades so we have a full house.

I hope that by the time, you receive this newsletter, the interview I did for US1 will appear. It should be interesting to see how the US1 reporter edits my ramblings about the computer industry and the need for PC User Groups. I still feel that with all the PC's out there, most people only know a very small percentage of what their PC or applications can do. Training and basic computer knowledge is more important now than ever.

I am a good example of this lack of full knowledge sometimes. Read my review of Backup Plus in the newsletter. Since I seldom read manuals all the way through, I never installed the DirectCD software that came with my new CD-RW drive. All I was interested was the EasyCD Creator software. There was no case made for the install initially so I did not do it. But here is a good example of the manufacturer assuming that the PC owner would just blindly install all the software provided on the CD and in many cases, the software is needed by other applications. If it weren't for the excellent documentation from Backup Plus, I would have never known why the software would not write to the CD-R. Training and knowledge are important.

The reason I bring up training is how can we as a group appeal to more people to come out on one Monday night a month to our meetings? Computer training maybe. Please let me know if "How Do I Do This" training on word, excel, power point or other applications would be more interesting than what we currently do. We can put those presentations together fairly easily. E-mail me your comments or suggestions at: Kurivchack_p@compuserve.com.

Lastly, I am tired of having the box full of raffle items (Software and Tee Shirts) in my office any longer. We will raffle off everything at the August meeting. If you are a paid up member, you are eligible to participate.

I look forward to seeing you all at the August meeting.

Windows Tips: How to be a Good Host. (or Not)
By: Vic Laurie - PPCUG

In a previous article on Internet names and addresses, (http://pages.zdnet.com/hampsi/computers/id10.html, where some of the terms used here are defined), I discussed how the more friendly mnemonic format that we use, such as www.microsoft.com, has to be converted to a numeric form that computers understand and that this is done on the Internet by special computers called name or DNS servers. The translation between human-friendly names and numeric IP names is made using large lookup tables where the correspondence between the two formats is kept. Many people are unaware that their own computer also has the capability of using a local database called a "hosts" file that is stored in the **Windows** folder for 9X/Me systems and in **winnt\system32\drivers\etc\hosts** for NT/2000. This local file, of course, is of necessity much smaller than what DNS servers use and goes back to a time when it was intended primarily for use on local networks. Nonetheless, there are applications of this file on the Internet at large that you will often see recommended. Speeding up browsing and blockage of ads are two applications of hosts files that I will discuss.

Format of Hosts File
If you look in the **Windows** folder you will find a sample text file called hosts.sam that explains the format. The "hosts" file itself is a plain text file named just that, hosts. Note that there is <u>no</u> extension. The file with the extension "sam" has no function other than to illustrate the format. Here are its contents:

```
-------------------------------------------------------------------------------
# Copyright (c) 1998 Microsoft Corp.
#
# This is a sample HOSTS file used by Microsoft TCP/IP stack for Windows98
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
#      102.54.94.97     rhino.acme.com          # source server
#       38.25.63.10     x.acme.com              # x client host

127.0.0.1       localhost
-------------------------------------------------------------------------------
```

Make particular note of the so-called "loopback" entry:
127.0.0.1 localhost
This entry is a not an actual IP address but directs the computer to send a packet to itself. This function can be used in ad blocking and is discussed below.

No wildcards are allowed and only the main domain name is a valid entry. Directories and files at a site are not supported. Thus "www.microsoft.com" is a valid entry but "www.microsoft.com/windows98/" is not.
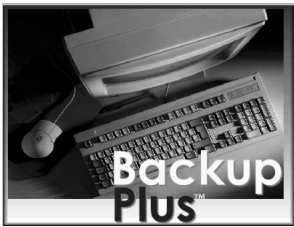
Since the HOSTS file is a text file, reading, editing, or creating it should be done in Notepad or other text editor. However, it has no extension so double-clicking will not open it automatically but will bring up the "Open with" menu instead. You can then select Notepad to open it. If your system has no HOSTS file and you use Notepad to create one, be sure to save the file with no extension. Notepad will automatically tack on a *.txt* extension otherwise. When saving, save as "hosts", including the quotation marks.

If a HOSTS file exists in the **Windows** folder, it is automatically searched during any process using the Windows TCP/IP stack. The search is done first before any attempt to find a DNS server is made. Thus any mistakes in HOSTS will result in an error message. More on the HOSTS file can be read at http://www.accs-et.com/hosts/what_is_hosts.html (By the way, in its normal configuration AOL uses its own version of TCP/IP so the HOSTS file is not consulted by the AOL browser.)

Speeding Up Browsing
Many of the so-called Web accelerators that are available as freeware or as part of commercial packages make use of the HOSTS file. The idea is that if you can resolve IP addresses on your own computer instead of waiting for a DNS server to do it, you can cut the time required to find a Web site. If you have a slow connection or if the servers are very busy, you can indeed shave a few seconds
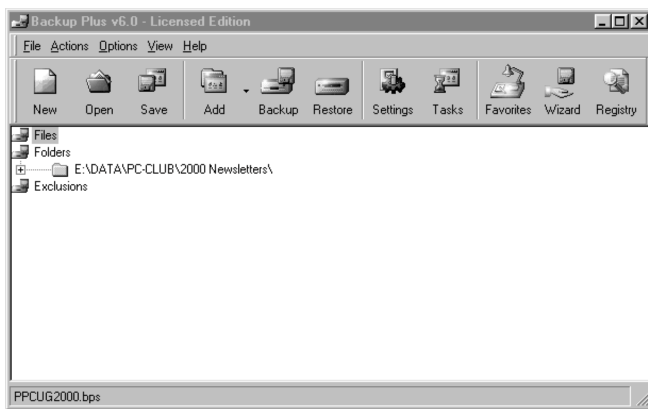
Software Review
By: Paul Kurivchack - PPCUG

With the growing size of hard drives, backing up all your important data is becoming more important that ever. The days of floppy or Zip disks are just obsolete when you have a 40 GB hard drive or larger. Archiving to CD-R's or CD-RW's with their 660 MB capacity may not be enough for all your MP3 collection or files, but after all those hours of downloads and work you still need to do something to protect yourself.

Well just backup those files! Easier said than done. Yes, you can copy the files in groups or use a backup application such as Backup Plus v6.0 from Avantrix, Inc.

Backup Plus is an easy to use utility application that provides you with the tools to truly manage your data backup for individual pc's or network servers.

Now I know there are a bunch of backup utilities out there

and why should consider Backup Plus. To start with, it is just an easy application to use. The screens are clear and provide just enough information that you do not have to keep referring to the manual. You create backup sets (defines the files or folders to include) and with the backup scheduler, set Backup Plus to automatically run the backup at predetermined times that you select.

Backup Plus will write and span just about anything you have, from all the removable media; floppy, Zip, Jazz, CD's to networked drives. Perform incremental or differential backups, features found in software that large data centers and network operations use.
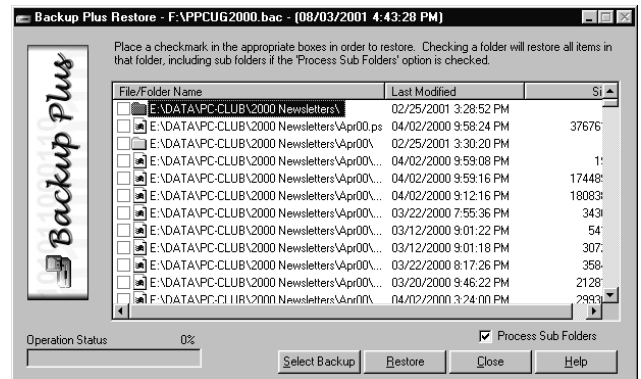
Backup sets are a very interesting feature. In the past, if you ran backup software you had to define which folders or files you

wanted to backup each time. With Backup Plus, select the files, folders and exceptions (files that need not be backed up within a folder), give the backup set a unique name. Do this for each type or group backup you need. For example, if you are working with your MP3 collection, create the backup set just to archive your MP3's, call it the MP3 backup or if working with Office applications setup a backup set to include all your doc, xls or ppt files and call it Office backup. Now anytime you can quickly perform a backup of only the critical data.

Another key feature of Backup Plus is the ability to differentiate and only backup files that have changed since the last backup. This is a huge timesaver if your normally backup large number of files a scheduled basis since it only backs up files that have changed since the last backup. If only one hundred files changed out of a thousand, it reads the thousand but only makes changes to the one hundred. Again, this is a feature found on high-end data center software.

The backup scheduler function allows you to regularly schedule backups of your data. Whether it is a daily, weekly or monthly schedule, just select the backup set, enter the time and date for the backup to occur and your finished. Just make sure you have your media loaded.

Moreover, what good is a backup without a restore function? Just select "Restore" from the menu, locate the backup data file

and then the contents of the backup will be listed. At this point a single file can be restored or the complete contents of a folder or multiple folder. A very clean, straightforward approach to doing the restore.

Lastly, for those of us that like the "Wizards" that walk us through the complete procedure, Backup Plus has one too. I tend not to be one of those who like the Wizards so I tried it out briefly but prefer just using the menus and prompts. It is simpler and faster.

Speaking about fast, Backup Plus was able to backup my test files of around sixty-five Meg's in less than five minutes. During the backup, a status screen appears providing you with the file being backed up, number of files processed, bytes and overall progress. After the backup is completed, it will test for data integrity.

off the connection time of your most used sites. Or on the rare occasion when DNS servers are down, you might even be able to continue to use the Web.

However, there are several drawbacks to using a HOSTS file. The most obvious is its size limitation. Only a small subset of all the registered Web addresses will be in a HOSTS file. This can be useful in speeding up your homepage and other pages that you visit regularly but many sites will still need the DNS server. Of course, many people visit only a relatively small number of sites on any regular basis and the few seconds saved each time may be attractive to them.

Also, the entries in the HOSTS file have to be created one way or the other. The IP address corresponding to an URL has to be looked up and entered. While those familiar with the **PING** function can do this themselves, the task would rapidly become too tedious. (The procedure is briefly described at http://www.cnet.com/internet/0-3762-7-1757849.html). Entering more than a few by hand would probably deter most people. There are, however, software programs that will look up all your Favorites and enter them into a Hosts file or otherwise help create a HOSTS file. One is called Legion and it can be downloaded at http://www.pcworld.com/downloads/file_description.asp?fid=6050. Another is the freeware Fastnet at http://www.geocities.com/gcriaco/.

This function is also included as part of some utility programs like Radsoft Power Tools at http://www.radsoft.net/products/info.htm, TweakDUN at http://www.pattersondesigns.com/tweakdun/ or the freeware at http://www.netlocity.net/.

One big catch is that IP addresses are not static. This can cause unexpected ""The page cannot be displayed"" error messages and inability to connect to sites. (See Fred Langa's comments at http://www.langa.com/newsletters/2000/2000-04-03.htm#5 and http://www.langa.com/newsletters/2000/2000-04-10.htm#5.) Although the URL www.microsoft.com may not change, the underlying IP addresses (there may be more than one) can and do change. Thus, it is necessary to make sure that the HOSTS file is kept up-to-date. Software such as that mentioned above can do this, but except for quite small HOSTS files, the task can still be time-consuming.

My own personal experience is that no overall gain in efficiency results from using the HOSTS file to resolve IP addresses. The time saved in access time is more than cancelled by the time spent updating the IP addresses and the aggravation of sites that won't connect.. Those who rarely access more than a few sites might possibly benefit as long as they keep in mind the chance of not being able to connect to a site because the IP address has changed.

Blocking Ads and Other Unwanted Sites
Another use of the HOSTS file that is commonly recommended is for blocking ads. Instead of using the HOSTS file to speed up connection to a Web site, one can use it to actually prevent

connection. This is done by assigning the loopback IP 127.0.0.1 to the unwanted site. Thus an entry might be: "127.0.0.1 www.unwanted.com" (without quotes). Any request for such an IP address just gets sent right back to your own computer. In order to see how ads can be blocked this way, we need to look briefly at the process involved in downloading a Web page to our computer. A Web page consists of many files which the browser puts together and forms into a single page for display on our computer. The various files need not come from a single source and many, especially ads and banners, can be from URLs other than the one initially addressed. These are from agencies whose business is providing ads and banners for their various clients who pay to have these ads displayed on different Web sites. To see where a graphic or ad comes from, right-click on it to bring up the context menu. Then left-click Properties. The Properties Sheet will show the URL that is the source of the graphic.

By putting a list of the URLs of the largest agencies into the HOSTS file many ads can be blocked. A number of people have compiled HOSTS files with large numbers of URLs for ads. For example, a well known one by Stephen Martin can be downloaded at http://www.smartin-designs.com/. If you put the file in the **Windows** folder, pages will appear with the error message, "The page cannot be displayed"" where the ad would normally appear. Or you may just get a red "X" with a little bit of text. Ads that originate on the same site as the main page, however, will still appear. Because the blocked ad files do not have to be downloaded, pages will connect faster.

There can be problems, however. The compilers of ad-blocking HOSTS files tend to be a little zealous about privacy and sometimes block sites many of us would like to see. The files also often block counters and other java script applets that are pretty harmless or even useful. Further, sometimes using a HOSTS file can keep an entire page from downloading or interfere with navigation. The subject of ad-blocking is rather complicated, with philosophical as well as technical aspects, and cannot be discussed in detail in our limited space. There are many ad-blocking software programs that do more than use just a HOSTS file. The bottom line on a HOSTS file, from my own personal view, is that it is probably not worth the effort. I have tried using one a number of times and I have always ended up removing it. However, the pop-ups from *ads.x10.com* have recently gotten so annoying that I have a HOSTS file just for them.

A special consideration might apply to a household with children. Stephen Martin's HOSTS file has a section listing porno sites. Someone who is concerned about what kids might get into on the Web could consider a HOSTS file containing these sites as a way of filtering the content available to children. However, remember that it does not work for AOL or any other provider that does not use TCP/IP.

Vinyl LP to Audio CD or MP3 Files

By: Bruce Fries - author of *The MP3 and Internet Audio Handbook.*

With a good sound recording and editing program you can take those old scratchy LPs and 78s record them through your sound card, filter out all those clicks and pops, and then burn the music to an audio CD or store it as an MP3 file. The following process also works for recording audio from other external sources, such as cassette tapes and microphones.

Use a program like CoolEdit 2000 (*www.cooledit.com*) for the PC or Peak (*www.bias-inc.com*) for the Mac. Demo versions of both programs can be downloaded for free.

Connect Your PC to Your Stereo

The first step is to connect an adapter cable from the tape out (or record) jack of your stereo receiver to the line input of your sound card. These cables can be purchased from most consumer electronics stores, such as Radio Shack, Best Buy and Fry's Electronics. Newer turntables with line-out jacks can be connected directly to the sound card.

Set the Sampling Rate and Resolution

The next step is to create a new file in the sound editing program. If you intend to create an audio CD, you must choose a sample rate of 44,100, two channels (stereo) and a resolution of 16 bits. This will create a file that takes up approximately 10MB of space for every minute recorded, so you will need plenty of free disk space. For voice or music to be embedded in a Web page, you can use a lower sample rate, a single channel and 8 bit resolution to create a much smaller file.

Set the Recording Level

Now play part of the track and use the Volume Control program to set your recording levels. In Windows, the first screen of the Volume Control program is for playback levels. To get to the Recording Level screen, choose Properties from the **Options** menu and select the checkbox for **Recording.** Make sure the checkbox for the **Line-In** volume control is also selected. Click **OK** and the Record Level screen will appear.

Set the Monitor Record Level option in your recording program to **On,** and, as the track plays, adjust the adjust the slider for Line-In so the level meter shows a strong signal, but not so strong as any peaks cause the meter to go into the red area.

Record the Audio

Lift the stylus and queue up the beginning of the track. Click the **Record** button in your recording program and then lower the needle. Make sure no other programs are running while you record. When the track is finished, click the **Stop** button and lift the stylus.

Remove Clicks, Pops or Hiss

Play back the track to hear how it sounds. Trim off any silence at the beginning and ends of the track. If you have an audio clean-up plug, use it to automatically remove any clicks, pops and hiss. If you don't have an audio clean-up plug-in, you can zoom in to each click or pop, select an adjacent cycle of the waveform at the zero crossing points, copy it to the clipboard, and then paste it over the cycle that contains the click. Listen to the track again and run the hiss removal if necessary.

Normalize the Volume

Normalize the track to adjust the volume up or down so that all tracks will play at a similar level. A value of 97% usually works well if your software normalizes by peak level. More advanced programs, such as CoolEdit Pro, can normalize by average levels, which is much more accurate. At this point, you may want to add a fade-in or fade-out. Some CD recording programs, such as Nero (*www.nero.com*) can automatically cross-fade tracks as the CD is recorded.

Save to WAV or MP3 File

If you intend to record the track to an audio CD, save it to a PCM format WAV file (PC) or an AIFF file (Mac). Save the file to MP3 format if you want to play it from your computer or on a portable player.

It pays to experiment with a short clip before you record and clean-up an entire album. Find out which settings work best for different types of recordings and write these down for future reference.

Many of these old 78s and LPs are irreplaceable, so it pays to preserve them in a digital format. If you ever have recorded a cassette or reel-to-reel tape, you should be comfortable with this process and delighted with the ability to improve the quality of the audio.

For more information on recording from vinyl LPs to audio CDs or MP3 files, pick up a copy of *The MP3 and Internet Audio Handbook* ($19.95) from www.TeamComBooks.com or read it online for free at *www.MP3Handbook.com*.

Bruce Fries is a writer, technology consultant and entrepreneur who lives in Silver Spring, Maryland. He is an associate of the Audio Engineering Society and the founder of TeamCom Books, a customer-focused publishing company that combines the best of traditional print publishing with new media, such as e-books and the Internet.

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(Last Update: August 3, 2001)
Send Updates to kurivchack_p@compuserve.com for inclusion in this listing.

Minutes for the Board Meeting July 24, 2001

By: Don Arrowsmith

The PPCUG Board met at the home of Sol Libes on Tuesday, July 24, 2001 beginning at 8 pm.

Present were Paul Kurivchack, Sol Libes, Vic Laurie, Al Axelrod and Don Arrowsmith.

Discussed were 1) Status of the Linux SIG 2) General Meeting programs for the next 6

months 3) Whether or not to continue making the email list available in the newsletter and on the web site 4) Review of possible officers for the next year.

Don Arrowsmith

Backup Plus works with all the current versions of Windows 9x, ME, NT and 2000. I tested it on my Pentium III 450 MHz, Windows 98 2nd edition without any trouble after I installed the DirectCD application. It would not write to my CD-RW drive. I kept getting this annoying Error 503. This is one of the few applications that include the listing of error codes in the manual and further more give an excellent description of what the error means and a possible solution. All I had to do was install the DirectCD drivers from the CD that came with my CD-RW drive. After that, I was burning CD's.

Backup Plus is an excellent product with an easy to use interface, fast backups and simple restores. As with many applications there are numerous features and settings within the program that allows you to fine-tune it to meet your full needs. As in the case of Backup Plus for additional information and pricing (direct download $39.95 or boxed CD and manual, $44.95), please visit http://www.avantrix.com.

Computer Terminology from the Internet

State-of-the-art - Any computer you can't afford.
Obsolete - Any computer you own.
Microsecond - The time it takes for your State-of-the-art-computer to become obsolete.
GUI (pronounced gooey) - What your computer becomes after spilling your coffee on it.
Computer Chip - Any starchy food stuff consumed in mass quantities while programming.
Keyboard - The standard way to generate computer errors.
Mouse - An advanced input device to make computer errors easier to generate.
Hard Drive - The sales technique employed by computer salesmen.
Portable Computer - A device invented to force businessmen to work at home, on vacation and on business trips.

UPGRADE YOUR PC!
PART 2 - BOOT UP!
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