HARDCOPY
Slo Bytes

LAST MONTH'S TOPIC

Last month's General Session presentation was a departure from the usual fare. Guy Kuncir provided a description of the Global Telemetered Seismograph Network (GTSN), a program that he was affiliated with while working at The Aerospace Corporation between 1981 and 1989.

GTSN, co-sponsored by the U.S. Department of the Interior/ Geological Survey (USGS) and the Air Force Technical Applications Center (AFTAC), was developed to site seismic instrumentation in the southern hemisphere which would gather and transmit earth motion information to US-based data users in near real-time. The program was conceived to enhance the AFTAC nuclear treaty-monitoring mission and to provide precise digital data for augmenting data bases that support fundamental scientific research by organizations in the US and the seismic station host countries.

GTSN is composed of three major subsystems: Seismic Stations (ten of them), a Data Receiving Terminal (DRT), and a Communications System that links nine southern hemisphere stations with the DRT. A prototype Seismic Station was installed at the Albuquerque Seismological Laboratory, as was the DRT. Four stations were sited in Africa (Cote d'Ivoire, Central

ONE EARLY SIG
by Alan Raul

Bob Ward presented the group with a "Trivial Pursuit" from the past and the present. The big question of the day, "Who was Ada Lovelace?" There will be a new Power Point Trivia Presentation each month before the SIG in the main hall. You may also see past Power Point demonstrations on our webpage.

Alan demonstrated Tweak UI 1.33. With Tweak UI you can adjust your Windows User Interface, including menu speed, window animation, and Microsoft Internet Explorer. Winmag.com has a article on installing TweakUi 1.33.

http://www.winmag.com/help/sbs/2000/tweakui/default.htm

CLUB CALENDAR

March 4th

1 pm
Early SIG's.
Jim Kilary, General Windows SIG (in Kitchen)
Alan Raul, General Q & A

(main hall)

2:30 pm

Ben Brady will talk about Firewalls and show their firewall analyzing software. (see page 3)

in this issue...

last month's topic

African Republic, Republic of Botswana, and Republic of South Africa), four stations in South America (Bolivia, Brazil, Paraguay, and Argentina), and one station was installed in the Dry Valleys area of Antarctica. The stations in Africa and South America are designed to be used by host country operators and that in Antarctica by US government or contractor personnel.

Each Seismic Station is composed of three elements: (1) A Sensor element containing two earth motion sensing borehole seismometers (a broadband unit suspended in a cased borehole approximately 100 m beneath the surface and a short period device suspended in an adjacent borehole at approximately 30 m) and borehole-sited digitizer/calibrator electronics servicing both units. (2) A Processing element with its timing, processing, control, and recording functions — the timing signal being supplied from a GPS receiver. After assuring data integrity, its prime function is to transmit the digital data to the US by way of an on-site communications link and to generate magnetic data tapes that are shipped to the DRT. (3) A Monitoring and Display element that provides drum recorders that produce seismograms (charts) for use by host country seismologists.

Two Digital Equipment MicroVAX II computers were used in each station, one controlling the processing functions listed in (2), above, and another for the monitoring and display functions listed

in (3). Station instrumentation will sense earth motion in the DC to 10.0 Hz frequency range. This digitized (24 bits/sample @ 20 SPS), filtered, recorded, and burst-transmitted at either 1.2 or 2.4 kbps, depending upon the sensing instrumentation, frequency content of the data, and event status.

In the overall GTSN system, the operation of the stations outside of the US, other than for monitoring and display, is under the command of the Data Receiving Terminal, also implemented using MicroVAX II systems. One MicroVAX was used in the Data Acquisition module which stores and routes the seismic data received via the Communications System and a second is in the Background Processor module which performs various data quality checks, merges the data from its various sources into a continuous data stream, and generates a data/command communication history tape. A third MicroVAX is used in a Monitoring and Display element, identical to those in the Seismic Stations. Data Acquisition and Background Processing systems may also be switched in the event of a system failure so that the more important Data Acquisition function would remain operational.

The GTSN Communications System was implemented using a combination of host country terrestrial microwave systems, the Department of State's worldwide embassy satellite communications network, and the existing USGS GEONET packet switching network within the US. The USGS and AFTAC acquire their data streams via

GEONET, as does the USGS National Earthquake Information Center in Denver, CO. This design used existing communication networks to reduce operational costs.

Within country data communications had to be accomplished using country-unique designs. In some cases, particularly in Argentina, it became necessary to use an international telecommunications satellite to transmit the seismic data between the widely separated station data generating, processing, and display functions, and the embassy communications earth station. Three of these elements were over 1000 km apart. Data communications from Antarctica was also difficult to implement. It was necessary to use a microwave link between the borehole and the processor at the National Science Foundation's McMurdo communications building. Another microwave link took the data to a ship communications station on a nearby island where an earth station transmitted it to a polar orbiting INMARSAT. In its northern pass, the satellite down linked the data stream to Santa Paula, CA where it was routed to the nearest GEONET access at Menlo Park, CA.

GTSN has been operational since 1991. It is now part of the worldwide Global Seismic Network (GSN) operated by the USGS

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* * * people helping people * * *

NAME	PROGRAM(S)	PHONE NO.	HOURS TO CALL
Bill Roch	Ami Pro	466-8440	anytime
Dan Logan	Internet, MS Publisher	927-0515	M-Sat 8-6, Sun 12-6
Jim Kiraly	Win 98, Office 97, Quicken, Map Programs	556-0301(pismo)	anytime
Bob Ward	Win 98, DOS, Internet, Eudora	528-0121	evenings
Ray Miklas	Any PC hardware or software questions	541-5633	anytime

We could use more volunteers here. If interested, contact Bob Ward!

the surf board
by dorothy kirk
ibm/pcug, redding, ca.
kirk@snowcrest.net
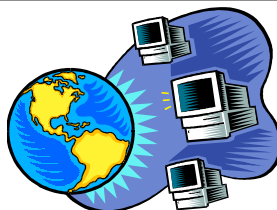
There are about nearly 3,000 museums, planetariums, observatories, astronomy clubs, and societies throughout the United States, Canada, Mexico, Europe, Australia, and New Zealand.

If you are a dedicated amateur astronomist you probably already have a good listing of astronomy sites. If you are a newby concerning things astral then the addresses included this month should be of interest to you. Even if you don't think you are interested in astronomy some of these sites are worth seeing. If you do become interested, then the first listing is for you; it contains lists of observatories, museums, and clubs throughout the world. In any event, all of the sites have enough links to keep you busy for years.

SKY AND TELESCOPE ASTRAL DIRECTORY http://www.skypub.com/resources/directory/directory.shtml - The directory lists by country, and, in the case of the USA, by state. There are lots of clubs, planetariums, observatories, and museums in California. Plan to visit at least one this year.

CIRCLE THE SOLAR SYSTEM http://www.solar.york.ac.uk/ - If you are planning to visit Great Britain don't miss this scale model of the solar system in York. The sun is over 8 feet and the smallest planet is a very tiny sphere 6 miles away from the sun.

MORRISON PLANETARIUM http://www.calacademy.org/planetarium/ - The Morrison Planetarium in San Francisco offers many services and events. Check out the site. There is also a Sky Watchers page with what to look for in the sky at night.

STANBACK PLANETARIUM, EDUCATION RESOURCE CENTER http://www.draco.scsu.edu/rtrc.html - Educators may access at this site materials, plans, pictures, software and more.

THE WEB NEBULAE http://www.seds.org/billa/twn/ - An overview of nebulae with beautiful color images and links. Many look like abstract paintings. A good example is Antares and Rho Ophiuchi.

TOM CAMBELL'S AMATEUR ASTRONOMY http://www.iolaks.com/softech/astro/astro.htm - An excellent tutorial for the beginning astronomer. It has about everything you would want or need explained in simple words. "Your First Observing Session" is great. It even has limericks by Tom.

CATCHING THE LIGHT http://www.astropix.com/ - Spectacular photos by astrophotographer, Jerry Lodriguss.

PHOTOGRAPHING THE SKY http://www.astronomy.com/Content/Dynamic/Articles/000/000/000/099whzyr.asp - A very informative article telling you exactly how to photograph the sky with and ordinary camera. It is geared to beginners and has two very valuable links.

THE COPERNICAN MODEL http://csep10.phys.utk.edu/astr161/lect/retrograde/copernican.html - An interesting diagram and discussion of the first model of the Sun, rather than the Earth, as the center of the solar system.

ZOOM ASTRONOMY http://www.enchantedlearning.com/subjects/astronomy/ - Just about everything you wanted to know about space and astronomy in easy to understand terms. There are even simple projects to do.

BAD ASTRONOMY http://www.badastronomy.com/ - This site is dedicated to misconceptions about space and astronomy. It includes movies, news, and TV stories. A very useful and interesting site - also amusing at times

WELCOME TO ASTRONOMY FOR KIDS http://www.dustbunny.com/afk/ - ....and not just for kids! A not boring site of the planet, sky maps, puzzles, postcard, fact, and links.

MAYA ASTRONOMY http://www.michielb.nl/maya/astro.html - The Mayas had a very advanced concept of the solar system revolving about their god. This site tells about their astronomy and beliefs.

CVC'S ASTRONMY FREEWARE AND SOFTWARE http://www.cvc.org/astronomy/freeware.htm -Here you will find a list of software to download, some free. There are planetariums and satellite watch programs. Each one has a description and recommendation.

ASTRONMY DIGEST http://astronomydigest.com/ - A free online monthly magazine about astronomy. It has lots of useful and interesting information.

ABORIGINAL STAR KNOWLEDGE http://www.kstrom.net/isk/stars/starmenu.html - What did Native Americans know about the stars? Some of their beliefs and observations are discussed at this site.

SCHREDER PLANETARIUM http://www.schrederplanetarium.com/ - Last, but by no means least, our own planetarium. Among other things is a list of public shows.

A spiral galaxy in Antlia

THIS MONTH

Ben Brady, from Brady and Associates will talk about Fire Walls and show their award winning analyzing software, Clear Ice, Clear Zone & Clear Route. More information on this topic may be found on their homepage at: http://www.y2kbrady.com/

one early sig

IrFanView 32 3.33, a very fast 32-Bit FREE graphic viewer was used to show how to make a simple screen capture using the PrtScn or the Alt-PrtScn button (s) on your keyboard.

You can set Your Windows clock automatically by using a script called SetTime2.vbs. It will adjust your system time if off by 1 second or more. Also corrects date if needed. Minimum system requirements to run this script are Windows 95 or with Internet Explorer 5. The U.S. Navy was NOT cooperating so maybe we can see a working demo next month. These and other programs can be found at

http://www.slonet.org/~araul/free.htm

Anyone using a CD-Recorder or who's contemplating buying a CD-Recorder should surf on over to Andy McFadden's CD-Recordable FAQ.

http://www.fadden.com/cdrfaq/

The FAQ attempts to answer Frequently Asked Questions about CD-Recordable technology and related fields. It is a Usenet newsgroup FAQ, updated and posted around the middle of each month. The main focus is explaining CD-R technology; describing hardware and software solutions for creating audio CDs and CD-ROMs, and helping people find solutions to common problems.

The FAQ is heavily biased toward PCs and computer-based recorders, because that's what he's most familiar with, but Andy McFadden has made an effort to include useful information for owners of other equipment. He doesn't anticipate the section on stand-alone audio CD recorders expanding greatly, because they're far simpler to operate than computer-based recorders, and most of the "must know" information about them is more appropriate in an FAQ on stereo systems or studio recording.

How Do We Manage Large Amounts Of Photos?
By Richard T. Robusto, Šlvpcug
ricmar@wizard.com
Courtesy of APCUG

Bits n' Bytes
Pikes Peak Computer Application Society, January 2001

I daresay that all of us have numerous photos that have been around for years. Some photos are becoming more yellowed and deteriorated each year. I, myself, attempting to be an amateur photographer years past, have accumulated an immense amount of photos. Starting with the old reliable "Brownie" camera, which did a pretty good job for its time, and gradually using better equipment that allowed sharper focusing and better depth of field. Then, on to the development of color photography and through the lens metering with electric eyes, we were rewarded with a much better end product.

So, we've taken all these mementos of our families, children and friends through many occasions and holidays as the years passed and carefully sorted, segregated and preserved them in photo albums. But time and humidity has taken its toll and the realization occurs that we cannot preserve these forever. Then we are faced with the specter that after we are gone, what we have treasured might not be treated with the same care. Also, there is always the possibility of tragedies happening. This comes to mind when we see the homes that were lost at Los Alamos during a disastrous forest fire. It is very doubtful that these poor residents were able to save all their photos and mementos when they had to evacuate. Others have lost everything to floods. An incident that has always stuck in my memory is of a fellow worker who became very despondent one day. Upon asking what was wrong, she informed me that she had to pick her parents up at the airport as they returned from a vacation in Europe. But the kicker was, that she had to inform them that while they were gone, their house burned completely, leaving nothing to be salvaged. Lost was every photo in their possession, plus all their other mementos.

Today, however, computer technology has given us a surefire method to preserve these photos and other important documents. Scanning is a fairly easy operation to perform. A familiarization with the scanner and its accompanying software will not take much effort and then the procedures to begin preserving your photos and documents can begin.

The scanner that I have is the *Visioneer One-Touch* purchased a year ago for $149.00. Today the price is about $80.00. I have found this unit to be very easy to use and quite satisfactory. It came with *Paperport* software, which makes the task easy to accomplish. The scan window will offer a few settings to be made. First, the scan mode and resolution has to be set. The first rule of scanning is that the resolution is determined by the final output. If a scan is to be printed out, then the requirements of the printer will determine the scanning resolution. However, if you are scanning only to archive, then output determination can be set aside. Using archiving as your end result, then other parameters can be undertaken. Assuming we start with our oldest black and white photos, the mode should be set to Gray Scale and the resolution to 75 or 100 dpi (dots per inch). The main idea is to have the scan look good on the monitor and keep the file to a moderate size. The larger the file, the longer it will take to move through your system after scanning.

For colored pictures, an appropriate resolution would be 100 dpi to 150 dpi.

manage photos

Colored prints stop yielding additional data at about 200 dpi. Scanning at a higher
figure will produce a larger file but not more detail. Doug Gennetten is the engineer with HP Home Imaging Division who did the *HP PhotoSmart* printer and scanner introduction. At this event, he posted a message on the web, that among other things, said that 200 dpi is the maximum resolution you need if your original is a normal silver halide color print.

After scanning, the file can be sent to a graphic application, usually through a link on the Paperport screen. I currently have three graphics applications with links on the Paperport screen. They are MGI *PhotoSuite III*, Microsoft *Picture It 9*9, and *Photoshop L. E.* (Limited Edition). I have found that *PhotoSuite III* is the one that I prefer to work with. It makes easy work of the tasks required. You start by cropping the photo to size. Many times, I will scan four or more, whatever will fit on the scan glass, then crop them apart one at a time. This saves scanning time and reduces the number of scans. After cropping, necessary tasks can be performed, such as adjusting brightness and contrast (I am able to improve 90 per cent of these old photos); removing red eye and removing creases and unwanted blemishes. Exercises that are more complicated, such as cloning and removing unwanted persons or objects, can also be accomplished.

All of these small graphics applications can handle all of these things. Also *Corel Draw* and *Adobe Photoshop* will do an excellent job on all these procedures. However, that's a bit of overkill as these programs are large and expensive and are used for more demanding applications.

Finally, the pictures are finished and ready for labeling. It is a good idea before starting to label to give some thought how to identify many pictures.

Set up some sort of system that will allow you to recall what each picture is about when viewing its description. As you get into the hundreds, this becomes a daunting task, as no two titles can be alike. A good way is to set up a set of folders that will allow sorting of pictures into various family groups or timeline designations. The last description that has to be applied to the photo is the format that it will be "saved as". For general purposes, there are three or four common file formats, and for the home scanner type, these will be sufficient. They are TIFF, JPEG, GIF, and PNG.

TIFF—Image File format— has been a format of choice for use for master copies of images for several years. Not the only one, but a good one. TIFF format was developed by Aldus, before Adobe bought them, and is the most widely supported format across other platforms, PC, Max, Unix, etc. TIFF writes a large file, and it optionally uses lossless compression, meaning there are no quality losses. Ideal for important master images. If you might modify and save the file a second time, then use a non-lossy format like TIFF. TIFF files are large, but it's the price we pay, it's how large the data is.

JPEG—Joint Photographic Experts Group—This is easily the best format for scanned photographs to be used on web sites or for sending your photographic images in e-mail, because the file is wonderfully small, often compressed to only 1/10 or 1/15 size, which is very kind to modems. However, this fantastic compression efficiency comes with a high price. JPEG uses lossy compression (lossy meaning "with losses"). Lossy means that some quality is lost when the JPEG data is compressed and saved and this quality can never be recovered. Even worse, more quality is lost every time the JPEG file is compressed and saved again, so even editing a JPEG image is a questionable decision. JPEG discards image pixel data that is inconvenient for its compression method, allowing phenomenal size results. This "lost data" is seen as lost purity, or lost integrity due to mild corruption of the data, rather like

added noise. There is no magic answer providing both high compression and high quality, but some quality losses are acceptable for some purposes.

GIF—Graphic Interchange Format—This is an older format developed by CompuServe that was fantastic in its day, with relatively small LZW Lempel- Ziv-Welch, the same compression as used for PKZIP) compressed file sizes (but nothing like JPEG's small size). However, GIF is limited to only 256 colors, a great match for the older 8-bit video boards and for graphics, but which makes it poorly suited today for 24-bit photographic images. The file is also large if used for photographic images, as compared to 24-bit JPEG. And GIF files do not store the images scaled resolution dpi value, making scaling necessary every time the file is printed. GIF uses lossless compression like TIFF. JPEG is much better for 24-bit photographic images, and the JPEG file is very much smaller too (although lossy).

PNG— Portable Network Graphics— PNG was intended to be the replacement for GIF, due to LZW patent problems and GIF being limited to only 256 colors. PNG was designed with the advantage of knowing all that went before. PNG supports 24- and 48-bit color with an awesome set of technical specifications and features, sort of the modern universal "be all, end all" of file formats, including superior lossless compression. The PNG basic compression is called the ZIP method and is like the "deflate" method in PKZIP. But the big deal is that PNG also incorporates special preprocessing filters that greatly improve the compression efficiency, especially for typical gradient data often found in 24-bit photographic images. PNG may be of great interest for us today, because it is lossless compression well suited for master copy data and because PNG is noticeably smaller than LZW TIFF. Looks like about 30% smaller than TIFF LZW for 24-bit files and is about 10% to 30% smaller than 8-bit GIF files. Web browsers Netscape and Internet Explorer did not support PNG on WEB

manage photos

pages at first, but they now include support for PNG files on web pages and it might become popular, not to replace JPEG, but to replace GIF perhaps. Most image programs like *Photo* Impact, Photoshop, and Paint-Shop *Pro* already support PNG, so compatibility transferring files is probably not an issue.

I have picked PNG for saving all my pictures. I have no need to print any of them out and am only interested in archiving them. I feel that in the future, if these need to be reworked or printed out, then the PNG format will work out just fine. I also use the *ACDSee* program to save my folders with corresponding pictures in them. This program allows me to use thumbnail display and to make the thumbnails any size that I want. By making them small enough, I am able to view 32 photos at one time on the desktop. This is helpful in sorting and rearranging.

When I accumulate 650 MB of photos, I transfer then to a CD-R. Then, it is a simple matter to duplicate the CD and make as many copies as I want. At this point, I can give a copy to everyone in my family. This makes the selection of photos available to all interested persons and assures that the pictures will never be lost due to any one incident. So far, I have scanned and put 1900 photos on one CD; many of them black and whites. On the second CD, I have 1100 photos. I estimate that I am about 70% finished with all my photos. Then I will undertake to do the same with about 2000 slides that I have. That, however, will not be as easy, since I will have to see about acquiring a slide scanner.

I have also started to scan all my important documents and put them all in one separate folder. I got the idea about a year ago when I could not find some very important papers, most notably my college degrees. I sweated about three months and really turned things upside down. Lo and behold,

they were in a very "safe place." At that point, I decided to scan every paper that meant anything. I dragged out all the birth certificates, my children's school and college records, military discharge papers, and anything else that I didn't want to have to search for again.

Scanning text is much simpler than photos. You scan at line art mode. On some scanners, the designation is Editing text (OCR). Using this instead of Gray Scale will make the file about 8 times smaller. This should be scanned at 300 dpi. After scanning, the software can perform the "Edit for Text" operation. At that point, it can be transferred to a text program. There you can delete parts, if necessary, label it and save it as a PNG file. I have done this with all my papers and put them into a folder that I named "Certificates." I now rest easy and, of course, that folder of originals is always underfoot. I'll have to find another "safe place" to keep it.

(This article is brought to you by the Editorial Committee of the Association of Personal Computer User Groups (APCUG), an International organization to which this user group belongs)

Need a DLL?
By Bill Shook
NWA-PCUG, 12/2000

What in the world is a DLL, you might ask? Ever get a message on boot-up or when loading a program that tells you a .DLL file is either corrupt or missing? You have? Then read on.

A DLL file is a program or a collection of programs used by Windows and your application software to perform their functions. When a corrupt or missing DLL file message is received, it must be replaced. First, when you see the DLL error message, copy down the name of the DLL and any other information

Drive Image 4.0
A Software Review
By Brian K. Lewis, Ph.D.
Member of Sarasota Personal Computer User's Group, Inc.
january, 2001

This is the latest version of PowerQuest Corporations Drive Image software. They produced this version to include support for Windows Millennium Edition (WinME). It also includes some major changes in that it can now write directly to CD-R or CD-RW disks. I installed this version on a computer running WinME.

I prepared the two "Rescue" Disks that the program recommended. A function I wanted to test was Drive Copy or as the manual calls it, Drive to Drive. I had a non-formatted drive that I wanted to install as the C drive after I copied all the files on the current C drive. The easiest way to do this was to set the jumpers on the drive so the new drive was selected as the Master. This also meant the system would not boot from the hard disk. Instead, I booted it from the floppy set. The floppy system installed a mouse driver and brought up the main screen, which looks very much like a Windows program screen. So although you are operating in a DOS mode, everything functions just like Windows.

I selected the Drive to Drive button. From then on, it was just a matter of following the on screen instructions. I selected the source drive, then the destination drive. The program then asked me if I wanted to expand the source partition to fill the destination partition. Since the source partition was 2.5GB and the destination was 7.5GB I said "yes". The next step was to select the "copy type" as "replace", since the new drive was replacing the smaller drive. The final choice was to select the Write mode. I checked Safe Mode, check for bad sectors and verify disk writes. Although this slows the process slightly, it does provide some security by insuring that no errors exist on the new drive. Finally, clicking on Finish allowed the job to start. Please note, that I needed no

drive image 4.0
Continued from page 6

reference to any manual. Drive Image does come with a well illustrated, clearly written manual. However, the program is so well done that it is not likely that you will make much use of the manual.

My next step was to use the Drive Image program to make an image file for backup purposes. This time I used the hard disk version of the program. Clicking on the program quickly brought up a window telling me, the program would have to reboot my computer into DOS mode. So I clicked the OK button. The computer then did a complete soft restart and ended in the same Drive Image main menu that I had seen when I booted from the floppy disks. The Drive Image software had loaded a version of WinME, and drivers for my ZIP drive. It also loaded a program that comes with Drive Image that allows you to write directly to a CD-R or a CD-RW disk. In this instance, I did not have a CD burner installed on this computer, so I used a second hard drive as the destination for the image file. This process was quite simple. I selected the main drive as the source partition, the second drive as the destination partition, named the image file, select high compression and that was it. The files were compressed and written to the hard disk at the rate of 123MB per minute. This process is far faster than any tape drive. In addition, the restore process is just as quick and easy.

This version of Drive Image has an improved Image file editor. The editor allows you to manage your Image files and it runs as a Windows program. Suppose you need to restore a single file. The Image file editor opens and looks just like the Windows Explorer program. In the left pane you have the directory tree. If you select the image file in this pane, the contents of the file are listed in the right pane. Now you can quickly find the file you need to restore. Click on the file to select it. Then you have three choices. You can go to the file menu and select Restore or you can right-click the file

and select Restore from the pop-up menu. The third choice is to drag and drop the file into the desired location in the left-hand pane of the editor. In other words, restoring a file is just as easy as copying or moving a file in Windows Explorer. Try that with your tape drive and backup software. I restore several files in just seconds with this Image editor. I think you can get the idea from my comments that this version of Drive Image is impressive. It works very well with Win98/WinMe. It may not work with Win95A, but by now you really should have upgraded to 98 or ME. If you need a simple, reliable backup system, then Drive Image 4.0 should be your choice.

DriveImage 4.0
PowerQuest Corporation
P O Box 1911
Orem, UT. URL:
www.powerquest.com

List price: $69.95
Street price: $59.95 to $64.95.

DLL
continued from page 6

provided. Next, look for a small box labeled Details within the error dialogue box. There'll usually be a Details box, but not always. Click it and it'll provide some supporting data, much of which you'll not be able to read or nderstand. Copy down the understandable things like the file causing the error, etc. Then take a snapshot of it with the Alt-PrntScrn keys. This'll make a .bmp graphic file out of it and put it in your Clipboard. Then paste it from the Clipboard into one of your graphic programs, probably MS Paint, which all Windows systems have. Then save it to a location you can find later; if necessary. If it's a Windows DLL you can probably reload it from your hard drive or Windows CD disc. A backup copy of Windows DLL files can usually be found in the C:\windows\sysbckup folder and can be copied directly to the Windows or the Windows\system

folder as is usually stated in the error message. DLLs can also be found condensed in CAB files, so it's well to have WinZip handy, which will display the DLL files within a CAB file and allow extracting them individually with a couple of mouse clicks. Otherwise, they need to be extracted with a similar 3rd party program or a command line program named Extract. I'd recommend getting some telephone assistance if this is the route that must be taken. The CAB files can usually be found in the C:\windows\options\cabs folder. If not, use the Find function to search for them, first on the hard drive, then on the Windows CD disc. Also, use the text feature of the Find function to locate which CAB file contains the DLL needed. If the DLL needed is from an application program and you can't find it on your hard drive or source discs, it may be found on the program manufacturer's web site, probably with, or even called, Drivers. Otherwise, there is a handy web site that collects DLL files just for desperate souls like us. Go to: http://solo.abac.com/dllarchve and search for it. If they don't have it, they provide a message board that can be used for hopefully getting it from some other user. In return, they ask that you periodically check the message board and help someone else if you can. I've used this site a few times both to get files and to help others and it works quite well.

Using Acrobat Reader
By: Nozer Dadachanji

It may not have been a particularly observable occurrence, but over the last little while you may have noticed that many web sites are now offering documents for downloading and viewing as PDFs. PDF, which stands for Portable Document Format, has been around for some years, although Adobe, who I presume developed it, didn't seem to make much headway in getting it to be generally accepted. That seems to have changed. Now it appears that PDF is the preferred method for exchanging and trans- mitting documents while keeping formatting and links intact.

Big Blue & Cousins has (of course) been no laggard in recognizing this trend. Our newsletter has, for several months, been available at our website in this format. With the last couple of issues we've gone a step further by creating the newsletter in a mixture of PageMaker and PDF files. We then create a single PDF for the whole issue which is then uploaded to our printer's FTP site for final printing of the hard copy. We have thus eliminated virtually all manual paper handling until the final stage - labeling and mailing - and we're working on automating the labeling part as well.

The Adobe Acrobat Reader, which is used to read PDF files, is free and available from a multitude of sites. Of course, the Acrobat program that is used to create PDFs can also read them. The reader is quite a versatile little beast and allows one to view documents with great facility. However, the various capabilities of the program are not intuitively obvious (perhaps it started out as a Mac program).

When you first start the program and load a file, the cursor will appear by default as a hand. It is likely that the document will be larger than the window it opens in, so to view the hidden areas you can resize the document in a number of ways. The toolbar has three similar buttons towards the right that are shaped like a sheet of paper with a corner folded over. With these you may view the document at actual size, fit the whole page in the view area or fit it to use the full available width.

Except for the second option, there may still be areas out of view. The automatic response is to go to the vertical scroll bar and try to move down the page. However, the scroll bar applies to the entire document, not just the page in view. So, if it is a long document with many pages, a small movement of the scroll thumb can move you through several pages. A pop-up indicator does show which page you are on, but if you are just looking around on one page, it is best to use the default hand tool. Just hold down the left mouse button and move the cursor. The document will slide around as though it was a sheet of paper being moved behind the view opening.

The up/down arrow keys on the keyboard will also move the document vertically. Pressing the enter key will move you progressively through the whole document. You can also set the document to display as a continuous strip (one page below the next) or with facing pages, as in a book. To set this, use the tool on the status bar to the right of the page dimensions.

To change pages, use the left/right pointing triangles on the toolbar or the left/right arrow keys on the keyboard. The triangle-with-bar icons take you to the first or last page. A specific page can be reached by editing the page number in the status bar at the bottom of the window and pressing enter. The status bar can also be used to adjust the magnification of the view. In addition, it displays the current page dimensions.

The left and right arrow keys on the toolbar behave like the Back and Forward buttons in most browsers, that is, they allow you to retrace your steps through the pages and views you've been through and back again.

The magnifying glass tool can be used to zoom in on a particular area of the page by drawing a marquee around it or by simply clicking on it. Hold down the control key and click to zoom out. The text/graphics selection tool allows you to select parts of the text, or one or more graphics, and copy them to the Windows clipboard. (Hold down the mouse button on the Text select tool, and additional tools will "fly out"). The binoculars tool is used to search for text in the document.

Some facilities are sometimes un- available if the document creator has set security limitations. For example, copying text or printing the document may be disallowed. Click on the right pointing triangle at the top of the vertical scroll bar to see more about the document.

The last tool I'd like to point out is the navigation pane toggle to the left of the hand tool. Activate it to open an Explorer- like view that shows "bookmarks", which are more appropriately called contents items, linked to specific points in the document (we use this in the PDF version of our newsletter). The "thumbnails" tab that also appears, shows a thumb-nail-sized view of each page in the document, so you can jump to a particular page if you recognize its thumbnail. Note however, that the document must have been created with this information for it to appear to the reader. There are a number of other techniques that I find useful, but this lot should help you get more out of the reader. Get Adobe Acrobat Reader at Adobe http://www.adobe.com

New Members

Bob Pate
Robert Mires

club information

HARD COPY is a monthly publication of SLO BYTES PC User's Group located in San Luis Obispo, California. Information in this Newsletter is derived from both our own membership and other PC User Group Newsletters. The purpose of this publication is to inform our members of meetings and provide information related to the use of IBM PC's and compatible computers.

Membership: Dues are $25 per year. Full membership entitles you to our monthly newsletter, full use of the public domain software library software drawing at the end of the meetings.

Article Submission: Deadline for submission of articles is the 15th of each month. Articles should be provided in ASCII format without any type of formatting from your wordprocessor including tabs, indents, extra spaces, or highlighting. We prefer articles on disk but will accept hardcopies if necessary.

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Member of

APCUG

meeting times

GENERAL MEETINGS are held the 1st Sunday of each month. Our meeting location is the San Luis Obispo I.O.O.F. Hall on Dana Street.

The general meeting starts promply at 2:30 p.m.

Special Interest Groups (SIGS) meet at 1:00 p.m.–2:15 p.m.

slobytes website

WWW.THEGRID.NET/SLOBYTES/

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treasurer's report

february 14, 2001

OPERATING FUND

Beginning Balance		$1,940.29
Income		
Membership Dues		300.00
Refreshments		24.70
Expenses		
Room Rent		75.00
NL Xerox		32.00
Refreshments		22.88
New Balance		$2,135.11

EQUIPMENT FUND

Beginning Balance		$64.16
Miscl Donation		12.50
New Balance		$76.66

I.O.O.F
520 Dana

Mitchell Park
Peach St
Mill St
Palm St
Palm St
Nipomo St
Monterey St
Dana St
Higuera St
Higuera St
101
227
Marsh St
Marsh St
Nipomo St
Pacific St
Pismo St
Brizziolari Creek

0   100m
300ft

Next Meeting
Sunday
March 4th

1:00pm
Early SIGS

2:30pm
Firewall
Monitoring