

# SETHO JOURNAL

Volume IV, Number 4

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From The ANN ARBOR NEWS

Sunday, November 5, 1989



## Seniors online

By JEFF MEYER  
THE ASSOCIATED PRESS

VALLEY CITY, N.D. — Susanne Barstad didn't know a modem from a disk drive, but she and other residents of Sheyenne Care Center have learned that computers can be as easy to use as a horse and buggy.

"I figured you're never too old to learn if you want to try," the cheery 90-year-old said. "I've always had a curiosity about trying new things."

Barstad is among 19 residents of the nursing home who use a computer to write to pen pals around the country through a network called SeniorNet.

The nonprofit organization has trained more than 3,500 people on personal computers at 30 sites in 13 states and Canada since 1986. Sites include doctor's offices, senior centers and colleges, but Sheyenne Care Center is the only nursing home, said Cindy Schwehr, the center's SeniorNet coordinator.

Schwehr believes the program keeps the residents' minds alert and helps ward off institutional depression.

SeniorNet evolved from a computer class and user manual, "Computers for Kids over 60," by Mary Furlong, an associate professor of education at the University of San Francisco and now executive director of SeniorNet.



See editorial comment on page two....

# SEBHC JOURNAL

Volume IV, Number 4, Page 2

## STAMP OUT CYBERPHOBIA!

### An EDITORIAL EXHORTATION

By  
Leonard E Geisler, Editor/Publisher,  
The SEBHC JOURNAL

If you think the clipping on our front page doesn't belong there in this computer user's newsletter, you and many other readers are dead wrong! Read on....

\* Far too many "average" Americans have an extremely distorted and cynical youth-oriented attitude! They actually think anyone past calendar age fifty is headed for a 3x6x6-foot underground residence. "Can't teach an old dog new tricks" (or some other moss-grown putdown) is their usual off-hand reaction to stories such as told in our example clipping.

\* We say "PFUI!" to all those ignorant cynics! Our own computer user's newsletter (the SEBHC JOURNAL) is a very good example of how terribly wrong such anti-old-age thinking (if it can be called thought) is! The JOURNAL is firmly dedicated to keeping our 8-bit machines alive and well. And it also keeps us users alert, ever-curious, excited, actively running our "steam-powered" (as many ibm-type machine users contemptuously refer to them) computers daily in a myriad of quite-practical and enjoyable ways at work, home, or even on the road in RVs.

\* Daily in your newspaper you'll see classified for-sale ads listing older Heath or Zenith 8-bit machines at prices usually well within reach of many a "limited income" individual's pocketbook. But there's an almost-universal catch--too many potential buyers of such machines usually lack technical expertise. And that's where JOURNAL readers can get into the picture--especially if they're either potential or actually "Geritol set" members--BECAUSE SEBHCers DO KNOW "THE ROPES"!

\* Anybody can shake "cyberphobia" if given a bit of encouragement by someone already experienced with computers on the job or at home, and is willing to help. And that describes most of this newsletter's subscribers. To them we say: Get in touch with a city, county, or religious social services agency. Let them know there's REAL hope for "the old folks"! Better still, contact an aggressive older-citizen's group such as the American Association of Retired People (AARP National Headquarters, 1909 K Street NW, Washington, DC 20049) and get the phone number and address of your nearest AARP chapter.

\* Tell them you're a Society of Eight Bit Heath Computerists member. Explain to them what SEBHC is and does, and how you personally can help get those older people off their duffs and into the twenty first century! Explain how they can turn that terrific buy you've spotted in the local newspaper into a practical home computer station for less than five percent of what a computer snob gladly pays for the latest whizbang machine.

\* Make sure they understand that getting into computers can

be mind-expanding fun and possibly profitable too! Explain that any one of their local chapter or agency members might volunteer to set up and publish a newsletter at very little cost to the organisation. Also point out that only one "online senior" in your local group will tremendously influence similar groups nationwide, through virtual instantaneous exchange of ideas and news about your own activities over computer-modem communication nets such as CompuServe, GENIE, or others.

\* The potential gain to everyone is limited only by your own imagination and enthusiasm. Get Active And Bring In A Whole Bunch of New Subscribers! You and other SEBHC JOURNAL readers will directly profit from your own activities. And be sure to keep us informed here at the editor's desk.

\* We promise that when you prove you've brought in three new subscriptions we'll reward you with a FULL ONE YEAR EXTENSION of your own subscription. Bring in FIVE subscriptions and you get your choice (\$29.95 total value) of items from our H/Z software stock (see catalogue pages)!

\*\*\*<> NOW GET OUT THERE AND DO IT!! <=>\*\*\*

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SALE... FOR SALE... FOR SALE... FOR SALE... FOR SALE.

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VENERABLE BUT ALIVE AND FRISKY: H8/H19 computer w/gold-pin motherboard, WH8-64 memory card, H-17-3 w/two 40trk sssd, one 80trk dssd drives, "tons" of HDOS 2.0 software AND manuals, two printers, one dot-matrix, DEC Model LA180, one DIABLO Model 1640, daisy-wheel letter-quality wide-carriage, plus ALL back issues of REMark, BUSS, Sextant. Asking Best Offer Over \$100--cash and carry only. Contact Tom Taylor, 38602 Belleview, Westland, MI 48185; phone (days) 313-326-0700 (evenings) 313-455-8635.

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FOR QUICK SALE: Working green-screen Heath H29 terminal with technical and instruction manuals, keyboard, power cord. Has two RS232 serial I/O ports; connect either directly to a printer, modem, or computer! Its' unique keyboard I/O setup feature lets it function as a remote terminal in multi-user systems. Asking \$85 (w/packing and shipping) or make us a cash & carry offer we can't refuse to accept! Contact: L E Geisler, 895 Starwick Drive, Ann Arbor, MI 48105; phone 313-662-0750, 9-5 days or 313-769-6052, evenings, week ends.

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## PETE SHKABARA'S INPUT

By Peter Shkabara, ANAPRO Corp.

The following was prompted by a letter from Gary Melander who had some questions on my previous comments about disc drives. The first question had to do with getting a total of 1.4 meg of data on a high density drive.

It seems that I may have 'misspoke' in lumping 5-1/4 inch with 3-1/2 inch drives. There is a 1.44-meg 3-1/2 inch format, but 5-1/4" ultra-high density (UHD) format is usually limited to a 'mere' 1.25 meg. Note that the usual capacity of a 5-1/4" UHD drive is only 1.2 meg. That's based on using only the first 77 of the available 80 tracks. This is done to make them look like an 8-inch drive to the controller and software. A little quick math shows us that  $(80/77) \times 1.2 = 1.25$  megabytes. And an 8-inch controller, such as the CDR or Magnolia is required (but the H47 should also work).

Lee Hart (of TMSI) has been writing about some of the newer high-density (Kodak, I believe) drives which have hit the surplus market recently. Those drives are 5-1/4 inch but use special discs and require new software to use the extra capacity (up to 6 meg?). Lee has been lamenting the lack of a formatting program to use those drives. When/if I get off my hectic schedule, I might be able to help him out.

In regards to 3-1/2 inch drives, I DID enthusiastically overstep. It's true they can be connected to an H17 hard-sector controller, but since H17 disc-drive software expects hard-sector media (of which there is none in 3-1/2 inch circles), it would require a new software driver to make use of them. This may be an opportunity for HDOS fans. I know of a soft sector H17 driver for HDOS. It would only be single density, but what the heck! No, I don't know the name of it, but I saw mention of it a number of years back in some HDOS material I was looking through. [Right. And some while back a reader said he'd designed and built his own tool for punching sector holes in soft-sector discs. It ain't over yet! -- ed]

Speaking of HDOS, it caught my eye that there has been some 'mystified' discussion of batch files. Since it is very clear that the HDOS [version 3] batch process has been modeled after that present in MS-DOS (a very smart move--why reinvent the wheel?) it would be easy to learn more on the subject by reading the published MS-DOS material. In particular, there are some very good public domain text and program files in MS-DOS circles on the subject.

Here's a bit of personal news before ending this session: It's often said that when it rains, it pours. Well, around here there has been a shower of happenings! After completing my graduate studies at UCSB this June, I started looking for appropriate work. In this part of California getting professional employment is difficult. In order to get some family income going, I took on several part-time teaching positions. Suddenly everything started happening! To make a long story shorter, I now find myself teaching at three colleges and am also a full time programmer for San Luis Obispo County. I teach C programming, introduction to computers (MS-DOS, Word-

Perfect, BASIC and Lotus 1-2-3), AC/DC electronics and business mathematics at the colleges. And for the county, I'm a COBOL programmer in an IBM mainframe environment. How's that for diversity?! Incidentally, the county's IBM mainframe is one of the latest and fastest IBM products, but the software on these systems is rooted in the '60s and is shockingly primitive. How slowly the mainframe world turns!

ANAPRO didn't die during all these changes and activity. To prove this, I'm hereby announcing a new release of PC-FORM in the CPC package. The new format program version still requires an H37 controller, but it now includes IBM single-sided as well as double-sided formats. Those who have only single-sided disc drives can now format their own PC-DOS discs. To get an update, send your CPC serial number and \$5 to cover shipping and handling to me, PETER SHKABARA, c/o ANAPRO Corporation, 8895 Pino Solo Ave, Atascadero, CA 93422; phone (805) 466-4284.

[Pete, thanks for your latest communication! I checked the two discs of software you'd enclosed and found that your updated HDOS 2.0 SETMX.ABS utility works much better than the original which I bought from you "way back when. Now I can set more than one function without wondering if they interfere with the other(s)! Many thanks also for including source code for those utilities. Haven't had time to check out the other stuff you sent but if possible before this edition goes to press, I shall somewhere herein write up and print it. -- ed]

OTHER NEWS: We finally dragged that sixty-two pound monster, our Z125 printer, up out of the basement and got it working with our H120 "messy-dos" machine. Not only is it heavy, but it's NOISY! But it is pretty fast.... We also bought a copy of Paul Herman's special-offer DOODLER-V H/Z100 grafix software package which included an optical mouse, and have been playing with it. We've noticed that DOODLER runs and appears on our H120's screen rather similar to Northwest Digital's GP-19 graphics mod package in our H19 terminal. Now that we know what to expect, perhaps we can do something actually graphical and interesting with Hachibanko-san (our H8). Footnote: Hachibanko-san (our H8) has four serial I/O ports with H19 terminal on one, modem on another, printer on third and 4th is idle. Heather (our SuperH89) has three I/O ports, printer--1, modem--1, idle--1. (There's another serial port on her G-D Electronics CPU board, presently unassigned.) But the H120 has only TWO serial I/O ports, J1 modem, J2 LPT, but one parallel I/O port (reserved for our Sweet-P plotter). To use either mouse or modem we installed an RS232 data-transfer switch at J1 and are trying to patch some software so that port SHOULD work properly with whatever's switched in. IF it works, it'll be the end to (UGH!) cable swapping.

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Ponder this: When editorial material is ready to print early the copy machine breaks; if nothing's done, the machine's OK!

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## The Readers' MAILBOX

Hi Len,

Thought I'd pass along a little info I've acquired about HDOS 3.0. As everyone [who has tried it] knows, you can't read a file from an HDOS 3.0 disc using HDOS 2.0. The reason for this is that HDOS 2.0 expects the two bytes immediately following the HDOS 3.0 directory fileName and EXTension to be zeros. (These two bytes are used by HDOS 3.0 for TIME and DATE.) If you temporarily change these two bytes to zero (with a disc utility) you will be able to read the file.

I found a location to patch so that HDOS 2.0 will no longer check these two bytes. I haven't been able to figure out why he does it, but I've been running a few days with my patch installed and it doesn't seem to affect the [operating] system in any way [other than ignoring HDOS 3's TIME/DATE bytes].

You make the patch to HDOSOVLO.SYS at location 007301A. Since we're unable to use HDOS's PATCH utility to alter HDOSOVLO.SYS it's necessary to use a file-dump utility.

Here's the patch; it must be used on an un-modified copy of HDOSOVLO.SYS:

Find sector 20 (displacement is 302Q or 0C2H)  
(The surrounding code of area where patch is to be made looks like this: 076Q 017Q 067Q 311Q 001Q 015Q 000Q 072Q 062Q 041Q 247Q....

Now change 015Q (0DH) to 013Q (0BH) [Avoid confusion; save patched file as HDOSOVLO.TMP. -- ed]

Please note that this patch will allow you to only READ (NOT write) HDOS 3.0 files. Hope this is of some use [to other readers]. Keep up the good work, Len.

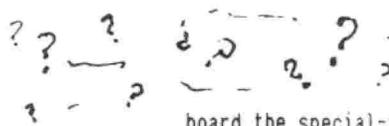
BOB OLSON, 24450 Kirby Street #146, Hemet, CA 92343

[Well thanks, Bob! I haven't checked your patch out yet because I am so very busy, but it looks perfectly valid to me. (Also, our good friend, Allie Lingo, has been kind enough to provide the JOURNAL with a complete set of working HDOS 3.0 discs, and--let's face it--I'm rather lazy!) Any of our readers trying out this patch are invited to write and let everyone know how it works for them. If anyone has any other helpful ideas, please write them up and send them along for publication. Help your fellow readers! -- ed]

Dear Lenny,

Enclosed is a cheque for the Peachtree Accounts Receivable package I requested from you. Please make sure it's on 5.25" discs!

I now have Peachtree's Accounts Receivable package, but it



is for use with a Winchester [hard-disc drive]. Since a Winnie doesn't appear to be in my future, the package is available to any reader who wants it for only the cost of shipping.

Please note: I've enclosed my original JOURNAL CP/M-80 GAME DISC #0 for you to upgrade--if such is available.

Many thanks for your [past] help and support. I use my H89 daily [at home and at work] for tasks such as accounting, quarterly tax forms, and word processing. I am now developing dBase-II command files for some unique business records. I've written a short MBASIC program to read my clock-calendar board [so that] my employees can check in and out on the '89. The program places their data in a comma-separated file, then it's transferred to dBase-II and retained as part of my payroll records. Needless to say, my "old" H89 has become indispensable.

Here's something for your "I Need Help!" column: I'm having trouble using escape codes to modify my screen presentation while using dB-II. If I enter the escape codes from the key-

board the special-function keys work correctly. But if I include them within a command file they simply do not work. For example, I enter CHR(27)+CHR(112) to switch on reverse video. Can anyone tell me why it works from the keyboard and not from within the CMD file?

And I'm still having trouble with my H&H Parallel/Serial I/O board. If anyone is quite sure they can help me with it, I'll happily accept their collect phone call!

WILLIAM "BILL" JACOB iii, 10220 66 Ave SE, Olympia, WA 98503; phone 206-459-1006

[Hey, Bill! You'll get your software package before you read this. I checked it out and it's for the standard 89/90 system; it probably won't give you any problems. I'm sure someone will take you up on your most generous offering of the PT A/R Winchester version. By the way, you got the very last copy we had! But not to worry...SJ-23 is an exact substitute for it. I'm guessing that when Peachtree abandoned the 8-bit line, the original author (maybe he's "Clark"?) made a deal with ZDS. We have a bunch of "Clark" GL and INV software on hand. (Somebody, please get a copy of each and check them out Real Soon Now!) One other thing: Your CP/M-80 GAMES DISC #0 was delivered by our Post Office in rotten condition. It appeared as if the entire package you'd sent

## More Reader's MAILBOX

had been dropped into a pool of solvent and then run over by a PO mail cart with hard-rubber casters! I am returning the damaged disc, together with an updated replacement game disc. That other disc you'd also sent me wouldn't mount because its' plastic jacket had been crimped so badly that the disc couldn't spin. Luckily, I have a special unsealed Verbatim disc jacket for just such emergencies so I took out your disc, put it in the Verbatim cover and thus was able to TYPE almost all the text and doc files. I think I can make a good copy of it.... -- ed]

Dear Lenny,

Responding to Gary Melander's question JOURNAL IV:3): You CANNOT use the H47 interface card to run a standard 8" drive. The H47 works with a non-standard Remex master-slave drive pair through a 40-conductor interface cable rather than the normal 50-conductor cable. As I recall, the H/Z47 drive cabinet also contained some interface logic plus a power supply.

Lenny, I can do a subject cross index of your Table of Contents if you will send it to me on a soft-sector disc or by xmodem.

ROGER H BLISS, 7700 Clarks Lake Road, Chelsea, MI 48118-9420

[Hey, Roger! Thanks for offering to help with our x-indexing load! As soon as I get this edition mailed out (unfortunately, it will be late) I'll get in touch with you and see if we can make our computers talk to each other. The file has been broken into several pages, ready for two-column format, so it should be reasonably simple to ship it out the same way. I'm not quite sure how to use x-modem, the Maple instructions are rather obscure about that (in fact, the operating examples in MAPLE's manual are obscure) so I may end up using Zenith's CPS software or HUG's TERM. Neither of these use the x-modem technique, but do send files in straight ASCII form without any problems at 1200 baud. Let's see what happens! -- ed]

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GOTCH! NOTICE... A GOTCHA! NOTICE... A GOTCHA! NOTICE...
   
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We've been getting a lot of JOURNALS returned with "RETURN TO SENDER" stamped on them. In some cases subscribers don't notify us that they have moved but the Postal Service has put their new address on the returned item. This costs us for the return postage, but it lets us keep our data-base records up to date. But in other cases (especially you "APO" addressees) a subscriber will move without leaving a forwarding address and we're stuck with the postage for the returned piece, a definite GOTCHA! We don't like to lose subscribers so we temporarily delete the "no forwarding address" name from our records and wait until further notice from him (or her, as the case may be). If you wonder where your JOURNAL has gone, it is quite probable that it's your own fault--you created your own GOTCHA! NYAH, NYAAH, NYAAA!!!

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Dear Lenny,

"Mailed from Ann Arbor on 4/10/89" means, from the way you wrote it, that [my JOURNAL] took six months to reach me. Not too timely. May I suggest the way to write it is "10/4/89"?

DAVE DROSZ, 1251 Canton Drive, Milpitas, CA 95035

[Well! To be absolutely correct, why not write dates in true mathematical notation, that is, from the highest value (wrongly called "most significant") down to the lowest value? The date would then read quite understandably as "1989/10:04" or Year, Month, Day. (I use a short form of this notation to serially number CP/M discs, "89/10:04". Whenever I format more than one disc on the same day I tack a letter on at the end, i.e., .04a.) If you really want to get pickey about it, use the month's Name rather than number. In either case this format should be understood by most anyone. I trust that you are otherwise enjoying your JOURNAL? -- ed]

"Dear Mr Swayne:

"Early this year I purchased [the] Magnolia 128k RAM hardware & software package for my 64k H89, thinking that I might be able to use it under my Heath CP/M operating system. At least, that was the impression the owner of Magnolia gave me when I placed my order.

"After the merchandise arrived, I had no difficulty in installing the hardware. But the software was a completely different story. When I called up Magnolia's owner he just shrugged off the matter and said that he could not help me since I wasn't using Magnolia's CP/M. Nor did he let me talk to some of his customers who had been using his 128k RAM discs under Heath's CP/M. Unfortunately, the original vendor of this software package is no longer around.

"I will appreciate it very much if you can give me some pointers in this matter, or some names of some HUGgies who have installed this package under Heath's CP/M.

/s/JULIAN LOUI, 8 Summer Lane, Framingham, MA 01701"

Pat Swayne's reply:

"Dear Lenny,

"Enclosed is a copy of a letter I got, and can't answer since I am not familiar with Magnolia equipment. Perhaps one of your readers can help.

/s/'PS' PATRICK SWAYNE, HUG Software Engineer, P. O. Box 217, Benton Harbor, MI 49022-0217; 616-982-3463"

[Shame on you, "Magnolia"! OK, SEBHCers, give our friends, "PS" and JOURNAL subscriber Julian Loui a helping hand! At least ONE of our Real Genuis Type subscribers is using Magnolia's system and should be able to show us the major difference between their CP/M v2.24 and Heath's v2.2.03 or v2.2.04. Obviously, the two BIOSes and BDOSES work differently. Also

# SEBHC JOURNAL

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## And More Readers' MAILBOX

I believe that the Magnolia disc ROM (which replaces Heath's MTR-89 or MTR-90 ROM) is so "kinky" that Magnolia's CP/M won't run without it, also nobody else's CP/M will run WITH it! But if someone could possibly compare BIOS & BDOS listings of the two systems it's conceivable that Heath CP/M-80 could be patched and made compatible with Magnolia's RAMdisc and software, or vice-versa. -- ed]

Dear Lenny,

"Time flies" -- does it ever!! I was thinking the other day that it was high time I was reading another issue of the JOURNAL. I didn't remember getting one this month [November] so I got down my 3-ring binder labeled "SEBHC" and found that the last issue I'd received was Vol IV, #2 (see enclosed back page)! I'm reasonably certain (only jackasses are POSITIVE) that I don't have any later issues lying around that I have not yet filed.

Did your database, or the "US Mule" do it to me this time? I do remember the last issue I received didn't have the plastic wrapper. If you've discontinued the baggie, do you think that could have anything to do with the problem?

I know now why I've been feeling despondent lately--there hasn't been any new inspirational reading matter to refresh my RAM! Please rush me issues 3 & 4 as soon as possible to put me in shape to enjoy the holidays.

And here's wishing you a happy and joyous holiday season.

PARKS WATSON, 4113 W Franklin St, Richmond, VA 23221

[Hey, Parks! That's just a temporary hold on plastic wrappers until we have more than five sheets (10 pages) to an issue. Six or more pages make a plastic-wrapped copy stiff enough to be easily handled by Postal Service employees. But our records do indicate we sent you IV:3; you should have received it by now. (A "computer mouse" is using an autumn leaf for a parachute on page 1.) But to be sure you're not left out, we're 1st-class mailing you another #3 copy. Please excuse our slow operation, but we've been quite busy all November with equipment breakdowns and a "4-alarm fire" service visit to a client's plant in Connecticut. THIS is Vol IV, No 4, and you'll be getting it as quickly as possible (writing this on 7-Dec-89). Do you know anyone within a 30-mile radius of Ann Arbor who's willing volunteer to help us put the JOURNAL together and get it out in a timely manner? Single-handed, it easy ain't! -- ed]

FOR SALE... FOR SALE... FOR SALE... FOR SALE... FOR S

### 1 - Computer:

H/2-89 with 64k RAM; Kres DSM-240 2/4Meg clock switch; two 5.25" TEAC 55F half-height 96tpi drives; Analytical Real Time Clock and Auto Key-Repeat; TMSI Superset, SuperFont & SuperClock Mods; detached keyboard; external 10Meg hard

drive with power supply and an extra 10Meg drive; 64k printer buffer.

### 2 - Printers:

LEGEND 808 9-pin (EPSON)  
COSMO 2600 daisywheel w/tractor and sheet feeder (DIABLO)  
CENTRONICS 306 commercial impact (old & heavy)

### 3 - SOFTWARE:

CP/M and 2-SYSTEM operating systems  
Too many applications programs to list...

### 4 - MISCELLANEOUS:

HUG REMark magazines	1984 - 1989
SEXTANT magazines	1984 - 1988
STAUNCH 8/89er	1986 - present
SEBHC JOURNAL	Vols I, II - present
H89 Technical Manual	

### 5 - BOOKS:

CP/M BIBLE, CP/M PRIMER, ZCPR3, WORDSTAR, WORDSTAR-4, dBASE-II FOR FIRST-TIME USER, dBASE-II SYSTEM DESIGN GUIDE, dBASE-II GUIDE FOR SMALL BUSINESS, BASIC PROGRAMMING, SUPERCALC PRIMER, FORTH PROGRAMMING, COMPLETE FORTH, TURBO MODULA-2, MASTERING MULTIPLAN

Any reasonable offer will be considered! Call or write Ray Durette, 29 Burlington Road, Unionville, CT 06489; phone 203-673-4728.

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"VANISHING VIDEO" FIXIT HINT..."VANISHING-VIDEO" FIXIT HINT..

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### Symptoms:

On power-up, computer beeps twice, screen may show "H:", but soon goes blank. Power-down and re-power up, screen stays blank, even though there were too beeps. Computer seems to work, but without display who knows?!

### Probable Cause:

- 1 - Loose or corroded main power connector contacts on video board (toward main power transformer side).
- 2 - Corroded flyback transformer power connector contacts have overheated so much that solder has melted on bottom (foil side) of video board.
- 3 - Defective regulator on power-supply bracket.

### Suggested Action:

- 1 - Unplug video board main power connector and examine for any discoloration of connector shell. If found, internal spring has lost tempering and is making poor contact. Use jeweler's screwdriver or equal to depress latch of loose spring, withdraw it from shell, re-shape spring for tighter contact and reinstall. Repeat with any other suspect springs. Flow a little solder on the connector pins to make better contact with springs.
- 2 - Get some "food-grade" silver solder from a hardware store. Also get some "soderwik" or equal from any electronics shop. Plug in soldering tool and let it heat while doing following: Completely remove I/O cards from main CPU board; remove CPU board. Disconnect all video board power lines EXCEPT the BLACK LEAD

## MAILBOX Bottom, "ASK RICK"

CONNECTED TO CRT FRAME. Use a low-value moulded carbon resistor (1k to 5k-ohms) with insulated wire or clip leads and CAUTIOUSLY discharge ("ground") the CRT high-tension (14k-Volts!) terminal (under sylastic cap) to CRT frame black lead. Carefully remove socket from CRT (auxillary video board, if fitted). With short driver, remove four screws holding video board to cabinet bottom. Carefully work video board out of cabinet. Turn it over and look for discoloured or loose solder joints where pins from flyback transformer meet circuit foil. Use hot soldering tool and soderwik to remove old solder from flyback transformer circuit pins and foil. Make sure that foil does not lift from video board. Resolder pins with the silver solder (DO NOT USE ACID FLUX, only ROSIN-TYPE FLUX!). When finished, inspect video board, then carefully refix to cabinet bottom. Check and repair flyback transformer connector springs as in 1-, above if required. Re-connect everything you disconnected. Replace CPU, I/O cards, and connectors--make sure all go back in proper locations. Recheck everything. Now turn on power and listen for two beeps. The CRT filament should now glow and H: prompt should re-appear. If it don't, retrace all the work you did and fix any goofs made.

EDITOR'S NOTE: This "how-2" note was prompted by several recent phone calls from subscribers who've had the problem described above.

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Dear Mr Swenton,

Please forgive me for not keeping up my end of the correspondence on NZ-COM and the CDR system. Since arriving home from our summer travels, I've been swamped with work around the homestead. As a result, approximately zero computer work and letter-writing has taken place...but let me say that I believe it's possible that I could solve my problems if I knew doodly about how to go about it. (For sure someone with a bit of computer knowledge could do it!)...

Here's what's happened thus far: 1 - I haven't tried to run the CDR CONFIGUR program--I've already figured out that it'd have to be run and parameters set before booting NZ-COM; 2 - When I try to start the CDR hard-disc system from within NZ-COM, it dies. 3 - If I start the hard disc and then try to bring up NZ-COM from a file on the hard disc, I get "NZ-COM.ZCM contains an invalid address".

I have all the CDR \*.MAC files, from zero through 9, also those which Pete Shkabara modified. Might it be these may have to be further modified? They are in the BIOS.

If it weren't for the hard disc system I already have, I'd chuck CDR and go back to plain vanilla CP/M 2.2.04--I know that NZ-COM will work there, but that means getting another

hard disc control system, and I imagine that they're getting a bit scarce for H89s. Also the CDR SuperRAM system is great, and I hate to quit using it.

I have allowed Jay Sage to talk me into [using] the ZSDOS system. We'll see what I can do with it, if anything.

You mentioned TPA--obviously the CDR BIOS is over-grown, and if some un-needed portions could be deleted (recommended by Jay Sage in TCJ #39) yet leave the necessary parts to make the hard-disc system work, and work with NZ-COM the TPA [size] might be increased.

One [good] thing about NZ-COM is the ability to go back to CP/M to run over-weight programs.

Guess I'm learning a few things as I go along but it takes a lot of cranking. Thanks for your interest, and hope that with yours and other's help I can get a useable system going here in the not too distant future. I need my hard disc in the worst way....

BOB EVENANS, 44115 Palm Avenue, Hemet, CA 92344

Hi, Bob,

From your letter your problems I'm reminded of some I had with NZ-COM under Heath's CP/M. Perhaps a bit of preliminary discussion is in order.

When NZ-COM is loaded, it makes some necessary changes to the operating system residing in memory. The most important is alteration of the Warm Boot procedure. CP/M does a Warm Boot by reading into memory the Console Command Processor (CCP) and the Basic Disc Operating System (BDOS) from the disc drive's boot tracks. If NZ-COM didn't alter the Warm Boot code, the next time you pressed CTRL-C or a program ends with a Warm Boot, NZ-COM would disappear and the plain CP/M modules would get reloaded and a plain CP/M system would be again running.

In order for NZ-COM to take over the Warm Boot routine without requiring you to modify the BIOS, NZ-COM uses a neat technique which places a special module in memory, called a pseudo BIOS. NZ-COM loads the pseudo BIOS and then alters the address stored at location 001 to make that address point to the pseudo BIOS rather than the real BIOS. Since almost all programs use the address stored at location 001 to do all BIOS calls, they now have to pass through the pseudo BIOS in order to get to the real BIOS. It's the pseudo BIOS which intercepts any calls for Warm Boot. Now, instead of reloading plain CP/M from the boot tracks, the NZ-COM CCP (ZCPR34) is reloaded from a disc file. Everything works fine...well, almost everything.

Utilities such as Heath's CONFIGUR (and I'd imagine CDR's CONFIGUR) uses the address stored at location 001 to find the BIOS just as nearly all other programs do. They expect to find the REAL BIOS. Instead, they find NZ-COM's pseudo BIOS. If the only thing that programs do is BIOS calls, then everything works fine. But those CONFIGUR programs usually want to poke directly into the BIOS, altering contents of memory locations within the BIOS which control various parameters

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## "ASK RICK" concluded -- Lighten Up!

such as the type of disc drives you have, serial baud rates, etc. Since CONFIGUR programs know nothing about NZ-COM and its' pseudo BIOS, they merrily go on running, poking away at the pseudo BIOS and everything else in their way and...SYSTEM CRASH!

To avoid this problem, always run CONFIGUR programs under plain CP/M.

Other programs may experience this problem. If the CDR system has a loader or initialiser program to start the hard disc system, then this program should also be run under plain CP/M. This is probably why the NZ-COM system crashed when you tried to start the CDR hard disc. Start the hard disc system BEFORE you load NZ-COM.

The error message, "NZCOM.ZCM contains an invalid address" may be (I hope) easily resolved. This error usually means that the currently-running CP/M system is not the same size as the one originally used to create the existing NZ-COM system. Possibly, if you boot the CP/M system as usual, initialise the CDR hard-disc system, and then run MKZCM to create a new NZ-COM system, you will then have a usable NZ-COM system. The addresses you sent me from your NZCOM.ZCM file look OK, but they may not be valid after the CDR hard-disc system is running. Run MKZCM after all the standard stuff is running and it may get you out of your bind. Good luck!

RICK SWENTON, 106 Melinda Lane, Bristol, CT 06010-7176

[Our thanks again to Rick in helping another JOURNAL subscriber out of the mud! Remember, when you have a nasty operating system problem, write it up and send it in to our "ASK RICK" feature. Everyone can profit from your asking Rick about the problem you're having AND his answers. If you've followed Rick's past answers to reader's problems, you know that he always tries to give you the best possible advice. The constant exchange of correspondence between subscribers and authors is what keeps our sturdy eight-bit machines alive and well! -- ed]

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LIGHTEN UP! ...LIGHTEN UP! ...LIGHTEN UP! ...LIGHTEN UP!
=====

The SEBHC JOURNAL exchanges itself with other Heath/Zenith oriented (usually local HUGs) newsletters, one of which is SDHUG's DUP & DUMP (San Diego, CA). And our good friends, The STAUNCH 8/89er and H-SCOOP send us exchange copies also. We really appreciate the point of view of these other newsletters because we often learn about strange & wonderful new happenings which can affect us and our machines--even perhaps how we use and view them. Once in a while we'll run across an item which (intentionally or not) may be excruciatingly funny.

We found one such in our latest copy of DUP & DUMP. Here it is, (almost) verbatim:

THE TRUTH ABOUT SPEED BUMPS -- by The D??Duh.Man

Everybody knows what speed bumps [hereinafer S-bumps] are, everyone who drives a motor vehicle anyway. You encounter them in parking lots: ridges of asphalt paving ranging from two to six inches high crosswise to normal traffic flow--usually all the way across the lane. Shopping center managers seem to believe the sole purpose of speed bumps is to slow vehicular traffic to a crawl thereby improving [pedestrian] safety ("Speed kills!", remember?) and thus reducing liability insurance cost.

It's pure myth that the only affect of these irritating S-bumps is to slow traffic. In fact, they do that poorly. Trucks, 4x4s and Big Detroit Iron treats them like smooth pavement. On the other hand, solidly-sprung high-performance cars, light-weight imports, and economy cars are really punished! Beat-up suspension systems and scraped bottoms are inevitable results of going over S-bumps at any speed, also not to mention flaring tempers and bad attitudes.

In actual fact, S-bumps are part of an insidious plot of the Anti-Destination League (ADL). Not content with balking traffic by driving unusually slowly in the left lane, ADL members have conspired in the installation of these treacherous bumps in many heavily-used parking lots. [Also on many limited-access or "exclusive" housing development roads. -- ed] (Note that the ADL also uses many effective vehicle configurations on freeways and other highways, but the AirStream trailer is one of the most popular, and when towed behind an underpowered VW Microbus, it is, hands down, the most effective.)

Recently a bank branch where I do business recently moved into a newer building with a nice smooth parking lot on one side. I could hardly believe my eyes when a few weeks later six (6, that is!) S-bumps suddenly cropped up in a parking lot with two aisles, each only about 100 feet long. The bank branch manager--whom I've known and respected for perhaps ten years--told me, "These kids park their 4x4s by the \*red\* kerb to use the auto-teller machine, then when they're through they 'peel out'". He Was Real Sure Somebody Was Going to Get Hurt. Peel out?! Across the alley from the 100-foot-square lot's mouth is a solid masonry building wall! "Peel out", indeed! I'm still wondering if I should change banks, but for the time being, I'll do my best to tool around those infernal S-bumps.

Now, have you ever known anyone in their right (or left, for that matter) mind who's said something like: "I'm sure glad them there speed bumps 'r'in all them shoppin' center parkin' lots...they keep cars from going too durned fast, and prevent lots of accidents"?!

Do watch your newsstand for the next issue of the Anti-Destination League's newsletter: "GRIDLOCK TODAY". And be sure to tell all your friends to buy a copy too!

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## The JOURNAL's SOFTWARE CATALOGUE Page

\*\* SUPER 8-BIT SALE, CONTINUED \*\*

Note: Items Crossed Off Are Out of Stock

We've lucked into over one hundred packages of ORIGINAL H/Z 8-bit software at an incredibly-low price. Most of these items are in their original FACTORY-SEALED wrappings. Which means that their warranties are INTACT and MUST BE HONORED by Zenith Data Systems, the original vendor. Therefore you are avoiding the risk of buying a "pig-in-a-poke", whatever our incredibly-low resale price may be. We also have a quantity of "Demo" software packages which are EXACTLY THE SAME AS THEIR WARRANTIED VERSIONS, except they're without warranties.

\*\* All software runs under H/Z 8-bit CP/M only. \*\*

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SJ-4	173-58-1, <del>HMS837-2</del>	COBOL-80 v4.0 w/docs & wty	* 39.95
SJ-5	EC-1110	Programming in MBASIC, with cassettes & C. E. exam	* 39.95
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SJ-10	HOS 8947-2	CP/M-80, Ver 2.2.03, 8-inch w/wty, BIOS listg, docs	59.95
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- 3 - Some items are on Heath-compatible 8-inch discs. If you don't have access to 8-inch drives we'll transfer software to standard 5-1/4-inch discs at no charge at your request noted on your order.
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- 5 - All "Demo" software packages work EXACTLY as warranted versions do, except that instruction manual pages are red over-stamped. But they're easily read through a piece of clear RED plastic wrap laid over the page.

==> Please use the order blank on inside of back page! <==

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## The JOURNAL's GENERAL Catalogue Page

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\* The SEBHC JOURNAL is composed, edited and published by L E Geisler at 895 Starwick Drive, Ann Arbor, MI 48105. Phone 313-662-0750, 9am - 6pm Eastern Time, Monday thru Friday. Other times (EMERGENCIES ONLY): 313-769-6052 (residence).

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