Saving Our HEATH Eight-Bit Machines!

SEBHC JOURNAL

Volume III, Number 6 $2.50 a copy, $17.50 a year January, 1989

Cumulative Table of Contents, Volume III #1 through #6!

Product Review: The MIX Editor

"MIX" SPLIT-SCREEN EDITOR
by
Julian Loui
8 Summer Lane,
Framingham, MA 07101

INTRODUCTION

The MIX split-screen editor is low-cost, programmable and packed with a wealth of versatile features. System requirements are MSDOS/PCDOS for 192k RAM, or Z80-based CP/M (Revision .2 or higher) for 55k RAM. The software and textbook-like instruction manual are very user-friendly and well designed. The editor contains two separate file buffers and allows the user to work on two separate files concurrently side by side one atop the other, or one file screen alternating with another through the use of windows.

By means of the easy-to-use macro-command language, an existing editor command can be re-mapped or additionally assigned to a spare key, or to program a sequence of consecutive commands to perform a special function (such as copying a pre-identified block from one window--or file--to another). Most essential commands can be executed in the compose mode, using the same control-key sequences familiar to WordStar users. Two other very nice features are the maximum file width of 255 characters and horizontal scrolling. Long files are easily handled by means of a built-in paging macro.

INSTALLATION

Installing the editor for the H89 or any other compatible machine is very simple. To use the editor as it is, one need only run the original editor-setup file SETEDIT.COM. When the option menu appears, first select "T" to define terminal characteristics, then select the identification number corresponding to the machine in question. Next, select "W" to write a binary setup file and then name it SETUP.EDT when prompted. Now the editor can be invoked with or without a file name as follows:

```
>edit          (same as >edit, setup.edt)
>edit filename (same as >edit filename, setup.edt)
```

A more general procedure for generating different configurations of the editor via a macro setup file will be described later in the article.

COMMANDS

The editor comes with some 100 predefined commands most of which can be executed from both the compose mode via control keys, and command mode. The commands can be divided into the following groups. Seven help files named HELP.HLP, CURSOR.HLP, INSERT.HLP, DELETE.HLP, BLOCK.HLP, FILE.HLP and MACRO.HLP can be viewed and scrolled from within the editor for instructions on various commands.

Cursor:
(Next Line, Char Right, Char Left, Line Up, Line Down, Word Right, Word Left, Window Up, Window Down, Scroll Up, Scroll Down, Tab RIght, Tab Left, Line End, Line Beginning, Top of Window, Bottom of Window, Para Up, Para Down, File Beginning, File End, Block Beginning, Block End, Previous End, Previous Position, Scroll Left, Scroll Right, Row, Column, Position, Minus, Plus, Goto Line)

Text-Delete:
(Rub Out, Delete Char, Delete Word, Delete line, Delete to End, Join Line)

Text-Insert:
(Insert Mode, Insert Char, Insert/Restore: Line, Insert, Open Line, Undelete Line, Undelete Word, Restore Line, Duplicate, Center Line)

String-Search
(Find String, Replace String, Next /Replace: String, Query Replace, Replace Global)

Block:
(Mark Beginning, Mark End, Copy Block, Move Block, Delete Block, Lower Case, Upper Case, Print Block, Output Block, Input Block, Read Block, Write Block, Hide Block, Fill, Justify)

File:
(Help, Show File, Change Disk, Save & Resume Edit, Dir, Delete File, Append, Write, Exit, Exit/, QUit)

Tab:
(Delete Tabs, Tab Set, Tab Clear, Tabs)

Macro:
(TRANSKEY, MACKEY, MACNAME, UNDEFINE, SETVAR, GETVAR)

Others:
(Command Mode, Other Window, Split Screen, Status, Repeat, Auto Indent, Insert Return, Line Number, Auto Line, Vert Scroll, Horiz Scroll, Blank Compression)

MACRO-COMMAND LANGUAGE

Macros can be created temporarily during an editing session, or permanently in a macro setup file. One can generate

Review: The MIX Editor, cont'd

various editor configurations for particular needs via customized setup files. For example, one may create one for BASIC programs and another for C programs, etc.

A macro definition setup file generally contains one (or more INIT command(s), one START command, SETVAR commands, key-mapping macros, various macro definitions and finally an EXIT command.

INIT can be used to display a message and initilize terminal features (such as the H89's keypad mode) when the setup file is read by the editor, as illustrated below.

Example:

```
INIT "Reading custom setup file for H89 ..... ^[t"
```

START is a macro command that is executed right after the editor has been loaded but before control is transferred to the keyboard. The example below causes the editor to start out with both insert mode(IM) and insert return(IR) off.

Example:

```
START ":IM:IR"
```

SETVAR is used to assign values to the editor's ten general-purpose string variables--labelled zero to 9--which can be employed later in macro definitions. (GETVAR is similar to SETVAR except that the named variable is obtained from the keyboard when this macro is executed.)

Example:

```
SETVAR 0 "18"
SETVAR 1 "8"
```

EXIT is used to send an optional string to the terminal before exiting the editor and returning control to the system. The string can contain a message or some non-printable characters to reset some terminal features.

Example:

```
EXIT "Leaving BASIC-program editor configuration
for H89 ... "
```

A CUSTOMIZED MACRO DEFINITION SETUP FILE

One can customize the editor to suit various applications by designing various macro setup files. One example would be to set up a macro for writing BASIC programs. After a new setup file is created, run the SETEDIT.COM file to create a new editor configuration by selecting the T, R, and W options in that order, to define terminal characteristics, read the macro file and to write out a binary setup file (to be named with a "edt" extension). Now, if the customized macro file and its corresponding binary file are named MACROBAS.TXT and SETUPBAS.EDT, then one can invoke the new editor configuration as follows:

```
>EDIT, SETUPBAS.EDT    or
>EDIT FILENAME, SETUPBAS.EDT
```

The editor will automatically pick out the specified configuration instead of the original (default) one which is named SETUP.EDT.

I have modified the vendor's orginal editor setup file and added to it a number of macros to initialize the H89's terminal keypad mode to activate the pad's intended editing keys, to turn off the insert mode(IM) and insert return(IR) commands, and to program unused function keys before turning on the editor as follows:

```
        f1: Line duplication
        f2: Other window
        f3: Mark block beginning
        f4: Mark block end
        f5: Copy block within local window
        f6: Copy block to other window
        f7: Copy line to other window
        f8: Draw a C-language-program comment box

        IC: Insert character
        DC: Delete character
        IL: Insert a blank line
        DL: Delete line
      HOME: Put cursor at file beginning
  Up arrow: Move cursor up one line
Left arrow: Move cursor left one position
Right arrow: Move cursor right one position
 Down arrow: Move cursor down one line
```

Availabilty of these so-called soft keys really simplifies my editing considerably. As a good programming practice, one must verify a newly created macro thoroughly to ensure that it works as intended.

CONCLUSIONS

I have been using the MIX editor extensively for about a month and I am highly satisfied with its performance. Thus far I have encountered only one command which fails to work as specified. This luckily turns out to be a seldom-used macro command for undefining a macro (UNDEFINE).

Because the editor employs control sequences to encode

MIX ED, concluded - OPEN LETTER

commands, it cannot embed such characters in a file. But this problem can be circumvented easily by means of a (simple) filter program. In the text file one merely replaces the escape character with an unused printable one (such as '~'--the tilde) and then uses the filter program to restore the escape character during printing. I have verified this technique, using a program provided to me by MIX Software, Inc. (and I am grateful for their generous assistance). This method may be applied to any editor which cannot embed escape codes in its text file.

Finally I must state that I have not extensively described the MIX editor here since I have neither the time nor enough knowledge and experience with it. My main purpose is to introduce to other SEBHC JOURNAL readers a very desirable and useful product which is still available to them from the rapidly-shrinking field of H/Z eight-bit-compatible products.

PRODUCT INFORMATION

MIX Split-Screen Editor, Price: $19.95 CP/M 80 (Rev 2.0 or higher) 55K RAM, available from:

MIX Software, Inc.
1132 Commerce Drive
Richardson, TX 75081
(214) 783-6001

NOTE: The MIX editor is also availible for MS-DOS machines from the same vendor for $50.00.

--==<<[[8]]>>==--

==========

AN OPEN LETTER TO VENDORS WHO HAVE DISCONTINUED PRODUCTION AND SALES OF HDOS SOFTWARE (FOR WHATEVER REASONS)

==========

Gentlemen:

We are urging an act of charity upon you, one which isn't likely to cost you much (if anything) and one which shall surely earn for you a fair debt of gratitude from a multitude of people whom have had great respect for your works--until you went "totally big-blue".

The charitable act: Release your HDOS 2.0 software into the public domain.

You probably are not making much--if any--money from it now, and releasing it to the public domain would be a darn nice thing to do. Probably tax deductable as well! (Check it out with your "bean counters" in the back room.)

Every month of every year we end-users discover new uses for our "outmoded and obsolete" H/Z 8-bit computers. But the big problem is that we HDOS-oriented folk can no longer find the software. We perhaps could try to learn how to write code for our own version of your programs. But YOU're the expert, and for you to abandon the "children of your mind" is--in our opinion--rather cold-hearted. In fact, taking into account the number of "outmoded and obsolete" H/Z 8-bit computers which are acquiring new owners, your action is rather like shooting yourselves in the foot! Wouldn't it be a lot better for you to at least release your products to the public domain? If you don't want to do that, at least consider granting the right to reproduce your software and documentation to people who are dedicated to keeping these H/Z 8-bit machines alive and well. Then you would continue to earn money (despite yourself) and your licensee could earn a small share of the gross as well.

Presently, HDOS users have partially solved their problem of getting your formerly available software by swapping discs with other H/Z 8-bit users through the good offices of such publications as this one and The Staunch 8/89er. Presently the latter newsletter's staff is re-typing Heath's public-domain HDOS 2.0 manual, and in the process adding a lot of new material. This ensures that Heath will gain a bit of immortality. And, if you were to allow both of these public-spirited newsletters to do the same for you, then you could also gain a measure of immortality. (And think of the great free P.R. you'd get! Might even help sales of your peesee-oriented software to non-8-bit Heath/Zenith Users Group members...)

Of course, it's your business whichever way you decide to go, and we won't severely criticise your decision (merely sigh and wag our heads at your obvious stubborness). But we do hope you'll do the truly generous thing and gain affection and loyal customer-type support of we not-so-rich, pre-Yuppie H/Z 8-bit machine users...

MARK HUNT, USPHS Alaskan Native Hospital, Barrow, AK 99723

[Edited, condensed and embellished by A Stapher, contributing editor, the SEBHC JOURNAL. We're asking our readers to take time and send copies of this open letter to as many former HDOS software vendors as possible. Attach a brief note to the copy indicating the particular software item you'd like to see released into public domain such as Microsoft BASIC, Version 4.82 (for HDOS), for example. -- ed]

==========

PEN LETTER TO VENDORS... OPEN LETTER TO VENDORS... OPEN LET TER TO VENDORS... OPEN LETTER TO VENDORS... OPEN LETTER TO VENDORS... OPEN LETTER TO VENDORS... OPEN LETTER TO VENDORS ... OPEN LETTER TO VENDORS... OPEN LETTER TO VENDORS... OP

==========

READER'S MAIL BOX

Dear Leonard,

Saw your remarks about your brother's H90 and hope that by now that it's repaired. If not, here are a few ideas which may help you.

Since you've tried replacing the TLB/CPU interface ICs, U454, U559, and U560, why not try replacing the A.C.E. ICs, U542 and U561 (type 8250).

You might also try isolating the problem to either the TLB or CPU boards. It is possible that you may have a complete crash on either board which appears as a communications failure.

Try going off line and type random letters to check if the TLB is working and that the CRT is displaying what you type.

You probably already know that the H/Z89,'90 series was [in]famous for power supply problems, and you've probably checked that by now. But I had a CPU go dead when the +5V supply line became intermittant because of a overheated and corroded spring contact inside P516 (the 3-wire plug near the CPU board top right). Whenever it got warmer the connection deteriorated more until the CPU went dead and SMOKE came from P516! The round pins just can't carry the current. I changed mine to the heavier square type [and eliminated that problem].

Get out your volt[ohm]meter and check voltages at the TLB/CPU RS232 interface connector (P404, rear side of TLB). [The oscilloscope is best, but an inexpensive digital test probe, digital or analogue voltohmmeter are fairly good substitutes, - ed] Compare your findings with the voltage/logic-level chart below. Check P404 while unit is running. This can give you a very good idea of where next to look for problems. Connect negative test lead to chassis ground.

Plug P404 pin number	Wire Color	Function/Voltage/Signal
1	Black	Ground lead
2	not used	
* 3	Brown	Transmit Data w/no sig -9v, +10v w/BREAK down, -10v/+10v w/data
4	not used	
* 5	Red	Receive data -- similar to 3 above
6	not used	
7	Orange	RTS +10v w/no sig, -9 w/RESET down
8	not used	
9	Yellow	CTS, -9v
10	not used	
11	Green	DSR, -9v
12	not used	
13	Blue	Ground (0v)
14	Violet	DTR, +10v, -9v on holding RESET
15	Slate (grey)	RLSD, -9v

NOTES: * 3 & 5, data in and out pulses swing between +10 and -10 volts.

What to look for at H: prompt--

- Hitting keys causes 3 to pulse but 5 doesn't, then CPU isn't responding to TLB output.
- If 3 doesn't pulse then TLB isn't sending data to CPU.
- If RESET causes 5 to pulse then TLB possibly is not receiving.

Hope this information is of some value to you!

BRIAN L HANSEN, 315 Roast Meat Hill Road, Killingworth, CT 06417

[Right on, Brian! Received your letter just before I went to Trumbull, CT on an analogue computer service visit and didn't get a chance to try your suggestions out until after 1-Jan-89! Charlie's machine is downstairs (in the basement) but I have another in the computer room with somewhat similar problems so I shall first try your suggestions on that one and log my findings. After that one's fixed, my brother's should be "a snap"! Incidentally, I ran across an oddball version of the power-connector hot-spring syndrome on a factory-built Z90. This one had a difficult-to-locate intermittant connection which caused the video display to jitter violently sidewise, eventually blooming and reversing colors, then just faded away. Originally I thought the CRT filament had burned out and so checked its' continuity with my VOM. Because of poor illumination on the tube pins I didn't make proper contact with the heater pins and erroneously concluded that the heater had indeed "gone West". When I replaced that CRT with a known-good unit the computer took off just like new, but after a few minutes our original problem returned. In frustration, I wiggled all wires running to the video card until the picture came back whenever I moved those going to P203. It stayed until I released the conductor. The problem was located! Removing the video card I found that S203 and P203 contacts had repeatedly gotten so hot that solder between pins and printed circuit trace was a granular-looking lump rather than a smooth fillet. Lumps make poor conductors but good noisy contacts. Because square plug pins were not available I cleaned and re-soldered all pins then bent P203's

More MAIL BOX

internal springs making a more solid contact with S203's pins. And this repair should last quite a while since I used English-made Ersin brand high-melting point copper alloy solder which doesn't dissolve printed-circuit board copper foil as does conventional 'radio type' rosin-core solder. -- ed]

Dear Mr Geisler,

Mr Hunt's SA460 drive was probably made by Shugart Associates. They had a model line which was designated SA4xx--the xx's indicating variations on the basic full-height 5.25" disc drive. Shugart Associates is no longer in business, but the disc-drive portion of their firm was sold to the Shugart Corporation (similar name but different group of people). As of Spring 1987 this company was still in business at 9292 Geronimo, Suite 101, Irvine, CA 92718. Their telephone number then was 714-770-110. They may still be in business. My last contact with them was in early 1987 when I was looking for parts for my SA4000 drive. I've had no contact with them since then.

Siemens drives are designated FDD100-5. While in in contact with Shugart, I was looking for a Siemans drive and found that World Disk Drives, 9272 Geronimo, Building 116, Irvine, CA 92718, phone 714-855-1761 was the O.E.M. for Siemens 5.25" and 8" drives. Their Mr Tim Downey very generously sent me a free drive belt for my siemens FDD100-5. The company was then offering brand new (not refurbished) Siemens 5.25" drives for about $125. (I'm rather impecunious, so I eventually bought a refurbished one from Quikdata for about half that price.)

I'm reasonably sure the above addresses and phone numbers are still valid as I've had written correspondence with World Disk Drives and have talked with someone at both the above phone numbers.

KARL G RULING, 83 Lawrence Street, Wilkes-Barre, PA 18702-1541

[Thanks for the information, Karl. [Also thanks for renewing your subscription!) Perhaps some SEBHCer living in or around Irvine might take time to check out those phone numbers and let us know if they're still good. We need all the 'supply side' information we can get! -- ed]

Dear Lennie,

Enjoyed our telephone conversation today, and was very pleased to find someone else who knows that the H8/H89 computers have potential which few people ever fully utilise. It may be that I'm at an age where the latest doodad isn't all that important to me.

Most people in this great country derive very superficial benefit from their hobbies. They spend large sums of money chasing the elusive goal of 'the Best' or 'the Newest'. On the other hand, most Europeans I've met have a hobby which they persue most of their lives, trying to get the most from it. [As cheaply as possible, unlike many US types! -- ed]

Please send me the 'used' ACCESS modem software on a soft-sectored disc if the original is hard-sectored. [No problem! You're getting BOTH discs. -- ed] This will give me a hard-sector CP/M version for my H8 and a softsector version for my son to try on his Osborne computer. I hope this will allow us to run Heath-compatible soft-sector CP/M program discs on the Osborne and transfer them via modem to my H8. This should eliminate having to find someone with both soft and hard-sector drives to convert programs between those two disc formats. If this works out it will prove my conviction that being an H8 user means never having to appologise for being clever--you must be to survive.

I'm looking forward to reading the JOURNAL and interacting with those other die-hard H8/H89 users. Have a good holiday!

GERALD R HOMEYER jr, 345 South 1450 East, Provo, UT 84606

[Gerald, thanks for writing! The 'previously owned' ACCESS modem utility you're getting ran pretty well on both machines (H8 & H89A) but I found the instruction manual very confusing so never really did become as profficient with ACCESS as with HUG's HTERM and CP/M TERM programmes. For a while I used it in the HOST mode on my H89A and controlled my H8 (also running ACCESS) via a null-modem cable and was able to succesfully effect two-way operation several times but I found that only one operator trying to run two computers simultaneously was just too much work--and I eventually abandoned that idea. But I do hope the Osborne can read Heath soft-sector CP/M discs and run the ACCESS package too. Because ACCESS is H19-graphics oriented the Osborne may choke on it so don't say you weren't forewarned! (Incidentally, we've yet to receive your subscription order.) -- ed]

Dear Len,

Here is the promised information about the trouble I was having with my H89A's HA-88-3 serial I/O board. The big IC (U602) associated with port 3400 (line printer) keeps burning out. Somewhere in the midsts of the various talks I've had with Heath techs, they said it sounded as if the interrupt pin on U602 was burned out. This was after several attempts at trying to find out what was wrong since the H25 printer wouldn't work. The breakthrough came when, upon running CONFIGUR , only two serial ports were found instead of 3. That zeroed the search in onto the 8250 UART (U602). It only requires occasional replacement when I get tired of hanging the line printer onto I/O port 3200. (I wonder if the I/O card sitting in the middle slot between the two disc controllers has anything to do with it?)

For your information--if you like to keep track of such things--the November issue arrived Saturday (10-Dec). Our mail carrier must have thought it was junk mail as that's the only stuff which gets delivered reasonably on time! Important things such as cheques and bills run late. The former is not too bad, but the latter is deadly!

SPRING SMITH, San Luis Obispo, CA

More MAIL BOX

[Thank you very much for the nice card, Spring. We mailed your JOURNAL about 21-Nov-88 so it got to you fairly quickly. Of course, junk mail is usually sent 3rd class (bulk), but that doesn't automatically indicate that the JOURNAL is junk mail, hence our "ATTENTION POSTAL CARRIER" notice above the address label area. We did that because many subscribers have been reporting that they haven't been receiving their JOURNALs, or have been getting two or three issues all in one week! (Of course, WE can't please everyone, but we do try.) I dug out my H89A Serial I/O technical documentation. Checked all the circuitry trying to make my crystal ball give me a hint about why only ONE of the 3 I/O UARTs would depart this world. And I couldn't find a reason why U602's interrupt output should burn out; it drives a single inverting buffer element in U601 (one TTL load, about 1/10 of its' load rating). It's quite possible that there is a very fine unetched bit of copper or an intermittant solder smear on the I/O card which shorts one UART pin to either the +5V line or ground and thus fries the 8250--worth checking. It's also possible some of the ICs associated with U602 (U601, U605, U606) may have internal shorts, or that P602, pin 11 (Line Printer select) may have a problem on the CPU side of that connector. Since your H25 works ok on port 320Q it's probably not the problem source. Check that nothing blocks air flowing between the disc-controller and serial cards which could make the serial card run hot. If the trouble persists after making that change, then the serial card is suspect and needs professional help! Try contacting Henry Fale, at Quikdata (414-452-4172). He's most knowledgeable and I'm sure he can advise you on what to do next. (Tell Henry I sent you.) Some of our other readers should be able to help you too, I'm sure. -- ed]

Dear Lenny,

Thanks for running my letter in the JOURNAL III:4:4, and for your comments. LPRINT CHR$(9) and LPRINT CHR$(&H09) work the same--each sends 8 spaces (H020) to the printer. The only way I've found to get around the problem is to address the printer port directly by using INP and OUT--painfully slow since only one character is sent at a time.

Your comment about SETMX.COM made me realise my CP/M GAMES DISC #0 needs updating. Enclosed is the disc and #1.

JOHN C CLEMENT, 6940 E Girard 205, Denver, CO 80224

[John, your disc must have arrived long ago! Enjoying it, I presume? I don't understand what that printout you tacked onto the bottom of your letter was for, so I can't say anything profound about it. Mind letting me in on what you were trying to say? -- ed]

Dear Lenny,

I'm getting scared! I renewed my subscription with cheque #787, 25-Aug-88, and every issue since (just received my October copy) your RENEW notice has been on my address label. I'm paid. Don't drop me (like so many suppliers are dropping Z89/90 support)! I WUV the SEBHC JOURNAL!

CORKY KIRK, 270 Kapualani Street, Hilo, HI 96720

[Hey, CORKY! Did you check LAST or THIS month's address label? You're all ok now--it was just another of those pesky "operator malfunctions". And a Wewy Happy and Pwospewous New Weah to you, too! -- ed]

[The following came enclosed in a Christmas card.]

Dear Lenny,

After pulling out the last of my hair, I figured I had better get a letter off to you and "the Society". I've been trying to get my Cal-Digi 89 running! When it first came I tried to boot a 40-track disc on the 80-track drive (I'd read somewhere that an 80-track drive could "READ" a 40-track disc but couldn't write to them). I knew the drive was being accessed because its' LED came on, but it did nothing else. I then tried my H17 disc drive with their controller with the same result. I then proceded following directions for installing the Z37 soft-sector controller and to my surprise I'd lost the "H:" prompt! Then I decided to back-track and re-install the C-D ROMs but it still does not have the "H:" prompt. Power lines to the CPU card seem to all have +5V to +4.5 on them. Without the "IN CASE OF DIFFICULTY" booklet it's getting pretty tough! I need a few suggestions on what else to look for.

On another note: When I tried to run the CP/M GAMES DISC "ERRORS" program my system hangs up when it tries to access the Z47 (this isn't the Cal-Digi system). Has anyone else run into this problem?

ALEX BODNAR, C-33 Conowingo Circle, Oxford, PA 19363-1463

[Can't help you with the Cal-Digi problem beyond saying that a 40 track disc with Livingston Logics Lab's BIOS-80 modification for both 40 and 80 track disc drives should boot ok from an 80 track soft-sector drive but NOT a hard-sector. Standard Heath CP/M V2.02.03 BIOS won't let you do that; this may be your original problem. As to the no-H: problem, make sure that you replaced ALL original ROM chips correctly, not inverted in the socket, or with pins bent under. Some ROMs will tolerate being put in upside down (pin 24 in the pin 12 hole for example) for brief intervals, but it doesn't do them much good! Any other reader who can help out there? Now about that ERRORS.COM "malfunction": I copied the original assembly-language program from one of Pat Swayne's REMark articles some time ago. It didn't have a reference to the H47 or other high-capacity drives in the code. That's why it hung up--I'll try to get back to you on it next month. -- ed]

Dear Len,

Enclosed is the article I promised you a couple of months ago. Even though I've spent quite a bit of time on it, I

More MAIL BOX

still do not think it's polished enough. As I haven't written an article for almost 20 years, it's unlikely that I can improve this output enough in a short time, so I finally decided to submit it anyway. [No problem--that's what us editors are here for! -- ed]

I've communicated with the vendor several times in the course of writing the paper. They've been extremely helpful. If time is available in the future, I may write a short description on the filter program mentioned in the conclusion. [For Heaven's Sake Julian, Please Do It! -- ed]

To simplify things I've omitted any technical description of the special macros which I created for my H89. On the other hand, I thought I could give the reader an idea of the editor's overall capability by listing its' commands.

By the way, I used the MIX editor to prepare both this letter and the article.

JULIAN LOUI, 8 Summer Lane, Framingham, MA 01701, phone 508-875-3758

[Thank you very much for your submission Julian. We put your article Right Up Front in this issue! I'm quite sure many readers shall find it just as interesting as I have. We desperately need more articles such as yours and we hope others will send us theirs Real Soon Now! Check your address label on this issue; you're in for a pleasant surprise. I've put some utilities and software on your original disc as additional remuneration and am returning it to you. Hope you find them useful & enjoyable. -- ed]

[OOPS!]

Dear Len:

In checking through my financial records I found that my $15 cheque sent with my letter of 23-Aug-88 has long since cleared my account, but I've not received any JOURNAL since July, 1988! Is there something wrong? I was late in getting my renewal cheque to you and my July issue was stamped "SUBSCRIPTION EXPIRED - RENEW", which I had thought I did with my cheque.

Please send issues for August through the latest and let me know if I'm still a subscriber. If not, please refund my money. I'm now living on a very modest retirement income and cannot afford this kind of charity.

JACK WERT, 21 High Road, Levittown, PA 19056

[Jack, your subscription has been restored to life! By the time you read this you will probably be recovering from a bad case of eye strain from reading all those back issues! Let me reassure you that we didn't capriciously drop you. July was not an auspicious month for me. I run another business (recalibrating and DOD-certifying analogue computers) and the heavy work load plus intense heat really loused everything up for me. Your cheque was received and deposited by a temporary worker whom I'd left in charge for the first two weeks of July but she forgot to enter your renewal order into our data base. Hope you'll forgive us this oversight! -- ed]

Dear Sir,

Please send info on the SEBHC JOURNAL. I have a Z-89 computer which I purchased at an auction at the local college for $4. [WOW!!! -- ed] The machine has a full-height internal disc drive and an "Easy Riter" nameplate. I have a copy of CP/M for a Kaypro on a soft-sector disc but it failed to work. [Then] a friend at work loaned me a CP/M operating system disc for a Morrow 8-bit computer, and that attempt failed too. I have searched the local library for information on this machine with minimal success. What I did find lead me to the conclusion that I have a hard-sector disc drive. I've tried the computer stores here in town to locate an operating system and software without any luck. Zenith referred me to the Heath User Group who in turn referred me to Array Software. Array told me of your news letter and suggested it to be [the] most helpful.

My goal is to locate an operating system and software to write some small word and math games for my 7-year-old son and 5-year-old daughter to use on this machine.

RON GATEWOOD, P.O. Box 5734, Springfield, IL 62705

[Ron, we sent you a copy of the Dec-88 SEBHC JOURNAL and hope that you will have subscribed to the JOURNAL by the time you read this! Ray Dotson at Array Software was correct to recommend us to you because there are not many other H/Z-oriented publications which actively support novice Heath eight-bit machine users such as yourself these days. Our thanks to Ray! -- ed]

Dear Mr Geisler:

I finally got my HDOS game disc to run ok--didn't read and understand the README.1ST file as I was in too big a hurry! Here are a couple other things for you:

Item 1 - Are you able to accept letters and potential articles on discs? If so, you won't have to retype the entire JOURNAL.

Item 2 - Recently, whenever I start to log on with the usual "Beep-Beep-H:" screen characters hop back and forth horizontally [about] four character widths and are unreadaable. After a couple minutes the screen settles down and I have no other problem. Is this a resistor or capacitor slowing going bad (which should be replaced) or is it the CR-Tube (heaven forbid?!) or something else? As computer people [usually] say, "No problem"--thus far, but is it broke enough to be fixed? Can anyone help me at this long distance?

HAROLD BRETZ, 1215 East Castle Avenue, Indianapolis, IN 46227

[Glad you figured out how to make your HDOS Programmer's CARE Disc #1 work! Slow and easy is the way to go, I always say! To Item 1, we say MOST DEFINATELY *YES*!! We have changed

MAIL BOX, continued

our back page (again) and now ask that articles (longer than two double-spaced pages) be submitted as "Plain Vanilla ASCII Text Files" on either hard-sector or soft-sector discs. If we accept the article/text/whatever (and we usually do) we'll transfer the file over to OUR 80-track high-density disc(s), erase the original disc, record one of our software packages onto it and return his disc to the author as partial remuneration for his works. (We can't afford to pay anything yet--how DOES The Staunch 8/89er do it?!--but sure wish we could!) As for Item 2, see our reply to Brian Hansen at the head of this section. What I described there sounds suspiciously like what you're describing. I suggest that you unplug the old grey box, open it and examine ALL those waxy white connector plugs carrying over 250 milliamps current. If they are working ok, the waxy plastic will appear clean, indicating all springs are making good contact. If they're not, the connector body is darkened around all springs which run hot. Often power supply springs carrying more than 1/5 amp get hot enough to melt solder away between connector pins and printed-circuit foil. This can be quite difficult to repair if replacement parts are not available. (Op cit.) In any case, "Rots of ruck!" as they say in Japan, and write when you get it fixed. -- ed]

Dear Lenny,

This is a belated "thank you" for printing my letter in the June '88 JOURNAL in which I requested help obtaining a copy of the MPI-99 printer service manual. Before I'd received my copy of the JOURNAL, Jim Bowles of Akron, OH, phoned me saying he also had an MPI printer and a service manual "of sorts" and would be glad to photocopy it for me if I thought it'd help. I promptly and gratefully responded to his offer. The manual came shortly thereafter. Allie Lingo also responded, saying he thought my problem might be in the [printer] power supply--which I also suspected.

You may recall that I have two MPI-99 printers, one five years old, and another one bought at closeout from Heath for $100 for use as a backup. The older one was already "on the fritz" and I was using the new unit, typically putting off repair of the old one. After about a month's use--what else --the new printer conked out! Both printers had the identical failure symptom: fuse blowing at power-on. That cured my procrastination forthwith!

Fortunately, the "service manual" which--in Jim Bowles' words--stinks, is mostly a parts list, but includes a schematic of the power supply. And that is as it turned out was where the problem was. The first component I checked--the bridge rectifier--had a shorted diode. When I replaced that the printer worked just fine. Naturally I checked the same component in the newer printer and again found a shorted diode in the bridge rectifier (but in a different leg). Now, for less than a dollar and a couple hours labor, I have two printers "raring to go", thanks to the SEBHC JOURNAL and its' readers. Long Live The SEBHC JOURNAL!

Regarding printers in general, I have been following your exploits with your Epson LQ-800 with interest, although you apparently use it primarily with CP/M. I have CP/M but find it very confusing since I "grew up" with HDOS and use it exclusively. Do you have or know of an HDOS driver for the LQ-800? Do you run it serial or parallel? Computer stores today never have even heard of HDOS (dumb clucks). Also, I see that the current model is LQ-850 with an added push-type paper tractor. It also requires a DIN-type connector on the serial cable, but the local Computerland store had no idea where to get such a critter!

I've encised a copy of a letter to Allie Lingo which is self-explanatory. I thought perhaps the information might be of interest to other HDOS types.

Keep up the good work, Lenny. Your efforts are appreciated, even the CP/M stuff!

PARKS WATSON, 4113 West Franklin Street, Richmond, VA 23221

[Hey, Parks! Glad to hear your printers are finally working! No, I don't have a special HDOS LQ-800 printer driver, just use my original Lindley Systems' MXV44.DVD as if an MX-80 was plugged into my serial I/O port--the printer don't care. In a few cases where the LQ-800 requires codes which aren't covered by MXV44.DVD codes I just use my TXTPRO trick and embed printer codes in my text files and the printer chugs merrily along--the codes are invisible to the printer driver. For CP/M I use the same trick to switch the LQ-800 italics, emphasised, or underline mode on for one or two words inside a sentence. You may have noticed this on two-column pages. PIP doesn't see the embeded codes but the printer obeys them. You can use the same trick with Heath's LP.DVD (HDOS) and usually will get fair results, but if you can get a copy of their MXLP.DVD it probably will work better. In fact, this trick works just dandy with my Nippon Electric Company (NEC) Pinwriter P2200 with both HDOS and CP/M text files. Now, if I could only get Skycastle Computer Products' CALLIGRAPHY-II graphics text formatter to turn on both printer's 24-pin modes when I want to do something Really Nice... And thanks for enclosing copies of your and Allie's letters about "how-2 economically sqeeze more files onto HDOS low-capacity discs". I've condensed their essentials and include them below. - ed]

From PARKS WATSON To Allie C Lingo --

Your letter (SEBHC JOURNAL, Nov 88) regarding insufficient space on sssd hard-sector (H17) discs to make HDOS distribution disc backup copies tweaked my curiousity--I don't recall having that problem when I backed mine up (in 1981). To make sure, I dug out the original discs and found you're correct--Disc #3 (Device Drivers) does have an 8-sector DIR.SYS but all the others have the usual 18 sectors. Are you sure that TWO of your discs have 8-sector DIR.SYS files?!

I've since learned how to patch DIR.SYS to reserve less space, actually 2, 4, 8 or 12 sectors. See included instructstructions on how to do this (condensed copy of my article in our local Richmond, VA users' group--RHUG--newsletter). This

More MAIL BOX

article was aimed at users with only one disc drive. If you have two drives it's easier to patch an intialised target disc in SY1: from your system disc in SY0:. Do NOT patch a disc which has been sysgened and booted up once, as the patch changes hidden disc files and the patch will ruin all chances for recovery! If you're afraid to try my patches, buy a copy of HUG's HDOS "WHEW" UTILITIES, P/N 885-1120 by Pat Swayne. He wrote two utilities, one which removes the Patch History Table (PHT) from distribution files to free up more disc space, the other which reduces a disc's "DIR.SYS only as much as the unused space will allow" (from README.DOC). [I use REDUCDIR.ABS on both my hard AND soft-sector discs! -- ed]

"FOR THE 4H CLUB -- Hard Sectored, Hip-shooting, HDOS Hombres (Who Would Rather Fight Than Switch) -- by Parks Watson

"Last time we suggested that some space can be saved when SYSGENing a disc by using the /MIN switch. This transfers only six of the most important files, that is, HDOS.SYS--31 sectors; HDOSOVL0.SYS--26 sectors; HDOSOVL1.SYS--11 sectors; SYSCMD.SYS--12 sectors; PIP.ABS--19 sectors; and SY.DVD--10 sectors. The first five contiguous files are flagged SLWC, and SY.DVD is flagged SL. DIR.SYS--18 sectors, GRT.SYS, and RGT.SYS--one sector each--are already there, thanks to INIT.-ABS.

"Now let's see how we can find some more free space. When you initialise a disc, HDOS creates an 18-sector DIR.SYS file, most of which is filled with nulls (00s). This file space will contain names and sizes of all files put onto the disc, and combines with the one-sector Group Reserve Table (GRT.SYS) with determines their disc locations.

"Heath, it their infinite wisdom, made the standard DIRECT.SYS large enough to hold 198 file names, or 30 more than the disc can possibly hold! And a non-bootable disc has only 336 sectors free or 168 2-sector user files. Even we novices have progressed beyond writing one and two-sector programmes and data files, usually we run out of disc space far short of the maximum of 168!

"Fortunately there are ways to patch DIR.SYS to reduce the [maximum] number of reserved sectors and return the extra sectors as free space. You can make these patches with the DUMP.ABS disc editing utility (HUG P/N 885-1062 or 885-1075). Table 1 gives you the necessary track, sector, addresses and values to change to obtain the indicated DIR.SYS sizes.

"Always back up an inited disc which already has some files on it or you most surely will wipe out something of great value! It is best to have two drives, but for those who don't, here is how you do it with only one: Boot a disc which has DUMP.ABS on it. Type DUMP(cr). After DUMP signs on, remove boot disc and replace it with disc to be patched. Use DUMP in "disc mode" and make the patch you've selected from Table I. After making the last address patch, remove patched disc and replace the boot disc. DO NOT RESET OR DISMOUNT AND REMOUNT EITHER DISC--NO WAY, NO HOW! Type a CTRL-C ("C) to exit DUMP. The HDOS prompt will return. If you have not yet entered the command, "SET HDOS STAND-ALONE", do it now! Now RESET SY0:, exchange boot disc with newly patched disc and check it's directory (type DIR/S(cr)) and note the directory size has shrunk to it's new value.

"TABLE I

"Patches to reduce DIR.SYS to number of sectors shown. Value (YY) is located at address 00 of sector 148 (track 14, sector 8). Note this value and use it when called for in New Value column.

	TRACK	SECTOR	ADDRESS	OLD VALUE	NEW VALUE
2 sectors	0	9	03	84	88
22 files	13	7	DC	42	44
	13	7	DD	48	44
CAUTION!	13	7	FE	82	00
See Note *	14	8	44	41	00
4 sectors	13	7	DD	48	44
44 FILES!	13	7	FE	??	00
	14	8	00	(YY)	41
	14	8	44	41	00
	14	8	45	47	46
	14	8	46	48	47
	14	8	47	49	48
	14	8	48	00	49
	14	8	49	46	(YY)
8 sectors	13	5	FE	??	00
88 FILES!	13	7	DD	48	43
	14	8	00	(YY)	45
	14	8	43	45	00
	14	8	45	47	46
	14	8	46	48	47
	14	8	47	49	48
	14	8	48	00	49
	14	8	49	46	(YY)
12 sectors	13	7	DD	48	47
132 FILES!	14	3	FE	??	00
	14	8	00	(YY)	46
	14	8	47	49	00
	14	8	48	00	49
	14	8	49	46	(YY)

* NOTE: Do not use 2-sector patches on a disc which has any files other than those created by INIT.ABS. Any other files will be wiped out by the patches. The other patches (4, 8, and 12-sectors) can be used on a disc which is almost full to gain really needed space without losing any files.

Dear Len,

A brief note concerning your "Department of Signs and Portents" item, JOURNAL III:5, p3: Compuserve now charges $6.50/hour all day long for 300/1200 baud, and $12.75 for 24-hour, 1200/2400 baud. They did this to spread out usage and reduce the huge evening "access pileups". [Thanks! -- ed]

DON M DECK, P O Box 1240, Lone Pine, CA 93545

More MAIL BOX

[Our thanks to Parks Watson for all that neat HDOS information! Because I'd bought the 'WHEW' utilities a very long time ago I never even thought about patching the disc directory either with PATCH.ABS OR DUMP.ABS. Your letter clears things up very nicely and I'm sure the information shall be of great help to our subscribers who're stuck with hard sector only systems. You have proved another of my contentions namely that HDOS is very flexible compared with CP/M in many respects. There is a lot of good stuff buried in the musty pages of old REMarks, Sextant, H-SCOOP, BUSS, Kilobaud/-Microcomputing, and Dr Dobb's Journal. Perhaps some of our subscribers will find time to dig out and copy a few of those old-but-still-good articles for ultimate publication here--who knows? -- ed]

Dear Len,

Thought you'd be interested to know that I received the November '88 JOURNAL on 4-Jan-89 and the December '88 copy on 6-Jan-89. Oh, snail....

And now for the GOOD news: I read my letter and your answer (JOURNAL III:4) to my friend Army Curtis yesterday evening. He was very interested in the JOURNAL and wondered 'howcum' I knew about it and he didn't! [Guess he didn't see our ads in Sextant! -- ed] I promised to take Volume I over so that he could peruse it to see what he's missing.

He came up with an interesting statement about the trouble with your brother's Z90 which you described as 'the TLB's not talking with the CPU'. 'Believe it or not,' he said, 'I had a similar problem and found, after checking and replacing EVERY chip on both boards, I still had the problem. I went back and checked the IC sockets, particulary those for the UARTs on BOTH boards and found an internal socket pin which was bent so that it didn't make contact with the UART pin (on the CPU board). After I fixed the socket the problem went away!'

Perhaps this 'fix' may be just the clue you need to get one Z90 back on line--I certainly hope so! [Me too! -- ed]

I'm still having trouble with my H37 drives. I now find that the right-hand drive's capstan doesn't always turn when there's a disc inserted. It turns ok without a disc, but it seems to want to put up a fight when a floppy--any floppy--is in there. I've tried jiggling the door latch and can con the drive into working, but just when I think I've got it licked an error message pops up when writing to the disc (as for example with Wordstar) and the system reverts to A). I've even tried lubricating the mechanism, but that's apparently not the answer. It may just be the disc covers have become sticky and the discs have so much drag the drive can't spin them, but a disc which hangs up on drive B: works just fine in drive A:...

We do have a whole batch of problems over here which are not found on the mainland because our 'standard' humidity is somewhere between 70 and 85% and the temperature averages around 72 degrees [F]. Things DO grow on disc surfaces AND inside on the cover's internal fuzzy coating. [Ah-ha! The revolting 'green evolution'! We had a similar problem every summer when we lived in Japan! -- ed]

I'll keep you posted on MY progress... And thanks for the SEBHC JOURNAL--can't live without it!
CORKY KIRK, P O Box 1695, Hilo, HI 96720

[Why not talk Army into subscribing to the JOURNAL?! We need more SEBHCers in the Islands. And I suspect that they need US too but just don't realise it yet. Thank Army for me! I had a similar problem with an original-issue Siemens drive but it stemmed from a roll pin working loose and the upper door latch arm dropping down just enough to prevent the drive door from truly closing. Once I fixed that the drive worked ok. Now another subscriber recently brought in an H89 he'd received as a gift from his son who had been stationed somewhere in the chain. I didn't find any green stuff growing in it although it did have one cabinet latch broken and missing and all the right-hand cards loose. After fixing those problems the system ran ok. Must have been in use somewhere higher than all that humidity... I'll check out those sockets and see if I can bring both of these machines back to life as soon as my helper and I get this issue 'out the door', Any Minute Now (sigh). -- ed]

==========

DS... UNCLASSIFIED ADS... UNCLASSIFIED ADS... UNCLASSIF

==========

REQUEST FOR H89 BUSS EXPANSION HELP

FBE Research's Dave Brokman says his 'Slot4' won't let me use an H47, H37 and H17 controller together on my CPU. I'm now manually swapping my H37 and H47 cards on P510/504 but I want all three disc-driver cards AND the 3-port serial card permantently mounted. Does anyone know where I can contact Bob Presbyter who knows how to do this? Or how to accomplish it? Terry Hall, 516 E Wakeman, Wheaton, IL 60187.

TAX DEDUCTIONS FOR EXCESS EQUIPMENT

Media Ministries, a registered not-for-profit corporation (IRS code 501-c-3), is seeking donations of computers and accessories. We pay shipping (or pick up if near Chicago) and give you a tax receipt for all donated items to which you assign a dollar value. Current needs include a portable H89 (similar to Kres'), laser printer, dot-matrix printer capable of accepting downloaded fonts, H37 controller (or entire H/Z90), hard disc for H/Z89/90 or MS-DOS compatible machine, also software, 5-1/4" hard-sector & 8" discs. Anything considered--call or write about what you have available. Terry Hall, Media Ministries, 516 E Wakeman, Wheaton, IL 60187 (312-665-4954).

==========

ADS... UNCLASSIFIED ADS... UNCLASSIFIED ADS... UNCLASSI

==========

MAIL BOX BOTTOM. . .Table of Contents

[Intra-subscriber communications]

TO: Mark Hunt
RN Lt., US Public Health Service
USPHS Alaskan Native Hospital
Barrow, AK 99723

Your 'SA 460' drive is a Shugart Associates floppy disk drive (80 track, DSDD not High Density). Shugart no longer makes drives but Panasonic or Fujitsu makes a very similar drive.

I found a Priority One ad for Panasonic drives in the current Byte magazine but they only listed the 455 and the 475. What you need is the 465, the half height version of the 460 (the 455 is the half height version of the 450 and the 475 is the'AT' compatible 1.2MB high density drive). You can call Priority One and find out if they can still get the 465 (pee-see computers do not generally use this drive). Their address is:

Priority One Eletronics
21622 Plummer St.
Chatsworth CA 91311
Phone 800-423-5922

The Extended ASCII character set probably refer to the IBM PC extended character set. It uses the character codes 129 to 255 for block graphics, foriegn language and symbols. These are not the same as the graphics characters on the Zenith 19/29/100 terminals. Some computer printers use these characters as the italic version of the corresponding character set 1-)127. (Adding 128 to the character code makes it italic.) Most newer printers use the extended character set to be 'IBM compatible', some have switches to determine witch set is active. (If you are using a serial printer be sure that you are sending eight bit data to get these extended codes.)

ROGER H BLISS, 7700 Clarks Lk Rd, Chelsea MI 48118

[Thanks for your input, Roger. We wanted to print the ibm character set which you included, but unfortunately we couldn't get either of our printers to reproduce your tables layout. We could have photo reduced your original copy to fit our column width but then the characters would have been too small to read. -- ed]

==========

CUMULATIVE TABLE OF CONTENTS -- VOLUME III, #1 thru #6

==========

#1 - August, 1988 pp2 - 5
BETCHA DIDN'T KNOW THIS!
Getting the Bugs out of Heath Software and Other Nice Things To Know
by Rick Swenton, Corresponding Editor
DISC LABELLER pp5 - 6
DL - Make your own disk labels
by Tom Bohon
FROM OUR READERS (Monthly Letters Feature) pp7 - 10
ALL ABOUT COMPUTER VIRUSES pp12 - 13
A TXTPRO TRICK pp13
If you're running TXTPRO V4.1 and have an Epson printer--a neat way to embed codes
by your Editor
HOYLE & HOYLE'S QUEERY!3 & CALC pp14 - 15
Rreview of an exceptional database package
by Leonard E Geisler

#2 - September, 1988
READER'S LETTERS pp2 - 9

#3 - October, 1988
Staunch 8/89er News -- Kirk L Thompson
MBASIC LISTING -- CONVERT.BAS pp3
A Numbers-to-Text Converter Routine
by Paul Oullette
THIS'N THAT NOTES pp3 - 4
MAILBOX pp4 - 9
NZ-COM OPERATING SYSTEM pp10 - 14
NZ-COM - The Journey is Just Beginning
by Rick Swenton, Corresponding Editor

#4 November, 1988
BULLETIN-BOARD HOW-2 pp2 - 4
Remote CP/M Systems (RCP/M) The Computer Club PBBS
Remote Access System, An Overview
by Rick Swenton, Corresponding Editor
MAILBOX pp4 - 15
FROM THE STAUNCH 8/89er (News release) pp16

#5 - December, 1988
RIBBON REFILLS HOW-2 INSTALL A RIBBON REFILL pp 2
(MPI Printer, Model 99G)
by Allie Lingo, Corresponding Editor
NZ-COM REBUTTAL pp2 - 3
NZ-COM Operating System and the H89 --The Other Side of the Coin--
by L Van Hemelryck
BBS/SIG NEWS -- Staff Effort pp4
READER'S MAIL BOX pp4 - 12
BACK PAGE -- w/revised order blank pp13 - 14

#6 - January, 1989
PRODUCT REVIEW: THE MIX EDITOR pp2 - 4
'MIX' Split-screen editor
by Julin Loui
OPEN LETTER TO VENDORS p4
Who have discontinued production and sale of HDOS software (for whatever reason)
by Mark Hunt and JOURNAL staff
READER'S MAIL BOX pp5 - 12

LETTERS POLICY

Our READER'S LETTERS feature is provided as an open forum for the free exchange of H/Z 8-bit computer information between all subscribers and readers of the SEBHC JOURNAL. We ask all correspondants to keep their letters reasonably concise and preferrably around 250 words maximum length (about six screens, 24 lines/screen of ASCII text). The JOURNAL shall exercise its' right to condense letters exceeding this recommended maximum unless that might destroy their intent or meaning. In such cases we shall contact the writer.

The SEBHC JOURNAL RESERVES THE RIGHT TO REFUSE TO PRINT any letter containing profanity, derogatory racist, or sexist remarks, specific political or libelous statements of any nature directed toward any individual or organisation. The JOURNAL will not knowingly publish malicious fabrications, lies, or distortions of fact, but will take appropriate legal action against any individual(s) uttering them.

DISCLAIMER

Reviews, editorial references, and advertisements in the SEBHC JOURNAL should not be taken as authorative endorsements of any products or services. Opinions expressed in the JOURNAL are based on the individual's experiences and shall not in any way be considered as official endorsment or certification, nor do they reflect intensive technical analysis as might be provided by a professional testing firm. Although we do not knowingly publish fraudulent materials, we shall not be held liable for any damages arising from purchase or use of any product. People having complaints about goods or services purchased from our advertisers are urged to send us written notification of their specific complaints so that we may take any action which we deem appropriate. Caveat emptor!

Detach before filling out & mailing...

The Subscription & Order Blank

Name _____

Mailing Address _____

City _____

State/Prov _____

Zip/PO Code _____ Country _____

Phone number(s) _____

H/Z Computer Model(s) _____

Oper Sys: HDOS Ver ____ CP/M ____

Computer used mainly for _____

Renewal [_] New Subs [_]		$17.50
Non-USA [_] 1st class [_]		$25.00
Softcover Vol I	[_] 22.50	_____
Softcover Vol II	[_] 22.50	_____
TWO-VOLUME SET	[_] 40.00	_____
CP/M GAME DISC #0	[_] $6.96	_____
hard sector	[_] $7.96	_____
HDOS "Programer's CARE Package" Disc #0--Soft	$3.00	_____
Hard sector	[_] $3.66	_____
HDOS GAMES DISC #1		_____
soft sector	[_] $3.00	_____
hard sector	[_] $3.66	_____
WordStar H/Z19/89 Keypatch		_____
soft sector	[_] $12.50	_____
hard sector	[_] $13.50	_____
TAPRO DEMO Disc	[_] $2.50	_____
HDOS hard-sector	[ ]	
CP/M soft-sector	[_]	

=> Please pay in US DOLLARS by Cheque or Money order <= Total $_____

NOTE--From 1-Dec-88, only bound copies of Volume I and Volume II as above. Only $40 for Two Volume set of I & II! All Current Volume III back issues at $7.50 ea. Please allow 6 weeks for delivery of bound & back issues.

The SEBHC JOURNAL's Back Page

Society and Journal Policies

* The SEBHC JOURNAL is published once a month and strives to be mailed by the 20th of a month. Editorial copy deadline is the 10th of every month (weather & holidays permitting).

* Subscriptions. $17.50/year in Canada, Mexico, USA and its' possessions. First Class and Foreign are US$25/year. Subscriptions start the month following order receipt. Please make cheques or money orders payable to L E Geisler, NOT "the JOURNAL" or "SEBHC". Single back-issue copies are available at $2.50 each. See order blank for bound volume discounts.

* Subscribers are automatically Society of Eight-Bit Heath Computerists members. Member's subscription number and expiration follows their name on mailing label. The three member classes are: REGULAR (voting H/Z 8-bit user) ADVERTISING (one vote/vendor) and ASSOCIATE (non-8-bit computerist, library, etc.). REGULAR members can hold any elective Society office. ASSOCIATE members cannot hold office or vote. The Society's official yearly meeting place and time is announced every July in the JOURNAL. Advance registration of US$25 for each attendee is required by May first, please.

* All advertising is printed Free Of Charge. Vendors: Please do submit your B&W "camera-ready" ad copy, 7"w x 9"h (1 page to an issue) no later than the 10th of month in which it's scheduled to appear. All Society members can run one new free 250-word (maximum) Unclassified Want Ad every month.

* All subsribers/members are urged to submit their H/Z-oriented computer articles on disc in standard ASCII format rather than as hard copy. If a word needs to be emphasised or italicised please insert these symbols PRECEEDING the word: [EMPH] for emphasise, [ITAL] for italics. We'll return your disc after copying it and will gladly copy any SEBHC JOURNAL software disc onto it. Note: We can't pay authors but we do extend their subscription another year for a published article.

* 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: 313-769-6052 residence.

--==<<[[8-BIT POWER!]]>>==--

SEBHC Journal

895 Starwick Drive
Ann Arbor, MI 48105


```
======================
==     BULK RATE     ==
==  U. S. POSTAGE    ==
==       PAID        ==
==   PERMIT No.624   ==
== ANN ARBOR, MICH   ==
======================
```

ATTENTION POSTAL CARRIER:

Addressee HAS PAID FOR THIS ITEM. *PLEASE DELIVER IT!*