Blowing Your Tax Refund

by Brent Ozar

Houston Area League of Personal Computer Users

Every financial planner warns against carelessly spending your tax refund as if it's free money - but hey, somebody has to be the devil's advocate, right? 364 days a year, the humble author reads Dave Ramsey books, but when that tax refund comes in, forget it. Get a cart, baby, not one of those handheld baskets. The only thing more fun than spending my tax refund is helping spend somebody else's.

Rough year, only $100: Logitech QuickCam Orbit

I've had the same reliable basic Logitech Quick-Cam for years as a webcam on my www.BrentOzar.com site. It works great for video conferencing with my folks who aren't so lucky as to live in Texas. Webcams are webcams — for the most part, any old $30 model will do the job. The software makes more of a difference than the hardware.

All that changed when Logitech came out with the first new webcam to tempt me into spending my not-so-hard-earned money. At first glance, the Orbit looks like a futuristic iMac-style version of the ancient QuickCam, now shrouded in clear plastic. The difference becomes apparent when you install the drivers: using basic image processing, the Orbit tracks your position as you move around - and then uses its built-in motors to move the camera's lens to track you.

Like the Logitech iFeel force feedback mouse I picked up a couple of years ago, the novelty wears off quickly. Both devices are better in theory than in execution: the iFeel's harsh mechanical motors always made cheap grating noises, no matter what settings I used, and the QuickCam Orbit seems to suffer from the same low-quality materials decisions. The Orbit made louder noises than my two computers with four CPU fans. Another improvement could be made in the drivers: I'd like to see the camera track movement regardless of the source so that I could mount it on my back patio and watch the squirrels while I work. (Talk about a frivolous purchase.)

If you've got $200 to burn: Tivo

Tivo is a very, very smart and easy-to-use VCR, but with a computer hard drive instead of changing tapes. Tivo watches you watching TV, learns what shows you tend to watch, and automatically records shows that it thinks you'll like. It can pause and rewind live TV without any special setup. With the Home Media Option, it can even play MP3's stored on your home computer. DirecTV subscribers get a special deal: DirecTivos, satellite receivers with built-in Tivo technology, are available from chain electronic stores for around $70-$100.

Tivos haven't caught on quickly because it's hard to understand how powerful and easy to use they are without using it yourself. Stores never have Tivos on hand hooked up to televisions for demonstrations, so ask around, find a friend with a Tivo, and odds are they'll be more than happy to evangelize the Tivo experience. I show it to all of my friends, and a surprising number have run out and purchased their own. (And believe me, it's not because I'm good at sales.)

If you already have a Tivo, check out the Home Media Option, but don't use Tivo's software. Use JavaHMO, available at javahmo.sourceforge.net. It's a free, open source version that will show local weather, movies, and even stream Internet radio like Shoutcast.com direct to your Tivo.

Big spenders with $500 to blow: PDA Phone

After living with an Audiovox Thera for the past few months, I can vouch for the usefulness of being able to surf the web from absolutely anywhere - and not the fake web, either. Those folks at the store who say people can "surf" on a 1.5" monochrome screen should be forced to get directions from MapQuest over that phone: it's a joke.

On the other hand, surfing with a handheld PocketPC phone is a relative joy: I've been able to pull sports scores, get directions, and even check the status of my tax refund while waiting in lines, relaxing at halftime in arenas, or the ever-popular Houston pastime, sitting in traffic. Today's PocketPC and Palm-based phones can render normal web sites quite well, albeit with some scrolling involved. Is it worth the $500, though? No - and that's why it's classified as a Tax Refund Special.

Show me the $600–$700! 19" Flat Panel

This represents the ultimate tax-refund purchase - not because of its high price, but because it's simply hard to justify spending over $500 on a monitor when you can get a perfectly good old-style CRT monitor for half the price. To add insult to injury, CRT monitors usually offer higher resolutions. But we're throwing around free money here, right?

It's hard to make a bad selection in the 19" LCD monitor category. Most models here offer 1280 x 1024 resolution, and most offer similar contrast rates. However, one thing sets the Dell 1901FP apart from the rest: it rotates 90 degrees, from landscape to portrait mode. In portrait mode, entire web pages are visible without scrolling — long pages

like www.DrudgeReport.com are more readable. The only drawback is that when the monitor is rotated, the video signal doesn't automatically rotate to match it. The user has to make operating system changes in order for the display to be flipped. Different video cards and operating systems have different ways of flipping the display: my Nvidia- based card has an icon residing in the system tray that can rotate the display with two mouse clicks. Hotkeys can also be assigned to do this with just a few keypresses.

From the January 2004 issue of HAL-PC Magazine. Brent Ozar is a web developer and network admin. You can have his Dell 19" flat panel when you pry it from his cold dead fingers. He can be contacted at brento@brentozar.com.

DVD Writer and Other Stories

by C. Jayaraman

Santa Barbara PC Users Group

I had just delved impulsively into buying a DVD writer, (a Sony at that!), we thought why not write about the trials and tribulations of this gadget. The model is Sony DRU-510A an AT API (EIDE) internal drive that was a DVD/CD writer. What forced me get this was the trouble I had watching movies with my "Maddog" DVD Player which kept stopping in the middle of playing a movie and stop to fill the buffer and go on or just lock up. I could not troubleshoot this $30 waste of a hardware.

The Sony replaced both my CD-R/RW and DVD player freeing up one slot. I had sacrificed my zip drive to install the Maddog, but now 1 was happy to restore everything to a semblance of normality. Life is good — or so I thought. The happiness was short lived.

The Sony did a super job of playing all formats including writing to DVD-R+, DVD- R-, DVD-RW+, DVD-RW at Ix, 2x, 2.4x, 4x speeds. I was not sure which format was the best. The CD reader is 32x and writer is 16x, which are not the best but adequate for most users. The DVD buffer is 8Meg, which I felt, would solve the freezing problems I had with the Maddog. I think it did, since I have not had any issues so far. I have also bought samples of all different DVD media blanks. They are not cheap. Even on sale the DVD- ROM costs about $1.50 and RW about $3 for a 2x.

I started to quickly learn about archiving (copying) my movies. Not an economically sound idea since the time that you spend is more than one would expect. My first file download was DVDDecryptor (a free program) that does a super job of copying the DVD to CAV format files on to the hard- drive. The Independence Day (1D4) which was 4.77GB filled a cool 7.34 GB on the hard drive since the original is a dual layer. I played it back and the result was rather pleasing. I had to play it, a chapter at a time. Now the challenge was to transfer to another DVD. For this I had to research the web sites and found DVD-X-Copy was the coveted one to get. The drawback is that it will not recompress the files back from the hard drive. It really insisted on doing its own decrypting and insisted on copying on two DVD blanks. Not a cost-effective solution since each RW blank cost $6 and I could buy a previewed copy for $9.

All the media moguls crying about people copying the movies is real nonsense. First of all, the DVDs are supposed to last several decades which is far from the truth. I have seen several failure modes including layers peeling off the DVD that are bought with hard earned dollars. I am sure if it happens five years after purchase no manufacturer is going to replace it.

The DVD itself is over-priced to the maximum extent the public will not complain. A DVD costing $1.40 to manufacture and market is sold for about $20. It is reasonable to expect an owner /collector would want to save the movies in some form. The analogy is to the good old vinyl records, which lost their high end of the sound spectrum after about 5 or 6 playbacks. The audiophiles usually copied them on to tapes and listened to tapes, hopefully preserving the original for at least a decade. The story from the consumer is the same regarding DVDs.

I had more than one idea

Back to the story. My other reason was to back up my hard drive to the DVD. The program MySonyDVD that was packaged with the drive did a super, flawless job. However, I forgot that it was going to go back and verify every file after copying. Needless to say, this effort took about 4 hours, way past my bedtime, but I am backed up.

DVDDecryptor and DVD-x-copy decryptor took about the same time to rip the files from the ID4 disc to hard drive. I researched further and found the DVDCCOPY express version which is about $50, and will copy the DVD movie back on to one disc. Web research shows that the quality suffers slightly
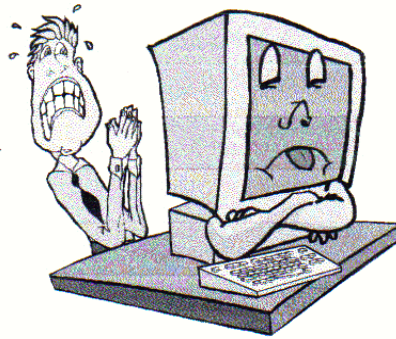
and may not show up unless you are playing back on a digital TV, which I don't possess.

Inhuman Computers

by Elizabeth B. Wright
Oklahoma City Personal Computer User Group

Older-model automobiles, airplanes and boats could be cajoled, sweet-talked and occasionally reasoned with. That's why many people gave their cars, aircraft and water craft names (usually women's names) and made them part of the family. But that is mostly because they operate by virtue of the internal combustion engine principle. (I'm talking about the days before computer chips replaced some of the mechanical functions of vehicle operations.). Also cars often take on the personality of the owner, much like pets do.

Computers, on the other hand, have no soul, no compassion, and certainly no desire to please. The computer is amoral (not immoral, except in the hands of some people), totally insensitive to invective or other forms of oral communication, cannot be humiliated by ridicule or strengthened by praise, and most certainly doesn't respond to human reasoning. The occasional kick only makes them more intransigent (and, they break, easily).

But your computer can sometimes be tricked. Since they have no sense of humor or sense of belonging, they do not understand that they can be replaced easily, usually by a superior, yet cheaper, machine. So they are not really trying to cooperate when you succeed in outsmarting them, they just honestly don't know any better.

Computers crash in ways that lead you to believe there is absolutely no way to recover any of your most valuable information. But one of the best tricks of the trade is to just (in the words of a long ago Oklahoma City weatherman) "turn the d_n thing off". Given an overnight rest, many computer crashes can be mitigated, at least for the short term, long enough to move your stored data to some other media, or even to another computer. Along with giving the machine an overnight rest, it is often advisable to unplug it from the electrical outlet after turning it off, to further enhance the rest period. I am not suggesting that this is an infallible procedure, but I personally have had it help more than once, and have talked with a lot of other people who have had similar luck.

Another trick, and this one is rather obvious, is to have

more than one hard drive. Storing your important documents on both drives helps with recovery should one drive fail. Again, the computer doesn't care whether it has one hard drive or a dozen. As long as it knows the drives are there, you can pretty much do your own thing. You wouldn't necessarily have two engines in your car, but two or more hard drives is a good idea. Help is out there to recover your data if one of the drives is still functioning, even if it isn't the boot drive.

Trick number three: Although the computer doesn't tell you so, it does like a cool and hopefully dust- free environment. It doesn't know it needs this, but when it decides to roll over and play dead, it is often because it is suffering from heat exhaustion. The newer the computer, the hotter it will get while it is on. Since many people now leave their machines running 24/7, the heat problem can become critical. Internal fans are the beginning, but keeping the computer in a relatively cool part of the room is also important. Keeping it in the vicinity of the heat ducts during cold weather is not a good idea. That just causes the internal cooling equipment to perhaps not be able to handle the job adequately.

Trick number four: Dirt and other stuff (bugs for example) can get into the computer case; it doesn't hurt to have someone (who knows how to do it) clean out the insides of the shell. I don't advise doing this if you aren't really technically adept as those small parts are so sensitive that you could do a lot more damage than just leaving it dirty.

Trick number five: In spile of how you might think you are communicating with your computer with fancy screen icons, word commands and pictures, the computer only knows two commands. They are "on" and "off." Most of the on/off switches are in those tiny chips, but the more you can think in terms of how little the computer actually understands, the more you can see why confusing it with conflicting programs can overwhelm its ability to function. More and more of us are wanting to use the latest and most sophisticated programs on the market, but just be aware that each new addition has the potential to cause your computer to become unstable. Plan ahead! back up your work!

Elizabeth Wright is a member of the OKCPCUG.

The DealsGuy
by Bob Click
Greater Orlando Computer Users Group

My wife and I worked the Lotusphere show held at the Dolphin and Swan hotels at Walt Disney World in Florida this year. There were between five and six thousand attendees from around the globe. Talking to attendees, one could pay as much as $1,600 depending on how many sessions you attend and how early you registered. Attendees received an expensive looking backpack/carrying bag. It was a three-day show and much was packed in on the show's exhibit floor. There were no large or small booths featuring any particular vendors, although Lotus was conspicuous since they were the hosts.

Lotus focused on Workplace 2.0 featuring integration with Eclipse open source tools and tools tailored to nonprogrammers. Eclipse offers tools for improving the ability to pull in the traditional feel of Notes, also offering drag and drop as well as offline capabilities. They debuted Workplace Builder, also included in Eclipse 2.0, offering other tools for nonprogrammers. They revealed more details of the Notes Domino version 7 messaging platform, due out around the end of 2004 or early 2005. There's more, but I don't really understand much of what I just said. <G>

The show floor was covered with small stands roughly eight feet tall and seven feet in diameter with a computer and product sign on each side. Their term for what I called stands was "pedestal." There was room for another exhibitor on each side of a pedestal, but in most cases that space was for brochures and give-a-ways. Many products were Notes and Domino plug-ins. Even though the show floor was very busy, there was plenty of room since all the pedestals were small and offered ample space for three or four people around a vendor. There were 90 two-station pedestals, 8 three-station pedestals and 4 five-station pedestals. Also counters with FREE Starbucks coffee and your favorite cappuccino, which had long lines that sometimes included my wife or myself.

That arrangement allowed many vendors to show products in a small exhibit hall. Vendors liked it because large vendor's gigantic booths did not overshadow small companies and everybody had about the same space to work. I'm sure it was one of the cheaper shows for exhibitors to show products. This isn't computer oriented, but I also found a few finger foods near the coffee, and some great give-a-ways at many pedestals around the show, although I skipped the many free CDs since I am not into networking, Notes or Domino.

All of the stands and operations were networked with a very fast connection considerably faster than a T3 line, and I doubt I would correctly repeat their explanation to me. The network's speed was actually restricted by the outside telephone lines, fast as they were. The IT guys I talked to had no certifications at all, but seemed very competent and said they travel all over setting up networks at trade shows. My wife and I only worked in the Dolphin Hotel, but to my knowledge, many of the sessions and some meals were held at the Swan Hotel with attendees going back and forth (sometimes in the rain). There was only 60,000-sq. ft of exhibit space, but 325,000-sq. ft. of meeting space for the learning sessions. 1,600 people could be served at each meal in the area where I was checking badges.

I felt few would be interested in a Sun System for two or three home-PCs, or an IBM high speed networking system of some kind so I didn't bother asking about deals. As a matter of fact, most of the products were very much over my head so I doubt I could describe them. I did ask one vendor about their antivirus products for the home user, but their marketing person was not there. In fact, my time on the show floor was limited because I was supposed to be working the show, not attending it. While IBM had a presence there, they actually had their own show about three weeks earlier with exhibits in only one hall of the Orange County Convention Center in Orlando, and parts of it also at the Swan and Dolphin Hotels at Disney World. We worked the "Super Show" during those dates so I missed IBM's show. The Super Show is an equally interesting large international sports supply show taking up the entire 1.6 million sq. ft. of the new convention center and was very interesting.

Document Delivery Anyone?

I don't know if you have read about it, but FedEx is buying Kinko's. You may wonder what they would want with Kinko's? FedEx is in the business of delivery and perhaps you didn't realize that so is Kinko's. Many business people turn to Kinko's as a form of portable business office so many of the documents handled by Kinko's are in digital form, including both incoming and outgoing, meaning FedEx will expand their document delivery business.

Update On Last Month's Column

My proofreader said my final release was incorrect in the statement about installing Diskeeper on a Windows Server. Since I am not knowledgeable in it, please check that out for yourself to get it right if a server installation is intended. Go to [http://www.execsoft.com/diskeeper/diskeeper.asp] for more information about the different versions of Diskeeper and the OSs they work with, or to [http://consumer.execsoft.com/home.asp] for more information and to order the Diskeeper and Undelete bundle at the special price while its still good.

Actually Free For Anyone

I received feedback on last month's AARP item saying the volunteer tax service is NOT confined to just AARP members. I actually knew that but the volunteers here said they don't advertise that fact because they might be overwhelmed. Anyway, everybody is eligible if your taxes are not too complicated and they want you to know that. One volunteer in another city said that volunteers there sometimes sit around with nothing to do. My apologies to the AARP volunteers for that misconception.

Check This Deal From MediaFour

I think all user groups received this special offer announcement from Sue Nail, PR Director for MediaFour. I'll include it here for my readers using her words:

"XPlay is the smart way to use your Apple iPod with Windows. XPlay brings the power of the ultimate MP3 player to Windows users. Just plug your Apple iPod into your Windows computer, and XPlay makes it easy to load your MP3 music and other files. $29.95 Downloadable version $39.90 Physical copy

"MacDrive for PC users – MacDrive 5 is the best way to use Mac disks with Windows. MacDrive software makes Mac disks act like normal PC disks, so it's a great way to get files both from Macs to PCs and from PCs to Macs. MacDrive wins its awards for simplicity as well as power! $49.95 Downloadable version $59.95 Physical copy

"Contact me for the special user group offer!!! Sue Nail. <suenail@cableone.net> [www.mediafour.com] Phone 605.235.1991"

The deadline for this offer is June 1, 2004 and I thank Sue for allowing the DealsGuy column to publish it.

Can That Spam!

Aladdin Software announced a special offer for users groups on SpamCatcher that they claim blocks 99% of the spam. Since these announcements often go only to designated officers in a user group who are usually very busy people, it doesn't always get passed on to the members, or if you missed the meeting it was announced at, you now know about this deal. I posted it on my Web site so I suggest you take a look at the posting on my announcements /Aladdin page. [http://www.dealsguy.com] Using their order form lets you purchase SpamCatcher (MSRP $29.99) at 40% off for just $17.95 + S&H. [http://www.aladdinsys.com /store] Remember to enter the code "User Group" (exactly as shown) in the "discount code" field. A 40% discount will be given when you hit "apply."

Also posted in that announcement is Spring Cleaning 3.0 (MSRP $29.99) for 40% off at $17.95 + S&H. which is a great saving. Check their Web site if you want more description. I have not tried either product myself so I cannot speak from experience on how it works.

That's it for this month. Meet me here again next month if your editor permits. This column is written to make user group members aware of special offers or freebies I have found or arranged, and my comments should not be interpreted to encourage, or discourage, the purchase of any products, no matter how enthused I might sound.

Bob (The Cheapskate) Click [Bobclick @mindspring.com]. Visit my Web site at [http://www.dealsguy .com] for past columns and many interesting articles I have taken from various users group newsletters.

A Novice's Struggle with CD-RW Drives

by Merrill Friend
Tampa PC Users Group

Some time ago I purchased a Buslink Ultra-high speed CD-RW external drive for a laptop which had only a CD Rom drive. The Ultra High Speed unit has a maximum write speed of 52X, which is plenty fast. Then I got some Ultra high speed CD-RW Memorex discs and I was in business. After installing the drive, which connected using a 2.0 USB port, all worked fine. I could easily record, erase and record again on those fabulous Memorex discs. I could select various record speeds, and all I tried seemed to work effortlessly. I also got some Sony high speed CD-R 700MB discs, which also worked fine and were considerably cheaper. This external drive was supported by Nero software. I was happy.

Later I purchased a new Gateway laptop computer with a built in CD-RW drive with Roxio

software installed. Since everything had worked so well with the Buslink external drive I expected that I would have the same wonderful and smooth experiences with the Gateway drive. I should never have been so naïve.

I tried my Memorex ultra high speed CD-RW discs in the Gateway computer and got a message from Roxio that I had not installed proper media in the drive and should immediately place a blank CD-RW disc in the drive. I tried one Memorex after the other in the drive and got the same message on all of them. I then tried the Sony CD-R discs which the drive did recognize and I was allowed to burn a CD-R disc.

Next, I went to Roxio's home page at Roxio.com. The first thing I needed there was the identification of the specific version of Roxio Software I was using and the serial number of the product. I was told that I could get that information by opening the Roxio program and then clicking on "HELP" where I could see the software version as well as the serial number. Well, I got the software version but no serial number. I was to learn later that this was because the Roxio software came installed on my computer, and I didn't have a separate Roxio disc with a serial number. Without a serial number I couldn't get technical support from Roxio. I had learned the software version was 5.3.5.10. I then called Gateway and they said it was Roxio's problem. Now why wasn't I surprised to hear that?

I ended up joining the Roxio online discussion group where a serial number is not needed. I soon learned I did need one more bit of information. I needed specific details on the type of CD-RW drive that was installed in my machine. I went to "My Computer", clicked on the CD-RW drive and selected properties and learned that I had a QSI CDRW/DVD 242U drive. Armed with all this data I was able to fully delineate my problem to the discussion group. Within a few hours I had one very good and helpful response.

The respondent indicated that he had researched my drive somewhere and learned that the RW rating for that drive is 10X Maximum. Thus it would be unable to read my Ultra High Speed Memorex discs. He then advised me that there are three speed groups for RW drives. Per this person, the speed categories are as follows:
- Low Speed, which is from 1x to 4x
- High Speed, which is from 4x to 12x
- Ultra High Speed, which is from 12x to 24x

He also added that Memorex discs are the most problematical for use with various machines and software, although they had worked perfectly with the external Buslink Ultra High Speed drive previously. I was advised by the writer that he had also had difficulties with Memorex discs of the correct speed range and had changed to Verbatim discs of 650MB size suggesting that the 700MB size of the Memorex may have also been a factor. He stated that the Verbatim drives worked fine.

I began shopping around for different brands of CD-RW discs. I didn't find any Verbatim discs, but I did locate some "High Speed" Maxell discs at Office Depot so I bought a small package of them. These discs were recognized by my laptop, but my machine indicated it would only read and write to this disc at a 4x speed. No other speeds were available on my machine. I tried writing to them and they worked satisfactorily although slower than I had anticipated. I was also able to erase material satisfactorily. So now I at least had a working CD-RW drive, albeit a slow one.

After all this difficulty, I began to wonder just why CD-RW drives are needed? Why not just a CD-R? Wouldn't that do just as well? All the new machines seem to be coming out with CD-RW drives, so naturally I wanted to have the latest most modern drive but what exactly can I do with it? I looked through the stock of CompUSA and had difficulty locating any CD-RW discs except for those Memorex discs mentioned earlier. Yet there were literally tons of CD-R discs of various manufacturers. That should have told me something. The CD-R's were also much less expensive and available in large packages at a discount.

For my purposes I felt the CD-RW would be helpful in making up discs to save and organize material which I might reorganize or make minor changes to from time to time until the project was finalized. Then when I had the material in its final state, I could put it all on one CD-R disc as a permanent record. Now I am beginning to feel that the cost of the CD-RW discs plus these slower speeds may not be worth the effort. Also, I may end up owning five different brands of CD-RW discs in order to find one or two that will work well with my equipment.

Perhaps I might just as well make a CD-R disc and redo it as needed in its entirety and throw the previous ones in the trash as the new ones are made. Perhaps that will work just as well.

I may have one other option. That would be to install the Buslink external CD-RW Ultra High Speed drive to this laptop and use it for all my serious CD-RW work. The question I am struggling

with is will this cause a conflict with my Roxio software for the factory installed CD-RW drive.

I suspect it should not since the Nero software for the Buslink external drive is designed to work only with that external drive (per instructions on the box). The Roxio software would continue to be used for the originally installed drive. If anyone has any other thoughts on that please let me hear from you.

From the March 2004 issue of Bits of Blue*, newsletter of the Tampa PC Users Group.*

Simplified File Format Choices for Digital Images

by Alex Dumestre
1960 Personal Computer User Group

Newcomers to digital photography (or to digital imaging in general) frequently ask me what file formats they should use. If one opens the "Save As" dialog box in a graphics editing program a list of many different formats appears (41 in PaintShop Pro v8 for example)! Which one should I use?

Just use the simple rules that I present here until such time as you learn enough about the subject to make your own informed choice to do something different.

There is no single format that is ideal for all types of images in all uses.

Image types:
- Photo Realistic: As the name implies, these are photographs as we usually think of them — people, parties, houses, cities, landscapes — the usual subject of snapshots.
- Other graphics: Just about any graphic image that is not a typical photograph.

The identifying characteristic of photo-realistic is that the colors or shades of gray very smoothly through many, many subtle differences whereas other graphics generally use only a few colors or tones. Examples of these are: Logos, Posters (think Toulouse Lautrec), Drawings, Web page buttons, Maps, Water colors and paintings (though some of these can get into the photo-realistic category).

Uses:
- Screen display: Computer screens tolerate low resolution pictures because computer screens are relatively low resolution devices. Images that are intended only for display on your computer screen or, by way of e-mail or "Web pages, for display on other people's computer screen can be treated in a special way.

- Printed: Images to be printed typically demand higher resolution (unless the printed images are to be very small).

With these definitions behind us, let's look at these tables:

What Format Should I Use?

Use		Type	
	Resolution	Photo Realistic	Other Graphics
Screen Display Only	72 ppi	JPEG	GIF (or PNG)
Printer	200 ppi	JPEG	GIF (or PNG)
Before final edit	As above	TIFF or editor's own	GIF (or PNG) or editor's

Format Considerations

- All graphic formats provide for storing the color (or grayscale) information for each pixel in the image. That is basic.
- All graphic formats also provide for recording some other essential or useful information but this differs widely among the various formats. Examples of this auxiliary information are: Transparency, Animation, EXIF, Layers, Masks, Print Size, Pallets, Alpha Channels, etc.
- Some graphic formats attempt to reduce the size of the file compared to its "natural" size, i.e., compress it.
- Some graphic formats are limited in the color depth (the number of distinct colors or shades) they support.

Let me make some comments about a couple of relatively new formats that will probably become much more prominent in the future.

1. PNG (pronounced ping) was designed several years ago primarily to overcome some shortcomings of the GIF format while retaining most of its strengths. A potential problem with GIF is that its compression technique is patented and software that writes it could possibly be sued or charged a license fee by the patent holder (CompuServe). Also, it was a rather ad hoc development without all of the usual discussions and compromises that are typical of a standard-defining organization. PNG retains a lossless compression and transparency while allowing 24 bit color depth. The best of both worlds. It is supported by the top tier browsers but has not caught on very well with Web writers.

2. JPEG 2000 (or JP2) was introduced a year or two ago as a successor to JPEG. It has some wonderful abilities, particularly its compression. Its major disadvantage is that the compression technique is computa-tionally heavy and I suspect that this is the main reason that it has not caught on with digital camera manufactures. This has slowed its acceptance in general. Whereas JPEG files at moderately high quality settings can be on 5 to 10% as large as the original image, JP2 files of the same quality can be as little as 1% or less as large as the original image.

With the above considerations in mind, let's take a look at a few distinguishing characteristics of a few of the most used formats.

- Color Depth (it takes 1 byte per pixel to store the color code when the color depth is 256 but 3 bytes per pixel when the color depth is 16 million),
- Compression type and quality.
- Even the subject of the picture influences how much the compression shrinks each picture.

File For- mat	File Op- tions	B&W Text 600 x 450	Photo 1280 x 960	Photo 640 x 480
TIFF	—	163 KB	1.8 MB	608 KB
JPEG	99 quality	149 KB	675 KB	—
	85 quality	68 KB	225 KB	48 KB
	70 quality	44 KB	80 KB	—
GIF	256 colors	31 KB	601 KB	171 KB
	16 colors	21 KB	—	—
PNG	16 mil-lion colors	55 KB	2.1 MB	564 KB
	256 colors	36 KB	612 KB	176 KB
	2 colors	10 KB	—	—
PSP	—	259 KB	2.62 KB	725 KB

From the March 2004 issue of PC News, *newsletter of the 1960 PC Users Group of Houston Texas.*

Computer Memory

by Brian K. Lewis, Ph.D.

Sarasota Personal Computer Users Group, Inc.

Occasionally the question arises as to how much memory can be put in a computer. The answer is "it depends." It depends on just what you mean by memory (RAM or hard disk), what operating system you are using and the capabilities of your computer's motherboard and its chipset. When I talk about memory I am not refer-ring to the permanent storage of programs and data on the hard disk. Rather, I refer to the random-access memory or RAM. This is the memory provided by memory chips seated in slots on the motherboard of today's computers. Anything stored in RAM disappears when the power is turned off, so it is referred to as volatile, or temporary, memory.

If you want to upgrade the memory in your computer you have to be able to determine the memory type as well as the size, pins and speed, the number of slots available on your motherboard and the maximum amount of memory that your system can address. In general, this varies with the age of your computer. So let's look at these components in a little more detail. (Please note that although my remarks refer to Intel's Pentium series central processors, they also generally apply to the equivalent AMD processors.)

Early Pentium based computers had a CPU bus speed of 66 MHz (megahertz) and a PCI I/O bus speed of 33 MHz. These values relate to the speed of data movement within the central processor and transmission to and from peripherals such as the memory bank. In some cases transfer to and from memory was at 50 MHz. Pentium computers generally had four slots which were arranged as two banks. This meant that memory had to be installed in units of two. The memory chips were 72 pin DRAM (dynamic RAM) or SIMM (single in-line memory modules) modules. Many of these computers could support four DRAM modules of 32 MB (megabytes) for a maximum of 128 MB of RAM. There were some motherboards built for Pentium 5 systems that had 2 or 3-168 bit DIMM slots in addition to the 72 pin slots. However, you could not use both the 72 pin and 168 pin slots, only one or the other. These systems would support either 128 or 256 MB of memory. However, at the time, many Pentium /Pentium II computers were sold with only 16 MB of RAM and Windows 95. Later, with Windows 98 the basic memory was 32 MB. In both cases, this is a less than optimum amount of memory for these operating systems. The first Pentium computers had a 32 bit address space which was theoretically capable of addressing 4 GB (gigabytes) of memory. However, none of the motherboards manufactured for these computers carried any such memory capacity.

The next generation of computers carried faster CPUs and chipsets along with faster bus speeds. For example the Intel 440 series chipsets were capable of working with CPUs with speed of 233 - 333 MHz at a bus speed of 66 MHz or with 350-450 MHz proces-

sors at a bus speed of 100 MHz. These motherboards generally had 3-168 pin slots and would support a maximum of 384 MB of RAM. As the address space of the CPU was increased to 36 bit, the maximum addressable memory was 64 GB. However, in practice some computers running Win98 would not recognize more than 256 or 384 MB of RAM. This problem has been ascribed to the chipset design and problem with the L-2 cache. So some caution is recommended if you intend to upgrade the memory in a Pentium II or older system With some of the Pentium III class computers there was an additional increment in bus speed to 133 MHz. The motherboards had 2 to 4 168-pin memory slots. The maximum usable memory of such systems ranges from 512 MB to 1 GB. These motherboards for this CPU class are generally able to use 100-133 MHz DIMMs. The 133 MHz DIMMS are capable of working at the 100 MHz speed. The Pentium 4 motherboards came with a whole new array of chipsets and memory chip types and speeds. The maximum memory now ranges up to 4 GB. Intel's initial Pentium 4 motherboards required the use of RDRAM or Rambus DRAM memory chips. RDRAM is a serial memory technology that arrived in three speeds, PC600, PC700, and PC800. RDRAM designs with multiple channels, such as those in Pentium 4 motherboards, are currently the fastest in memory throughput, especially when paired with the newer PC1066 RDRAM memory. A Rambus channel is 2-bytes wide, so we get a maximum 1.6GB/s transfer rate for a single RDRAM channel using PC800 RDRAM or 2.1GB/s for PC1066. The other form of memory chip is the double data rate DRAM. Intel and other manufacturers now have motherboards and chipsets that can utilize these memory modules. They are less expensive than the RDRAM. DDR memory modules are named after their peak bandwidth — the maximum amount of data they can deliver per second — rather than their clock rates. This is calculated by multiplying the amount of data a module can send at once (called the data path or bandwidth) by the speed of the front side bus (FSB). The bandwidth is measured in bits, and the FSB in MHz. Note that the RDRAM bandwidth is in bytes. One byte is equal to 8 bits.

A PC1600 DDR memory module can deliver bandwidth of 1600Mbps. PC2100 (the DDR version of PC133 SDRAM) has a bandwidth of 2100Mbps. PC2700 modules use DDR333 chips to deliver 2700Mbps of bandwidth and PC3200 — the fastest widely used form in late 2003 uses DDR400 chips to deliver 3200Mbps (3.2 Gbps) of bandwidth. You may

see the term "dual channel" applied to memory. When properly used, the term refers to a DDR motherboard's chipset that's designed with two memory channels instead of one. The two channels handle memory-processing more efficiently by utilizing the theoretical bandwidth of the two modules, thus reducing system latencies, the timing delays that inherently occur with one memory module. For example, one controller reads and writes data while the second controller prepares for the next access, hence, eliminating the reset and setup delays that occur before one memory module can begin the read/write process all over again.

Consider a model in which data is filled into a container (memory), which then directs the data to the CPU. Singlechannel memory would feed the data to the processor via a single pathway at a maximum rate of 64 bits at a time. Dualchannel memory, on the other hand, utilizes two pathways, thereby having the capability to deliver data twice as fast or up to 128 bits at a time. The process works the same way when data is transferred from the processor by reversing the flow of data. A "memory controller" chip is responsible for handling all data transfers involving the memory modules and the processor. This controls the flow of data through the pathways, preventing them from being over-filled with data. Now that you are totally confused by all this memory type and speed terminology, let's look at the next question.

How much memory should you have in your computer? The answer is: probably as much as your motherboard and chipset can handle. For the newest motherboards, that may be excessive unless you are involved in digital video editing or graphic design. For most home users running WinXP or Win2K I would recommend 512MB up to 1GB. So why those figures? I have found that WinXP uses over 200 MB of RAM for its own files, if that much is available. So on a 256 MB system that leaves very little for other applications and data. The net result is a lot of swapping with the virtual memory space on the hard drive. That slows everything down. In WinXP the Windows Task Manager (bring up by pressing CTRLALT-DEL) shows your current performance and the amount of memory available in real time. With 512 MB and several programs running, I have over 300 MB of real RAM available. That greatly increases the responsiveness (speed) of the system as moving data to and from RAM is many times faster than using a hard disk. The Page File window shows you the virtual memory swapping your system is doing. At the moment, mine is zero.

You can do similar analyses on Win98 /WinMe systems. The System Monitor application that comes with Windows can supply this information.

However, you may need to modify it to get the memory info you want. Go to Start-Programs-Accessories-System Tools and select System Monitor. If this selection is not available on your menu, then you need to install the program from your original Windows disk or from \WindowsOptions \Cabs file. You do that from the Control Panel (Add/Remove Software) and Windows Setup. Once you have the system monitor you can ADD memory information by clicking on Edit, then add item. Select Memory Manager. The individual items that will be the most helpful are: allocated memory, unused physical memory, page files in/ out, swapfile in use or swappable memory. The kernel reading tells you how much of your CPU capacity is being used. Generally, Win98 /WinME will do very well with 256 MB — 384 MB of RAM. You just have to be certain that your motherboard and chipset can support this much RAM. Most of the home computers I have worked on really don't have enough RAM for the most efficient operation. Does Yours?

Dr. Lewis is a former university & medical school professor. He has been working with personal computers for more than thirty years. 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.

Hi! I'm from the Government and I'm Here to Help Your Computer
by Ira Wilsker

Our computers are apolitical inanimate machines not influenced by our personal politics. While we as individuals may differ in our beliefs of how much the government should be involved in our personal computing, there is an increasing amount of influence government agencies are having in our routine computer utilization.

Recently the U.S. Department of Homeland Security, acknowledging the role that our personal computers have in national security, announced a series of email alert services to notify us of potential cyber attacks and other threats to our cyber infrastructure. As has been explained previously in this column, our computers and net access have become a potential target of terrorism, and can be utilized to launch cyber attacks without our knowledge. As I type this, the Utah based software company SCO, has had its net access shut down because it was one

of the targets of a denial of service attack launched from countless thousands of computers infected with the "A" version of the MyDoom worm.

The free alert system from the Department of Homeland Security, coincidently announced as the MyDoom worm infected millions of machines and slowed down the net, is available both online and by email subscription at www.us-cert.gov. Warnings will be posted on this site, and e-mailed to subscribers as soon as they are released. The free email alerts are listed at www.us-cert.gov/cas/index.html and distributed in four varieties. Two of the alerts are highly technical versions, and two are non-technical "plain English" versions. If you decide to subscribe to these free alerts, be sure to follow the subscription instructions explicitly. In order to prevent the unauthorized "spamming" of subscriptions, a double opt-in process is utilized. When you send the initial email subscription, a confirming email will be sent by the email list server containing a unique reply code; be sure to follow the instructions exactly in that reply email in order to effect the subscription.

The "Technical Cyber Security Alerts", as listed on the US-CERT.GOV website, "…provide timely information about current security issues, vulnerabilities, and exploits." The other technical alert is "Cyber Security Bulletins" which "…provide bi-weekly summaries of security issues and new vulnerabilities. They also provide patches, work-arounds, and other actions to help mitigate risk."

For those interested in less technical, but otherwise current and helpful information, a pair of non-technical alerts is available. One is "Cyber Security Alerts" self-described as, "…provide(s) timely information about current security issues, vulnerabilities, and exploits … that affects the general public. … (and) outline(s) the steps and actions that non-technical home and corporate computer users can take to protect themselves from attack." The other non-technical alert is "Cyber Security Tips" which "…describe(s) common security issues and offer advice for non-technical home and corporate computer users."

These alerts will contain a verifiable electronic signature to ensure that they are really valid alerts, and not some misleading spam intended to spoof authentic alerts and mislead victims. Despite such precautions, there has been some concern that these alerts can still be falsified, leading to the type of damage that they are intended to warn about. In a recent statement released by Senator Charles Schumer (D-NY), "If I were a betting man, I'd put a

few dollars down that the next virus that clogs computer networks is going to be transmitted through an e-mail that looks like one of these DHS e-mail alerts."

All four of these alerts, as well as the concurrent information posted on the US-CERT.GOV website, are intended to supplement, not replace, similar alerts already distributed by such cyber security companies as Symantec (Norton), Network Associates (McAfee), Panda, Sophos, F-Secure, Trend, and other publishers of antivirus, firewall, and Internet security software and services.

In a less fearsome mode, there is a helpful service available from the quasi-governmental agency, the U.S. Postal Service, to assist businesses, organizations, and individuals who mail items using "Priority" or "Express" mail. Small quantity users can use a free online service "Click-N-Ship" available at www.usps.com to generate and print mailing labels, complete with tracking number bar codes. Larger volume users of Express and Priority mail can download a free utility, "USPS Shipping Assistant Software" from the Postal Service to generate mailing labels on their own computers. Available for free download from www.usps.com /shippingassistant, this interesting utility can be used to track and confirm deliveries, verify zip codes, create mailing labels, calculate domestic and international postage, calculate delivery times, create and store address books, and even generate merchandise return labels. The labels themselves, complete with barcodes for tracking, are typically printed one or two to an 8.5 x 11 sheet of self-adhesive labels. Labels are available from the Postal Service website from a private contractor, our local office supply stores, or online. I recently used both the free online label service, and the "USPS Shipping Assistant 2.2" I recently downloaded to prepare labels to mail merchandise to my kids. I found both were easy to use and produced excellent quality labels on my printer. I then used both the free online tracking on the USPS.COM website and the online tracking service integral with the Shipping Assistant software to track the packages, and both worked equally well.

Now that computers have become a ubiquitous part of our daily lives, it is inevitable that we will see more governmental involvement and assistance with our daily computing.

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Accessibility for Everyone
by Billy Mabray
Oklahoma City PC Users Group

Many people, including a lot of Web designers, think Web-site accessibility is only about making sites work for blind users with screen reader software. Accessibility should be about all of us. There is a wide range of physical conditions that can make using the Web difficult. The Internet can be a frustrating place when you have poor eyesight, color blindness, or trouble using a mouse. You may not fall into any of these categories right now, but consider this statistic: 100% of Internet users are growing older. At some point, we will all need help navigating the Web.

There are many things that can be done to make the Web more accessible. Some of those things are already built into your Web browser. Others require Web designers to implement accessible features on their Web sites. If you are one of the many people who has difficulty using the Web, you will want to know what help is out there.

One of the biggest complaints people have is that text is too small. It is also the easiest to remedy. If you are using Internet Explorer, choose View>Text Size from the top menu. Also, if your mouse has a scroll wheel, you can hold the CTRL key and scroll up and down to change the text size. Now, this will not work on all Web pages — later, we will discuss why that is and what Web designers can do about it. The Netscape/Mozilla browser, however, can change text size on all Web pages. Choose View>Increase Text Size, or hold CTRL and press the + key.

There are many shortcut keys available for those who have difficulty using a mouse. For example, the backspace key will take you to the previous page, F5 will reload your current page, and ALT plus the Home key will take you to your home page (the page set to load when you open your browser). Also, if you have gone back to a previous page, ALT plus the right arrow will take you forward again. Another useful key on any Web page is the TAB key. You can use the TAB key (and SHIFT plus TAB to go in reverse) to quickly navigate forward through all the links and form fields on a Web page. Once you have tabbed to a form element, other keyboard shortcuts may come in handy. For drop-down boxes, you can

use the up and down arrows to highlight your selection. For radio buttons or check boxes, use the space bar to select your choice. If you are using a recent version of Netscape/Mozilla, you can also use "Find As You Type." Start typing at any page and it will automatically do a search for what you are typing on that page.

Some people, particularly the color blind, find Web sites hard to use because the color of the text does not contrast enough with the background colors. If the color scheme of your favorite Web site makes it difficult to read, you can override that as well. You will find this under Tools->Options or Edit->Preferences, depending on your browser. You can set your default fonts, font sizes, and page colors. You can also specify that your defaults always override what is set by the Web page.

While these browser features can be helpful, there is still much Web designers must do to make their site accessible to the widest possible audience. A good example is text sizing. If Web designers use fixed text sizes — sizes that specify an absolute unit of measurement, such as points or pixels — on their pages, Internet Explorer users cannot change their text size as I described earlier. Web designers can, and should, use relative text sizes to make their pages more accessible. Designers who prefer to use absolute sizes for text should provide a "style switcher." This is a link on the page that allows the site's visitor to make the text bigger and saves that preference in a cookie.

Another accessibility feature that some designers use is access keys. These are just like the shortcut keys I mentioned earlier; except they are defined by the Web page you are on. For example, the designer could define ALT plus 4 to take you directly to the search function. If you visit a site regularly and know their access keys, they can be useful.

Web designers should also use labels for forms. Labels make the text next to a form field clickable, just like the field itself. For example, if a form has a check box that reads, "Click here to subscribe," and that text is set as a label, the user can click anywhere on that text to check the box. It can be very helpful to have a larger target when trying to click things with a mouse.

We still have a long way to go before the Web is accessible to everyone. But now you know some of the helpful features you have at your fingertips already, and you know what to ask for from the Web sites you frequent. Hopefully, as users learn what they can do, and designers learn what they need to do, we can all enjoy the Web a little more.

Do You Need a New Computer?
Well, maybe . . . or maybe not
by Dr. Roland B. Herman
Westchester PC Users Group

Computer technology keeps changing. Both the hardware and the software are continually undergoing improvements, upgrades, revisions, patches, and new items and completely new original projects are added.

CD-RW

Here is just one example. Practically every new computer today comes with a built-in CD-R/RW drive. This is hardware and software that permits making copies of CDs, and using CDs to make back-ups and store data the way floppy diskettes and ZIP disks have been used. However, a typical CD for this use has a capacity of about 600 megabytes, which is hundreds of times more capability than a floppy diskette and about three times greater than the larger ZIP disks. Also, the larger ZIP disks cost about $15 each, whereas a CD-R costs about thirty cents and a CD-RW costs about 90 cents. The CD is more durable and the data will last much longer than on a floppy or ZIP disk.

That is just one example, but there are many many more changes for just about every conceivable computer use in the home and in industry. There are changes for networks, Internet use, voice recognition, DVDs, audio, video, wireless accessories, keyboards, mice, monitors, laptops, palms, digital photography, etc. There is improved and faster RAM, and faster CPUs and motherboards. I could go on and on, but I think you get the idea.

Ok, so do you need a new computer? Well, the computer industry suggests that a typical computer will become obsolete after a period of about three years. Does that mean that you should buy a new computer every three years? Well, maybe... or maybe not. It depends upon what you now use the computer for and if you are satisfied with its performance, and what you plan to use it for in the future.

For example, suppose that you only use the computer with its Word processing software for writing letters and documents, and printing them out and mailing them via the Post Office. You would be using the computer as an old fashioned typewriter. I have several friends that do just that. In some cases, they don't even Save their work. As long

as the computer and the printer work, they are happy.

Why would these people need a new computer after a number of years? They would not. Unless they upgraded their use or interest, their computer could be usable for many years. Some of them are using old 486 computers with Windows 3.1 as the operating system and Microsoft Word version 6 or earlier as the software. They don't use color, graphics, or different fonts in their documents. They are not interested in the Internet, e-mail, games, spreadsheets, or any of the hundreds of other possible uses of a computer, and they do *not* want to invest the time and effort to learn any new computer uses.

Leave it Alone

If you are like one of these friends of mine and are happy with your computer and what you use it for, and are not interested in any of the new gadgets or uses, then leave well enough alone. Don't spend your time and money for something that you don't need.

On the other hand, suppose that you have become interested in digital photography because your family gave you an expensive digital camera for your birthday. The camera probably uses special software and needs a computer with certain minimum specifications for its use. Many of these cameras require that the computer have a USB port and a certain operating system. The camera usually comes with software for editing the photos and you may want to learn how to send some of your pictures to friends and relatives. You may begin to think about how to organize and archive the photos, and maybe store them on CDs using a CD-R/RW drive. So you may be now getting involved in new hardware and software. You may consider buying a new printer that is especially designed to print photos, with beautiful colors and large sizes, with excellent resolution and quality.

The Fun Begins

So now the fun begins. Do you need a complete new computer, or just some new hardware parts and some new software? If you buy a complete new computer, what happens to all the data, files, programs, etc. that you are used to using on the old machine? What will you do with the old computer? Will you keep it or give to another member of the family, perhaps give it to one of the kids? A kid probably would like to have it to play games, but that usually requires buying and installing the game software, and games often require very powerful computers. More decisions to make....

Maybe you will consider upgrading the computer hardware and software instead of giving it away. How do you do this? How much will it cost? How reliable will it be? Who will do it for you? Will it be guaranteed? Many users find it confusing to make decisions about upgrading the hardware and software. There are so many things to consider.

Should you get a larger and faster hard drive? How much more RAM should you add? Do you need a faster CPU? Is the motherboard compatible or should it be changed also? Should you add a CD-R/RW drive? What about the operating system and the other software? Some users find it so confusing to make all these decisions about upgrading the hardware and software of their present computer that they just go out and buy a new one.

But even buying a new computer requires making many decisions. Should it be a desktop, tower or laptop? How about a new flat-panel monitor? How much should you spend? How much RAM? What brand of manufacturer? How long is the warranty? Do you get in-home repair service? Do you want a wireless keyboard and mouse? Which software programs and games should be included?

So, do you need a new computer? It is up to you!

Society News

<div align="right">

Program Meeting
March 9, 2004
by Jan Rothfuss
</div>

Helps Half Hour led by: Bill Statt

Q: While surfing the Internet he gets a pop-up advertisement asking him to register for "Repair Pro."

A: Would not trust a pop-up request. Download .com site has similar software that you can request. JV Powertools is a good registry cleanup. Free at majorgeeks .com web site. Registry Mechanic is also good.

Q: WS/FTP goes to web site, reads it, but will not generate the listing. Appears after an install of his wireless router. Uses Earthlink.

A: Perhaps needs to look at TCP/IP to automatically the IP address. Under settings, enable everything back to automatic settings.

Q: What can I do about my email address being hijacked. Email are bouncing back with his Hotmail address saying undeliverable. User name appears to be legitimate.

A: Someone you know has a virus and it has picked your address as the sending email. Another is that an account is 'hijacked' and then used by a spammer . Best to change your password so that the originator can no longer use it. Suggested to contact Hotmail, too.

NOTE: Remember: Never open an attachment unless you are expecting one. Verify with the sender first. The virus uses good addresses so beware as the email may look legitimate. Virus software updates on Wednesdays - new viruses show up within hours.

Be sure to keep software updated. Will need to buy another license after 3 months to one year as it expires.

NOTE One member sent "Thank You": reported that Arpad and Dan helped her to work on a computer problem. Solution — now has a new computer!

Q: How does new Road Runner virus protection work? Also comes with e a firewall and a spammer killer.

A: Cannot run two sets so you need to remove other anti-virus software. Will still want to use the hardware router's firewall plus a software firewall such as ZoneAlarm.

Q: I have a computer that I use to run videos on but at times it begins to stutter. Win 98 SE. Has disabled background programs but still occurs. Has defragged his hard drive. Fans and heat seem fine.

A: Could try to reinstall the video drivers.

Business Meeting:

Led by Arpad Kovacs

See Steve to be on the nominating Committee

Next month's meeting we will have a copy of Windows XP Professional ($300). Special tickets will be sold. The May meeting program will be to install Linux and then a drawing for the computer.

Welcome to our new software chair – Tom Thompson. He is taking suggestions for specific software requests.

The program on 3D photography presented by David Boyer and Bill Davis was very interesting and well received.

New Users Notes
by John McMillan

Only six people attended the March New Users Group but the discussion was as lively as usual. A Windows 98 user had trouble when he used the start menu to get to favorites. It often took 4 or 5 tries to get to the requested site. Bill Statt recommended clicking on the Internet Explorer icon (a blue e) and then clicking Favorites on the menu bar and selecting a desired site. If it consistently comes up the 1st time, then the linkage is the probably the culprit. Otherwise the problem is likely in Internet Explorer browser itself.

When the user also mentioned that the computer was slowing down, Bill asked if cookies had ever been cleared. Temporary Internet files will also build up, occupying more disk space and increasing search time. The user had not cleaned up anything recently. He had run McAfee but did not find any viruses. Ad-aware (a program that examines files for spyware) identified some suspicious programs, but he had taken no action. Spyware, software that tracks keystrokes or Internet activity, slows the machine down while it accumulates information to send back to its originator. Bill mentioned that old versions of Ad-aware could not be updated but should be deleted before downloading free version 6.0, that includes newer search criteria.

Spy-bot is another free program that compliments Ad Aware because it searches deeper in the registry for spyware connections. Another user pointed out that frequently "dancing the security tango" is Nick Francesco's repeated recommendation. This is another way of saying update the virus and spyware definitions; run the antivirus, Adaware, and Spybot scans; and run McAfee's Stinger which checks for specific viruses that attack anti virus programs. Stinger can be downloaded at no cost and should be run with the others at least weekly.

Users were cautioned that updates to Anti-virus programs included with the purchase of a computer are sometimes limited so a contract may need to be established for future definition updates. Remember that the definitions can be sadly out of date depending on the elapsed time since the software was loaded into the computer or the shelf life of a purchased version. On the topic of Antivirus programs, Bill mentioned going to GriSoft.com to download a free version of AVG 6.0 but emphasized that multiple anti virus programs cannot work together so existing Norton's or McAfee's programs should be uninstalled first. AOL checks e-mail for viruses before sending them to your computer but that does not protect you from malicious web sites or transferred disks.

Road Runner also offers a centralized anti virus, anti spam package which does not conflict with software on your machine. A user wondered why he was getting notices from Microsoft alerting him to critical updates. Bill said that critical updates are for security holes in the Windows operating system but a minimal number (for really big holes) are related to Windows 98. Most routers include a hardware firewall but he cited Zone Alarm, a software fire wall that is a free download from Zone Labs. This is another excellent security tool because it asks permission before going out to connect to the web. A small box lets you bypass checking specific connections though to my mind this defeats the purpose of having a fire wall.

No one was familiar with AOL operations to address a question about receiving mail that opens automatically, releasing viruses. Bill did point out that Microsoft Outlook Express has a preview feature that should be disabled to prevent mail from opening before you can take precautions. He suggested checking AOL to see if it had a similar process. No matter what service is used, it is a good policy never to open e-mail attachments unless they are from someone you know and you expect them.

Too many viruses hijack addresses from other peoples machines and use them to proliferate the virus. Someone asked if there was a single way to clean up the hard drive. In Windows 98, selecting

the hard drive in either My Computer or Windows Explorer and then clicking Properties opens a multi tabbed window. Clicking the general tab shows how much space is being used and how much is available both in bytes and graphically. It also includes a Disk Clean up button which when pressed opens a multi tabbed disk cleanup window. The Disk Cleanup tab shows how much space can be gained by deleting: temporary Internet files; downloaded program files; recycle bin contents; temporary files and old scan disk files in the root folder, (lost file fragments found when the disk was scanned). A box in front of each of these file types can be if checked so they will be deleted when the ok button is clicked.

The More Options tab which allows Windows components and unused programs to be deleted might be a little more dangerous. The Settings tab gives you the choice of automatic cleanup when disk space gets low. The Tools tab of the Properties window tells you how long it has been since you scanned or defragmented the disk and gives buttons to initiate each action. There may also be data about disk backups. Finally the Properties window has a tab that prevents sharing or lets you set the parameters for allowing sharing.

As an alterative, Bill suggested clicking Start, then Accessories, then System Tools and looking for disk clean or disk cleanup. A couple that wanted to share peripherals and files between computers running XP and 98, did not know how to use network neighborhood. Files which may be shared are data files because it is usually illegal to share programs between machines without having separate licenses. Clicking My Computer would show all components including the drives from another machine if they are networked.

When drives from another machine cannot be seen, there is no network. Bill said to be sure both machines are turned on and then click the Network Neighborhood icon of the XP machine. Clicking on the task "Set up a home or small office network" opens a Network Setup Wizard that walks people through the setup process. When that is finished, it offers to make a floppy disk with all of the network instructions on it. When that has been done, the floppy should be inserted in the other computer where it will network that machine to the XP computer. A Windows XP user found that icons for URL's (Uniform Resource Locator) disappeared from his desktop and wondered why. Bill suggested right clicking somewhere on the desk top which will bring up a menu that includes Arrange Icons By.

Positioning the cursor over that choice opens a sub menu where he should left click Lock Web Items on Desktop. This will prevent Web items from being cleared at the next startup. Web items were not cleared by Windows 98 when it was closed. The user mentioned having a Logitech keyboard and optical mouse on the machine running Windows XP. Press-

ing the center button of the Logitech mouse opened software that displayed a wheel of favorites on the monitor. The mouse wheel could then be used to select a location from the display and initiate that action. Apparently this software was somehow disabled leading the user to put the URL's on the desktop.

Another Logitech user mentioned finding spyware on the Logitech software disk. When asked about a 3D accelerator card to improve game performance, Bill suggested right clicking My Computer and then clicking Manage. Clicking Device Manager in the window that opens would list devices in the right hand pane and clicking on Display Adaptors would show what video card was installed. Right clicking that name opens choices including update the driver; and properties which opens a multi tabbed window with additional information including a trouble shooting process.

Bill was concerned that installing some older game might have modified the screen resolution and 3D acceleration. If that were the case the user might only need to reinstall the video driver from the original floppy or CD. If the drivers were reinstalled, Bill recommended going to the manufacturers web site to check for updates. Since the computer had been made locally, the maker could be asked what video card was installed and for a comparison of its capabilities with others in the marketplace to determine where gains could be made and at what cost. Free games may also be a source of spyware so the computer should be checked, as discussed previously, both before and after downloading to isolate potential problems.

Our next meeting, will be April 6th at the Monroe Developmental Center, 620 Westfall Road. Why not bring your questions and join us for the all the fun.

The Lighter Side

A computer is like an Old Testament god, with a lot of rules and no mercy. –Joseph Campbell

A computer lets you make more mistakes faster than any invention in human history — with the possible exceptions of handguns and tequila. –Mitch Ratliffe

All parts should go together without forcing. You must remember that the parts you are reassembling were disassembled by you. Therefore, if you can't get them together again, there must be a reason. By all means, do not use a hammer. –*IBM Maintenance Manual*, 1925

Computers are useless. They can only give you answers. –Pablo Picasso

Computers will never take the place of books. You can't stand on a floppy disk to reach a high shelf. –Sam Ewing

Don't explain computers to laymen. Simpler to explain sex to virgins. –Robert Heinlein in *The Moon is a Harsh Mistress*

Hardware: the parts of a computer that can be kicked. –Jeff Pesis

It was not so very long ago that people thought that semiconductors were part-time orchestra leaders and microchips were very small snack foods. –Geraldine Ferraro

Man is the best computer we can put aboard a spacecraft . . . and the only one that can be mass produced with unskilled labor. –Wernher von Braun

No computer has ever been designed that is ever aware of what it's doing; but most of the time, we aren't either. –Marvin Minsky

One thing a computer can do that most humans can't is be sealed up in a cardboard box and sit in a warehouse. –Jack Handey

There is only one satisfying way to boot a computer. –J.H.Goldfuss

They have computers, and they may have other weapons of mass destruction. –Janet Reno

The most likely way for the world to be destroyed, most experts agree, is by accident. That's where we come in; we're computer professionals. We cause accidents. –Nathaniel Borenstein

To err is human and to blame it on a computer is even more so. –Robert Orben

Usenet is like a herd of performing elephants with diarrhea — massive, difficult to redirect, awe-inspiring, entertaining, and a source of mind-boggling amounts of excrement when you least expect it. –Gene Spafford

Wow! They've got the Internet on computers now! –Homer Simpson