

PPCUG

NEWS

A PUBLICATION OF THE PRINCETON PC USERS GROUP

Calendar

General Meetings

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

7:00-7:45 PM:

Tech Corner is Open / Social Time

7:45 PM:

Meeting Comes to Order

8 PM:

Featured Presentation

Board Meetings

Third Monday of the Month
8 PM at Lawrenceville Library
Route 1 and Darrah Lane.

Board meetings are open to All.

Newsletter Deadline

Articles for the newsletter are due by the last Wednesday of the month.

Articles will be accepted via e-mail to: kurivchack_p@compuserve.com in the following formats: Word for Windows 6.0, 7.0 or 97; Ami Pro / WordPro, or Ascii Text.

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This Month

Monday June 14, 1999

Office 2000

Brett G.Davis

Microsoft Corporation
Channel Marketing Representative

Microsoft's newest release of their office suite, Office 2000 will be presented. Learn about many of the new enhanced features and the benefits of upgrading.

At the

Lawrence Library

Meeting Rooms 1 & 2

US Route 1 South & Darrah Lane, Lawrenceville, NJ
Our New Meeting Location

Meetings of an organization at any of the facilities of the Mercer County Library System in No Way implies endorsement of its programs



Digital Photo by Ed Weiss

Sol Libes addressing our group about the effective use of e-mail at the May general meeting.

About PPCUG NEWS

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Voice Mail System

For information about SIGs, meetings, etc. call 908-281-3107

To contact Board Members, use the E-Mail Addresses on page 7 or Web Site.

Web Site

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

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Annual Dues Rates

Normal dues rate is \$25.

New Members Only: after February, the rate is \$2 per month times the number of months remaining in the year.



Coming Events

July 12, 1999 - Windows 95/98 Tips.

Vic Laurie will be back once again presenting his "Tips & Tricks" in using Windows 95/98.

August 9, 1999 - On & Offline Security - Jon Abolins

September 13, 1999 - Bill Machrone - Editor PC Magazine

October 11, 1999 - Visual Basic Programming

Ron Rouse will build up a simple VB application, showing how VISUAL programming differs from old fashioned text programming, and how writing code for WINDOWS differs from the old fashioned kind.

November 8, 1999 - Adobe

December 13, 1999 - Hoilday Party & Elections



Presidents Message

by Paul Kurivchack

June is always an exciting month. It is time for PC Expo and the APCUG "right coast conference" in New York City and this year the PPCUG will be represented at the APCUG meeting as I have scheduled to attend the three days of meetings. This is the first year that I planned early enough and sent the registration in on time to so I can attend. I am looking forward to meeting officers of other groups, attending the seminars and hopefully learning a thing or two about what has made them successful. Since the APCUG meeting is the tied to PC Expo, I am planning on spending the better part of a day at the Expo taking in the sights and learning what the latest trends in personal computing are. Another goal is lining up potential speakers for next year's programs. I will have more to say about that in next month's newsletter.

At the May meeting, Sol Libes presented Effective Use of E-mail to more than 50 members. Sol covered many aspects of e-mail and provided many useful tips and hints. Thanks Sol for a great job.

One subject that continues to come up is about SIG's. We are tossing around the idea of starting some sort of special end of the month meeting that would allow our members to discuss specific hardware or software issues away from the rush of the monthly general meeting. What we need to hear from our members is: "Is this something you would be interested in doing"? Are there specific topics you would want to cover such as upgrading memory, processors or other hardware components? Is there someone other than the current board members willing to help plan and organize it? If so, I will approach the Library to see if they would be willing to allow us another night, and if not to hold the meeting in lieu of a board meeting on the third Monday. Please e-mail me your comments and suggestions.

I look forward to seeing you all on June 14th.

USB Explained

Is the Universal serial Bus for You?

By: Karl Rehak LVPCUG

The Universal Serial Bus (USB) is now making inroads into computer systems. Devices are being announced and delivered weekly that support this new attachment method. This article will highlight how the USB works, some physical considerations of hooking up USB devices and a summary of which devices are good candidates for USB attachment.

The intent of the USB architecture is to provide a replacement for the aging serial and parallel ports on existing computers. Those ports have not changed much since the original PC design and their use imposes limitations. One limitation is cable length. Cable size and complexity are other limitations. USB uses one IRQ no matter how many devices are in use and it offers instant plug and play for its device set. After loading the device software the computer user can plug the physical device anywhere in the USB network and it springs to life. The unit can be plugged in to a different port each time with no consequence. A USB device can be unplugged from the system at any time as well.

The technology is appropriately named. "Universal," conveys the notion of being for all things. While the port does have speed limitations (discussed later), the 'one plug fits all' design is clearly there. "Serial" describes the flow of information in the bus. The flow is more like an advanced data network protocol than the traditional PC Serial bus data flow. The traditional serial bus has IRQ, DMA and device limits that dictate its use; USB departs from all of that. It is a "Bus" architecture in that it provides a way to funnel information from many devices into and out of a computer system in an orderly manner.

The connecting cables are made up of four wires. Two of the wires supply voltage and two are data signal wires. The bus operates at either 12 megabits per second or 1.5 megabits per second, depending on the attached device. The devices tell the bus what their speed is through the voltage cables. High speed devices shift the positive voltage lead

while slow speed devices shift the negative voltage. Devices that do not need a lot of power, like digital cameras, can draw their power from the bus. That means they operate without a wall plug. Devices like some scanners and printers that have heavy power demands need to be plugged into the wall to operate. A model of the Visioneer scanner uses power supplied by the bus.

USB is a hub architecture. Hubs are what are connected, hubs connect to hubs. The computer has an upstream "root hub" at the computer that is the signal source, and the input/output devices have a downstream hub to terminate the signal. The hubs do all of the talking. The illustration shown is a connector for an 'A' hub, it is rectangular in shape and is about 3/16 in. by 1/2 in. in size. The plug at the computer is an 'A' plug. The plug at the device, or downstream end, is a 'B' plug. That plug is shaped like a triangle with two of the angle edges flattened. It is about 1/4 by 5/16 in. in size. Cables are designated by their length and types of plugs they have. A typical cable used is a "6 ft. A B" cable, meaning it is six feet long and is configured with an 'A' plug at one end for the computer and a 'B' plug at the other end for the device. This is a typical device connection cable.

Intermediate hubs can be included in a configuration. A typical distribution hub would have one downstream 'B' plug which comes from the computer, and it provides from four to eight 'A' plugs for distribution to the downstream devices. The maximum cable length is 5 meters, or about 16 feet. Since each hub is a repeater, the signal can be propagated through additional cables for up to six total hubs, that is five connecting cables of up to 15 feet each with the final upstream and downstream hubs at each end. The intermediate distribution hubs can optionally provide additional power to their downstream hubs or simply distribute what is provided by the upstream hub. Most often the use of additional power at the hub is via a power supply transformer plugged into the wall. It can be plugged in to provide additional device power at any time.

USB Explained continued on page 5

PowerQuest DataKeeper v3 SOFTWARE REVIEW

By: Paul Kurivchack

PowerQuest Corporation recently sent out a new product to review, DataKeeper v3, a hard drive backup utility. PowerQuest claims that DataKeeper is easy to use, can work with any media, can span multiple units of media, and can provide file versioning and file compression.

As I normally live on the edge and only backup important files to floppy disks, and have had no desire to purchase a tape backup drive, I have had no interest in hard drive backup software. I have relied solely on Windows Explorer for all my file copying needs. That is until I tried DataKeeper 3.

DataKeeper is a very simple to install and easy to use

application. As it took less than 5 minutes to install, I thought I missed something. In fact, it was just a couple of days ago that I got around to printing out their excellent Quick Start Guide to see what I missed. Well, I did not miss much.

The application starts up into a very clear and simple application screen. It contains two tabs, Backup and Restore. DataKeeper goes one step further than any software I have seen they have the sections numbered so all you have to do is follow the four steps.

Step One, select Files/Folders to backup. There are two windows showing "All Available Drives" and "Content of", very similar to the Windows Explorer screen. DataKeeper gives you the option to backup the complete drive, directories, subdirectories or individual files. Just check the appropriate folders or files and you are finished with the first step in the back up process.

DataKeeper Review continued on page 6

Norton Utilities Version 4.0 Software Review

By: Sol Libes

I have been using Norton Utilities (NU) since Version 1.0 for DOS. It has always been one of essential tools for maintaining my hard disk and resolving problems with MS-DOS and then with MS Windows.

It is unfortunate that personal computers are not that highly reliable and one needs tools to resolve the problems that crop up. A hard disk drive is basically a mechanism and then subject to the frailties of mechanical devices. Further, MS Windows has problems and inefficiencies. NU have been the product I have relied upon to fix drive and operating system problems and also to make my system run as efficiently as possible. I have had extensive experience with NU.

When Symantec offered to send me a copy of the new version 4.0 to review I jumped at the chance. They are also offering a special deal to computer user groups making the upgrade even more worthwhile (more about this later).

NU continually monitors the system for problems. When it detects a problem developing a window rises from the bottom of the screen warning me and describing the nature of the problem. I can then click on a button for a more detailed explanation and I can choose to have NU correct the problem. For example, it might point out that my drive is getting too fragmented, or that there is a registry problem, or there are problems with the integrity of the program, or missing files, just to mention a few.

NU has more features than I can enumerate here. All I can do here is briefly list most of them by category.

Finding and Fixing Problems – A complete system check and fix of problems.

System Improvement – Make your system run faster and recover disk space by better defrag than Microsoft provides, optimizing the swap file, finding, and deleting duplicate files to recover wasted space.

Preventative Maintenance – By continually monitoring system operation as described above.

Trouble shooting – The first thing NU does when you

install it is create disaster recovery files on either a Zip drive or three floppy disks.

What is new in Version 4.0?

NU has been improved in the following ways.

1. If you have a Zip drive it will find missing and corrupt systems files and replace them with copies from the Zip drive.

2. The registry is now monitored continuously for corruption problems and repair is done automatically.

3. A complete system checkup program is now included that checks for disk and Windows problems and improves performance.

4. A program is provided that can also remove all traces of selected files or folders from your hard drive if you are concerned about system security and maximizing free hard disk space.

5. A program is included that protects on-screen documents in the event of a system crash making recovery possible.

6. If your system crashes while visiting a web site it returns you there when you reboot.

7. Many of the troubleshooting programs can be run directly from the CD.

8. A program to troubleshoot and tune your modem in the event of problems.

9. A two floppy disk set of emergency recovery tools to use in the case of a complete disaster where you cannot boot from the Win95/98 startup floppy, or the NU CD.

10. A 100+ page manual that is well written and has an incredible amount of hard disk recovery information.

In other words Symantec took a terrific product and has made it even better.

In shopping for Norton Utilities I have seen it in the stores for \$39.9+tax and the lowest price I have seen on the web is \$31.95+shipping and handling. Symantec is offering a special deal to members of computer user groups that are members of APCUG (Association of Personal Computer User Groups) and our club qualifies. They will ship NU directly to you. To purchase NU 4.0 at a special User Group price of \$29.95 including all shipping, handling, and tax's, call 1-800-441-7234 between June 1st and August 15th. You "must" tell the operator you are referring to "promo code" U1202

In The Mail Box

By Paul Kurivchack



This past month was very slow at the mail box except for a evaluation copy of E-Mail Workshop from Word Place Inc., the makers of Yea Write. It is a easy-to-use broadcast e-mail, address list management software. I am looking for a member that has a SMTP server address, to review this product for a future newsletter. I will have the software with me at the June general meeting.



Windows 95B (the OEM release) and Windows 98 include USB support. Most systems boards made in the last two years include two USB root hubs. Installing the USB on a system requires the installation of the software and turning on the USB ports in the BIOS. A connecting cable from the system board to a screw down strip at an available card slot provides the external USB connections. This twin USB plug at the rear of the computer provides the exit "root hub" appearance on the computer. The internal cable with screw down strip cost about \$5.00, so the cost of setting up USB on a computer is nominal. For those computers that do not have a built in USB port, there are PCI based USB port cards that cost about \$40 to provide the capability. ATX systems boards already have integrated external hubs and no internal cables are necessary.

The USB port extension that was added to my computer had five wires, one more than the basic four needed for use. The fifth wire is a heavy black wire and it was suggested that the wire be clipped before the hub is used. That was done with no problems. That extra wire, is at most, an extra ground wire.

The web site www.usb.org provides valuable information regarding the USB technology. It also includes a program that tests a computer for USB compliance. This is an easy way to check out a computer before any USB devices are added.

The USB Network

What happens when a device is plugged into a USB port? The wheels are set in motion. The root hub at the computer senses the presence of the new device and initially communicates with the device on "pipe 0," the default physical device communications channel. Pipes are the data sub bands of the hub architecture that maintain the physical connections of devices. Once a device is recognized, the root hub interrogates the device to find out what it is and what it is capable of on pipe 0. All of the devices on the USB ports are then enumerated and each is assigned a unique device number, which also includes a corresponding pipe number for physical device communications. The computer loads the software needed to control the device and handles its information flow. The hubs are then running and information is passed in and out of the computer over the signal leads. The enumeration process is initiated every time a device is plugged into or removed from the network. A maximum of 127 devices can be attached to a hub.

Device Support

The USB architecture is defined as an intermediate speed bus. With its maximum speed of 12 megabits per second, what are a USB port's device limitations and what devices are candidates for attachment? Clearly, the typical devices attached to serial and parallel ports are excellent candidates for USB attachment. These include most printers, modems, pointing devices, scanners, cameras and like devices. Certainly game paddles, joysticks and steering wheels etc. can be attached to the USB port. In fact special purpose game controllers are a natural since they can be connected and used as needed. Keyboards are now available for USB attachment.

Microsoft just announced a high quality speaker system that supports USB as well as traditional sound board sup-

port. The product review indicated that the sounds chopped at times under game conditions on the USB port, indicating a borderline USB attachment candidate. However, under routine computer use USB speakers behaved just fine. USB attached speakers eliminate the need for a sound board in the computer hence they play a perceptively clearer digital sound. Similarly, low end video monitors can be used on USB, while high end graphics will require the use of the internal AGP port and a graphics card. Again, as in speakers, the key to low end or high end graphics is based on the eventual use of the device.

Devices like speakers create a special demand on USB ports in that they are streaming devices. As such, space on the USB port must be reserved for them even when they are quiescent. Such devices are called "isochronous" and are defined as a special class of supported devices in the USB architecture.

Conclusion

In conclusion, in looking at the back of a typical computer, the following devices are better left to dedicated PCI or AGP ports - monitors, speakers and LANs. The devices that are reasonably good candidates for USB connection are printers, scanners, keyboards, pointing devices, game controllers, digital cameras and modems (excluding cable modems). Iomega has announced a USB ZIP drive. Other manufacturers will be adapting this technology to their products over time. There are also products available that convert existing serial and parallel devices to USB devices.

The use of USB in a computer system liberates many of the physical constraints of cable length and device location in a Small Office /Home Office (SOHO) environment. It is reasonable to have multiple devices for special purpose applications like sheet feed scanners, flat bed scanners and slide scanners all sharing space on a USB channel. The end user is free to set up a working environment needed for their productive use free of the traditional constraints imposed by Comm and LPT ports.

The textbook referenced for this article is "USB Explained" by Steven McDowell and Martin Sayer, Prentice Hall publisher. The web sites <http://www.usb.org> and <http://www.ti.com/sc/usb> were also referenced for technical information. The web site of Rogers System Specialist, <http://www.rogerssystems.com>, was used for USB product pricing. Proof reading was done by Chuck Buchheit, Rob Winchell and Howard Mark of the LVPCUG. Their suggestions are appreciated.

This article is furnished as a benefit of our membership in the Association of Personal Computer User Groups (APCUG), an international organization to which this user group belongs. The author, Karl Rehak, is in his second term as President of the Las Vegas PC User Group. Prior to that he was Vice President for one term and spent some time being the Advertising Director. Karl is also SIG (Special Interest Group) leader for the Windows Development SIG.

Minutes for the General Meeting

May 10, 1999

By: Ed Weiss

At 7:53 PM, Paul opened the meeting. He expressed his thanks to all the volunteers who helped the club cover TCF. He mentioned that the membership was at 80 paid members. He also mentioned that Microsoft did in fact commit to give our group a presentation on Office 2000. If you attend the presentation, PLEASE be sure to fill out the questionnaire on the web since this is the only feedback that Microsoft gets, and it will play a part in whether Microsoft will give further presentations, and if they will include any software items for the club.

8:00 PM, Paul turned the meeting over to Sol Libes for his presentation on "Effective Use Of Email". Before he started, Sol also answered a few questions from the group about TCF. Sol then went on to talk about the different

email services that are offered (Juno, Hotmail, Yahoo!mail, Mailcity, Webaddress, World net Webmail, etc.) He also discussed how to find a local ISP (Internet Service Provider) using the likes of: www.boardwatch.com, www.ispfinder.com, www.thelist.internal.com. Sol also talked about the software available that is used to read, write, and save your email, like Eudora, MS Internet mail, etc.

All in all, the crowd seemed very attentive, and asked Sol many questions related to the topic.

Sol finished his presentation, returned the meeting back to Paul, who closed it for the month, and mentioned that there would be a board meeting on the 17th.

Minutes for the Executive Board

May 17, 1999

By: Ed Weiss

Attendees: Paul Kurivchack, Bill Hawryluk, Sol Libes & Ed Weiss.

Meeting called to order 7:55 PM, Paul commented on the general meeting, and again on TCF. The attending board members were brought up to speed on the discussion between Paul, and Ken Gordon about PPCUG's participation in TCF Y2K.

Several items were discussed about how to get members to volunteer for that event.

Also discussed were the current number of members, the amount of money in the club's treasury, and the schedule for programs through the rest of '99 and into 2000.

The meeting was closed early because of the lack of attendance by board members, and the state of the road (Darrah Lane being resurfaced).

DataKeeper continued from page 3

Step Two, select a "Destination Folder". Simply use the drop down arrow and select the destination or Browse to select a specific destination location. One thing to note is that DataKeeper records the original directory path of the selected files automatically as part of the back up information.

Step Three, "Advances Options. Here you can select "Continuously Back Up files" for applications that do not provide auto back up. "Filter Files" and "Back Up" options allow for fine tuning of your archiving tasks such as version dates, wild card queries, spanning media, compression and password protection.

Lastly, Step Four; "Back Up Now". How much simpler could it be? Not much!

Restoring is just as simple, follow the numbers with options of restoring all data, or selected files. The default destination being the original location, but again you can browse to your specific location. Restore actions include "Overwrite if backup is newer", "Never overwrite" or "Always". At this point

you just click on "Restore" and DataKeeper is off and running.

As I currently have a LS120 floppy disk drive, I did put DataKeeper to the test of backing up a couple of directories and DataKeeper performed flawlessly. I would have to assume that since DataKeeper is not sensitive to the backup media, it would perform as well with Tape, DAT, Zip, Jazz, or most other media.

If you were in the market for an easy to use hard drive backup utility program, to replace whatever came with your Zip drive or other backup hardware, DataKeeper v3 would be a good addition to your software utility library.

List price is \$49.95, User Group price of \$25.00 (User Group web site: <http://www.ugr.com/order/>) or directly from PowerQuest Corporation, Orem, UT, at: <http://www.powerquest.com/>



PRINCETON PC USERS GROUP

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

PPCUG Member E-mail Directory

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(Last Update: 4 June 1999)

Send Updates to kurivchack_p@compuserve.com for inclusion in this listing.

Consultants Corner

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Phone Systems & Wiring
Provider of PPCUG Voice Messaging.

Meyda Online

John Abolins, Sysop
BBS: 609-883-8124
World Wide Web Home Page:
<http://www.meydabbs.com/~jda-ir/>

Consultants Corner

You can advertise your consulting business for \$25 per year in addition to your normal membership fee. The text space is your or your company's name plus five lines.

NEW MEMBERS

Betty Lipscher

THANK YOU FOR JOINING US IN

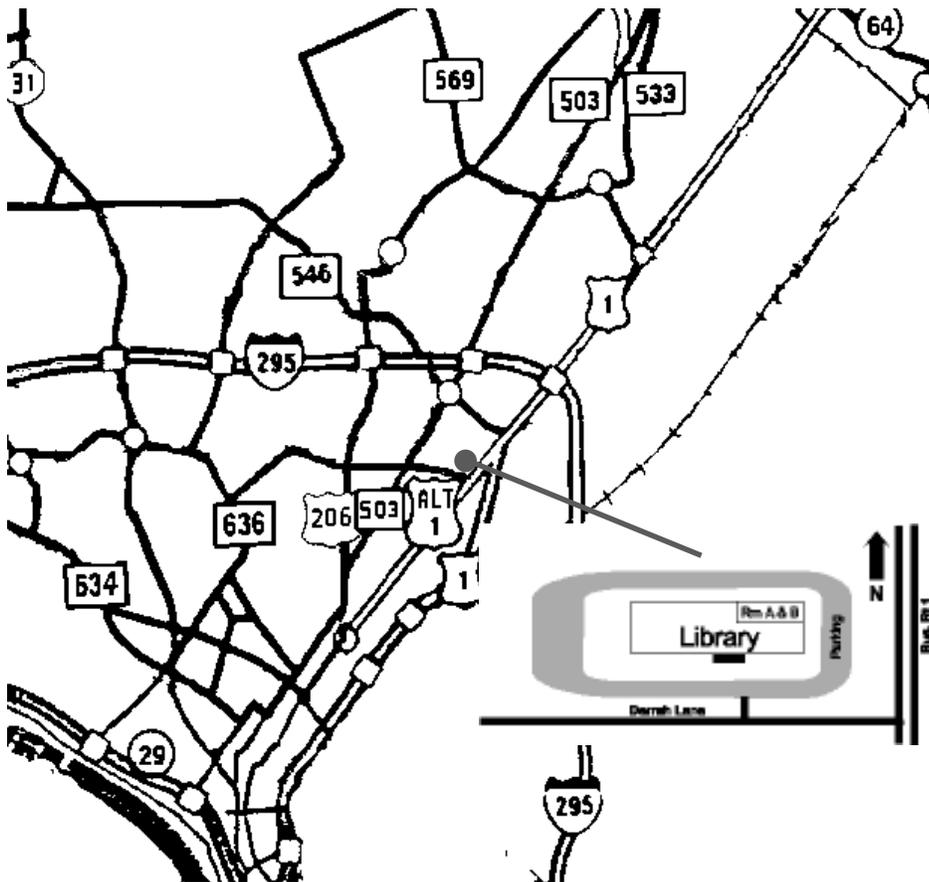
1999!

WELCOME TO THE CLUB!

The Lawrence Library is at the corner of Business Route 1 South and Darrah Lane.

From Princeton and North: Take US Route 1 South, past the Quaker Bridge / Mercer Shopping Centers. Continue on approximately 1 3/4 mile past I295 to the Route 1 split, stay to the right to Business Route 1(Brunswick Pike). First traffic light is Darrah Lane. Library is on right side. Park in lot towards Route 1 and to the rear. Enter Library at main entrance in front. Meeting rooms A & B are located through glass door on Route 1 side of building.

From Trenton and South: Take I295 North to US Route 1 South. Library is approximately 1 3/4 miles south of I295. Continue south to Business Route 1(Brunswick Pike). First traffic light is Darrah Lane. Library is on right side. Park in lot towards Route 1 and to the rear. Enter Library at main entrance in front. Meeting rooms A & B are located through glass door on Route 1 side of building.



**Microsoft Office 2000
June 14, 1999
Lawrence Library**

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