



HARD COPY

What's New

To say the least, the meeting in September reflected the realities of operating a computer system. More on that later.

George did a great job demonstrating several TSR (Terminate & Stay Resident) utilities. As a matter of fact, I dedicated a great portion of my free time to learning to use these programs because of his lecture. The programs I found to be most useful are, MARK.COM, RELEASE.EXE, & MAPMEM.COM. These Freeware programs are located in a compressed file called TSR.COM29.ZIP.

MARK.COM places a marker in RAM at the current address. Any programs loaded below this marker can be removed simply by entering RELEASE at the DOS prompt. RELEASE.COM frees up all memory up to and including the last marker. MAPMEM.COM displays the programs loaded into RAM as well as the address locations of the programs (including MARK.COM). The TSR Programs George demonstrated include utilities that change the "beep" characteristics of

By John Ewing

your computer, displays the ASCII character codes, allows you to draw box characters, and many other functions too numerous to list here. The bottom line is, you should really get a copy of the TSR Programs from the library and use these utilities. They can really help you be a better computer user.

About my opening remark; Bob Ward gave a presentation of QMODEM 4.2 telecommunications software. This is a very powerful communications program. However, try as he might, Bob could not connect to any of the local bulletin boards. Not even SLO Bytes BBS. Bob was rather frustrated because the SLO BytesBBS had a logon message asking callers to stay off of the board because he would be giving a demonstration during the meeting. Since he could not log on to SLO Bytes, Bob called a national BBS named EXECPC. We were assured of a connection because this is the largest BBS in the nation, with 166 incoming lines. At last, success.

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Disk Drives and Other Headaches

By Mike Slay

Capital PCUG

This article is from the August 1988 issue of PC Report, A publication of The Boston Computer Society.

It's the moving parts in your PC that are going to fail. The RAM chips and other non-moving parts may fail, but the moving parts will in time all fail. Fortunately, they sometimes take years to die and are usually not too expensive to fix. If you know how to take care of your PC, your maintenance costs should be hardly more than the cost of electricity consumed. However, that does not include printers.

The Most Important Part, The Fan

There is one component in your PC which is capable of causing catastrophic damage. That component is the fan. I have destroyed a computer terminal by running it

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DBMS/COPY

by Conceptual Software, Inc.
**Nice but Not for the
 Novice**

By Rosemary Bowker

You have a file created in dBASE IV that contains data on Los Osos nitrates. I am a consultant who has been asked to examine the data to see if there has been significant ground water contamination but my database package is Oracle and besides I want to use the Statgraphics statistical package to examine your data and prepare graphs.

Plain old vanilla ASCII text files are one way that users can exchange files that have been created by different applications. However, certain software packages require that the information be in a particular format that simply saving one file as an ASCII text file by a different application will not satisfy. You may be forced to use a text editor to make modifications to the exported file -- or out of frustration, you may waste time re-entering the information into the second application.

DBMS/COPY provides the user with a solution. An extensive list of

over fifty database, spreadsheet and statistical software packages are supported. While the package is distributed on three 360K disks, the user has the option during the installation routine to select only those software packages for which a need is anticipated. The user can also add or remove support for different applications as needed by simply re-running the simple (and quick) installation routine.

DBMS/COPY is not able to read indexed DBASE III and DBASE IV files

Interactive menus take the new user through the file conversion process. The user begins by selecting the application that created the source file. DBMS/COPY looks for files of the appropriate type in either the DBMS/COPY directory or in the directory containing the application that created the source file (the application does not have to be present). The user can change the source directory and/or specify the source file name if not given in the scrolling file list. The user then selects the destination file type. Depending on the file conversion that has been selected, the user can select other options such as a free or fixed field format.

Experienced users have the option of initiating the conversion process from the DOS prompt. Batch files allowing parameter passing and option selection simplify the process for users who frequently convert from one document type to another.

DBMS/COPY is not for the novice. While the manual provides extensive documentation on the file conversions supported, there is more information on file structure and variable types supported than the general user would want to read - or is able to appreciate. Not all file types are supported. For example, DBMS/COPY is not able to read indexed dBASE III and dBASE IV files - thus the user with a large database that has been kept in an indexed format for convenient use must first save a copy as a sequential database before using DBMS/COPY to convert the file to another file format.

The \$150 price tag makes DBMS/COPY an option for the serious user who frequently exchanges information with other users (or perhaps the type of utility that should be supported by local user groups as a service).

Rosemary Bowker works for the Biology Department at Cal Poly University as both a programmer and instructional computing consultant.

The Call Went Out...

And many responded. We now have a new XT (with used parts) for shareware copying at the meetings. This will replace the XT we took from the library which will be used for our second BBS phone line. Many thanks go out to the following people who donated various parts to make this computer a reality:

Doug Warschauer, Howard Roma, Richard Clewsoway, Ken Stilts, and Bob Hunt.

(Did I miss anyone?)

Again we thank you for your generosity. Perhaps SLO Bytes can be a depository for other unwanted computer parts. We can always use more machines to copy library disks at the meetings. You donate them, we'll build them!

Bob Ward



About That Second Line...

George tells us that the second phone line for the Slo Bytes BBS will soon be ready. But... as many of you know, the hard drive crashed recently. The BBS is up and running again, but with only a 40 meg hard drive. George is requesting that no files be uploaded until the system is up to full hard disk capacity. George will let us know when we can start uploading again. As a result of the hard drive crash, callers to the BBS will be treated as new callers. You will be required to input your login information just as you did the first time you called the board.

Why Do Hard Disks Fail?

By Dave Brodeur

Space Coast PC Users Group Newsletter.
August 1990

Recently, while teaching a maintenance course, I discovered an interesting anomaly regarding the Seagate ST225 hard disk drives that came with the Z248 machine. It appears that most of the hard disk problems that occur with this drive, and others, are a result of failure of the drive circuit board, rather than the drive itself.

Before getting into the particulars of replacing the hard drive circuit board, let's go over some background information of the Seagate ST225, and hard disks in general.

As you probably already know, a hard disk drive functions much the same as a floppy disk drive. Both read and write patterns of data to a rotating disk coated with magnetic particles. In the case of the floppy drive, the read/write heads actually touch the surface of the disk while it's rotating. This isn't harmful to the heads or disk surface because the disk is only spinning at about 300 RPM.

A hard disk, on the other hand, rotates at 3600 RPM. Touching the disk at this speed causes serious damage to the heads, as well as the disk surface, due to the amount of friction produced. A failure of this kind is more commonly known as a disk crash. The disk surface and heads are permanently damaged, causing complete loss of data and the disk drive. For this reason, the heads never touch the surface of the disk during normal operation.

Instead, the heads on a hard disk ride on a cushion of air maintaining a distance of about two microns above the surface of the disk. Because of the need for a dust free environment, hard drives are normally enclosed. Any air entering the confines of the hard disk casing is filtered to prevent foreign particles from coming in contact with, and becoming lodged on, the disk surface.

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Windows 3.0 Risk Factors and Solutions

By Runnoe Connally, MS SysOp

The Microsoft Windows development team, working closely with several hardware and software vendors, has identified two rare scenarios that might result in loss or corruption of data. The scenarios involve using third-party disk-partitioning software with Microsoft's SMARTDrive disk caching utility. We have shipped several hundred thousand copies of Windows 3.0 and have only 12 customers with verified problems.

Microsoft Windows 3.0 itself works fine on these systems. The conflict arises between the disk caching utility included with Windows called "SmartDrive" and the listed third-party disk-partitioning software. Windows 3.0 is fully functional without the optional disk caching utility.

SYSTEMS THAT MIGHT BE AT RISK

Scenario 1

Your system IS at risk if:

* You are using THIRD-PARTY disk positioning software, such as those listed below AND * A hard disk on your system has more than 1024 cylinders, AND * You are using Microsoft Windows' SMARTDrive disk caching utility

This scenario can only occur if you are running third-party disk partitioning software, because the DOS Fdisk partitioning software does not support disks that have more than 1024 cylinders.

Scenario 2

Your system MIGHT be at risk if: *

You are using THIRD-PARTY disk partitioning software, such as those listed below AND * Your system contains a hard disk whose type is not directly supported by the system's ROM BIOS AND * You are using Microsoft Windows' SMARTDrive AND * You are using DOS version 3.30 or higher

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LIM/EMS 4.0 Confusion for Consumers

By Randy Brook

Pacific Northwest PCUG

Note from HARD COPY editor: This article is the first of two parts. "TURBO EMS - Software Emulated Expanded Memory" will appear in the November issue of HARD COPY. ed.

This article started out as a simple evaluation. It gradually evolved into two articles. This one is a tale of memory usage on AT-clones. These are computers with 80286 processors, or "286 machines." The other article is called "Turbo EMS - Software Emulated Expanded Memory," also in this issue [immediately following]. Since I'm trying to give a consumer viewpoint, I'll try to minimize the technical details. I also won't talk about the more powerful and expensive 386 machines. They handle memory very differently than 286 machines.

Hard Copy editor's note: "Turbo EMS - Software Emulated Expanded Memory" will appear in the November 1990 issue of Hard Copy. Ed.

Most 286 machines come with "1-meg RAM," about one million bytes of memory. Sounds better than the 640k (about 640 thousand bytes) that used to be standard, doesn't it? But when you set up the machine, you'll find out that the extra 384k is "extended memory," generally useful only for a RAM disk, a disk cache, or a print spooler. It can't be used to run larger programs, or to run more than one program at a time (multi-tasking). The programs that can use extra memory, like Lotus 1-2-3 and Excel for bigger spreadsheets, WordPerfect 5.0 for faster execution with big documents, and others, all want "expanded memory," also called EMS memory.

Very few 286 machines come with expanded memory (the AST Premium 286 is one). There are three ways to have it. You can buy a separate memory card for several hundred dollars. You can buy an "All Charge Card" (about \$450) to turn your extended memory into expanded memory. Or,

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Disk Drives & Headaches

without a fan and I would expect a PC to be just as vulnerable. If your fan stops working, save your work and shut off the unit immediately. If your fan is just making a lot of noise, no action is necessary until it dies, which may be a year or more, but the noise might drive you to take action sooner. Needless to say, I don't advise disconnecting the fan for the sake of silence. Some people claim that if you run your PC without the cover, you don't need a fan. Don't you believe them. It is true that the fan has no effect with the cover off, but that just implies that you shouldn't run your PC without the cover. Most of the people who are running without covers have enough ambient air circulation to prevent problems, but not all of them.

If your fan needs repair the only thing you can do is take your PC to someone and pay them to replace your fan. Computer fans are not designed to be lubricated. To save aggravation, call around to see who has the fan in stock and how much they want to do the job. It's a simple fan replacement; they should be able to give you an estimate over the phone.

Floppy Disk Drives

The vast majority of all PC problems are with the floppy disk drives, especially if the heads are not cleaned regularly. Fortunately, cleaning disk drives is not as expensive as it used to be. Radio Shack sells a cleaner kit that, in my experience, will do over 100 cleanings for about eight dollars (catalog # 26-408). Unlike some other disk drive cleaners, this one has a reusable disk and a bottle of cleaning fluid (as opposed to disposable disks).

I would make one modification to the instructions provided by Radio Shack with the kit. Squirt some of the cleaning fluid through the oval hole in the cleaner disk that the heads go through (that is, the hole that looks like the oval hole in a regular disk) Then,

when you insert the disk into the drive and close the door, the heads will be against a wet spot on the disk. Now wait about five seconds for the gunk on the heads to soften before spinning the disk. Then spin the disk by trying to read it (I use DIR with three retries). If you do this about four times a year, you shouldn't have any problems caused by dirty heads.

Besides cleaning the heads, there aren't many things you can do to fix a balky drive except pull it out and send it to a repair shop. If your drive is noisy, even when there is no disk in it, then you may have a cable rubbing against the flywheel. Try taking the lid off your PC (briefly, remember the heat), and looking at the drive to see if you can see where the cable rubs. Cables can also get in the way of the servo motor that moves the head back and forth. If this is your problem, then when you try to format a disk in the drive, everything will go smoothly for awhile, but eventually and consistently will fail near the end. If you take the lid off your PC and watch the formatting, you will see an arm slowly backing out of the drive in steps. If you see the arm bump into something, then swing back and forth, seemingly trying to knock the obstruction out of the way, you have found the problem. Just move the cable or whatever and your troubles have ended.

This problem is common in Drive B of Compaq portables that have just been serviced. The cable from the disk drive should bend right next to the connection to Drive B, go down a couple of inches behind Drive B and then back up to the connector on the controller card. If the bend is in the wrong place, the cable may get in the way. If your drive is truly zapped, then you need to get the thing out to a repair shop. They slide out pretty easily. The screws that hold the drives are on the sides so that if they were longer they would screw right into the edges of the diskettes. Just unplug the two cables (Power and data/controller), take out the screws and slide out the drive.

If you have two floppies, the good one should be used as Drive A. If you look carefully at the two drives, you will notice a difference between them. Drive B will have a chip in a socket that is empty on Drive A. That is the terminator chip and is installed on the "last" floppy drive. In a one floppy system, Drive A is the last floppy and should have a terminator chip. If you are going to live with a one drive system while your other drive is in the shop, make sure that you have that terminator chip on the drive you keep. If you wish to swap drives, to experiment, fault isolate, or just boot, don't forget to swap the chip, too.

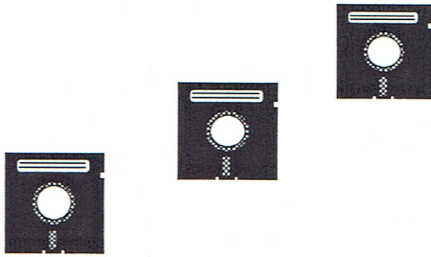
Problems that have been experienced with local repair shops include taking out the jumper that configures your drive for an IBM PC or compatible and forgetting to put it back unless reminded. The same holds for any terminator chip you might leave in your drive.

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Calendar

- | | |
|--------------|---|
| November 4th | Unison World's Avagio, desktop publishing software will be shown by Paul Doell, sales manager. |
| December 2nd | Come see the Poquet computer. It's so small it will fit in your shirt pocket.

Also our end of the year "blow-out"; Swap-meet, door prizes and the biggest prize of all.... election of officers! |



SLO Bytes Library

Check out the new disks we have for you this month. A little something for everyone.

#158 Business programs:

Loan Amortization & Mortgage Blaster. Both good business programs especially the second one.

#392-393 Home Legal Guide. This one has a little something for anyone. As it says it's a legal guide. Everything from child custody laws to small claims court. I'd like to see someone in our club with legalese review this one.

#394 PC-Index - automatically create an index for any book. I've tried it and like how simply it works.

#395 Graphics:

FRACTIN9 - by special request here is a program that puts fractals on your VGA, EGA, or CGA screen. **VisMaker** - try your hand at animation. Yes a shareware animation program!

Updates:

#006 - PC General Ledger updated to Ver 1.4a

#320-323 Qmodem 4.1 to Qmodem 4.2

#379 Doctor Data Label to version 5.0

Demo Programs:

#129 Mean Streets (1.2 meg) - updated

#167 Crime Wave (1.2 meg VGA) by Access Software

#168 Links (1.2 meg VGA) by Access Software

#169 Abacus II by ComSoft, Inc.

#170 Close-UP by Norton-Lambert

#171 Touch-Up by Migraph, Inc.

#172 SpellCode by Geller Software

#173 Home of Hector by AcadeMedia

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Hard Disk Failures

The strict control over the disk environment would seem to make the occurrence of hard disk crashes relatively rare. Why then do hard disks fail?

There's another component of the hard disk that's as essential to the operation of the drive as the motor, heads, and disk media, and has revealed itself as the cause of the most apparent disk crashes. It's the disk drive circuit board. This board is normally located on the underside of most hard disk drives and consists of circuitry that controls the speed of the rotating disk, movement of the read/write heads and decoding of data as it's read from the disk. Any failure of this circuitry can cause the disk to fail and appear like a disk crash.

In the case of the Seagate ST225, a chip on the drive circuit board shorts and becomes excessively hot. Symptoms of this kind of failure are excessive SEEK failures and SECTOR NOT FOUND errors, which quickly become worse until the drive refuses to work at all. Replacement of the circuit card, upon observation of these symptoms, will normally remedy the problem without loss of data.

While this isn't always the case, I have found that over 90 percent of the disk crashes I have seen were due to circuit board failure.

To determine if this is in fact the problem, simply remove the circuit board from the affected drive and replace it with one from a known good drive of the same type. Replacement of the circuit board is a snap. It normally involves the removal of the three or four screws which hold the circuit board to the drive and three cables which plug into the circuit board from the drive casing.

Until recently I was unable to find a source for these boards. These boards are available from:

Computer Service Supply P.O. Box 673 Hilltop Center Building C Londondeny, NH 03053 1-800-225-7815

Replacement boards for the ST225 cost \$75 with a trade in of the bad

board, and \$110 without trade. This is a significant savings over the purchase of a new drive, considering a new ST225 costs about \$225. However, recovering your files will be the biggest savings.

About the author: LT Brodeur, USN, is stationed at NARDAC, Norfolk, where he is the course developer and instructor for the Z248 Maintenance Course. He can be reached at (804)444-7976

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New Members

Three new members joined our ranks this month. We welcome the following individuals to our computer group:

Tom Dougherty	543-4353
Bob Grover	489-6230
Mark & Bonnie Morrison	772-9190

Some forget, others move away, and a few just like to see their name in print. For whatever the reason, this is just a friendly reminder to the members listed below. Your membership has expired and your name will be dropped from our membership list should we not receive the usual \$18 by the end of the next meeting. It is even more important for those of you who have memberships due at the end of this year. ALL renewals and new memberships received after December 31st will be \$20. Pay ahead and save 2 bucks!

- Tibor Beresky
- Jim Corcoran
- John Danyi
- Nancy Davis
- Debora Gulovsen
- Robert Hansen
- Carol Jacobson
- William L. Kearns
- John Kellner
- Dick Reynolds
- Bill Roch

LIM/EMS 4.0

you can spend about \$75 on an "expanded memory emulator," software that makes your extended memory look like expanded memory to some programs. Each method may have different results, depending on the kind of expanded memory you end up with. (I won't talk about the All Charge Card or emulators in this article.)

A basic form of expanded memory is LIM/EMS version 3.2. "LIM" stands for Lotus, Intel, and Microsoft. A program like Lotus 1-2-3 can use EMS 3.2 memory for the data contained in large spreadsheets. Next came EEMS, or enhanced expanded memory. AST, Ashton-Tate, and Quadram started with EMS 3.2 and added features to create EEMS. Most importantly, EEMS requires that the memory board have special memory management hardware not found on EMS 3.2 boards. Unlike EMS 3.2, program code can be stored in EEMS memory and used almost as quickly as if it were in regular DOS memory. A program like DesqView can multi-task, or run more than one program at once, if it has enough EEMS memory.

Eventually, the LIM folks realized that they had to catch up to the AST group. Both groups joined to create a new memory specification, LIM/EMS 4.0, released in August 1987. As InfoWorld described it, EMS 4.0 "provides the functionality of both EMS [3.2] and EEMS." According to an Intel representative with whom I spoke about this article, the InfoWorld description was wrong. He said that EMS 4.0 was intended only to be a specification for software. It defines how various features should be implemented, but the choice of features to include is left to each manufacturer. Most important, it does not require EEMS-type or any other specific hardware. Unfortunately, he said, the press reports made it easy for consumers to assume that EMS 4.0 meant multi-tasking and other features associated with EEMS hardware.

I find it hard to blame the press for the confusion. The industry started with a well defined EMS 3.2 and EEMS

standards and created the EMS 4.0 standard. Before EMS 4.0, EMS 3.2 meant more data space in memory and EEMS meant EMS 3.2 plus multi-tasking. The main reason to set up a new standard was to standardize memory control for multi-tasking. If the industry wanted flexibility, it could easily have published EMS 4.0 with compatibility levels, or some other way to designate how much of the full standard a product met. Instead, with the simple designation "EMS 4.0," there is no way to know what you are getting without reading all the fine print. And even that may not be enough.

The ambiguity of the term EMS 4.0 has had unfortunate consequences for buyers. Many people have purchased memory boards marked "LIM/EMS 4.0 compatible" only to find they were useless for multi-tasking. For example, Intel designed its best-selling memory board, the AboveBoard 286, for EMS 3.2. When EMS 4.0 was released, Intel did not have a product with EEMS or EMS 4.0 hardware support for multi-tasking. Intel changed the AboveBoard's software to meet the EMS 4.0 software standard, and marked the packaging as EMS 4.0 compatible, but did not change the hardware.

Intel never did claim that its AboveBoard would multi-task with DesqView. But given the general understandings about EMS 4.0, it sales certainly benefitted from the impression that an EMS 4.0 memory board would multi-task. Even Intel itself was confused. It donated an AboveBoard to our user group specifically so we could upgrade our BBS with DesqView and two simultaneously running BBS programs and phone lines. Of course, the AboveBoard was useless for this task.

I don't mean to denigrate Intel's generosity. It subsequently gave the user group a much more valuable piece of hardware, and Inboard 386, which should allow superb multi-tasking. But if Intel's own people are confused about EMS 4.0 and their products' capabilities, imagine the problem end users have.

It seems as if every board manufacturer has a different view of EMS 4.0, even when they include hardware support. The low priced Bocaram AT Plus card supports multi-tasking under DesqView, but only if the programs in expanded memory are no larger than 128k. InfoWorld rated the board "poor" in EMS 4.0 capabilities (12/12/88) for this reason. In an almost bitter reply that perfectly illustrates the problem with a flexible specification, Boca Research insisted that its board supports "those features [of EMS 4.0] we consider to be the most useful and cost-effective." (Review of Responses, 2/13/89). (Contrary to the Intel person I spoke with, Boca stated in its letter that the EMS 4.0 specification outlines hardware support capabilities.) Fortunately for its readers, Infoworld consistently looks at EMS 4.0 claims in light of hardware performance. This makes sense, since 48% of its surveyed readers who purchased memory boards were interested in multi-tasking.

Another example of partial EMS 4.0 hardware support is the new Intel AboveBoard Plus. This board can multi-task without the 128k memory window limit of the Boca board. However, it has its own limit. You can't handle 9600 bps file transfers in background with the Intel board. This may not matter to many people yet, but it sure does to BBS operators, especially as 9600 bps modem prices come down. Only the AST Rampage Plus 286 boards have all the hardware (alternate register sets, to be specific) for high speed background communications. Of course, the AST boards cost more. By the way, you can upgrade the hardware in your older AboveBoard to the Plus model's level for about \$100.

What is a consumer to do? Since the "EMS 4.0" standard tells you almost nothing, you have to read a lot more of the fine print and ask a lot of questions. If you have memory intensive software that is important to you, like Excel or other Windows applications, ask the software company whether a particular computer or memory board

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Windows Risk Factors

The risk probability is greater if your system was customized with off-the-shelf parts. Name brand computers ship with ROM BIOS versions that support the hard drives installed by the manufacturer.

DETERMINING THE RISK

Below is a list of known disk partitioning systems which when used in conjunction with SMARTDrive pose a risk.

Each software package uses a device= line in the CONFIG.SYS file in your root directory. The device= entry tells your system that the software exists.

Open your CONFIG.SYS file with any text editor and see if one of the following device= lines exists:

SOFTWARE: Disk Manager from Ontrack Computer Systems CONFIG.SYS device=DMDRVR.BIN

SOFTWARE: SpeedStor from Storage Dimensions CONFIG.SYS: device=SSTOR.SYS or device=HARDRIVE.SYS

SOFTWARE: InnerSpace from Priam Systems CONFIG.SYS: device=EDVR.SYS

SOFTWARE: Vfeatures Deluxe from Golden Bow Systems CONFIG.SYS: device=FIXT_DRV.SYS

NOTE: At the end of this communication you'll find a procedure for using Disk Manager to diagnose the risk. Use that procedure if you have Disk Manager by Ontrack.

REMOVING THE RISK

If you've identified your system at risk, you can either remove SMARTDrive or repartition your hard disk using the DOS Fdisk utility instead of third party disk partitioning software.

To remove SMARTDrive from your system: 1. Open your CONFIG.SYS file with any text editor. 2. Delete the following line: device=smartdrv.sys 3. Save the changes to CONFIG.SYS. 4. Press CTRL+ALT+DEL to reboot your system (or turn off your system and then turn it back on).

Microsoft is working on making SMARTDrive aware of these disk partitioning packages, and will provide a free update to affected users in the near future.

If you have additional questions, contact Microsoft Product Support at (206) 454-2030.

IF YOU USE DISK MANAGER

The following procedure applies to Disk Manager users only. Use it to determine if your system is at risk.

To determine if you have a hard drive with more than 1024 cylinders: 1. At the DOS prompt, invoke Disk Manager in manual mode by typing "DM /M". 2. Type "C": to display the disk configuration. 3. If any of the disks displayed have an Actual Cylinder Count over 1024, you are at risk when using SMARTDrive.

To determine if your hard disk is not supported in the system BIOS: 1. At the DOS prompt, type "VER" to display the version of DOS you are running. If it is earlier than version 3.30, you are not at risk. Otherwise continue. 2. At the DOS prompt, invoke Disk Manager in manual mode by typing "DM /M". 3. Type "C" to display the disk configuration. 4. If the display says Parameters Are Standard, you are not at risk. Otherwise, if it says Parameters Are Replaced, continue. 5. For each disk in your system, compare the Setup Parameters to the Actual Parameters displayed. If all of the disks displayed have a Setup Head Count which matches the Actual Head Count, and a Setup Sector Count which matches the Actual Sector Count, then you are not at risk. Otherwise, that drive is referred to as "non-homogeneous", and you will need to continue. 6. From the Disk Manager main menu, type "S" to select the non-homogeneous drive. 7. Type "P" to see the partition table for this drive. 8. If the drive contains a partition with the Type "DOS", AND one of more Type "Write-Read" or "Read-Only" partitions, then you are at risk. 9. Repeat steps 6 through 8 for each non-homogeneous drive in your system.

The Solution.....

LIM/EMS 4.0

fully supports the software. The fact that the memory board is marked "program X compatible" is not enough. Even an expanded memory emulator can be "DesqView compatible" if you mean DesqView without Multi-tasking (see below, Turbo EMS). Finally, as the Intel representative suggested to me, if you want to multi-task with fast communications, buy a 386 machine or an AST board for your 286.

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What's New

Right up to the point where the logon script file should have provided Bob's logon information to the host. Unfortunately, for some unknown reason, the script file didn't work. Next Bob tried to call another local BBS called NICKEN. Here we received a busy signal. Bob anticipated these problems however, and arranged to have his home computer set up as a host. He dialed his dedicated modem phone line only to receive incessant ringing. His home system was not receiving the call. On to another national BBS. This time Bob called the GENIE NETWORK. GENIE did not answer. One more try to EXECPC, but first Bob had to modify the script file. Finally, sweet success. After all of the problems encountered, we were rewarded with access to over 6.5GB (yes, that's giga) of software programs.

The purpose of this demonstration was to show the features of QMODEM 4.2. If you are familiar with Telix, then you will be very comfortable with QMODEM. This shareware program begins the redial cycle within 2 seconds after detecting a busy signal; records script files on the fly; allows backscrolling the last 120 lines received; transfer files using Xmodem, Ymodem batch, & Zmodem among others, and has many other features. QMODEM 4.2 is powerful and easy to learn. This is also available in the SLO Bytes Library.

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Undocumented DOS Feature

By Robert Locke

Sydney PCUG

Every once in a while I find this little undocumented feature in DOS useful, but I am not sure in which other versions it will work.

```
SHELL=C:\DOS\COMMAND.COM
/E:1024 /P /F
```

The /F is the undocumented feature. It will make your system default to (F)ail when it finds no floppy in a drive that you log to, in which case you simply type the letter of another drive to switch to, without the command line tie-up for three or four keystrokes. Works great in batch files, because your system won't hang due to no disk in a floppy drive.

Oops...

For those of that that haven't noticed, the newsletter is running a little late this month. This is the result of a lost File Allocation Table. After spending considerable hours, I finally got the system back in working order. Ventura Publisher refused to load into memory. After changing the CONFIG.SYS file for the umpteenth time, VP would finally load, but the mouse would not respond. Well, as you can see, everything is working just fine now.

Now about November's newsletter. If you have an interesting story you would like to share with the membership, I would be very pleased to publish it in Hard Copy. Also, I can always use some help with typing article. If you can contribute, call me at 528-7196. ed.

Windows Risk Factors

08-Jun-90 15:02:19 Sb:
DMDRVR/Win3 solution! Fm:
Ontrack Computer Systems
73157,2505 To: all

To : Windows 3.0 and Disk Manager users
From : Ontrack Computer Systems
Re : Windows 3.0 and Disk Manager

Ontrack Computer Systems is pleased to announce the following solution to those of our customers who have, or wish to have, MicroSoft Windows 3.0 installed on their 386 PC's and have a hard drive with more than 1024 cylinders using our Disk Manager driver "DMDRVR.BIN". The solution presented here is the result of a combined effort of Ontrack engineering and MicroSoft development.

The situation addressed here concerns the computer hanging when Windows is invoked in the enhanced mode. Since Windows will default to this mode on 386 systems, the system will hang unless Windows is activated using "win/s" or "win/r". Computers with the 286 processor are not affected since the system only hangs upon entering the 'virtual mode' of the 386 processor. 386 systems with hard drives having 1024 or fewer cylinders are also unaffected.

A change must be made to "SYSTEM.INI" in the section with the heading: [386enh]

This section requires the addition of the exact line : VIRTUALHDIRQ=OFF (Be aware that there are no embedded spaces in this line.)

This change can be performed by using any word processor. Notepad, invoked from Windows (win/r or win/s will allow Windows to come up) should be able to make the changes. See pages 528-9 in the index of the Windows Users Guide for examples on how to modify SYSTEM.INI.

We are aware of allegations of data corruption on systems running Windows and Disk Manager's device driver, DMDRVR.BIN. We have performed extensive tests and are unable to produce data corruption in our labs,

nor has MicroSoft's development staff been able to produce data integrity problems. Through the combined efforts of Ontrack Computer Systems and MicroSoft development teams, we are also confident that data corruption could not occur through the normal interaction of our respective software products.

We hope this addresses the concerns of users operating in the Windows/ Disk Manager environment.

###

FLOPPY DISKS 4-SALE at the meeting

Royale Grey DSDD 360K
Unformatted Floppy Disks
with labels, tabs, and sleeves
70 Cents Each

MEI DSDD 360K
Unformatted Floppy Disks
with labels, tabs, and sleeves
50 Cents Each

High Density Disks 1.2 MEG.
90 Cents Each

Sony 3.5" 720K
Unformatted Floppy Disks
90 Cents Each

New Library Disks
90 Cents Each

All Disks fully guaranteed against defects.

Club Information

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

Membership: Dues are \$18 per year. Newsletter only is \$10 per year. Full membership entitles you to our monthly newsletter, full use of the public domain software library and discounts at local computer stores.

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

Disclaimer: Neither SLO BYTES PC User's Group, its officers, editor, or contributors to this newsletter assume liability for damages arising out of this publication of any article, including but not limited to the listing of programming code, batch files and other helpful hints.

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Direct all correspondence to Bob Ward, 2100 Andre Ave., Los Osos, CA. 93402. Call (805)756-2164 M-F 7:30am - 5pm and (805)528-0121 all other times.

Treasurer: Teri Sorgatz, 832 S. 7th Street, Grover City, CA. 93433 Phone 489-2516

Meeting Times

General meetings are held the 1st Sunday of every month, unless noted otherwise in the newsletter calendar, at 2:30 pm in the Cal Poly University Biology Department, Fisher Hall 286. Special Interest Groups (SIGs) meet at 1:30 - 2:15 pm.

New User's SIG - F.H. 286

Our Public Domain Library is in Fisher Hall 292. Hours 12 Noon till closing.

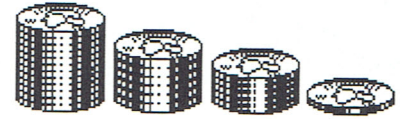
SLO BYTES BULLETIN BOARD

(805) 528-3753 2400/8/N/1

PC Files & Message Section

SYSOP: George Campbell

All Welcome - 24 Hours



Treasurer's Report

Here's a list of expenditures and deposits for this past month:

Beginning Balance:	+1759.42
Expenses:	
New Members Manual & Newsletter 9/25/90	-152.98
Postage, Bulk mail deposit	-150.00
2 backup tapes	- 62.74
Handouts for October meeting	- 11.42
Deposit 10/08/90	+392.00
Dividend 10/01/90	+ 19.57
Balance 9/15/90	+1794.53

DISCOUNTS

Star Computers 855 Morro Bay Blvd. Morro Bay 772-7827	5%	Any software in stock.
Computer Logic 973 Foothill Blvd. #4 San Luis Obispo 544-8347	10%	Paper, ribbons, cables, and other supplies.
WITCO Computers 3563 Sueldo, Bld. B San Luis Obsipo 549-0811	10%	Off list - all computers, software, computer peripherals, and products. Contact Bruce, Paul or Dave for discount.
	10%	Off complete systems, peripherals, supplies but not including software.
	5%	Off computers alone.



Ziff-Davis User Group Magazine Discounts

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 PC-Computing - \$14.97
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