



July 1, 2004 DVPC Meeting Announcement UniBrain

In July we're going to have a sneak preview of a brand new product from UniBrain, the iZak™ Portable Multimedia Center. iZak is a portable digital multimedia storage device and player — think of it as an entertainment jukebox. You can connect it to any PC or Mac via USB-2 (it's plug & play) to copy your favorite content. Connect it to any TV (multi standard) to enjoy your movies, music and photos. Watch your favorite films in HDTV quality video and Dolby Digital or DTS quality audio. Its pocket design lets you take it wherever you go. With iZak™ you can create your own Virtual DVD Library by storing your private collection of DVDs and watch them as if they were running from the original DVDs (patent pending). iZak supports MPEG-1, MPEG-2 (AVI, VOB), MPEG-4 (AVI, DivX, XviD), and ISO video; WAV, MP3, MPEG-4 (AAC), WMA, and AC3 audio; and any size data files (FAT32, NTFS, HFS). Video Outputs are NTSC/PAL composite and S-video, Analog YPbPr video (progressive or interlaced) scalable up to 1920x1080i or 1280x720p, RGB via SCART, and VGA scalable up to 1024x768. Audio Outputs are dual stereo analog audio, coaxial and optical SPDIF digital audio, and it supports compressed Dolby Digital 5.1 and DTS pass through. iZak stores up to 1,000,000 Photos in VGA, or 20,000 MP3 songs, or 80 MPEG-4 (DivX) movies, or 15 MPEG-2 (DVD) movies, or 80 GB of Data, or any combination up to the capacity of the hard drive. This is an amazing breakthrough in portable multimedia, and we will be one of the first to see a very interesting presentation at our July 1st meeting.

DVPC meetings are held in the lobby conference room in Building B at the Bank of America Technology Center office complex in Concord, located near the northeast corner of Clayton Road at Galindo (see the map on page 4). Please use the entrance that's on the south side of the building. Doors open at 6:00 p.m. and the meeting starts at 7:00 p.m. The New Users SIG holds its meetings at 6:30 p.m. prior to the regular DVPC monthly meeting. We discuss whatever is confusing or puzzling new PC users. If you are a new user of PCs who would like to meet with other new users — and some experienced users who can answer your questions as well — then join us at the New Users SIG meetings. We'll also have the Networking Table from 6:30 to 7:00; if you have something to sell or trade, need technical help, or just want to exchange views, visit the Networking Table. Also, as usual, we'll have library disks and those great DVPC mugs (version 2) for sale, SIG news, and some of our usual great door prizes.

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President's Message

by Alan Mildwurm, DVPC

First and foremost a belated thank you for the honor and plaque bestowed on me at the May meeting. (I missed deadline for this column last month, oops — do I have to give the plaque back?). It was completely unexpected and I can't tell you all how much it meant to receive it. I also now know I can't give Craig carte blanche anymore to come up with a presentation!

Our July meeting will feature a company that is new to us: UNIBRAIN. (www.unibrain.com) I first saw their products at Comdex year before last. They make all things *Firewire* and I think you will be interested in their product line. I was impressed with their Firewire webcams. Our timing is perfect for this presentation because we will be among the first to see their brand new portable media player, the iZak. Looks cool.

In August we will have a double header: a Centrino presentation and a Photoshop classroom on DVDs. Both of these presentations will be member presented so if you are interested in doing the presentation to the group, let me know. (Did I mention that the presenter will get a gift?)

In September our good friends Gene and Linda Barlow will pre-

(Continued on page 8)

DVPC July 2004 Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 DVPC Monthly Meeting 7:00 pm New Users SIG 6:30 pm	2	3
4 <div style="border: 1px solid black; padding: 2px;">Independence Day See SIG News starting on page 5 of Diablo Blue for more information about SIG meeting dates, times, topics, and locations</div>	5 <div style="border: 1px solid red; padding: 2px;">No Windows SIG because of July 4 Holiday</div>	6	7 <div style="border: 1px solid black; padding: 2px;">DVPC Board Meeting 7:00 pm</div>	8	9	10
11	12	13	14	15 <div style="border: 1px solid black; padding: 2px;">Advanced Users SIG 7:30 pm Clarion SIG 7:00 pm</div>	16 <div style="border: 1px solid red; padding: 2px;">Diablo Blue Deadline. Email articles and ads to the Editor: rogg@value.net</div>	17 <div style="border: 1px solid black; padding: 2px;">PC101 and PC201, Concord Library 10:00 am to 2:00 pm</div>
18	19 <div style="border: 1px solid black; padding: 2px;">Genealogy eSIG (See SIG News on page 5 of Diablo Blue)</div>	20	21 <div style="border: 1px solid black; padding: 2px;">Internet SIG 7:00 pm</div>	22	23	24
25	26	27	28	29	30	31

Email Notification

We provide an email notification service for the current month's *Diablo Blue* password, the DVPC monthly meeting, and information about SIG meetings as well. You have to be a current, paid-up member to receive this service. To read the current month's issue of *Diablo Blue* on-line you need to receive these monthly email messages, so print this page, fill out the form, and mail it to DVPC, PO Box 3244, San Ramon, CA 94583, or bring it to the sign-in desk at the monthly meeting. Or, if you prefer, you can send an email message to nopaper@dvpc.org with your name and email address and your favorite SIGs.

Send me email notification of each monthly *Diablo Blue* password, the DVPC meeting, and the following SIGs:

Name _____

Email Address: _____

Advanced Users SIG		New Users SIG
Clarion SIG		PC 101/PC 201 Classes
Genealogy eSIG		Windows SIG
Internet SIG		

Diablo Blue Article and Ad Information

Diablo Blue needs articles from the members of DVPC. See your name in print! Achieve fame and fortune! (Well, maybe just some limited fame in Contra Costa County...) We are particularly interested in product and book reviews and stories about your PC experiences. Send your articles or member ad copy as email attachments to the Newsletter Editor (*see email address below*).

Commercial advertising is available in *Diablo Blue*. Prices are \$75 for a full page, \$40 for a half page, and \$25 for a quarter page for one insertion — or get three consecutive insertions for the price of two. For more information, call editor Ronald Ogg, at 415-281-0431 (days). Members of DVPC can submit personal classified ads that will be printed in *Diablo Blue* for three insertions at no charge. The rules are simple: up to 9 lines (as we format it), material must be suitable for publication (the editor is the sole judge of suitability), the member must be in good standing (current dues paid), and ad space is available on a first-come first-served space available basis only. If you want fewer than three insertions note that on your ad copy. If members want their business card reproduced, the rate is \$10 for one insertion, or \$25 for three insertions. The card must be horizontal and must be scannable. Send your ad copy as email attachments to the Newsletter Editor (*see email address below*). See the deadline information in the Calendar on page 16 of each issue of *Diablo Blue*.

DVPC Officers and Directors

Alan Mildwurm, President/Programs 510-770-5770 (work), awm@mildwurm.com

Nicholas Chase, SIG Coordinator 680-4211 (home), nachase@yahoo.com

Will Crites, Publicity 938-1291 (home), bugkiller@aol.com

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Craig Peterson, Librarian 671-7025 (home), compmail@pacbell.net

Stan Umlauf, Web Site 458-5560 (home), stanu@honeybee.com

DVPC on the Internet

DVPC has a Web site on the Internet — thanks to our Web Team: Ron Ogg and Stan Umlauf. You can surf your way to our own domain and home page by starting your favorite Web browser and typing the following URL; be sure to save it in your browser's hotlist so you don't have to type it each time: www.dvpc.org.

The Board of Directors usually meets the week following the general meeting. Check the DVPC Calendar on page 16 of each issue of *Diablo Blue*, or the DVPC calendar page, for the meeting date, time, and location. You can reach any of the officers and directors by talking to them at the DVPC monthly meeting, by email to bod@value.net, or by leaving a message on the DVPC voice mail system.

DVPC Voice Mail System

DVPC has a computer-based voice mail system. The phone number for the DVPC VMS is 925-556-1449. Hear up-to-date information about monthly and SIG meetings, information about DVPC for potential new members, and a message center for Board of Directors members and SIG Leaders.

Diablo Blue is the monthly Web-based newsletter of the Diablo Valley PC Users' Group.

Editor: Ronald Ogg, Membership: Peggy Johnson

Please submit articles and columns to the Newsletter editor by email at rogg@value.net

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The Diablo Valley PC Users Group is a non-profit corporation.

DVPC is a member of APCUG, the Association of PC Users Groups, www.apcug.org

Get Involved! Learn! Join a SIG today!

MEMBERSHIP APPLICATION

Print this page, fill out this form, and enclose it with your check for \$30.00 for one year's dues with access to the Internet edition of *Diablo Blue* (\$20.00 for students who must enclose a copy of current Student ID), made payable to DVPC, and mail to: DVPC, PO Box 3244, San Ramon, CA 94583

Renewal _____ New Member _____ Referred by current member? Name _____

Name: _____

Company/School: _____ Email address: _____

Address: _____

City/State/Zip: _____

Home Phone: _____ Work Phone: _____

Email Address: _____

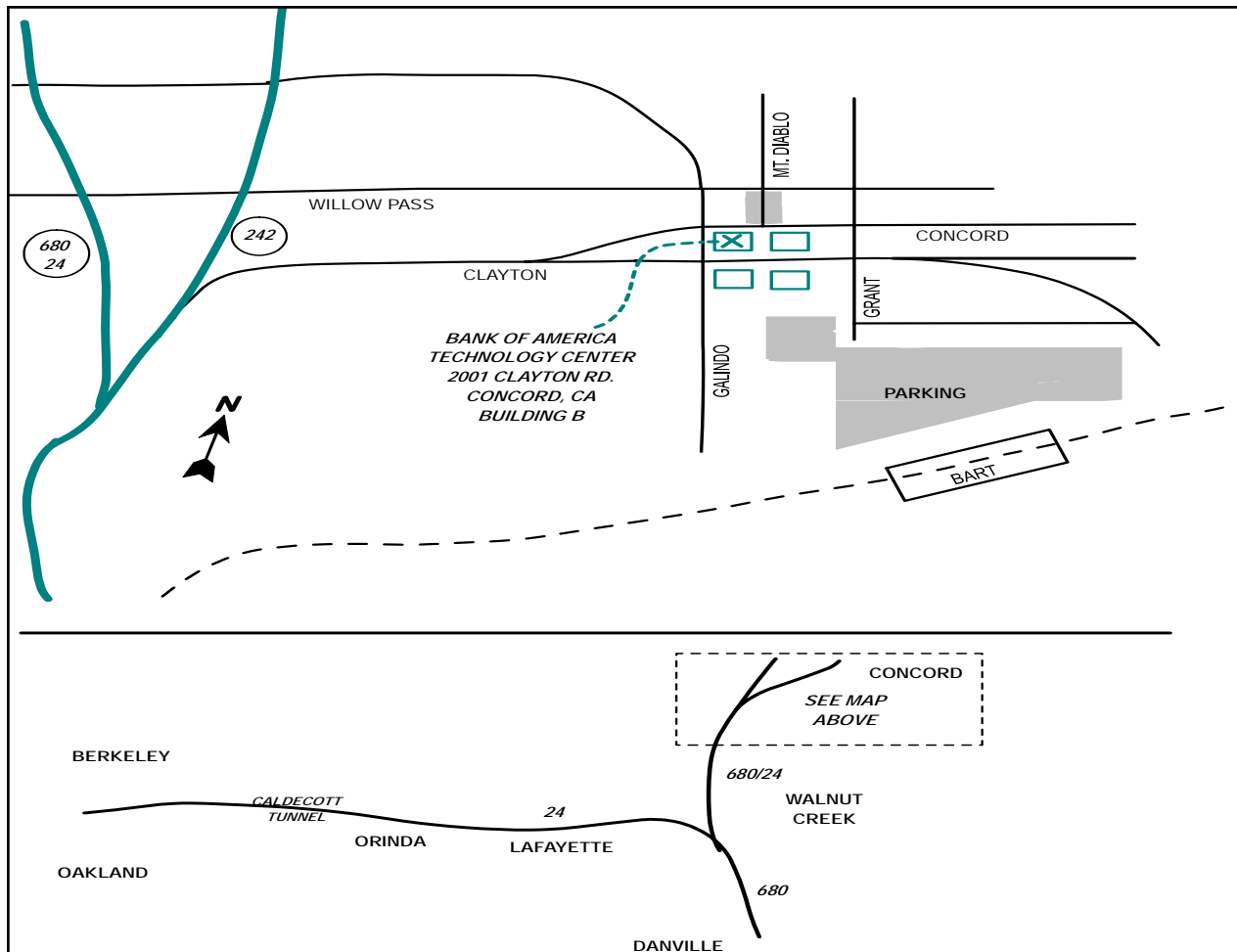
On occasion DVPC publishes a list of members for distribution to DVPC members only. Please check how you would like to be listed: No listing _____ List Name and Home _____ Work _____ phone number(s) _____

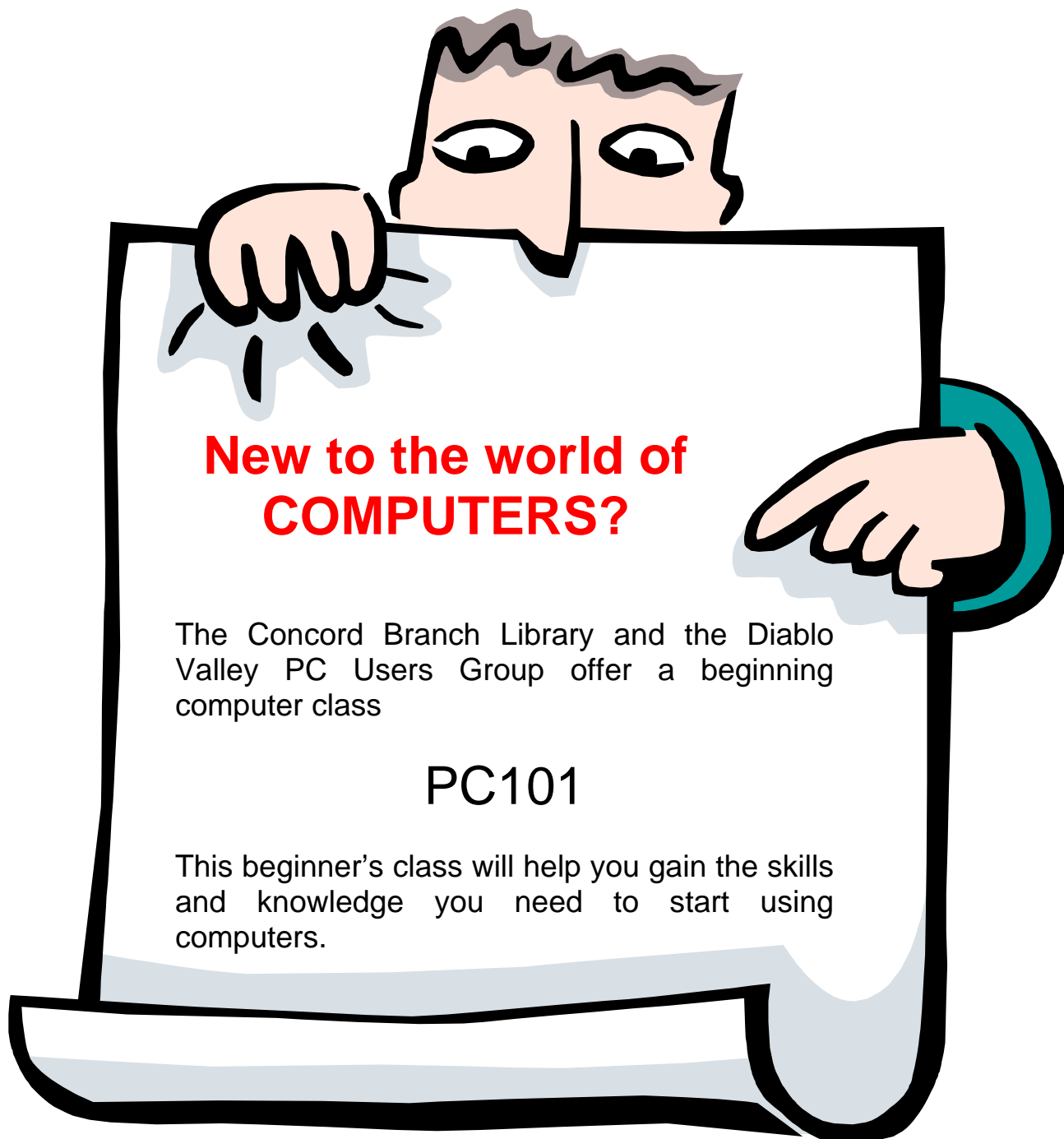
I'm also interested in these SIGs: _____

Directions to Bank of America Building B in Concord

Take the Clayton Road exit off of the 242 Freeway and go east on Clayton Road. After about 1½ miles you'll come to Galindo, and you'll see the Bank of America complex of four high-rise buildings. Parking: Turn left on Galindo then right onto Concord Avenue to find street parking. Or turn right on Grant Street (the first block past Galindo), then right into the BART parking lot at the back of the BofA complex. Building B is the building at the northeast corner of Clayton and Galindo. Enter the door on the south side of the building.

Be sure to observe parking regulations! Concord parking officers are very efficient!



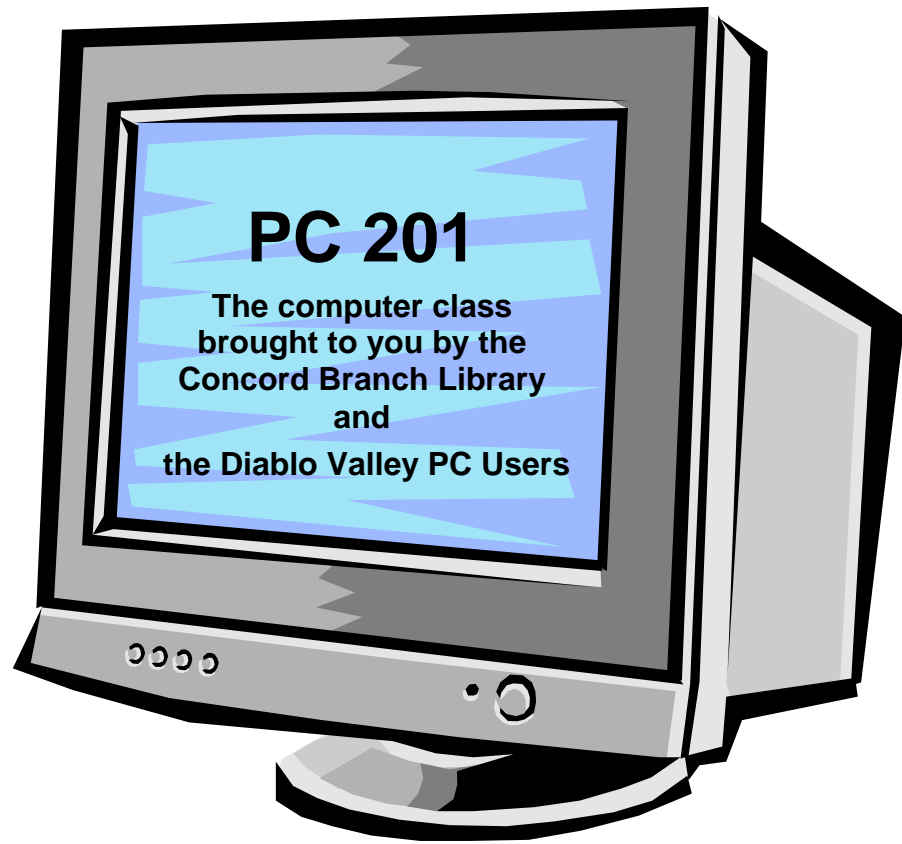


The next PC 101 class will be held on Saturday, July 10. There's a new day (the **second** Saturday of each month), a new time (4 p.m. to 6 p.m.), and a new location (Computer Renaissance, which is located at 1936 Linda Drive off Contra Costa Blvd. in Pleasant Hill). Call (925-671-7025) or e-mail (compmail@pacbell.net) Craig Peterson for further information.

This free class is brought to you by the Diablo Valley PC Users Group as a service to the community, and is open to anyone who is interested in learning about computers..

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SOFTWARE

There are no PC201 classes scheduled. As soon as arrangements can be made to resume classes we'll schedule the next PC201 class. Look for an update on the DVPC web site at www.dvpc.org.

The PC201 class is usually held from 12:00 noon to 2:00 p.m. in the Concord Branch Library's Community room, 2900 Salvio Street, Concord, CA.

This free class is brought to you by the Concord Branch Library and the Diablo Valley PC Users Group. Space is limited, so sign up at the information desk at the Concord Branch Library.

Advanced Users SIG Jeff and Sharon Noyer, SIG Co-Leaders – 778-4348

The Advanced Users SIG meets on the third Thursday of each month at 7:30 p.m. at 4208 Amargosa Drive in Antioch. The Advanced Users SIG is for anyone interested in discussing advanced topics such as hardware and software issues, cutting-edge technologies, networking, servers, troubleshooting, etc. Please join us to participate in this very informative and educational forum. We hope to see you at the meeting!

Directions: Go east on Highway 4 through Antioch to the Hillcrest Avenue exit. At the light at the end of the exit ramp, go right onto Hillcrest Avenue, and then stay towards your left. At the 3rd light, Hillcrest Avenue turns to the left. Go left and stay on Hillcrest. (Landmark: "The Crossings" Shopping Center is at intersection). At the 4th light, go left onto Wildhorse Drive. (Landmark: 7-Eleven on corner at intersection). At the 2nd left turn, go left onto Meadow Lake Drive. At the 4th right turn, go right onto Amargosa Drive. 4208 Amargosa Drive is the 3rd house on your right, blue and white one-story.

Clarion SIG SIG Leader Bill Morris (wcm@soft-trak.com)

See the Clarion SIG page on the web at www.desine.com/svcug/sv_meet.htm for meeting location, dates, and time, or send an email to Bill Morris (bill@soft-trak.com) asking to be put on his email announcement list for the Clarion SIG.

Genealogy eSIG Peggy Johnson, SIG Leader – 676-7522

The DVPC Genealogy SIG is a group of computer genealogists who share helpful websites, databases and source information found on the internet. It's an opportunity for members seeking help to put forth a question or problem to the SIG and receive suggestions and advice. When you locate a useful website, database or visit a research facility, please email the group of the details so we also can take advantage of this information. If you wish to be included in the Genealogy eSIG, please email Peggy Johnson, pegszone@aol.com.

Internet SIG Craig Peterson, SIG Leader – 671-7025

The Internet SIG meets at Computer Renaissance in their new store location 1936 Linda Drive, Pleasant Hill. We meet the third Wednesday of each month at 7:00 p.m. See the meeting details in this issue of *Diablo Blue* (you can find the article by checking the Table of Contents on [page 1](#)).

Hope to see all of you there. For more information, please call Craig Peterson at (925) 671-7025 or e-mail him at comp-mail@pacbell.net.

New Users SIG Craig Peterson, SIG Leader – 671-7025

The New Users SIG holds its meetings at 6:30 p.m. prior to the regular DVPC monthly meeting on the first Thursday of each month at Bank of America building B. We discuss whatever is confusing or puzzling new PC users. If you are a new user of PCs who would like to meet with other new users – and some experienced users who can answer your questions as well – then join us at the New Users SIG meetings at 6:30 p.m. prior to each DVPC monthly meeting.

PC101 and PC201 Classes Craig Peterson, SIG Leader – 671-7025

PC101 and PC201 classes are held at Computer Renaissance, 1936 Linda Drive, Pleasant Hill, on the second Saturday of each month. The classes are open to everyone in the community who is looking to gain more information about computers and how to use them. Look for information on these classes on the *DVPC* web site.

PC101 is a beginning class on computers. This class helps introduce computers to and empower the person not comfortable with the technology. PC101 held from 4 pm to 6 pm. For details about class meeting dates, times, and topics, [see page 5](#) in this issue of *Diablo Blue*.

PC201 is a series of lectures that will be given by experts in different areas of computers and technology. For class meeting dates, times, and topics, [see page 6](#) in this issue of *Diablo Blue*.

Windows SIG Ron Ogg (415-281-0431) and Walt Parsons (934-0775), SIG Co-Leaders

The Windows SIG usually meets at the Community Room at the Concord Police Department building on the first Monday of each month at 7:30 p.m. We discuss the latest version of Windows, demonstrate interesting shareware and freeware, and have random access sessions where we all try to answer SIG members' questions. Everyone who uses, is interested in, or is curious about Windows on their PC is invited to attend. Directions: The Concord Police Department is at 1350 Galindo Street in Concord. From the 242 Freeway take Clayton Road east to Galindo and turn right; the Police Department building is 3 blocks south on your left. From 680 Freeway take Monument Blvd. east and continue to where it changes to Galindo; the Police Department building will be on your right a short distance past the signal at Cowell Road.

There will be no Windows SIG meeting in July because of the July 4th holiday; there will be no Windows SIG meeting in August because of SIG Leader business travel, and there will be no Windows SIG meeting in September because of the Labor Day holiday. Meetings will resume on October 4. Have a great summer, and we will see you in October!

President's Message...

(Continued from page 1)

sent to us. At this point I don't know what Gene will be presenting (I don't think Gene does either) but whatever he has for us will be excellent. I'll let you know.

Our treasury is slowly growing and of course that lends itself to thoughts of new gear. While I think even our permanent projector committee would agree it is not time for a new projector if you can think of any needs for the club, let us know.

See you in July!

Anniversary of Computer Virus *by Beverly Rosenbaum, HAL-PC, Houston Texas*

No Cause for Celebration

Over several decades, viruses and worms have grown from academic exercises to online threats, wreaking havoc on millions of computers worldwide.

Not everyone agrees on their exact origin, but they date back at least 20 and maybe even 30 years. The idea of using the term "virus" to describe unwanted computer code was first published in 1970, and some accounts detail the spread of the first virus in 1975 as simply the distribution of a game on UNIVACs (Universal Automatic Calculators). The virus Elk Cloner that infected Apple IIs followed in 1982. In 1984 a professor at the University of New Haven wrote a research paper describing possible threats from self-propagating viruses and explored potential defenses against them. He wanted to further investigate antivirus countermeasures, but the National Science Foundation denied his request for funding.

The term "worm" was first used in a 1982 paper by researchers at the Xerox Palo Alto Research Center to describe the automated program they used to update an Ethernet performance-measuring application. However, a bug in the program eventually crashed all 100 of the experiment's computers. The paper cited a 1972 science fiction novel describing a "tapeworm" program spreading around the global networks as the inspiration for the term.

Many virus historians believe that two Pakistani brothers created the first IBM personal computer virus in 1986 as a way to advertise their company, Brain Computer Services. They programmed the Brain virus to overwrite the boot instructions found at the start of system disks, displaying the message "Beware of this VIRUS... Contact us for vaccination..."

That was only the beginning of viruses that infected floppy disks, hard disks and files. Although viruses and worms took more than a decade to emerge in significant numbers, they soared in subsequent years. By the end of 1990, about 200 viruses had been identified. Today, that number has jumped to more than 70,000.

Even if viruses aren't designed to be intentionally malicious or dangerous, there can be unexpected results if they get outside a controlled environment. The exponential doubling of viral code greatly magnifies minor errors and becomes the difference between a harmless prank and a devastating attack. The ability to propagate across the Internet has allowed this kind of malware to spread very quickly. Although many programs quickly fizzled out, others have far outgrown the intentions of their authors, and small modifications of the original code produced new variants that continued the attacks.

Later, worms evolved into two categories. Some camouflage themselves as interesting e-mail attachments, which execute when opened, infecting systems and mailing themselves to every name listed in the computer's address book. Other worms need no human interaction, infecting computers that have certain security flaws and then using the new host to scan for more computers with the same flaw. These worms are modeled after the Cornell Internet Worm, which overloaded an estimated 3,000 to 4,000 servers, or about 5 percent of those connected to the early Internet, in November 1988.

The growth in popularity of computers and Internet use along with the vulnerability of the Windows platform and other Microsoft programs have allowed the rapid spread of viruses and worms. In 1995 Microsoft accidentally shipped the first macro virus that could infect Word documents. The Concept macro virus rewrote the rules for viruses and they began spreading via e-mail and the Internet. In the early days of viruses it would take months for a virus to spread into the wild. The first successful mass-mailing computer virus was Melissa, a macro virus that started spreading in March 1999, and contained a lot of code from previous viruses.

Today, a virus can spread around the world in a matter of minutes, and virus writers quickly pass techniques for creating the latest worms by posting their toolkits in the virus-exchange underground. Many worms are written in one of several scripting languages, which can be read by even semi-knowledgeable virus writers and changed to release variants in only hours after a major virus epidemic. For example, virus writers latched onto LoveLetter, which struck in May 2000, and cranked out more than 40 variants.

Boot viruses began to diminish in 1997 as macro viruses flourished until 2000, when they too declined as worms began a steady rise. Soon the worms dominated the top ten variants of malicious code. Two months after the major Code Red worm attack of July 2001, Nimda hit the financial industry hard, giving Microsoft a security wake-up call and illustrating the dangers of self-reproducing threats that used multiple vectors of attack. Nimda infected computers through the same flaw Code Red used but also infected shared hard drives, spread itself through e-mail, and created Web pages that spread the worm. Even after Microsoft issued patches for the vulnerabilities, most people were apathetic and failed to download and apply the patches.

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Anniversary of Computer Virus...

(Continued from page 8)

To stave off future attacks, companies and Internet providers began filtering e-mail attachments at their gateways, the connections to the Internet. Antivirus software companies try to beat worms at their own game by distributing new virus detection faster than the viruses can spread. However, if a new virus doesn't match any of the types contained in the filtering software's definitions, the scanner won't flag the attachment as malicious code.

The latest Mydoom virus was effective because it initially passed the scanning software. It posed as a harmless text file containing an e-mail message that claimed to be a failed mail transaction from a colleague or friend, offering the believable explanation that the original message had to be translated into a plain-text file for delivery. Even some savvy recipients were duped to open the attached file, which was really an executable file that included a malicious virus. The innocuous subject line of the infected e-mail was "Hello," "Server Report," "hi," "Mail Delivery System," "Mail Transaction Failed," "Status," or "Error."

The SCO Group, target of the original worm's denial of service attack scheduled for February 1, 2004 (its fourth in the past 10 months), offered a \$250,000 reward for information leading to the virus author's arrest. When a variant targeted Microsoft, they offered a similar reward.

MessageLabs reported that in the first 4 days it had trapped over 5.5 million copies of infected e-mail headed for its clients. At one point, one in every 12 e-mails was laced with this worm, compared to last year's SoBig virus outbreak, which peaked at an infection rate of 1 in 17 e-mails. Other antivirus companies reported that Mydoom (also known as Novarg) generated more traffic than any e-mail worm in history.

Viruses that have multiple vectors are the worst threat because they can send e-mail, perform a distributed denial of service attack and open a backdoor. The most problematic viruses have been the most recent. The SQL Slammer broke all records for the speed at which it was able to spread, to the point of disabling ATM machines and bringing Internet traffic to a halt. The SoBig Project employed spammed worms to infect PCs that could be used to install spyware, steal financial credentials, act as a front for spamming operations, launch DDoS (Distributed Denial of Service) attacks on anti-spam sites, and allow spammers to be virtually untraceable.

Although many worms are benign, they demonstrate serious vulnerabilities, and the sheer volume of traffic can cause effective denial-of-service attacks because of bandwidth consumption. While IBM-compatible computers are the initial target, the network downtime and cleanup costs affect computers on all platforms. Mail servers are overloaded with the sheer volume of bogus messages, and automated responses from filtering software multiply the problem.

Once the latest threat has passed, the opportunity still remains for potential control of infected machines. So everyone should remain vigilant to apply patches, maintain current virus signatures, and otherwise secure their systems. Whether the next attack comes from worms, e-mail spamming of Trojans, newsgroup postings, websites or other methods, one thing is for sure. This kind of malware has gone from being just a nuisance to a permanent menace.

There is no restriction against any non-profit group using this article as long as it is kept in context with proper credit given the author. The Editorial Committee of the Association of Personal Computer User Groups (APCUG), an international organization of which this group is a member, brings this article to you.

Internet SIG Meeting by Craig Peterson, DVPC

The Internet SIG will be meeting at Computer Renaissance in the new store location 1936 Linda Drive, Pleasant Hill. We will meet the third Wednesday of July (7/21/04) at 7:00 p.m.

Last month, we found the following sites were worth visiting:

- | | |
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| www.cagw.org/site/PageServer | In case you were wondering how the government wastes money |
| www.ahrq.gov/ | In case you wanted to know how the government uses your tax money to "To improve the quality, safety, efficiency, and effectiveness of health care for all Americans." |
| www.qualityitems.com/ | In case you were wanting to know where you can buy flashlights that do not need batteries |
| lasermonks.com/ | In case you needed printer supplies |
| ganglandnews.com/ | In case you wanted to know about "the web's most authoritative site on organized crime" |
| www.climatehotmap.org/ | In case you saw the movie "The Day After Tomorrow" |

This month we will be discussing the weather. While many have talked about it for decades before the Internet was available, we will be looking at new ways to do nothing about it. Hope to see all of you there.

Craig Peterson, SIG Leader — 671-7025

Support DVPC — Get a friend to join!

DVPC Board Meeting Minutes by Tom Krauss, DVPC

We began by critiquing last week's general meeting. By all accounts, our personal tour of Fry's Electronics new store in Concord was a success. No one got lost despite a certain resistance to holding hands with a buddy during the tour. This led to some consideration of additional alternatives for field trips such as computer museums and airline museums. Nothing was resolved here other than a general consensus that there are no interesting museums close enough to make another field trip feasible.

Alan kicked off the meeting with a rundown of probable presenters at the next few meetings including Unibrain in July and (not necessarily in order of tentative appearance) Gene Barlow and Microsoft. As these commitments and schedules are known to change faster than the price of gasoline, I'll let you check the website for the latest schedule.

Alan produced a barcode scanner in the shape of a cat. Distributed freely and widely (over ten million) by Radio Shack in the mid 1990's, they were eventually forced to admit that embedded in the device was a spyware chip that transmitted information about you and your scanning habits whenever the device was able to access the Internet through your PC.

The reason Alan brought out this device from his vast collection of nearly obsolete computer paraphernalia was that he had just come across a book which tells, among other things, how to remove the constitutional-rights-offending chip. The name of the book is *Hardware Hacking*. It has very detailed, illustrated, step by step instructions for hacking about a dozen items of hardware. The best part, however, is the full title: *Hardware Hacks: Having Fun While Voiding Your Warranty*.

With Nick and Charlie both present I was looking forward to some highly technical conversation regarding the physics and electronics of signal processing, and I was not disappointed! However, you, dear reader, *will* be, since as usual I could not understand a word of what they said. My brief notes are of no help, either.

I *do* remember Charlie talking about QAM. You will be as excited to learn as I was that QAM stands for "Quadrature Amplitude Modulation". My internet research informs me that QAM "is a big name for a relatively simple technique. It is simply a combination of amplitude modulation and phase shift keying". Since one of my favorite pastimes is combining amplitude modulation and phase shift keying, I must admit I dozed a bit here, and regrettably the remainder of an animated discussion is thereby lost to posterity and DVPC members alike. I must try to do better...

Computers from the Very Beginning: Monitors by Charlie Paschal, Palmetto Personal Computer Club

Just as understanding computer memory can be confusing, so can understanding a computer display, one of the most important parts of a computer.

The display, which also can be called a monitor, is connected to a computer by a cable that attaches to a video card inside a computer. Troubles with a display can be traced to the cable, the card inside the computer, software that drives the card, the display itself or some piece of equipment nearby.

Monitors can be found in various sizes and shapes but even the best of monitors can be made to look bad if any of the other parts and pieces are not working correctly or of poor quality. A monitor is only as good as the video card in your computer and the software that runs that video card and monitor.

Let's focus first on the monitor.

Of all the parts and pieces that make up a computer system, the monitor is one part that you shouldn't scrimp on. If you plan to have a computer for a long time, then buck up and spend the money for a good one. Although you may buy a new computer, you can always use your old monitor on it -- especially if you buy a good quality monitor.

In that purchase, there's a lot to consider.

Although you can find monitors less than 17 inches in size, I don't recommend buying one. Since some very cheap systems come with smaller monitors, it's something you should guard against when looking at buying a system that comes with a monitor.

Resolution and dot pitch are very important when it comes to monitors.

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Computers from the Very Beginning: Monitors...

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A computer screen is made up of dots and these are measured in dot pitch. In this case, you always go with the lowest number, with a cutoff of 28 dot pitch. Anything larger than that will give you a grainy display. More expensive models come with a dot pitch of 24.

Resolution is another measure of a monitor. Common resolutions include 640x480, 800x600, 1024x768 and 1280x1024. Even if your monitor can do higher resolutions, if your video card can't, then you won't be able to use them.

Why should you care about resolution? By using higher resolutions, you can fit more on your screen. A Web page viewed at 640x480 displays very little information. By boosting your resolution to 800x600 or 1024x768, you can fit more pixels on the screen, thus increasing your viewing area.

Another feature to check before buying a monitor is its refresh rate. Although many makers claim their monitors are able to display higher resolutions, these are often delivered at a rate lower than 72Hz, meaning that your eyes will see flicker. This is hard on your eyes and will make your eyes tire quicker than a higher refresh rate.

In today's world, the hot item is a "flat panel" LCD monitor; but, just because it's hot and the salesmen are pushing it, doesn't mean you should buy it. Although many of us lust after a flat panel, there are drawbacks:

- Small type often doesn't look good on one. If you're considering one, be sure to look at some small type faces in the store before you buy it. If a salesperson is handy, get them to start WordPad (or Word) and make the type nine- or 10 point. Be sure to check around the edges of the LCD to see if the image blurs on either side.
- Often, an LCD is "fixed" to a certain resolution, such as 1024x768. Be sure that you like the way icons and type appears on screen before buying. If the type is too small (or too large), try another resolution. If the type appears jagged or blurry, then the LCD might look best at one resolution.
- Color is not rendered sharply by less expensive flat panels. If it's a bargain basement flat panel, the color on a normal CRT probably will be better.

The availability of these flat panels mean that the CRT monitors -- the old style larger monitors -- are getting less expensive. About a year ago, I purchased a 21-inch Sony (almost top of the line) for less than \$500 off the Internet. It has beautiful color, is capable of rendering higher resolutions at a high refresh rate.

The push to flat panels also has opened up a huge market for used monitors since many people are replacing the older CRTs with this new style of monitor. Because of this, I've found used 17-inch monitors for less than \$80 and 19-inch monitors for about \$125.

Bottom line: A good rule of thumb for monitors is at least a 1024x768 resolution at 72Hz, no dot pitch larger than 26 and no smaller than 17 inches.

Unless you've got a space problem (CRTs are much larger than flat panel monitors), I'd stick with CRT monitors rather than a flat panel, which will cost less in the future as manufactures ramp up production of them. You can bet on that.

Charlie Paschal is the Editor/Publisher for the Palmetto Personal Computer Club, Columbia, SC, and a Columnist for The (Columbia) State newspaper, SC

There is no restriction against any non-profit group using this article as long as it is kept in context with proper credit given the author. The Editorial Committee of the Association of Personal Computer User Groups (APCUG), an international organization of which this group is a member, brings this article to you.

Deleting Information from Hard Drives by Gene Barlow, User Group Relations

The early hard drives on mainframe computers were not considered very reliable. Information stored on these early devices would often not record properly or may become contaminated easily. Programmers using these drives would write the data in two separate locations on the drive. Then, when the data was needed later, it would be read from both locations and compared in memory to make sure it was still the same. If differences were detected, then the program could not continue until the data was corrected and rewritten to the hard drive.

As technology advanced, special mathematical checking codes were stored with the data that could detect if the information retrieved from a hard drive was still valid. These codes eliminated the need to record the data twice, but did nothing to clean up any errors found. It wasn't long before more sophisticated checking codes were introduced that could not only detect errors, but would also actually correct most single and double character errors. Still, the recording of information on hard drives was not considered

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Deleting Information from Hard Drives...

(Continued from page 11)

real reliable and frequent backup copies of the drives were necessary. When the IBM PC was introduced with hard drives, the designers of these drives were still very concerned about loosing data on these devices. So, everything was done to make sure the data written to the drive remained on the hard drive and could not be accidentally deleted or lost. Today, it is almost impossible to permanently delete information, once it is written to a hard drive. Who would have thought that this retention of information would become a problem for computer users?

In today's world, privacy and security of information are major concerns.

Identity theft is a major problem that we all face. With just a few pieces of information about us, dishonest individuals can steal large sums of money from us and ruin our credit ratings. At the same time, computers and the internet have made information much more widely available not only to us, but to these dishonest individuals. Unless we are careful, our private information can get into the hands of these dishonest individuals and they will certainly take advantage of the situation.

Recent studies have shown that hard drives on PCs contain a wealth of private information that most users thought they had removed from the drive months or years earlier. What these users do not understand is that simply deleting a file from the hard drive does not permanently remove it from the drive. In fact, all that deleting a file does is to flag that file space for future reuse. It may be years before that space is reused with another file or it may never be reused. So, the deleted information remains on the hard drive, hidden from the user, but still there. Dishonest individuals using commonly available software can find and access all of these deleted files.

Users that are knowledgeable enough to know that deleted files remain on the hard drive are often surprised to learn that formatting the hard drive does not get rid of these deleted files either. All the formatting function does is to create a few tables at the beginning of the partition. The deleted information on the hard drive is not removed or changed during a format.

Operations such as defragging a hard drive only cause your private information to be copied and spread across the entire hard drive. So, how can you permanently remove private information once it is written to a hard drive?

The only effective way to permanently remove information from a hard drive is to write blanks or zeros over the top of the deleted information. This obliterates the information that was written there earlier. To do this, special hard drive wiping utilities must be used. Two of the best hard drive wiping utilities were developed by WhiteCanyon Software. I have come to know and rely on these excellent products. One or both of them could make your job of keeping your hard drive clean of hidden private or personal information easy to do.

The first of these two products is called WipeDrive. This is the bulldozer of the two products. When you use it to wipe your hard drive, it starts at the beginning of the drive and writes blanks on top of everything on the drive. It continues to wipe the drive until it reaches the end of the hard drive. When it is done, the entire drive is totally clean and empty. Nothing remains on the hard drive that a dishonest person could see or use against you. Everyone should use this utility before they sell or give their old computer or hard drive away. Otherwise, you are giving away all of your private information with your old computer. WipeDrive boots from a diskette or CD and can wipe all PC type hard drives. WipeDrive sells for up to \$45 in computer stores, but user group members can obtain a copy from our User Group Store for just \$24.

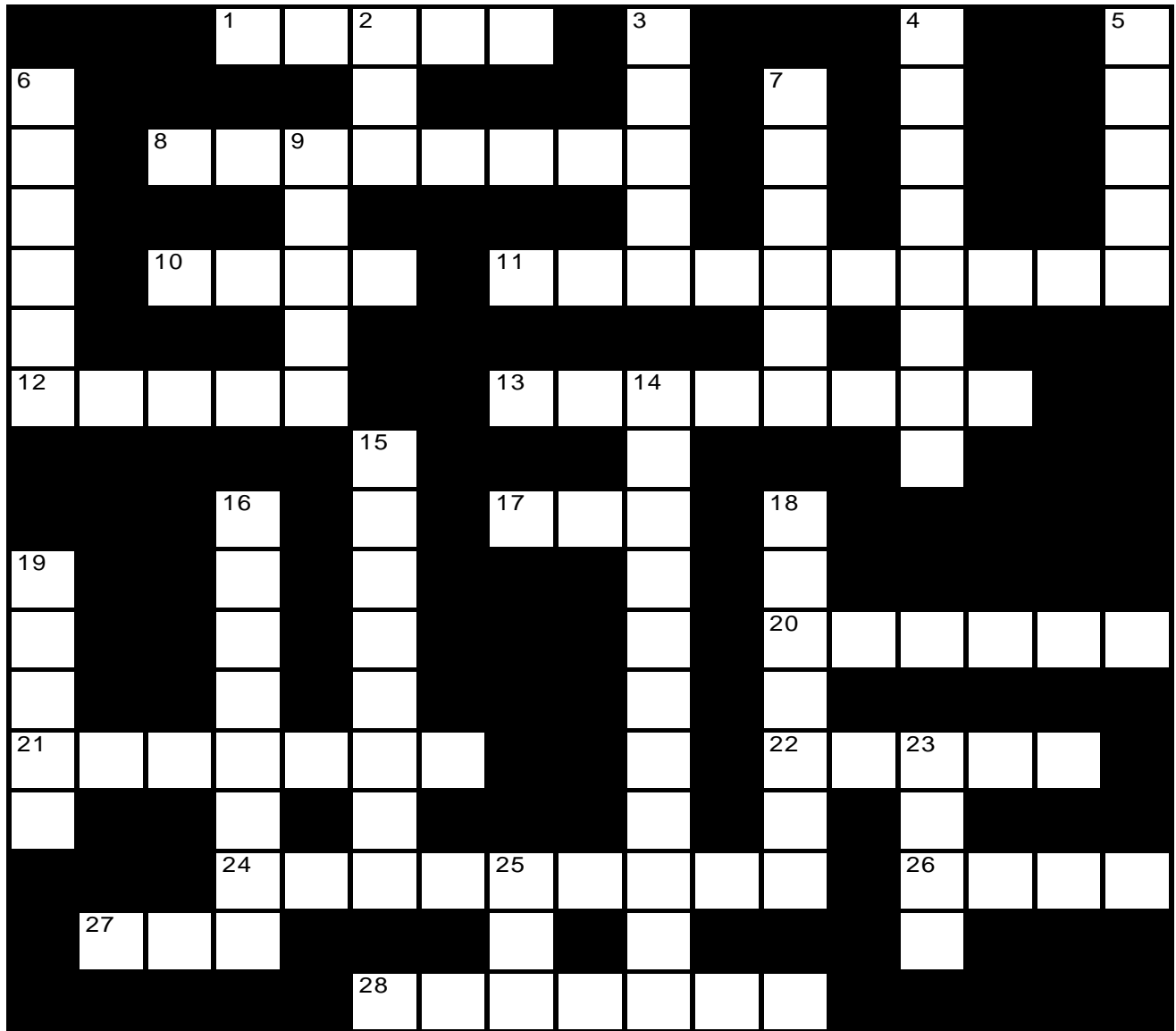
The second of these two products is called SecureClean. This is more like a vacuum cleaner, than a bulldozer. It vacuums the dirt out of the carpet, but does not knock over the furniture or the walls. In other words, it can clean the deleted information off your hard drive, but does not disturb the actively used files on the drive. The selective ability of SecureClean to wipe your hard drive, but not disturbing your current files, makes it the ideal tool to use on your current hard drives to keep them clean of deleted information. I recommend that you run SecureClean about once a month on your computer to permanently wipe over all deleted information on the drive.

Packaged with SecureClean is a bonus utility call SecureScan. This product will scan your hard drive and show you all of the deleted information that is hidden on the drive. You will be surprised at what you'll find still on your hard drive. You may find personal files that you deleted months or years ago that are still on the drive. You may even find some files that were accidentally deleted and you thought they were forever lost. If a deleted file is still complete, SecureScan can even bring this file back to life and make it available again on your hard drive. This un-delete function of SecureScan is not the main purpose of this program, but a nice additional feature that you may want to use. SecureClean and SecureScan install on any Windows operating system. SecureClean sells for \$40, but user group members can obtain a copy from our User Group Store for just \$24. Buy both WipeDrive and SecureClean/Scan for just \$39, a \$60 value.

To order either or both of these excellent hard drive wiping utilities, go to the User Group Store at www.usergroupstore.com. (or www.ugr.com/store) You can read more about these two products in the security department of the store. Click on any of the Buy Now buttons to get to our secure web order form. Complete the form including the special code of UGWCM04. You will be given the chance to verify and correct your order before it is submitted. Once you submit it, we will receive it shortly and normally we ship all orders the following morning. You should have your products in just a few days. While you are at the User Group Store, check out the many other products we offer, all at great user group discounts.

Preventing personal and private information from building up on your hard drive is important for all of us to do. Get the tools you

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This month we will be observing this nation's birth and giving thanks for the freedoms we enjoy. Computers and technology can also free us from work and allow us to feel free to explore, create, relax, and recreate. As with all freedoms, however, there is always a price to be paid. Check out this month's puzzle for a list of freedoms (and problems) that we now enjoy. If you need help, go to www.dvpc.org/solution.html.

Across

- 1. Used with your keyboard to input data
- 8. Keeps unauthorized users out of your files
- 10. Type of phone that can be used while you are out in the garden
- 11. Use of measurements of the body to identify
- 12. Item used to receive data remotely
- 13. Wireless way of transmitting data
- 17. This keeps your computer from building up heat
- 20. Lightweight, mobile computer
- 21. System for reducing temperature
- 22. Type of file for saving sound
- 24. Object in orbit

26. Unwanted e-mail

- 27. Device that uses satellite data to pinpoint your location (give or take 100 miles)
- 28. CRT or flat screen

Down

- 2. Emergency power for your computer
- 3. Type of file for recording a series of images
- 4. The linking of computers to servers throughout the world
- 5. Unwanted program
- 6. Copy of data for use in an emergency
- 7. Device for capturing images
- 9. Power from the sun

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Computer Crossword...

(Continued from page 13)

- | | |
|---|---|
| 14. One way some computers identify users | 18. Programs designed to harm your system |
| 15. The linking of computers within a closed system | 19. One way some computers identify users |
| 16. Technology to allow devices to communicate without cables | 23. Flat, round storage medium |
| | 25. The linking of computers and devices within an office |

Deleting Information from Hard Drives...

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need to keep your drive clean today. If you have any questions about these products or this technical newsletter, please contact me at gene@ugr.com. I look forward to helping you.

Gene Barlow

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This is one of a series of monthly technical articles that I plan to distribute on a regular basis in the coming months. Watch for them and learn more about your computer and its hard drive. User group newsletter editors may print this article in their monthly newsletter as long as the article is printed in its entirety and not cut or edited. Please send me a copy of the newsletter containing the article so that I can see what groups are running the articles.

Hardware Hacking: Have Fun While Voiding Your Warranty by Alan Mildwurm, DVPC

A Book Review

Sometimes unexpected gifts turn out to be the most fun. A student of mine presented me with a copy of **HARDWARE HACKING: Have Fun While Voiding Your Warranty** by Joe Grand, published by Syngress Press. This book is distributed by O'Reilly, so DVPC members can get 20% off by using our discount code (DSUG)!

If the title doesn't bring a smile, then Kevin Mitnick's quote across the top: "If I had this book 10 years ago, the FBI would never have found me!" will certainly draw your attention. Kevin is a technical reviewer of this book.

So what does this book cover? Essentially the author and a host of contributors have developed "hacks" for lots of common devices. These hacks will add additional features, correct flaws, improve performance or mod (improve the look of) the device.

Each chapter is a different project with the first few chapters devoted to the needed tools and electrical engineering basics. There is even a lesson on soldering. Each chapter has hints and tips and warnings of potential hardware harm.

Covered topics include hacking your Playstation 2, building a terabyte Firewire hard drive, hacking your iPod, 802.11 gear, hacking the Atari 2600, 5200 or 7800 and several more. For example, in the iPod chapter you learn how to replace the battery, replace the hard drive, install the Windows firmware on older models, fix the scroll wheel, enter the diagnostic mode and even install Linux (don't ask me why). The chapter discusses each version of the iPod including the new mini and the hacks are tailored to each version. Also included for each project is a list of websites for further info and drivers if necessary.

I wanted to try a hack and decided that I would try the chapter on *Declawing your CueCat*. Many of you remember that several years ago Radio Shack gave away CueCats which were little barcode readers. In their ads they had special barcodes you could scan which would take you to a website with more info on the product. What they didn't tell you was that the CueCat had a unique identifier. They were collecting specific data about you. Perhaps the first spyware????? Many people were incensed about this and after giving away gazillions of these things, the concept died. Before it did, many learned how to remove the unique identifier chip and remove the encoder to turn the CueCat into a straight barcode reader. Interestingly, the makers of the unit threatened to sue people who did this. The book catalogs this interesting story and describes how to accomplish the "declawing" in all three versions of the CueCat (2 screw, 4 screw and USB model). The directions and prolific step by step pictures make the process child's play. The explanations of what you are doing and why the hack works is interesting reading. I now have a working barcode reader that

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Hardware Hacking: Have Fun While Voiding Your Warranty...

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returns standard barcode data. I'm not sure why I need a barcode reader but it was a fun project to initiate the book.

Having successfully accomplished this task, I am perusing the book for my next project. Obviously some of the hacks are for older hardware and as the title advises – it will void your warranty on the newer stuff but it is amazing to see how clever people are in learning to modify and improve products!



This picture showing the 2 and 4 screw models is actually from one of the many websites listed in the chapter. Check out air-soldier.com/~cuecat or www.cuejack.com for more info on this device-including new software for it!

Digital Photography and Printing by Charlotte Semple, Los Angeles Computer Society

Lee Otsubo is best known as The Digital Photo Guy. He has become a familiar figure to many user groups as he shares his knowledge and experiences in digital photography. He emphasizes two basic topics in his presentation:

- 1) How to get the most out of a digital camera (or how to buy one) and,
- 2) How to share and display great digital Photos.

Megapixels

Mega comes from Greek, meaning "great". In technological terms, it's a prefix for millions. A 3½-inch floppy holds 1.44 mega bytes, which is 1.4 million bytes of data. A megapixel is 1 million pixels.

So, "What the heck is a pixel?" A pixel is a made-up tech term for "picture element." If you look closely at a newspaper photo, using a magnifying glass, you will see hundreds of tiny dots, some dark, some light and some in between. As you move the photo away from yourself, setting aside the glass, you will not be able to discern the dots any more, instead you will see the whole photo. Digital cameras work the same way. They use millions of pixels, (mega pixels, or MP), to make a photo. i.e. a 2 MP camera converts what the lens sees and records it as 2 million pixels on a memory card. A mega pixel is a measure of the camera's capability to capture detail, which is also called resolution.

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Digital Photography and Printing...

(Continued from page 15)

You need to be aware of what kind of photography you are interesting in doing and what you are going to do with the photos in order to make the best use of the finite number of pixels your camera can generate.

CCD

The CCD (Charge Coupled Device) is the central processing unit of the digital camera. It is somewhat like the CPU in a computer, but unlike the CPU, the CCD has only one function. It takes images and munches and crunches them. The CCD of a 2 mega pixel camera contains 2 million light sensors. Each light sensor produces 1 pixel. Each pixel represents 1 of 16.7 million different colors. Each pixel has a red, green and blue component of color. Each component is a byte (of data). Each pixel has three bytes of data. A 2 MP camera produces 6 million bytes of data. Enough data to fill five 3½-inch floppies!

Cycle Time

This is the time needed for the CCD to munch and crunch data and get it out of the way in time for the camera to be ready to take another photo.

Lag Time

This is the time a digital camera needs to look at a subject and fire enough electrical charge to be ready so that when the shutter button is pressed, the camera will capture the image of the subject.

Munching and Crunching

After the CCD captures the image it has to compress it. A 2 MP camera uses (munches) 6 million bytes of data for each picture at high resolution. This has to be compressed (crunched) down to 1 mega byte of data. Many cameras have different settings for resolution. Lee recommended that you keeps your camera on the highest setting and leave it there. If you change it for a lower resolution shot and forget to re-set it to the higher level, and you use the camera again, thinking you are taking high-resolution shots, you will be disappointed in the results. You can always throw away extraneous detail, but you cannot put it in if you didn't capture it in the first place. Some digital cameras display settings in the viewfinder, so it's a good idea to pay attention to the information being displayed so you won't be disappointed with your next shots!

Input – The Lens

This is the first and last place where there is any real resemblance between the digital and film camera. The typical focal length of a 35mm point and shoot camera is around a 35mm to 105mm zoom. 35mm is called moderate wide angle, and you see more of your subject; 105mm is called medium telephoto, and you see a smaller area of your subject. Most digital cameras have a 3 X zoom, which goes down to the equivalent of 35mm, for a moderate wide-angle shot, out to the equivalent of 105mm for a medium telephoto shot. There are two types of Zoom: Optical, which is "real" zoom and is done 100% by the lens, and Digital, which is electronic trickery. When you activate the zoom function on a 35mm point and shoot film camera, you can hear the lens moving in and out, increasing or decreasing the size of the image to be captured. This is "real" zoom. When the electronic zoom on a digital camera is activated, the zoom plays a trick on the image. The lens captures the center section of the image and stretches the pixels out to fill the frame. But you lose some resolution and the photo will not be as clear as a photo taken using optical zoom.

Using a photo imaging tool on your PC, and enlarging a photo large enough so straight edges are no longer straight, you can see the points of individual pixels. In tech terms, this is called "Jaggies." Under the same conditions when looking at a photo of a person, you can see individual square pixels. In tech terms, this is called "Pixilation".

When buying a camera be aware of what component of the camera is optical zoom and what is digital zoom. Some "smart" marketers might advertise a camera as having 6X zoom capability, where they have multiplied the 3X Optical zoom by the 2X Digital zoom. Another way marketers might advertise a 6X zoom is where they have taken a cheap 2X optical zoom and bumped up the digital zoom to 3X, calling their product 6X zoom. When you buy a digital camera, you must be really careful to read the fine print. Don't always go by the advertising printed on the box.

More About Zoom

If you are taking photos at a back yard BBQ, and you are able to fill the camera frame with subjects, you probably will not need a zoom. If you are going to be taking outdoor photos with subjects 20 to 30 feet away, a 3X Optical zoom camera is probably all you would need. If you are in the "nose bleed" section of a sports arena, and your subjects seem to be 6-inches tall, you will probably need anywhere from a 6X, 8X, 10X, to 12X zoom. You should be aware of the kind of photography you want to do so that the right type of zoom lens can be obtained. What you want is the widest range of optical zoom. Some digital camera with a large zoom

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Digital Photography and Printing...

(Continued from page 16)

range, like 10X or 12X, may also have an additional digital zoom of 3X or 4X which you can decide to use or ignore depending on the pictures you are taking.

Output – USB

Most modern digital cameras will have a USB (universal serial bus) port connection. If a camera does not have this don't even consider it. A slow serial connection will drive you crazy. Simply plug the USB cord that comes with the camera into the computer and leave the camera end in a convenient place for ready use. A card reader makes an easy job of uploading the data from your camera into the computer. A universal Card Reader accommodates up to 8 different memory cards. Simply insert the memory card into the reader and it will look to Windows almost like a disk drive, and you can drag and drop photo files from the memory card to folders on your hard drive.

Memory Cards

These are compact flash memory cards, secure digital memory cards, xD memory cards, memory sticks, etc. The particular type of memory card that came with your camera is the type you should use. Not all memory cards are universal. The real advantage of memory cards is that they are removable and are fairly robust. Not like ordinary film. Lee recommends that you should carry at least two memory cards of a moderate range. These are all electronic devices and sooner or later you will corrupt data on a memory card. If you were gullible enough to buy only one very large range memory card, and go on vacation, and the card becomes corrupted, you are up the proverbial tree. You have two choices. Erase all the accumulated data from the card and reformat the card, losing all your photos, or not take any more photos. Neither choice is desirable. If you had two memory cards, the corrupted card can be removed and stored away safely and the second card can be inserted into the camera and you can continue taking photos. When you get home, the corrupted card can be inserted into the card reader, and a rescue software ([Photo Rescue, www.photorescue.com](http://www.photorescue.com)) can be fired up and most of the photos can be saved.

LCD

Instant gratification! You can see in an instant the photo just shot (but wait for the Cycle Time). It is not recommended that you waste time trying to decide which shots to keep and which shots to discard while taking the shots. Wait until the photos are transferred to your PC, and then make these decisions. Each time you turn on the LCD the power consumption increases by 2 -3 fold, and precious battery life is wasted. Also, when you buy a digital camera, make sure it has an optical viewfinder, and use it for much better shots. Note that digital SLR (Single Lens Reflex) camera like the Canon Digital Rebel or the Nikon D70 cannot display what you see through the lens on the LCD; digital SLR cameras have a pentaprism and a mirror that displays exactly what the lens sees through the viewfinder, and this is this is an optical, not electronic, viewfinder. So there's no image until you press the shutter which releases the mirror which moves up out of the way and what the lens sees is projected onto the CCD in the camera and then the digital image is transferred from the CCD to the memory card. Only *after* taking a picture with a digital SLR can you display it on the LCD. Digital SLRs are for professional photographers and "prosumers" (near professional-level consumers), with prices to match starting at about \$999 and quickly moving into thousands of dollars. The advantage is that they often can use the same lenses that 35mm SLR camera use. So, if you have a Canon or Nikon 35mm SLR with a set of lenses, you may want to consider a digital SLR from that manufacturer.

Power

Most digital cameras use rechargeable batteries. If your camera can accept regular alkaline batteries it will just eat them up in no time. The most popular batteries are Nickel Metal Hydride (NiMH). Some cameras might use proprietary Lithium Ion batteries, proprietary meaning expensive. The lithium ion batteries are very powerful and long lasting, lasting three to four times longer than the nickel metal hydride batteries. A warning about these batteries – be very careful how and where you store them. Don't carry them loose in a pocket with anything containing metal. You could start a fire. These batteries should be stored safely in some sort of plastic containers.

Printing

Now, what do you do with all these great photos? Print them! In order to get the best quality prints, there are 4 components that impact the quality of the prints:

1. The printer

Use a good quality photo ink-jet printer. Epson, Hewlett Packard, and Canon are the most well known and have reviews written up in most photo and computer magazines. These brands also do have a range of good quality inexpensive printers.

2. Paper

Use good quality paper. This might be somewhat of a surprise, but Epson produces the best quality prints on expensive Epson paper (about \$1.00 per an 8.5 X 11 sheet). The same goes for Hewlett Packard and Canon. Keep in mind that there are certain combinations of paper and printer that will never work. It is not advisable to use Epson paper with a Hewlett Packard printer, or HP paper with a Canon printer. etc. If you only print about 20 to 30 photos per month, live a little and buy the expensive paper. If you print hundreds of photos per month, look around for deals, but try a few sheets of a paper type first before buying a ream or you might

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Digital Photography and Printing...

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be stuck with a ream of unusable paper.

3. Image

As Lee mentioned before, keep your cameras set at the highest JPEG resolution and you will get the highest quality prints. There are two exceptions:

- a) The use of "RAW" or "TIFF" mode is mostly for when one needs the highest quality possible. e. g., taking wedding photos where everything is set up, people are standing quietly, the lighting is just right, and the camera is on a tripod. Raw, or Tiff, captures every single pixel and does not compress, creating huge files.
- b) Taking photos for the Internet, such as a web site, a photo sharing site, or for eBay. Use a low resolution that does not require compression and reduces the time between taking the shots and uploading them to the Internet, especially if you have a slow dial-up connection. If you keep your cameras at the highest resolution you will have the least compression. RAW and TIFF have no compression, that's why they will result in the best quality prints. The format used by digital cameras for compression is JPEG (Joint Photographic Experts Group), a powerful technology and an excellent compression logarithm.

4. Software

The software is the most critically important component in producing good prints. Remember when Lee talked about those square pixels where just 1pixel represented 1 of 16.7 million different colors in a RGB color scheme? Well, printers print round dots, each with a color spectrum of between 5 to 10 thousand different colors in a CMYK (Cyan, Magenta, Yellow and Black) color scheme. For a printer to make the transition from square pixels to round dots, it needs the support of good high quality software that is specifically written to do that job. (Someone actually figured out how to insert a square peg into a round hole!) There is, however, an insidious idiosyncrasy you must be aware of with JPEG images. After you have downloaded your photos into your PC. and you pick out a photo to examine and admire, and use your editing software to do something with it save it, it is re-compressed. If you open it again and save it with your editing software, it is re-compressed again. Each time you open a photo and save it in your editing software it is re-compressed. Each time it is re-compressed it loses a little more detail, eventually becoming one ugly photo. When this happens, and you have a pristine copy of the photo on a CD, re-copy it to the PC and you will have a fresh photo to work on. The best advice is not to save it each time you look at it. You can work with a photo, changing its composition and print it without saving the changes. CDs, when used regularly, also degrade. So make 2 CDs of your photos, keeping one in a safe place.

CDs

The most important reason for copying digital photos onto CDs is that digital photos have no negatives. If you transfer you photo to your computer, and if you computer fails (and it will by Murphy's law) and you have not copied them to CDs, you are out there up the proverbial creek. Your photos are history. The CD is your "negative".

There is no restriction against any non-profit group using this article as long as it is kept in context with proper credit given the author. The Editorial Committee of the Association of Personal Computer User Groups (APCUG), an international organization of which this group is a member, brings this article to you.

Don't Be a Victim of Health Scare Stories by Alicia King Padgett, APCUG Advisor for Region 9

Health scare artists are utilizing the Internet as a medium for terrorizing the public, and unfortunately many adults are taking the stories seriously. These tall tales are often written citing evidence and research that sounds legitimate. Frequently an e-mail is sent to you from a reliable friend who had received it from another acquaintance who had "personal knowledge or personal experience" with the alleged dangerous item. The health scare messages are always the same—whatever it is will make you sick or even

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Special Raffle Promotion

Bring a guest to a DVPC meeting, you get 10 Raffle tickets!

**If your guest joins at the meeting, you get 10 Raffle tickets —
and your new member guest also gets 10 Raffle tickets!!**

Don't Be a Victim of Health Scare Stories...

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cause death.

If you try to research accurate health information about the topic sent, you may literally become caught in the Web, where health hoaxes and urban medical myths run rampant. Many of these Websites appear to have valid researched data.

Before you decide to believe or, worse forward e-mail with serious health claims, do a little checking. Start on the Web with www.urbanlegends.com or www.snopes.com that catalogue the more persistent rumors. These two sites also detail persistent legends on other topics in addition to health scare stories.

Then go to reliable health sites, like:

www.mayohealth.org for general health

www.medhelp.org especially good for cardiology

www.oncolink.org for cancer

www.cancer.gov for cancer

www.navigator.tufts.edu for nutrition

www.fda.gov for latest updates on food/drugs as well as extensive archives

So keep yourself informed and don't become one of the individuals caught in a web of confusion by believing the stories and passing them on to others.

Many of us have been victim of health-related frauds, myths, and fallacies. We have to make many decisions about our health and care and want to make them will informed. This site will keep you up-to-date on the latest findings on health care frauds.

Quack Watch is an informative site that deals with such issues like growth hormone scams, coral calcium, and acupuncture. It has a section on allergies and alternative medicine. You might want to start with *Tips for Navigating our Web Sites*. In the "Quackery" section you will find the following sections: Seven Warning Signs of Bogus Science, Ten Ways to Avoid Being Quacked, Signs of a "Quacky" web site. Always seek a second opinion, but please peruse www.quackwatch.org.

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Internet Annoyances by Sherry Zorzi, Cajun Clickers Computer Club, Baton Rouge, LA

The Internet is full of creepy-crawly beasties. Spam, popups, hoaxes, cookies, spyware – what are these critters and how do I tame them???

Spam – unsolicited, usually commercial email, also known as UCE. You can't stop it; the best you can do is try to limit it.

- Don't post your address on publicly-accessible websites (newsgroups, chat rooms, directories). Web "crawlers" harvest these addresses for spammers' mailing lists. You can obtain free, "throwaway" email addresses at sites like Yahoo (www.yahoo.com) or Hotmail (www.hotmail.com) to use in these situations.
- When you register for a legitimate website (Microsoft, Amazon, Delta Airlines, etc.), opt-out of any newsletters or mailings they offer to send you. If opting out is not offered, don't register for the site unless you want advertising email!
- Use "filters" in your email program to automatically route suspected spam to a special folder, which you can check periodically and delete. Or use special (free!) software, like MailWasher (www.mailwasher.net) or K9 Spam Killer (www.keir.net/k9.html) to automatically check incoming mail and handle suspected spam for you.
- Don't ever follow directions to "unsubscribe" or stop receiving mail, unless you know you are dealing with a reputable source. Replying to the message or clicking a link to supposedly unsubscribe is often just a ruse by the spammer to verify that your email address is valid and that you are naive enough to open spam. You will get more, not less, spam!
- Use SpamCop (www.spamcop.net) to report spam. The service is free. They will automatically report, in your name, the true source of the spam to the appropriate ISPs.
- Send a copy of the spam, with full headers, to the Federal Trade Commission at uce@ftc.gov. They keep a database of fraudulent spammers.

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Buy extra raffle tickets and increase your chance of winning – as you support *DVPC!*

Internet Annoyances...

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- Support strong legislation at the state and federal level to stop the scourge of spam!!! Write, call or email your Senators and Representatives and urge them to support strong legislation.

Popup — advertising that “pops up” in a small window of its own. Some websites pop up an unsolicited ad in a window on top of the page you are trying to view. Others hide the popups beneath the site you’re visiting, so that you see it when you finally close your main window. Some sites pop up several, or even dozens of popup ads - sometimes “freezing” the computer. The new popup scourge is controlled by one or more programs hiding on your computer, causing popups even when you are not online! They are all bad, bad, bad!

The best way to squash popups is with free software like Popup Stopper (www.panicware.com). Works perfectly and the price can’t be beat!

Hoax — fictitious email forwarded around the Internet by your well-meaning friends. Flesh-eating bananas, large corporations controlled by Satanists, viruses that cause your computer to catch fire - all are fabricated hoaxes. Most of us have at one time been taken in by one of these, forwarding it to everyone in our address book only to be embarrassed to find out it’s a fake. Any email, even if it’s from your mother, that says “Please forward this to everyone in your address book” is a hoax. Any email that promises you will get something for nothing is a fake.

- Never, ever forward anything to everyone in your address book, no matter how “true” it sounds. Even if it is supposedly from IBM, Microsoft, or the government.
- Type a few keywords from the email into a search engine like Google (www.google.com) and follow several of the links that come up. You should quickly discover that the mail is a hoax.
- Before you hit “forward”, check out the “story” on one of the websites that specialize in de-bunking urban legends and hoaxes: Snopes (www.snopes.com), Urban Legends (www.urbanlegends.com), HoaxBusters (www.hoaxbusters.com)

Spyware — technology that aids in gathering information about a person or organization without their knowledge. Spyware usually comes “hidden” within software you voluntarily install. Along with what you wanted, you also get a small piece of software that installs itself behind the scene and sends back information on your surfing habits to an advertiser or marketing company.

You can control spyware with some free tools available on the web. The tools will either prevent spyware from getting on your machine, or remove it once it is there.

- Ad-aware (www.lavasoftusa.com)
- SpyBot Search and Destroy (beam.to/spybot)

Cookie — a small text file placed on your computer by a website you visit. Cookies can be innocent, but some operate as spyware. Spyware-controlling software like Ad-aware will control spyware cookies, too. You can also exercise some control over cookies in Internet Explorer by clicking Tools, then Internet Options. Click the “Privacy” tab to allow or disallow various kinds of cookies on your system. Be aware that some features of some sites won’t work properly unless you allow cookies.

Virus, worm — a piece of programming code that causes some unexpected and usually undesirable event, such as spreading itself (in your name!) to everyone in your address book, locking up your computer, or deleting important files. They can be transmitted as attachments to an e-mail, as downloads, or be present on a diskette or CD.

- Install antivirus software and keep it up-to-date. Popular brands include McAfee Virus Scan, Norton Antivirus, and Trend-Micro PC-cillin. Free antivirus software, which works well, is available at www.grisoft.com. HouseCall, a free online virus scanner, is available from TrendMicro at housecall.antivirus.com/housecall/start_corp.asp.
- Don’t allow “autopreview” features on your email programs. When an email message is previewed, it is really “opened,” which can trigger a virus.
- Don’t open email messages or attachments from unknown sources. Even when mail is from a trusted source (such as your mother), don’t open any attachments unless you are expecting them without checking with the source first to be sure they intended to send the attachment and are sure it’s virus-free.

Trojan horse — similar to viruses and worms, Trojan horses are particularly nasty as they can open up ports on your computer, making it possible for an intruder to control your computer remotely.

Anti-virus software is not great at catching Trojan horses. You should install and periodically run a Trojan scanner, such as the free SwatIt (www.swatit.org).

If you use the available tools, your Internet experience will be more pleasant for you, your computer, and for all your email correspondents. Don’t forget the most important tool of all — **YOUR BRAIN!** Use it.

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XP SP2

Windows XP Service Pack 2, scheduled for release next month, will be available as a "critical" download on the Windows Update site and will ship with new PCs. The update will introduce technologies for network protection, memory protection, secure e-mail handling, secure browsing and PC maintenance. A new Windows Security Center allows firewall monitoring, Automatic Update and third-party anti-virus software and warns customers when they need to apply patches. Microsoft will probably ship free CDs, but consumers will probably pay for shipping and handling.

PCs as Multimedia Hubs

Chipmaker Intel and PC makers are shifting the PC to multimedia hub for the home. Intel predicts two new categories

- Entertainment PCs will imitate stereo and video components, like a VCR, and will play music and DVDs, record TV programs and even show picture slide shows. Entertainment PCs will use your TV for display and be operated by remote control.
- Lifestyle PCs, designed to inhabit bedrooms and kitchens, will look like desktop computers and will be operable via remote control or keyboard, allowing users to write an e-mail and later play a video or music. Lifestyle PCs will also come with multimedia software such as Windows XP Media Center.

The new PCs will be pricey. An entertainment PC might start at \$700 - \$900 and sell for \$1,400. Lifestyle PCs could start at \$600, but with a large flat panel display could sell for as much as \$2,000. PC makers have also announced plans to offer special media adapters called the Windows Media Center Extender, which will let consumers view Media Center files on TVs.

SnapStream Media has also figured out a way to get your PC in touch with TV. Firefly is a remote control that lets people manage media and entertainment on their PCs — TV tuning, DVD playback, streaming video, digital music players and photos. Firefly is compatible only with Windows XP and Windows 2000 PCs equipped with a 500MHz processor, 128MB of memory, 100MB of free hard disk space, and a CD or DVD drive. Firefly will cost \$49.99.

HP Media Center PC

HP's Media Center PC of the future has a remote control with a built-in LCD screen for programming recordings. The PC, known as the Windows Home Concept, also supports Internet telephony, dual high-definition TV tuners, biometric security, and a built-in cable modem. For a web-based slideshow and more information about these new concept PCs, see:

www.eweek.com/article2/0,1759,1586428,00.asp.

Internet2 File-Trading Network

Internet2, the high-speed network designed to facilitate scholarly collaboration among university researchers, has spawned a new turbo-charged file-trading network dubbed i2hub. University network administrators are concerned that copyright violations are occurring and a computer support specialist at Florida State University says: "The fact is, (the network) cost a lot of money and downloading games and music should be the last priority on any campus network."

Wi-Fi and (as?) Art

Yury Gitman, a self-described "wireless and emerging-media artist" in New York, has outfitted his bicycle with an iBook laptop and Wi-Fi antennas so that everywhere he goes, a cloud of free, high-speed wireless Internet access follows. Demand for wireless Internet access in automobiles has been picking up, and plans are to offer it in airplanes soon.

Faster RAM

Memory designer Rambus, has begun to license designs for interfaces for DDR DRAM, or double data rate DRAM, the most common type of memory found in PCs and a technology that's often used in consumer electronics devices. The interfaces let another component retrieve data out of DDR DRAM chips. A new version, called DDR 2, will be released soon that runs at 533MHz. It will soon speed up to 800MHz.

Small Business Equipment Write Off Opportunity

Last year, Congress increased the amount small businesses can write off on new equipment purchases from \$25,000 to \$100,000. Known as the Section 179 deduction or the SUV tax, the increase is serving as motivation for sport utility vehicle purchases, but also is an incentive to purchase technology-related equipment. It's available only through 2005, so businesses should decide quickly whether or not to spend while the spending is good.

New IBM/Lotus Software

IBM plans Web-based desktop software. Lotus Workplace strategy, is a bundle that includes e-mail, word-processing, spreadsheet and database applications aimed at business users. The new software is designed to be distributed and accessed through a Web server, and accessible from systems running Windows, MAC, Linux, Unix and handheld devices. IBM hopes to sway customers to Lotus Workplace with ease of management, mobility and price. The new software is designed to be used offline, so mobile users on laptops or handheld devices can connect, quickly access applications and disconnect to work offline. IBM plans to charge \$2 per user per month for access to the software, plus the cost of server software to make the system work.

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Tech News...

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PC Game Used for TV Show Battle Scenes

The History Channel's 13-episode series on "Decisive Battles" that debuts July 17 makes use of a not-yet-released PC game to re-create the epic battles that mark ancient Rome's colorful history. "Rome: Total War" will be published by Activision this fall.

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Use Run Commands for Fast Access by Linda Gonse, Orange County PC Users' Group

Did you know that the Run command is the Swiss Army knife of Windows' built-in apps? Using it can make your computing time move along more quickly and smoothly.

Available since Windows 3.1, the Run command is often overlooked by users except as an option for installing programs, although techies use it frequently to access various system diagnostics and information.

But the average computer user should take a closer look at Run for its versatility to start programs and utilities, to open files and folders, to open web sites (when connected to the Internet), and as an alternative to placing shortcuts on the desktop.

To use Run, left click on the Start button, then click on Run. If you hate to take your fingers off the keyboard to access Run, you can avoid using the mouse by holding down the Windows key on your keyboard and the letter "r". Commands are typed into the Open field. For example:

In the Run box Open field type *msconfig* to give you quick access to the Startup Configuration tab. Click on the Startup tab, and check or uncheck boxes of programs you want to run on Startup. (You will be prompted to restart your computer. If you want your custom startup to take effect immediately, click OK.) *msconfig* is one of the Run commands you will probably use often.

Following are other Run commands for you to try out. (If you get hooked on Run, you can search Google for "run commands" to find others. There are lots of them! Many will include "switches," familiar to DOS users, which will allow some of the commands to be customized.)

- calc (opens calculator utility)
- cdplayer (opens cd player)
- charmap (opens character map utility)
- clipbrd (opens clipboard utility)
- command (opens DOS window at command line)
- defrag (opens defrag utility)
- drvspace (opens drive space utility to compress drives, etc.)
- dxdiag (for DirectX, sound, input devices-joysticks, etc. info)
- freecell (opens freecell game)
- mplayer2 (opens Windows Media Player 6.4)
- msconfig (accesses programs that run on startup)
- mshearts (opens hearts game)
- msinfo32 (accesses system resources info)
- notepad (opens program)
- regedit (accesses command to edit the registry)
- rsrcmtr (loads resource meter utility in system tray)
- scandskw (accesses scan disk utility)
- scanregw (registry scan)
- sndrec32 (opens sound recorder)
- sndvol32 (opens sound volume utility)
- sol (opens a solitaire game)

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Use Run Commands for Fast Access...

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- sysedit (accesses the System Configuration Utility)
- sysmon (opens system monitor utility)
- win.ini (accesses file that loads some Windows components)
- winipcfg (displays Internet connection/adaptor info)
- winver (displays the Windows version installed on the computer)
- wmplayer (opens Windows Media Player)
- wordpad (opens program)
- wupdmgr (connects to Windows update)

Using the Run box can also give you a jump start on addressing your email messages. Go to Run and type in `mailto:<desired email address>` and press OK. (Example: <mailto:editor@orcopug.org>.) Your e-mail application will open to display a blank new message that already has the email address you typed in the 'To:' field! You can even check websites by typing in a web address in Run. (Example: www.orcopug.org.) When connected to the Internet, you will be whisked to wherever you want to go.

Among the switches you can type in the Run box to customize tasks are `attrib`, `move`, and `xcopy`. DOS command and switches, and instructions on how to use them in conjunction with Windows Run, are at:

www.Techiwarehouse.com/DOS/XP_DOS_Tutorial.html

and

www.computerhope.com/msdos.htm#02

As you type commands in the Run box, a list of your Most Recently Used (MRU) commands — a history of the commands you've used — accumulate. This growing list can come in handy, because you can just click on any command to activate it without retyping it.

On the other hand, you may not want to wade through a long list, or you may not want others to have access to the visible commands. In these cases, you need to clear the MRU commands. Here are two ways you can do that.

1. Right click the start button and go to properties. Click on the radio button next to Start Menu and click on the Customize... button. Then, click on the Advanced tab. Locate the Run box and check the box on the left. Then, click on clear history.
2. You can navigate to `HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\RunMRU`. This is where you will find all the commands in the Run history. Delete the ones you don't want. But backup the registry first!

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A Journey into the World of Logo Designing *by Guenter Schott, Fallbrook PC Users Group*

To begin this journey I would like to make clear to all of you that I am not a guru on logo design, but through many years of having been in the graphics business much of what is described here has been experienced in one form or another and used personally on many occasions. As you will see while reading this article, this is a "huge" subject that requires a lot of considerations and has a lot of answers.

Defining the Word Logo

A logo (clipped form of logotype) is an expression of the essential substance of a particular company, institution, or organization, of an idea, a special occasion, or a product. Logos are visual signs, and their form comes from the object they depict or from related associations. Geometric or natural forms can inspire logotype designs. For example, the environment could be symbolized by a stylized leaf. Other sources are scientific symbols, heraldic forms, or visual representations of the word in question. The locality of a subject might be important enough to be pictured. Purely naturalistic forms, however, are rarely effective. A logo can also be developed from a company's initials or the name of the product. Logos that are made up of letters, monograms, and lettering of any kind demand the same treatment as pictorial symbols. Interior space and spaces between shapes carry as much weight as the shapes themselves, and all the graphic elements have to form a unit. A logo should be more than a conglomeration of unrelated elements that are held together by a border. In other words: It is a distinctive company signature, trademark or newspaper nameplate, etc.

There is, of course, also the possibility of combining letters and pictorial elements in a single logo. Take into consideration that certain letters provoke associations such as a feeling of lightness or weight.

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A Journey into the World of Logo Designing...

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The following general principles apply for all logos, pictorial or based on letters:

- A logo must be easily recognizable; it has to be simple and memorable.
- The purpose of the logo should influence its form.

Most graphic forms of advertisement are based on or include the logo of the subject; the logo usually appears on letterheads, brochures, labels, packaging, and delivery vans. All details should still be visible if the logo is substantially reduced. Unlimited enlargement should be possible, though a variation of stroke thickness might be necessary for very large versions. The logo has to be reproducible in black and white and positive or negative, and it is useful if a representation in several colors is programmed into the design, but it is rarely feasible to concentrate on color exclusively. It has to stand on its own as well as fit into a frame. Consider the possibility of relief or free-standing sculpture.

Logos are protected by law. A new design must be original and may not create associations with already existing ones. The simpler the design, the harder to avoid this problem. Logos are subject to fashion. The taste of the public changes in the field of graphic art almost as quickly as when it comes to hem lengths. Since the logo is an essential element of all graphic design pertaining to a product, it should be changed only if absolutely necessary, and then only gradually, especially if old and established products are concerned.

Budget Consideration

When you talk to a prospective client, it's important to ask about their budget; not only for the design of the logo, but also for printing. Maybe they're a large company and can afford four color process printing, or have a need for four color advertising. Then it's okay to design a four color logo — after you've designed the black and white version, of course. If they're a medium sized business, and can afford two color printing, then it's okay to use shades of a color, and touching colors. But if it's a small start-up company with a limited budget you might recommend a one-color design, with shades of that one color. Or you might design a two-color logo, but one that doesn't use shades of those colors and whose colors don't touch. Costs will be significantly reduced. Another option is to design several versions of the logo, and make sure your customer is aware which versions will be more expensive to print. Sometimes when the customer sees a good logo that will be more expensive to print, and they might use it for special applications, they're willing to spend the extra money. Now let's look at all the ingredients for a successful design of a corporate image. Professionally designed printed stationery packages are crucial to making a good first impression. For many small businesses, professional design is out of reach. If your logo is to be used for a commercial enterprise, you should always get information about the company and its market before you even think about designing it but certain steps aren't so cut and dried.

Gather information

It's imperative that you understand the target market before you even begin to use the many available tools on your computer to create an identity system for their business. You need to know your customer and your customer's customer, as well. Many customers may come to you and request a particular style of logo, or the use of a particular symbol. Dig deeper and find out what is unique about your customer, how they solve their customer's problems, who their target market is. If it's seniors or children, for instance, you may need larger fonts. If it's a religious group, you'll want a very conservative design. If it's young adults, you can get a bit more eccentric and employ vibrant colors such as those used in popular computer games may be the answer. So ask your customer these questions, but don't be surprised if they have a tough time answering them. Many companies forget to give any consideration to just who their target market is:

- What is the average age of your target market?
- What level of education do they have?
- What gender is the majority of your target market?
- Is there a certain ethnic group you're targeting?
- Describe the benefits of your company/product.
- What is the most important benefit to your customer?
- Do you have a unique selling point?
- What are the strengths and weaknesses of your competitors?
- What images/symbols do you want to be associated with?
- What images/symbols do you not want to be associated with?
- Do you want a logo image (graphic) or an all-text logo?
- When someone looks at your logo, what is the first thing you want them to think?
- How will the logo be used? (in print, on the Internet, signage?)

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A Journey into the World of Logo Designing...

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Have the customer tell you which logos he likes, and why, or what sort of style appeals to him/her.

Brainstorming Sessions

Brainstorming is often the key to a good logo. After you've fully explored your customer and their market, begin writing down words that apply to your customer. In fact, this is a step you should do with your customer. If your customer won't spend time in a "formal" brainstorming session, at least get them to give you a list of words that describe their company. Another method similar to brainstorming is mind mapping, which is uniquely suited to brainstorming graphics. Write a word in the center of a sheet of paper held horizontally; I normally use the customer's name. Then begin writing the main images/words this brings to mind, and connect these words to the central thought. Continue branching out from each word, using either words or images as appropriate. It's a visual way of the flow of ideas.

Selecting a Font

Look through all your fonts files and write down the names of the ones that you think might be appropriate for the logo. A print-out of your selected fonts might be helpful in seeing it on paper rather than on the monitor. Once you've decided on fonts, start setting the company name. Set it in all caps, in lower case and caps, as many variations as you can think of. Then begin assigning all the fonts you've chosen to each and every variation. Next, print it out; do not skip this step, it's very important. It's amazing how good something can look on your monitor, only to look very bad printed. Once this is done, pick the fonts you like best and move on.

Start Designing in Black & White

It's easy to make a black and white logo color, but the reverse is not necessarily true. In addition, most companies need a black and white version of their logo for fax or copying purposes. Do yourself a favor, begin designing in black and white. Black and white means exactly that: black, white; no shades of gray, no gradients. Gray and gradients do not fax or copy well. That doesn't mean that you can't use shades or gradients in the final version. A drop shadow, for instance, can often add a little "pop" to a logo. Just stick to black and white for the first design. If it works in black and white, it will work with gradients. But a logo with gradients won't always work in black and white.

Where to find Inspiration

You may have some definite ideas for the logo or you may need some inspiration. To get your creative juices flowing, consider the following sources:

- Logo books
- Clipart
- Magazines
- Newspapers
- The phone book
- Designer's Portfolios

Creating Thumbnails

Rather than moving right to the computer, begin with sketching thumbnails. They can be very rough and you should pick ten at the very least and perhaps even more. Now get as much feedback from family, friends, and coworkers as you can. The thumbnail process serves another function: it saturates your brain with the logo you're working on, and visual images are often more powerful than words. Your brain will continue to work on the logo subconsciously, and you may very well have one of those "aha!" moments when you sit down at your computer: suddenly the logo just comes together. That's because your brain has been working on it subconsciously from the time you started making sketches to the time you sat in front of your computer. Sometimes we find that our very first idea is the strongest; other times it's only after playing with a logo for a couple of weeks that the "right" one leaps out at you.

Use Your Computer

Now that you've selected the best thumbnails and fonts, it's time to put it all together. Depending on how detailed your sketches are, this may be as simple as scanning in and tracing, or you may need to start from scratch. Once you start playing with the logo on the computer, it takes on a life of its own. Often, what you thought was a good idea in your sketch turns out to be unacceptable. Just tweak it a little on your screen and it may (in your eyes) become a good solution. At this point you should be working in black and white, and small enough so that the logo will fit on a business card.

Refining the Concept

Pick the top three to five logo ideas you created, and show those to your customer. Now, the real fun begins because your ideas may not be on target! You'll need to refine the logo per your customer's feedback. If he or she doesn't like any of the concepts, ask

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A Journey into the World of Logo Designing...

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specifically what they don't like:

- Is it the graphic?
- Is it the font?
- Is it the style?
- Is it the size?
- Is it too colorful?

When you've refined your logo to everyone's liking, it's time to get final approval. You may need to go back to your client and present additional color combinations. Customers have a hard time visualizing color, so it's very important that you explain to them the difference between viewing color on a monitor, printed on an inkjet, and commercially printed. Despite the surge in E-mail use, professionally designed printed stationery packages are crucial to making a good first impression. The purpose of letterhead and related items is to express an identity, beyond the actual words used in the message.

Corporate Identity System

A basic corporate identity system or stationery package consists of letterhead, envelopes, and business cards. In some cases, labels are also included. If no logo exists and one is needed, logo design may also comprise part of the complete design package.

Use of Appropriate Colors, Fonts & Shapes

Serif fonts tend to be traditional: you'd use a serif font for a lawyer or a doctor, for instance. Sans serif fonts tend to be modern: computer and tech companies often use sans serif fonts. Handwriting fonts tend to be used for companies that cater to kids, such as daycare or children's software. Script fonts can be viewed as feminine, and sometimes traditional, too. The important point to remember is that the font you choose should convey the image of the company you're designing for. Color can play an important role in logo design. Your customer doesn't want to hear that you chose that blue because it looks cool; they want to know what psychological connotations it has. Below are some common color associations:

- Blue: trust, loyalty, water, relaxing, power, dignity
- Yellow: energy, joy, light, hope
- Pink: calming, feminine
- Green: life, growth, money, jealousy, nature, fertility
- Purple: richness, power, love, sophistication
- Brown: credibility, stability
- White: purity, cleanliness, innocence
- Red: heat, passion, danger, power

The shape of the logo can also affect the company's image. Below are some of the associations we make with common shapes:

- Circle: connection, community, movement, safety
- Rectangle: solid, security
- Triangle: exciting, powerful, aggression

Final Thoughts

How will the logo be used? In print and on the Web? If yes, you want to make sure that whatever print color you use, you can match it closely on the Web. Keep in mind that that beautiful colorful logo will be very expensive to print in four color process. Will the customer need it in a variety of sizes? Even if the customer claims that they're only going to be using the logo on the Web, you should make sure that you design with print in mind, too. Someday they may need a print version. If nothing else, make sure that you design at a resolution suitable for print (normally 300 dpi).

You know, it's relatively easy to size a logo up, but a large logo sometimes becomes too busy or even unrecognizable when it's reduced in size. A business card is normally the company's first priority. Design the logo to fit on a business card, and you and your customer should be in business. And don't forget: The best logos tend to be simple logos.

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No Windows SIG Meeting In July

Because of the July 4th holiday, there will be no Windows SIG meeting in July. Meetings will resume in August. See you then!