

PPCUG

NEWS

A PUBLICATION OF THE PRINCETON PC USERS GROUP

Monday March 10, 2003

“Digital Camera Show & Tell”

Looking to buy a digital camera? What do you buy?

Well many of our members already own a digital camera. Members are urged to bring their digital camera to the meeting. We will each take a few minutes to talk about our cameras. What we like and dislike about them.

At

Lawrence Library

Meeting 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

About PPCUG	2
Presidents Message	2
General Meeting Minutes	2
Parcel Pick-up @TCF2003	2
Hexed	3
Keep Your hard Drive Driving	4
Member E-mail Directory	5



Martin Mosho starting his presentation on the tricks and tips of Buying & Selling on E-Bay at the February 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 upcoming 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:
Clarke Walker 609-883-5262
Vice-President:
Tom Carman 732-828-6055
Secretary:
Don Arrowsmith 609-883-9874
Treasurer:
Paul Kurivchack 908-218-0778
Members-At-Large:
Jon Abolins 609-883-8126
Vic Laurie 609-924-1220
Kim Goldenberg 609-631-9140
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.

Published Monthly by: Princeton PC Users Group
PO Box 291 Rocky Hill, NJ 08553
© Copyright 2003 January 2003 Vol. 19 No. 1

The reprinting of original material appearing in this newsletter in any other publication must credit the Princeton PC Users Group Newsletter and/or the Princeton PC Users Group and any authors shown. The editor and the Princeton PC Users Group assume no responsibility or liability for damages arising from the publication or non-publication of any article in this newsletter. Opinions expressed in these articles are not necessarily those of the members of the Princeton PC Users Group.

Coming Events

April 14, 2003 - GPS Mapping & more. . .

May 3 & 4, 2003 - Trenton Computer Festival

May 12, 2003 - to be announced

Presidents Message

By: Clarke Walker

At our next meeting will be having a "Digital Camera Show, Tell and Shoot". I'm asking members to bring their digital still cameras to the meeting. Each person will have a few minutes to talk about their camera and take a picture of the group. If you have an AV cable, bring it and we will show the picture to the group using the LCD projector.

I will also bring a device that will let us read various media cards. If our club's laptop can handle it I'll also use the laptop to display the pictures.

For the April meeting Don Arrowsmith has offered to talk about his GPS device. If any one else has a GPS let me know via e-mail or at the meeting.

General Meeting Minutes

February 10, 2003

By: Don Arrowsmith

President Clarke Walker started the formal meeting at 7:45 with a Q&A. Some of the topics were: Transferring files from an old PC to a new one; Network problems; Missing floppy drives on new Dell's; Sony's movie editor; TV cards; Bad hard drive symptoms; Free web hosting sites; Video card troubles; Decoding beeping errors on boot up; Privacy; Remote email access.

At 8:15, Martin Moshko began a presentation on buying and selling on eBay. He was accompanied by Terry Meade who works full-time from home as an eBay seller. Martin brought overheads of eBay web pages to illustrate his points. He gave us several tips when buying items. Martin took us through each of the steps in generating a listing for an item to be sold. Especially interesting were his suggestions on making an attractive and compelling listing.

Parcel Pickup @ TCF2003

By: Paul Kurivchack

While we are still shivering through this year's winter, it is only two meetings away to the bright warm sunshine of early May and the Trenton Computer Festival at the NJ Convention Center in Edison, NJ.

The Princeton PC Users Group will again be hosting the Parcel Pick-up Area in front of the Flea Market on May 3 and 4. We need to start asking for volunteers to help out for a four-hour shift on Saturday or Sunday.

As in the past, TCF provides free admission to the show for volunteering at the Pick-up area. Come in the morning, pick up your badge to shop and then work the afternoon (In fact we always need more help in the afternoon than the morning).

The parcel pick-up area has been a great moneymaker for our group. It continues to help hold down the cost of dues and allows the group to purchase new equipment.

A sign up sheet will be on the sign in table at the next two meetings or e-mail me at: kurivchp@optonline.net of the day and time you can work. Thanks!!!!

Hexed

By: Vic Laurie - PPCUG

As almost anyone who uses a computer is at least dimly aware, the actual operations of a computer are done with a binary number system. Traditionally, the two possible states for a binary system are represented by the digits for "zero" and "one" although "off" and "on" or sometimes "no" and "yes" are closer to what is actually involved. Most of the time a typical PC user has no need to think about this aspect of computers, but every now and then the underlying binary nature will manifest itself. Actually it is a more compact variant of the binary system, called hexadecimal (or "hex" for short) that is likely to be encountered. Since many computer users are totally baffled when they see something written in hex, I am going to point out some of the aspects of this system so that it can be recognized when it is seen. Although interpreting the details of hex code is not of interest to many people, being able to recognize it will at least make computers less mysterious and intimidating. Just being able to say, "Oh yes, that's hex", is somehow comforting, even when you have no idea what it means.

What is Hexadecimal?

The reason hex is used in computing is for the convenience of humans since the computer really only understands pure binary. Hex is much more compact since it is based on 16 (the fourth power of 2) instead of 2. Pure binary numbers based on 2 can quickly become unwieldy to write. For example, the three-digit decimal number 513 requires ten digits in pure binary (100000001) but only three (201) in hex. However, representing hex numbers requires sixteen distinct characters compared to the ten used in decimal notation. The sixteen characters that are used are the ten numeric symbols, 0-9, and the first six letters of the alphabet, A-F. The letters are often, but not always, capitalized. Thus, the first ten numbers 0-9 are written the same in both decimal and hex and the equivalents of the decimal numbers 10-15 are indicated by a single letter, ranging from A to F. Table 1 shows how the decimal numbers 10-17 are written in hex.

Decimal	10	11	12	13	14	15	16	17
Hex	A	B	C	D	E	F	10	11

Table 1. Some hex numbers

Note that "10" and "11" in hex are not the same as "10" and "11" in decimal. Only the first ten numbers 0-9 are the same in the two representations. To get some feel for what hex numbers are like, let us look at some examples. Consider the hex number "D8AF". To evaluate the hex number "D8AF", use exactly the same scheme that we use when we write decimal numbers. The various single digits in a decimal number are placeholders representing a multiple of a power of ten. Powers of ten ascend from right to left. For example, the decimal number "365" means $3 \times 10^2 + 6 \times 10 + 5$. In hexadecimal each single character represents a multiple of a power of sixteen. Thus our hex number "D8AF" translated to decimal means $13 \times 16^3 + 8 \times 16^2 + 10 \times 16 + 15 = 55471$. Actually going through the arithmetic for hex numbers in order to evaluate them is not really necessary, however. The easier way is to use the calculator that comes as an accessory in Windows. It can convert between decimal and hex when in "Scientific" view.

Note that a hex number such as "365" is not the same as the decimal number "365." Its actual value in decimal terms is $3 \times 16^2 + 6 \times 16 + 5 = 869$. To avoid confusion, hex numbers are often labeled or tagged so that their meaning is clear. One method of tagging hex numbers is to append a lower case "h" at the end. Another

method of labeling, used in programming, is to precede the number with 0x. Thus, the hex number "D8AF" could also be written "D8AFh", where the lower case "h" at the end is just a label to make sure we know it is a hex number. Or it might be written with a labeling prefix as "0xD8AF".

When Does Hex Occur?

Some of the occasions when an ordinary PC user might encounter hex numbers include anything that references specific places in memory. By convention, addresses of locations in RAM are given in hex. For example, input/output functions may be assigned a fixed location in RAM and you may see these hex addresses in Device Manager or other system accessories.

Standard Windows error messages may include hex addresses. For example, a common type of error message is the "Fatal exception". The message will contain a statement, "A fatal exception <hh> has occurred at <xxxx:xxxxxxx>", where <hh> stands for some two character hex code that identifies the type of error and the x's are the hex for a location in memory. An example is "Fatal exception 0E has occurred at 0028:C00082CD..." Here "0E" indicates the hex number "zero-E" (not Outlook Express), which means error 14, a page fault. The memory addresses aren't much help to a typical PC user but may on some occasions be useful to a technician if you are on the phone trying to get help. There is a useful compendium of Windows error messages with various hex addresses at <http://aumha.org/kberrmsg.htm>. The hex addresses may help pinpoint the source of trouble.

Now that we have to worry about "activation" in Windows XP, it is worth knowing that some networking components have a unique identification number in hex, sometimes called a MAC (media access control) number, that is part of the way XP defines your activation code. Other kinds of hardware also may have unique ID numbers in hex. These unique identifiers all go into the activation code that Windows XP uses to recognize a specific PC.

Colors on Web Pages

Another place where hex numbers commonly occur is in HTML code where they are used to designate colors. Six characters are used, two for each of the primary colors red, green, and blue. The character "#" is used as an identifying label. Pure red is indicated by #FF0000, pure green by #00FF00, and pure blue by #0000FF. By blending various amounts of these primary colors, a large number of shades and colors can be generated. For example, royal blue is indicated by #4169E1. For those who are interested, one of the many sites with tables of color codes is at <http://www.december.com/html/spec/color.html>. If you want to have a little fun playing with colors, open a new, blank file in Notepad (or other text editor). Enter the following line

```
<body bgcolor=#ff0000></body>
```

and save the file with the extension HTM. Make sure not to save as a TXT file. Then double-click to open with your default browser. Now repeat the process with different color codes.

Web Addresses

Spammers sometimes use hex to obfuscate their addresses. Or Websites may use hex in the addresses of their files or secondary pages for security or other reasons. Did you ever see one of those long and complicated URLs that seem to make no sense in your browser's address bar? An interesting article on obscuring addresses is at

<http://www.pc-help.org/obscure.htm>. Not all the methods men

Keep your Hard Drive Driving

By: Chris Doyle - Ontrack

Here's a quick quiz: What takes a licking yet keeps on ticking? Right—your hard drive. The truth is that hard disks manufactured in the last few years last longer than that old clunker you're using as a doorstop.

Here's the surprise. You can squeeze a longer life—maybe even keep a faulty drive trucking—with a few easy tips.

The silent killer of hard drives is heat—especially high-speed SCSI drives. My recommendation? Use a hard drive cooling fan with all hard drives. You can buy them direct at <http://www.3dfxcool.com> or at FRY's. I have cooling fans for both my IDE and SCSI drives. In the lab, we have cooling fans on the drives at all times.

Optimize your hard drive on a daily basis. As much as a pain this may be for some, optimizing your drive has several benefits. Besides optimizing the files, this process also catches many minor problems that may manifest themselves into a major problem later.

Examples? Cross linked or orphan files. Another good reason is that if you do have a problem accessing data on your drive, when a utility is run, such as Norton, nuts and bolts, tiramisu, the chances of recovery are much higher if the drive has been optimized recently. (By the way—Mijenix (<http://www.mijenix.com>) makes a great utility to perform this function <<Smile>>)

Without questions, you must run SpinRite on all of your drives once a quarter—at number five, the highest. This is a personal recommendation. Steve Gibson's utility is excellent, and will find many if not all surface defects before they manifest themselves further. Trouble in Paradise, also known as TIP, is an excellent tool for Zip disks.

Should I mention backing up your data on a regular basis? Do it often, early, and often and early.

Examining your power supply is critical. It's not too difficult to tax a power supply in some systems if they are fully loaded. If possible, I recommend you make sure that the systems have a decent power supply—at least 250 watts or more. (PC Power and Cooling makes the best). Also make sure that your hard drives have their own independent power connection, not shared by other devices. An uninterruptible Power Supply (UPS) is another good idea (and don't sweat, these things are much more reasonably priced than in the past).

Many people ask whether it's best to keep your computer running all the time—or better to turn it off and on. My recommendation is turn your computer on in the morning and off at night. I also think that disabling all power saving devices is best for hard drives. Forcing a hard drive on a desktop PC to spin down every 15 min of inactivity—and then waiting a minute or two to spin up—is worse than turning the computer off and on.

Never, ever move the computer while it is up and running. (Try telling that to laptop users!) Any blow to the computer—it tips over, is dropped an inch or more—and that bump gets transmitted directly to the hard drive. Most of the time it will cause a minor head crash. Worst case? It will cause bad things to happen. No, don't ask. But you'll be calling Ontrack to get an estimate. <<smile>>

Don't forget about static when handling drives. The newest and

highest performing drives come with (hushed tones, please) Giant MR Heads. They're <M>extremely sensitive to static. Ontrack has redone all of our static procedures to handle this technology, and I can tell you from first hand experience that static will kill drives dead.

Drives that make clicking, thumping, or grinding noise are experiencing a mechanical problem of some sort. No surprise, huh? But each time the drive is powered up, the more that damage is occurring on the drive. If data recovery is needed in this case, please, please, please—the less you do to the drive, (powering up or using utilities) the more data we can recover. And the faster we can recover it.

If you think you have a problem with a drive, try going to the manufacturers Web site. Download the specific utility they make to check the drive. Since the utility comes from the manufacturer, they know how to check specific issues with their drives.

Here are some examples:

Quantum: QDPS
IBM: DFT
Western Digital: WD Diag
Maxtor: MaxDiag (I think)

Ontrack's Data Advisor: This tool will work with all drives And it's probably the safest tool to use to check a drive.

Here's a tip for tinkers, users that do a lot of testing of drives. In many cases, it's very difficult to get rid of a hard drive after installing a particular operating system or file system type. That's especially true when using programs such as System Commander.

Try booting up with Ontrack's Disk Manager. The utility has a feature that will write zeros to every sector of the drive. This puts the drive back into the shape it was when it came from the factory. After the process is done, it's easy to partition and format the drive. Don't forget, though, that this will destroy all information on the drive.

Here's one for all of you SCSI users lurking out there (including me). Keep your drivers current. Driver and BIOS updates for your SCSI card can make a world of difference in how your drive performs. Don't forget to make sure you follow the specifications for cabling and termination.

Okay, now that you have some new tools for preserving your hard drive, I have some bad news. I saw a 40GB drive advertised at FRY's for \$29.99 (after rebate). <<just kidding>>

OnTrack's Chris Doyle loves to hear hard drives happily humming. You can reach him at CDoyle@ontrack.com §

There is no restriction against any non-profit group using the article as long as it is kept in context, with proper credit given to the author. This article is brought to you by the Editorial Committee of the APCUG.



PRINCETON PC USERS GROUP

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

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@alumni.lehigh.edu
Axelrod	Albert	aaxelrod@nerc.com
Best	John J.	jjbest57@alum.mit.edu
Bolge	Eleanor	embolge@jersey.net
Briggs	George R.	grolbriggs@aol.com
Budelis	Joseph	Joe_Budelis@post.Harvard.edu
Canavan	Thomas	canavan1@aol.com
Caris	Paul D.	pcaris@earthlink.net
Carman	Thomas	tom_carman@compuserve.com
Castro	Carlos	carlos.castro@ieee.org
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	kgolden3@optonline.net
Gunther	Bruce W.	bg1509@hotmail.com
Hansen	George	gphansen5@yahoo.com
Hardy	Wayne	wayne99@att.net
Hawryluk	Bill	bhawr@aol.com
Henry	Chuck	chenry130@comcast.net
Holly	Lois	lois@audet.com
Johnson	Florence	credit@nerc.com
Juelch	H. Karl	juelch@rcn.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

Name Last	First	E-Mail Address
Krisak	Bill	BobKrisak@worldnet.att.net
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
Tafel	David E.	dtafel@comcast.net
Tayyabkhan	Mike	tayyabkhan@aol.com
Walker	Clarke	Clarke-walker@msn.com
Tenner	Edward	tenner@clarity.princeton.edu
Vanisko	Thomas L.	tvanisko@aol.com
Walshall	Ronald K.	ronwalshall@prodigy.net
Weinberg	Robert	bweinb@comcast.net
Weiss III	Edward A.	eweiss@nerc.com
Williams	Ken	krw1948@worldnet.att.net
Willis	Robert S.	rsw9999@cs.com
Willis	Lloyd	llwillis1@prodigy.net
White	Jonathan A.	jawwhite@yes-llc.com

(Last Update: March 1, 2003)

Send Updates to kurivchp@optonline.net for inclusion in this listing.

Hexed continued from page 3

tioned in that article work in the newest versions of browsers since some of the "dotless" forms are no longer recognized. However, one method of writing addresses in hex that is still frequently used replaces the usual characters in an address with the hex for the ASCII code for the characters. Remember that at heart computers know nothing about letters or any other character. Everything has to be translated to binary. A standard code for all the common characters is one called ASCII (from American Standard Code for Information Interchange). In an URL or Internet address, the hex equivalent of a character can be used by preceding it with "%" (without quotes). The URL www.vlaur.com can be rewritten as:
`%77%77%77%77%2E%76%6C%61%75%72%2E%63%6F%6D.`

the hex code for a period is "2E". Thus "www." becomes "%77%77%77%77%2E". The ASCII codes are given in many places but one reference is <http://www.jimprice.com/jim-asc.htm>. You can use tables to translate hex-encoded URLs but it is easier to use a converter such as Karen Kenworthy's URL Discombobulator, which is available for free download at:

<http://www.karenware.com/powertools/ptlookup.asp>.

Try entering it in your browser (may not work in AOL). The hex number following each percent sign is the ASCII code for a single character. For example, the hex code for "w" is "77" and

Princeton PC Users Group
P.O. Box 291
Rocky Hill, NJ 08553

