



The Cursor



Monthly Newsletter of the
Washington Area Computer User Group

Meeting Location:
Fairfax County
Government Center



Next Meeting:
May 12, 2007



Presidential Bits

March 2007 Meeting

By Paul Howard

At our April meeting, Bill Walsh donned the mantle of “White Knight” and filled in for an ailing Bob Mason, whose back turned left when he turned right. We wish Bob a full and speedy recovery. Bill presented an interesting discussion on recording or “burning” quality DVDs, based on research he’d been working on for several months. Geof Goodrum filled the remainder of the afternoon’s program with a presentation about Internet comparison shopping web sites. Handouts and slides from both presentations are available on the “recent meetings” page of the web site at: <http://www.wacug.org/recmtgs.html>

During the meeting’s Q&A session, items discussed included: Intuit’s plan to offer refunds of electronic filing fees to customers impacted by server problems around the federal filing deadline; the release of the Thunderbird version 2.0 mail client from Mozilla.org; Dell and several other manufacturers are offering the opportunity to buy new computers with Windows XP installed, rather than Vista; and the Scantips.com web site was suggested for help

with scanning photographs and other materials.

Our May 12th (2nd Saturday) meeting will be centered on photographic topics, a favorite subject based on membership surveys of interests. WAC member Lorrin Garson will discuss “**Photography Challenges in Travel.**” Traveling presents a number of challenges for taking photographs, whether using traditional film or digital equipment. Arctic and equatorial climates offer special challenges. Religious views in Muslim countries, cultural differences and political situations present other challenges. Photographing children and other wild animals can be stimulating and frustrating. Besides cameras, what other equipment should you take? In what ways are film and digital photography alike? Are there any special considerations for travel outside the U.S.? What special considerations are there in using digital equipment? How can you get decent photos in bad weather (rain, snow, etc.)? Primary focus will be on amateur photography with both point-and-shoot and SLR cameras, but with emphasis on the latter. Sample photographs will be shown.

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Lloyd's Web Sites for May, 2007

by Lloyd Johnson, WACUG Member

<http://www.wacug.org/> is the URL for the Washington Area Computer User Group. Visit it for past issues of Web Sites with hyperlinks

1. Get added Sun protection by adding RIT SunGuard to clothing — www.sunguardsunprotection.com
2. Want a job? Help family-owned business function well and deal with succession planning — www.ffi.org
3. Also, provide administrative support for companies — www.ivaa.org also www.businesswheel.org/ search for “virtual assistant
4. Guide to Municipal, Zero-coupon and other types of bonds — www.investinginbonds.com
5. Parent/teacher Web site for high-quality homework reference material and project ideas — <http://www.thegateway.org>
6. Exploring the Planets — <http://www.nasm.si.edu/ceps/etp/>
7. KiloWatt. Method of calculating a specific appliance electricity costs. Multiply the appliance wattage (found on back of its nameplate) by the number of hours you use it per day, then multiply by the number of days you use it per year. Divide that total by 1000 and multiply by utility company's kilowatt charge (6.97 cents per kwh –for Dominion). A 200 watt fan running 4 hours/day for 120 days costs \$6.69 per year.
8. Your car wasn't built for the way many people drive. Stop-and-go traffic, etc. For a typical maintenance and repairs you likely will need go to — <http://carcare.org/index.shtml>
9. Free books, articles, short stories etc — www.YouGetInfo.com
10. Postal Rate Increase. On 14 May 2007 cost of a first class stamp will be 41 cents, up from 39 cents. After 12 April 2007 you can buy a 41 cent “forever stamp” that will be valid no matter how much rates go up in the future.
11. You may not have to pay old debts. All states have statue of limitations for debt collection. — <http://www.creditinfocenter.com>
12. Type in the common name of a flower and within seconds up pop enlargeable photos of the flower along with its scientific name and where it grows. Try begonia — <http://elib.cs.berkeley.edu/flowers>
13. Major League Baseball Stats for pre 1984 — <http://retrosheet.org>



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Shooting Camera Raw and Digital Asset Management by Chuck Roberts

Professional photographers are migrating to shooting camera raw images. What is camera raw and why are they switching to it? Is this important to me? What's the benefit of shooting camera raw? Chuck will demonstrate camera raw images and how to deal with them using Photoshop Elements 5.0 and Photoshop Lightroom for digital photographers. In addition, he'll demonstrate how both Photoshop Elements 5.0 and Lightroom help with digital asset management (managing your photos) to assist you in locating that special photo you're searching for in your digital collection of 5000 photos (and still growing). How many digital images do you have?

These topics and our usual Q&A help session will be the highlights of our May meeting – you can't afford to miss it!



NCTCUG

Visit our “sister” user group. The National Capital Technology and Computer User's Group meets the first and fourth Wednesday of the month. They meet in Carlin Hall in Arlington at 5711 South 4th Street. Visit their web site for more information, a map and directions:

<http://www.nctcug.org/>

Meetings start at 7:00 PM



GNU/Linux SIG

by Geof Goodrum

Geof has been under the weather since the April meeting and has been unable to write his regular articles for the May issue.

We all wish Geof the best and look forward to his articles returning in the June issue.

Geof, hurry up and get better will ya? We miss you and your stuff!



Diskeeper 2007 Pro

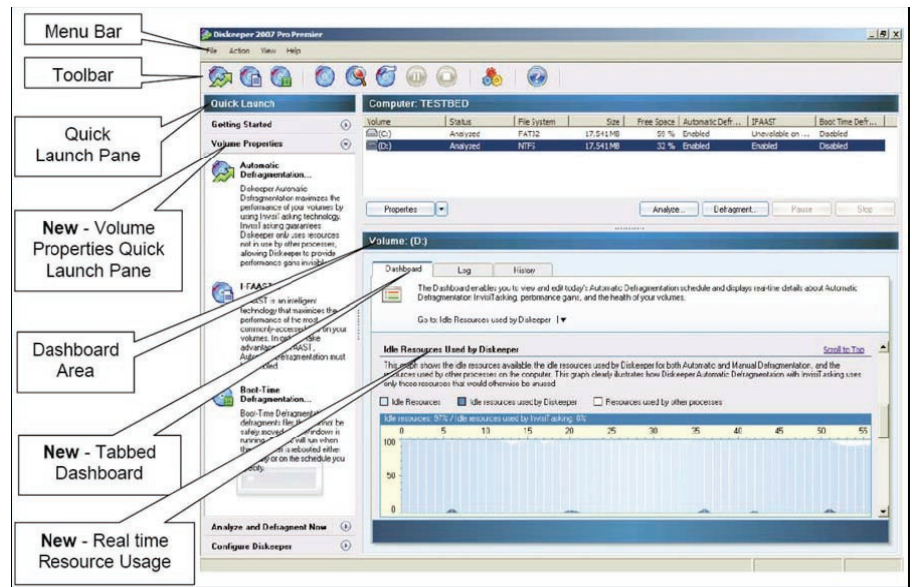
Premier — Enhancing File System Performance – Automatically

By Verne Perry, PCC Member

First off, I'm not very impressed by the recent release of Windows Vista, primarily because I vainly hoped that with this Windows version, Microsoft would finally solve its file system problems. It didn't. So on my Windows machines I'll continue to have to worry about the eventual sluggishness that results from the file fragmentation that occurs just with use of the machine. Between home and the office I maintain 8 XP machines, and one Windows 98 machine, that acts as a server, and to keep all of these machines

running smoothly I spend a lot of time routinely defragging them. I found long ago that using Windows Defrager was an extremely slow process, and over the years developed a maintenance routine which involved using windows checkdisk to check the disks on boot-up along with using a freeware program called SpeeDefrag 4.1, which would then defrag the disks prior to any drivers or startup programs being loaded. But the process is not automatic, and often my procrastination in actually starting the process resulted in the machine getting so defragged that there was a noticeable performance drag.

“I-FAAST” (Intelligent File Access Acceleration Sequencing Technology) file system performance technology which is designed to benchmark hard disk volumes for their performance characteristics and continually monitor them to determine which files are requested most often, was integrated with the operation of the “InvisiTasking” product. For safety, Diskeeper 2007 moves a file only when it is absolutely certain that no data will be lost using a “Movefile” application programming interface (API) jointly developed with Microsoft. Although manual defragmentation with Diskeeper is still possible, it is not the way the



So I was happy to receive a copy of Diskeeper 2007 Pro Premiere to evaluate. The Diskeeper promotional materials said that this version introduced a major new feature called “InvisiTasking”, a proprietary feature that transparently runs in the background and that this “on the fly” defragmentation used “very close to zero” resources and was invisible.

Indeed, InvisiTasking was described as being the “essence” of the product. Moreover, Diskeeper’s older

product is now intended to be used. I decided to test Diskeeper on my home XP machine, because it’s the one that has the highest rate of defragmentation, due to my frequent installation and uninstallation of various test programs. That machine also has a Linux partition which I wanted to use as a “curve ball” thrown into my testing. Other than the “curve ball” Linux parti-

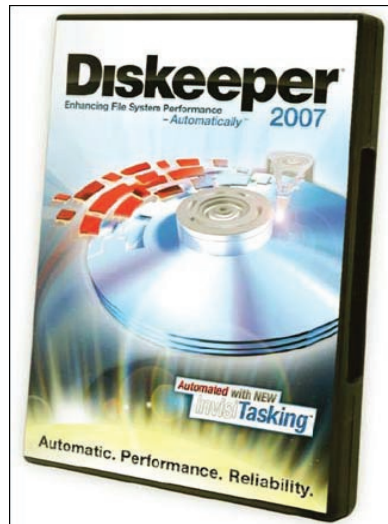
See *Diskeeper 2007* page 4

tion, the machine's other hard disk partitions were formatted in NTFS, for which "InvisiTasking" and "I-FAAST" technologies were optimally designed.

The first thing that Diskeeper did when I installed it was to analyze all of the Windows hard disk volumes. I was pleased that it skipped the "curve ball" Linux volume, since I wouldn't want Diskeeper dealing with that volume anyway. It also reported that my C:\ drive was heavily fragmented, which I expected. However, I was surprised that the analysis included a report generated by the FRAGSHIELD feature of the program, advising that the drive's Master File Table (MFT) was using 86% of the total MFT size and was likely to become fragmented. Despite having previously tested a fair number of defragmentation programs (both commercial and freeware) I had never before seen such a test or option to optimize the MFT. Windows XP initially establishes the size of the MFT, but as more files are placed on the disk the MFT may fill up, and when XP increases the size of the MFT to accommodate the needed additional indexing, the increase usually results in a fragmented MFT. Because the MFT is an index of all the files on the disks (working in much the same way that phone book stores phone numbers), a fragmented MFT will cause a disproportionate amount of file performance degradation. So I decided to follow Diskeeper's recommendation to increase size of the MFT to correct this problem, as well as to do a boot-time defrag of the increased MFT and the windows pagefile. I also decided to thoroughly test the "on the fly" "essence" of the new ver-

sion by setting all my drive volumes for automatic defragmentation.

Despite my initial skepticism about an "on the fly" defragger, my experience with Diskeeper was very positive. Immediately after completing the initial set up I decided to put the "on the fly" features to an immediate test. In my experience, playing a fast paced first person shooter game is an excellent way to test the drag imposed by a program running in the background, so after the initial setup I immediately fired up Unreal Tournament 2004 for a two hour test session. I noticed a drag for nearly the whole session, but in the



three weeks since that initial test, I have played the same game and also done other things, trying to detect a drag from Diskeeper's "on the fly" defragmentation. Since that initial session, I have detected no drag whatsoever. On the other hand, I have noticed that my machine is running much smoother, faster, and otherwise free from any symptoms of fragmentation. Finally, I ran the Analyze feature on all my hard disk partitions, and found that in the three week period there was essentially no new fragmentation.

I also tested Diskeeper on an external USB drive formatted with

NTFS. Diskeeper was able to analyze and defrag the drive. Although the analysis indicated that the external drive's MFT needed to be increased, I knew that would be impossible because there is no practical way to perform a boot time defrag on such an external drive.

I'd say that as long as Windows continues to use the NTFS file system, which requires periodic defragmentation, I would highly recommend Diskeeper 2007 Pro Premiere, which is priced at \$99.99. You can do your own test by downloading a free 30-day full trial version from the Diskeeper.com web site.

Installation requires an XP or 2000 operating system and at least 11 MB of disk space. There is also a Pro version for \$49.99 (which does not have the integrated I-FAAST feature, but does have the FRAGSHIELD) and the Home version which does not have either the I-FAAST or the FRAGSHIELD feature). As for Vista, existing Diskeeper 2007 customers can go to the web site to receive a free link to download a Vista-only version, and new customers can purchase the Vista-only version. Of course another solution is for the business world to go to an Operating System that doesn't have these archaic file system problems. How about something called Linux?

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Adobe Photoshop

Elements 5 — A

Software Review

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Adobe Photoshop Elements 5 is a photo editing and organizing program that also includes easy to use features to backup your photos, and really fun creative ways to show off your photos to family and friends.

Adobe Photoshop is the top of the line photo program for the professionals and costs hundreds of dollars. Elements (under \$100) has many of the same features as the professional version with a lot of fun and easy features added in, making it the software choice for the non-professional user like you and me.

The software installs the Adobe Photo Downloader in your system tray and is ready instantly whenever you plug in your camera or memory card. Your photos are downloaded into the Organizer where you have easy access to them for viewing, tagging, creating collections, printing, emailing, creating all the fun projects, or switching to the Edit mode for a Quick Fix or Full Edit. Your photos are identified by Elements in Catalogs. You can have multiple catalogs for different users of your computer in the family, or say for photos that you may use for work which you want to keep separate from home photos. You can even use the Organizer to select photos to order prints online or size and send through your email client. Your photos are managed by date with a timeline across the top of the screen that is very easy to navigate when you are looking for a photo

at a specific time on the calendar. The Tags and Collections feature takes a few extra minutes when you first download the photos, but sure makes it easier to select certain photos when you are ready to create a project. Tags can be given for photos of specific family, friends or places and events. Collections work in a similar fashion but could include several different people, say in a vacation.

Since software packages come with little or no manuals, I find that one of my first places to explore is the Help feature. The Adobe Help Center, which is on the Help menu, includes a very extensive index of help on the program as well as hyperlinks to video tutorials on the Adobe web site. The Help Center includes a very good Search tool with easy navigation and even a Bookmark feature where you can bookmark a topic that you may want to return to again quickly. I was also offered free online tutorials from Adobe after I registered the software. Be sure to take advantage of this offer. There are eleven video tutorials that give a very good overview of everything from getting your photos into Elements to creating fun creative projects. Another quick way to get to help on any of the tools on the screen is to hover your mouse over the tool and a link appears that takes you directly to the Help Center on that tool. You will find that you don't miss the manual with this complete Adobe Help Center.

When the Elements program starts there is a Welcome Screen where you can choose to open the Organizer, Quickly Fix Photos, Edit and Enhance Photos, or Make Photo Creations. Once you decide which mode you want to begin with you can set the Welcome Screen to al-

ways open in that mode or stay with the Welcome Screen. Since you need to open a photo in order to edit it or select several photos for projects it made sense to me to always open in the Organizer mode.

With a right click of a photo in the Organizer you can select the Go to Quick Fix feature as a truly "quick fix". With this feature you are able to fix the most common problems with your photos without having to know any of the more advanced features. Now mind you the advanced features are in Elements, but you may find that you seldom need to go into that mode to get the results that you want. With Quick Fix mode you have auto buttons for lighting, color, sharpen and red eye. Then if the auto button doesn't quite get the photo like you want there are fine tuning levers to adjust to finish the job. If you just can't get the look you want you can click the Full Edit tab from this window and go into the more fully featured mode of Elements to complete the task.

Some of the new features for editing in Elements include correct lens distortion, sharpen blurred edges, fine-tuning with curves, creating dramatic black and whites and support for raw files. One of my very favorite features of Elements in the Full Edit mode is the Artwork and Effects Palette. From this palette you can pick from dozens of backgrounds, frames, graphics and shapes. Then select a style for that object from a dozen more selections and just drag and drop onto your photo. This palette includes different themes for effects, filters for effects and text styles, all applied with a double click. There is even a Favorites area where you

See *PSE 5* page 6

can drag an effect that you especially liked and want to get back to quickly. A couple other favorites of mine in the Full Edit mode are the Adjust Color for Skin Tone and the Spot Healing Brush. If you have a photo where the skin color just doesn't look right you can use the Adjust Color for Skin Tone feature to quickly change the skin tone by using the eyedropper over the skin. If you want the result a little more tan or blush there are easy adjustments in that same dialog box. The Spot Healing Brush works wonders for those marks and blemishes just by clicking over the area. There is also a new feature called Magic Extractor that provides an easy wizard to extract an object (or person) from your photo. Again there are fine tuning options in this wizard if the extraction is not quite what you want. I found that this features works very well. The red eye fix in Elements 5 is by far the best red eye fix that I have used in a photo editing program. There is even an option to have red eye corrected as your photos are being downloaded from the card reader.

Elements 5 has added a Back-Up and Restore feature that allows you to back up your photo catalogs to a server online (you have to sign up for this service). The online back up service through Adobe Photoshop Services gives you a 30 day free trial. There is also a Back-Up feature that will do Full and Incremental back ups of your catalogs to a CD or DVD, another drive, or another folder on the hard drive. This feature is Wizard driven and makes this very important task quick and easy, without leaving the Elements software. This feature is right there on the tool bar along with all the

other online services.

Once you have your photos downloaded, edited and backed up it is time for the really fun part of Elements 5 – creating projects like photo book pages, photo layouts, album pages, greeting cards, CD and DVD jackets and labels, slide shows, VCD's with menus, photo galleries and flipbooks for the web, photo calendars, and PhotoStamps. Most of the print projects can be printed on your own printer or ordered through an online service that can be set up with a wizard right in Elements. I didn't register for the online service but was very tempted by some of the neat projects that can be created and then sent off for printing and delivery. For instance the photo calendar can be created with 12 of your photos and then step through the wizard to choose the cover, page layout, and title, etc. Then through the wizard the calendars will be printed, bound and mailed – what a great idea for Christmas gifts!

I decided to create a slide show with photos taken at Disney World. After selecting the photos from the Organizer and then selecting Slideshow from the Create menu the wizard started with slide show preferences and then the main Slideshow Editor opens with very full featured options that are available in most of the stand alone slide show programs. This feature is like a program within a program – I am really impressed with the scope of the Slideshow Editor. There are transition options, panning and zooming, audio and narration, and adding blank sides and graphics and text.

See Figure 1 on page 7

Once you have the show the way you like it the Output feature opens another wizard for options to save the

show as a file, burn to disc, e-mail the show or send to a TV. The wizard works great burning to a Video CD format. (The only option that I would like to see added would be to burn to DVD.) If you have several slide shows that you would like to burn to one CD you can select the Create a VCD with menu and the wizard will allow you to add multiple slideshows and then create a menu before burning.

The next project I tried was to create a Photo Gallery. With the same Disney photos selected the Photo Gallery opens a wizard with three types of galleries; Web Galleries, Animated or Interactive. With Web Galleries chosen the wizard asks for arrangement of the photos on the page and a style with both options showing thumbnails of how your choice will look. Next the wizard opens a dialog window with more options to customize, such as Gallery Title and Slideshow duration and effects. You then can select where to Share the gallery; either choose Do Not Share (which saves to your hard drive), Photoshop Showcase (more about this later), My FTP Site, or CD. I also tried the Animated and Interactive galleries with the same photos. The wizard makes creating these very complex shows a breeze. If you don't know how to publish to your web space a dialog box offers simple steps to help with that task, or you can register and sign on to the [free](#) Adobe Photoshop Elements Showcase feature. This is an online community for users of Elements to upload and share their photos and galleries.

Each project that you create and save is added to the Organizer at the top. If you want to edit a project you just double-click the project

See PSE 5 page 7



Figure 1

file and the wizard that was used to create it opens. All of the print projects like the Photo Book Pages, Photo Layouts and Album Pages, are saved (with multiple pages when applicable) with a .pse extension. The print projects are wizard driven and offer step by step selections for size, layout, theme and then additional options depending on the project chosen. I decided to make a print project of a CD cover and label for the Disney slide show that I created earlier. The wizard walked me through the entire process opening Elements in the Full Edit mode with my selected photo and all the layers in the layer palette created – it truly seemed like magic. Since you are left in this mode you can then adjust or fine tune the project before saving and printing it.

One feature that I was not able to try but may be of interest to some

reading this review is the ability to download and upload photos from a mobile phone.

I highly recommend Adobe Photoshop Elements 5. There is an upgrade rebate in the box of \$20, so if you are using an older version you can take advantage of that. The price today at Amazon.com is \$69.99 with free shipping and your \$20 rebate makes the total price \$49.99. There are other special offers at local stores and online. Visit Adobe's web page www.adobe.com for system requirements.

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McAfee SiteAdvisor

By Sandy Berger, CompuKISS

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Anyone who has been on the Internet for a while realizes that even websites that look benign can generate viruses, adware, spyware, spam, and scams. Until now, it was difficult to determine which websites to avoid. Now, however, safe surfing just got easier. Now there is a wonderful free program that warns you about dangerous websites.

The McAfee SiteAdvisor is a small piece of software that works with your Internet Browser (either Internet Explorer or Firefox). It tells you in an easy graphical format which websites are safe and which harbor spyware, viruses, excessive pop-ups, or online scams.

McAfee has a system of automated spiders that patrol the Web constantly checking out websites. They assess the safety of each website including how much spam is generated from signing up for information at that site and how much spyware, adware, and other nasties might be attached to downloads from that

See *Site Advisor* page 8

site. The SiteAdvisor will also alert you to sites with excessive pop-ups and those that are possible phishing sites. Besides the automated testing, McAfee has a team of individuals who assess the sites. They use a detailed analysis as well as feedback from individual users.

To use the SiteAdvisor, you simply download the free program. The program is very small, so it downloads and installs quickly and it doesn't slow down your Web surfing.

After installation, a small SiteAdvisor rectangle will appear either on the top (Internet Explorer) or the bottom (Firefox) of the screen. When you visit a site that SiteAdvisor considers safe the rectangle turns green. Sites that have serious security problems will turn the rectangle red. A yellow rectangle means that the website may have some problems or issues. You can click on the SiteAdvisor symbol to get more information about the website that you are visiting and why it is considered safe or unsafe.

This information is invaluable when surfing the Web. With SiteAdvisor installed you don't have to be fearful that signing up for more information or a newsletter will set you up for spam. You don't have to worry that downloading software will install spyware. In fact, SiteAdvisor takes much of the fear out of investigating and trying new things on the Internet.

Another great feature of the SiteAdvisor program is that when you do a search on Google, Yahoo! or MSN, SiteAdvisor's safety ratings appear as a red, green, or yellow circle next to the search results. You can easily see if a website is safe before you visit!!

What a pleasant and useful service. If you want more information before you click on the search engine listing, just hover your mouse over the SiteAdvisor icon and a window will pop-up giving your details on the site's ratings.

Everything that I just described about the SiteAdvisor is available in the free version. McAfee also offers a Plus version that is available for \$19.99 per single user or as a 3-user family pack for \$39.99. The Plus version offers even more peace of mind by alerting you to dangerous links in email and instant messaging programs. The Plus version also has a password protected mode that can actively protect your computer against dangerous websites. This version is perfect for anyone who wants a little extra protection. It is also great for shared computers and computers that children or grandchildren use. Click [here](#) to download the SiteAdvisor.

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Why You Need A Firewall

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bwsail at yahoo dot com

When you connect your computer to the Internet, you have opened a door which invites any other com-

puter in the world to come in. Actually, you have more than 65,000 doors into your computer, any one of which may be open. That is, unless you have taken steps to keep these doors closed. That is the purpose of a firewall. The firewall filters the information packets that show up at your "door" or computer port as we usually refer to it, and can either prevent them from entering or pass them through.

When your computer connects to the Internet, it is assigned a numeric address or IP (internet protocol) address. These addresses are a 32 bit number. They usually written out in four groups with periods between each group as follows: 111.11.11.111. Traveling over the Internet are many programs that simply look for unprotected IP addresses. The IP address of any unprotected computer is sent back to the originator who can then upload a trojan or spyware package to that address. The originator can then take control of the computer or the application will record keystrokes and send all recorded information back to the program originator.

Although your computer has one IP address there are many different ports on your address. There are different ports for different purposes on your computer. Your connection to the Internet is usually through port 80. This is referred to as the HTTP (hypertext transfer protocol) port. It is used when you connect to a web page. The web page data is downloaded to your computer through this port. Another commonly used port is 25. This is used for the SMTP (standard mail transfer protocol) or e-mail transfer. Another port is used for incoming mail or POP3 transfer

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is port 110. These are all part of the port series from 0 to 1024 that are the most common ports. Many applications use ports in this region including PC Anywhere, Internet telephones, MSN messenger, Net Meeting, and all AOL operations. Ports 1024 to 49451 are referred to as registered ports. There are many Internet games that use ports in this region. There are also other specific functions assigned to these ports and some may duplicate functions in the common port region. The final group of ports are dynamic and have no specific functions registered. However, the point is that all of these ports can be accessed by remote computers somewhere out on the Internet and use them to connect to your computer if you have not protected them.

Automated port scanning software is available free on the Internet from many “hacker sites”. Its use is very common on the Internet. There are various types of scans. Some scanners will look for any of the 65,535 possible ports. Another type looks for open UDP (user data protocol) ports or may use an FTP (file transfer protocol) bounce to hide the origin of the scan. If an open port is located, software can be downloaded that will open a “backdoor” on your computer. This allows remote input and output. Such access can be used to record and transmit out information from your computer. It can also be used to attack other computers to produce a “zombie” network. Such networks have been used to attack large computer servers in attempts to bring them down or to produce a “denial of service” attack.

Many users believe that a router with a firewall is adequate protection. Most routers use either net-

work address translation (NAT) or a packet filter. Information on the Internet is transmitted in packets which contain the IP address of the sender and the address of the receiver in addition to the data. The routers firewall uses filters that look at the sending and receiving addresses of incoming packets on port 80 (HTTP). Only those packets that are a response to an outgoing request are allowed through. If your router uses a packet filter it can be penetrated by a fragmented scan. This type of scan breaks up packets into fragments which can easily get through the simple packet filter found in most router firewalls. Routers using NAT either alone or in combination with a packet filter can also be easily thwarted. NAT is not successful when the packet is an FTP packet or is sent by Microsoft’s Netmeeting or similar audio/video applications that bury the address in the body of the packet. Only when the address is in the header of the packet can the router use address substitution. So packet filtering and NAT, although useful, do not provide complete firewall protection for all Internet connections.

Another method for preventing intrusions is “stateful” packet inspection. This is the method used by most software firewalls and is found in some of the newer routers. When your web browser opens a connection to the Internet, the firewall software records that connection and keeps a record of its status. Whenever a packet arrives at your computer, the data in the packet can be compared to the information in the firewall state table. The firewall software can also make decisions based on the data content of the packet, not just the sender’s address. Because this examination does require some time there may

be a slight slowdown of your system. However, in most cases, there will not be a long enough delay for most users to notice.

So inbound packets can be filtered and examined for dangerous content. However, when the user connects to a web server, the page requested is downloaded to the users computer. It is possible for that web page to contain a small program or a link to a dangerous site in a one pixel unit on the page. When this is downloaded the program is run or the link activated. This results in an outgoing packet to some Internet address through a non-standard port so the user is not aware of the activity. This type of activity would not be stopped by a hardware firewall in a router. It can only be blocked by a software firewall which recognizes that this activity is coming from a new application that has not previously made an Internet connection. In this case the software will query the computer user to determine if this new application should be allowed to connect. Hopefully, the user would recognize that this was not an application that the user was running and the outbound packet would then be blocked. It is absolutely necessary for the firewall to process both incoming and outgoing packets. Only a software firewall can establish the necessary tables for comparing the incoming/outgoing packets to allowed activity and request user interaction when necessary.

This leads us to the Windows firewall. This firewall, as used with Windows XP, does not have any control of outbound packets. Any application is allowed to connect to the Internet without any filtering or

See *Firewall* page 10

other checking of source or content. Windows Vista was supposed to come with both inbound and outbound filtering. However, as it is delivered it provides only inbound protection just as did XP. The outbound protection is turned off by default. So, if it is there, how do you turn on the outbound protection. To change this you have to use the Microsoft Management Console. Then you have to write a rule to block each “malware” application you anticipate might get on your computer. You can not create a general rule for all malware. Creating rules that would cover all possible malware applications is an impossible task. Microsoft has been quoted as saying “outbound filtering isn’t really needed, and the key is making sure that malware doesn’t infect the PC in the first place.” Also they have stated that large enterprises had requested that it be turned off by default. Microsoft does say that “core Windows Services have specific behaviors which are monitored by the firewall”. Instead of using outbound filtering Microsoft recommends that you buy “Windows Live OneCare”, a product and subscription service. My recommendation is that you obtain a free two-way firewall like ZoneAlarm and ignore the Windows firewall completely.

Whatever you do, don’t connect your computer to the Internet without using a firewall and an antivirus application. I have come across too many computers recently that are attached to constant on Internet connections and had no protection. The cost of removing the malware from these systems was more than the cost of premium protection. So

don’t get caught short!

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: bwsail at yahoo dot com.

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Recovering Files from a Hard Drive

By Vinny La Bash, a Member of the Sarasota PCUG, Florida
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Have you deleted a file that you need and you don’t know how to get it back? The first step is to make absolutely sure that it has been deleted. Open your Windows Recycle Bin and double-check. Is it in there? If so, simply right-click on the file and choose Restore.

If you have emptied the Recycle Bin the next step is to restore the file from your latest backup. You do back up your data regularly, don’t you?

Unfortunately, there is no native “Undelete” command in Windows XP. This is abysmal for Windows users, but profitable for third party software developers.

It’s important to understand that when a file is deleted it is not actually removed from your system. Windows deletes only the first letter of the file’s name and replaces it with a marked for deletion charac-

ter. This makes the file “invisible” to windows, and if Windows needs the space for something else, it has no qualms about overwriting your valuable data.

What this means is that if you accidentally delete a file, you have a limited amount of time to recover it before windows stores something else over the same space. It may not happen right away, but it will happen eventually.

Since there is no way within XP to recover a lost file, you have to turn to a third party solution. The good news is that there are several excellent programs that will do the job easily. The even better news is that these programs are free. Isn’t that nice?

Use Google or your favorite search engine to find *FreeUndelete*, *PC Inspector File Recovery*, or *Undelete Plus*. All of them work well though you may find one easier to use than another. That’s a matter of personal preference.

You need to be cautious about this. If you download the utility directly to your hard drive, you run the risk of storing the undelete program over the very data you are trying to recover. If you have a second hard drive, you can download to that or **better yet**, download directly to a thumb drive. That avoids all danger of losing important data, and it has the additional advantage of immediate portability.

The programs all work similarly. Direct any of the programs to a specific disk and you will get a list of all deleted recoverable files on the drive. You may also get a description alerting you that the file(s) may be wholly or partially recoverable. That’s good to know. ...*Edited to fit*



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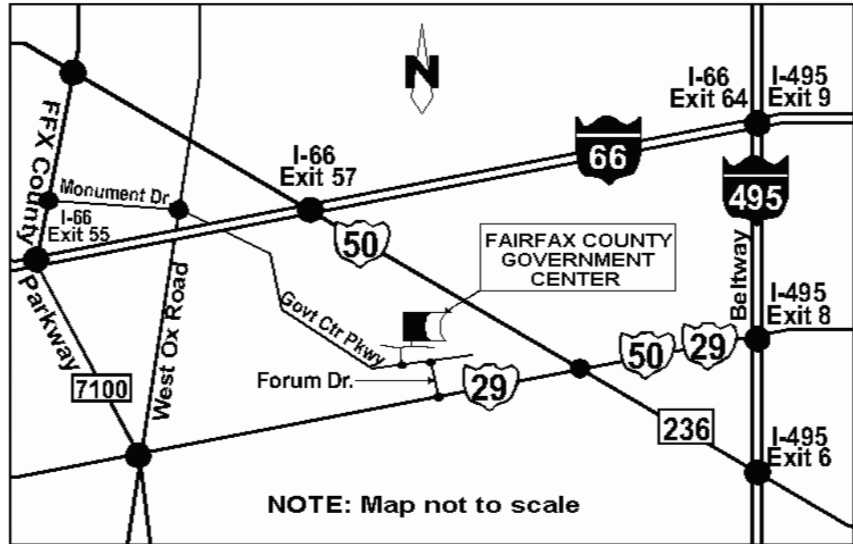
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Photoshop Workflow Setups

A Review by John Donan, a Member of the North Orange County Computer Club, CA
www.noccc.org
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I knew I had seen that girl before when I found her on the frontispiece facing Chapter 1. There are also eleven other excellent full page images, some used in examples, five are facing the other chapters. I had seen the frontispiece on the Creativepro Website, under “Photoshop How-To:

Tame the Beast,” (<http://www.creativepro.com/story/howto/24366.html>) which turns out to be Chapter 1 of the book which I also found at <http://www.oreilly.com/catalog/photoworkflow/>. I found these in my early research for the book. When I start a review, I browse for a cursory knowledge of a book’s content then I research the author. I also find comments of other reviewers in case there is something I might overlook. Eddie Tapp, this author, is an award-winning photographer, lecturer, consultant, and author on digital imaging issues with over 20 years of experience in computer technology with a very impressive resume. From what Scott Kelby states on the cover, “If Eddie’s teaching a session, I want to be there!” it implies that teaching is one of his strong points.

A statement preceding Chapter 1 says, “Adobe Photoshop has so many different work areas and tools that it can become confusing or even intimidating for digital photographers to use in a production environment.

The fact is, there are only three particular zones or areas that you really need to become familiar with: tools, menus, and palettes.”



Upon examining my version of PS CS2, I find 58 tools and 198 menu items which include the choices for the 19 palettes. Sixty of the menu items have further choices, as high as 20 or more in fly out menus as do all the palettes as well. Each of the tools has settings, relative to its function, which are made in its option bar. To place an order of magnitude on all this I assumed the number of secondary choices to be ten, it can easily be justified that there are over one thousand choices possible. You can add to this, keyboard shortcuts. There are 521 of them, I have counted. What can be done in Photoshop seems unlimited when multiple processes are involved. I created an effect using an adjustment and a filter; when I reversed their order the result was entirely different. Combine more than two such executions and the possible combinations and permutations grow tremendously. This is why the author says, “What is important is learning this information one step at a time, finding the option or settings that are important to your workflow and then building from there.” This book intends to make this humongous set of choices manageable.

In 207 pages, the material covered had to be limited. Instead of pick-

ing apart a mass of nitty details the book provides guidance in overall effective usage. The book starts with efficient organization of the workspace. Anyone using Photoshop knows how quickly palettes hog the visible area (Tools and Options are palettes by the way). I cleaned up my work space by his example most of which is ignored in teachings elsewhere. This first chapter covered using a second window (see figure 1 which is typical of the illustrations of the book) and also tiling images, neither of which I had done previously nor had I ever considered the 9 settings possible for the status bar, via its black triangle. The rest of the first chapter concerns the Bridge.

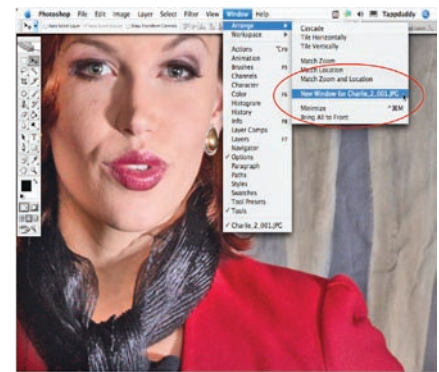


Figure 1, Photoshop opens a second window of your active image when you select Window > Arrange > New Window. It’s perfect when you want to do detail work and see the entire image at the same time.

About 20% of the book concerns the Bridge, Photoshop’s file browser. I had read where another Photoshop author refuses to use the Bridge because he feels it is yet too early in its state of development. This appears to be the case with my software for it will not open either Photoshop or JPEG images in Photoshop a feature of its main usefulness. To correct this will be expensive. Adobe

See *Photoshop Workflow* Bonus Page 2

technical support has told me that they require an advance payment of \$39 to address either of these problems (\$78). For those who are able to properly use the Bridge, or willing to pay to make it work, it is covered in Chapter 5 of the book.

All palettes are covered and should one want to get a quick handle on a palette you don't use, such as Layer Comps, the information is there. Although the information for this palette is held to one page, it is adequate enough for me to have now mastered its use. The key palettes are stated to be these: Layers, Channels, Actions, History, Histogram, Color, Styles, Paths and the Info window. To unclutter his workspace, Tapp places his most active palettes in the Docking Well, cycling them as he needs them. By saving this configuration, it is always available as a starting workspace at some future time. One of his notes in this part of the book introduced me to the Scrubby Slider. It has been in existence since CS. When the mouse cursor is in the vicinity of a slider label, it changes allowing the slider value to be changed without having to grab the slider exactly.

Preferences allow you to tailor your work to your needs. Of course some are more important than others. Chapter three considers those the author has found to be most important. As with other Adobe programs, the Preferences dialog box can be accessed via Ctrl-K. Nine dialogs are selectable. A point came up regarding image interpolation and the General Preferences dialog which is not widely known. For Image Interpolation: Bicubic Smoother is designed for up-sampling images, while the Bicubic Sharper is designed for down sampling images.

Compared to some of my 600 page books, there is twice as much information on preferences in this little guy

The chapter "Customizing Keyboard Shortcuts and Menus" is brief (12 pages) but handy, should one want to specialize either of these for personal use. An adjustment, which I regularly use, is Shadow/Highlight. It is also frequently used by the author. He has assigned for it the shortcut Shift+Ctrl+M which I have now also done, thanks to this chapter. Should I lapse into my old ways and traverse Edit>Adjustments>Shadow/Highlight the selection is handily highlighted in red (my choice.)

In the preface for the last chapter (Tapping into the Tools), the author states: "What is your favorite tool in Photoshop? Most people will say without reservation, the Clone Stamp tool. Yes, it's a very powerful tool indeed, but the Clone Stamp tool can also be the most dangerous if it's not used properly." What he is referring to is repetitive patterns which aren't seen until after the image is printed. In slightly less than a page the use of this tool is completely covered. In fact this concise coverage brought home to me two features I had overlooked using.

I will continue using this book as a handy reference as can others whose PS skills may vary anywhere from beginner on. The book details are:

Title: Photoshop Workflow Setups

Subtitle: Eddie Tapp on Digital Photography

First Edition: August 2006

ISBN: 0-596-10168-6

Pages: 207

MSRP=\$30.

The book is available from O'Reilly

at a discount of 35% to user group members.

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Secure Your Flash Drive Cap

By Fran Damratowski.

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Have you ever misplaced your flash drive cap? No need to ever do that again. Secure it with a button. You will need:

- a shirt button,
- some heavy thread such as carpet thread,
- double sided self-sticking adhesive mounting foam,
- double sided sticky tape, and
- some colorless nail polish.

1. Run the thread diagonally through two of the button-holes and secure with a square knot.
2. Place the knot on the top of the button not on the flat bottom of the button.
3. Cut the thread long enough to secure it with enough play to remove the cap.
4. Cut a small piece of the double-sided self-sticking adhesive mounting foam about the size of the button.
5. Remove the backing from one

See *Flash Drive Cap* Bonus page 3

side of the double-sided self-sticking adhesive mounting foam and place a small piece of the double-sided sticky tape on the sticky side of the double-sided self-sticking adhesive mounting foam. (The double-sided self-sticking adhesive mounting foam does not hold well without the sticky tape. The tape alone does not hold well either.)



6. Securely attach the flat side of the button to the sticky tape.
7. Trim the excess tape and foam using an x-acto knife.
8. Remove the backing from the other side of the double-sided self-sticking adhesive mounting foam and place another piece of double sided sticky tape on the foam.
9. Securely attach the button foam and tape to the flash drive cap.
10. Secure the other end of the thread to the flash drive or lanyard.
11. Leave enough play to easily remove the cap, but not get tangled.
12. Use the colorless nail polish to

secure the knots so they don't become undone.

13. After the nail polish dries trim the thread.

OR

You could go to your local photo shop and buy a \$2+ button size lens cap keeper (or cap retainer) and modify it as needed. Most of them appear to come with elastic bands that are placed around the lens barrel as opposed to a leash that can be attached to another part of the camera.

tension at the end of a file name mean? (MS-DOS required file-name to limited to eight characters for the base or root name and three characters for the extension. Windows 95 and above no longer have that limitation.) The three letters or numbers are a way for the computer user, software, and operating system to differentiate between and identify the program used to create a file (document, spreadsheet, database, etc.). We are all familiar with .exe for an executable file, .txt for a text document, and .pdf for a PDF file. There are many other file extensions. The same file extension may be used for more than one program. There is no standard or organization for creating file extensions. This month we will begin to list some of the extensions.

Here is the A list of some of the extensions and the file types they represent.

- .a: An ADA program, Unix archive file, Macintosh assembly source code, Free Pascal Archive file for Linux or DOS
- .a2b: A2B Player Playlist
- .abx: Word Perfect Address Book file
- .aby: AOL file
- .adr: Address Book, Address Plus Database, After Dark Random Screen Saver Module, Opera , Smart Address addressbook, Web Browser Bookmark File
- .albm: webAlbum Photo Album, Photosmart Photo Printing Album
- .alz: ALZIip compressed file, game file
- .aps: MS Visual C++ file, Flash (Italian), ArcPar Ver. 5 Symbolology, Advanced Patching Systems with Error Checking
- .arl: AOL Organizer file
- .arj: Compression archive

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File Extensions

By Fran Damratowski,
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Have you ever wondered what the three alphanumeric ex-

- .ars: Adobe After Effects Render, Artifax Report Editor
- .asl: Adobe Photoshop Layer file, Quest Adventure game, AppSight Console Log
- .asm: non-unix assembler source file, Pro/Engineer Assembly file, LICOM AlphaCAM Stone Parameter Macro, Solid Edge document
- .asmx: Microsoft .NET Web Service file
- .asp: active server page
- .atn: Adobe Photoshop Action file
- .au: Audio file, Audacity Audio block
- .aud: Audio file
- .avb: Inoculan Anti-Virus virus infected file, Microsoft Chat character file, Avid Bin File
- .avd: Avery Label Pro Data file, DOS7 file
- .avi: Audio Video Interleaved animated file (Windows Video, Quicktime, RealPlayer)
- .awb: Lavasoft Ad-aware backup file, ActiveWords WordBase, Adaptive Multi-Rate Wideband ACELP codec
- .awd: AWD MS Fax, Award BIOS file, AWK Language Source Code file, Artweaver Painting, FaxView document
- .awe: Adobe Acrobat Bookmark XML file
- .awm: Animated Works Movie, AllWebMenus, RenderWare Language Pack

When you look at a list of files you may notice that the file extensions are hidden. To find out if they are hidden right click "Start" then left click "Explore", then click on a file folder on the left side of your screen. If you do not see file extensions they are hidden you can make them visible by following the actions below.

Windows 98

Select "View" then "Folder Options". Select the "View" tab. Scroll down to "Hide file extensions for known file types" and uncheck this box.

Windows XP

Select "Tools" then "Folder Options". Select the "View" tab and scroll down to "Hide file extensions for known file types" and uncheck this box. Click "Apply to All Folders"

Vista

Click on the "organize" button. Select "Folder and Search Options". Select the "View" tab and scroll down to "Hide file extensions for known file types" and uncheck this box. Click "Apply to All Folders"

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