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H8SCOOP

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BITS & PIECES

5 INCH HARD DISK DRIVES

From page 242 November BYTE:"At least a half-dozen companies will have 5-inch hard-disk drives on the market late in the first half of 1981. Latest to jump on the 5-inch disk-drive bandwagon are International Memories Inc (IMI) (the Cupertino, California, firm that marketed the first 8-inch Winchester drive) and Shurgate Associates (the largest producer of floppy disk drives). These drives typically store 5 million to 7 million bytes and sell for less than $1000 in OEM (original equipment manufacturer) quantities."

Like I said before, WAIT! The hard disk technology is fast approaching, which will make mass storage for computers like the H8 and H89 very attractive in comparison with Heath's 8 inch floppys.

HEATH TO OFFER DUAL DENSITY 5 1/4

I have unofficial word that Heath will be making available dual density 5 1/4 format for the H17 around April 1981. As I mentioned in last month's editorial, this is the logical step for the time being since it should require only a software change, the current drives and controller card being compatible with a double density format. I know the drives are, and have been told the controller card is as well.

BUBBLE MEMORY PRICES NOW REALISTIC

Also to be seen in BYTE, November 1980, page 137 is an add from Intel on bubble memory prices of $595 by August 1981, for a million byte bubble memory. In case you have not been following storage technology, bubble memory is the dream of many to replace, disk drives. Because of no moving parts, and the ability of this memory to retain its information even with power off, this is a natural for mass storage. Keep in touch with bubble memory, as you may see a lot more of it in the future.

READER QUESTIONAIRE

Please fill out and return the enclosed questionaire as soon as possible. This was included in this month's H8SCOOP to help me better serve you, and try to make more information available to you.

For instance, there are several individuals in the printing business that are using the H8 or H89. Let me know what you are using it for, and others in the printing business may want to get in touch with you or swap ideas and programs. I will print some of these monthly in the WHO'S WHO column. There have also been several who used my SELECTRIC article to drive an IBM I/O selectric with their H89, or H8 via serial port, even though the article dealt with the H8 using a parallel port. Let me know, as there are others out there right now attempting the same thing.

Feel free to write any comments, positive or negative about this newsletter. I'll try to use the information to continue to publish THE BEST newsletter for H8 and H89 users. I've already got plans to expand the size for 1981, depending on user feedback and information.

1980 H8SCOOP INDEX

Already prepared, to be sent along with the next issue (January 1981) is the general index to all 1980 issues of H8SCOOP. I have tried to include as many main topics as possible, and while I tried to make it as complete as possible, I realize there was a lot of information left out. I do hope this will serve as a help to my faithful subscribers when trying to refer back to previously published material.

STRETCH-8 NEWS

Response from readers indicated that Del Stanton had problems supplying the STRETCH-8. I talked to Del, and understand he has fallen behind in his work and all ordered kits will be shipped. He also indicated he will be answering mail and phone calls, which he also has fallen behind in. If you have not heard from Del, and have paid for a kit, call or write him again, and if there are no results, contact me. He promised he is doing all he can to get back on schedule. For those interested in ordering, it may be wise to check with Del first as to his backlog, and get a written confirmation before sending money.

3RD DISK DRIVE LOCATION?

Although it seems obvious, it evidentally is not. If you have or are going to get the third drive for your H8, and don't want to buy a new cabinet or modify the old, if you have an H19 did you consider mounting it in the blank space on the front, to the right of the CRT? That is what this space was made for, and it seems with little trouble, this could be done. Perhaps you could order the necessary mounting supplies from the H89, and presto, a home for a third drive at little cost.

ON DISK SPIN CLOCK PROLOGUE

It is reported that there has been some trouble with the disk clock spin prologue as given in October H8SCOOP. The trouble is with the first line of code, ORG USERFWA.

This is valid if HDOS.ACM resides on the disk, and you include XTEXT HDOS, since the value for USERFWA will be looked up and found to be 042.200. To eliminate all problems, change ORG USERFWA to ORG 042.200A.

GREEN SCREEN H19

Word has it that the H19/H89 will be available in the future with the option of a green CRT screen from Heath for an additional price. Watch the next catalog, the info may appear there.

ON THE TALKING H8

Ted Benglen informed me that he received about 70 orderes with $100 deposit for the talking H8. With his goal set at a minimum of 100, he is sending all the deposit money back. He does not want to go ahead with ordering all parts, which would cost him over $30,000 without definite commitments from customers, which I cannot blame him for.

Those that are still interested will be able to get the parts from Ted in several ways. Ted will offer PC board with documentation, and supply information as to where to obtain parts, or will supply kits, but since the minimum was not obtained and he cannot buy in quantity, the cost will increase significantly.

Unfortunately Jim Blake and REMark gave him no mention whatsoever, although he sent the information to REMark long ago. He also contacted all the Heath stores and quite a few HUG's, with no response. That's what I call excellent H8 support. With this kind of help from the big guys that run the show, I'd say we all may be in BIG trouble. Here we have a good, long awaited H8/H89 accessory and the individuals in position to make it known to the H8/H89 public seem to totally ignore it. There appears to be complete ignorance of some of the guys in charge of things, a total lack of communication, and a general don't give a damn attitude amoung Heath and REMark in general. I'm not down on the whole Heath establishment, because there are some good guys there, but the ones in position to do something are burying the matter, and the good guys that may be able to do something, never even know about it. I'm afraid if this keeps up, the H8 will sink, since all efforts are apparently going to the "business computer" systems, and ironically without the appropriate software to make it go! The vibes seem to be "Piss on the hobbiest who started us and have keep us going, we got what we wanted". More on this topic in an upcomming editorial.

NEW STUFF

STUFF FROM TBT DIGITAL

Something sent in last month, but no room to print, from TBT Digital some good products out, many that lot of you have been waiting for.

H9MOD--24 line mod to up-grade the H9 from the old 12 lines to 24 lines. It is layed-out on a 2 X 2 double sided PC board that is attached to a 22 lead ribbon cable. $35 board and parts without RAM, or $55 including needed RAM.

CP/M board for the H89, similar to Magnolia Microsystems Full CP/M Board, but won't block your bottom 16K and costs less. This is the 0 ORG board. $85.

DECIF--allows RS-232 to be used with the LA-36 Decwriter instead of the supplied 20mA loop. $45.

H8GO--Same thing as the PAM8GO. Heath is offering, $18.

SOFTW--A package from SoftWorks, disk includes DOC files with information on things Heath won't fill you in on, some of the stuff that was already published in H8SCOOP. Also programs and patches for a faster more efficient operation of HDOS, and some useful utility programs. $20.

In the future, DECMD which installs in the LA-36 Decwriter to double your print speed to 600 baud, $50. TELE hardware and software which works like the MicroModem88 with full features of dialing, re-dialing, on-hold, hang-up, and store/delete numbers of 300 people! Software written in BASIC so you can modify it to your liking. Hardware available for H8, or H89, specify when ordering. $100.

CHEAPTALK FOR THE H8

Greg Saville, POB 5190, San Diego, CA 92105, the same guy that introduced the PSG sound board for the H8 (see August 1980 H8SCOOP) is now introducing CHEAPTALK for the H8. It is a software package allowing your H8 to talk through the built in speaker. Utilities are provided to convert the spoken words into assembly language subroutines, which are then merged with your own assembly language programs to add speech. This is on a disk, and for disk systems only.

While the sound quality is not great, it is understandable, with lot of hissing and other noises in the background, but for the price of $19.95, it may be worth playing around with.

You use a small audio amplifier (usually a cassette tape recorder will work) to input your speech to an H8 front panel keypad I/O port. This is sampled and stored in memory. What it actually is, is a poor mans A/D converter, with very low resolution, which limits the sound quality, but at the same time, conserves memory.

In order to use this and make your own speech, you will need to know something about assembly language, and it is a lot of work to get it to speek. My initial try blew out an IC in the front panel (I happened to have an extra) because I evidentally overloaded one of the IC's. However, there are samples and programs included that you can execute right away without knowing assembly language to hear the thing talk. I may be doing a report on it in the future.

SELECTRIC/ASCII TERMINAL

I came across an add for used IBM Selectric terminals with ASCII RS 232 send/ receive electronics built in for $1195, which isn't bad. It appears you just connect to a serial port, and away you go. It can also be used as a terminal, or a regular typewriter. It comes with a stand that is a cabinet and has shelves included. For more information, contact ORTECH, INC, 1500 Calypso Dr, Aptos, CA 95003. (408) 727-1709.

4116 PRICES

ASAP computer products, Inc, 11542-1 Knott St, Garden Grove, CA 92641, with a tollfree number 1-800-854-6411 (outside CA) has available for the Heath computers that use the 4116 memory chips, 8 for $39, 16 for $75, and 32 for $145.

Another source is HANLEY ENGINEERING, POB 21432, Seattle, WA 98111 (206) 633- 3404, who has these chips (300NS) at an unbelievable price of 8 for $32.

DISKETTE PRICES

A November special, I don't know how long it will go on, from Computers Unlimited, 1524 Oak Harbor Rd, Fremont, OH 43420 (419) 332-4881 (collect) has a special on Verbatim Diskettes, 10 5-1/4 are $24, phone orders on VISA and MC.

From Leading Edge Products, Inc., 225 Turnpike St, Canton, Mass 02021 (800) 343-6833, 10 Memorex disks, 10 sector for $27.33 which includes UPS and COD charges.

ABM Products, 631 B Street, San Diego, CA 92101 is selling BASF disks, 10 for $24. They also have good prices on vinyl binder pages. Check their ads in recent issues of Microcomputing, Byte and Interface Age.

SOFTWARE TRADER

A publication dedicated for the buying, selling and trading of software is published by Craig Todtschinder, who sent me the following.

THE SOFTWARE TRADER serves microcomputer software, exclusively. Let us help end your search for software. Buy-Sell-Trade. Rates per full or partial 47 character line: $1.62 per issue (rates apply to commercial and display ads only). Subscription rate: $7.00 Domestic, $10 Foreign-surface mail, $18.50 Foreign-air mail for 1 year (12 issues). Payment must accompany subscription. Make checks payable to THE SOFTWARE TRADER. THE SOFTWARE TRADER is mailed the third Friday of every month.

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All commercial and display ads are run free. You pay only if you sell your product or service through our advertising OR you get 3 or more requests from our readers service ($1.62 per line per issue (see editors notes for display ad rates in trader))). Be sure to specify where you want your ad listed (see table of contents). Free ads are limited to 8 lines of 47 characters each and 1 free ad per subscriber per issue. Free ads are run once and must be submitted separately for each issue you want it printed in.

BIBLIOGRAPHY UPDATE

Two articles, yes in Microcomputing, the November 1980 issue for interfacing the H8 with an Integral Data printer. The first article by Norman Dick on page 50 deals with using the serial interface on the H8-5 with the H9 CRT. The other one by Howard Cunningham (not connected to TV show Happy Days I'm sure) tells how to make a parallel port for interface and patch Cassette software console driver to make it work.

The first one interested me because the author talked about his first approach using the H8-2 3 port parallel card, but dumped the idea when he had unresolved handshaking problems. Anybody who has tried anything half complex with that card knows there are handshaking problems.

REQUESTS

A request from Edwin Ranson, 35020 45th Ave. So, Auburn, WA 98002: "I use a TI-810 printer with my H8. I did not purchase the Heath version of the 810, but opted for one with compressed print and the vertical format control option. I have a problem with the HDOS device driver LPH24.DVD. I

would like to be able to disable the LENGTH option to allow a program to utilize the stored length programs in the TI-810. Using the driver as supplied causes problems when using the stored programs since an ESCAPE code which sets the form LENGTH is sent to printer each time the printer file is opened. When a stored vertical format program is called later by software, the first form will be the length set by the device driver, then from that point the printer's internally stored form LENGTH will be used; thus the vertical alignment is destroyed. If any of your readers have any suggestions, I'd appreciate hearing from them.

Anybody that has encountered a similar problem in the past, or knows the SCOOP, contact Edwin.

A request from Karl Prinsen, 3611 Merrimac Ave, San Diego, CA 92117 (714) 276- 3182. Karl has an ET221 OLIVETTI ELECTRONIC typewriter with memory and he would like to interface it with the H8/H17/H19. If anyone has any information on this, please contact Karl.

W H O ' S W H O

Ray Albrektson, 619 W. Dover, San Bernardino, CA 92407 has sucessfully interfaced an IBM I/O selectric to his H89 computer using my Selectric project article for the H8 and building a simple parallel port for his H89. As I mentioned earlier, most of my project articles for the H8 can also be used with the H89 if a parallel port for the H89 is available, or constructed. If anybody is interested in connecting an IBM I/O selectric to an H89, I'm sure Ray would be glad to give you some hints on the interface required.

Now Ray and I both have a question. When copying a file to AT: or some other driver, when the copy is finished, control is passed to HDOS almost instantly. With the Selectric driver, there is a delay, from 1 second, to 20 seconds or so, depending. If anybody has any information on this, or any hints, please write to me so I can doctor up the selectric driver and make the better version available to all who have the old one. I believe it has something to do with how much was left in the buffer before it was finished. I think HDOS is waiting for the buffer to empty, even if it was all empty. Why other drivers do not behave this way is beyond both of us. Send in your ideas, and I will publish it for all. Since device drivers allow the computer to communicate with the outside world, I feel a proper understanding of how they function is of utmost importance to the programmer.

Don Woodruff, 15 Castelwood Dr, San Rafael, CA 94901 has an H8/H19/H17/LA34 and uses HDOS and MBASIC along with cassette tapes. He has and desires to trade HUG disks and tapes with others.

MEMPHIS HUG

Anyone in the Memphis area interested in joining a local HUG, contact Morris Proctor, at (901) 523-6259 before 5PM or (901) 345-0035. Club meets first Tuesdays of each month.

Hank La Barbara, 4025 W. Chase, Lincolnwood, IL 60646 has an H8 and is willing to swap software. He has lot of Ham radio applications (RTTY) and other goodies.

OFFERS

The following are past offers made by H8SCOOP to the subscribers, for those who may now be interested in them, or for new subscribers.

TINY PASCAL	$10
MISC DISK FILE DUMPS	$ 7
NPS CP/M MICRO COBOL SET (2)	$25
RATFOR TRANSLATOR	$ 7
NOVEMBER OFFER	$15
QUIKMAIL MAILING LIST PGM	$15

ON RATFOR--past offer

I was finally able to obtain some information on RATFOR. It is a preprocessor for a RATional FORtran, which means to use it you must have FORTRAN. If I have mislead anybody and they purchased the disk from me, and have no use for it, feel free to return it for a refund, or trade on another disk.

RATFOR allows you to write more structured code for FORTRAN. They are easier to read, write, debug, maintain and modify than straight FORTRAN. RATFOR attempts to retain the merits of Fortran, while hiding its worst inadequacies. It also cleans up many of the cosmetic deficiencies of Fortran. RATFOR statements may appear anywhere on a line, and more than one on a line if they are seperated by semicolons. It provides WHILE statements. RATFOR coding is said to be twice as fast as Fortran, once you learn how to use it.

Anyway, you write the code in RATFOR, and translate it into Fortran using the RATFOR translator. From here, the procedure is the same, compile the Fortran and assemble it.

This month I am making available a disk I hope will help those who purchased the CP/M NPS MICRO-COBOL from me in the past. This disk contains two programs, complete with .CBL, .CIN, AND .LST files, writen for the CP/M NPS MICRO-COBOL compiler. One test program is 121 lines and compiled OK, the other is 766 lines and had 19 program errors. I felt I would make them available to help those running the COBOL, at least you will have an idea of Format and I/O techniques to follow. The cost on this is $5 to those who ordered the COBOL Compiler. Others may be interested in these as to study COBOL; but keep in mind, they are CP/M. The cost to those who did not purchase the COBOL is $7.

Also this month is the DECEMBER disk which has some picture files again for a hard copy printer, a better copy utility, misc utilities and other stuff. There are many christmas pictures on this disk, just in time for the holidays. This one goes for $10.

Lastly is a disk for those using C compilers, containing programs written in C and some C subroutines and a MACRO. This will be a good aid for those learning or using the C compiler. The cost for this disk is $10.

FEATURE

BOOK REVIEW

HOW TO MAKE MONEY WITH YOUR MICRO

"How to Make Money with your Microcomputer", by Carl Townsend and Merl Miller from International Scholarly Book Services, Inc for $9.95 is the book review for this month. This book should also be available at many computer stores and larger book stores. If you can't obtain a copy, write ISBS Inc., 2130 Pacific Ave., Forest Grove, OR 97116.

If you have lot of money tied up in your computer equipment, the thought may have crossed your mind, as it did mine, to get some return from your investiment. There are many different roads to take. I'll put myself on the line with this next statement. If you have a line printer, a computer with a good size memory (at least 48K), and disk storage, along with drive and motivation, you can make money with your hobby computer.

How to Make Money with your Microcomputer is an excellent book to give you ideas and get you started. Its straight forward style along with easy reading make the book a pleasure to read, and easy to follow. The book presents many different ways to use the computer to make money, perhaps many you never even considered, and goes into detail on how to do it.

Such topics are covered as writing articles for computer magazines, writing and getting a book published, operating a Service Bureau, Operating a computer repair business, developing and selling software and hardware, selling systems as a consultant, opening you own computer store and more. It tells you how to get a business started and keep it going, and this is important, as many computer businesses fail quickly.

The author writes from experience, and has been there and back. Since most of what is written, is from his personal expertise you get the straight story with accurate information, along with ideas and solutions which can only be gained through personal experience.

If you have a lot of money invested in your equipment, and would like some income from it, to help pay off what you have, to be able to buy more, or just to make a few bucks, I highly recommend this book. While all the ideas will not apply to you, it may spark that ideal idea for you to get something started. From my own experience, it's a long hard road, but quite enjoyable.

FEATURE ON PILOT MOD
AND PATCH ID IGNORE MOD

Some information sent in from Michael Ryan, 6520 N Oliphant Ave, Chicago, IL 60631 on modyfing disk PILOT running under HDOS 1.6 to use lower case and escape codes of the H19. This allows lower case to be used with PILOT, and GRAPHICS capabilities.

First you must load PATCH.ABS on your disk and modify it. To do this, run PATCH. When patch is loaded and the disk stops spinning, use the H8 front panel and press RTM and 0 to return to panel monitor. Now change the following addresses in standard split octal format.

ADDRESS	OLD	NEW
042.231	312	303
042.260	072	303
042.261	261	270
042.262	053	042

Now hit GO on the front panel, and to the PATCH program input file response, answer PATCH.ABS, since you will be patching PATCH, which you also normally need an ID number for. The above changes eliminated that, allowing you to patch PATCH. Now for the address changes, enter the same ones you just entered above, keeping in mind CTRL-D ends the input to allow you to enter a new non consecutive address, and another CTRL-D puts the data back to disk. Walla, you have patched PATCH, and can patch any program without needing an ID anymore. All

you are doing is jumping over the two statements that ask for ID number, thus ignoring them.

Now to modify PILOT, run PATCH and for file type PILOT.ABS, and change the following locations in octal:

ADDRESS	OLD	NEW
052.035	376	257
052.036	101	311
056.106	356	000
056.107	040	000
062.356	040	033
062.357	332	310
062.360	375	376
062.361	062	007
062.362	376	310
062.363	140	376
062.364	332	040
062.365	371	332
062.366	062	375
062.367	346	062
062.370	137	000

That should do it. If anyone is interested they can write to Michael for a complete explanation of the above PILOT changes. If anyone does n0t feel they want to bother with these changes but want their program changed, Michael will do it for you if you send him a disk and return postage, no other charge. Sounds like the making of a GOOD GUY.

PROGRAMMING GOODIES

Heres a short MBASIC program under CP/M from D.C. Shoemaker, which is a printer formatter for use in dumping documentation files to the printer.

```
10 PRINT CHR$(27);"E":N=1:M$=""
20 PRINT"      This program may be used to
   print a CP/M text file to the line"
30 PRINT"printer so that there will be an
   adequate left margin, and the page"
40 PRINT"length will not exceed the paper
   length.":PRINT
50 LPRINT CHR$(27);"u";CHR$(16)
60 LINE INPUT"      Do you need an extra
   left margin?   ";M$
70 IF LEFT$(M$,1)="Y" THEN M$="     ":GOTO
   100
80 IF LEFT$(M$,1)="y" THEN M$="     ":GOTO
   100
90 M$=""
100 LINE INPUT"      What drive has the text
    file?   ";D$
110 LINE INPUT"      What is the file name?
      ";F$
120 F$=D$+F$:OPEN "I",#1,F$
130 LINE INPUT #1,L$
140 IF EOF(1)THEN 190
150 L$=M$+L$
160 LPRINT L$:N=N+1
170 IF N=61 THEN LPRINT CHR$(12):N=1
180 GOTO 130
190 CLOSE:LPRINT CHR$(12):END
```

CLASSIFIEDS

FOR SALE--ESCON--Selectric converter. Brand new, original box and packing. Paid $534 to MiniMicroMart, then found Anderson-Jacobsen printer and no longer needed the Escon unit. Converter has serial interface, plus all solenoids to make a printer from an ordinary office selectric typewriter without making any modifications to the typewriter. Asking $450 check or money order. Lloyd Dinkins (901) 274-9030 days, or (901) 683-8069 evenings. Box 12285, Memphis, TN 38112.

FOR SALE--H9 video terminal with no mods installed. Good condition, $150. John Bennin, 620 Hill St., West Baraboo, WI 53913.

FOR SALE--8K memory board with 4K installed, $45. H8-5 serial/cassette board, $60. ECP-3801A Cassette Recorder like new, $45. Cassette software, H8-18, PA-84, HUG 885-1009, 885-1012, a $56 value for $28. H9 terminal with 24 line mod installed, like new and works perfectly, $225. All prices are postpaid, write to George Duke, 10201 SW 164 TER, Miami, FL 33157.

FOR SALE--COMPLETE H8 SYSTEM consisting of H8 with 40K memory (3 8K Heath boards and one 32K Godbout board with 16K installed), 4 Port serial board, H8-5 serial cassette board, Dual disk drives, H14 printer, H19 terminal and H9 terminal, all worth $4600. Also full operating software including HDOS system, MBASIC, and miscellaneous business software worth about $500. The total system with software is worth over $5000, asking price is $3995. Will consider selling seperately, call or write for more information or individual prices. Reason for selling, total disatisfaction with Heath's support, especially software, and REMark issue 11 was the last straw, waiting 6 month's for nothing. Contact Glyn Bolyer, Rt. 2, Box 447, Coushatta, LA 71019, (318) 932-6536.

FOR SALE--H8 with 20K, cassette interface, operating system and full manual set $425. Ted Benglen, see below.
WANTED--H8-2 Serial board (that$ what it says, even though the H8-2 is a parallel board, you'll have to contact Ted to find out). Also WANTED H17 drive only that will step at 10ms. Contact TED BENGLEN II, 822 E. County Rd. 30, Ft. Collins, CO 80525.

PEEKING & POKING

HDOS vs CP/M--WHICH WAY TO GO

It has been a long up in the air issue, which Disk Operating System is better and what should I use. I will present some issues based on general feedback from readers in the past few months. I hope this will serve as an aid to help others make an intelligent decision as to whether to purchace CP/M or stick with HDOS.

We may as well face the facts, no system will be found with all the features, bells and wistles that you may desire. It's like buying a new car, you like some features and wish others would have been incorporated from a different make and model. The same applies to Disk Operating Systems. Each system has pros and cons, and the finial decision will be left up to you. Let me quote here from D.C. Shoemaker one who has both CP/M and HDOS, "I'm sold on the efficiency and ease of operation of HDOS, and wouldn't give it up for any other operating system I've ever seen, short of UNIX." That is my feeling exactly.

Keep in mind that CP/M is considered a software standard, almost like the S-100 buss is the hardware buss standard for computers. Also keep in mind that it was an early system. When HDOS was being developed, the authors had the benefit of CP/M and other operating systems. I feel they took some of the best points from different systems when they came up with HDOS, and left out some of the bad.

Again from D. C. "I would most definitely not recommend CP/M to someone who already has HDOS as their main disk operating system. CP/M makes a good developmental system, but that's as far as it goes. For normal day-to-day activity I don't think there's any comparison, especially since so many of the previously exclusive "bells and whistles" like one-step boot and SUBMIT (automatic job streams that load and execute programs upon boot-up) are now available under HDOS."

The vast majority of feedback I have received for publication tells me that of the individuals who know both systems, HDOS and ASM are prefered to the CP/M counterparts, and no desire is expressed to switch to CP/M as the main system. The past problem has been software, and still is to some extent. For instance, under CP/M a FORTRAN, Pascal, C, COBOL and BASIC compilers have been available. Not true under HDOS. Presently HDOS supports BASIC interpreter, and a rather poor FORTRAN compiler . There is news that soon Pascal MT will be available under HDOS. I'm sure in the future we will also see full blown versions of COBOL and BASIC interpreters, if not from Heath, from others.

This was the main hangup of HDOS originaly, Heath had the market and nobody else was doing anything, perhaps under fear of the whole works going down to tubes because it was so different. Now there are plenty of individuals on the band wagon, and different languages are cropping up all the time for HDOS. Presently, there are many MINI or TINY versions of the larger ones under HDOS. The last year has shown a vast variety of software popping up for the HDOS system, such as fantastic utilities, games, business programs, you name it. And now to top the whole issue off, with Heath releasing source code to HDOS, the doors to modification and re-development are wide open! Which other operating system will make source code available to its users?

Extreemely poor documentation is a trade mark of CP/M. If you are already familiar with an operating system, than you may be able to figure out some of CP/M. If you walk in totally blind, I feel sorry for you. The manuals just are not clear. I had a hard enough time with HDOS, and when it came to CP/M, I learned enough to get me by, and in frustration removed CP/M from the system.

Configuring CP/M is another problem. With HDOS, you set your system such as disk step rate, memory size, baud rate as you like, and can change it as you like. Not so with CP/M. Once a paramater is set on your CP/M master disk, that's it. If your baud rate changes, or you change terminals and your new one can't handle 19,200 baud, too bad, nothing will go. If you loose some high memory, too bad. If your disk drives wear and will no longer step properly at your set rate, too bad. In all these cases, you have to reconfigure the system (a hassel) to change it. I know, I had a hazeltine 1500 terminal which had no trouble communicating at 19200, which is what I had my CP/M configured for. Then came the H19, and it would not set at 19200, so my nightmares began. Suffice it to say it was major problems, and now I operate CP/M at 4800 baud, which is the fastest it will operate, even though I can operate the H19 at 9600 with HDOS.

Again from D. C. Shoemaker "About the CP/M distribution software, the less said the better. There are three special routines tailored to the Heath machines, LIST.COM, FTCOPY.COM, and FORMAT.COM. These allow you to list out the programs on a drive (but only to the console) to show the sectors occupied by each." Features found under HDOS like CAT AT:, or PIP:AT:/L to get a hardcopy of your disk directory just are not present under CP/M. One major advantage of CP/M, you can insert and remove disks anytime without dismount commands and the like, and never fear a crash or loss of disk directory update, something that has

destroyed many HDOS disk directorys.

What about support? Well, just read my newsletters, June, July and August and you'll find three bad reports about Lifeboat, two bad enough to earn them the BAD GUYS award. Lets face it, Lifeboat is too big, and they seem to have forgotten how they got there. Of course Heath has not been known to give the best support either, and this guy is one to tell you about that!! But I feel Heath has come a long way in the past year or so, and I am willing to give them a chance. The point is, Heath is, or at least was, improving with their customer relations, while Lifeboat is going down hill. Heath will support to some extent over the phone and through their technical department, free, while with Lifeboat, it's always, "get out your wallet and we'll talk" type of attitude.

So why do so many H8ers have CP/M? Good question. As I mentioned before, software support for products and languages that just aren't available from Heath as yet. Take WORDSTAR, a SUPER EXCELLENT word processing package under CP/M. I understand Zenith's Autoscribe can't even come close to it. I will be doing a future review on word processor packages, and then more on that. If you want to have a fast BASIC compiler for the H8 or H89, right now CP/M is the only way to go. Full blown Pascal? CP/M has it. I feel these are the main reasons why one will go to CP/M. Others, just curious and have the money to spend. Still others, to keep up with the Smith's.

It all depends on your needs. The majority of my feed back, including my own comments, tells me for most applications, HDOS is far superior to CP/M, The support is better, and the associated software products cost less. Don't think I am really against CP/M, I just tell it like I see it. You still have to be the judge.

Harry

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