HARDCOPY

What's New

• by Bob Ward, SLO Bytes PCUG

GEE WHAT AN EXCITING month for Internet fans…. for me anyway. The other day I took a 2 hour class on how to make Internet home pages and even found that with my Cal Poly account there is some space to make a personal home page. Our course you know what the home page will be about. Hope to have it on sometime in July. Does the world really need to know about SLO Bytes? Why not! Speaking of which our BBS is getting a lot of outside activity probably due to the article in PC World a couple months ago. Many long distance calls from back east and a couple overseas calls besides. Hey, I knew we were good, but not that good.

Last month those of you who didn't bring your favorite kid missed out. Linda Orban from Knowledge Adventure brought a large number of new and exciting programs. KA is expanding their product line. Although still in the educational field you will see new and fun things beyond the original "Adventure" series. It makes me wish I was young again. Oops, younger than I am now!

I pulled out what little hair was left looking for a speaker for this coming month. I love it when a company sends out a questionaire requesting 15 minutes worth of information just to find out that they were swamped with returns and can't demo their products until '96 or later. I had 3 like that last month all with the same answer. So George and Kathy have volunteered to give us a Multimedia extravangaza. They have several CD's (many which will be given away at the meeting) which they will briefly demon-

Inside OUTSIDE IN/ for Windows

• by Pete Madle, SLO Bytes PCUG

AS PC MAGAZINE SAID in it's Cover Story for March 14, 1995, "Outside In/for Windows is the most complete file viewer utility on the market today. Supporting 175 different file formats, it can be run as a stand-alone application, integrated with File Manager, launched from word processors such as WordPerfect, AmiPro, and Word for Windows, or accessed from within five different e-mail applications to let you view attachments"—and it certainly accomplished the parts of that impressive list on which I tested it.

Like many other useful utilities, this application is not something likely to be used every day, in fact I don't know how many people ever need to convert or view files from a format for which they do not have the application program, but, to borrow a favorite phrase of Jerry Purnelle

Club Calendar

• **JULY 2ND** •
George Campbell
and Kathy Yakal
will show you a
multimedia extravaganza.

• **AUGUST 6TH** •
Lee Tarbet from Novell
will demonstrate
Perfect Office.

of BYTE Magazine fame, "If you need it—you need it bad."

"Outside In/for Windows", can either be run as a stand-alone application, launched in the usual way by double-clicking on it's icon in Program Manager or can be run directly, via macros pro-

In This Issue . . .

Lotus ScreenCam for Windows

• by DT Richmond, SLO Bytes PCUG

SCREENCAM FOR WINDOWS by Lotus is a program designed to allow the user to record all the actions performed on the screen of your computer while in Windows. It is one of the most pleasant yet serious programs that has been my pleasure to review. Pleasant in that is amazingly easy to learn and serious because if you have a presentation or instructional movie to prepare, it makes this task a pleasure to perform. But that's getting ahead of the story. Let's start with what Lotus has to say about Lotus ScreenCam for Windows.
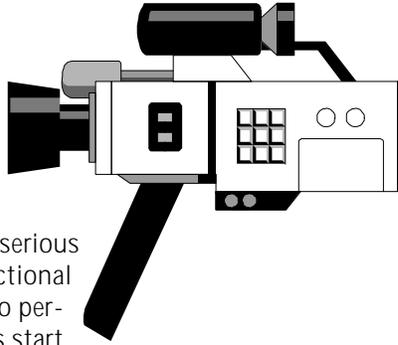
GETTING STARTED WITH LOTUS SCREENCAM

Lotus ScreenCam Release 2 lets you record movies of screen activity. Each screen movie that you create includes all mouse-pointer movements and other screen events. If you have sound hardware, you can include narration. If you don't have sound hardware or want to create smaller files, you can create test captions for your screen movies instead. With ScreenCam, for example, you can quickly create a training movie to demonstrate how a product feature works.

You can play back a screen movie, save it in a file, and link or embed it in other applications. You can also distribute screen movies to others. If you want to distribute screen movies to users who don't have ScreenCam, you can save and send the movies in a stand-alone format that users can play without ScreenCam. If you use Lotus Notes or cc:Mail, you can mail screen movies to other users while you are working in ScreenCam. If you use Lotus Notes, you can also organize screen movies in Notes database using Notes Field Exchange (Notes\FX)

SYSTEM REQUIREMENTS

• 386 25MHz (minimum) although a fast 486 with lots of memory will improve results.
• VGA 16-color graphic adaptor and monitor
• Sound device supported by Windows 3.1
• Mouse
• Windows 3.1 and DOS 3.3 or later.
   (You can create screen movies without sound if you don't have sound hardware.)

Install Lotus ScreenCam using the normal Windows program installation procedure. Once installed Lotus ScreenCam for Windows is amazingly simple and easy to use.

1. Click on the ScreenCam icon starting ScreenCam

2. Choose File - New from the ScreenCam menus.

3. On the control panel, click the Cam button to record screen   activity only, the Mic button to record sound only, or the Both button to record both sound and screen activity.

4. Click the Rec button to begin recording

5. Wait until the stopwatch pointer disappears and then perform the screen actions you want to record.

6. To stop recording, click the red Stop Button.

7. To play back the screen movie, click the Play button.

8. If you want to keep a permanent copy of the screen movie, choose File - Save to name and save the screen movie.

Library

• by Bob Ward, Secretary

DUE TO THE OVERWHELMING RESPONSE to our shareware GeoPublish, these disk will be available for purchase again this month from our bright and happy treasurer, Bill McNamara. I have added 3 new disks to the library to suppliment your constant hunger and thirst for More, MOre, MORe, and MORE software.

#643
INSTN321—notes differences in Windows before & after your install a new program,
DCARD30—Windows multimedia flash card system.
TWNSCK13—TwinSock - Graphic interface for SLONet.
CDQCK100—speed up your CD with this cache program.

#644
SPINNER—Spin Wizard, a new type Windows Program manager.
US-CONST—United States Constitution, Signatures, Preamble, Ammendments
USGEO10A & B—US Geography, nice program that shows states, capitals, and more.
VPOKER30—video poker for Windows.

#645
If you are thinking of retirement, try one of these retirement programs before you leap:
FPLANA — Personal financial planner for budget, education, retirement, taxes, and more.
RETIREA — Predict your future cash flow. A good retirement planning tool.
RETIRE10 — computes the future value of present assets.

Last month I updated McAfee's virus scanning programs. They may be purchased from the treasurer or copied in the library.

For Sale...
Panasonic wide carrage, 24 pin dot matrix printer. $200
Call Bill @ 466-9684 X 3

Beginner's Column:
Caching In with SmartDrive, Part 1

• by Kenneth E. Johnson, Chicago Computer Society, May 1995

A DISK CACHE IS AN EASY AND EFFECTIVE WAY to improve the speed and performance of your PC. The mechanical process of getting to the hard disk is typically the slowest part of your computer's processing. A disk cache works by creating an area of RAM to temporarily store data from the disk. When data is requested from the disk, the cache will read whole tracks of data at a time into RAM. Chances are that additional data requests will require data already in the cache, which can then be retrieved quickly from RAM instead of physically having to read the disk again. A good disk cache can make a slow hard disk seem fast, and a fast hard disk even faster.

Most disk caches can also do write caching (sometimes called "write back" caching or "write behind" caching). With write caching, when DOS writes data to the disk the cache intercepts it and temporarily stores it in RAM. It waits until system resources are not busy, then physically writes the data out to disk. By doing this, the cache gives priority to reading data and to other processing.

SMARTDrive (SMARTDRV.EXE) is the disk cache you probably already have. A version of SMARTDrive has been included with MS-DOS since version 5.0, and with Microsoft Windows since version 3.0. But the power of SMARTDrive also brings some potential dangers; in this and next month's column we'll look at how to harness the power without getting burned.

SMARTDRIVE AND WRITE CACHING

Write caching can speed up your processing, but it also poses a danger of data corruption and loss. You need to understand the benefits and risks of write caching, then make an informed decision whether to use it or not.

With write caching, when DOS or an application program tries to write data to the disk, SMARTDrive intercepts it and places it in the cache. Control is then immediately returned to DOS or the program. Typically the data is held for a few seconds or until there is a lull in the computer's processing (when you're not typing, printing, or DOS isn't otherwise using the disk). During this pause, SMARTDrive physically writes the data. System performance is improved because writing to the disk is done when the system isn't busy and because of the reduced number of physical writes required.

However, the performance benefit comes with a potential danger: if the computer freezes or is shut off before the data in the cache is written to the disk, it will be irrevocably lost. It is also possible that if the cache is updating the disk's system areas when the computer shuts down, other data on the disk will be corrupted. This is especially true if writing to a compress disk is interrupted.

It is important to understand write caching with SMARTDrive, because it by default write caches all hard disks. When MS-DOS 6.0 was released in 1993 there was a good deal of concern over the write caching of SMARTDrive 4.1, the version included with the upgrade. What particularly upset some users was that SMARTDrive 4.1 caches the write data and immediately returns control to DOS or to the application program. This means that you can see the DOS prompt and think it is safe to turn off your computer, though SMARTDrive hasn't flushed the cache yet. You probably learned early in your computing days that you should exit applications back to the DOS prompt before turning off the computer. With MS-DOS 6.0's SMARTDrive write caching, seeing the DOS prompt DOES NOT necessarily mean it is safe the flip the power switch.

Responding to user concerns, Microsoft in June 1993 released SMARTDrive version 4.2. SMARTDrive version 4.2 flushes the cache before returning to the DOS prompt, and includes the /X switch that turns off write caching for all drives.

SLONet Revisited...

• by Bob Ward, Editor

LAST MONTH I GAVE YOU some information about our local Internet provider, SLONet. Since I was writing from memory, I was a bit hesitant as to the accuracy of my words. The following details more completely what SLONet offers its subscribers. This is an e-mail message, in part, from Phil Wagner to me and should clear up any inaccuracies I might have written. Thanks for the corrections Phil.

1. We have two plans:
    a. free access to the Virtual Village (local info)
    b. $10/month flat fee to local phone number for internet access (we will be offering toll-free access to the North County and North Coast in July).
2. We offer full graphical interface via SLIP emulators; this allows users to use Netscape, Eudora and other graphical tools.

New Members

WELCOME to those of you who traveled from all over the county to become members of SLO Bytes. No we don't give away free mugs, floppy disks, or anything else. Just good advice and a little knowledge on computers.

William Daillak	238-1262
Viola McGartland	473-4894
Richard Pack	239-1689
Don Wallace	546-8688
Nathan Wallenstein	772-1364

Digital Privacy

• by Peter Norris & Charles Olsen, Hal-PC as published in Orange Bytes, January, 1995

PC'S ARE A MAJOR FORCE in business, education, and the home. In the next 20 years, information services may make up 25% of the nation's GNP. Up til now, there have been no restraints on PC's. In this era where knowledge truly is power, will our government allow the citizens to amass that much power?

Norris: The current computer world is virtually unregulated; yet no other facet of society operates without constraints of law and decency. Why should digital activity be different? A PC user must accept responsibility for his/her actions just the same as any automobile driver. Is a license out of the question, for example? Along with registration and fees, of course.

The very nature of CPU time makes usage easy to track. An E-mail address, essential for modern computing, can be attached to all of your computer activities, for ease in identification. Kind of a universal security ID that automatically tracks everything you do.

Olsen: Peter, you topiary oquasa. If there were truly restraints of decency, the government wouldn't allow you to make all those calls to 1-900-ZOOLOVE.

Tracking CPU time makes sense on mainframes, where it's expensive enough to make it worth tracking. But you can now get a great 486 for under $2500. Setting up a system to track CPU time would more than double the price, and be a waste of good red tape. What could we possibly gain from that?

Norris: Computer crime and unethical activity are known to exist. Looking at your dismal social record, for example, is it any wonder that decent people cry out for protection from the horrors of your computing? You once called yourself a PC consultant — that smacks of fraud!

The FCC and NSA have hardly started to watch digital activity. Yet, everything from the Rodney King tape to outrages on public-access cable show the need for higher supervision. It isn't that we can't have these digital freedoms; it is simply that the authorities must know what info-abuse, we can stop you for your own good.
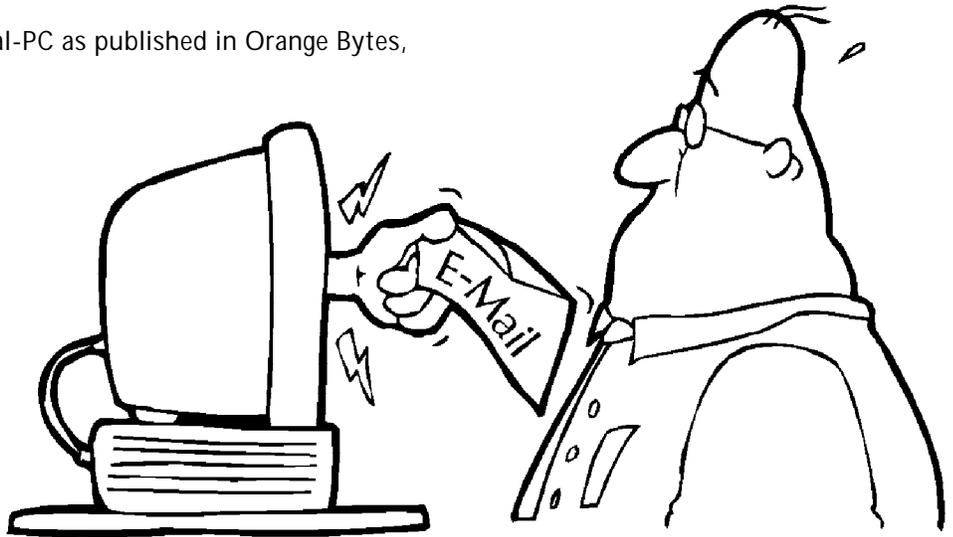
Olsen: What you're talking about is completely inconsistent with the American way of life. We have window shades so that other people won't know what we're doing (and we're very grateful that you keep your windows shade closed). We have certain rights, and among these is the right to privacy.

Norris: Full digital privacy is out of the question. What does a law abiding citizen have to hide? If you are not breaking the law, then why encrypt your activity from the authorities? Even Air Force One broadcast "in the clear" until recently (until Clinton took office, actually).

Unrestrained encryption breeds porno businesses, money laundering and fraud, tax avoidance, and unfair business competition. If we suspect that a GM exec sent data to Volkswagen, we at least need to be able to trace the facts later.

Anonymous connects are out; E-mail remailing services are out. "Handles" are out, and frankly, the use of computers by kids, in general, needs to be carefully controlled. Perhaps children should only use computers at school for example; until the government issues them their E-Mail address. Kids should learn to "Just say Clipper!"

Olsen: You're talking about adding a whole new layer of bureaucracy to an already bloated government. Where is the money going to come from? With a national debt in the trillions of dollars, and a deficit in the hundreds of billions, we have to cut spending. We can't afford to spend more billions on some lunatic idea that nobody wants.

Besides, we've seen what happens when the government tries to help the computer industry. Remember that time a few years ago, when our government made Japan promise to charge us more-lots more-for RAM? Memory prices-and computer prices-went through the roof, and for no good reason.

Norris: just because the government is a trifle inefficient doesn't mean it's not good. Wouldn't you rather have an inefficient bottle opener for you beer that no bottle opener? Besides, we can let digital programs police the bitwaves; watching you 24 hours a day, 1000 milliseconds a second… and we can levy a surcharge on you to pay for it. Just a penny per megabyte or so should cover it nicely! And new modems could transmit an automatic digital ID to stamp what you do by phone. Washington could just add a modem tax of $200 or so, to pay for the national database of modem owners.

Olsen: This monitoring is just the first step. Next, they'll start taking computers away from people who step even a fraction outside the straight-and-narrow path to digital salvation. Anyone who dares to question the establishment will be the first to lose his PC.

I, for one, won't stand for it. You can have my computer when you pry it out of my cold, dead hands.

Norris: Well… OK!

Inside OUTSIDE IN

vided with "OI", from within many applications including Microsoft Word (Windows or DOS), AmiPro, or WordPerfect. The left-hand portion of the main "OI" window is essentially a small version of the Windows File Manager. It shows a small section of a "Directories/Tree" window and, below that, a small section of a "Files" window, both of which can be expanded when necessary. This leaves the rest of the screen free to be used as a "Viewing" window.

The file to be viewed may contain text or graphics or may be a compiled or binary file such as an .EXE, .DLL, etc. "OI" will convert and display all text and graphics, including the header and related information from non-text files but does not translate the machine language code. "OI" can read an astonishing number of formats and extract invaluable information. The "current" file to be viewed may be selected by double-clicking on the file name in the File window or by single-clicking on it and then pressing either the "Enter" or the "View" button. Conversion from the native format is accomplished by one of the almost 200 "converters" provided with "OI". The resulting text and/or graphic in the viewing window, or a selected portion of it, may be copied, printed, or transferred by means of the clipboard into a word processor. Alternatively files may be edited within the "OI" application itself by clicking on the "launch" button. Of course, any file for which the native application is installed on the computer may be launched and edited from Windows File Manager itself without the need for "OI" but, "OI" extends this ability to files for which the application is not installed on the computer.

In summary, "OI" offers little or no advantage over Windows itself for files for which their parent application is installed, but it offers a HUGE ADVANTAGE when the parent application is not installed and for certain parts of machine language files which are not easily readable. As I said above, I don't know how often that situation arises but, if you need it, "OI" can be "A-friend-in-need."

A word of caution; As usual when doing a review, I first installed "OI" on a backup machine, an older 386/33, on which I do not rely for my daily chores. Often I start a review this way and then, as confidence builds, proceed to install on other machines.

Right from the first it was comforting to find a button marked "Uninstall" on the installation screen. It's mere presence gave me confidence to proceed with the installation in the full knowledge that I would not have to fiddle with some of the more esoteric parts of Windows for Workgroups 3.11 to remove "OI" when I was finished with this review. Eventually I remove most things I try—I don't have room to retain them all.

Great stuff! The tests went smoothly. I got confidence in "OI." Finally it was time to try "OI" on another machine so I put the original disk #1 back in the slot and started to "Uninstall".

All went smoothly, "OI" told me it was deleting files, then everything froze solid. The "old-three-finger-salute" (i.e. CTRL/ALT/DEL) did nothing. No panic—but saying nasty things to myself—I HIT THE RED BUTTON!

Machine rebooted—Windows running again—all OK. Let's try all that again—was it a fluke occurrence?—Before reinstalling take a quick look in File Manager—find that the \OIWIN directory still exists, but with all its files deleted—find that the \OIWIN\VIEWAPI sub-directory was still there and so were all it's files—delete all files and remove the directories manually.

Start again. Repeat the whole installation process—all OK. Quickly test to see if "OI" functions—all OK. Now redo the Uninstall process—all freeze again—reboot again. This time it did delete all files in both directories and removed both directories—but it still froze while telling me "Removing the macro from WORD . . . "

Reboot and reinstall a third time—re-Uninstall—freeze again—same as second time.

S. T. O. P. ENOUGH IS ENOUGH—Give up and stop review.

As a final check, to see if all else was well, I ran several applications on the machine and found three entries at the bottom of the "TOOLS" menu of Word 6 . All three said "Access OI". Clearly "OI" had added one such menu item, and of course the accompanying macro, each time I had loaded it but had not checked to see if a similar item was already present. I had used this item success-fully the first time around while initially testing "OI". Presumably the second and third entries had been added during the subsequent installations and none of them had been uninstalled.

This baby is NEVER going on my main machines.

Outside In/for Windows can be a useful tool—perhaps—for those who really need it. It seemed to work well. It did what it's package claimed.

I DON'T WANT IT—I'M SCARED—WHAT OTHER QUIRKS LINGER IN THERE ?

Outside In/for Windows, Ver. 2.1H
List Price: $89
Systems Compatibility Corporation
401 N. Wabash, Suite 600
Chicago, IL 60611
(312) 329-0700—Sales
(312) 527-4357—Support.

What's New

strate. I too will be giving a brief demonstration of Outside/In and raffling off a shrink wrapped copy at the end of the meeting. (See article in NL)

I've been kicking around the idea of adding a second CD-ROM to the BBS. If 600 meg's good, why not a gig .2! I'm not sure if the two external CD's will behave with each other, but it's worth a try. More on that later.

If you haven't had a chance, why not look at our CD-ROM library. It's sitting on the table next to our treasurer, Bill, in the museum. Here is a chance to rent a CD for the month and check out all that great software or grphics on each disk. Each disk has a short description located at the top of the sign-up sheet. There is a table of contents at the front of the binder for quick reference.

Sorry for the lateness of this newsletter this month. Cal Poly started back up Monday the 19th and the place we get our newsletter copied (2nd Edition) was swamped with requests by teachers and students for classroom material. So we got it in the mail as soon as they could fit us in for duplication.

I hope all can make the next meeting despite the fact that they dare to make that weekend a holiday for some. See ya then.

MEDIA STUDIO Version 1.0

• by Perry Scott, Central Arkansas PCU Association

THE MEDIA STUDIO Program on CD-ROM is an integrated package of award-winning and track proven programs. It requires about 20 MB of free hard disk space for the Media-Studio files, at least 4 MB of system memory (RAM) and Microsoft Windows (version 3.1 or higher) on at least a 386X33

The following programs make up this multimedia toolkit:

SCREEN CAPTURE

—is the program you use to capture components that appear on your screen. This can be any program window, icon, bitmap or program resource. If your video card can display it, Screen Capture can capture it, to file, the Screen Cap-ture work space, Image Editor, the clipboard or direct to your printer. To aid your capturing there are also a number of post processing commands that allow you to prepare images for production and minimize the need for editing.

VIDEO EDITOR AND VIDEO CAPTURE

—are integrated programs that offer you complete control in viewing, capturing and editing all forms of video. With each program built around an intuitive and user friendly interface, you can easily produce eye-catching and impressive video clips, complete with production quality transition effects and special enhancement filters.

AUDIO EDITOR

—allows you to record, view, enhance, and edit audio files with tools and special effects comparable to professional recording studios. You can even edit the audio tracks of video files or replace existing tracks with your own audio compilations.

MORPH EDITOR

—is a fun, easy-to-use program that allows you to take an image and then transform that image, or part of it, into another. By animating this transformation process, you can create a video sequence which shows the original image growing out of, or into, the other, such as a man from a woman or a bird into an airplane. To add an even greater impact to your morphing work, MorphEditor comes equipped with a range of advanced special effects and filters that can enhance and improve your images, turning otherwise standard morphs into stunning and eye-catching presentations.

IMAGE EDITOR

—is an advanced image editing program that comes equipped with a complete comprehensive range of image processing commands and tools which can be used to create, compose, and change and improve any type of image from black and white to full-color.

ALBUM

—helps you organize and manage all the files in your system, be they image, graphics, video, animation or other document files. Combining high-end database and cataloging technology, Album is quick and very powerful, you can manage a few hundred files or over a million with equal ease. With thumbnail and filename display modes, you can choose between visual management or the more "traditional" text-based approach, providing you with the best of both worlds. Complimenting Album's management features are the two programs: CD Browser and Viewer. Working together, they allow you to view, manage and edit data from all types of media devices.

VIEWER

—is a handy utility that allows you to quickly and easily open and display image and graphic files without having to first open them in their associated programs. Once open, you can then copy them to other documents or perform basic editing operations.

CD BROWSER

—is an essential utility for those with access to a Kodak Photo CD, and helps save you both time and disk space by displaying pictures in an instant album-like catalog. After locating the right pictures, simply select them and click on a destination button to display them in Viewer, catalog them in Album, edit them in Image Editor, or copy them to your hard disk. This Media Studio Program comes with six manuals, one for each of the various utilities, and describes the process by which each utility works. They are from 56 pages in length to 144 pages. An additional Introduction Manual contains 78 pages describing the over-all program.

This review is not written to make us all master producers of Multi-Media but only to acquaint you with a very powerful program and one that will be around for along time. It operates in Windows and places 12 icons in the Ulead Media Studio Program Group.

We would like to thank the following company for furnishing this program for our review:

Ulead Systems
970 West 190th Street, Suite 520
Torrance, CA 90502
Price: $349.00

Newsletter Trivia. . .

Ever wonder how the **HARDCOPY** gets to your door each month? Here's the process:

Bob spends countless hours serfing the net, scouring the BBS's, and perusing other club newsletters for good articles to add to the ones given him (usually under duress) by SLO Bytes member contributors . He types these up in ASCII format and compresses the collection with PKZIP. Then, he attaches the ZIP file to an E-mail message addressed to Teri and uploads it to a commercial on-line service. He includes any special instructions in the form of a README included in the ZIP archive.

Teri calls the on-line service, downloads the E-mail, detaches the attached ZIP file, and UNZIPS it. She then uses the ASCII files to lay out the newsletter in PageMaker 5, creates a new banner in CorelDRAW, and adds clipart from CD collections. When she is done she ZIP's the PM5 file and E-mails it back to Bob with font instructions.

Bob prints the PM5 file on his laser printer, and takes the pages to a copy center to be duplicated. The final copies are stitched, folded, stitched again, labled and bulk mailed. — **WHEW!**

Smartdrive, Part 1
Continued from page 3

SMARTDrive 4.2 requires MS-DOS 6.0, and is available on CompuServe in the Microsoft Software Library (Go MSL), or from the Microsoft Product Support Download Service: (206)936-6735, 8-N-1. On both services SMARTDrive 4.2 is in the self-extracting file PD0805.EXE.

MS-DOS 6.2 brought a new version 5.0 of SMARTDrive. If you weren't already running SMARTDrive, the MS-DOS 6.2 SetUp program would install it as a read-only cache by default (by including the /X switch). However, if SMARTDrive was already in your AUTOEXEC.BAT file, the Setup program would leave any parameters that were there before the upgrade and not add the /X switch. Like version 4.2, if write caching is enabled SMARTDrive 5.0 will flush the disk cache before the next DOS prompt appears.

You shouldn't be necessarily terrified of write caching, but you do need to understand the performance benefits and the data loss possibilities, then decide if you want to use write caching. For all versions of SMARTDRV.EXE, to turn off write caching include the drive letters (without colons) on the SMARTDrive command line in your AUTOEXEC.BAT file:

SMARTDRV C D

This will enable read caching and disable write caching on the C: and D: drives. If you are using SMARTDrive 4.2 or 5.0 and want to disable write caching for all drives, include the /X switch on the command:

SMARTDRV /X

If you do use write caching, you should make sure the cache is flushed before turning off your PC. This will insure that no data is lost. There are several situations that will cause SMARTDrive to immediately write the data to the disk. You can explicitly flush the cache with the command:

SMARTDRV /C

The /C switch tells SMARTDrive to write all cached data to the disk. If you use batch files to run your applications, add this command at the end of each batch file. This will force SMARTDrive to flush any pending writes before you get back to the DOS prompt.

It is very important to include SMARTDRV /C in any batch files that reboot the computer, particularly if you are using SMARTDrive 4.1. This is because there isn't a significant pause between commands in a batch file, and SMARTDrive may not have time to write the cache data before the reboot command is executed. Explicitly tell SMARTDrive to flush the cache immediately before any reboot command.

SMARTDrive will also write the cache information if you press CTRL+ALT+DEL to do a warm boot. SMARTDrive intercepts the "three fingered salute" and flushes the cache before it allows the computer to reboot. Unfortunately, SMARTDrive cannot flush the cache if you simply turn off the power or press your computer's reset button.

If you use Windows with SMARTDrive, SMARTDrive will recognize when you exit Windows and flush the disk cache before returning to the DOS prompt. Therefore if you turn your PC off immediately after exiting from Windows to DOS, the cache is cleared and no data will be loss.

Perhaps the best way to ensure the cache is flushed is to create a BYE.BAT file which you will always run before shutting off your computer. It should look something like this:

```
@ECHO OFF
SMARTDRV /C
ECHO You can now safely shut off your PC
```

Tape Backup Insurance

• by Art Wagoner,
Associate Editor, P*PCompAS (Pikes Peak Computer Applications Society)
June, 1995
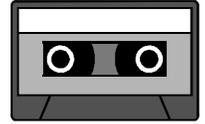
SOME PC USERS WILL DEBATE at length whether a Tape Back-Up is worth the money or not. Many feel that if you are not in a business or maintain voluminous files, a tape backup is just another gadget to spend dough on. It is true that if you store all your program files on floppies and can do the same for your records and documents, you may not need a tape backup capability.

On the other hand, it certainly is a secure feeling to know that you can store everything on one little tape and put it in a safe place in case of that disaster that no one wants to happen.

I chose to take advantage of the tape backup system. I haven't regretted it one bit. Besides, I have another little gadget that I can play with! Seriously, it is truly comforting to know that if something wipes out my hard drive storage, I can readily replace all my "stuff" in a matter of minutes using my backup tape.

For those of you who have also gone the tape backup route, I ask you a serious question. If that unwanted DISASTER occurs, what is your method of restoring all your files from that nice little tape? Think about it. All you have is a boot disk (I would hope). Where do you go from there?

I thought about that after I had safely stored my stuff on the tape. So, unaccustomed as I am, I read the fine print in the manual. Lo! and behold! The manufacturers made it easy. This is what you do to make things easy:

First, format a HD disk using the DOS format command, Format A: /s. Next, create an AUTOEXEC.BAT file with the following commands. At the DOS prompt type:

COPY CON A:\AUTOEXEC.BAT

Then type-in the following commands, pressing ENTER after each entry:

Smartdrive, Part 1

Now simply type BYE each time you're finished using your computer, and you'll be sure not to lose any data.

SMARTDRIVE AND VSAFE

There is an important exception to the rule that CTRL+ALT+DEL will flush the write cache: SMARTDrive will NOT flush the cache if VSAFE is loaded after SMARTDRV — and data can be lost. This is because VSAFE intercepts the CTRL+ALT+DELETE call and does not pass it on to SMARTDrive. This problem won't occur if VSAFE is loaded before SMARTDRV, so make sure to place the VSAFE command line before SMARTDRV in your AUTOEXEC.BAT.

VSAFE can also cause another problem when used with SMARTDrive. When you perform a disk operation that writes to the disk you may see this pop-up dialog box:

VSAFE WARNING

Program is trying to write to hard disk Do you wish to continue?

You can then choose one of three options: Stop, Continue, or Boot. If you choose Stop, the following error message is displayed:

ATTENTION: A serious disk error has occurred while writing to drive C.

If you're running the MS-DOS Prompt from Windows, this error message is displayed in a blue screen with the heading "Serious Disk Error."

You can now choose to retry the operation, which causes the first VSAFE error to be displayed again. Until you choose Continue or Boot, you are not able to escape these recurring warning messages. If you choose Continue, the write operation is performed. Choosing Boot causes the write operation to abort and your system to reboot, and any information you were trying to save is lost.

This problem occurs when VSAFE is installed with the write-protect option enabled and SMARTDrive is installed with write caching. Microsoft has confirmed this to be a problem in MS-DOS versions 6.0 and 6.2, and are researching the problem. The work around is not to simultaneously use SMARTDrive with write caching and VSAFE configured for write protection.

Next month we'll continue looking at SMARTDrive, including cache size, Double Buffering, and how to check SMARTDrive's efficiency.

AUTHOR INFORMATION: Kenneth E. Johnson is a Contributing Editor of PC World Online, DOS World Magazine, and of the American Bar Association's NETWORK 2d newsletter. He is also a Technical Associate in the WINUTIL forum on CompuServe.

ScreenCam

It's just how easy. Using Lotus ScreenCam to record all the activity you perform on your screen in Windows from go to whoa. You can save this action in the form of a movie, that you can distribute to be played back as a presentation or as an instructional movie.

Lotus ScreenCam for Windows comes with scant printed material. It is part of the growing trend, in software production, to include most of the instructions, formerly printed in manuals, in Help Files. And what a HELP file it is: Once you get into it all you have to do is ask the question, "How do I (your topic question)" and the step by step instructions to answer your question are there on the screen to be read or printed. In a way it is more convenient than thumbing through a manual that you probably have mislaid anyhow.

CONCLUSION

I found Lotus ScreenCam for Windows was easy to learn to use. It would be a useful tool to assemble material in the form of a movie that then can be played back as an instructional or presentation.

Tip: When I disabled SMART-DRV.EXE the playback ran smoother. With SMARTDRV.EXE loaded ScreenCam was inclined to pause momentarily when in the sound-video recording mode.

SCREENCAM FOR WINDOWS
Lotus Development Corporation
55 Cambridge Parkway
Cambridge, MA 02124
(617) 577-8500
Street Price ~$50.00

Tape Backup

```
@ECHO ON
PROMPT $P$G
MD C:\tapetmp
COPY A: *.* C:\tapetmp
C: CD\tapetmp TAPE ^ Z (Crl-Z)
```

Thirdly, copy your backup software files from the tape directory on your hard drive to the floppy disk in the A: drive as shown below. Your commands may differ depending on where your tape software is stored:

COPY C:\TAPE*.* A:

Lastly, copy the DOS format command file, FORMAT.COM, to the diskette.

COPY C:\DOS\FORMAT.COM A:.

After all that, prove to yourself that it works. Just slap that little old disk into the drive and boot with it. You should see the tape backup menu ready accept your tape and RESTORE!

After you have tried the disaster disk, you can delete the "tapetmp" directory from your hard drive. And finally, you store the disk in a safe place and worry a little less!

Club Information

HARDCOPY 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.

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GENERAL MEETINGS are held the 1st Sunday of every month, unless noted otherwise in the newsletter calendar, at 2:45 pm in the Cal Poly University Biology Department, Fisher Hall 286.

Special Interest Groups (SIGS)
meet at 1:00 to 2:30 pm.

General Information SIG:
Fisher Hall 286

New computer user SIG:
Fisher Hall 289

Windows SIG:
Fisher Hall 287

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