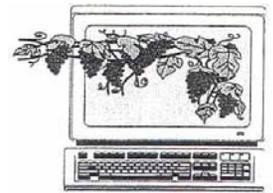


COMPUTER NEWS



Volume 23, No. 10

October, 2006

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The Napa Valley Personal Computer Users Group has served novice and experienced computer users since 1983. Through its monthly meetings, newsletters, online forum, special interest groups, mentor program and community involvement, it has helped educate people of all ages. The NVPCUG provides opportunities for people to find friends who share common interests and experiences. Through its Computers-to-Schools program, members refurbish used computer equipment for donation to local schools. Since January 2003 the NVPCUG has donated 488 computers and 132 printers.

Acronis Backup Program to Be Presented at October 18 NVPCUG Meeting

By Susy Ball, Programs Director

The Napa Valley Personal Computer Users Group will meet Wednesday, October 18, 2006, 7:00-9:00 p.m., at the Napa Senior Activity Center, 1500 Jefferson Street, Napa, California.

The main presentation will feature *Acronis True Image 9.0 Home* and will be given by **Jeff Solomon**, NVPCUG member since January 2006. The *Acronis* program is a great tool to help you back up a few data files or your entire hard drive and everything on it. It offers incremental backup images, a feature found on in the most advanced software. List price for the program is \$49.99, but user group members get it for \$29. If you use a program like this on a regular basis you may be able to avoid the "agony of delete" experienced by computer users when their hard disk crashes. Jeff, an insurance claims investigator, has been "playing" with computers since he got his first Packard Bell 386 in 1990.



Jeff Solomon

Preceding the main presentation, **Jerry Brown** will lead the **Random Access** portion of our meeting with an open-floor question-and-answer period, during which you can ask questions about specific computer-related issues and receive helpful information from other meeting attendees. Don't forget that you can also e-mail your questions before coming to the meeting (questions@nvpcug.org).

Following this, there will be a **Computer Tutor** session discussing specific software programs and methods.

Need practical information that will help you make better use of your computer? Come to this meeting! Guests are welcome; admission is free.

President's Message

by Dianne Prior

NVPCUG Special Interest Groups

In SIG meetings you can learn about a subject in greater detail than is feasible at NVPCUG general meetings. SIG meetings are open to everyone. Meeting times and locations occasionally change, so for current meeting information, see our Web site, www.nvpcug.org, or contact the SIG leaders.

Digital Photography SIG

Meets: Monthly, second Wednesday
7:00 to 8:30 p.m.
Piner's Nursing Home,
Conference Room
1800 Pueblo Ave., Napa
Leader: **Susy Ball**
(707) 337-3998
SusyBall@aol.com

Investors SIG

Meets: Monthly, second Monday *
5:30 to 7:30 p.m.
Jerry Brown's home,
23 Skipping Rock Way, Napa
Leader: **Jerry Brown**
(707) 254-9607
bqandjbb@sbcglobal.net

Macintosh SIG

Meets: Monthly, second Thursday
6:30-8:30 p.m.
Napa Senior Activity Center
1500 Jefferson St., Napa
Leader: **Jim Gillespie**
(707) 252-1665
napanerd@pacbell.net

*Meets October 23 this month

Time for the **ELECTION** of a new Board of Trustees is fast approaching. Since many hands make light work, we need many people on the board. If you would like to help influence what we do, please contact Roy Wagner (253-2721, or Treasurer@nvpcug.org) to volunteer to become a Director.

Have you made a CHANGE of ADDRESS? Please notify the membership director (currently me) if you change your contact information, but especially your address. It costs us an extra 75 cents every time the post office has to notify us of your change of address.

IT'S BACK! CDs containing every NVPCUG newsletter we have stored electronically will again be available for purchase at our general meetings. These may also contain some other special programs (freeware such as the latest versions of *Firefox*, *Ad-Aware*, *Adobe Reader*, or *Hijack-This*) and photos from our activities. The cost remains at \$10. To ensure that you receive a copy or to request a specific download, contact Ron Dack a couple of days before the meeting (vicepresident@nvpcug.org).

Are you ready for some FUN! The APCUG Annual Conference will be held January 4-7 in Las Vegas. Registration is \$150, but you can get in for \$75 if you register before Oct. 15, or \$100 if before Nov. 30. Check out www.apcug.net/events/conference07 or see me for a brochure.

Remember . . . Any member who brings in a new (non-associate) member will get an additional five chances at the door prize drawing.

Peace and Good,

Dianne Prior



NVPCUG Calendar

Wednesdays	9:30 a.m.-12:30 p.m.
October 18	7:00-9:00 p.m.
October 23	5:30-7:30 p.m.
November 1	7:00-9:00 p.m.
November 8	7:00-8:30 p.m.
November 9	6:30-8:30 p.m.

Computers-to-Schools work parties. To volunteer, contact Orion Hill, (707) 252-0637.
General Meeting, Napa Senior Activity Center, 1500 Jefferson St., Napa
Investors SIG meeting, Jerry Brown's home, 23 Skipping Rock Way, Napa
Board of Directors meeting, Piner's Nursing Home, 1800 Pueblo Ave., Napa
Digital Photography SIG meeting, Piner's Nursing Home, 1800 Pueblo Ave., Napa
Macintosh SIG meeting, Napa Senior Activity Center, 1500 Jefferson St., Napa

Napa Valley Personal Computer Users Group

Officers for 2006

Board of Directors

President	Dianne Prior	252-1506*	President@nvpcug.org
Vice President	Ron Dack		VicePresident@nvpcug.org
Secretary	Julie Jerome	224-6620	Secretary@nvpcug.org
Treasurer	Roy Wagner	253-2721	Treasurer@nvpcug.org

Other Directors: Susy Ball, Orion E. Hill, Jim Gillespie, Bob Kulas, John Moore, Dick Peterson, James Stirling, Dean Unruh

Appointed Officers

Computer Equipment Sales Coordinator	(Volunteer Needed)		
Computer Recycling Coordinator	Bill Wheadon	224-3901	Recycler@nvpcug.org
Computer Tutor Coordinator	Mike Moore	255-1615	Tutor@nvpcug.org
Computers-to-Schools Program Coordinator	Orion E. Hill	252-0637	CTS@nvpcug.org
Facility Arrangements Coordinator	John Moore	252-3418	Facility@nvpcug.org
Greeter Coordinator	Bob Simmerman	259-6113	Greeter@nvpcug.org
Librarian	Dean Unruh	226-9164	Librarian@nvpcug.org
Membership Director	Dianne Prior	252-1506	Membership@nvpcug.org
Mentor Program Coordinator	Dick Peterson	259-1712	Mentors@nvpcug.org
Newsletter Circulator	Jim Hearn	224-2540	
Newsletter Editor	James Stirling	944-1177	Editor@nvpcug.org
Product Review Coord.	Susy Ball	337-3398	Reviews@nvpcug.org
Product Review Coord.	Marcia Waddell	252-2060	Reviews2@nvpcug.org
Programs Director	Susy Ball	337-3998	Programs@nvpcug.org
Publicity Director	(Volunteer Needed)		Publicity@nvpcug.org
Random Access Moderator	Jerry Brown	254-9607	Questions@nvpcug.org
Special Projects Director	Bob Kulas	255-9241	Projects@nvpcug.org
Webmaster	Ron Dack		Webmaster@nvpcug.org

*All telephone numbers are in Area Code 707.

Come to the NVPCUG General Meetings

Held the third Wednesday of each month

7:00 to 9:00 p.m.

Napa Senior Activities Center

1500 Jefferson Street, Napa

NVPCUG Computer News

Computer News (ISS 0897-5744) is published monthly by the Napa Valley Personal Computer Users Group, Inc. (NVPCUG), P.O. Box 2866, Napa, CA 94558-0286. Subscriptions: \$30 for one year (12 issues). Editor: **James Stirling**, Editor@nvpcug.org. The material in *Computer News* is intended for noncommercial purposes and may not be reproduced without prior written permission, except that permission for reproducing articles, with authors properly credited, is granted to other computer user groups for their internal, nonprofit use only. The information in this newsletter is believed to be correct. However, the NVPCUG can assume neither responsibility for errors or omissions nor liability for any damages resulting from the use or misuse of any information.

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Napa County Schools Grateful for Computer Equipment Donations

The **Napa Valley Unified School District Board of Education** on September 7 formally recognized and thanked **Orion E. Hill**, the coordinator of our Computers-to-Schools program, and the Napa Valley Personal Computer Users Group for our group's ongoing contributions of refurbished computer equipment to the district and its schools. NVUSD Superintendent **John Glaser** and NVUSD Technology Director **Laurel Krsek** noted the importance of our donations, which greatly benefit students. During the past year our group donated more than 90 multimedia computers, half with Pentium 4 processors and most only four years old. Also, last February we delivered 43 unrefurbished Pentium 3 computers to the district's Vintage High School for use in a computer repair training classroom.

In accepting the school district's recognition and gratitude, Orion and NVPCUG President **Dianne Prior** highlighted the contributions of the more than two dozen NVPCUG volunteers who have helped refurbish computers and of **Dey, LP**, a Napa-based pharmaceutical company, which has been a



Roger Lewis, John Moore, and Bill Wheadon (left to right) work on refurbishing computers during a CTS workshop session. Photo by Orion Hill.



Dianne Prior, NVPCUG president, responds to the thanks given by school district officers for the computers provided to the schools by the users group. Photo by Susy Ball.

major source of reusable, high-quality computer equipment.

Also during the past month **Jeffrey Johnson**, Superintendent of the Calistoga Joint Unified School District, and **Mary Allen**, Principal of Robert Louis Stevenson Middle School (St. Helena Unified School District), and several of the school's teachers have sent letters expressing their gratitude for recent donations of computers, monitors, printers, and other items.

Since the launch of our Computers-to-Schools program in September 2002, the NVPCUG has donated 488 refurbished computers and 132 refurbished printers for use in public schools throughout Napa County. Additional equipment has been donated to several not-for-profit organizations or given to disadvantaged adults and students. Many more machines are now being prepared for donation.

NVPCUG Archives and Handy Free Utility Programs to Be Available on CD at Monthly General Meetings for Just \$10.

Ron Dack has responded to the request of user group members for more of the CDs he has prepared in the past. In addition to archives of the newsletter, he has included handy-dandy free utilities like the latest editions of *Firefox*, *Ad-Aware*, *Adobe Reader*, and *Hijack-This*. Instead of waiting for these programs to be downloaded from the Web, you can have them for immediate access on a CD.

Ron is doing this as a fund-raiser for the group. If you wish to reserve a copy, e-mail him before the meeting at VicePresident@nvpcug.org

Should Your System Be RAIDed?

By Vinny La Bash, Member of the Sarasota Personal Computer Users Group, Inc., Florida <http://www.spcug.org>
labash(at)Comcast.net

You may have heard fellow computer enthusiasts brag about their new fast RAID system as if it were a high performance sports car. If you wondered what they were talking about, you are not alone.

Just what does RAID stand for? The source of the RAID acronym can be credited to three University of California Berkeley professors named Patterson, Gibson, and Katz. In 1987 they published a paper named "A Case for Redundant Arrays of Inexpensive Disks (RAID)". The fundamental concept of RAID was to combine multiple small disks into an arrangement yielding greater performance than a Single Large Expensive Drive (SLED).

The main objection to RAID was that two or more disk drives are inherently less reliable than a single disk drive. The professors overcame the objection by showing that disk arrays can be made more reliable by storing data redundantly in various ways across multiple disk drives.

The paper defined five types of RAID arrangements, each offering different trade-offs in features and performance. Over time, more RAID configurations were added to the mix. The corporate world gradually adopted RAID, but it never took the PC world by storm because until relatively recently, disk drives were not "inexpensive".

At the core of RAID is a process called "striping". With several hard drives connected to a controller card installed in a motherboard slot, you can juice up read and write speeds by breaking the data into blocks (stripes) and storing these blocks across multiple disk drives. This allows data to be either recorded or accessed in multiple blocks simultaneously across multiple drives in parallel. Without going into technical detail, the parallel operation provides the increase in performance. Of the many RAID configurations developed since 1987, only two are likely to be incorporated into a PC, and one of those isn't really RAID at all because it has no redundancy. The other is true RAID, but does not use striping.

We'll start out with RAID 1, also known as Disk Mirroring. In a two disk array you mirror the contents of one disk onto the other. With 100 percent redundancy, there is no need to do any kind of data restoration if one of the disks should fail for any reason. A few simple instructions allow you to use the mirrored disk until you can install a replacement for the failed drive. Reactivate your array, and you're back in business with no down time. The trade-off is that a second disk doesn't give

you any additional disk space, nor does it appreciably affect performance one way or the other. If reliability and preservation of data are all-important to you, then a RAID 1 array can make good sense. RAID 1 is relatively cheap, easy to use, and costs about the same as most conventional backup solutions. Turn to RAID 1 when data integrity is more important than performance. To set up a RAID for your internal drives, you will need support on your motherboard or add-in card. Finally, you must still keep current drive backups to protect against user errors, viruses, and other problems that affect both drives.

Hard-core gamers and other performance-obsessed nut cases are almost always referring to RAID 0 when they brag about their PC speed demons. Most of them either don't know or care that RAID 0 is not true RAID as it has no redundancy. Data is spread out among all the drives in the array, which means that if any one of your drives fail, all your data is lost. This is not important if you use your system solely for game playing, but how many of us do that? If you have important data stored on your system, RAID 0 can be a dangerous implementation that may ultimately trash every byte of information on your system.

A better way than RAID 0 is to install a hard drive with a disk cache of at least 8 Megabytes of RAM. Because computers can access data from RAM much faster than directly from a disk, caching can significantly increase performance, though it won't match RAID 0. Many cache systems also attempt to predict what data will be requested next so they can place that data in the cache ahead of time. This will never stop performance-crazy freaks from using RAID 0. They all backup their systems regularly, don't they?

RAID 0 is for those enamored of performance where loss of data is of little concern. As an alternative, you can approach RAID 0 performance by installing drives with at least 8 megabytes of disk cache.

While it does not obviate the need for backup, a RAID 1 array can provide additional protection for those whose main consideration is preservation of data.

There are many different types of RAID configurations which we have not discussed. RAID 0 and 1 are the most common arrangements on home computers. Most technical details have been left out for simplification.

For a complete description of RAID, including animated diagrams of how data is actually stored, go to http://www.acnc.com/04_01_00.html.

The Editorial Committee of the Association of Personal Computer User Groups has provided this article.

Bluecoat's K9 Web Protection

by Mike Mitchell, Board Member and Newsletter Editor, Topeka (Kansas) PC Users Club

<http://www.topekapcusersclub.org> [mike.mitchell\(at\)cox.net](mailto:mike.mitchell(at)cox.net)

Lately, I have been approached by several parents asking if there is a reliable Internet filtering solution they can install on the computer for their kids. I have also thought even some adults might be interested in content filtering software to possibly help decrease the risk of spyware, malware and viruses being installed on their PCs. (Most of that comes from inappropriate sites anyway.) The statistics are staggering: 5,000 pornography sites registered daily; nine of ten kids ages 8-16 have viewed pornography on the Internet, often in the process of doing homework; one in five children ages 10-17 have received a sexual solicitation over the Internet – and those are stats for just one category! Furthermore, the FBI lists on their website the following as some of the reasons your child might be at risk online:

- Your child spends large amounts of time online, especially at night.
- You find pornography on your child's computer.
- Your child receives phone calls from people you don't know or is making calls, sometimes long distance, to numbers you don't recognize.
- Your child receives mail, gifts, or packages from someone you don't know.

Your child becomes withdrawn from the family.

Since so many sites these days have inappropriate content, I checked the filtering software possibilities out there. Most of them charge a fixed or a monthly fee (some quite expensive) but, lo and behold, I think I've found one! My buddy Gizmo from Tech Support Alert (<http://www.techsupportalert.com>) recommends BlueCoat's K9 Web Protection (<http://www.getk9.com>) as his top *free* parental filter. Gizmo's description is as follows:

"K9 Web Protection is a web based service that uses a special driver installed on your PC to redirect all your browsing through K9's servers where it is filtered for content. This means that the filtering works for any browser installed on your PC (Internet Explorer, Firefox, AOL, etc.). The actual filtering itself is highly customizable from a password protected control panel at K9's web site with over 55 selectable categories plus the ability to restrict or permit individual sites. Full reports on sites visited are also available from the control panel. The filtering seems quite

accurate; in an hour of browsing I found only one site which I felt should not have been blocked. I also liked the optional blocking of spyware and adware sites. I tried a few obvious ways of crippling the filter such as uninstalling the product or disabling the driver, with no success, which is comforting to parents. (You have to know the password to uninstall it.) I suspect though, that a determined tech-savvy teenager might eventually find a solution. The only real downside was the slight slowing down of my browsing as a result of it being re-routed through the K9 servers. This will mainly be of concern to dial-up users."

Installation is quite simple. When you go to the download page, you register your name and e-mail address. They will send you an e-mail with the download link and a password to use during installation. I believe you can use the same password on more than one PC but they would like you to register a different name/e-mail address/password for each family. During the first use, the software asks you for an administrator password (don't tell your kids!!!) so you can manage the settings in the control panel. The program works regardless of how many user accounts are set up on the PC. (The program icon doesn't need to be copied/created on the other user accounts' desktops, which would be a good thing anyway.)

There is a sign-on screen for the control panel. Both options (View Internet Activity and Setup Options) require administrator password privileges. An Internet Activity Screen gives you the category summary and general overview of the Web sites that have been visited from all users on that PC. In Activity Detail, it will actually list the individual sites that were accessed. You can reset the counters after each time you look at the stats or every month, etc., so the log file won't become too large.

In the Setup Options area there are seven options:

- Web Categories to Block – Sets the categories to block. It offers several protection levels of filtering, or you can make a custom filtering level if you wish.
- Web site Exceptions – Sets websites you always want to block or allow. (Those are bypassed from being filtered.)
- Web Search Options – Using Google Safe-

Search™ will filter search results you get from Google. This will reduce the amount of adult material that is returned when you search with Google.

- Time Restrictions – Allows you to “turn on” or “turn off” the internet at half-hour intervals throughout the whole week. You can drag/select more than one block at a time to make setting it go a lot faster.

- Blocking Effects – Set other default options. If speakers are turned on, you can enable the program to “bark out loud” to let a nearby parent know their kids are trying to go to inappropriate sites. Also, there is a setting where if users go to too many blocked sites within a set time frame, it will deny internet access for a set period of time. (All are adjustable by the administrator.)

- URL Keywords – You can place words in a list so if that word shows up on a website, the page can be blocked, or the words on the site just won’t be shown when the page is displayed. (That will probably not work for words embedded in a graphic on a web page.)

- Change Password – Ditto...

There are two things you will want to keep in mind. First, any block or notification from the pro-

gram on the user’s display can be overridden by an administrator’s password. If it is a questionable site, you can override it for 15 minutes and then it will go back to “blocked” status, or you can permanently permit it to be displayed. If you try to access the internet during a time of the day when time restrictions deny it, you can enable a temporary override for 15 minutes with the administrator’s password. Second, if you make any changes to any page in the Options area, *make sure* you click the “Save Changes” button on each menu or the changes won’t be saved. (It will remind you of that if you go to a different screen without saving.)

Overall, the parents’ computers that I’ve installed this program on have been very pleased with the results. They have broadband connections and could not tell any noticeable difference in their download speed. If you like this program, please spread the word about K9 Web Protection to all of your friends, parents, etc. who would benefit from content filtering software.

The Editorial Committee of the Association of Personal Computer User Groups has provided this article.

Smart Computing Tip— What Should I Back Up?

Specifying what you want to include in your backup is sometimes referred to as defining your backup set. Typically, backup software lets you do this through a browser interface similar to *Windows Explorer*, in which you navigate to files, folders, or even entire drives, and earmark them for backup. It’s best not to do this on the fly. Spend some preparatory time listing what you want to include. Anything you can’t easily replace from scratch should go on the list. Here are some suggestions . . . by no means a comprehensive list, but it should help you start deciding what your priorities are:

- Career and personal projects
- Financial records
- Digital music collection
- Photo and video files
- Web browser bookmarks
- Address book, e-mail and other correspondence

- Downloaded software purchases (because you can’t just pop in a CD and reinstall them).

For some users, a backup isn’t complete unless it includes everything on their hard drive--not just personal files, but the operating system, applications, utilities, hardware drivers, system files, and so on. This can be done a couple of ways: simply cloning a duplicate of the drive or saving it as a single massive file called a disk image. Either way, the benefit is that if your main drive fails, you can restore everything at once without having to individually reinstall dozens of components.

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Microsoft Windows Vista

By Mike Moore, President, Bowling Green Area Microcomputer User Group, KY

Webstar(at)hughes.net

http://www.bgamug.org/

In many respects, Microsoft's dominance in the areas of Internet Browsers, Office Suites and of course Operating Systems is puzzling, at least in the past few years. Open Source software such as the free *OpenOffice.org* suite has come into its own and the latest Apple Macintosh™ computers are brought to market with an operating system featuring iron-clad Unix underpinnings and a cheeky marketing campaign designed to turn PC users away from Windows.

And yet, due to the sheer number of PCs out there with Microsoft branding, *Windows* still commands a staggering market share, in spite of no major upgrades to either *Internet Explorer* or *WindowsXP* in 3 and 5 years, respectively.

Microsoft's answer to the rapidly changing personal computing scene has been a complete rethinking of Windows from the ground up.

Vista, a new operating system due out around January of 2007 and now in beta testing around the world, seeks to redesign the way we use computers, particularly Internet and media-enabled computers. Previously code named "Longhorn," this release is about as far removed from XP as XP was from the old text-based DOS operating systems.

Although Microsoft is still hard at work finalizing the features of this blockbuster operating system, you can look forward to these new features, which will in most cases require a pretty beefy computer for support:

Aero

Aero is the name given to a new and visually stunning 3-D like graphical interface, which is currently known as the Desktop and Windows Explorer. In Vista, Microsoft introduces the Desktop Window Manager that will feature new technologies for application developers, transparent window effects, animations and file previews that, all told, will knock your socks off. See some of the previews of this interface at <http://www.microsoft.com/windowsvista/>.

The full set of Aero features will be available on computers that support DirectX 9.0 and beefy video cards, so prepare to upgrade!

Security

Microsoft has completely turned Internet security on its head in the new *Vista* vision, choosing to de-default a normal windows user to a limited access, virus-armored profile, as opposed to the current de-default of a normal user having unlimited rights to the file system. Users that require more permissions on their accounts will have to make conscious and hopefully well-informed efforts to undo the protection *Vista* has built in to each account.

Quick Search

Windows 2000 and XP relied on indexed search techniques that were effective to a point, at a cost of much hard drive overhead and a key-word based search methodology. Vista takes this a quantum step farther and looks for both file content and something called meta-data, which will increase the relevancy of our searches for information on our machines, and will also help integrate local hard drive searches with internet searching.

For example, file name searches are often useless when looking in a directory of photographic image files where the digital camera has named them with non-descriptive serial-number like file names. Imagine describing a photograph to your computer and having it go out and look for, say, a photo with a white church steeple, or a recorded song file that sounds like a tune you hum into a microphone. With Vista and other search engine companies like Google, we are poised at the brink of an explosion in searchability – a good thing considering all of the information that is out there!

WinFX

WinFX is an applications interface that supersedes the Win32 standard introduced in 1993. An Applications Programming Interface (API) is a set of standards and library routines that serve to control Windows – everything from the way applications are installed to all of the various standard ways in which a program can manipulate a window. The API is the way that many thousands of programs, hardware drivers and video games are able to communicate with Windows without Microsoft having to license the Windows operating secrets to each vendor. If you think of each way in which a particular windows feature can be controlled as being closed black box, the API standards are the knobs, buttons and dials on that box. WinFX means that developers with designs for software that is to run under *Vista* ought to be ready to study hard, because *WinFX* changes everything. The new API also means that we are bidding goodbye to our beloved DOS command line pretty much for good, running *Vista*.

As different as WinFX is, it should be thought of as a superset of Win32, which means that we won't necessarily have to buy all new software, at least not right away.

WindowsXP is my favorite operating system to date, and I predict that Microsoft will have to float some pretty good deals, and computer vendors will need to price sharply to get mainstream users to up-grade.

The Editorial Committee of the Association of Personal Computer User Groups has provided his article.

Downloading a File

By Dave Gerber, APCUG Advisor; VP Sarasota PCUG, Florida; radio talk show host www.spcug.org

Step 1: Create a Download Folder

The first step in downloading from the Internet, is to create a folder where you will always save your downloaded files. This will help you to locate the file once it is downloaded into your computer. To create a new folder (directory) called C:\Download using *Windows Explorer*, highlight your C: drive, and then click on these menu items, one after the other: File | New > Folder. When a folder entitled New Folder is created, rename it "Download".

Note: A word about distinguishing between the *Windows Explorer* and *Microsoft Internet Explorer*. The *Windows Explorer* is the system tool that helps you examine and access your entire computer; files; directories; drives; desktop, etc. In contrast, *Microsoft Internet Explorer* is the browser you can use to surf the Web.

Step 2: Download a File Using Your Browser

Microsoft Internet Explorer (MSIE), Netscape Communicator, Opera, and other browsers work in similar ways. After you click the Download Now button, a small window will open and ask you, "What would you like to do with this file?" or something similar. Simply click on the "Save it to disk" or "Save" choice, and then click OK. When the familiar "Save As" window appears, use it to navigate to your newly created C:\download folder and click "Save." Watch and wait until the file has finished downloading. Problems? Some older versions of MSIE may require that you right-click on "Download Now," and select "Save Target As" to be able to begin the process described above.

Step 3: Prepare Your File for Installation

Although some files end in .exe and automatically install or explode into many files, many of the files you will download end in .zip. Since programs almost always include more than one file, think of the trouble it would be to download many files just to get one program to install. A zip file, also referred to as an archive, is an individual file that has files stored within it. When multiple files are combined into one zip file, they are also compressed in size, which has the further benefit of saving hard drive space and shortening download time. To open a .zip file, you will need a program that will unzip the file for you. The most common program for this is *WinZip*. If you do not already have *WinZip*, follow these instructions to install the proper version.

Step 4: Download and Install WinZip

Go to www.winzip.com and download the shareware version of *WinZip*. (Note from Dave: This version of *WinZip* is shareware; registration costs \$29.) Put it in your computer's C:\download folder. The *WinZip* file is in the form of an .exe that can be run and installed without any

additional steps.

Congratulations! You've successfully downloaded a file, and a whole new world is available to you now! The Internet is a great source for finding software gems. By tapping into the Web's mother lode of software, you can try programs before laying out that hard-earned cash, and keep your favorite programs up to date by downloading and installing their latest versions.

Step 5: Install your file

Double-click on *winzip81.exe* to install *WinZip*, then follow the easy step-by-step installation instructions. We suggest you take all of the suggested default settings and scan all your drives for favorite folders. *WinZip* can then easily access your C:\download directory for the next step. STOP when you reach the "WinZip Wizard - Welcome" window, and proceed with the next instruction. *WinZip* has probably been set up to launch using wizards, which are interfaces designed to make it easier to use new programs. They present each step in a series of separate windows, with options and decisions for you to make before you click Next to proceed.

Step 6: How To Handle .exe Files

As we mentioned at the beginning of Step 3, you will find files ending in both .zip and .exe. You will find that .exe files are even easier to handle than .zip files! If you downloaded and installed *WinZip* earlier in this exercise, you know exactly what we mean.

The .exe files that you download are ready to be run -- the only thing is, they can act in several different ways. Here are a few examples of what may happen when you double-click on an .exe file that you have downloaded.

An installation routine may begin immediately. In this case, all you need do is follow the instructions that are presented to you.

A small window may appear that explains that the file will extract to a particular folder. You may wish to change the folder, or at least make a note of where the files are being placed. At the conclusion of the file extraction process, an installation process may begin. If it does not, use *Windows Explorer* to navigate to the folder where the files have been placed. Once there, you can look for a *Readme.txt*, *File_id.diz*, *Vendinfo.diz*, *Productname.txt*, or other file that may help you install the program. Typically, a *Setup.exe* or *Productname.exe* will be there for you to click upon. All of the files within the .exe will be expanded into the current folder. Fortunately, this older method of packaging is not used very often.

The Editorial Committee of the Association of Personal Computer User Groups has provided this article.

Linux: Linux, Linux, Everywhere

By Chad Benton

One of the biggest benefits of Linux is also one of its biggest problems: choice. There are a number of Linux distributions out there, and finding the one distribution that's perfect for you is not always easy. Luckily, hard drive space is easy to come by and installing multiple Linux distributions on the same PC is relatively easy. In fact, our test system has three versions of Linux, as well as Windows XP, installed.

Prerequisites

We don't have the space to walk you through the install process (and it varies widely from one distribution to another), so the more experience you have installing different Linux distributions, the better. We do recommend using an Advanced or Expert mode if available. You'll also need a hard drive partition set aside for each Linux distribution you plan to install (again, we don't have the space to discuss this here).

We do need to warn you that this process isn't always easy, and if you make a mistake, you may have trouble booting previously installed versions of Linux. The best time to try this procedure is when you're planning to reinstall Linux anyway.

Grub and Device Names

If you're planning to install multiple versions of Linux on the same PC, we recommend you use GRUB (Grand Unified Boot Loader) instead of LILO (Linux Loader) for each distribution you install. Each time you install a new Linux distribution, a new version of GRUB gets written to the hard drive. This prevents you from booting a previously installed version of Linux, but we'll fix that later.

Linux assigns device names based on how the device connects to the motherboard. Thus `/dev/hda` is a master IDE device connected to the primary IDE controller while `/dev/hdb` is the slave IDE device connected to the primary IDE controller. SATA devices may have similar names. On our test system, our SATA hard drive is `/dev/hde`, but we've seen some SATA drives listed as `/dev/hda`. If the device is a hard drive, a number following the device name refers to specific partitions. Thus `/dev/hda1` refers to the first primary partition on `/dev/hda`. Logical partitions start with the number 5.

GRUB uses numbers to specify a hard drive. Regardless of the Linux device name, GRUB always refers to the first hard drive as `(hd0)`. If there's an additional hard drive, GRUB refers to it as `(hd1)`. A second number, separated by a comma, indicates the partition number. GRUB starts numbering from zero, so if you subtract one from the number used in the Linux device name, you have the GRUB partition number. For example, if `/dev/hde5` is the first partition on your first hard drive, its GRUB device name is `(hd0,4)`.

In our example, we'll install two Linux distributions that we'll call Linux 1 and Linux 2. You can easily extrapolate the instructions here for three or more Linux distributions.

Install Operating Systems

Before you install your distribution, form a plan. Know what partition you want to use for each distribution and know both the Linux and GRUB device names for these partitions. If the installer allows you to specify mount points for existing partitions, make sure you create a mount point for each partition where you'll install a Linux distribution. For instance, you might create a `/mnt/linux2` mount point for your second distribution when installing Linux 1. (Don't worry if you haven't installed the second Linux distribution yet, but when creating a mount point, make sure you specify the file system you'll use when installing the Linux 2.)

When you finish installing, boot into the last distribution you installed. In KDE, press ALT-F2 and type **konqueror**. Click the Options button and check Run As Different User. Make sure root appears in the Username field and provide your root password in the Password field. Click Run to open Konqueror and click the Up Arrow until you reach the root directory (denoted by a slash). Click the boot directory and then the grub directory. Right-click `menu.lst`; select Open With; and click either KWord, KWrite, KEdit, or any other available editor. This is the GRUB configuration file. Leave it open in its own window for now and return to Konqueror.

Click the Up arrow twice to return to the root di-

rectory. Select the directory where you mounted Linux 1. For instance, if the mount point you specified was /mnt/linux1, click the mnt directory and then click linux1. Click the boot directory and, if present, click the grub directory. Right-click menu.lst, select Open With, and select your favorite text editor. This is the GRUB configuration file generated when you installed Linux 1. Scroll through the file looking for a line that begins with Title and corresponds to the distribution you installed first. Select the entire section and press CTRL-C to copy the contents. Switch to the first menu.lst file you opened, scroll to the bottom of the file, and press CTRL-V to paste the contents. The next time you reboot the system, you should see Linux 1 listed as an option.

If you didn't install GRUB when installing Linux 1, you'll have to configure menu.lst by hand. To do this, open the directory where you mounted Linux 1 and open the boot menu. Find the kernel and record the kernel name. In most cases, you'll find a symbolic link named vmlinuz that points to the current kernel. You can use the symbolic link in your menu.lst file.

In the menu.lst file you opened, scroll to the end of the file and type **title** and provide a label for Linux 1. This label can be anything you want. On the next line, type **root** followed by the GRUB de-

vice name of the partition where the kernel resides. Press ENTER and type kernel followed by the path to the kernel (in most cases this will be /boot/vmlinuz). In the next line, type **initrd** and then provide the path to Linux 1's initrd file. In most cases this will be /boot/initrd.img. The section should look something like this when finished:

```
title Linux 1
root (hd1,1)
kernel /boot/vmlinuz
initrd /boot/initrd.img
```

Be sure there is a space between the first word and the rest of the line. Save the file and reboot. You should see an entry for Linux 1. If you configured everything properly, Linux 1 should boot without any problems. If you receive an error message, you may have made a mistake. Boot into Linux 2 and return to the /boot/grub/menu.lst file to look for any errors.

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Smart Computing Daily Tip: Update Your BIOS

As operating systems and hardware evolve, BIOS manufacturers often update their BIOS routines to operate more efficiently with these newer components. But BIOS updates are rarely publicized, and consumers often don't realize that such a simple, free procedure can eliminate problems and make a computer run more smoothly and efficiently. Watch your monitor screen as your computer starts up and write down the version of your BIOS when it appears on the screen. If it doesn't display, enter the BIOS setup, where the BIOS manufacturer and version number will appear on the first BIOS screen you encounter. Go to the motherboard manufacturer's Web site and check for an updated version of the BIOS. Do note that motherboard manufacturers often use BIOS chips and instructions from another

manufacturer, but the motherboard manufacturer's site should contain either the BIOS update or a link to the site where it can be found. While on the site, also be sure to download any utility program that you will need to install the new BIOS routines along with detailed instructions for the procedure. The process is usually as simple as using the provided utility to create a bootable floppy diskette that contains the BIOS update and then booting to that floppy diskette, but you should be absolutely certain that you read and understand these instructions. While simple, making a mistake during a BIOS update has the potential to render your motherboard inoperable.

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Digital Resolution Made Confusing

By Dave Chrestenson, Member of the Fox Valley PC Association, Illinois

There seems to be a plethora of articles on the number of pixels required to create your photos to their full glory. Many of the articles disagree with each other and some are mystifying (to say the least); occasionally a few are wrong. So here I will approach it from a different point of view, I'll give you the knowledge and let you decide what you need. Ready? Here we go!

Let's start with some facts. (I'll reconsider these later, but we have to start somewhere.)

First, the average eye, relaxed, focuses at a distance of about fifteen inches. So that's about the distance people view their prints.

Second, the angle of comfortable vision (not acute) is generally agreed to be about fifty to fifty-five degrees. Beyond that is peripheral vision. Now, fifty degrees at fifteen inches subtends a distance of about thirteen inches, just covering the diagonal of an 8x10. Is it any wonder that size is so popular?

And third, the typical eye has a resolution of about one minute of angle. This works out, at fifteen inches, to about .004 inches, or approximately 229 dots in an inch. (For purposes of clarity I will use the term pixels when referring to the camera sensor and dots when referring to the print. But in this discussion they can be considered equivalent. (Don't compare this with the resolution (normally also referred to as dots) of printers. They are completely different animals.

For convenience and to assure a tolerance, for now let's round that up to 300 dpi. This means that we need 300 dpi (at 15 inches) on the paper to assure that we won't see individual dots. Now, it's easy enough to work backwards from there. Assume that we wish to print an 8x10. Ten inches across at 300 dpi is 3000 dots. Eight inches down at 300 dpi is 2400 dots. So we need a camera of 3000 x 2400 pixels, or 7.2 meg. (This is assuming a camera with square pixels, not all have that, the Fuji S3 for example has hexagonal pixels, two sizes, no less. Simple huh? Maybe.

But let's try another example first. Assume you just want to print a picture half that size, 4 x 5 is more common. Then 4 times 300 equals 1200 and 5 times 300 equals 1500, so our camera need only be 1.8 meg. That's not so bad, is it? But before you dash right out to buy a 2 meg camera on sale, let's take a look at some of those original figures.

I said that the average eye views an image at 15 inches. That's an "average" eye. It can vary from that... a lot. Depending on age, it can go from 3 inches (a youngster) to more than 6 feet. (An old timer.) And that's for

an eye that's working well. Near-sighted? You'll hold the picture closer. (Assuming you don't wear correction lenses, of course.) Far-sighted? Further away. Have astigmatism? A mess! So, if you hold your picture at 7.5 inches, you will need twice the number of pixels, or 600, per inch. An 8x10 would require a 28.8 meg camera. Good grief! Thirty inches viewing distance is a lot easier, a 1.8 meg one will do the job. Also, some eyes can see significantly better than one minute of angle, some can reach ½ minute. That's even worse, you need 600 dpi at 15 inches, which means we're back to a 28.8 meg camera for an 8x10, and a 7.2 meg one for a 4x5. But you can do the math. And do you really need to have the dots as small as theory suggests? Well, to make it more confusing, there are other considerations that affect that. Bright lighting needs higher resolution, dim lighting needs less. Glossy paper? Higher resolution. Matt paper, less. High contrast image, more, low contrast, less. Ad infinitum.

Finally, what if you have taken the definitive photo of Yosemite, the one to equal Ansel Adams, and you want to have it printed at, say, 16x20 and frame it. Do you still need 300 dpi? Probably not. After all, people don't normally hold a 16x20 in their hands and look at it from 15 inches. Remember the 50 degree vision. So, you'll probably be hanging it on the wall, where they will view it from a distance. Experience shows that people will move backward or forward when viewing a picture until it subtends that 50 degree angle. So you might well get away with 150 dpi.

But, getting back to the more normal usage, hand-held prints, do you need 300 dpi there? Again, maybe. In many cases you may get away with less. But if you go below 150 dpi you are almost certain to get obvious visual pixilation at that distance. Of course, *Photoshop* to the rescue, you can resample upwards and increase the number of pixels to what works. You're not adding detail, but at least you're getting rid of those annoying "jaggies."

Clear? I didn't think so. Remember, I said "Made Confusing." But at least you are now confused on a much higher plane! Good luck.

The Editorial Committee of the Association of Personal Computer User Groups has provided this article.

Distinguishing Forests from Trees in Search Engine Results

By Gabe Goldberg, APCUG Advisor and HCIL Media Fellow

Some people cherish details without grasping the big picture. They can't see the forest for the trees, always miss the landscape's glory. Searching the Web can feel like this. Search engines cheerfully deliver millions of search result hits without revealing patterns or gaps in the data. Even worse, hardly anyone looks beyond the first screen of search results. Researchers are investigating how organizing search results provides contextual and visual cues that make searches more powerful.

We all know people who cherish tiny details but never quite grasp the big picture. They're figuratively unable to see the forest for the trees, missing the landscape's glory while obsessing over whatever grows in front of their nose.

Sometimes searching the Web feels like this. Google or any favorite search engine can cheerfully deliver a thousand -- or two million -- search result hits yet not reveal patterns, groupings, or gaps in what it quickly but mindlessly displays. Making things worse, hardly anyone looks at search results beyond the first screen or two; we either settle for one of the first few links, or add search words to prune our results. But this runs two risks.

First, we may miss a key Web site that for some reason isn't highly ranked by our search engine. Not everyone knows that search engines rank results using proprietary criteria; even worse, ranking methods often change without notice, so identical searches days or weeks apart may yield very different results. Second, there's no clue or cue about search result patterns. And the human mind can't grasp a thousand -- let alone two million -- links to see what they might collectively reveal.

Enter Bill Kules and Ben Shneiderman, respectively Graduate Research Assistant and Computer Science Professor at the University of Maryland. They're investigating how organizing the display of search results provides contextual and visual cues that make searches more powerful.

Their technology, partially supported by an AOL Fellowship in Human-Computer Interaction, is ideal when searchers are unsure of the target or goal. This is a variation on the famous Supreme Court quote: searchers may not know what they're looking for, but they recognize it when they see it.

Results, arranged in meaningful and stable categories using structures created by Kules' SERVICE program (as opposed to the ad hoc clustering used by some commercial search engines), are shown in a compact listing in the left side navigation bar. Important text (title, snippet, URL) is arranged for efficient scanning and skimming. SERVICE retains benefits of the traditional ranked results list, while adding an overview.

The list allows efficiently scanning and skimming title/snippet/URL -- which remains a critical task. The categorized overview adds another perspective on results, showing their distribution across categories. The overview also lets users explore results, narrowing them to a single category or sub-category.

Categorizing results is proving to change peoples' search style. For some searchers, the categorized overview simplified formulating queries. They issued a somewhat broad query and then browsed the appropriate category. Others used the overview to organize exploration of results, first perusing results in the Business category, then Science, Health, etc. Other users only used categories when frustrated by normal searching.

An interesting surprise is that empty categories -- which might have been expected to include results -- are in fact meaningful in some searches. For more information visit <http://www.cs.umd.edu/hcil/categorizedsearch>.

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The Editorial Committee of the Association of Personal Computer User Groups has provided this article.

Are You "Compuliterate"?

by Berry F. Phillips, member of the Computer Club of Oklahoma City and a regular writer for the CCOKC website

"Compuliteracy" Test (unknown author)

1. Who invented the computer? Mr. Chips, E.T., Marquis de Sade.
2. What are microchips? What a herd of micros leave on the prairie, What you eat with a microdip, The reason you had to take all those computer literacy courses.
3. What is a floppy disk? A painful lower-back condition, An album that didn't sell, A great Frisbee.
4. What is the first thing you associate with computers? Bill Cosby commercials, Eye strain and headaches, Annoying beeps, Three tons of printout where once there was a 3-page report, All of the above.
5. What is FORTRAN? Between 3 and 5 tran, How to get computers excited before interface, Ridiculous.
6. What is Pascal? A leafy vegetable, A foot fungus, A city in southern France, None of the above.
7. When you need consulting help in deciding what to do with your computer, which organization do you think of? IBM, FBI, PLO?
8. What is the most important computer peripheral? Bill Gates, Someone to operate the computer for you, Aspirin.

Some years ago, I was staring at a demo game computer in a large computer store. I felt a tug on my sleeve and there was a small lad who asked me rather impatiently, "Why don't you do something?" I confessed with great difficulty that I did not know what to do. This mini computer user said, "I will show you, because I have this game at home." He began killing monsters right and left as I slunk out of the store in humiliation. I vowed from that day forward I would become computer literate, more than any eight-year-old!

Computer literacy is today a necessity when entering the job market. I remember when *Time Magazine* awarded the computer their coveted Man of the Year award, which dramatically illustrated the incredible impact the personal computer has had on our society. Computer literacy does not mean you need to know everything about a computer, but you should master the basics and understand how a computer works. I remember thinking that a person who used a computer in a business must be very computer literate. I discovered that many computer users knew how to do only some limited applications

necessary for specific tasks. Limited computer literacy by computer owners usually translates into their limited use of the computer and never experiencing its full potential nor maximizing their return on their computer investment.

What alternatives are available to accelerate one's level of computer literacy? Basic computer courses are offered by most continuing education programs. They are usually reasonably priced and conveniently scheduled. They can be found in your local school district, or community college on evenings and weekends. There are career retraining programs that often offer computer courses through your local Labor Department Office. There are also online courses and tutorials available, and the public libraries have computers available to their patrons, with Internet access.

I have found that computer clubs are an excellent choice for developing computer literacy, since they are economical and less theoretical and are more focused on how to operate the computer using various applications. Computer users helping one another move to new levels of computer literacy represent incredible learning and motivating experiences. As beginners were helped to reach computer literacy, they then enjoyed helping others as they had been helped. You are never alone in your journey to reach computer literacy in a computer club; there is always another member to ask a question of or to get hands on help from. Many computer clubs have computer labs as does the Computer Club of Oklahoma City, www.ccokc.org (405-843-4300) which is also affiliated with the national Senior Net Users Group and the Association of PC Users Groups (APCUG). If you are not in the Oklahoma City area, please contact the APCUG, www.apcug.org (800-558-6867) to check on an affiliated computer club in your area.

We often hear from our members how when they started they wondered how they would ever use a computer, and now they ask how they would ever get along without one! The transition from computer illiteracy to literacy is truly amazing. Obtaining computer literacy is not a luxury but an absolute necessity in our rapidly evolving technological society.

I hope that I progress in my computer literacy, because those eight-year-olds are getting more and more "compuliterate," especially the older I get!

The Editorial Committee of the Association of Personal Computer User Groups has provided this article.

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My Spyware

By Sandy Berger, Compu-KISS, www.compukiss.com [sandy\(at\)compukiss.com](mailto:sandy(at)compukiss.com)

Everyone has computer woes...even me. Last week my office computer slowed to a crawl when accessing anything on the office network or on the Internet. It was so slow that I was anxious to begin troubleshooting.

Since we had recently moved to a new office, the first suspect was the network cabling. I replaced cables on both ends and used my laptop to confirm that the network was fine. It was obvious that something in my computer was the problem. So the first order of business was to scan for viruses. Since I always use an up-to-date antivirus program, keep my operating system patched, and don't open uninvited attachments, I felt my computer was probably virus-free. The virus scan confirmed that my problem was caused by something other than a virus.

My next thought was that I probably had some spyware in my computer. These unwanted programs infiltrate computers without the user's knowledge. They can wreck havoc with a computer. So I ran a spyware detection program named *Ad-Aware* (www.adaware.com). This is a free program that I have used for years with good results. This time, it didn't find anything. So I turned to another favorite...*Spybot Search and Destroy* (www.spybot.com). Another free program, *Spybot* has turned up much spyware in the past. Yet, even though I updated both of these programs before I scanned my computer, neither found any spyware.

Now I had a dilemma. Since I could not find the problem, my next step might have to be reformatting my hard drive and reinstalling all the programs. In trying to avoid that time-consuming hassle, I decided to try one more spyware program. On my desktop I had two additional free spyware tools that I downloaded for review but had never used before: AOL's *Automatic Spyware Protection* (<http://daol.aol.com/safetycenter/spyware>) and Microsoft's *Windows Defender* (www.windowsdefender.com).

I decided to start with the AOL program. The scan was faster than either *Ad-Aware* or *Spybot*, and it unearthed several pieces of spyware that were not detected by the previous programs. I clicked the button "Eliminate

Spyware" and my work was done. My computer was immediately back to normal.

It's unbelievable that I would have to use three programs to find the nasty spyware that was causing my problem, but this is the situation in today's spyware-infested computer world. The bad guys are always trying to stay one step ahead of the good guys and in some cases, they are obviously succeeding.

If you want to add the AOL software to your arsenal of anti-spyware tools, it is a simple download at the AOL Safety and Security Center at <http://daol.aol.com/safetycenter/spyware>. You will need to get a free AOL screen name before you download the software by entering your name, address, telephone, e-mail, and date of birth. Be careful to download only what you need. AOL will offer you virus protection, a firewall, and an e-mail program in addition to the spyware software. These may or may not be valuable to you. I checked out the free AOL *Active Virus Shield* software, which you can download at www.activevirusshield.com. This program is powered by Kaspersky Lab, one of the largest antivirus providers, and it has garnered good reviews. It is an excellent choice if you are looking for a free antivirus program. AOL's free e-mail program, however, is probably not as good as the e-mail program you are already using.

Since my spyware detection encounter, I have also tried the Microsoft *Windows Defender* anti-spyware program and I liked it as well. A year ago I would have scoffed at anyone using more than one or two anti-spyware programs, but perhaps in today's computer environment, it's not overkill to have four anti-spyware programs!

Sandy Berger, The Compu-KISS® Lady...nationally respected computer authority, journalist, media guest, speaker, and author is a seasoned 30-year computer expert.

The Editorial Committee of the Association of Personal Computer User Groups has provided this article.

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