



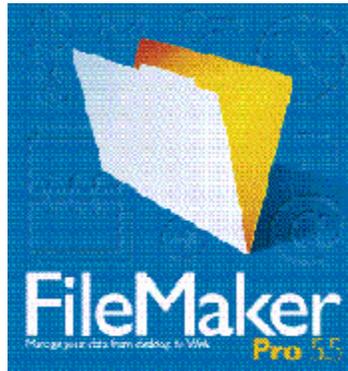
FileMaker's got your number

On July 10th, 2001, at its monthly General Meeting, Danbury Area Computer Society, DACS will introduce its members to FileMaker, a database program. The meeting has been moved to the second Tuesday of the month due to the 4th of July Holiday. Activities begin at 7 p.m. with a computer related question and answer session, followed by brief club announcements. Jane Lafrance will be describing FileMaker starting at 8 p.m.

FileMaker is used by both the Mac and the PC platforms. FileMaker provides help in managing, organizing and sharing information. FileMaker covers the spectrum from novices to professionals. It can be a simple contacts database or a powerful digital photography/video storage and cataloguing program. Databases can easily be created. Data can automatically be published onto an intranet or to the Internet.

Databases can be shared with web browsers, without programming, with the built-in web server. One of its features is instant web publishing. FileMaker can convert Microsoft Excel files by dragging and dropping the files onto FileMaker Pro 5.5, the program can instantly create functional databases ready to be pub-

lished to other FileMaker Pro users or on an intranet. Other formats can be accessed such as Text, Lotus, CSV, DBF, DIF, SYLK.



FileMaker is easy to use from a template and by using simple dialogs to create your objective. Use the built-in Layout/Report Assistant to quickly and easily create useful reports and summaries. FileMaker integrates with business applications such as Microsoft Office. Import data from Microsoft Excel including named ranges within spreadsheets, use Excel's graphing tools to chart FileMaker Pro data, mail merge in Microsoft Word with FileMaker Pro records, and create large emailings to Microsoft Entourage (Mac) or Outlook (Windows) directly

from FileMaker Pro.

FileMaker can manage information. For example, tasks can be automated and controlled by using new scripting enhancements. Data and scripts can be imported between files. Record by record access can be limited, by using the Record by Record Access Privilege feature to choose who can view or modify sensitive data.

If you wonder what a database can do for your personal life or for your business, you will not want to miss this meeting.

Meeting Review

MICROSOFT XP OFFICE

by Carol Gibson

One of today's requirements for being an executive assistant is to be proficient in Microsoft Office. Word, Excel and PowerPoint are like reading, writing and math are to a teacher. Living, breathing and sleeping Microsoft Office are a way of life for this executive assistant. Hearing that Bill had made application suite more user friendly, made the June 5th meeting of DACS a *must see* event.

Our originally scheduled speaker, John Stroiney, had a change of plans at the last minute

and Sonal Shah stepped up to the plate in his place. And as far as this writer is concerned, she hit a grand slam home run. She was one of the best presenters we've had in a very, very long time. Her cheerful,



friendly attitude kept us wanting to hear more. She knew the software and moved around it seamlessly. Relating her personal experiences with the new improvements helped to bring us into her presentation. She was definitely comfortable with the software as well as the audience.

Continued on page 13

President's File



For many computer users, a database is one of those arcane applications that gets bundled in their office suite or was left out of the lower-price package. For their basic data needs, they might use a contact manager or mail merge, or even a spreadsheet. Some may wander in to find out what the program is about, only to back out in the face of all those confusing tools and options.

What seems so intimidating about databases is what they can do. Businesses use them to track clients, suppliers and products; libraries to store their card catalogues; telemarketers to log phone contacts; and IRS investigators to check your return. A database is the engine that drives the U.S. Census, Star Wars technology, and the human genome project. Without databases, its hard to imagine that Santa Claus could possibly keep track of who's naughty or nice, or that creation could have taken place in six days, with time to take a day off to rest.

But even as powerful as databases can be for the techno-nerds, they can still have a host of nifty uses for the rest of us—if only they can be made more user friendly.

You will have a chance to see what a database can do, and what you can do with a database, at our next General Meeting on July 10th, with FileMaker Pro 5.5. FileMaker is an independent division of Apple Computer, the company which pioneered look and feel. And while it claims better than a 90 percent user share on the Mac, FileMaker is actively becoming a player on the Windows, Linux and wireless hand-held plat-

forms as well. It can directly import Microsoft Excel spreadsheets, share files seamlessly between Mac and Windows, and even send large e-mailings to Microsoft Outlook.

Input/output

I was saddened to hear recently that Jack Corcoran will be retiring from our newsletter staff. The quintessential tired old programmer, Jack mused and reminisced on the ambiguous relationship between man and machine. If Web visibility is a sign of quality, Virtual Jack and his Random Vectors has been among the most successful for DACS, appearing widely on other user group Web sites and newsletters. But, as with other truly original writers, the search for new forms of expression can be overwhelming. Perhaps after a brief hiatus, Jack will recharge his batteries and return again with new insights on the programmer's art. We'll keep the pod bay doors open, Jack.

Also stepping down will be Richard Koser, leader of the popular Internet SIG. An active volunteer during his many years with DACS, Richard is taking some time off from a very busy schedule. Even so, he is remaining a member, and we expect to hear more from him in the future.

On our editorial staff, associate editor, Ted Rowland, will be moving to parts north and down east. He assures me that he will remain a DACS member, and will continue to be available for editing by e-mail. We all wish Ted and Eileen well in their new home.

Matthew Greger has signed on as Mac liaison, to take over from retiring SIG director Chris Salaz. Matthew is Vice President of The Business Helper, a small business solutions provider in the Danbury area, and leader of the DACS Web Design SIG. You can contact him with your Mac questions at matthewg@thebusinesshelper.com or by phone at 203-748-2919. Meanwhile, the office of Mac SIG leader is still open.

And, please welcome Carol Gibson to our staff as review editor. Carol brings to *dacs.doc* her extensive hands-on experience with computing as an executive assistant, a mother and a prize-winning amateur photographer. She will be joining forces with Marlène Gaberel to cover monthly meetings, and both will welcome input from other members on the more techy topics. You can read Carol's review of Microsoft's presentation of Office XP on page 1 of this issue.

—ALLAN OSTERGREN
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Membership Information

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Applications & Hardware to enhance *dacs.doc* are welcome.



Don Neary
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HelpLine

Volunteers have offered to field *member* questions by phone. Please limit calls to the hours indicated below. Days means 9 a.m. to 5 p.m.; evening means 6 to 9:30 p.m. Please be considerate of the volunteer you are calling. HelpLine is a free service. If you are asked to pay for help or are solicited for sales, please contact the *dacs.doc* editor; the person requesting payment will be deleted from the listing. Can we add your name to the volunteer listing?

d = day **e** = evening

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Directors' Notes

A Regular Meeting of the Board was held at the Resource Center on June 11, 2001. Present were Messrs. Bovaird, Buoy, Neary, Ostergren, Pearson, Preston and Setaro and Mrs Gaberel. President Ostergren presided; Secretary Buoy kept the record. Minutes of the last meeting, held May 7, 2001 were approved.

Treasurer Bovaird reported combined CDs, checking and postal account balances of \$23,672.51, postage on hand of \$106.20, a total of \$23,778.71, less prepaid dues of \$7,723.00, a net of \$16,055.71. Current membership of 501 was also reported.

President Ostergren reported that, while attendance was limited at the special presentation on Assistive Technology held at DATAHR on May 9, it had been a very focused audience and could be deemed a success.

Continuing from prior meetings, discussions ensued regarding expansion of membership and SIG activities. It was suggested that, since guests at General Meetings seem to be the primary source of new memberships, a more general public-oriented approach to publicizing such events be attempted. Included were a saturation mailing in a "test market" zip code area and/or advertisements, coupled with calendar announcements, in area news media. Also mentioned was the possibility of expanding attendance at SIGs, and concomitant DACS membership, via a similar approach.

Also continuing discussions from previous meetings, consideration of an alternative venue for General Meetings in the event of preemption of the Hospital's auditorium was addressed. The location, parking facilities, costs and available facilities of various known area hotel/motels, schools and organizations were discussed with the conclusion that additional investigation is warranted, aiming toward a consistent venue capable of handling any General Meeting at a reasonable cost.

—Larry Buoy

Connections

DSL — NO WAIT INTERNET

By Mike Kaltschnee

I have waited more than 5 years to get DSL, so when it came with troubles, I was willing to wait just a little bit longer for it to work right.

DSL, or Digital Subscriber Line, is a different type of connection to the Internet, and is more than ten times faster than a modem. SNET claims speeds of up to 1.5Mbps for downloading, and 128k for uploading. The greatest thing about DSL is no more waiting to dial up your Internet provider and connect — it's always on. You can also use the same phone line to your house, so you won't tie up your phone line when you're on the Internet.

I called SNET in 1996 and wanted to hook up a fast connection to my apartment. At that time, it cost about \$1,200 per month for ISDN, and that was my only choice. I suffered with a 56k modem until very recently. Cable modems have been available in surrounding towns, such as Newtown, for several years. But I happened to live more than 17,000 feet from the SNET central office, so it wasn't available to me until very recently.

From the time I called SNET to installation, it took about three weeks. I was pleasantly surprised when it was available on time, but disappointed to find out that no one had ordered the DSL modem to be shipped to me. I finally got the DSL modem and starter kit about a week later.

Installation is simple, but you can have SNET do it for \$200. Needless to say, I decided to do it myself. Since DSL uses the same phone line you use to talk on, you have to install filters between all of your phones and the wall. The kit includes

several, but I decided to cheat and use one as it enters the house. Plug the DSL modem into a phone connector without a filter and then plug the DSL modem

into your computer's network card (if your computer doesn't have one, SNET includes one as part of the kit).

I didn't use the software included with the SNET kit, but it works great for turning the connection on and off (I helped a friend with his

DSL software). I decided to add a layer of security between me and the Internet and install a hardware firewall and router. I purchased the Linksys DSL Router for about \$120 because of the reviews. As a bonus, it allows me to hook up to four computers to the router because it includes a high-speed four-port 10/100 switch. A firewall protects your computers from detection on the outside by hiding the addresses of each computer from prying eyes (Network Address Translation, or NAT for you geeks out there).

If you decide to use the Internet software, please download a software firewall such as Zone Alarm (www.zonealarm.com). It's a bit more dangerous using DSL than a modem, since you're connected to the Internet

around the clock and typically have the same address for a long period of time. I wish SNET would include a firewall as part of their starter kit. I have added an additional layer of security and run personal firewalls on each computer in addition to the hardware firewall.

The cost? At the time, they offered a free modem if you signed up for a year. I have heard horror stories about DSL, so I decided to pay the \$99 for the DSL modem and starter kit and go month to month. If you order it online at www.snet.com/DSL/ you'll save the \$50 order charge. The monthly fee for DSL service is \$49.95, which at first seems high. But factor in the cost of a second phone line (\$20), Internet access (another \$20), and the time you save — priceless.

I had some trouble during the first couple of months, including a week of no service. SNET traced the problem to a "remote terminal" in our neighborhood, but it took almost a week for service to be restored. We were not without service, as the \$49.95 monthly fee also includes the old standard SNET dialup service. With all of the horror stories of DSL configuration issues, I think this was a wise move.

DSL appears to work great now, and I haven't had a problem in about two weeks. Being one of the first people to try DSL in our area, I expected problems. Some of my friends that have DSL have had no trouble, and others have had no luck and hate DSL. Be aware that DSL can be very unreliable, a problem I haven't heard from my friends with Cable modems.

To learn more about DSL, visit a site called www.dslreports.com. They have all

kinds of DSL information, including user reviews of SNET's DSL service.

Am I happy with SNET DSL? So far, after a few really rough spots, I'm happy. If it works 95 - 99% of the time I will be very happy.



Mike is a DACS member who can't go back to 56k modems. You can contact him by e-mail: mikek@demorgan.com.

Operating Systems

Is Your Win98 CD Worn Out? Don't Fret

by Rod Ream, Pasadena IBM Users Group

“Hey Rod,” the e-mail started, “have you any suggestions how to get the original Windows 98 CD replaced? The darn thing no longer will in-

option to run Setup without using SmartDrive. Turning this off prevents file caching for the CD and although considerably slower, may provide a more reliable file transfer. Disabling L2 and perhaps even L1 caching in the BIOS will slow things down even more.

AntiVirus software running. Turn it off! If you are using McAfee, you may have to uninstall it to kill it.

An out of balance CD. Just like a new tire. Rotate it 1/4 and put back into the drive. You'll hear or feel the vibration if this is the case.

The Cab Folder—If the original installation of Windows 98 (or any other version of Windows) was performed by a manufacturer, you should already

have the CAB files on the hard drive. The usual location would be `\windows\options\cabs`. If these files exist, you can run setup from that folder, either from Windows or by booting to the command prompt and changing to that folder.

If the contents of the CD `\WIN98` folder are not on the hard drive, I'd certainly want to put them there. Aside from not having to hunt for the CD at times like this, Windows will automatically look there whenever it needs a file and will stop asking you to insert the CD.

The best way to copy the files is to boot to the DOS prompt and then use XCOPY, because it has the ability to “retry” difficult files. In your Windows folder, create another folder names CAB. Copy all the files (not the subfolders) from the CD from within the Win98 folder.

Here's How—Since the normal DOS prompt doesn't access the CDROM, you'll have to either re-enable the CD drivers in both `config.sys` and `autoexec.bat` or use the W98 boot disk.

Here's the process if you use the boot disk C: is assumed to be the drive where W98 is installed and we'll assume that the folder named above does not exist. Use the boot disk and select “with CD support.” Note the drive letter that's assigned (I'll use “E” here) E:

DIR WIN98 (This checks to see if the CD is readable C:).

CD WINDOWS MD OPTIONS CD OPTIONS MD CABS CD \WINDOWS\ COMMAND XCOPY E:\WIN98*. * C:\WINDOWS\ OPTIONS\CABS /S /E /V

When the file copy process is finished, remove the boot disk and CD, then reboot to the command prompt again. You can then run the SETUP from the cabs folder. If you still receive “corrupted” messages, it may be due to bus mastering and you'll need to slow the machine down with one or more of the steps above.

Rod Ream is senior tech support for PIBMUG and president of PC Consulting, 626/280-6850. 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.



stall because of an `error' caused by corrupted CAB file.”

“I've had to reinstall Win98 too many times to count in the last year,” the e-mail continued, “and the CD seems to have a scratch or fault on it. I tried to clean it with a little rubbing alcohol. I would try Old Crow but I have consumed all that in the endless struggles (in lieu of pulling my hair out) 'cause there ain't any left anyhow . Thanks!

The reply is the sort of thing you need to cut out and paste on the side of your monitor. It has vital information you'll need if you bump into the same dilemma.

What's the CD Problem? The message about corrupted CAB files can have several meanings; none of them mean the files are corrupted.

The CD is damaged. Not likely unless it's badly scratched, cracked or someone wrote on the face with a ballpoint pen.

A timing issue. Some CD players may be too fast and the data is being corrupted as it's unpacked. You can work around this in a couple ways: From the DOS prompt type “Setup /?”. You'll see an

Quote without comment

In a recent speech in San Francisco, Microsoft CEO, Steve Ballmer defended his company's decision to integrate new Web features into Windows XP. As reported in *The Wall Street Journal*, Ballmer argued that these new features “should make computing easier for people—even his mother-in-law, who he says calls him about once a week for technical help.”

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Troubleshooting

The Server Won't Boot or Why You Can't Have Too Many Backups Part 2

By Jim Scheef

In the first episode of this series I revealed—nay, I poured out my soul—about how I had been lulled into the false complacency of hardware redundancy, and how this had led me to that morning where my server would not boot and the most recent backup tape was over a month old.

So, what, exactly, did I see that fateful morning? Actually, it was worse than a BSD (Blue Screen of Death) as the server was looping thru the failing boot process.

The failure report shown on the BSD would flash by too quickly to see and the boot process would start again. In fact even BlueSave¹ from Winternals Software LLC² failed to save the blue screen information to disk. It all seemed rather hopeless.

The one bright spot was that the NT Workstation installed on another partition would boot. From this parallel installation, I was able to see the files and directories on the NT Server partition so I knew that the hardware was still working, the disk drives were fundamentally intact and that, in all likelihood, the server was not totally lost. The problem was where to start!

Microsoft to the Rescue

It was definitely time to get some outside help. For several years I have subscribed to MSDN, the Microsoft Developers Network³. One of the benefits of the “Universal” edition is two “incident calls” to Microsoft Support. Since a support call can be upwards of \$200, these are a significant value when you need them. I definitely got full value, as you will see.

After a brief conversation with the dispatcher, I was assigned to a support engineer whom we will call Rick. Believe it or not, but I was talking to Rick in less than fifteen minutes from the time I placed the call. When I described the symptoms

to Rick, we agreed that the first order of business was to make the server stop looping in the boot process so we could see the BSD and figure out what was causing the boot failure.



What we had to change was a check box on Startup/Shut-down tab in the Control Panel/System applet. The check box corresponds to a value in the registry and tells the system to immediately reboot whenever the system halts. So how do we change a registry value of a system that

won't boot? The answer lies with the NT Workstation installation. Running NT Workstation gives access to the NTFS drives and to RegEdit32. RegEdit32, thru the use of magic clicks and a secret decoder ring, allows one to load individual hives from another copy of NT. The sequence of menu clicks is too complex to describe here, but after several days, I got pretty good at it. Suffice to say that once the registry hive is loaded, you can edit values as if it were the regular system registry. Of course it helps to have someone telling you which values to change.

Something thing I found interesting was that the inactive registry (inactive because we were editing the registry of a system that was not running) had a slightly different structure from what you see when you open the registry on a running system. This was most easily seen in the HKEY_Local_Machine hive where there were three ‘configurations’ rather than just the ‘Current Configuration’ that appears when editing an active registry. This is what allows you to load a “last known good” configuration on boot up.

After changing the ‘Automatically Reboot’ value, I tried to boot the server and was finally able to see the BSD.

Recovery

A BSD shows the problem or error near the top of the screen in typically cryptic Microsoft language. Mine said something like “mspst32.dll is not a valid Win-

dows NT image.” When something like this happens, the normal approach is to replace that one file and try to boot the server, hoping that only that one file is corrupt. I'll hit the fast forward button on this story and tell you that there were many, many more corrupt files beyond the one named on that initial BSD. In addition part of the registry, the software hive⁴, was also corrupt. This was not a pretty picture.

Now that we knew the magnitude of the problem – just about every executable on the system needed to be replaced – we needed a plan. What we decided on was:

- Make the server as stable as possible, by disabling as many services as possible.
- Replace the system files from the `\WinNT\System32` directory of the Workstation.
- Replace the corrupt software hive from the last registry backup.
- Boot the server and apply Service Pack 6a.

This should produce a minimal version of NT. Naturally it was not so simple and this process took more than a day of work, carefully coached along by Rick. Disabling the services meant editing the registry from Workstation to set the value of ‘start’ to a ‘4’ for disabled

Unfortunately this minimal NT could not recognize the redundant disk drives. So the next step was to re-enable the disk mirror (RAID 1) on the system partition and the stripe set with parity (RAID 5) on the data drive. Naturally this must be done without corrupting the NTFS drive structure. To do this we used a utility from the Windows NT Resource Kit called Dskprobe.exe which is a disk sector editor. Rick prompted and I read the results off the screen. Gradually, after much probing and reboots, we determined that we could not simply rejoin the two mirror halves. So, after making a tape backup of the barely running system, I deleted the partitions on the old mirror drive and rebuilt the mirror using the regular Disk Manager program.

As the system became more stable we turned our attention to the stripe set. In this case we needed to rejoin the three drives that made up the array, and the drives had to be in the correct order or we would render them useless – assuming they could still be read at all! The process involved a careful analysis of a few bytes on the third sector (I think) of each disk. Once we knew the sequence, we looked in the registry to verify that the registry and the disks agreed. To my great

relief, the strip set with parity recovered without any data loss.

It was now time for a full system backup. This would be the just about the last backup using the old 2G native/4G compressed DAT tape drive. A full backup using this tape drive required three tapes and five tape changes to copy the files and then verify the backup. This process took about 8 hours of actual backup time not counting the time everything sat waiting for me to change the tape! Is any doubt about why I thought this was a pain in the ass? So, I ordered a new DDS-4 Sony tape drive that holds 20G native and 40G compressed. Glory be! Once again I can back up the entire machine to a single tape!

Next time

By now Rick and I had been working on the machine several hours a day for a week. Generally when Rick and I ended our call, my work was only beginning as Rick would be sure I had a list of tasks to perform before our session the next day. Sometimes we might lose a day while I completed a tape backup. The status at this point was a system that booted NT Server but did little else. It still would not talk to the network and all the server software, like SQL Server and Exchange Server, was still disabled.

So hang in there until next time in September, when we will recover DHCP, DNS, and WINS, as well as solve a vexing Catch 22 trying to restore a single DLL. Plus, we might learn something about NT networking along the way.

Remember, summer is what you do between ski seasons, so have a good time!

Notes

¹ BlueSave is a product that writes the blizzard of numbers on a BSD to a text file that can be printed or emailed.

² www.winternals.com

³ MSDN Subscriptions is a membership service which delivers essential programming information and the latest Microsoft® software and tools, each month on your choice of CD-ROM or DVD-ROM. See <http://msdn.microsoft.com/subscriptions/prodinfo/overview.asp>

⁴ I now believe that the reason these files were corrupt was that the software registry hive was corrupt. We knew the software hive was corrupt because we could not load it in RegEdit32.

JIM SCHEEF is the Mad Scientist at Telemark Systems Inc. where he develops custom software using Visual Basic and SQL Server and provides networking services using Windows NT/2000. He has been a DACS member since the day DOG became WC/MUG.

User Groups

The Strength of a User Group is in its SIGs

By Don Neary

Why belong to a computer club? That question is getting harder to answer these days. The original intent has been and still is to provide an organization of people willing to share knowledge and experience related to computer utilization. The computer experience is getting much more complicated. It is constantly being improved and expanded to a point where belonging to a club can be very rewarding and worthwhile, provided the organization finds a way to keep up with the ever expanding subject matter. The larger clubs such as ours are being challenge to find ways to balance the needs of the general with those of members with special interests that would bore some and intimidate others.

Special Interest Groups (SIGs)—or if you prefer “Workgroups”—can be the key ingredient for keeping a user group alive and current. We need more than monthly general meetings dedicated to vendor presentations of a broad nature to keep and attract new members. Most of us have additional needs for the meat and potatoes issues of using computers and software that our monthly meeting is not able to address.

SIGs can be the life blood of any club, provided the voluntary side of our membership is willing to utilize our cumulative resources and energy to keep them current and informative. Computer capability is growing at a fast pace, for which many of us would appreciate having a support group to share experiences and knowledge. DACS is fortunate to have eight SIGs that meet monthly and are listed in our calendar. You will also note we are getting more and better SIG meeting reports. This will keep potential members aware of what happens at a meeting and to encourage more who may be interested to participate. We are fortunate to have our newsletter as a forum to do that.

I am interested to see if we can expand the concept by adding more to our SIGs or spicing up those we already have. How about a Kids', Senior, or Hand Held SIG for example? So how do we do that? It's simple: Someone has to step forward and say, I have found enough people interested in getting together to further our mutual interest in a particular area. Most think the leader needs to be a guru on the subject. That's not necessary. Any member of the group can be that resource, or it could be a cumulative resource of banding together to learn how to get answers. There is no reason why a group can't have its own guest speaker on the subject or get together with other SIGs in the area with similar interest.

Where to meet and the need for computer and projector equipment can be an issue. DACS members have a very big advantage here, since we have our own “Resource Center” for that purpose (that some would say is underutilized).

To start a SIG you only have to provide:

- 1- Your name and contact info.
- 2- The name of the SIG and its mission statement.
- 3- A list of DACS members wanting to participate (min. 10, but who's counting?)
- 4- Your desired meeting date and support requirements. (consult Calendar for open dates)
- 5- A formal request to the board for review and approval.

An organization is only as good as the sum of its volunteers and the SIGs concept needs to be a core resource toward keeping our user group alive and well.

More next time on my visits to existing SIGs, to learn their objectives, achievements and support concerns.

Don Neary is a DACS director, SIG coordinator and Liaison to the Association of PC User Groups (APCUG). He can be reached at donneary@prodigy.net

Special Interest Groups

SIG NOTES: July 2001

ACCESS. Designs and implements solutions using Microsoft Access database management software.

Contact: Bruce Preston, 203 431-2920 (*bpreston@mags.net*). Meets on 2nd Tuesday, 7p.m., at the DACS Resource Center.

Next meeting: TBA

ADVANCED OPERATING SYSTEMS. Explores and develops OS/2, Linux, and NT operating systems. For meeting notes and notices, follow link to Don's site on *dacs.org*.

Contact: Don Pearson, 914 669-9622 (*pearson@attglobal.net*). Meets on Wednesday of the week following the General Meeting, 7:30 p.m., at Don Pearson's office, North Salem, NY.

Next meeting: July 11

BACK OFFICE. Explores Back Office server and client applications, including Win NT Servers and MS Outlook. The SIG meets 2nd Thursday, 7 p.m., at the DACS Resource Center.

Contact: Jim Scheef (*jscheef@telemarksys.com*)

Next meeting: July 12

GRAPHICS. Create/print high-quality graphics and images.

Contact: Ken Graff at 203 775-6667 (*graffic@ntplx.net*). Meets on last Wednesday, 7p.m., at Best Photo Imaging, Brookfield.

Next Meeting: Closed for Summer

INTERNET. Acquaints DACS members with the Internet.

Contact: Richard Koser (*rkoser@worldnet.att.net*). Meets on 3rd Wednesday, 7p.m., at the DACS Resource Center. Members' suggestions are welcome.

Next Meeting: Summer hiatus

INVESTMENT STRATEGIES. Discusses various investment strategies to maximize profits and limit risk.

Contact: Paul Gehrett, 203 426-8436, (*pgehr4402@aol.com*). Meets 3rd Thursday, 7:30 p.m., Edmond Town Hall, Newtown.

Next Meeting: July 19

MACINTOSH. Discusses Macintosh hardware and software.

Contact: Matthew Greger, 203 748-2919, (*matthewg@thebusinesshelper.com*).

Meets on 3rd Tuesday, 7:30 p.m.

Next Meeting: Suspended until further notice

VISUAL BASIC. Develops Windows apps with Visual Basic.

Contact: Chuck Fizer, 203 798-9996 (*CFizer@compuserve.com*) or Jim Scheef, 860 355-8001 (*JScheef@Telemarksys.com*).

Meets on 1st Wednesday, 7p.m., at the DACS Resource Center.

Next Meeting: TBA.

VOICE FOR JOANIE. Provides and supports people with Lou Gehrig's disease with special PC computer equipment.

Contact: Shirley Fredlund, 860 355-2611 ext. 4517 (*voiceforjoanie@juno.com*).

Meets by arrangement at Datarh, Brookfield.

Next Meeting: Contact Shirley

WALL STREET. Examines Windows stock market software.

Contact: Phil Dilloway, 203 367-1202 (*dilloway@ntplx.net*). Meets on last Monday, 7p.m., at the DACS Resource Center.

Next Meeting: July 30

WEB SITE DESIGN. Fundamentals of design for the Internet.

Contact: Matthew Greger, 203 748-2919 (*matthewg@thebusinesshelper.com*)

Meets second Wednesday, 6p.m. at the Danbury Public Library.

Next Meeting: Closed for season

SIG News & Other Events

Visual Basic. The June meeting was a lot of fun as Rich and Fran Rosner presented their current project. The core program analyses data collected from data logging devices and formats it as charts and reports for sales presentations. It was informative for everyone to see how they approached each part of the program.

Toward the end of the meeting we discussed how such a program could connect to another Access database located on a remote server. This led to the security implications of the various possible alternatives. Security concerns range from cautious to grave, depending on how the connection is made. This will surely be an ongoing topic particularly as we learn more about .NET which is supposed to make this type of thing trivial - or so the hype goes.

The July meeting will be rescheduled to avoid a conflict with our Nation's birthday. The date change will be announced on the VB_DACS email list on Yahoo Groups - to join, send an email to VB_DACS-subscribe@yahoogroups.com.

In August the meeting date will return to the normal first Wednesday schedule of Aug. 1st at 7pm in the DACS Resource Center. For September, we will have Scott Hillier as a guest speaker. Scott is a trainer and the author of several books on Visual Basic, COM, ASP and more. The September meeting will be Wednesday, Sept. 5th at 7pm in the DACS Resource Center. Scott will talk about Microsoft's .NET.

Back Office. This month at Back Office we discussed the new Microsoft License Activation used for Office XP and the soon to be released Windows XP. We also talked about how to set up the network in the Resource Center now that the new and much faster workstation has been installed.

The next meetings will be Thursday, July 12th and Thursday, Aug. 9th at 7pm in the DACS Resource Center.

Internet: The DACS Internet SIG is now on Summer hiatus and will NOT be meeting in June. Look for us again in the Fall.

In order to devote more time to other responsibilities, I will no longer be leading the Internet SIG. If you are interested in this task, please contact DACS's Charlie Bovaird *aam@mags.net* and/or Allan Ostergren *dacsprez@aol.com*. I will be happy to assist you in getting started. Have a good Summer

The Internet Special Interest Group meets [usually] at 7:30 p.m. on the third Wednesday of the month at the DACS Resource Center on the lower level of Ives Manor, located at 198 Main Street, a few buildings north from the Danbury Public Library. Open discussion of interesting sites and other Internet matters precedes and follows the presentation. Members' suggestions for Internet SIG topics and participation are welcome and even essential; contact Richard Koser at *rkoser@worldnet.att.net*.

Web Site Design: This SIG will meet again in September.

July 2001

Danbury Area Computer Society

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Printer Technology 2001

by Herbert Wong, Jr.—NOCCC

The vision of the “paperless office,” like the pipe dream of the “flying car,” has proven to be far removed from reality. Computers have built mountains of printouts and spawned an entire industry devoted to the creation of hard copy for your home and office. Printers are big business!

In the four and a half years since I last wrote about printer technology, very little has changed. Inkjet printers still dominate sales volume

and entry-level prices. Laser printers still are the workhorses of the office and provide the lowest cost to print a page. Of course, the normal computer industry evolution has applied. Prices are lower, performance has improved, features have increased, and the entry-level prices have dropped.

What’s new? The most prominent recent innovation has been the photo printer. Almost all of these machines employ standard CMYK (cyan, magenta, yellow, and black; see below) inkjet technology that has been augmented by the addition of two new shades of ink, light cyan (LC) and light magenta (LM), that promise to enable a superior gradient of tonal reproduction. At the very least, the cost of ink for printing will be higher than ever before!

The second innovation in ink has been the long overdue introduction of the so-called archival ink. Traditional inkjet inks fade extremely quickly, in as little as three to six months. Toner based printer (laser, LED, etc.) output lasts much longer.

Epson (and soon, others) is trying to introduce inkjet inks that have a life of as long as 140 to 200 years. However, to achieve these kinds of results, you will have to mount the expensive archival paper and special archival inks under sheets

of glass or in special archival plastic sleeves to prevent exposure to the atmosphere. However there have been problems with the first generation of these ink/paper solutions.

Duplex (dual-sided) printing, a long time option in laser printers, has finally arrived in inkjet printers. A duplex attachment mechanically flips-over each sheet of paper so that a multiple-page document (in a single print job) is automatically printed in sequence on both sides of the sheet(s). The Hewlett-Packard inkjet printer’s duplex mechanism will print the first side, eject the sheet to allow 30 seconds of ink drying, and then print the second side. Don’t be fooled, in practice, this should be much faster than having to manually reinsert each page in a series. Without a doubt, it is less laborious and tedious.

Digital camera photography has recently become popular. As a result, a few printers have some level of support for them. It can be minimal in some printers; however, other printers are able to print directly from your camera’s memory card (like a PC Card or memory stick) without an attached personal computer or the camera itself. Other printers are able to print directly from the camera without an attached personal computer. Do your homework very carefully before you invest in one of these units. Be certain that it will do what you want and is something that is useful to you.

Finally, USB (universal serial bus) interfaces are being built into many new printers. This is not the best implementation of technology, so I am reluctant to overly emphasize its inclusion in current printers. I would prefer a printer with both USB and parallel port support. Some such printers can even be shared between two

different computers by using each of these connections.

How Does It Print? Monochrome laser and LED printers are fast (4 to 24 pages per minute). Look for high resolutions of 1,200 X 600, or 300 dots per inch (dpi) and a smooth gray scale (range of shades) ranging up to 256 (typically 16 to 128) for increased photographic realism. They fuse toner onto the paper like an office photocopier and are more water and fade resistant than inkjet dyes.

Laser and LED printers are usually faster printers that require large amounts of internal memory to compose a full page of complex graphic images. In the most basic configurations, they are rarely useable for printing anything but simple text documents at lower print resolutions. Printing speed may improve greatly with more memory. Expect to install some additional memory in the printer to enable full-page graphics to be printed. This memory is not being used as buffer memory, nor is it PC system memory; it is used by the printer’s CPU to compose the page.

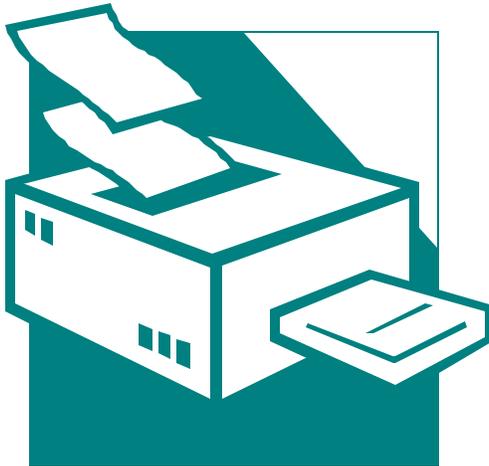
Of course, color laser printers are also available. The entry-level price is almost affordable. They require significantly more memory. Currently, they print color at only one quarter of their monochrome print speed however newer technology is being introduced to eradicate this drawback.

Monochrome laser and LED printers cost about two to seven cents to print a page. Color laser and LED printers cost about four times that much. Don’t forget this if you print a number of pages. Printers produce different colors by mixing cyan, magenta, and yellow (CMY). A printer that can accurately create an extremely large range of colors will produce the best output. Quality is also affected by the dots bleeding together on inferior paper.

Some inkjet printers use a single tri-color ink cartridge. CMY are mixed to make black. This is a compromise since the black actually looks gray-brown. A few of these printers allow you to manually substitute a black-only ink cartridge to print true black.

Under normal, non-graphics-intensive usage, black ink is used much more than any of the colors. Most inkjet printers simultaneously use two ink-cartridges, one tricolor CMY, and one black (K in CMYK), to improve contrast, produce high quality blacks, and reduce costs.

CMY colors are consumed at different rates, too. So, when the tricolor runs



out of magenta (the most common case), you must replace the entire cartridge; unless you print only pure cyan or yellow, or mixtures of the two! At about twenty-five to thirty dollars for each inkjet cartridge... Ouch! Don't print those garage-sale signs in giant red letters!

The ultimate solution for this particular dilemma is to have four distinct ink cartridges for CMYK. There are only a few printers that have this feature. The reason is simple...How Much Does It Cost? In a bygone era, manufacturers would sell handsome, gold or silver plated razors at or below cost. However, to use it, you now had to buy a steady supply of high profit margin, proprietary razor blades from that very same manufacturer! Today, manufacturers sell inexpensive printers and very expensive ink cartridges!

Inkjet printers eject dyes (or more permanent pigments) onto plain or special papers (costing from \$0.01 to \$2.00 per page). A full page of ink can cost from \$0.25 to \$3.00 (see the manufacturer's estimates). However, most ink costs are based upon five percent coverage in black ink. Ink cartridges can easily surpass the cost of the printer in a year or so! More about that later...

Some ink cartridges are simply disposable, tiny bottles of expensive ink. Others, however, also incorporate the critical and expensive printhead. The printheads clog easily and wear out. As part of the cartridge, everything is replaced regularly, when the ink runs out.

One manufacturer sells ink cartridges (no heads) for about \$32 dollars each. Estimate that each plastic case might cost twenty-five cents. Assume that each holds one ounce of ink. That comes out to about \$1,024 per gallon! That markup is about 400-1,600 percent!

As a result, many people try to refill the empty ink cartridges with third party supplies of ink. This may or may not work to your satisfaction. If your ink cartridges also contain new print heads, there is little economic disincentive to trying to refill an empty cartridge. However, a bad refill ink could permanently clog the print-heads. If those heads are built into the printer (rather than replaced with each new cartridge), the replacement cost could be thirty or forty dollars times four (CMYK) or more (CMYK, LY, and LC). Check your manufacturer for details.

The latest generation of printers can print at resolutions of up to 2,400 X 1,200 dpi (dots per inch). This allows for amazing detail and realism. However, having a greater range of colors is much more important. Consider how little improvement would be gained if the Sunday comic section were printed in 2,400 X 1,200 dpi. Compare that to the 72 dpi image on your computer monitor. Obviously the greater number of colors in a video display are much more realistic.

Some manufacturers are touting the technology behind their color improvements. One claims to blend the droplets in layers. This is mainly important for marketing purposes. Use your eyes to evaluate actual printouts. Use something familiar to you. Good pictures of people that you know are the best references since you have an objective standard of comparison. A picture of a forest, the ocean, or bowl of fruit can be very deceiving. A picture of your parents, spouse, or children can immediately tell you everything you need to know.

Total Cost of Ownership Inkjet printers cost from \$50 to \$2,000 (or more). However, which printer cost more to buy, maintain, and use over its lifetime? This is what TCO (total cost of ownership) is all about. A printer's cost may be totally insignificant when compared to the cost of ink and print heads. You must calculate the total number of pages per year that you will print and multiply that by the cost per page (both ink and paper) to print them and add maintenance costs (including new print heads as needed) to yield the annual cost for printing. Multiply that by the life of the printer (in years) and add the initial cost of the printer. Now you are beginning to see the TCO's importance.

PC Magazine (<http://www.pcmag.com/>), in the November 21, 2000 issue, printed a chart titled What's Your Real Cost? Based upon twenty-five pages of color and twenty-five pages of black per week, they found a cost range of seven to thirty-one cents per page. That's \$187 to \$814 per year! The total cost of ownership over three years ranged from \$761 to \$2,511!

The most important lesson from this is that the most expensive printer (\$1,000) had a TCO of only \$1,662. The \$70 printer had the highest TCO (\$2,511). A \$200 printer had the lowest TCO (\$761). Do your homework before buying a new printer!

A note of warning about PC Magazine: you must read every word in one of

their articles. Study them carefully. Then, read and examine every chart and graph. Frequently, you will come to different conclusions or find glaring problems.

The November 21, 2000 issue showed a chart on How We Tested. The main printer categories were Default Mode and Quality Mode. The secondary Quality Mode section offered presumably comparable information about the speed at the best image quality settings.

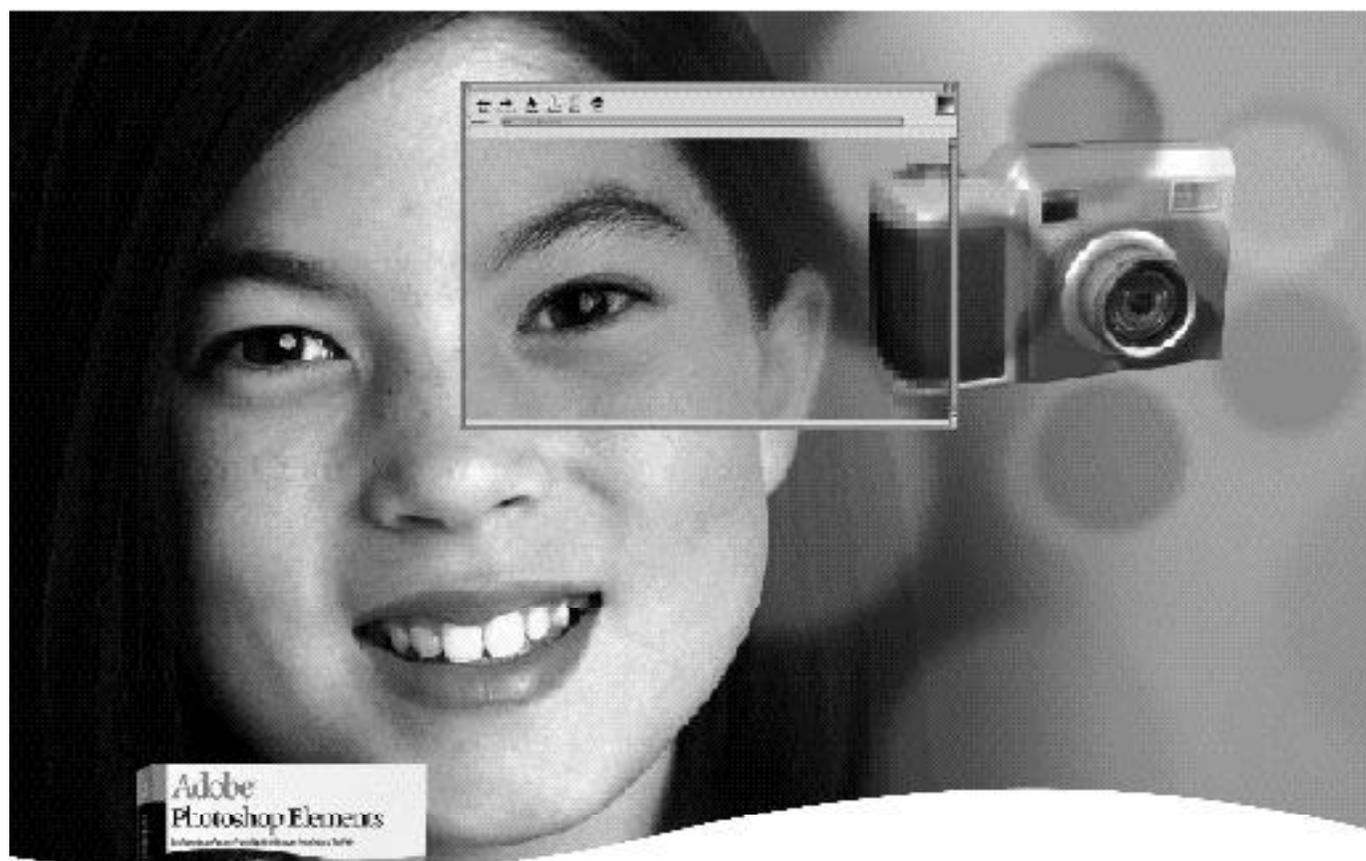
However, the predominately displayed Default Mode section showed meaningless data to highlight clear performance winners and losers. Each printer's factory default settings were used for comparison. However, PC Magazine reported only speed results. It is possible, and common, for certain manufacturers to default to 160 X 160 dpi resolution while others use 300 X 300 dpi. Other variables could include color settings (monochrome, 8-bit, 16-bit, 32-bit, etc.), ink quality settings (draft/economy, normal, best/presentation, etc.), optimization settings (for graphics, text, speed, etc.), and more. Without reporting each setting for every printer tested, Default Mode comparisons are almost totally meaningless. Worse, they are deceptive and probably harmful to everyone involved. PC Magazine should re-examine their testing and reporting procedures immediately. It will take a lot more work, but millions of people will benefit, and they too will benefit.

Conclusions There has never been a better time to buy a printer. Almost every inkjet printer has good results. If you print a reasonable number of pages, you will probably cost yourself lots of money and lose superior printing quality by buying the least expensive printer.

Do you really need a color printer? I don't. I really should have bought a duplexing laser printer instead of an inkjet. It would have saved hundreds of dollars and hundreds of hours in the long run. Think TCO.

I have provided you with some things to think about. Figure out your total cost of ownership. As always, do your homework before you buy.

Herb Wong is a programmer, who serves as Hardware SIG leader for the North Orange County (CA) Computer Club (NOCCC). Reprinted by permission. You can also find the most recent version of this article at <http://www.singularitytechnology.com/articles/printertech2001.html>. You can contact Herb at ocug@singularitytechnology.com.



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Office XP, continued from page 1

What's new

According to Sonal, there weren't a lot of changes in the new version, just a whole lot of improvements. It's a new way to work with Office, to simplify the way we work. One of the main features is the TASK PANE. It's in all of the applications. They open up on the right hand side of screen and show additional commands and features relevant to the application. But the feature that grabbed this writer's attention was the SMART TAGS—small menus that provide fast access to pertinent details and relevant functions. These are also found in all of the Office applications. Handy, very handy.

Another great feature was the ease of formatting information you bring from one application to another. Just cut and paste. Plain and simple.

Bullets...oh, how I hate to work with bullets...They never line up the way you want them to. Not anymore, with XP and the SMART TAGS. Or how about chang-

ing the formatting within a document? How many times have you had to search through your document to find all the occurrences of the way you formatted a title, only to find out later that you missed one. Not any more. XP does it for you. Just highlight what you want formatted, go to Format / Styles, and zippo...it's done, and it tells you how many occurrences there were.

The feature in Excel that grabbed my attention was the colored tabs at the bottom of the screen. Now, in addition to being able to change the name of each tab, you can also change the color. Life doesn't get much easier than that.

And then there is Outlook. And more color. This time it is used to color the appointments. Great for keeping one organized. It also has a feature to let you preview emails and meetings. Or how about being able to enter a URL in the subject

line for easy access?

And last but definitely not least, Sonal showed us what is this writer's personal favorite, PowerPoint, which has several improvements. The task panes are a definite plus. Print preview is a new addition, which is going to make life a whole lot easier. Before, you had to see a slide show in

order to get some idea of what it was going to look like it print. Now what you see is what you get.

Another feature was the friendly error message...*"We are sorry for the inconvenience..."* Now you can tell Microsoft your problem. The program takes a snapshot of what you were doing when the error occurred and it goes to Microsoft. Or, it might ask if you

"We are sorry for the inconvenience..."

Microsoft Office error message

want it to recover your work and restart the program you were working in. It saves the original file without changes and the most recent version before the crash.

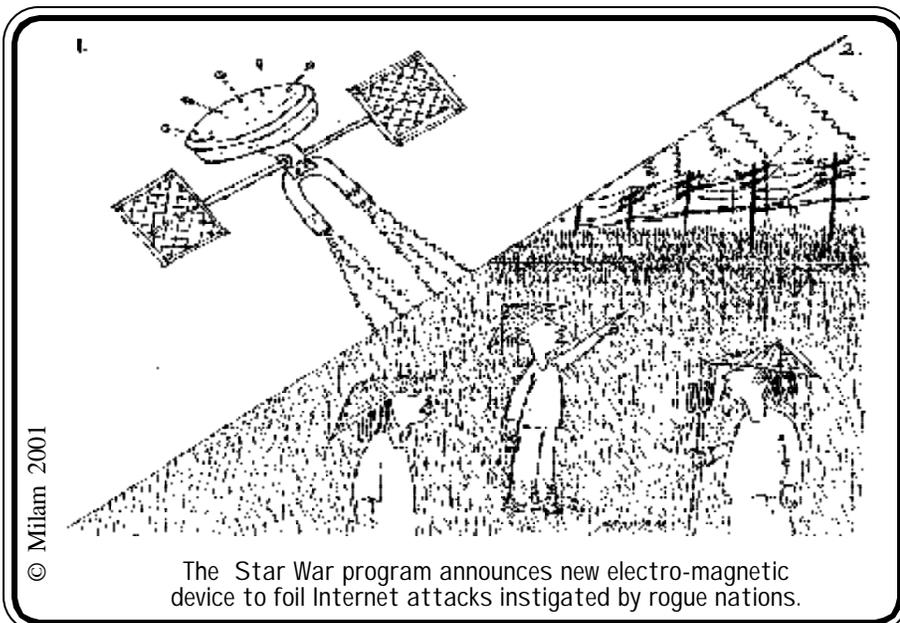
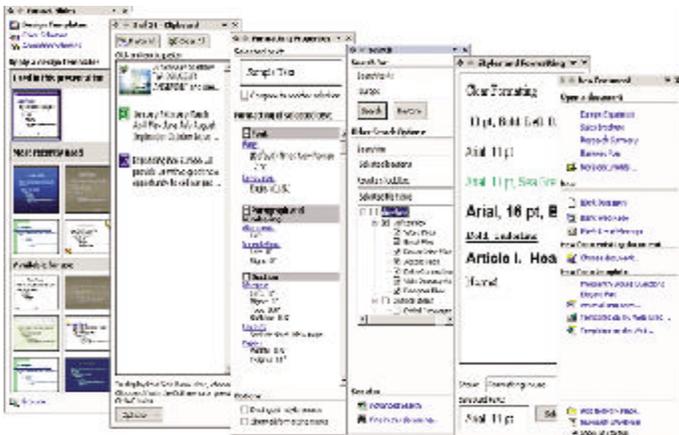
New to XP is the voice recognition feature. The document is internally created and allows speech to text and text to speech. It comes in US English, simplified Chinese and Japanese.

Microsoft is starting to crack down on pirating by allowing only two installs of the software and when it is installed it has to be activated online or via a fax.

All in all, it was an excellent program and the prizes were pretty decent too. Thank you, Microsoft.

Sonal stayed awhile after her presentation, to answer the many questions from the audience. Nice finishing touch.

Carol is a DACS member who enjoys creating on her computer. She is an avid photographer and has created several prize winning "pictures" using her own photos and her computer. She also spends hours working at creating PowerPoint presentations that will "knock their socks off" and at the same time, leave the audience knowing what the show was about.



The Star War program announces new electro-magnetic device to foil Internet attacks instigated by rogue nations.

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Random Access

Random Access, June 2001

Bruce Preston, Moderator

Q. I have a printer that prints three pages for every page that I request from Quicken. I get the page that I want plus two blank pages. I am using Windows 98 and an OkiData 400e printer. I also get the words "Hidden Frame" on the "blank" page.

A. It sounds like the printer settings within Quicken have been changed—that the page margins have changed or the paper type has changed. For example, if Quicken ‘thinks’ that you have a different page width it would send additional data to the printer, which then prints it out as panels. The words “Hidden Frame” are being printed by the application—check your printer dialog box, options button, for ‘print hidden frames’ and clear it. Lastly, you might have to call Intuit.

Q. I use AOL Instant Messenger—I can hear others, but they can't hear me. My microphone works for other applications, but it doesn't send to others.

A. In the Multimedia icon of Control Panel, make sure that you have the correct microphone selected, and then within AOL IM, make sure that the sound source matches the active one in Multimedia.

Q. I'm using Windows 98SE with Windows 97 First Aid—and get an indication that I don't have enough GDI, system resources are less than 20% and User Resources are less than 20%. I have 128MB of RAM.

A. The main problem is that First Aid is a great consumer of resources, as is Norton System Doctor. You really should use these tools only as diagnostic tools rather than system monitors. “Resources” are not the same as RAM—instead, resources are a fixed number of table entries (which happen to be in RAM) that keep track of objects in your system.

In this context, an object is anything that is clickable, addressable, or measurable. For example, every distinct thing on your screen—an icon, a button, a scroller bar (actually, a scroller is five objects) etc. consumes a resource. A normal, sizeable window with nothing in it, probably contains 30 or so clickable objects. Add to that all of the little icons in the system tray, fast launch, task bar, etc., and you can see that you are consuming resources at a great rate. When Windows 95 came out, it needed some ‘tuning’ and had a few problems—so the after-market applications such as First Aid and System Doctor were published by third-party vendors. Most of the problems got fixed in 98 and 98SE—turn off First Aid and System Doctor.

Q. I am using Concentric to get to the Internet. I get constant drop outs when I am online. I am wondering if it is a problem with Concentric?

A. Some ISPs have a maximum call duration and/or an inactivity timer which can cause you to be disconnected. Since in follow-up you indicated that the disconnects are random—sometimes only minutes after the call is placed, we will rule that out. It could just be a poor quality telephone line. You can check the quality of the telephone line by using a line test utility provided by U.S. Robotics—it is a toll call. Find the complete details on the bottom of this page on the USR website—http://www.usrobotics.com/support/s_modem/s_modem_docs/14115.htm—it will explain. You will need the HyperTerminal application which is in Windows. If you don't have Hyperterminal in START / ACCESSORIES / HyperTerminal, (or START / ACCESSORIES / COMMUNICATIONS / HyperTerminal, then you may have

to install it. Go to Control Panel, Add/Remove Programs, Windows tab and put an “X” next to HyperTerminal. Follow up discussion revealed a similar problem with an AT&T user who lives in Bethel—which is notorious for having poor quality phone lines. SNET only guarantees 28.8 service on residential phone lines—if the phone test doesn't show that you are getting this level, call repair. By the way, in the 15 years that I have been in my location, SNET has had to come to my site about four times to replace some sort of fuse or cartridge in the junction box on the outside of my house, near the power meter. They get corroded and cause crackling in the line. Other suggestions: #1—A line filter from Radio Shack might reduce some of the noise without reducing your bandwidth; #2—Reduce the ‘maximum connection’ speed on the modem. (This will help if the line quality varies during the duration of the call—but getting a noisy line fixed would be better.)

Q. I have a Windows 2000 system with 4GB C drive—I have been adding software to my system, but putting things on other drives than C — yet I am still running out of space on C. I have 1GB of RAM.

A. Your swap file is on C unless you put it somewhere else—move it to another drive, if you have 1GB of RAM, your swap file is probably consuming 2GB of the drive. Right click My Computer—select Properties, then Advanced, then Performance Options—and you can control your swap file. You might want to consider getting a larger drive—someone in the audience reported that he got a new Maxtor 40GB hard drive for \$98 last week.

Q. I also am using OS/2 on the drive—it has a limitation of 4GB—it can't "see" anything beyond that.

A. Generally, I don't like using multiple OS's on the same drive—even if you do have a reliable boot manager. I would suggest that you look into using removable drive rack and tray sets for your primary drive—it lets you switch hard

drives mechanically—put your OS on the removable drive—then put your data on a large, second drive, and use a drive format that is recognizable by the various OS's.

Q. I have 128MB of RAM on my machine—Windows 98, AMD K7-500. Will adding RAM make the machine run faster?

A. For general purpose usage (word processing, web browsing, etc.) 64 to 128MB is the 'sweet spot' as far as cost/performance is concerned with Windows 95/98. However, if you are into graphics manipulation, or voice recognition, then you definitely want to increase memory as these applications consume memory at a higher rate.

Bruce Preston is president of West Mountain Systems, a consultancy in Ridgefield, CT, specializing in database applications. A DACS director and moderator of the Random Access segment at the monthly general meetings, Bruce also leads the Access SIG. Members may send tech queries to Bruce at

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