



March 2, 2006 DVPC Meeting Announcement **Digital Still and Video Tools and Techniques**

March is a wonderful month. March 20th marks the end of Winter and the beginning of Spring, and Spring is when we start getting out our digital cameras, still and video, to take pictures of family, friends, and vacations. So, the March DVPC meeting will have a digital still and video presentation by Nick Chase and Barry Brown to show us how to use some of the features in our cameras and video editing software to help us make better pictures and home videos. They will discuss chroma key, blue screen, and more. As usual, we expect a great show-and-tell demonstration by two of DVPC's digital still camera, digital video camera, and digital editing software experts!

DVPC meetings are held at Diablo Valley College in Pleasant Hill; see the maps and directions on pages 4 through 6 in this issue of Diablo Blue, and on the DVPC web site at www.dvpc.org/about.html. Our meetings are once again being held in room H109 in the Humanities building, on the north side of the campus adjacent to parking lot 7.

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. As usual, we'll have those great DVPC mugs (version 2) for sale, SIG news, and some of our usual great door prizes and extra raffle tickets for sale. And, we will probably dig into the goodie bag and have some neat free stuff. First come, first served, so be sure to get to the meeting early to get the goodies!

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President's Message

by Alan Mildwurm, DVPC

Greetings! Since my last message seems to have gotten lost in the ether. I thought I would incorporate some of that material in this month's article.

Last month I wrote about some of my impressions of CES. As usual, I had a great time. We spent about a week in Las Vegas and believe it or not, still didn't get around to seeing and doing everything we wanted to accomplish. We saw "O". Enjoyed it but I have no clue what it is about. There may be a plot in there somewhere- but I am not sure. The staging was incredible – pure eye candy.

We stayed at the "legendary" Stardust which is very convenient to the convention center. The APCUG gets a good rate there and the facilities are nice- but the hotel is tired. Both the Stardust and the Frontier next door are scheduled to be demolished (blown up!) later this year and replaced with several smaller hotels. As a result, I think APCUG will be at the Riviera next year – which looks even more tired than the Stardust but is also walking distance to the convention center.

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DVPC March 2006 Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2 DVPC Monthly Meeting 7:00 pm New Users SIG 6:30 pm	3	4
5 See SIG News starting on page 8 of Diablo Blue for more information about SIG meeting dates, times, topics, and locations	6 Windows SIG 7:30 pm	7	8	9 DVPC Board Meeting 7:00 pm	10	11 PC101, Computer Renaissance, 4 pm to 6 pm
12	13	14	15 Internet SIG 6:00 pm Photoshop Elements SIG 7:00 pm	16 Advanced Users SIG 7:30 pm	17 Diablo Blue Deadline. Email articles and ads to the Editor: rogg@value.net	18
19	20 Genealogy eSIG (See SIG News on page 8 of Diablo Blue)	21	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, check your favorite SIGS, 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 list 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	<input type="checkbox"/>	PC 101 Classes	<input type="checkbox"/>
Genealogy eSIG	<input type="checkbox"/>	Photoshop Elements SIG – New SIG!	<input type="checkbox"/>
Internet SIG	<input type="checkbox"/>	Windows SIG	<input type="checkbox"/>
New Users SIG	<input type="checkbox"/>	<i>Start a new SIG – See Nick Chase, DVPC SIG Coordinator</i>	

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, email newsletter editor Ronald Ogg at rogg@value.net. 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/Program Chair, 510-770-5770 (work), awm@mildwurm.com**
- Barry Brown, Publicity, barrybrown@gmail.com**
- Nicholas Chase, SIG Coordinator, 690-4211 (home), nchase@astound.net**
- Charlie Crothers, At Large, 928-2237 (home), ccrothers@sbcglobal.net**
- Dick Curry, At Large, 378-5541 (home), racorinda@pacbell.net**
- Peggy Johnson, Membership Secretary, 678-7522 (home), pegszone@aol.com,**
- Tom Krauss, Secretary, 688-8880 (home), tkrauss@astound.net**
- James Lundgren, Publicity, 355-0646 (home), philador@comcast.net**
- Melody Lundgren, Publicity, 355-0646 (home), philador@comcast.net**
- Jessica Mildwurm, Treasurer, 928-5858 (home), jess@mildwurm.com**
- Ron Ogg, Newsletter Editor and Webmaster, 952-4887 (office), rogg@value.net**
- Craid Peterson, Librarian, 671-7025 (home), campmail@pacbell.net**
- Stan Umlauf, Web Site, 458-5580 (home), stanu@honeybee.com**

DVPC on the Internet

DVPC has an award winning Web site – 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, or by email to bod@value.net.

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

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Board of Directors Elections in April

How about running for the DVPC Board of Directors? It's not a lot of work, it's a lot of fun, and you can help shape the future of the Diablo Valley PC Users Group. How do you do this? Just talk to any of the current Board of Directors members at the March meeting, give them your name, email address, and phone number, and you'll be all set.



A view of our meeting room, H109

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: _____
I'm also interested in these SIGs: _____

Directions to our Diablo Valley College meeting location

Our monthly meetings are held at Diablo Valley College In Pleasant Hill, California. The Main Campus is located at 321 Golf Club Road. Our meetings are held in Humanities Building H, shown on the map below near Viking Drive. We meet in room H109.

Driving Directions (see the map on page 6):

680 Northbound:

Exit at Willow Pass Road. At the end of the exit ramp turn left onto Willow Pass Road. Continue on Willow Pass Road to the second signal and turn right on Contra Costa Blvd.

680 Southbound:

Take the Concord Ave. Exit. Turn left on Contra Costa Blvd.

Direction into the Campus:

From Contra Costa Blvd. turn west on Golf Club Road. At the left turn just past the traffic signal at Old Quarry Road turn left into the campus. Immediately turn right and continue to parking lot 7. Turn left down one of the rows and park close to the buildings. Purchase a parking permit and put it on your dashboard. DO NOT park in metered or faculty spaces!

Finding Your Way (see the maps below and on page 5):

Notice that there's still a lot of construction going on at DVC. To prevent confusion, for parking and to get to our meeting room follow the instructions that are in boxes with red borders on the map below, and take the path from Parking Lot 7 to room H109 that's marked in blue. Press the large handicapped button to open the unmarked outside door to room H109.

Parking Fees:

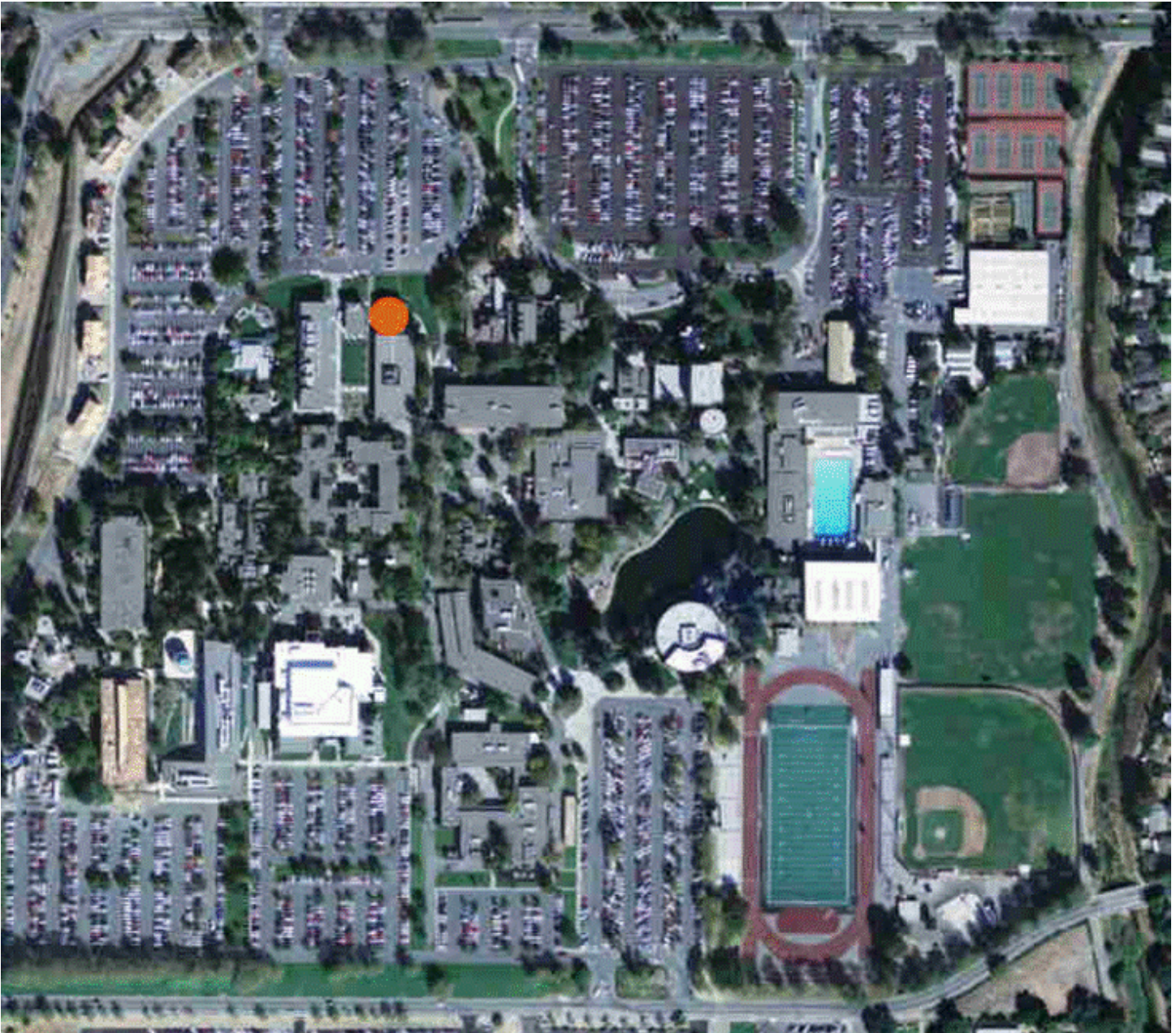
On the Pleasant Hill campus parking permits are \$2.00 per day for short-term parking. You need to purchase a parking permit and place it face up on your dashboard so it is clearly visible through the windshield. You can purchase permits at the parking permit machines marked with a red star on the map at the right. Parking permit machines only take quarters. Be sure to bring sufficient change! Permits are required Monday through Friday including the times that DVPC meetings are held! Do not park in metered or faculty spaces.

If you attend classes at DVC and have a campus parking permit, you can use it when you attend DVPC meetings. You might want to carpool to save parking fees.

Be sure to purchase a parking permit! Fines range from \$35 for parking in a regular space without a permit, to over \$275 for parking in a space reserved for the handicapped.



Aerial View of the Diablo Valley College Campus
(DVPC monthly meetings are held in room H-109 in the building marked with the red circle)



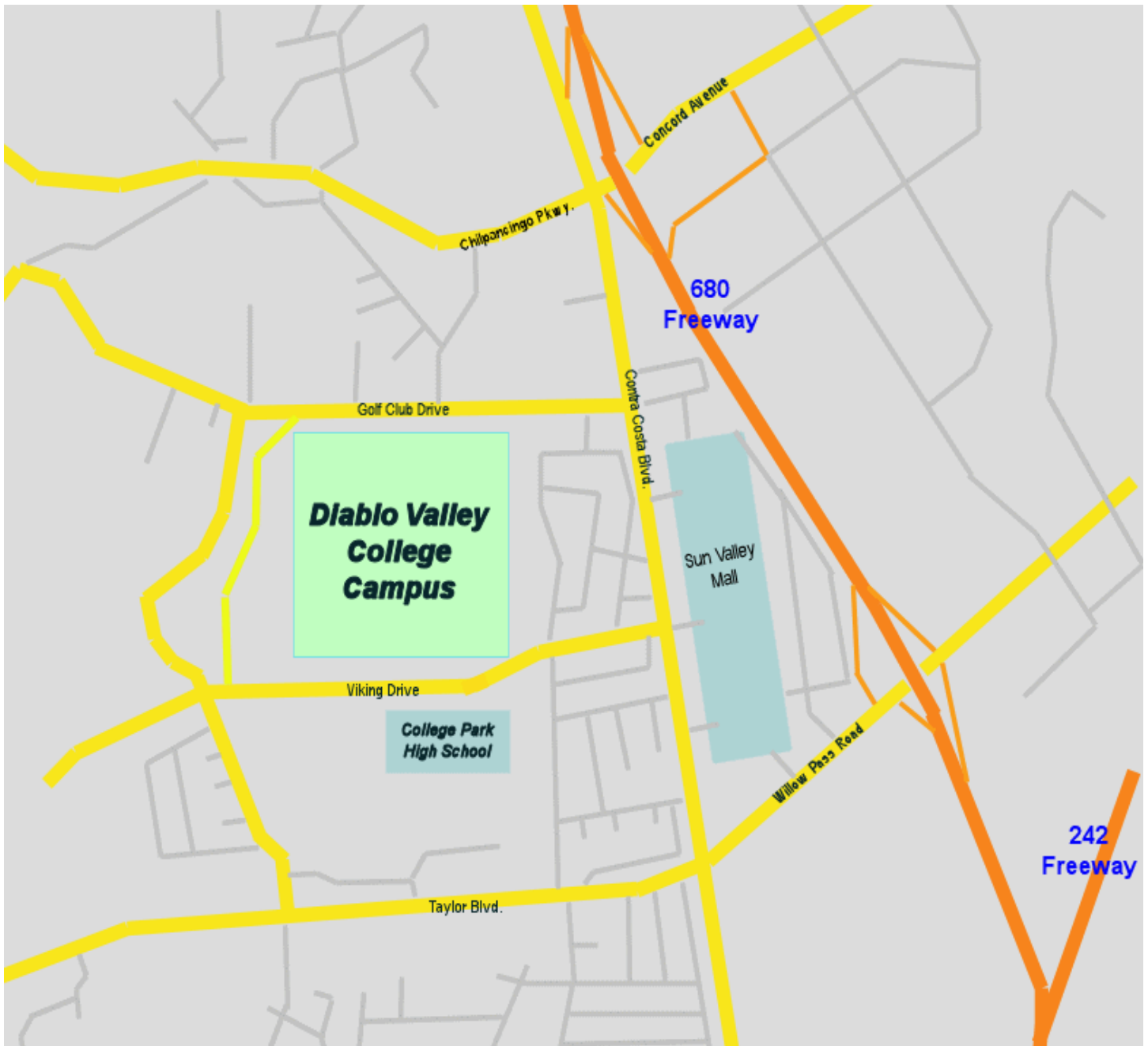
DVPC Winner of APCUG 2004 Awards for Web Site and Diablo Blue by Ron Ogg, DVPC

DVPC is a member of APCUG, the Association of PC User Groups. Each year the APCUG holds two contests, one for the best PC user group web sites, and one for the best PC user group newsletters, at their annual meeting at CES, the Computer Electronics Show. In January, 2005 DVPC won two 2004 Recognition of Excellence awards for medium-size user groups from APCUG. We won first place for our web site, www.dvpc.org, and also won honorable mention for our Diablo Blue newsletter. It's always nice to get recognition!

You can see the 2004 award logos we received at the right.



Map for Driving to the Diablo Valley College Campus

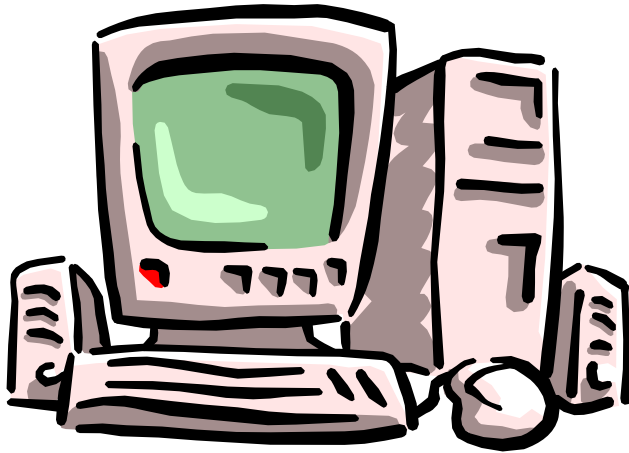


Special Raffle Promotion

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!!

Bring a Friend to a *DVPC* Meeting – Help Them Grow their PC Knowledge – Help Grow *DVPC* Membership



DO YOU KNOW HOW TO USE YOUR COMPUTER? ARE YOU GETTING THE MOST OUT OF IT?

NO ONE STARTS OUT KNOWING HOW TO USE COMPUTERS.

Like every other tool, users need to learn how to use it. Many of us learn what we can on our own or try to find a teacher who can show us how to use it the right way. Some of us have the time and money to take a class, but are not even sure what classes to take.

BEGIN YOUR EDUCATION WITH PC 101

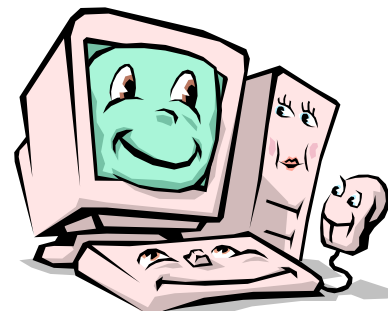
This **FREE** class will help any student who needs basic information on computers. Diablo Valley PC User's Group and Computer Renaissance have joined together to offer all who would like to be introduced to computers, learn more about the basics, or just have a place to ask questions. Come to Computer Renaissance at 1936 Linda Dr. in Pleasant Hill from 4 to 6 p.m., usually on the second Saturday of every month. For more information, contact Craig Peterson (compmail@pacbell.net or 925-671-7025).

March 11, 2006

PC 101 CLASS: HARDWARE: THE STUFF YOU CAN TOUCH

Our March meeting will be held on the 11th, when we'll continue the series with "LESSON #2: HARDWARE: THE STUFF YOU CAN TOUCH."

If you are new to the class or want a refresher join us in March at Computer Renaissance.



SIG News Compiled by Nick Chase, SIG Coordinator, DVPC, 680-4211

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! For more information and directions, phone Jeff and Sharon at 925-778-4348 or email them at sgn94@comcast.net.

Genealogy eSIG Peggy Johnson, SIG Leader – 676-7522

The Genealogy eSIG 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 a research facility, email the group with the details so all 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 store at 1936 Linda Drive in Pleasant Hill. We meet the third Wednesday of each month at 6:00 p.m. For meeting details, read the *Internet SIG Meeting* article each month by checking the Table of Contents on page 1 of *Diablo Blue*. Hope to see all of you there.

For more information, please call Craig Peterson at 925-671-7025 or e-mail him at compmail@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. The New Users SIG 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 Classes Craig Peterson, SIG Leader – 671-7025

The PC101 class is usually held from 4 pm to 6 pm on the second Saturday of each month at Computer Renaissance, 1936 Linda Drive off Contra Costa Blvd. in Pleasant Hill. **PC101** is a beginning class on computers. This class helps introduce computers to and empower anyone not comfortable with the technology. For class meeting dates, times, and topics, see page 7 in this issue of *Diablo Blue*.

Photoshop Elements SIG Peggy Johnson (676-7522) and Mel Lundgren (355-0646), SIG Co-Leaders

The next Photoshop Elements SIG meets on the 2nd Wednesday of each month at 7 p.m. at the home of Peggy Johnson, 4278 Satinwood Drive, Concord, CA. For meeting details, read the *Photoshop Elements SIG Meeting* article each month by checking the Table of Contents on page 1 of *Diablo Blue*. Anyone wishing to attend can contact Peggy at pegszone@aol.com. Most of us have digital cameras, and this is an opportune time to discover all the wonderful photo correction, manipulation and enhancement tools found in Adobe's Photoshop Elements software. We can learn from each other and enhance our skills and enjoy our photos more.

Video SIG Nick Chase (680-4211) and Charlie Crothers (828-2237), SIG Co-Leaders

The DVPC Video SIG is getting started. For the next meeting date, time, and location contact Nick Chase by email at nchase@astound.net. We will discuss the latest digital video hardware and software, and how to take advantage of what you have. Everyone who uses, is interested in, or is curious about digital video hardware and software is invited to join the Video SIG.

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. Meeting details are on the SIG page of the DVPC web site, www.dvpc.org/sigs.html. 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 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 Cowell Road.

Start a New SIG Nick Chase, DVPC SIG Coordinator, 680-4211

What SIG are you looking for? A Digital Photo SIG, a Palm/PDA SIG, a Microsoft Office SIG, a Home Networking SIG, or some other topic? If there's a SIG (Special Interest Group) that you would like to start, or join, contact SIG Coordinator Nick Chase by email (see the email addresses on page 3), or see him at the next DVPC monthly meeting. Nick will help you with all of the details about how to set up your new SIG and let the DVPC membership know about it. So, decide on what SIG you would like to start, and contact Nick.

President's Message...

(Continued from page 1)

CES is huge-- make that very huge. I remember years ago when Comdex was flourishing and the convention center had not been expanded having to go to several venues to see everything. As Comdex withered and the convention center grew, it easily contained the entire show. Comdex used to last 5 days and towards the end; you could see it all with time to spare. (I even came home early a few times.) Not so CES. For one thing, CES comprises only four days. It has overgrown the convention center and now takes up the Sands and the Alexis Park. There is just no way to see everything. It can't be done.

The exhibits are clustered so that you can see them together. For example, auto stuff was in the north hall, high end audio at the Alexis Park, etc. The problem of course is getting to these different areas. I never made it to the Alexis Park. Also, due to convergence- some things may be in areas you might not expect but on the whole there was plenty to interest you- wherever you were.

I am fortunate to have press credentials and these generally got me into events that I might not otherwise be privy. Having said that, this was a very difficult year to get into many after hour events where traditionally you could see and speak with vendors in a more relaxed and in depth manner. In fact, I had hoped to do a video cast from one of these events to our meeting, but I got turned away.

As much as there was to see this year, in my opinion, it was not blow away when it came to new technology. It was more refinements and evolutionally than revolutionary. I think the biggest winner will be Apple—because there was iPod stuff everywhere. Everyone is making some accessory or gadget to work with the iPod. There are a lot of great alternatives to the iPod but the after-market is targeted on the iPod. I saw a few new Windows media players and it will be interesting to see if they can take on the iPod when they release later this year. (Remember the Palm — no one thought the Pocket PC would ever unseat Palm.)

I was interested to talk with Microsoft about the Xbox and Sony about the Playstation. As I write this, the Xbox 360 is still as rare as hen's teeth, and the PS3 may get delayed to 2007 over Blu-ray specs. Interestingly, at CES both Blu-Ray and HD-DVD were evident and spoken about in the present tense.

Computers are just getting faster with dual core processors, and quad core and more are on the drawing boards. What we will do with all of this remains to be seen but Vista will be here soon to obsolete all our existing hardware and software. I like a lot of the new features in IE7 — tabbing, printer control, auto pagefit. I think the media center will become an essential part of the living room and smart home. Meanwhile, Hollywood is fighting hard to make sure we can't enjoy the things we have in our libraries unless we pay for it over and over and over again. So as the technology is finally robust enough and affordable enough to work, we find we can't enjoy what we think we already own. Arrrrgh!

I brought back a number of new toys and things are arriving on a daily basis—that's fun!! I will be writing a number of reviews on these items as I get a chance to install and work with them.

At our March meeting, Nick and Barry will do a presentation on video and digital picture editing including chroma-key. This can really be a lot of fun to put yourself in new and exciting places without leaving your keyboard.

In April we have elections. SO JOIN THE BOARD. We will also do a live video presentation from the digital photo guy. Ruth saw his presentation at CES and said it was outstanding.

Other than that — see you at the March meeting!

The Mouse from Hell – A Hardware Review by Ann Moore, Topeka PC Users Club

Several months ago, I sent the following e-mail to "Answerperson" concerning a tragedy in my life:

"Dear Answerperson,

When I started my computer this morning, my mouse showed no sign of life. Its heart (red light) did not flicker nor did it feel warm to my touch. It was stone cold dead. I tried to revive it by performing an uninstall-reinstall, to no avail. A check of outlets and wiring found them intact. How do I determine the cause of death? There were no early signs of malfunction. If it were an animal, I could have a necropsy performed. Must I disassemble it to determine the cause of death? I cringe at the thought of disemboweling my friend. My mouse was not extraordinary in any way — it was not wireless nor was it ergonomic, just a simple mouse that I loved and cherished. Every day for four years, I held this inanimate object in my hand, caressed it, and knew every curve and indentation intimately. We were as one.

I have accepted the fact that I must now lay it to rest, but where? Is there a cemetery for computer mice? Should I have it cremated or do I put it in a box and bury it in my backyard under the lilac bush? What will become of my dear friend? Is there a computer mouse heaven? This has never happened to me before and I am devastated. Please no cards or flowers. There will be a memorial fund set up in the name of "Ann's Mouse" and donations may be sent."

Answerperson offered his deepest sympathy and suggested that I put my sorrow behind me, go on with my computing and find a new mouse. I visited Best buy in search of a replacement and found no sympathy there. Their only concern was to sell me a very expensive replacement. In my vulnerable state, if the clerk had shown a little compassion, I might have purchased a more expen-

(Continued on page 10)

The Mouse from Hell – A Hardware Review...

(Continued from page 9)

sive model but because his attitude was cold and unfeeling, I left the store with one of their cheapest models. There is an old adage: "You get what you pay for," and that is exactly what I got – in spades.

I doted on my new mouse, showering it with an abundance of TLC. I never mistreated it by applying any unnecessary pressure, jerking or pulling. In spite of all my efforts to maintain a close personal relationship, it soon became apparent that we were not compatible. The erratic behavior of the mouse became noticeable following surgery on my right shoulder. I was forced to change the mouse settings to accommodate my left hand and the mouse began to balk at every command. Although I moved it around very slowly, it would take off and race around the screen leaving me breathless in my attempt to keep up with it.

In October, I purchased a new LDS 19-inch monitor and the mouse went ballistic. It refused to leave the confines of its colorful, soft pad. Trying to reach the far corners of my monitor with my cursor became almost impossible. The mouse resisted my every effort to control its actions. Every day was a tug-of-war and I was losing my patience. I had serious work to do and no time to play games. I needed a good reliable mouse. I decided that this obnoxious, malevolent, detestable little rodent had to be eradicated. It was time to go cordless.

Completing a jubilant trip to Best Buy, I came home with a Logitech cordless mouse. I could hardly wait to start using it. What a difference a cord makes! This Logitech moves like a dream and is a pleasure to work with. It takes me everywhere I went to go. Truly, a match made in heaven. I am certain that I have found a new reliable friend.

What do I do with this evil, malicious, wicked little devil that made my life a living hell? No sad songs or mourning for this monster. I had visions of snipping off its tail to make it impotent, then dropping it on the floor and stomping it to death. I even considered calling "The Terminator." What I will do is wrap it up in colorful paper and donate it to the club for a prize at the next Christmas party. I am hoping it will fall into a strong masculine hand that will teach this contemptible, spiteful, despicable creature how to behave in the presence of a lady.

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.

Multi-Core Processors by Brian K. Lewis, PhD, Sarasota PCUG

When I first started researching central processing units (CPUs) my idea was to try to make some sense out of the naming/numbering schemes currently being used by Intel and AMD. This turned out to be an almost impossible task. Did you realize that Intel has more than 50 different Pentium 4 CPU models? That in each speed range there can be a dozen different models. They vary by cache size, socket size, hyper-threading or not, 64 bit or not, voltage and other parameters. As just one example, Intel's 3.2 GHz processor has 12 different models. AMD is just about as bad when you try to analyze their nomenclature. So, for the moment, I have given up on trying to find a simple way to categorize the currently available CPUs. Maybe next month.

Since the upper end of the CPU production now seems to be aimed at producing processors with more than one central core, I decided to look at that topic. So what does it mean that a CPU has more than one core? You can think of it as a single chip containing two or more central processors. It is like having two (or more) computers in one box. That said, I have to admit that it doesn't double your processing speed. At least, not yet.

Servers and workstations used in business have had multiple processors for a number of years. Mainframe computers with multiple processors have also been around for years. In order to take advantage of multiple processing your operating system must be capable of recognizing and using multiple processors. Windows has had that capability since Windows NT/2000 and it is included in Windows XP. Intel introduced Hyper-threading technology in 2002. That allowed two different "threads" to be processed almost simultaneously. Going the next step and putting multiple processors on one single chip is the idea behind multi-core processors. The AMD64 chip was originally designed to have a second core added at a later date. This became the current Athlon 64 X2 dual-core processor. Intel's Pentium D is also a dual-core processor. In any multi-core processor each core is seen by the operating system as being a discrete processor as if the motherboard had two or more separate CPUs. Ideally this allows the computer to process more work within a given clock cycle.

The question is why would Intel and AMD want to complicate CPU design by putting these processors onto a single chip? The design is more expensive to produce. The primary answer to the questions is heat. In the fall of 2002 Intel indicated that it had a 4.0 GHz processor in production. That processor never reached the market. There was also talk about processors reaching 10 GHz. That has all changed and primarily due to the difficulty of reducing the heat output of these processors. When you have 125 million transistors in a very small space, as in Intel's Prescott processor series, there is a lot of heat produced. In fact, it takes special cooling to keep the processor from overheating and essentially burning itself up. I have a 3.0 GHz Intel "Prescott" processor in my computer and it runs at a consistent 40^o Celsius (104^o F). That's only because I have an over sized copper heat sink and very large CPU fan. Ideally it should be running in the low 30's which would be about 50% of the maximum temperature.

Another problem is current or electron leakage. As the processor die size decreases and the number of transistors increases, there

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DVPC Board Meeting Minutes by Tom Krauss, DVPC

Alan announced he is still working on finding a presenter for the March meeting. A couple of possibilities were suggested, which led to the inevitable discussion of which company had folded/merged with/ been bought out by which other company. This triggered a reference to a recent article in one of the trade magazines about an obscure product that may or may not be available. Nick played with his cell phone during this and then showed us someone's website on his phone. Charlie stated he didn't think their digital fractal multiplexer had the bandwidth to accommodate true audio algorithms. Ron said that might be true, but a product that came out in 1973 did the same thing. Richard asked if that would run on his Windows 3.1 system. That reminded Barry of a joke he had heard. Peggy if we should print more brochures. Tom dozed quietly, waiting for dessert.

Okay, I admit that I missed the Board meeting and the above is mere conjecture on my part as to the actual business transacted by the Board. The details may be slightly inaccurate, but I'm sure you'll recognize the basic pattern.

Since I have nothing of value to say regarding the Board meeting (which is usually true regardless of whether I attend or not), let me give some advice to those of you purchasing a new computer. I did this a few weeks ago for my wife. She is much more venturesome than I when it comes to trying out new software. Part of the reason for this is that she tends to believe what they say on their websites. Having been in software development and many times gone through the process of convincing management of the exaggerated benefits of the programs I have developed, I don't believe anything the companies say. I always look for reviews of users, and take even these with a grain of salt.

Anyway, my wife's old machine is a tangled mess of old software. I haven't checked, but I would imagine her registry is nearing one gig, 90% of which is dangling codes and settings for programs she has tried and cast aside, deleting them in a variety of ingenious ways. Nonetheless, there are a lot of programs on it that she does use, and clean-up at this point would doubtless cause catastrophe and considerable marital strife.

So a new, pristine machine was called for. Her primary requirement was that everything be black. Capacity, speed, performance were secondary. So we spent hours surfing the web for components that would satisfy.

We settled on Microsoft's black (of course) wireless keyboard and mouse. My son is more of a techie than I when it comes to hardware, so he built the system for us. He brought it over a couple of weeks ago, all set to go. We had ordered the mouse and keyboard for delivery to our home, and they were here ready to go. I set the machine up on the black table and connected all the cables. It booted up fine, and the black, flat screen monitor was everything one could desire.

But there was a problem, and here is your tip for the day. Your wireless mouse and keyboard won't work until you load the software, and it is not easy to load the software without a working mouse and keyboard. Obviously this is not an insurmountable problem. So I crawled behind my PC and sorted through the maze of cables to disconnect my keyboard. Both my PC and her old one use wireless mice, but fortunately I had saved an older mouse, which I found after only twenty minutes of searching. In the end we got the wireless software loaded and her machine is working fine.

So the moral of the story is, and Ron will back me up on this, Don't throw anything away!

I won't bore you with the details of running a network cable through my attic only to find that not only the cable but also the network card on the new machine were bad. Let's just say that if you were at Fry's a couple of weeks ago and found that the test machines in their Red Carpet area were unable to access the internet, I had something to do with that.

Multi-Core Processors...

(Continued from page 10)

is a greater problem with leakage. Electron leakage from one pathway to another can result in data corruption. Die sizes are currently 90 nm and are anticipated to drop to 65 nm this year. Finally the power requirements increase with the increase in transistors. The increase in power is another component in the increasing amount of heat produced by the CPU.

Dual core processors are designed to run at lower clock speeds than the fastest of the single core processors. This reduces the heat output even though the dual core processors currently have 230 million transistors in a smaller space. Intel has also announced another dual core processor to be on the market this summer that will have 1.7 billion transistors! Their literature says they anticipate that by the end of 2006, 70% of their desktop and mobile processors will be dual-core. By the end of 2007 fully 90% of Intel's processors will be at least dual-core. AMD is moving just as fast in producing dual core processors. As the number of cores increase on a single die there will definitely be increases in heat output. Cooling requirements for these CPUs will definitely increase. The future of CPU cooling would seem to be water-cooled systems even for the home desktop market. Unless there is some technological break-through that will reduce the heat problem.

There are other bottlenecks that will become more important in multi-core systems. One is the bus that transmits information

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Support DVPC – Get a friend to join!

Computer Puzzle by Craig Peterson, DVPC **“Conversions”**

<i>BINARY</i>	<i>OCTAL</i>	<i>DECIMAL</i>	<i>HEX</i>
1	_____	_____	_____
_____	31	_____	_____
_____	_____	123	_____
_____	_____	_____	1F4
1111101000	_____	_____	_____
_____	3360	_____	_____
_____	_____	2006	_____

Many of us forget that what we type into a computer and what that computer understands is quite different. As what we hope will be a fun reminder, this month’s puzzle is converting Binary, Octal, Decimal, and Hex (I know, math is never fun for many of us, but for one month we can give it a try.) We’ve given you a starting value (shown in red) in one of the four number bases, your job is to convert the number into the correct values in each of the other three bases. Try it by the best of all calculators, the brain-hand interface. It’s not really fair to use that fancy electronic calculator that’s sitting on your desk, or the Windows Advanced Calculator, both of which have number base conversion features.

If you need help solving this month’s puzzle, go to www.dvpc.org/solution.html.

Multi-Core Processors...

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from the core to other components. With two or more cores sending information over the bus, both speed and bandwidth will have to increase to handle the increased load. The CPU depends on the computer RAM for the source of its data and instructions. Therefore memory speed is also important and will need to be increased. Finally, information is read from and written to the hard disk. Even with the increased speed and bandwidth associated with SATA drives, this can be the largest bottleneck in the system. So these problems can prevent the user from gaining the maximum advantage provided by a multi-core system. All that said, I have to admit that there will be some definite gains in processing speed with the multi-core systems. This has already been demonstrated by a number of third-party testers. However, it will be some time before a dual-core system will function at twice the speed of a single core system.

I keep talking about “threads” without really giving you any explanation of them. I don't think you really want to go into the programming background for this, so I will try to give you the simple explanation. A thread is a series of sequential programming steps or operations. In some instances, programming steps can be executed simultaneously. However, the program must be designed to allow this to happen. There are also problems associated with multi-threading that can slow down the overall operation. One problem is called “deadlock”. This is when two threads are each waiting for the other to complete its operations. This can result in neither thread reaching completion. For software developers, multi-threaded applications have much higher development costs than the current single-threaded applications. Although Intel's Hyper-threading CPU's have been around for several years, very little software has been written to take advantage of the dual-thread processing. Both Intel and AMD are working with software developers to produce more multi-threaded software applications. But it may be some time before the majority of software appli-

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XM4ME by Alan Mildwurm, DVPC

In the old days TV was free. Of course we only had 7 or 8 channels even in San Francisco (before Sutro Tower)! Now, we have 7 or 8 versions of HBO. At least radio is free...

Of course, these days that is subject to change. Why sell just a radio when you can sell a subscription. By my count, there are three different for-fee radio modalities. They are not compatible, so choose wisely!

There is XM radio (www.xmradio.com), Sirius radio (www.sirius.com), and HD Radio (www.ibequity.com/hdradio). HD radio is actually a high definition upgrade to "standard" AM/FM that does require new hardware – check it out.

I had been eyeing both Sirius and XM for a while. A friend of mine has both and they essentially work in the same manner. At CES, XM had a special promotion which helped cinch the deal for me – not to mention my special connection with Weird Al – a spokesman for XM. Also, Sirius has Howard Stern – which in my mind is another reason to go with XM!

Both companies have 120+ channels of music, news, talk, comedy, traffic, weather and sports. Lately they have been signing on celebrities (XM now has an Oprah channel) to attract new subscribers. Many of the music channels are commercial free and are categorized by genre. Check the websites to see if one has more content to your liking. You will see that there is a great deal of overlap between the two. Probably the biggest differences in the two are in the sports and celebrity offerings.

Being a news junkie I am enjoying all the news offerings. With 160 channels to choose from, there are many I have not even tuned to yet (and several I know I won't!). The comedy channels are fun and a welcome diversion – especially when traffic is an issue! Speaking of traffic, there is a 24 hour traffic/weather channel for the SF Bay Area.

Naturally, you will need special hardware for all of these radios. I bought a Pioneer Airwave.

I went with this portable unit because it came with both a car kit and a home kit – and because it was a terrific deal – much less than the MSRP of \$299.00 plus subscription to XM. With the large screen, it is very easy to see even in the car. Included with the Car and Home kit is a rechargeable battery, built-in antenna, remote control, and headphones. In Live Mode there are over 160 digital XM channels of music, news, entertainment, and sports, live coast to coast by satellite. The Time Shifting Memory Mode stores up to 5 hours of fresh new play lists – with no computer downloading. InfoExtras includes personal stock ticker, sports score ticker, clock, and more. Using its built-in Wireless FM Transmitter, XM2go can wirelessly transmit to any FM radio speaker system, any car, home, or portable radio. The rechargeable battery automatically charges and provides up to 5 hours of use.

You can get radios that store mp3s, have color screens, Napster tie-ins, etc., so check the radio web site for the latest in hardware. The cost of the subscription is \$12.95 per month, but if you sign up for a longer period the cost decreases. With an XM subscription you also get a free internet subscription so you can listen to XM from your computer.

So will this replace free radio? Time will tell.



Please note: Until further notice we are once again meeting in room H109 in the Humanities Building. This change (from MA101 in the Mathematics building) was required to accommodate summer session classes, and will continue until we have to move again. Please check the maps on pages 4 through 6 of each issue of Diablo Blue!

Multi-Core Processors...

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cations can take advantage of multi-core processors.

Intel has another technology it has developed for use in its multi-core chips. This is called "Foxton". This allows a processor to adjust its speed and power requirements based on its processing load. Each process will have a base or minimum clock speed and a maximum speed. When the load is low, the processor can raise its clock speed up to a maximum level. This gives the processor more power for faster computing. If the load or the power requirement rises too high, the processor slows. All of this is more technology to simply reduce the system heat to manageable levels.

As I was writing this, Steve Jobs, at MAC World in San Francisco, announced the introduction of Intel based Macintosh computers using the Intel Core Duo processor. This processor was developed for the mobile computer market. It uses clock speeds from 1.6 GHz to 2.1 GHz. Although it has a lower clock speed, the dual processor will provide some performance gain. There will also be a lower drain on the battery. Several other companies have produced Windows based laptops using this same processor.

So how will multi-core computers affect the individual computer user? It should improve the efficiency of your computer by improving its multi-tasking ability. Since each core is essentially a separate processor, at least two applications can be run simultaneously. If the dual core also supports hyper-threading, as some of the Intel Pentium D CPUs do, then it could handle four applications or four threads in multi-threaded applications. Now you may think you really don't do any multi-tasking. However, if you are running an anti-virus program, a firewall, or any other application in the background while you also do word processing or emailing, then you are multi-tasking. A dual core CPU would permit this to happen more efficiently, if not more quickly. Frequently, I am writing, checking a spreadsheet and pulling data off the web. This is also multi-tasking.

I suspect that if you plan to replace your computer within the next year (or two), you will have a dual-core 64-bit processor in your system. With a couple of Gigabytes of RAM, you'll be all set to run Windows Vista as a 64-bit operating system.

Dr. Lewis is a former university & medical school professor. He has been working with personal computers for more than thirty years. He can be reached via e-mail at [bwsail\(at\)yahoo.com](mailto:bwsail(at)yahoo.com).

Legal Bytes: Fair Use – Wherefore Art Thou Going? *by John Brewer, Computer Club Oklahoma City*

The news media is reporting the current brouhaha over electronic eavesdropping and surveillance of telephone calls, email, and Internet searches. The US Senate is set to begin debate on whether Judge Samuel Alito is the right person to follow Justice Sandra Day O'Connor. Congress is debating how to manage recover in New Orleans, fund wars in Iraq and Afghanistan, and address the reality of record deficits in the federal budget. It is a good time for the entertainment industry to make an end run on "fair use."

Fair use is a legal concept that permits the public to use copyrighted content without paying for the use, subject to specific restrictions. The entertainment industry perceives "fair use" as tantamount to theft by the unwashed and the unsaved. Draft legislation sponsored by the Recording Industry Association of America (RIAA) and the Motion Picture Association of America (MPAA) is being prepared for filing in Congress.

The new legislation is being circulated by Senator Gordon Smith (R-Ore). and is titled the "Digital Content Protection Act of 2006." The Electronic Frontier Foundation (EFF) reports that "fair use" will be limited to "customary historic use of broadcast content by consumers to the extent such use is consistent with applicable law" under the DCPA. EFF continues, "had that been the law in 1970, there would never have been a VCR. Had it been the law in 1990, no TiVo; in 2000, no iPod. "Fair use" has always been a forward-looking doctrine. It was meant to leave room for new uses, not merely customary historic uses. Sony was entitled to build the VCR first and resolve the fair use questions later."

EFF interprets the proposed legislation as giving regulators (that could be largely staffed by industry types) the power to prohibit new technologies in advance of their introduction to public use. Past practice was to permit the introduction of new technology and then permit the courts to rule whether copyright law was applicable and, if so, whether the use of the technology was an exception under "fair use." As an example, the public is permitted to tape a television program on a VCR and play it back later as a "fair use" exception to copyright law. This practice is called "time shifting."

The new law will permit the device or technology only if it meets the criteria of "customary historic use." New technology will probably not qualify as "customary historic use." EFF predicts a world where technology will be frozen in time because industry lobbyists will have the power to prohibit new technology. Anyone who thinks otherwise is naïve. The federal regulatory agencies have seen "sea changes" in their attitudes under the current administration in the determination of the proper balance between industry and public interests.

The Public Knowledge web site states that the Smith legislation is basically a rework of what is known as the "Hollings Bill" from 2002. Public Knowledge states further "the fact remains that the main issue here is not about piracy, it's about control. The content industry needs a congressional mandate to control the functionality of consumer electronics and PCs, and in turn, what consumers can do with the devices and content they legally obtain.

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Legal Bytes: Fair Use – Wherefore Art Thou Going?...

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The Senate has introduced the "Digital Content Protection Act of 2006," a bill that will create "Broadcast Flags" for all digital radio and television, leading to FCC oversight of all new digital media technologies from iPods and PSPs to TVs and DVD recorders."

Another web site, a very interesting web site indeed, is beingboing.net. Beingboing has the following to say about the Smith legislation.

"Under the DCPA proposal, digital media technologies would be restricted to using technologies that had been certified by the FCC as being not unduly disruptive to entertainment industry business-models. There are two things to be certain of this century:

1. Everything that can be expressed as bits [digital content] will be expressed as bits
2. Bits will only get easier to copy"

The entertainment companies are convinced that their businesses depend on copy-proof bits. This is ridiculous: there's no such thing, there never will be.

Governments that try to protect businesses that demand copy-proof bits are like governments that try to protect businesses on the sides of volcanoes, who demand an immediate end to business-disrupting lava.

If the current entertainment companies can't or won't adapt to a world of bits, that's too bad. Let them die, and let new businesses that thrive in the new technological reality take their place. If you can't stand the heat, get off the volcano.

Back in the mainframe days, IBM made its money by giving away computers below cost and then charging a bundle for keyboards and printers. Hitachi killed the mainframe business by introducing cheap peripherals for IBM mainframes. Killing mainframes didn't kill computers: it made them better. IBM was forced to get into the minicomputer business, which led to the personal computer.

If computer industry complaints got the same attention as the entertainment crybabies get from lawmakers, there'd be 10,000 computers total in the world, running punch cards, with three companies making modest sums servicing them and shipping a new model every three years.

Hollywood's crybaby capitalists accuse us of being "communists" with one breath, and in the next, they go begging to Congress to turn the FCC into device czars who keep the market from being disrupted by innovation.

Andy Setos, the Fox executive who invented the Broadcast Flag, once told me that his objective was "a well-mannered marketplace." The entertainment industry's version of a planned economy is bad policy.

Send a strong signal to your lawmaker: if you break my TV, radio, and computer, I will campaign tirelessly for anyone who will promise to throw you out of office and undo your deeds.

The author of the new bill to break our televisions, computers, and mp3 players, Senator Gordon Smith of Oregon, has been paid tens of thousands of dollars to do it. The National Association of Broadcasters (NAB) has been lobbying hard for the sole ability to decide how hard it's going to be for us to listen to an mp3. The NAB has thrown nearly \$250,000 at Republican candidates this year alone. NAB's money stuck to Gordon Smith."

Sometimes the public has to live with the legislation that has been bought by industry. Anyone who is concerned should make their voice heard.

John Brewer practices law in Oklahoma City, is a member of the Governor's and Legislative Task Force for E-Commerce, and enjoys issues relating to eBusiness and cyberspace. Comments and questions are welcome and can be emailed to johnb@jnbrewer.com.

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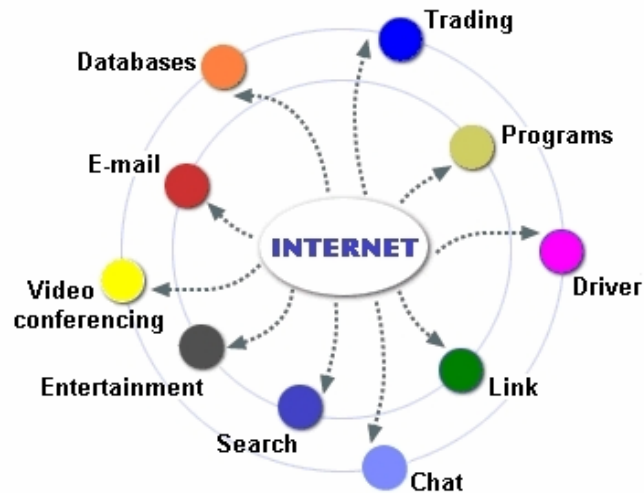
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Internet SIG Meeting by Craig Peterson, DVPC



Internet SIG:

"Your Pit Stop on the Information Superhighway"

Maybe you think you've been missing the on-ramp to the Information Superhighway... or perhaps you are just curious about what the Internet is all about. If either of the above apply, then you should join the Internet SIG. The Internet SIG meets on the third Wednesday of each month at 6:00 p.m. at Computer Renaissance, 1936 Linda Dr. in Pleasant Hill. Please join us as we explore the "wild, wild world of the web".

Please join us at Computer Renaissance on Wednesday, March 15, 2006 at 6:00 p.m. This month we will be looking at the difference between IE, Netscape, and other ways to view the web. For more information about the Internet SIG, email Craig Peterson at compmail@pacbell.net or call him at 671-7025.

Photoshop Elements SIG Meeting by Peggy Johnson, DVPC

The March, 2006 meeting of the DVPC Elements SIG will cover the topic of text, how it can be used to add to the content and enhance our photos. Sounds simple doesn't it, but the options are many – size, orientation, adding gradients, shadowing, shading, coloring, and the selecting and manipulating of font types, locating and installing fonts found on the internet, and other aspects of interesting tool. Should be another fun and informative meeting. The Photoshop Elements SIG meets on the 2nd Wednesday of each month at 7 p.m. at the home of Peggy Johnson, 4278 Satinwood Drive, Concord, CA.

Anti-Spam Programs – Do They Really Work? by Vinny La Bash, Sarasota PCUG

Among the most effective anti-spam programs are the ones that use some kind of approval based email management system. They work by constructing a "white list" of permitted email addresses, accepting mail from anyone on the list, and rejecting everything else. The program initially sniffs through your contact list, inbox, and other email folders, organizes the email addresses it finds, asks you if you want to add or change anything, and the list is complete.

From that moment on, any incoming email that is not on the list is considered to be spam, and is automatically exiled to a quarantine folder or wherever you decided it should go during installation. The programs do work as advertised, which is both their greatest strength and their greatest weakness. Here's what you need to know before installing one of these puppies.

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Give a DVPC Membership Gift Certificate!

See Peggy at the membership table at the DVPC monthly meeting.

Anti-Spam Programs – Do They Really Work?...

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Scenario 1: A friend you have lost contact with over the years sends you an email. That friend's email address is not on your white list. Unless you have a quarantine folder where unapproved email is sent without automatically deleting it, you will never see this email. You have to check your quarantine folder, at least occasionally, to see if there are any false positives residing in there with all the junk. How much time will this take? Who knows? None of the programs mention this in their promotional material or specification lists.

Scenario 2: You install a new program or device and run into difficulties. The troubleshooting guide sends you to an email address where you can get a solution to your problem. You remember to add the email address to your white list. You wait for a reply, and wait, and wait. What happened?

Your problem was given to a technical representative who has an email address different from the general support address. You don't see the reply unless you check the quarantine email folder, assuming that in your efforts to rid yourself of all spam you did not specify that anything not on your white list be automatically deleted.

Scenario 3: You order something from an online merchant and before your order is shipped the merchant emails you to ask whether you want the white one or the black one. The query has been rerouted to the quarantine folder because the person trying to contact you has an email address that is not on your white list.

Scenario 4: Your spouse sets up a Yahoo! Email account for the sole purpose of sending you a surprise Valentine's Day email. For no apparent reason you are getting the silent treatment. You ask, "What's wrong"? Your spouse replies, "Nothing".

Scenario 5: Your granddaughter just got an email address of her own. She sends you a message, and can't understand why you won't answer. She asks her parents "Why doesn't grandpa love me anymore"?

We could go on, but you get the general idea. 99.99% of all real spam will be banished from your sight, but the very few legitimate emails identified as spam will very likely be the ones you most want or need to see. Some anti-spam programs have a "sender confirmation feature" that automatically sends a personalized notification to anyone whose message has been quarantined. Simply replying to the challenge causes the original message to be moved to your inbox, and allows their email address to be added to the white list. Legitimate senders can respond to these challenge messages, but suppose that for whatever reason they don't. Does a seven year old grandchild really understand why she needs a grandparent's permission to send an email?

What you end up with is a time-consuming process of back and forth emails. Why should every email first contact have to be sent twice? What a waste of time. This might be acceptable if your email volume is very low, but who are we kidding. Simply establishing an email account anywhere will get you a boatload of spam. ISP level filters are a joke. How many essays do you want to compose explaining why someone needs "permission" to send you an email? I don't respond to challenge email. Why should anyone respond to mine?

You can check your quarantine folder regularly, but with the huge quantity of genuine spam generated and thrust upon us daily, it's too easy to overlook a legitimate message. When you finally delete the spam, there is a good chance that among the junk a valuable note is lost forever.

After using one of these programs for several months, I decided that I would much rather delete spam manually, rather than run the risk of missing an important legitimate email. No computer program, no matter how expertly crafted or trained, can ultimately determine what emails I do or don't want to read. Even after being married for 38 years, my wife still can't read my mind. How do I expect a dumb computer to do it?

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.

New Federal Website Provides Internet Safety and Security by Ira Wilsker, APCUG

The media has recently been rife with stories about internet scams, frauds, identity theft, pedophiles, and other malevolent occurrences that have happened on the internet. While there are many online resources providing informational websites to help prevent us from falling prey to internet victimization, a consortium of federal agencies has created "OnGuard Online" at www.onguardonline.gov. This consortium consists of the Federal Trade Commission (FTC), the Department of Homeland Security (DHS), United

States Postal Inspection Service, the Department of Commerce (DOC), and the Securities and Exchange Commission (SEC).

Materials are provided on this website to inform and educate the computer user about several of the most nefarious threats that

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New Federal Website Provides Internet Safety and Security...

(Continued from page 18)

commonly assail us as we enjoy the abundance of the internet. Topics currently covered are spyware, identity theft, phishing, spam scams, online shopping, P2P (Peer-to-Peer) file sharing, and VoIP (Voice over Internet Protocol - internet telephony). There are also a series of online quizzes (www.onguardonline.gov/quiz) where the user can test his knowledge on the

Security risks associated with these topics. A series of videos and tutorials on related topics, such as "Viruses and Worms", and "Protect Your Privacy, Family, and PC" are also available at this site (onguardonline.gov/tutorials). For those who have been victimized by internet miscreants, a resource is available to show the user where and how to file complaints with the appropriate federal and other agencies at onguardonline.gov/filecomplaint.html.

Spyware is defined at this site as "... software installed on your computer without your consent to monitor or control your computer use." Spyware can be used to steal your identity or capture your usernames, passwords, and account numbers (keyloggers); compile personal surfing profiles for directed advertising or other purpose (some forms of tracking cookies); display unwanted pop-up ads, which may be pornographic (ad-ware), redirect the browser to other sites (browser hijacking); install unwanted links on the desktop or in the "favorites" or bookmarks; and a variety of other unwanted and possibly dangerous web related items. OnGuard Online provides links and information on removing spyware, and protecting your computer from spyware.

Identity theft is a scourge that may impact as many as 10 million Americans each year, according to some sources. The incidence of identity theft through internet tricks, such as "Phishing" (typically emails directing the user to an authentic looking but counterfeit website soliciting credit card information, PIN numbers, etc.); "Pharming" (changing data files or "hosts" on the computer to redirect intentional visits to financial or commercial sites to counterfeit sites where valuable personal information is illicitly obtained) accounts for an increasingly significant portion of identity theft. OnGuard Online provides information on how to protect yourself from Phishing scams, and how to protect your identity while online, as well as instructions on dealing with identity theft if victimized.

Some internet security companies report that the amount of spam, or unsolicited commercial email, can easily amount to 60 to 80 percent of all emails sent. According to this website, details are provided on the major spam scams currently in circulation. The top 10 spam scams are: The "Nigerian" Email Scam (may also appear to be from Russia, Columbia, England, or other sources); Phishing; Work-at-Home Scams; Weight Loss Claims; Foreign Lotteries (Congratulations, you are a winner in the Spanish / British / Canadian Lottery!); Cure-All Products; Check Overpayment Scams (I have a large cashier's check - cash it, keep some, and wire me the difference); Pay-in-Advance Credit Offers; Debt Relief; and Investment Schemes (buy this penny stock - it will quintuple in a few days). Sadly, many gullible internet users still fall for these scams enriching the crooks, and typically receiving nothing worthwhile in return.

Millions of internet users shopped online during the holiday season, and still continue to do so at online retailers, or popular auction sites such as Ebay. While most online shoppers have been successful, and had few problems, there are also thousands who have been victimized to some degree by internet crooks. This site explains a series of safe shopping tips, including "Know who you're dealing with; Know exactly what you're buying; Know what it will cost (including shipping, taxes, and other charges); Pay by credit or charge card; Check out the terms of the deal; and Print and save records of your online transactions."

"Peer-to-peer (P2P) file-sharing allows users to share files online through an informal network of computers running the same software." People, especially children and college students, use these P2P networks to exchange software, music, videos, and other files. While there is much material that can legitimately be exchanged, P2P is also often a source of spyware, viruses, and illicit and illegal copies of pirated software, music, and other intellectual property. This site lists many of the risks common with these P2P services, and how to safely utilize such services.

You have likely seen the ads on TV, as well as displays at the electronics and mass merchandising stores for "VoIP", services that allow the broadband internet user to make local and long distance phone calls over the internet for a flat monthly fee. While expanding on popularity, the path has been bumpy, as some subscribers have been dissatisfied with the service. Issues and service such as "911" calls, while addressed in regulations, are still not universally implemented on many VoIP systems. The OnGuard Online website also explains what many local VoIP users painfully found out during the recent spate of hurricanes and other storms, that if there is no power, or internet service is otherwise inaccessible, the VoIP services generally do not function, leaving the user without phone service.

The OnGuard Online site "Stop - Think - Click: 7 Practices for Safer Computing" (onguardonline.gov/stopthinkclick.html) reiterates the oft stated common sense warnings that all computer users should be aware of, and implement:

1. Protect your personal information. It's valuable.
2. Know who you're dealing with.
3. Use anti-virus software and a firewall, and update both regularly.
4. Make sure your operating system and Web browser are set up properly and update them regularly.
5. Protect your passwords.
6. Back up important files.

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New Federal Website Provides Internet Safety and Security...

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7. Learn who to contact if something goes wrong online.

If the information on the OnGuard Online websites is utilized, we will all have a safer and more enjoyable internet experience.

WEBSITES:

www.onguardonline.gov

www.onguardonline.gov/quiz

www.onguardonline.gov/stopthinkclick.html

onguardonline.gov/filecomplaint.html

onguardonline.gov/tutorials

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How Big is a 300 GB Hard Disk? by Jim Sanders, North Orange County Computer Club

I recently acquired a 300 GB hard disk for \$110 after rebates. When I look at that 3.5 inch hard drive that is one inch high and easily held in my hand, trying to put those 300 Giga bytes of storage in perspective is a little tough. I thought about the first Z80 CPM system I built in 1977 from a Cromemco kit that I had to solder together. It used 8 inch floppy disks that held 128,000 Bytes.

The diskettes were easy to damage and it was a good idea to keep them in storage boxes. I made some good money selling the SRW Computer Products plastic storage boxes at a great ACP Swap Meet discounted price of \$2.00 each. They were designed to hold 10, but you could get 2 or 3 more in if you were careful! I wondered how many floppies that would be, so I punched the numbers into the calculator. $300,000,000,000B/128,000B = 2,343,750$ diskettes. I don't know how to visualize that, but I did calculate that it would take \$468,750.00 worth of those boxes to store them all. I then remembered that the average price at that time was about \$3.50 a diskette. Again the calculator, $2,343,750$ diskettes x \$3.50 = \$8,203,125.00. Wow! That is a number that I don't want to think about if I am talking about a hobby.

Another way to wrap your mind around huge numbers is to start small, with something that you can relate to, and work your way up. Now we know that one byte equals one character of the alphabet. The common 10 point type has 10 characters per inch. So, if we have 120 characters/bytes in a row, we have one foot. There are 5,280 feet in a mile. So $5,280 \times 120$ gives the number of character or bytes that would be on a mile long ticker tape that was being printed with 10 point type, an answer of 633,600 bytes. Compared to the 300 Giga bytes on the hard disk, 633,600 bytes is not much. To find out how much, we need to take the 300,000,000,000 byte capacity of the hard disk and divide it by 633,600 bytes in a mile. The answer to that math problem is the equivalent of 473,485 miles of ticker tape.

To put that into perspective, let's take the circumference of the earth (nominally 25,000 miles) and divide that into our answer. So, $473,485 / 25,000 = 18.93$. If we could find a big enough roll of ticker tape, printing all the information on that hard disk would wrap around the equator of the earth 18.93 times. That sounds impressive, but how many people can really visualize that. Besides, I don't know anyone who has a big enough ticker tape printer. Another thought, that ticker tape would be 3,000 miles short of stretching from the Earth to the Moon and back.

But let's try it with regular 8.5 inch x 11 inch paper. Again, standard printing would be 10 point type, 10 bytes per inch, and 6 lines per inch. Most people leave at least a half inch margin all the way around the page. So that means each line will be 7.5 inches, or 75 bytes, and there will be 60 lines per page. So each page will use 75 bytes x 60 lines, or 4,500 bytes. First, let's take 1 of the 300,000 megabytes on the disk and see how many pages that represents. $1,000,000 / 4,500 = 222.2$ pages. We still have 299,999 megabytes left and, using them, the total number of pages comes out to 66,660,000 pages.

That is also a little hard to imagine, so let's see how many reams of paper that is. Take 66,660,000 pages, divided by 500 sheets per ream = 133,320 reams of paper. Again, a little hard to visualize.

A lot of things have their volume given in cubic feet. That's 12 inches x 12 inches x 12 inches or 1,728 cubic inches, or 1 cubic foot. I measured one case of paper at 11.25x9x17.5 inches, or 1,771 cubic inches. Let's be generous and round that off to one cubic foot. So at 5,000 sheets, or ten reams per case, we divide the 133,320 reams that we came up with by 10 to get 13,332 cases, or that many cubic feet of space.

Stipulating that an average house is 1,400 square feet with eight foot high ceilings, then the average house has 11,200 cubic feet of space, ignoring the walls. If you filled up your house, wall-to-wall, floor-to-ceiling, with cases of printed paper, you would still have 2,132 cases left over. If you are in better shape than I am, there is still room to get one car in that two car garage. That's $10' \times 20' \times 9' = 1,800$ cubic feet, so that still leaves us with 332 cases of paper. We could take all of the junk out of the other half of

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How Big is a 300 GB Hard Disk?...

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the garage, lay down a two foot thick layer of paper and put all the junk back in on top of it. That's how much the 300 Giga byte disk holds! So, unless you are planning on taking out a home improvement loan, don't buy that 400 Giga byte disk.

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The Shadow Knows by Mike Morris, Front Range PC Users Group

How many readers remember that phrase? Or remember listening to the show on the radio:

"Who knows what evil lurks in the heart of men? The Shadow knows."

Recent headlines have described the availability of TV shows on the internet—at a price. No headlines, however, for The Shadow or other radio programs from the 1930's and 1940's. The copyrights to a large number of the old radio shows have expired, and you can now download (or order) these programs in a variety of formats and listen to them through your computer or other audio equipment.

Whether your interest is historical research, for the nostalgia value, for a hobby, or for the simple entertainment value, the variety of programs and information about these old radio programs is astonishing. I originally searched the internet using Google and the phrase "old radio programs." That search returned over 20,000 hits over 6 months. The correct phrase should have been "old time radio." That search returned over 1 million hits from the past 6 months.

These websites provide an incredible wealth of information. I have checked a very small number of websites, and offer my comments on them. There are episodes of The Shadow, Sam Spade, The Thin Man—as you can see, I like mysteries. There are comedies, westerns, music, and much more.

By the way, how many readers remember the origin of Sam Spade? Do you recall the movie "The Maltese Falcon" with Humphrey Bogart? The movie was based on the novel of the same name by Dashiell Hammett (originally published in 1929), which introduced the world to Sam Spade. Another novel by the same author, "The Thin Man," (originally published in 1933) was turned into a movie starring William Powell and Myrna Loy. Here is a trivia question for you: who *really* was the Thin Man?—answer at the end of this article.

As you might expect, the audio quality of these old radio shows varies. Some websites allow you to listen to short samples of selected shows using either RealPlayer™ or Media Player, both of which are bundled with the Windows operating system.

"It is Thursday night, July 31, 1930. The time is 9:40 PM. Radio listeners tuned to CBS hear the first appearance of 'The Shadow'..." Thus begins the history of "The Shadow" as provided by the Old-Time Radio Program Guide, <http://www.old-time.com/toc.html>. This website has links to historical information on a number of old time radio programs and to other websites that include soundbites and stories, and to websites that offer programs on cassettes, CD's, DVD's, or direct downloads to your computer.

More history is available at Radio Days: A Soundbite of History, <http://otr.com/index.shtml>. There are links to history by category (Mystery, Private Eyes, Comedy, SciFi) and to histories of selected programs (Captain Midnight, Terry and the Pirates). This website also provides an historical timeline with important dates in radio broadcasting with descriptions of relevant programs. Selected downloads (soundbites) are included. There is a link to a schedule of old time radio on the airwaves (and on the internet).

At "It Seems Like Only Yesterday," <http://www.yesterdayradio.com/>, old radio programs are offered for sale on cassettes. Categories include: World War II and Civil War History, Big Band Music, Comedy, Westerns, Science Fiction, and Sherlock Holmes. The Big Band category includes Glenn Miller, Benny Goodman, Tommy Dorsey, and other broadcasts from the 1940's.

The "Radio of Yesteryear" website, <http://www.originaloldradio.com/>, claims to have 50,000 old time radio programs available on CD's, in various formats. There is a category called "Radio's Best 1000," and "single subject" CD's such as Abbott and Costello, CBS Radio Mystery Theatre, and many more.

Meanwhile, back at . . . old-time.com, there is a link to a website called "Radio Showcase," http://www.old-time.com/sponsors/rad_sho.html. This site offers an excellent searchable database, with "actor credits, recording sources, story categories, and program notes"

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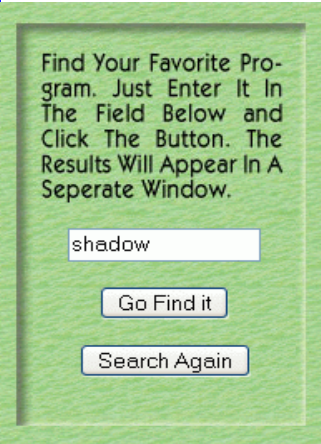


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The Shadow Knows ...

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Here is a sample of a search:



Here is a sample of the results of the search:



In the interest of objectivity, I call your attention to the RadioLovers.com website, <http://radiolovers.com>. This site claims to offer individual old time radio program downloads. However, I did not pursue the offer. I found the site's use of pop up ads objectionable (the ads appeared despite having the pop up blocker enabled in my Firefox browser). But that is my personal prejudice. For those with greater tolerance to such ads, you may find this site useful.

As I listened to these old radio programs, and read about their history, I realized that there was one program that I wanted to locate above all others: the original radio broadcast of War of the Worlds. This program, created from the 1898 H. G. Wells novel by Orson Welles and broadcast in 1938, is famous (or infamous) for the real panic it created.

A search using Google on the phrase "war of the worlds" provided the result EarthStation1.com, <http://www.earthstation1.com/wotw.html>. Success! I listened to the entire program (slightly less than one hour) using RealPlayer™. My brain soaked up certain phrases:

"... these creatures have scientific knowledge far in excess of our own"

"... a vanguard of an invading army from Mars"

Okay, so point your finger at me and laugh, while you enjoy the latest movie version with its extraordinary computer generated special effects. I thoroughly enjoyed the hour I spent listening to this classic radio broadcast. Even the 1930's audio quality added to its menace.

While you are watching the movie, I am going to dim the lights, turn off the TV, unplug the phone, and settle into my favorite chair. It is time to listen to The Shadow. Even in the 21st century, it is comforting that there is an answer to the question "who knows what evil lurks in the heart of men?"

"The Shadow knows."

[The trivia question answer: No, it is not the detective Nick Charles. The title of Thin Man belongs to the extremely eccentric inventor Clyde Wynant, who remains missing until the last chapter of the novel, when it is revealed that he is the victim of a gruesome crime.]

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Tech News by Sue Crane, Big Bear Computer Club

Microsoft Previews IE7

Internet Explorer's program manager, Eric Lawrence, recently posted a blog that said IE7 plans to support the Transport Layer Security protocol by default. He also explained how IE7 will behave differently from earlier versions when it encounters potential security problems. From an HTTPS page, users will be forced to access insecure content via the information bar, since only the secure content will be rendered by default.

IE7 is also rumored to have tabbed browsing similar to competitor Firefox.

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An End to Computer Annoyances – A Book Review by Gabriel Goldberg, APCUG

Many of us have mixed relationships with computers and technology. They enrich our lives but can be maddening at times. Books and magazines often tell us how great they are, but an O'Reilly book series addresses the dark side of the story by describing their annoyances and offers "help for newbies and powerusers alike."

The format of the books is similar to Q&A dialogues or lists of FAQs (frequently asked questions). They're not meant to be read from cover to cover but explored based on a particular need or curiosity. This search is assisted by good tables of contents and full indexes. The books are written in conversational English, pairing annoyances with their fixes, and include an abundant amount of clear and helpful screen shots.

While flipping through these books, the handy tips boxes lead to many "aha" moments and I was able to identify many solutions to current and future problems. Some of the content overlaps between books, such as Internet topics being addressed in its own book, Internet Annoyances, also being mentioned in both PC Annoyances and Home Networking Annoyances. You may want to read a general book along with those specific titles that address your main interests. Some books are in their second edition, making it worthwhile to check print dates and edition numbers before purchasing them.

Steve Bass, author of PC Annoyances, provides a good introduction, stating that "Many people are now realizing that they've been putting up with programs that have downright annoying features and yes, bugs. It's high time they learned they aren't alone, it's not their fault, and, most important, there are solutions and workarounds."

Bass' book isn't overly technical. It addresses topics such as e-mail, Windows, the Internet, Microsoft Office, Windows Explorer, music, video, CDs, and hardware. Many all-too-common problems are identified and solved, but it's not all-inclusive. For example, it doesn't mention Thunderbird e-mail or Firefox browser, both of which I like a lot, but they can be annoying too! Coverage of Windows XP SP2 is localized and not mentioned places where it would be appropriate. Varied software is recommended, free and purchased, downloaded and store-bought, and advice is provided on configuring Windows and applications. And non-annoyance bonus material, such as "IM Netiquette rules," which was both entertaining and valuable. I was happy to learn how adding a work menu to MS Word gives instant access to frequently-used documents.

Another book in this series, PC Hardware Annoyances, covers diverse topics including computer setup, keyboard, mouse, startup, BIOS/CMOS, memory, processor, maintenance, and battery. Some annoyances are offered up as questions, such as "Do I need specialized PC cleaning supplies?" The helpful and short answer is "no", since common materials, used appropriately, work just fine. Because everyone has unique interests and concerns, even the book's specialized items are useful and thought provoking.

Other Annoyances titles address computer privacy, home networking, the Internet, the Mac, Windows XP for geeks, and some Microsoft applications (Access, Excel, and Word), all of which are listed on the O'Reilly Annoyances Central Web site. This site also offers additional resources to combat computer-related annoyances with its Experts' Blogs (a good way to get your unique questions answered before they appear in a book), the Daily Fix (a stream of individual items from the books), and Robert's Rant (the slow-paced blog of Robert Luhn, the Annoyances series Executive Editor, who addresses topics such as whether Wikis can be trusted and the origin of his book series).

Title: PC Annoyances by Steve Bass, Paperback: 252 pages, O'Reilly Media, ISBN: 0596008821, \$19.95

Title: PC Hardware Annoyances by Stephen J. Bigelow, Paperback: 266 pages, O'Reilly Media, ISBN: 0596007159, \$24.95

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Tech News...

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A Computer for Every Kid

A \$100 laptop? A global effort is underway to make it happen by next year. It was a pipe dream only a few months ago but soon will be reality. An ambitious effort from MIT Media Labs to put a \$100 portable in the hands of every child in the world is picking up big corporate partners, top engineering talent, and interest from several countries. One Laptop Per Child (OLPC), a nonprofit venture, is expected to start distributing machines late next year and to produce 100 to 200 million in 2007.

AMD plans 4-core Opterons by 2007

Advanced Micro Devices put a quad-core server processor on its road map and promised to upgrade its software investments, as it outlined its general technology direction for the next couple of years. The new processor will incorporate four cores connected

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Tech News...

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together by a new version of the Hypertransport Interconnect technology, and will support DDR3 (double data rate 3) memory. The 2006 dual-core chips will also introduce AMD's Pacifica virtualization technology and its Presidio security technology into AMD-based systems. AMD's goal for 2006 is to improve its standing within the business PC market, both in desktops and notebooks.

Phishers use Phony IRS Tax Refund to Scam Consumers

A spam e-mail message has been sent around the world telling people they are eligible for a \$571.94 tax refund from the IRS. The e-mail offers a link to a fraudulent IRS Web site, but the link actually goes through a legitimate Government Web site. The link in the phishing e-mail goes to a forged IRS Web site that asks for a Social Security number, tax returning filing code and credit card details including security codes and PIN. The government is aware of the issue and is working to fix it.

New TiVO Product Promotes Targeted Ads

After introducing a generation of television viewers to the joys of skipping over ads, TiVO plans to launch a new service to let its subscribers seek out the advertisements they've cut loose from their TV viewing. Digital video recorder (DVR) maker TiVo is positioning the new service, scheduled for a mid-2006 launch, as a way for subscribers to find targeted ads in categories that interest them. The opt-in technology will let TiVo subscribers use keyword searches to look for information on specific products or services. The ad service will be free for subscribers; pricing for advertisers is still being determined.

Microsoft Considers Making Desktop Apps Free - With Advertising

Although no specific plans have been made, executives within Microsoft are examining whether it makes sense to release ad-supported versions of products such as Works, Money, or even the Windows operating system itself. Microsoft officials confirmed the authenticity of the paper, dated winter 2005, but declined to comment on its contents. But Chief Technology Officer Ray Ozzie and Chairman Bill Gates outlined some of the opportunities and the challenges Microsoft faces in a series of October memos. In the blunter of the two memos, Ozzie said Microsoft had an obligation to act on the shift to ad-supported software. "...It's clear that if we fail to do so, our business as we know it is at risk," Ozzie wrote. "We must respond quickly and decisively." The company's exploration of ad-supported software extends even to Windows, its most important product. An ad-supported version of the operating system could make some sense, Microsoft researchers argue, noting that the product reportedly earns \$9 per year per user.

A New Kind of Music Label

40 years ago Jac Holzman changed music distribution with the release of The Doors' album on his independent Elektra music label. He's introducing a similar change with Cordless Recordings - the first all-digital music label operated by a major record company, the Warner Music Group, which is launching on the Web and on digital music services such as iTunes and RealNetworks' Rhapsody. Music from the label's first six bands is being sold only online in 3-song "clusters" instead of albums. The bands will be promoted on blogs and sites like MySpace. Artists get to keep ownership of the master recordings they release under Cordless. If they want to release their music elsewhere after a short contract is up, they are free to do so. The Cordless Recordings label is an experiment for Warner Music, which has increased its focus on digital distribution, and a bet that inexpensive Internet distribution and marketing may give labels a cost-effective way to nurture new bands. On the label side, it's an attempt to reach out to a music-consuming world that is deserting radio and record stores for iTunes and MySpace.

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Sony BMG – Shame on You! *by John Brewer, Computer Club of Oklahoma City*

Computer users may have noticed the recent brouhaha about Sony music CDs. Is there a valid issue or simply a lot of heat with no real threat?

The issue developed from the desire of Sony-BMG to copy-protect its music CDs. If the music CD is played in a personal computer, and the "accept" button is clicked, then software known as XCP is installed. XCP reportedly uses "rootkit" technology. Wikipedia states that a "rootkit is a set of software tools frequently used by a third party (usually an intruder) after gaining access to a computer system. These tools are intended to conceal running processes, files or system data, which helps an intruder maintain access to a system without the user's knowledge. Rootkits are known to exist for a variety of operating systems such as Linux, Solaris and versions of Microsoft Windows. The rootkit concept is the dominant controversial aspect of the 2005 Sony CD copy protection controversy, which has made the previously obscure concept of a rootkit much more widely known in the technology community, and to the general public."

The technical issues seem to be rather complicated, but a survey of the articles available on the Internet is disturbing. Apparently, rootkits install a backdoor to the computer and are difficult to remove. Apparently, there is a patch available that may or may not remove the Sony software. Personally, this author thinks the only alternative is to avoid Sony CDs or to avoid playing any Sony CDs

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Sony BMG – Shame on You!...

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on a personal computer. The music industry is very serious about copyright violations and may think that the “end justifies the means’ in this particular matter.

The following is a portion of a Sony response dated November 18, 2005. “You may be aware of the recent attention given to the XCP content protection software included on some SONY-BMG CDs. This software was provided to us by a third-party vendor, First4Internet. Discussion has centered on security concerns raised about the use of CDs containing this software. We share the concerns of consumers regarding these discs, and we are instituting a mail-in program that will allow consumers to exchange any CD with XCP software for the same CD without copy protection and receive MP3 files of the same title. We also have asked our retail partners to remove all unsold CDs with XCP software from their store shelves and inventory. Please click here for exchange program details.

“Our new initiatives follow the measures we have already taken, including the voluntary suspension of the manufacture of CDs with the XCP software. In addition, to address security concerns, we provided to major software and anti-virus companies a software update, which also may be downloaded at <http://cp.sonybmg.com/xcp/english/updates.html>. We will shortly provide a simplified and secure procedure to uninstall the XCP software if it resides on your computer.”

Sony sounds like it is trying to respond in a responsible manner. However, this type of response is also an attempt to institute damage control. Sony has been sued by the Electronic Frontier Foundation and the Attorney General for the State of Texas regarding this practice.

EFF filed its complaint in a California state court on November 21, 2005. The EFF Web site states that “by including a flawed and overreaching computer program in over 20 million music CDs sold to the public, Sony-BMG has created serious security, privacy and consumer-protection problems that have damaged music lovers everywhere.

At issue are two software technologies: SunnComm's MediaMax and First4Internet's Extended Copy Protection (also known as XCP), which Sony-BMG claims to have placed on the music CDs to restrict consumer use of the music on the CDs, but which in truth do much more, including monitoring customer listening of the CDs and installing undisclosed and in some cases hidden files on users' computers that can expose users to malicious attacks by third parties, all without appropriate notice and consent from purchasers. The CDs also condition use of the music on unconscionable licensing terms in the End User Licensing Agreement (EULA).

After a series of embarrassing public revelations about security risks associated with the XCP software, including warnings issued by the United States Government, Microsoft and leading anti-virus companies, Sony-BMG has taken some steps to respond to the security risks created by the XCP technology. Sony-BMG has failed, however, to address security concerns raised by the MediaMax software or the consumer privacy and consumer fairness problems created by both technologies.”

The Attorney General of the State of Texas has also filed litigation regarding the same spyware from Sony. The Web site for the AG addresses the litigation. Today [Texas] “sued SONY-BMG Music Entertainment as the first state in the nation to bring legal action against SONY for illegal “spyware.” The suit is also the first filed under the state's spyware law of 2005. It alleges the company surreptitiously installed the spyware on millions of compact music discs (CDs) that consumers inserted into their computers when they play the CDs, which can compromise the systems.

The Attorney General's lawsuit alleges the New York-based company violated a new Texas law protecting consumers from the hidden spyware. The company accomplished this by using new technology on certain music CDs to install files onto consumers' computers that hide other files installed by SONY. This secret “cloaking” component is installed without the knowledge of consumers and can cause their computers to become vulnerable to computer viruses and other forms of attack.

“SONY has engaged in a technological version of cloak and dagger deceit against consumers by hiding secret files on their computers,” said Attorney General Abbott. “Consumers who purchased a SONY CD thought they were buying music. Instead, they received spyware that can damage a computer, subject it to viruses and expose the consumer to possible identity crime.”

SONY insists on its Web site that it has recalled all affected CDs. However, Attorney General's investigators were able to purchase numerous titles at Austin retail stores as recently as Sunday evening.

According to SONY's Web site, the company recently distributed millions of CDs across the nation on 52 CDs by various artists. These CDs contained embedded files used for copy protection – or XCP technology. The files prompt consumers to enter into a user agreement to install SONY's audio player. By opting into the agreement, which Sony represents is the only way a consumer can listen to these CDs on a computer, the consumer is unaware that SONY secretly installs files into the computer's Microsoft Windows folders. Consumers are unable to detect and remove these files.

SONY-BMG claims on its Web site that this XCP technology merely prevents unlimited copying, is otherwise passive and does not gather personal information about a computer user. However, the Attorney General's investigation into this technology revealed that it remains hidden and active at all times after installation, even when SONY's media player is inactive, prompting concerns about its true purpose.

The Attorney General's lawsuit also alleges that a phantom file is installed to conceal the XCP files from the user, thus making it difficult for the user to remove the files from his or her computer. Moreover, recent news accounts allege that newly created viruses that exploit this phantom file have been spreading. A user unfamiliar with installation – and removal – of this technology may

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Sony BMG – Shame on You!...

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be vulnerable to new security risks and possibly identity theft.

Because of alleged violations of the Consumer Protection Against Computer Spyware Act of 2005, the Attorney General is seeking civil penalties of \$100,000 for each violation of the law, attorneys' fees and investigative costs."

Sony-BMG - shame on you!

John Brewer practices law in Oklahoma City, is a member of the Governor's and Legislative Task Force for E-Commerce, and enjoys issues relating to eBusiness and cyberspace. Comments and questions are welcome and can be emailed to johnb@jnbrewer.com.

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Protect and Purge Your Personal Files by Alyson Munroe, Microsoft

When you stop and think about it, your home computer holds a lot of information about you – credit card numbers, bank account details, passwords, medical information, websites you've visited and those deep, dark secrets you share with your best friend via e-mail.

There naturally comes a time when it's time for an upgrade, whether it be a bigger hard drive or an entirely new PC. But what should you do with the old one? And what about the information on it? You need to remove this information whether you donate it, sell it or trash it.

Imagine your hard drive – including all of your personal information – falling into the wrong hands. That's what could happen if you don't do a little damage control before you dispose of your hard drive.

Why "delete" isn't enough

Many people think that clearing their history, deleting files and cookies, and emptying their computer's recycle bin is enough. Not so, according to Vancouver IT specialist Tony Lum. He says that's like removing the table of contents in a book. The chapters (or your files, in this case) are still there, they're just harder to find.

What you've actually done is remove a particular file from the disk's index. The file itself still exists on your hard disk. For the average person it's harder to recover, but an experienced programmer (or hacker) could easily locate the file. Previous or temporary versions of the file might also be saved under different names.

You need to go one step further and overwrite your data. Lum recommends you **back up everything** (www.microsoft.com/canada/home/planningandorganizing/2.6.5_backupyourcomputerfiles.asp) you want to keep on your hard drive and then run hard-drive wiping software, which will overwrite your information with random ones and zeros. He also recommends you use a program that overwrites your data more than once. The more it's overwritten, the harder it is to recover.

Select software to wipe your hard drive clean

Is it impossible to retrieve your information afterwards? Not 100 per cent, but Lum says unless CSIS or the CIA is after you, you should be in the clear after using one of these disk-erasing tools that are available for you to download online:

- ◆ **Active @ Kill Disk** (www.killdisk.com): This free hard drive eraser overwrites data using zeros. You can upgrade to the professional version that conforms to the US Department of Defense (DOD) standards.
- ◆ **Eraser** (www.heidi.ie/eraser/): Eraser is a free download that boasts a simple user interface and top reviews from a number of popular computing websites and magazines.
- ◆ **Softpedia/DP Wiper** (www.softpedia.com/get/Security/Security-Related/DP-WIPER.shtml): Toronto IT consultant Daniel Gresser recommends freeware programs from Softpedia, like DP Wiper, which can overwrite in

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Protect and Purge Your Personal Files by Alyson Munroe, Microsoft Mindshare

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from one to 35 passes and has DOD-compliant wiping.

- ◆ **WipeDrive** (www.accessdata.com/Product07_Overview.htm): For \$39.95 US, WipeDrive overwrites your data as many times as you like and runs a verification test.
- ◆ **SuperScrubber** (www.jiiva.com/products/): Mac users can try SuperScrubber for \$29 to \$49 US, which also boasts DOD compliance and an intuitive interface.

"Always keep a record of where all important files are stored," says Gresser, who recommends deleting each file by dropping it into DP Wiper and selecting the kind of wipe required.

Unless you take the hard drive out and keep it, to get a PC ready for sale, Gresser suggests PC users delete the following using DP Wipe or a similar program:

- ◆ Everything in the My Documents folder.
- ◆ All temporary Internet files.
- ◆ All cookies.
- ◆ All files relating to personal and financial matters that may have been stored in folders other than My Documents.
- ◆ All e-mail: Outlook Express users need to search for and delete *.dbx files and Outlook users need to search for and delete *.pst files. This will send them to the recycle bin for secure deletion. Also, remember to remove all e-mail account settings and passwords, etc.

Reinstall your operating system to overwrite files

Your operating system's installation CD should allow you to simultaneously reinstall and clear your hard drive. Lum says this should be enough to prevent the average person from obtaining personal information from your hard drive. However, he says he's managed to salvage data from computers using third-party software even after an operating system was reinstalled.

Protect information on your work computer

You'll also want to think about personal information on your work computer when it's time to move on to a new job. You can't wipe the hard drive since the computer isn't your property, but you can make it somewhat harder to find sensitive information by deleting personal e-mails, clearing your web browser's cache and history, deleting any personal files on your hard drive and emptying your trash or recycle bin.

Playing it safe

Still concerned? Don't dispose of your hard drive. "The bottom line is, if you're really concerned about identity theft then don't give away your hard drive," says Lum.

Gresser also recommends taking some preventative measures when you set up your new computer. "One thing people can do to make disposing of PCs with sensitive data easier down the road is to encrypt their data as soon as they get a new PC or hard disk," he says. "If strong encryption is used then you can format the drive and dispose of it with the computer. Someone who wanted to retrieve the data would first have to undelete the data and then try to break the encryption, which is not going to happen." He suggests using BestCrypt from **Jetico** (www.jetico.com) to encrypt your documents.

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