

Saving Our CLASSIC Heath 8-Bit Machines!

SERVO JOURNAL

The Society of Eight Bit Heath Computerists' Monthly Newsletter

Volume V, Number 7

\$2.50 a copy, \$24.00 a year

February, 1991

Subscription & Order Blank on Page 9



Oh, How We Love Our
Eight-Bit Machines!

SEBHC JOURNAL

Volume V, Number 7, Page 2

From Your Editor **A GENTLE REMINDER :**

*"My Country, Right or Wrong;
"If Wrong, to Make it Right;
"If Right, to Keep it Right..."*

The above often mis-quoted patriotic sentiment, was usually heard being mouthed by ignorant ultra-rightists during the stressful '60s. We have included the whole thing for your enlightenment. Below is another item we have printed in its' entirety which we hope you will enjoy.

Stanza the first:

Oh, say, can you see, by the dawn's early light,
What so proudly we hailed at the twilight's last gleaming?
Whose broad stripes and bright stars, thru the perilous fight,
O'er the ramparts we watched, were so gallantly streaming!
And the rockets' red glare, the bombs bursting in air,
Gave proof through the night that our flag was still there.
O say, does that star-spangled banner yet wave
O'er the land of the free and the home of the brave?

Stanza the second:

On the shore, dimly seen through the mists of the deep,
Where the foe's haughty host in dread silence reposes,
What is that which the breeze, o'er the towering steep,
As it fitfully blows, now conceals, now discloses?
Now it catches the gleam of the morning's first beam,
In full glory reflected now shines on the stream:
'Tis the star spangled banner O long may it wave
O'er the land of the free and the home of the brave.

Stanza the third:

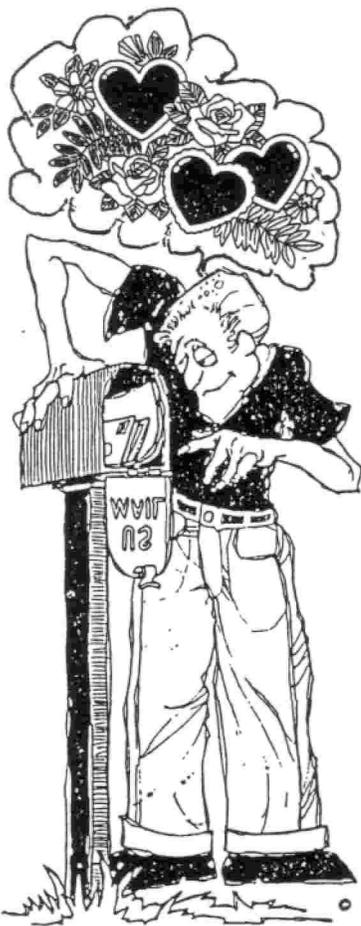
And where is that band who so vauntingly swore
That the havoc of war and the battle's confusion
A home and a country should leave us no more?
Their blood has wiped out their foul footsteps' pollution.
No refuge could save the hireling and slave
From the terror of flight, or the gloom of the grave:
And the star-spangled banner in triumph doth wave
O'er the land of the free and the home of the brave.

Stanza the last:

Oh! thus be it ever, when freemen shall stand
Between their loved homes and the war's desolation!
Blest with victory and peace, may the heaven-rescued land
Praise the Power that hath made and preserved us a nation.
Then conquer we must, while our cause it is just,
And thus be our motto: "In God is our trust."
And the star-spangled banner forever shall wave
O'er the land of the free and the home of the brave.

The above poem was written by Francis Scott Key during the bombardment of Fort McHenry in Baltimore Harbour by the British in the night of 13-14, September 1814. Originally entitled "The Defence of Fort McHenry", for obvious reasons it quickly became known as the "The Star-Spangled Banner". Someone noted that its' rhyme and meter fit the tune of an archaic English drinking song, "To Anacreon in Heaven", so it was put to music. Eventually, in 1930 the U.S. congress officially made it the National Anthem of the United States. To avoid embarrassing our British allies against a far more hideous enemy than they had been, the third stanza was deleted by revisionists during World War II. We have reintroduced it here for you to enjoy and, we hope, to remember to sing with appropriate feeling!

The READER'S MAILBOX



Dear Lenny,

There was some pretty heavy stuff in the Jan-91 JOURNAL (V5:6). Although I don't use the QUIKSTOR system, I found the reading quite delightful and informative. Stuff such as this is good reference.

I keyed in the BASIC program from A Stapher's column--CANDY.BAS, and, except for a few typos, it seemed to work ok. But, since in line 30 reference to setting printer width to 80, I assume we readers will see another installment of this program which will enable us to do some printing. The typos are as follows:

```
Line
50 C=LEN(PT$):PRINT FND$(8,FNO(C))
   P$PT$Q$ <-- missing colon (: )
   (rest of this line is ok)
Line
80 PRINT FND$(6,20)EL$;:LINEINPUT
```

```
"# BOXES OF REGULAR CANDY";BOX$           missing space
Line
190 PRINT FND$(6,20);:LINEINPUT "# CASES OF REGULAR CANDY";
   BOX$           fmissing space
Line
250 OWES=BAGTOT+BOXTOT:PRINT FND$(9,20)"We owe";:PRINTTAB(30)
   USING ZZ$;OWES           missing spacef
```

These are errors my version of MBASIC found. But when I ran the program, I got some unexpected results in line 130. The program asks "SHE HAS PAID?", and when I entered YES I found I hadn't been prompted for the amount she had paid. I removed the question mark, and then it became less confusing, at least for me!

Then I asked myself (and now you) what would happen to the program's operation if we substituted this code for the original line 130:

```
130 PRINT FND$(8,20);:LINE INPUT "SHE HAS PAID? ";PAID$:IF
   LEFT$(PAID$,1)="Y" OR LEFT$(PAID$,1)="y" OR LEFT$(PAID$,1)
   ="N" OR LEFT$(PAID$,1)="n" THEN PRINT BEEP$:GOTO 130 ELSE
   PAID=VAL(PAID$)           [Works for me! --ed]
```

Oh, yes! Before I forget it, the 5% (.05) sales tax for South Carolina is embedded into the code in line 260. Since it's the same as our Arkansas sales tax, I didn't have to change it.

Lenny, you and your other contributors are doing a great job with the JOURNAL. I wish you all much success and good health in 1991!

ALLIE C LINGO, P O Box 118, Dierks, AR 71833-0118

[Well, shucks! We DO try...and thanks for pointing out those

typos. We ran that program several times before re-doing it to fit our layout; maybe that's where they snuck in. Now for changing line 260 to fit your local tax: It starts out, "TOTAL=OWES*.05:...". Use edit and change the ".05" in line 260 to your own tax rate, then save the new version and run it. You'll then be perfectly legal! I'll have to ask 'ole Stapher to make necessary changes so we can get a printout of the program's calculations for those who need that set of bells & whistles. Probably'll take a couple editions before that's done, so if any of our readers have ideas, send 'em in, Real Soon Now! We'll publish them all. -- ed]

Dear Lenny,

Guess you can cross CDR SYSTEMS off your supplier's list. The enclosed envelope came back unopened and with a Post Office "NO FORWARDING ADDRESS" stamped notice on it!

Also, just bought a couple of printed-circuit boards and a half-height 5.25" drive from Tony Musnick of Broomall, PA. He said he'd gotten the drive from you, so if you're registering them, it's MINE now! (Hi!) (I think the boards came from Al Davis.)

CORKY E KIRK jr, 270 Kapualani Street, Hilo, HI 96720

[Hey, Corky. Called CDR at the number listed in our Jan-91 edition and found their address had been changed to 7171 Ronson Road, San Diego, CA 92111! According to Herman, the guy I talked with there, the change was made about two and a half or 3 years back. He also said he's now in charge, and that they are still making stuff for our 8-bit machines. So pay attention, you readers: Get in touch with Herman and buy something from him! Make it all worth Corky's and our time! NOTE: Along the same line, we just got back the courtesy copy of the JOURNAL sent to Clay Montgomery of SigmaSoft & Systems. It had a big ole yaller sticker on it: "Return to Sender: SIGMASOFT AND SYSTEMS 2433 WINTERSTONE DR, PLANO, TX 75023-7818 RETURN TO SENDER". Of course, we called Clay and found his old phone number had been changed to this new one: 214-596-0116. Caught him just in time to save him sending us a change-of-address notice! So everyone can now rest assured that we're reasonably up-to-date. Now, if any other readers know of additional vendor changes, or even better, NEW vendors of 8-bit stuff, please DO NOT HESITATE TO NOTIFY US IMMEDIATELY. Us SEBHCers need all the support we can possibly find! -- ed]

=====
 SPECIAL NOTICE... SPECIAL NOTICE... SPECIAL NOTICE... SPEC
 =====

Your'e entitled to advertise your surplus 8-bit equipment, software, magazines, junque, etc., in YOUR newsletter! Don't overlook this chance to trade, swap or sell surplus stuff for other items you need! A Free Service For ALL Subscribers!

SEBHC JOURNAL

Volume V, Number 7, Page 4

This Month's "ASK RICK" Feature

Conducted by Associate Editor Rick Swenton
106 Melinda Lane, Bristol, CT 06010-7176

Last month Charles Liss wrote the JOURNAL asking for help in getting his Heathkit H14 printer to work with an eye-bee peesee clone. Here's my reply to him:

Hi, Charlie,

I've never owned an H14 printer, but it's still possible that I can help you. If you were using the H14 with an older Heath 8-bit system, I assume that it has a serial interface.

The ibm-peesee and clones default to LPT1:--the parallel printer port--when you boot MS-DOS. To use a serial port for the system printer you must execute the following command:

```
MODE COM1:96,N,8,1,P
```

where COM1: is the serial port you want to use (there are four, COM1: thru COM4:)

- 96 are the first two digits of the desired baud rate
- N is No Parity, O is Odd Parity, and E is Even Parity
- 8 or 7 indicates the number of data bits
- 1 or 2 indicates the number of stop bits
- P indicates the serial port's being used for a printer and causes continuous retries during time-outs.

Be sure you select settings from the above list which correspond with your printer's current settings.

If you want, add the above command line to your AUTOEXEC.BAT file so that it will set up the serial port every time you boot up the system. To do that, use EDLIN and treat AUTOEXEC.BAT as if it were a text file. [Use the TYPE or READ command to examine your current AUTOEXEC.BAT file before changing it. -- ed]

Here are the computer rear-panel serial connector pin definitions:

DB-9 Pinout	DB-25 Pinout
1 - DCD <--	1 - GND
2 - TXD -->	2 - TXD -->
3 - RXD <--	3 - RXD <--
4 - DTR -->	4 - RTS -->
5 - GND	5 - CTS <--
6 - DSR <--	6 - DSR <--
7 - RTS -->	7 - GND
8 - CTS <--	8 - CD <--
9 - RI <--	20 - DTR -->
	22 - RI <--

I hope your breakout box and the H14 manual will help you

determine the proper connections between peesee and printer.

Also, be aware that the H14 will print some strange characters coming from the peesee, especially when you do a screen print from the keyboard, and the screen has graphics images displayed. Only an ibm-compatible graphics printer can correctly print graphics screen images.

Do let us know how you make out. We hope your main problem was caused only by not using the MODE command to enable a serial port....

/s/Rick

[Hey, Rick--guess ole Charlie'll get his printer working yet! And if he can't, we have an extra Epson FX-80 parallel interface printer complete with manuals he can get from us Really Cheap. We just had it completely overhauled and a new print head installed--only cost us \$225, but we owe Charlie a favor for loaning us his H47 drive setup, so he can make us any reasonable offer which he can afford. (We're easy to get along with, USUALLY.) NOTE: Associate Editor Rick Swenton advises us that he is now available on the General Electric Information service (GENIE) and SEBHCers can "Q & A" him by EMAIL. His USERNAME is R.SWENTON. (Guess I'll have to get back online, Real Soon Now!) -- ed]

=====
OR SALE... FOR SALE... FOR SALE... FOR SALE... FOR SA
=====

Two DIABLO 630 API printers in Mint Condition in their original cartons. Data and power cables included, with extra ribbons and font wheels. Take one, or both, no Reasonable Offer refused! Contact: Joe Caruana, TEL/S3 Corporation, P O Box 337, Mount Pleasant, SC 29465; phone 1-800-321-1442, anytime.

=====
EE" SUBSCRIPTION EXTENSIONS!... "FREE" SUBSCRIPTION EXTENSI
=====

Write a short computer-oriented article--fiction or fact--and send it in. If we accept and print it, you'll automatically get a one-year extension tacked onto your present subscription! We're particularly interested in "gee-whiz" type personal-experience stories which not only are funny, but contain good, useful information worth sharing with your fellow 8-bit users. C'mon, hide not your light under a bushel!

\$
\$ REWARD OFFERED: \$25 U S SAVINGS BOND FOR YOUR BEST ITEM! \$
\$
Between 1-Mar-91 and 1-Aug-91, the BEST ORIGINAL Article or Cartoon submitted to and printed by the SEBHC JOURNAL will be awarded one \$25 U S SAVINGS BOND! Judgement by our Editorial Board shall be un-yieldingly and un-approachably final. This offer is not available in stores & is void where prohibited.

WRITING BASIC(ally)

Part Three -- REAL Module Building
by
Editorial Assistant A Stapher

We're back to Part One (sort of) but now we're showing you how to write an MBASIC program which actually writes short modules for you. (You did buy your computer to cut down your work load, now didn't you?!)

This program is a fairly straightforward example of "top down" writing (see Listing 1 - The Main Program) and leaves little to the user's imagination when it is run. It actually creates an ASCII BASIC program which you save and can then MERGE with whatever program you're presently writing. This can save lots of time in setting up one house-keeping portion of your program--the main menu. The other house-keeping portions are things such as neat displays and instructions, both of which are necessary, but usually take up much of your programming time. A hidden (big) advantage of this "program which writes another program" is that you may use it as a guide in writing your own version to create those other housekeeping modules for displays and instructions. In the end, most of your programs written this way will exhibit a pleasing uniformity of operation and appearance and you won't develop club fingers from endlessly typing in the same set of BASIC instructions for each new program you write.

Our program consists of four blocks of code, two of which are passes through the array A\$(X). This program works as written with Heath's MBASIC V5.21 for CP/M, so if you copy it to run in HDOS MBASIC or B-H BASIC, insert an extra line just below the last top REM with 'CLEAR 5000' in it.

The first block of code (lines 110 - 290) is an input routine which gets from you all the information needed to create a menu. You're asked for the title lines, a line preceeding the list of menu options, the options, a query line, starting line number of to-be-created program, and increments between program lines (see Listing 2 - Sample Run).

As the program stands, we've set it up to provide space for three title lines, one options-title line, fifteen (potential) option lines, and the one query line. If you use all 19 lines you'll find your screen is pretty well filled but you can change the L=15 in line 210 to permit a few more. You can put up to 80 columns of text in each of the three title lines, and the one options-title line, but we don't expect you'll ever use all available space on each line (will you?!).

In the next two blocks, the program makes two passes thru the A\$(X) array. The first pass puts the custome code into the A\$(X) array, the first few locations being stuffed with the menu title and boarder. The menu title is centered on the display in lines 340 and 350. Next the options title is

coded into the array, and the loop puts the options into the next series of array A\$(X). The query is put into the array, and finally an INKEY\$ routine is incorporated into the program with a closing REM ending this pass. Note: HDOS M-BASIC and B-H BASIC have no INKEY\$ function, so replace each INKEY\$ in this listing with the following "get around it despite all obstacles" code: LINE INPUT "End input with <cr> ". This lets you enter a line of text up to the mandatory RETURN (<cr>).

After the entire array is filled with code, a second pass is made through it which attaches leading line numbers to each A\$(X) in order that BASIC can accept it as a program and not as a sequential or direct file. This loop used the starting line number (S) and increment value (N) to create the proper sequence of line numbers.

The next and last block of code, using a sequential file loop, writes the finished menu program module to disc under the filename you give it (example: SY1:/B:MY-MENU.BAS). This module is saved in ASCII rather than BASIC program tokens so that it may be later merged with your target program. You can now load and test-run the newly created menu module which will stop after you've appropriately answered the query.

Once satisfied that your new MENU program works, load it into BASIC and MERGE your previously-saved-in-ASCII-format target program. Test the entire program to be sure it works properly, and if you fix any bugs, be sure to save the repaired version to disc before exiting MBASIC!

In using your machine-made MENU remember that the menu's INKEY\$ routine saves user response in I\$. To exploit this input you must change the 'REM *** PLACE AN ON VAL(I\$) HERE' to a line containing a statement re-directing program control, such as an 'ON-GOTO' statement. This should be of the form ON VAL(I\$) GOTO... Remember that you must have as many target lines as you have GOTOs or your menu will either hang up or bomb out.

Once satisfied that your new MENU works, load it into M-BASIC and MERGE your previously-saved-in-ASCII-format target program with it. Test the entire program to be sure it works properly, and if you find and fix any bugs, be sure to save the repaired version to disc before exiting MBASIC. Usually I end with many intermediate fixed versions--such as PROG-1, PROG-2, etc.--before I'm through de-bugging my programs!

LISTING ONE -- The Main Program

```
10 REM                               MENUBLDR.BAS
20 REM This program generates an MBASIC program module
30 REM which can be MERGED with a different program,
40 REM thereby saving lots of typing time.
45 REM It also tends to standardise your program "form".
```

SEBHC JOURNAL

Volume V, Number 7, Page 6

More WRITING BASIC(ally)

```
50 E$=CHR$(27):CLS$=E$+"E":DIM A$(50),P$(20)
60 V1$=E$+"p":V2$=E$+"q":REM Rev video on/off code
70 PRINT CLS$:PRINT:REM CLS$=erase-screen
80 M1$=" MENU-BUILDING PROGRAM "
90 PRINT TAB(40-LEN(M1$)/2);V1$;M1$;V2$:PRINT
100 REM Get user input
110 PRINT TAB(10)"To leave a line blank (such as title line
or an option, etc.),
120 PRINT TAB(10)"answer prompt with <RETURN> instead of a
string.":PRINT
130 PRINT TAB(10)"How many lines will your title take (no
more than 3)";
140 INPUT L:IF L=0 OR L>3 THEN 130
150 FOR I=1 TO L
160 PRINT TAB(10)"Enter Title Line #";I;" ";:LINE
INPUT T$(I)
170 NEXT I
180 PRINT TAB(10)"Enter line to appear before options: ";
190 LINE INPUT B$
200 PRINT TAB(10)"You may have no more than 15 options.
How many ";
210 INPUT P:IF P=0 OR P>15-L THEN 200
220 FOR I=1 TO P
230 PRINT TAB(10)"Enter Option #";I;" ";:LINE INPUT P$(I)
240 NEXT I
250 PRINT TAB(10)"Enter Query Line: ";
260 LINE INPUT Q$
270 PRINT TAB(10);:INPUT "What starting line number would you
like ";S
280 PRINT TAB(10);:INPUT "What increment between lines would
you like ";N
290 PRINT:M2$=" WORKING... ":PRINT
TAB(40-LEN(M2$)/2);V1$;M2$;V2$;:PRINT
300 PRINT
310 REM First pass; put info into strings
320 A$(1)="PRINT CLS$:PRINT STRING$(79,"+CHR$(34)+"-"+CHR$(
34)+");"
330 FOR I=2 TO L+1
340 Z$=STR$(32-INT(LEN(T$(I-1))*5))
350 A$(I)="PRINT TAB("+RIGHT$(Z$,LEN(Z$)-1)+");"+CHR$(34)+
T$(I-1)+CHR$(34)
360 NEXT I
370 A$(L+2)="PRINT STRING$(79,"+CHR$(34)+"-"+CHR$(34)+");"
380 A$(L+3)="PRINT"
390 A$(L+4)="PRINT TAB(20);"+CHR$(34)+B$+CHR$(34)
400 FOR I=L+5 TO P+L+4
410 X=L-I-4
420 A$(I)="PRINT TAB(20);"+CHR$(34)+STR$(X)+". "+P$(X)+
CHR$(34)
430 NEXT I
440 Y=P+L
450 A$(Y+5)="PRINT TAB(20);"+CHR$(34)+Q$+" "+CHR$(34)+";"
460 A$(Y+6)="I$=INKEY$:IF I$="+CHR$(34)+CHR$(34)+" THEN"+STR$(
S+N*(Y+5))
470 A$(Y+7)="PRINT I$;:FOR X=1 TO 200:NEXT X"
480 A$(Y+8)="IF VAL(I$)>0 AND VAL(I$)<"+STR$(P+1)+" THEN"+
STR$(S+N*(Y+10))
490 A$(Y+9)="PRINT:PRINT TAB(20);"+CHR$(34)+"BAD ENTRY--
PLEASE RE-DO"+CHR$(34)
500 A$(Y+10)="FOR X=1 TO 1000:NEXT X:GOTO"+STR$(S)
510 A$(Y+11)="REM * PLACE APPROPRIATE 'ON VAL(I$)
GOTOS' HERE"
520 REM
530 REM 2nd pass--attach leading line numbers
540 REM
550 FOR I=S TO S+N*(Y+11) STEP N
560 M=M+1
570 A$(M)=STR$(I)+" "+A$(M)
580 NEXT I
590 REM
600 REM Get filename info & write program to disc
610 REM
620 PRINT TAB(10)"Program creation finished. Please enter
filename & extension"
630 PRINT TAB(10)"Here: ";:LINE INPUT F$
640 PRINT TAB(10)"Writing program to disc . . .";
650 OPEN "O",1,F$
660 FOR I=1 TO Y+11
670 PRINT #1, A$(I)
680 PRINT " ";
690 NEXT I
700 CLOSE
710 PRINT:PRINT:M2$=" ALL DONE! "
720 PRINT TAB(40-LEN(M3$)/2);V1$;M3$;V2$;:PRINT
730 PRINT TAB(10)"Now, just load the program ";F$
740 PRINT TAB(20)"to use your newly-created menu."
750 END
```

Figure One -- H19/89/90 MENU MAKER Display During Creation of Program Module Shown in Listing Two.

TEST OF MENU-MAKER PROGRAM (Will It Really Work?)

Here Are Your Options:
1. ENTER new data
2. PROCESS and OUTPUT data
3. QUIT
Select ONE:

LISTING 2 -- Program Created by MENU MAKER.BAS

```
100 PRINT CLS$:PRINT STRING$(79,"-");
110 PRINT TAB(15);"TEST OF MENU-MAKER PROGRAM"
120 PRINT TAB(24);"(Will It Really Work?)"
130 PRINT STRING$(79,"-");
140 PRINT
150 PRINT TAB(20);"Here Are Your Options:"
160 PRINT TAB(20);" 1. ENTER new data"
```

BASIC(ally) finis

8-BIT VENDORS etc.

```

170 PRINT TAB(20);" 2. PROCESS and OUTPUT data"
180 PRINT TAB(20);" 3. QUIT"
190 PRINT TAB(20);"Select ONE:";
200 I$=INKEY$:IF I$="" THEN 200
210 PRINT I$;:FOR X=1 TO 200:NEXT X
220 IF VAL(I$)>0 AND VAL(I$)< 4 THEN 250
230 PRINT:PRINT TAB(20);"BAD ENTRY--PLEASE RE-DO"
240 FOR X=1 TO 1000:NEXT X:GOTO 100
250 REM      * PLACE AN 'ON VAL(I$) GOTO' HERE
    
```

Note: The 'PRINT CLS\$' command on line 100 above must be defined elsewhere in your real target program to function correctly. To that end we'll cover a very useful screen-control module in our next installment.

Before we close this session, here's another BASIC nibble to whet your mental appetites. It reduces a very lumpy sentence (logic statement) into BASIC code: "If a year is divisible by four, it is a leap year--except if the year is also divisible by 100, then it is not--but if it is also divisible by 400 then it is." Since we are talking about something which is divisible in all three stated cases, we can use BASIC's Modulus Operator to see if there is a remainder of zero. The codes in lines 140, 150, and 160 (below) simply divides the year entered by four, 100, and 400 respectively to see if there's a remainder. Only an even zero remainder will indicate exact divisibility. For readers who use Benton-Harbor BASIC, we've included codes which lets that dialect reproduce the MOD function (they're shown as REMarked extensions to each MOD statement). Note that this listing is part of a larger calendar program which we'll present in subsequent editions.

LISTING 3 -- Program Segment For Determining if Year Entered is a Leap Year.

```

100 REM      LEAPYEAR.BAS    Determines if a year is Leap
110 REM This is the first part of a larger program
120 REM This space reserved for Screen Control codes...
130 INPUT "Enter year you want tested ";Y
140 Y1=Y MOD 4:           REM Y1=INT(Y-4*INT(Y/4))
150 Y2=Y MOD 100:        REM Y2=INT(Y-100*INT(Y/100))
160 Y3=Y MOD 400:        REM Y3=INT(Y-400*INT(Y/400))
170 IF (Y1=0 AND NOT Y2=0) OR Y3=0 THEN PRINT "It's a leap
    year" ELSE PRINT "No, it is NOT a leap year."
180 END
    
```

We hope that you'll all try out these programs and let us know how they worked for you, AND if you had any difficulty, how you got around it (or them, as the case may be). Please note that we didn't find the BH BASIC equivalent of MBASIC's ELSE statment before press time. Likewise, we didn't have enough time to run LEAPYEAR in that language, but we're fairly sure this little program can be made to work. Good luck, and have tons of fun!

==> EIGHT-BIT SOURCES, SERVICES, & VENDOR DIRECTORY <==

[Understand that we do our best to keep this list current!]
 ## PLEASE NOTE CDR and SigmaSoft & Systems Address Changes ##

CDR SYSTEMS, Inc., 7171 Ronson Road, San Diego, CA 92111; ph: 619-560-1272, 9a-5p Pacific Time Zone--ask for Herman.

8-bit machine memory devices, software, etc.

D-G ELECTRONIC DEVELOPMENTS Co., 700 S Armstrong, Denison TX 75020; phone 214-465-7805 (Central Time Zone)

8-bit "Heartbeat" computer, 8-bit "Super89" CPU upgrade/replacement board. Bruce Denton, president; Service & advice available, also some H8 and H/Z89 hardware at clearance prices; contact Bruce for details. A Certified GOOD GUY.

DISK MOVERS, 8534 McCormick Blvd, Skokie, IL 60076; phone 708-679-3727--ask for Miriam Campbell. Carry HARD SEC-

TOR discs for our H/Z8, '89s, also soft-sector discs in bulk quantities at very low prices! VERY NICE, VERY HELPFUL PEOPLE. (Do give them a call!)

MAGNOLIA MICROSYSTEMS, 2818 Thorndyke Avenue West, Seattle, WA 98199; phone 206-285-7266 (Pacific Time Zone)

Special memory upgrades and op-systems for H/Z89, 90s

MICRO COMPUTER REPAIR SERVICE, 1517 S State St, Ann Arbor, MI 48104, 313-663-3646 (Eastern Time Zone) DISC DRIVE REPAIR

& SALES. Tell Mike Morris Lenny sent ya! SUPER GUY!

MICRONICS TECHNOLOGY, Suite 159, 54 Dalrada Road, Montgomery, AL 36109; phone 205-244-1597 voice, 205-244-0192 bbs,

(Central Time Zone). Darrell C Pelan, president.

Software, hardware--especially hard drives for '89s. Catalogue & 8-bit help available. A REALLY GOOD GUY!

New Orleans Data General Services, 7230 Chadbourne Drive, New Orleans, LA 70126; phone 504-241-9388--"Dave".

Colour and sound boards for H8, H89. Out of business, but willing to provide tech advice on their products. ANOTHER GOOD GUY!

QUIKDATA COMPUTER SERVICES, Inc., 2618 Penn Circle, Sheboygan WI 53081; phone 414-452-4172--Henry Fale (Fah-lay) Prop.

Mfgr, sales, service, 8-bit machine support & parts; publishes H-SCOOP Heath/Zenith user's newsletter, 24 hour H/Z user BBS. Always busy but A REAL GOOD GUY!

SIGMASOFT & SYSTEMS, 2433 Winterstone Drive, Dallas, TX 75023-7818; phone 214-596-0116--Clay Montgomery Proprietor

hardware/peripherals mfg, software publisher, hardware & tech support, RAM drives, hi-res grafix add-ons for '89/90s. Catalog & help; FANTASTIC GOOD GUY!

SKYCASTLE COMPUTER PRODUCTS, Box 1412, San Carlos, CA 94070; 415-254-3931 after 6pm Pacific Coast time--ask for Mike.

Calligraphy-II and other FANTASTIC dot-matrix graphic printer software products. A REALLY, SUPER-GOOD GUY!

TMSI/LEE HART, 323 West 19th Street, Holland, MI 49423

"Inovative Products for the H/Z89"

Misc. 8-bit hardware items, hardware/software support of '89/90s; write for catalogue, help. "A NICE GUY" and TOP-NOTCH ENGINEER!

SEBHC JOURNAL

Volume V, Number 7, Page 8

The JOURNAL's CATALOGUE PAGE

Discontinued ("Vintage") H/Z Eight-bit CP/M software in Original Factory-Sealed Packages. Warranties WILL BE HONORED by Heath. All "Demo" software runs EXACTLY AS WARRANTIED PACKAGES DO, but updates aren't available (usually won't matter). Continuing Education (EC) packages are complete w/lectures on cassettes & final (college-acceptable credits) examination.

Item	H/Z cat #	Description	Price
SJ-XTRA		CP/M-80 for WH47--reformatted to either hard or soft sector 5.25" discs, \$8 (please specify).....	\$12.95
SJ-1	EC-1101	Programming in FORTRAN	* 19.95
SJ-2	173-57-1	MICROSOFT FORTRAN v3.4 (demo)	* 19.95
SJ-3	173-66-1	Programming in COBOL	* 9.95
SJ-4	173-58-1	COBOL-80 v4.0 Demo w/documents	* 9.95
SJ-5	EC-1110	Programming in Microsoft BASIC	* 19.95
SJ-6	HMS 837-1	CP/M MBASIC-80 softsector (wty)	* 19.95
SJ-7	HMS 817-1	CP/M MBASIC-80, hardsector "	* 19.95
SJ-8	173-56-1	MBASIC-80 (CP/M) demo w/manual	* 9.95
SJ-12	173-60-1	Softstuff CPS modem pgm (demo)	2.95
SJ-13	173-67-1	"Micropro" SUPERSORT for Wordstar	7.95
SJ-14	173-91-1	M-Pro MAIL MERGE w/warranty	7.95
SJ-15	HDR-837-3	M-Pro DESPOOLER w/warranty	7.95
SJ-16	173-201-1	MICROSTAT database wty, manual	29.95
SJ-22	173-61-1	SOFSTUFF GENRAL LEDGER pgm	7.95
SJ-23	173-62-1	SOFTSTUFF INVENTORY pgm	7.95
SJ-24	173-70-1	DATASTAR (w/warranty)	7.95

- Prices include shipping inside continental U.S.A. only except SJ-12 modem (add 50 cents for postage).
- All "Demo" software packages work EXACTLY as warrantied versions except manual pages are red over-stamped. (They're easy to read through a red cellophane overlay.)
- Some CP/M programs may not work on non-Heath machines, but usually can be patched with DDT (or equal) & run ok. ALL will run on H/Z-100 series machines on 8-bit side.
- On request we'll convert between hard- and soft-sector formats, between H/Z 5.25" and 8" formats (KAYPRO or Magnolia ss, sd 5.25" discs on special order) at \$5 each 5.25" target disc. Original distribution disc(s) will be included with converted discs.
- These are CLOSE-OUT PRICES; once gone, that's all folks!

Contact Gus Bakalis at D:KUG.DOC, 313-755-2060, or L Geisler at SEBHC JOURNAL, 313-662-0750 if you need more information. Note: Profits from any software sales made thru D:KUG.DOC go toward D:KUG.DOC's operating expenses.

NOTE: "*" means 10% off both packages if ordered as a pair w/matching course--example: MBASIC & Programming in MBASIC, COBOL & Programming in COBOL, etc.

(Most CP/M-80 runs on H/Z100-series machines under CP/M-85, 6)

+++++ FIBRE-BOUND SEBHC JOURNAL BACK-ISSUE VOLUMES

Catalog No.	Description	Price
V-I	= Volume I (Numbers 1 thru 12) Aug-86 - Jul-87..	\$22.50*
V-II	= Volume II (Nos 1 thru 12) Aug-87 -- Jul-88....	\$22.50*
V-III	= Volume III (Nos 1 thru 12) Aug-88 - Jul-89...	\$22.50*
*	Any TWO Volumes (save \$4.50).....	\$40.50
V-PLUS	= All THREE complete Volumes 15% OFF!.....	\$57.38
BI-V5:I#	= Single Issues From Volume V only.....	\$ 2.50

RENEWALS or NEW ONE and TWO YEAR SUBSCRIPTIONS

Order No. R-1	= Regular One Year Subscription, USA & FOREIGN,	\$24.00
Order No. A-1	= AIR MAIL USA, FOREIGN 1yr Subscription	\$35.00
Order No. R-2	= Regular Two Year Subscription.....	\$44.00
Order No. A-2	= AIR MAIL USA, FOREIGN 2yr Subscription	\$55.00

SPECIAL INFORMATION ABOUT YOUR SUBSCRIPTION

All subscriptions start in the month your order is received. Renewals continue from expiration month (example: address label top line reads "<999> expires Aug-99". If renewal payment is received in or before August, 1999 you'll get one more full year. Label top line would then read "<999> ends Aug-2000".)

SOFTWARE DISCS

Order No.	Description	Price
CGD#0S	40trk ss soft-sector CP/M-80 Games Disc #0....	\$ 6.96
	(Assorted games & utilities)	
CGD#0H	40trk ss HARD-sector CP/M-80 Games Disc #0....	\$ 7.96
HPCP#0S	40trk ss soft-sector HDOS 2.0 "Programmer's CARE Package" Disc #0 (Misc .ABS & .BAS utilities)..	\$ 3.00
HPCP#0H	40trk ss HARD-sector HDOS 2.0 "Prgrmr's CARE"..	\$ 3.66
WSKPS	WordStar H/Z19/89 Keypatch ==> DISCONTINUED <==	
HTXTS	40trk ss soft-sector TeXT PRoCessor DEMO disc..	\$ 2.50
	Version 4.1 for HDOS 2.0, 3.0	
HTXTH	40trk ss HARD-sector TeXT PRoCessor DEMO disc..	\$ 2.50
CTXTS	CP/M 40trk ss soft-sector TeXT PRoCessor Files with DEMO program & on-disc manual.....	\$29.95
CTXTH	CP/M 2-HARD-sec discs TeXT PRO, 2	\$30.95

==> When ordering Please:

- Pay ONLY by US Dollar Cheques or Money Orders.
- Allow about four weeks for single back-issues.
- Allow 5-30 days for discs, software & bound volumes.
- Use order blank on opposite page; list catalog number price and quantity of each item and mail with payment.
- Include LATEST issue's mailing label with ANY order!

NOTE: Unless otherwise indicated, postage, "handling" and shipping is included in all above-listed prices.

==> UNCLASSIFIED ADS <==

FOR SALE -- Working 64k H89A system as follows:

Item	Org Cost	Asking
H89A computer	\$895.00	\$100.00
Livingston Logic 4MHz CPU	90.00	40.00
B&B Serial-Parallel Card	90.00	40.00
CDR 500k RAM Drive	250.00	175.00
New Orleans Data General Color Graphics Card w/math co-processor chip & speech option *	350.00	150.00
Heathkit H17 dsdd disc drive, complete	250.00	75.00
Comrix 13" composite-video color monitor	275.00	100.00
C-ITOH 8510 Parallel Interface Printer	450.00	150.00
	-----	-----
Total Original Cost	\$2650.00	
	Total Sale Price	\$830.00

* Graphic card needs some work

Note: \$700 takes all--will negotiate. I pay packing, you pay shipping.

Software: CP/M & HDOS Word Processing, programming languages, games spreadsheets, plus documentation for software AND hardware. * FREE * if you buy the complete package!

CONTACT: Bob Hayward, 127 Mayfair Drive NE, Leesburg, VA 22075;
phone 703-874-0422 office, or 703-777-4186 res after 5pm EST

-----> Detach before filling out & mailing... <-----

The Subscription & Order Blank

Name _____	Order No.	Qty	Price ea	Total
Mailing Address _____	[_____]	[__]	\$_____	\$_____
_____ City _____	[_____]	[__]	\$_____	\$_____
State/Prov _____	[_____]	[__]	\$_____	\$_____
Zip/PO Code _____ Country _____	[_____]	[__]	\$_____	\$_____
Phone number(s) _____	[_____]	[__]	\$_____	\$_____
H/Z Computer: H8[_] H89[_] H90[_]	[_____]	[__]	\$_____	\$_____
Oper Sys: HDOS Ver _____ CP/M Ver _____	[_____]	[__]	\$_____	\$_____
Other (ZCPR, etc.) _____	[_____]	[__]	\$_____	\$_____
Computer used mainly for _____	[_____]	[__]	\$_____	\$_____
Favourite Programming Lanugage(s) _____	Total of this order:			\$_____

Please, NO C.O.D. orders!

=> Please Pay by Cheque or Money Order Made Out to: L E Geisler <=
NOTE--Only bound back issues of Volumes I thru IV now available!

THANK YOU FOR YOUR ORDER!

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: \$24.00/year in Canada, Mexico, USA and its' possessions. All subscriptions are mailed FIRST CLASS. Subscriptions start the month following order receipt. PLEASE MAKE CHEQUES or MONEY ORDERS PAYABLE TO L E GEISLER, NOT "the JOURNAL" or "SEBHC". Current 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 are clearly printed on mailing labels. 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 no later than 30 July, 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 subscribers/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 Zone, Mon thru Fri only. Other times (EMERGENCIES ONLY): 313-769-6052 (residence).

Serving H/Z 8-Bit Users Since 1986

SEBHC Journal

895 Starwick Drive
Ann Arbor, MI 48105

* ADDRESS CORRECTION REQUESTED
* RETURN POSTAGE GUARANTEED

==> FIRST CLASS POSTAGE IMPRINTED <==

To Whom It May Concern:

This Item IS *NOT* Junk Mail!