New Style

Newsletter of the LaCrosse PC Users' Group

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- Treasurer's report
- Meeting report
- Buying a new video card

This month's meeting

April 24, 7:00 PM

Gundersen Lutheran, Overholt Auditorium

Shane Lambert— his views on computer maintenance and upgrading.

Next Month: May 29

Dr. Roger Grant from UWL will discuss digital photography. Keep your eyes on this space for the location. It will be held either in our usual location in the Overholt or at UWL.

Congress struck down again

On April 16 the Federal Supreme Court ruled against several provisions of 1996's "Child protection act".

The stated purpose of outlawing child pornography in this country has been to protect the exploitation of children *in the production of such material*.

The belief that viewing this material might encourage similar activity was not the stated goal of the legislation, which was to protect the under age models.

Of most interest to us is the legal finding that an artistic representation is not the same thing as a photgraphic representation of an actual person and activity.

Whether a painting, drawing, or 3D model, it is not real, it is a visual representation of a fantasy.

So, regardless of how realistic it looks (some 3D images are nearly indistinguishable from the real thing), if no human models are involved, it's not illegal.

Using Norton Ghost Software For Full System Backup, Testing and Recovery

Jack Storlie

After some fits and starts, the Disk to Disk Clone method in Symantec's Norton Ghost has proven to be a reliable and very effective full system backup for Windows systems. This author's experience applies only to Windows 98, Me, 2000 and XP. The system about which the most trouble was expected was a Windows 2000 network server, but such was not the case. Eventually all platforms have proven to be consistently successful after some frustrations.

The single most remarkable feature of the Ghost method is that it can be tested without relying on more traditional backup systems, such as tape drives, that can only prove their validity by being applied directly to the primary hard drive. In such a case, if the backup itself were faulty for whatever reason (such as bad media), it would naturally follow that the drive upon which it was being tested would also be corrupted, and the system thus rendered useless, and the user is worse off than before a backup was made and tested.

John Sarnowski, last month's speaker

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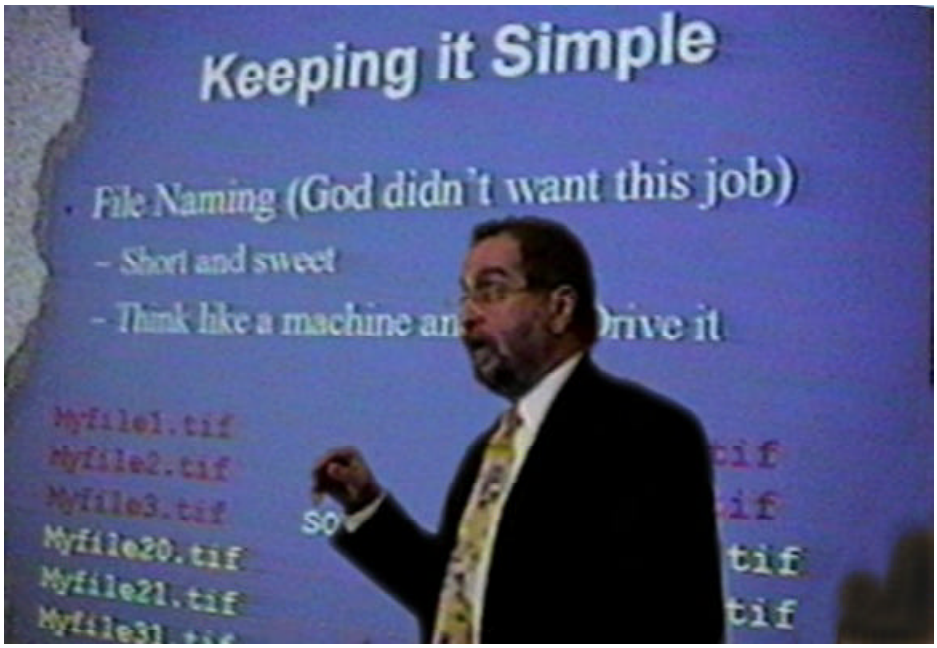

Ghost—Continued from page 1

In reality however, a failure of a backup system, other than the Ghost method, would probably not be discovered until recovery from a disk crash was being attempted. In that case, a complete system restore would be required, involving partitioning and formatting of the drive, reloading of the operating system, application software and user data. Unfortunately that would be too late and many of us know the tremendous amount of work involved and, at best most of the data, address and other files will be recovered.

The Ghost procedure is only fairly well documented in Norton's manual. Some modifications had to be made, mostly on a trial-and-error basis. Recent entries from the Internet have documented some of the things that were learned the hard way. The process is as follows:

1. The system is booted up with only the master drive in the system and a bootable system floppy is prepared unless such a disk already exists. This is not mentioned in the documentation.
2. A Ghost floppy is prepared from the Norton software. Appropriate settings are selected prior to the actual preparation of the bootable floppy.
3. The system is shut down and a secondary hard drive is installed with close attention to jumper settings and cable arrangements.
4. The Ghost disk is inserted in the floppy drive and the system is re-booted.
5. The Ghost pop-up menu appears and the selection made for preparing a clone from primary to secondary drive. This process can take from 10 minutes on a relatively small set of files to somewhat longer on more heavily loaded drives. Drive and processor speeds also have a predictable effect on cloning times.

The testing of the cloning procedure is fairly straightforward and consists of removing the primary drive and installing the cloned drive as the master in a single drive system. If the system boots as it should and the application software functions normally, a successful cloning process has been accomplished. Norton recommends removing of the cloned drive and configuring the system to its previous state with the original drive in place as the master. The cloned disk should be placed in a safe storage location.

From that point on, the system data files can be backed up by the usual backup procedures such as to floppies or to the newer media of CDR and CDRW disks. In case of a hard drive crash, they can be used in conjunction with the cloned drive to produce a relatively minor recovery experience.

Some of the modifications and recommendation departures that have been used are relatively simple but were crucial in producing a fairly routine installation procedure. It is sufficient to say that the documentation could be more helpful, however the same thing can be said for much of the vendor literature. Norton has produced a most valuable and quite unique offering in the use of full system backup, testing and recovery.

If readers know about other full system backup procedures in existence with the same fail-safe outcome, it would be appreciated if this writer were notified. Other comments and criticisms of this article will also be appreciated.

Treasurer's and Membership Report March 2002

Dick Dahlby, Treasurer
April 15, 2002

Income received in March was $60.00 from three membership renewals (Alvin and Monica Fritz, Dave Madson, and Chuck Whalen), and $20.00 received in April from one membership renewal (Bill Brockmiller). Thanks to all for your continued interest and support.

Expenses paid in March were: $12.66 for 30 photocopies of the March LCPC Newsletter, and $13.60 for postage.

The LCPC checking account balance as of 04/13/2002 is $829.32.

We presently have 51 enrolled members in LCPC.

Members whose annual renewal fees (dues) are presently past due are: (Mar.) Jim and Sandy Wheat.

Membership renewals due in April are: Kevin Blum, Joseph Doucet, George Frisch, and Kathleen Ann Gallagher.

Renewals due in May are: Ernesto Brauer, Chuck Hosler, Stub Johnson, and Mike Larson.

Annual dues are $20, and checks should be made payable to La Crosse PC Users Group. Dues may be mailed to either of the following addresses, or may be paid to me in person at the April 24th meeting.

La Crosse PC Users Group
P.O. Box 2991
La Crosse, WI 54601-2991

Dick Dahlby
501 Olivet St
La Crosse, WI 54603-1318

We had five visitors/guests sign-in at the March meeting. Hopefully some will become members in the future.

Reminder to all members: Remember, if you change your email address, it is very important to inform LCPC of the change, so that the Membership ListServ ***(membersonly@lcpconline.com)*** can be changed accordingly. To do so, please send me an email with your new email address and I will see that the ListServ is changed. If you haven't received an email from the ListServ within the last two weeks, please let me know that also, so that I can check on it. Thank you.
Dick Dahlby

ddahlby@cs.com

Making the Most of Digital Storage,

Advice from the expert

Carol Frank, secretary

March 2002 meeting

New member Larry Nagy presented the only problem for consideration at the last meeting, but it is a doozy. To abbreviate his story somewhat, Mr. Nagy had unplugged his computer as a precaution during a thunderstorm. Later, after restarting, he could accept e-mail, but couldn't reconnect to the internet. He called CenturyTel and was advised to reboot. Other advice was to reboot, reload the DSL software and reinstall Windows95. Then it was thought that Internet Explorer was the problem.

Mr. Nagy removed all the temporary internet files but it still took eight to ten minutes to boot up. He thought it might be the Wednesday virus and tried to get Norton to check for this. He had updated Norton Virus Checker three months before. Norton couldn't be opened, so he tried deleting Norton Anti-virus but it wouldn't delete. It had to be deleted line by line in Explorer and then Norton Anti-virus refused to reload. There were also thirty-six DLL files that couldn't be deleted so Larry renamed them.

First, it was discovered that Mr. Nagy had changed the file names, but not the extensions. He was given instructions for doing that.

Second, it seemed very probable that what he has is a virus that disables Norton Antivirus. Since Larry had bought the software from Best Buy, there should be a reboot disc. He should use that disc to reboot Norton and scan the machine.

The presentation "Why Digital Will Fail and What We Can Do About It" was given by John Sarnowski. Mr. Sarnowski is one of the founders of the LCPC and had owned MicroAge. Now he is directory of Imaging Products at Northern Micrograghics, Inc. (Formerly MicroCard Corporation). Northern Micrographics was been in the Imagining Service Bureau business for fifty years and has gone through many changes in technology. They had converted paper to film (Microform), converted paper to digital images, converted film to digital and converted digital data to paper and film.

Mr. Sarnowski explained the difference between analog and digital. Analog being a mechanism in which data is represented by continuously variable physical quantities and digital relating to data in the form of numerical digits, mainly binary (0-1)

Two common concerns about transitioning to digital is a fear of sending analog human readable information in the the vast wasteland of digital formats and fear of catastrophic loss. Unlike analog formats of paper and film, nothing in the electronic environment will be saved through inaction.

Digital will fail for three reasons:

Format changes-physical changes in the media (ex. 5 1/4 to 3 1/2 to Zip disks) and software changes, some early software is no longer available and their formats are now unreadable.

Data Losses-Bit rate loss (# of bits a HD will lose on a regular basis), disk crashes, power surges, magnetic aging (a hard drive will lose half of its magnetic charge in the first seven days after being formatted), temperature and humidity damage, overwriting of existing data and misplaced, unlabeled and unindexed media.

Cost of Storage-because of the changes in technology, data has to be reconverted to new formats in order to stay available (ex. magnetic-optical to CDs). This takes time and money.

However, analog systems are subject to obsolescent and decay as well.

Microcards were replaced by microfiche and need different readers.

Film is subject to deterioration and damage.

Paper can decay and be damaged, as well take up enormous amounts of space.

Analog storage often needs a person to physically search for the item before it can be copied for use, which takes time and money. Many institutions have their archives in a separate building across town.

Analog also has the problem that every generation of duplication results in the loss of quality and the possibility of error. Microfiche often looks poor because it is several generations removed from the original.

Digital copies are an exact duplication of the original in every way and distribution can be world wide and nearly instantaneous.

The principal problem with finding digital data is poor file management.

- We misunderstand the simpleminded nature of computer systems.
- We abdicate responsibility to the machine.
- We expect simple programs to anticipate complex future situations.

The basic principles to file management is Keeping it Simple and consistent.

- File names should be short and sweet.

Don't take advantage of the ability for long file names and the distinquishing feature of the file should be first (ex. 2002jannewsletter instead of newsletterjan2002).

- Think like a machine and test drive your naming system.

For instance files with numbers should be padded (01, 02, 03, etc.) or else the files will be sorted by numbers that start with the same digit (1, 10, 11, 2, 20, 21 etc.,)

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You Need A New Video Card

Bruce Pechman, reprinted from ***Hard-Copy, Journal of the Chicago Computer Society,*** *October 2001*

As most of you are well aware, two years of technology can practically leapfrog any hardware or software you may own. This holds especially true for the thousands of developers and publishers in the PC entertainment industry vying for your greenbacks.

In this column, I will attempt to convince you why your video card is a major player in getting the most performance from your PC. I guarantee you will learn something you didn't know, so let's get started!

Telling It Like It Is

Unless you are a true enthusiast like myself (and would probably rather spend your dough on weekend getaways than buying a new video card every 6 months) you may not be aware of why the video card is so critical in getting the most enjoyment from your computer. The fact is you definitely do not need a new video card every month. Your computer is more than up to the task providing it is a Pentium class running at least 266 MHz. However, if you bought typical new computer in the last 3 years and it came bundled with video card, I am sorry to say it is woefully inadequate for the task of running newer entertainment titles. Why? Well I thought you' never ask! I promise not to get too technical, but I think you will all relate to my analogy. When you go to buy a new stereo, you pick this great receiver rated at 150 Watts per channel with Dolby Pro Logic, DSP, etc. But when it all comes down to it, if your speakers are sub-quality cheapies, your stereo will sound pretty bad even with that fancy 150-Watt receiver. This is exactly the same with computer system (even today the Gateways & Dells are just getting this message and are finally bundling premium video cards with their systems). See, computers are all about visual information displayed on your monitor. This is how your computer communicates with you.

Ask What Your New Video Card Can Do For You

Things have changed big time. More folks are purchasing digital cameras, the Internet allows us to either download or view streaming multimedia content, and software entertainment developers want you to see their games or stories exactly the way they were designed utilizing the latest technology at the project's inception. Let's put a few things into context here. With digital cameras or viewing web sites the standard can easily be 24 to 32-bit color and resolutions up to 1024x768. Your current video card may not handle that and so the colors will be off or dulled. But this is just the tip of the proverbial iceberg. Let's talk about video, gaming, or any form of digital video. Two words come to mind: Frame Rate. If you have a typical video card it may have 4MB (poor) or 8MB (still poor) of video RAM (VRAM). Guess what-you can hardly buy a new video card today with less than 32MB and more than half have 64MB of VRAM!-Next month, a video card will debut with 128MB of VRAM. That's right-probably more than your computers entire system RAM. But don't despair; you definitely will not need that card anytime soon. The point is the primary function of the video card is to offload the laborious chore of graphics rendering from the CPU. That, my friends, is the crux of the matter. This will free your CPU to take care of business without the heavy load of the software rendering process. Remember the Frame Rate thing I spoke of? Frame Rates are measured in seconds, and today's minimum standard for games or digital movies is 30 fps (frames per second).

A new video card with 32MB of VRAM will allow for silky smooth frame rates passing 60 fps, and, depending on what the screen resolution is, possibly over 80 fps. In addition, your computer will be running happy as "a pup with a plate of vanilla ice-cream on a hot summer day" as the CPU is not overburdened when running these graphic intensive entertainment nuggets.

What's All This Talk About PCI, AGP, and 2D and 3D?

Read on so I can clear this up. All video cards today offer outstanding 2D and 3D integrated support. 2D is basically what you normally see such as you desktop, applications and data files. 3D kicks in when a game, multimedia or 3D modeling app requires it. So, a good quality video card will provide you with enormous benefits whether you're working in Office, cruising the web, game playing, or viewing rich multimedia content. Keep in mind that most video cards sold today are AGP (Accelerated Graphics Port). In addition, most new motherboards over the last 3 years include an AGP slot. AGP commonly comes in two speeds; 2x and on newer motherboards 4x. Even if you decide on a 4x AGP video card, but your motherboard is only 2x there is no problem as the cards are designed to work flawlessly under 2x AGP conditions. I promised not to get too technical, but it is important to know why AGP is a superior technology to the alternative, PCI (Peripheral Component Interconnect). 2x AGP can transfer data to the video card at a maximum rate of 533 MBps (Megabytes per second). 4x AGP can transfer data to the video card at a maximum rate of 1,067 MBps. However, the slower standard PCI slot can transfer only a modest 133 MBps. In a nutshell the 2x or 4x AGP video cards are the way to go if your motherboard supports them because they can deliver data to video card at extremely fast rates.

Im Sold... But What Video Card Do I Buy?

There are basically two camps battling for video chipset supremacy today. The two contenders are 3DFX Interactive's VooDoo 5 chipset (as in the currently shipping VooDoo5 5500 series) and Nvidia's GeForce2 (as in the currently shipping GeForce2 GTS series). Now the tricky part about vendor selection. For the Nvidia chipset, there are about 6 mainstream video card manufacturers with your choice or either 32 or 64MB of VRAM on board, but they will all use a GeForce chipset. For the 3DFX chipset, you have no choice of manufacturers as 3DFX makes both the chipset and the board as a sole source. The 3DFX 5500 series comes only in a 64MB configuration. But, 3DFX just released a PCI version of the 5500 series, which may be your only option if you do not have an AGP port and want the newest card.

Enough, Give Me The Bottom Line

OK, I will tell you the best deal vs. performance out there, in my opinion. Keep in mind all the new boards I mentioned from both Nvidia and 3DFX are about $299 (expect to shell out another $100 if you want the 64MB

version of the Nvidia board). By the way, you really don't want to invest in the 64MB version from Nvidia as it only offers marginally better performance than its 32MB sibling. For details about the 32MB vs. 64MB argument go here: http://www.techreview.com/review.pl?id=160 My choice would be... the fact is both cards are very close in performance. When all the reviews are said and done, it's summarized like this: Nvidia has a slight edge in faster fps, but the 3DFX chipset makes graphics look a little better on screen as their Full-Screen Anti-Aliasing (FSAA) technology is better than Nvidia's. Additionally, be aware that the price of video cards may differ because of what is called "Gaming Bundles" or "TV Out" features. This means that some manufacturers will bundle the full version of currently shipping games with the video card. TV Out means you can hook up your TV as your monitor (not something I want to do anytime soon).

Choices, Choices

So what I am telling you is that you can't go wrong with either the 3DFX VooDoo5 5500 AGP ($299) or the Nvidia GeForce2 GTS ($299 - I did find this for $239 on the web (800) 585-4080 part # SI 100073). If this is too steep for your allowance money, you can also investigate the lower end models of both companies' products. For 3DFX, you can look into the soon to be released VooDoo4, or the VooDoo3 series at around a hundred bucks. From Nvidia, you can research the original GeForce 256 chipset released last October, or even the newer low cost alternative, Nvidia GeForce2 MX (which should be available by the time you read this) for around $150 as well. Keep in mind the newer cards support 32-bit color as well as the latest technologies, and are priced very attractively for the enjoyment they will bring to your life and PC.

Final Thoughts

Believe it or not I tried to make this article readable while foregoing the technical jargon. The fact is, video cards in and of themselves are extremely complex animals. A few years back, there was a major clash over what API would be supported on the cards: Glide, Open GL, D3D, RAVE, or Direct X. Thank goodness this has all been sorted out and most cards today will be able to support most anything you throw at them. Keep in mind to always keep your video card drivers current even if you don't buy a new card. When I get a new card, I just assume the drivers on the CD are old and that a newer set of drivers are just a click away at the manufacturer's web site. A few words about installing your new video card; ah forget it- why reinvent the wheel when you can just go here: ***http://www.gamecenter.com/Hardware/Doit/Upgradevid/***.

This article was published in '~LPTI " the newsletter of the Atlanta PC Users Group. Bruce's email address is *bigbruce11@hotmail. com.*

Digital Storage—Continued from page 3

- Directory structures should be consistent and simple.

Padding might be needed to keep all of the elements lined up to together as if in a spreadsheet. This way any differences in a directory structure is immediately apparent.

- Check Sum Values-create them and use them.

This way your machine can do a quick inspection for any changes in the data.

- Think of the future whenever you save files.

The media will be here but you won't! So leave lots of clues and keep it simple.

- Label your disks!

Name of file, file extension, date. Add a README.TXT with information on how it was made, command line syntax and structure.

- Keep original information in ASCII files for text and Tiff for pictures.

Even though they are formatted into a page layout program or a PDF, if any reworking needs to be done, it is better to use original materials.

- A word of caution, labels can dry out and drop off. So check regularly to see if labels need replacing.
- Be a digital janitor. Go through your files and eliminate unnecessary ones. Even though harddrives are enormous these days, those unnecessary file names can make searching more of a hassle.

Mr. Sarnowski also addressed saving data and pictures for genealogy. Northern MicroGrapics has copied many county history books that are now available on the internet or through your public library. These books are scanned at 600dpi which is the resolution of many laser printers.

He advised to use the scanner's factory settings for scanning photos. Don't try to make them look better on the monitor. Most monitors are not color corrected. If an image is reduced to fit on the screen, the image won't be accurate and will print out bad. He also recommends saving to .tiff. Tif is an international standard and saves the most information (but the file size is enormous compared to JEPG).

Dick Dahlby asked about future technology. Mr. Sarnowski predicted that there will be higher densities, smaller physical sizes and self-healing arrays with data distributed among several harddrives.

Mike Larson asked about libraries charging user fees. Sarnowski states that access to information is a public right and to keep it means a political fight.

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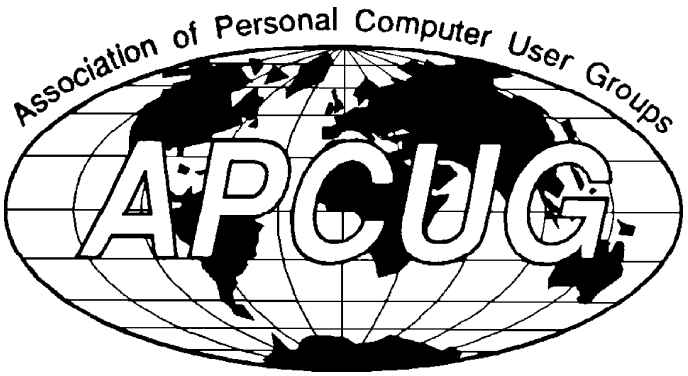

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General meetings are held the last Wednesday of Jan-Oct in the Overholt Auditorium at the Lutheran Hospital. The combined November-December meeting is held the second Wednesday in December.
Thank you, Gundersen-Lutheran, for making this wonderful facility available.
Meetings begin around 7:00 PM. Everyone is welcome, attend a meeting or two with no obligation to join.
Dues are $20 for one year following payment. Membership entitles you to attend meetings, tap into the corporate wisdom, receive special user group discounts from publishers and others, receive (and contribute to) this newsletter. You may also obtain software provided by publishers for review of the product. Unsigned articles are by the editor.
Other user groups are welcome to reprint with proper credit.
The newsletter is printed the Wednesday before the meeting, please submit articles by the 13th of the month. Upload to:
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