EXECUTIVE NOTES -- SOLON

Bill Shannon's presentation on Household Budget Management suggested a way to manage your money. And, his prize winning program on computing gasoline mileage suggests a way to save money. Thanks again Bill, for the presentation.

For August, I suggest you join us at the meeting for information on TI Basic Conversion. Jon Lucas will present information on converting other basic programs to TI BASIC.

It seems to me that our workshop sessions are solving problems. If you have one, come on out and let us discuss it.

See you August 11, 1984.

Walter Ryder
President

SEPTEMBER MEETING

Saturday, September 8, 1984

Solon Public Library -- Inwood Drive off SOM Center
10:30 am -- Education Session 11:30 am -- Membership Meeting

REFERENCE INFORMATION

Your mailing label supplies you with a variety of facts. It is to your advantage to verify the facts.

1. Name
2. Address
3. Membership Expiration Date

If you have any questions or concerns about your labels, contact Frank Jenkins at 283-8526.

MEMBERSHIP CONTACTS

Cleveland Area -- Solon:
Walter Ryder, President
921-8223

North Coast:
Jim Cline, President
261-2463

Cleveland West:
Joe Lorenz, Membership
842-3476

Golden Crescent, Lorain County:
Chuck Mareno, President
1-324-4388

EXECUTIVE NOTES -- NORTH ROYALTON

On Saturday, July 21, 1984 the **TI Chips** (formerly the North Royalton Users Group) conducted its monthly meeting.

Library Committee member, Rick Polivka, informed the group that the library currently has twelve disks ready for circulation. Members were reminded to return all borrowed materials at the time of the next meeting so that others may enjoy them. Have any old/extra magazines or periodicals? You can share information with your fellow Chipsters by donating printed materials to the library's Reference Section. For further information, contact Rick Polivka at 238-3971.

The Education Committee noted that responses from last month's questionnaires were quite helpful in determining the needs of the group. The majority of members agree that past presentations have been easy to understand and are useful for programming. Members also expressed an interest in debugging sessions, and preferred that sessions directly follow the regular monthly meeting. The Committee sponsored an excellent presentation by club member, Steve Latza. Steve reviewed two basic commands for graphic statements, "G" character and "H" character. Steve illustrated these subprogram commands by demonstrating how to program a square.

For the benefit of those who missed the May meeting, Tom Thalner of EduComp was on hand to report the merits of Cor-Comp's RS 232 Interface System.

Don Schmidt of Compro Systems brought a gleam to many an eye by announcing the arrival of a new draft quality dot matrix printer, the "Banana". This versatile machine runs on parallel or serial cable and will print either ten characters per inch or five characters per inch. Cost? We thought you'd never ask! $149.95!

For more information, contact Tóm at 327-6579 or Don at either 237-8887 or 225-2340.

Plans are underway to expand communications with other TI users. According to Vice President Mark McCauley, members with modems will soon have access to a local TI bulletin board, an exciting way to swap ideas, programs and information. Although the bulletin board is currently functioning on a flexible time schedule, with enough interest, it could develop into a 24 hour operation. For further details, contact Mark at 888-1119.

CONGRATULATIONS TO JOE LORENZ, THE GRAND PRIZE WINNER OF THE "NAME-THE-CLUB" CONTEST. For his efforts Joe has won a much coveted cassette program!

What has 37 Chips but keeps growing? Why, our membership, of course! We welcome Leslie Kee and Randy Maust as our most recent members.

Are you into Sherlock Holmes? Are picnics your favorite sport? Bring a lawnchair or blanket, pack a hamperful of goodies, and join us on August 18, 1984 at 10:00 AM for the TI Chips' First Annual Picnic! The location (oh! That's the mystery!) will be announced within the next two weeks. Keep your telephone or modem handy.

EXECUTIVE NOTES -- GOLDEN CRESCENT

As I stated last month, it's hard to write about events that have not taken place. Our July meeting was replaced by a picnic. To those members who attended, I'm sure you had a good time meeting other members and talking computers.

I'm also sure many members will not be able to attend for one reason or another. To those who did not make it... too bad, you missed a good time.

Our August meeting will be on the 25th at the Fire Station in downtown Amherst from 2:00 to 4:00 P.M. I expect we will have a light turnout. I hope I'm wrong. We will have a presentation of new Cor-Comp items. We will feature the new Disk Controller Card. It's a honey and I know everyone will want to see what it can do.

Our groups have a good write-up in the latest issue of Home Computer Magazine and as a result we've obtained several new members with more to come.

We are now in the process of contacting several of the clubs in the State with the intention of exchange of programs and newsletters. I will report on progress at the August meeting.

We have a new Treasurer, Mr. Dale Schieferstein who is replacing Mike Sumney who had to give up the office for business reasons. Mike did an outstanding job during his tenure and I'm sure all the membership joins me in thanking him for a job well done.

Hopefully, by the time the August meeting rolls around we will have club bulletin boards operating in both Lorain and Elyria. This will be in addition to the Cleveland board operated by the Northcoast Users group.

When we started this group my personal goal was to have a board up and operating and it looks like this will come true very shortly. This will give us the opportunity to have a lot of information available just a phone call away. So get those modems up and running, boys and girls, we gonna be on the air.

I would like to thank Jim Cline of the Northcoast group for all the help and assistance he has given our group. Our deepest thanks Jim.

See you in August...

Chuck Mareno

By the time you receive this newsletter, summer will almost be over - time to think about school. For those of you who have enjoyed your summer doing everything except computing, it is time to dust off the old 99/4A and get involved again. There are a lot of exciting things going on. Although much of my time the last few weeks has been spent on the Bulletin Board program I promise to devote more time to club responsiblities and look forward to moving ahead with some great new activities this fall.

I have been impressed with the attendance at the summer meetings which shows great potential for the up and coming months. A large attendance will give us more flexibility to split off into special interest areas which we plan to do at the September meeting.

Plans for the fall include tutorials on TI-Writer and Multiplan with the possibility of these being weekend seminars if there is enough interest.
Also, Maria Stavanja has volunteered to conduct a computer camp or workshop for the children. If you are interested, please let her know. Phone # 261-0808.

Thanks go out to John Wardrop for his excellent presentation of Personal Record Keeping. Thanks also to Walt Kozlowski for loaning us his new CorComp Disk Controller card. All those who saw it were impressed.

PICNIC

As stated in the last newsletter, we will be having a picnic in place of our August meeting. It will be held in the Strawberry Lane Park section of the Metro Park in Willoughby Hills, off Rt 91 south of I90. Signs will be posted. It will begin at 11:00 AM, eating at 12:30 PM. There is a ball field for those who want to play ball and swingsets for the children. It will be a pot-luck style with each person bringing a dish or two. If you wish to grill, bring your own supplies. Cold beverages will be provided by the club. We need a count of how many will be going so please contact my wife, Kathy, and let her know what and how many you are bringing. It should be a great time. Be sure to bring the family.

At the September meeting we will have a short review fo the subprograms available through the PRK module and a short tutorial on Personal Report Generatr. We will also show you how to clean the GROM (module) slot which can cause problems and how to make your own 9 volt power supply for a modem or cassette recorder.
For FORTH people we will show some demo programs which are included in this newsletter and will show you how to copy diskettes using TI-FORTH, regardless of protection.

REMEMBER

PICNIC	NEXT MEETING
When - August 25th	When - September 29th
Where - Strawberry Lane	Where - Euclidian Room
Willoughby Hills	Euclid Square Mall
Metro Park	
Time - 11:00 AM (food at 12:30)	Time - Regular Meeting 1:30 PM

See you at the picnic!!
Jim Cline - President
261-2463

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BARGAIN CORNER

FOR SALE!

    One WICO joystic, asking price -- $10.00
    Software packages -- Wizard's Dominion, Wildcatting: asking price $4 each
    Alpiner, Bigfoot, asking price -- $8 each
    CONTACT John McCoy at 234-2597.

SUPER DEBUGGER:

TI has finally relesed Navorone Industries Super Debugger. Check with your local dealers. The Super Debugger (Copyright 1982 by Navarone Industries) was the debugger TI was promising to release for sale before TI got out of the Home Computer Market. Now it is public domain. It is sold as is including typos and bugs, and with no source code. It doesn't work from BASIC like the help file says it will (a typo in the help file?) but it does compliment the Debug program. Both can do some things the other can not. The Super Debugger has a disassembler although it is not known how well it works. It can dump to printer or disk. It comes with a help file, complete with typos.

BUYING A MODEM

A modem serves as a translator. It changes the computer's outgoing pulses into waves so they can be sent through the phone lines, and changes incoming signals back to pulses so the computer can receive them.

An important feature to look for in a modem is TI compatibility. If the modem you purchase is not TI compatible, you will have to purchase a special adapter for the RS232 interface. Other features to look for include originate/answer (the ability to place and receive calls), full-duplex (the ability to simultaneously send and receive information), and a 300 baud (bits per second) rate. Other features not normally found on TI compatible modems, but are nice to have, include auto-dial and auto-answer. If you already have a modem and are interested in converting it to auto-answer/auto-dial, check this newsletter--information will be available soon.

The modem made by TI is an acoustic coupler model; you insert the phone's handset into rubber cups. Another type is direct connect; the phone is connected directly to the modem via the modular phone jacks. Because the modem is plugged into the phone line, the connection is less susceptible to outside interference. However, direct connect models are generally more expensive than acoustic coupler models. Anchor Automation makes a TI compatible, direct connect modem, the Signalman Mark III.

Modems require their own power source. You can use a battery, but an AC adapter is a good investment. After all, you don't want to be in the middle of a great conversation with another computer and realize your batteries are dead!

Miriam Huebscher-Alberts

ZIP,ZAP,ZING

While listening to WNIR Game Radio I became convinced
that one game played by WNIR could more easily be done
by my TI99-4A.

It was a counting and word substitution game involving
counting as high in 60 seconds, while substituting
three words for three numbers and the multiples of those
numbers.

For example: the #4 sub.,zip the #6 sub.,zap the #8 sub.,
zing now count 1,2,3,zip,5,zap,7,zip,zing,9,10,11,zip,zap,
13,14,15,zip,zap, etc. until 60 seconds are up.

The ZIP,ZAP,ZING game is a real test of mental dexterity
but to the TI99-4A it's a snap. Try it at a party use this
program to check your friends answers.

```
5    REM ZIP,ZAP,ZING BY DAVE BLOCH
10   CALL CLEAR
20   X=0
30   INPUT "ZIP ":AX
40   INPUT "ZAP ":BX
50   INPUT "ZING ":CX
60   FOR A=1 TO 200
70   GOSUB 140
80   GOSUB 190
90   GOSUB 240
100  IF X>0 THEN 120
110  PRINT A;
120  X=0
130  NEXT A
140  IF A/AX=INT(A/AX) THEN 160 ELSE 150
150  RETURN
160  PRINT "ZIP ";
170  X=X+1
180  RETURN
190  IF A/BX=INT(A/BX) THEN 210 ELSE 200
200  RETURN
210  PRINT "ZAP ";
220  X=X+1
230  RETURN
240  IF A/CX=INT(A/CX) THEN 260 ELSE 250
250  RETURN
260  PRINT "ZING ";
270  X=X+1
280  RETURN
```

```
100 ! TEXTTO/PRO BY CURT PURDY ID# 74226,472
110 ! REVISED BY BARRY TRAVER ID# 70436,373
120 ! CONVERTS DIS/VAR 80 TEXT FILE TO PRG FORMAT
130 ! D/V80 FILE CAN BE MADE WITH <LIST "DSK1.FILENAME">
140 ! OR USE E/A , TI-WRITER  TO CREATE & SAVE PRG
150 ! *DO NOT* USE C/R'S AT END OF LINE
160 ! USE FIXED MODE OR REPLACE WITH BLANK USING (RS)
170 ! *DO NOT* SAVEFILE (SF) BUT PRINTFILE (PF) TO LOSE GRABAGE AT END
180 ! IF STANDARD LINE NUMBER INCREMENT OF 10 IS USED THEN NO  EDITING IS REQRD
190 ! OTHERWISE, IF # CHARACTERS/LINE > 80 THEN INSERT @ IN 81ST
200 ! RUN THIS PROGRAM
210 ! AFTER ">READY" ENTER  "NEW" THEN
220 ! MERGE"DSK1.<FILENAME>" THEN
230 ! BRING UP EVERY LINE#  WITH FCTN."X" & DELETE 1ST SPACE
240 ! I.E. HOLD DOWN FCTN & ALTERNATELY HIT X,1,X,1...
250 ! SAVE DSK1.<PROGNAME>
260 !
270 REM ON ERROR 540
280 DEF P(M$)=POS(M$," ",1)-1
290 PRINT "TEXTTO/PRO": : :: INPUT "SAVED DIS/VAR 80 FILENAME? ":F$ :: IF SEG$(
$,1,3)<>"DSK" THEN F$="DSK1."&F$
300 PRINT :"CHOOSE ONE:": :"1. STANDARD INCREMENT OF 10": :"2.TEXT EDITED WITH
": :"WHAT IS YOUR CHOICE?";
310 CALL KEY(0,K,S):: IF S=0 THEN 310 ELSE IF K<49 OR K>50 THEN 300 ELSE K=K-48
:: PRINT K: :
320 INPUT "TEMPORARY MERGED FILENAME?":M$ :: IF SEG$(M$,1,3)<>"DSK" THEN M$="DS
1."&M$
330 PRINT
340 OPEN #1:F$,INPUT ,DISPLAY
350 OPEN #2:M$,OUTPUT,DISPLAY ,VARIABLE 163,SEQUENTIAL
360 LINPUT #1:A1$
370 IF A1$="" OR LEN(A1$)<2 THEN 360
380 IF EOF(1)<>0 THEN 440
390 LINPUT #1:A2$
400 ON K GOTO 410,430
410 P2=P(A2$):: IF P2<1 THEN P2=1
420 IF SEG$(A2$,1,P2)<>STR$(VAL(SEG$(A1$,1,P(A1$)))+10)THEN A1$=SEG$(A1$&RPT$("
",80),1,80)&A2$ :: GOTO 380 ELSE 440
430 IF SEG$(A2$,1,1)="@" THEN A1$=SEG$(A1$&RPT$("",80),1,80)&SEG$(A2$,2,LEN(A2$
-1):: GOTO 380
440 GOSUB 550
450 A1$=A2$
460 IF EOF(1)=0 THEN 380
470 IF SEG$(A1$,1,1)<>"@" THEN GOSUB 550
480 PRINT #2:CHR$(255)&CHR$(255)
490 CLOSE #1 :: CLOSE #2
500 PRINT "READ REM AT BEGINING FOR INSTRUX"
510 PRINT "ON CHANGING YOUR TEMPORARY MERGED FORMAT TO A PROGRAM"
520 PRINT "THAN CAN BE RUN & SAVED."
530 STOP
540 PRINT :"READ REM AT BEGINING OF THIS PROG FOR INSTRUX" :: RETURN
550 A$=A1$ :: B=P(A1$)
560 C=INT(VAL(SEG$(A1$,1,B))/256)
570 D=VAL(SEG$(A1$,1,B))-(C*256)
580 E=LEN(A1$)-B
590 PRINT A1$
600 A1$=CHR$(C)&CHR$(D)&SEG$(A1$,B+1,LEN(A1$))&CHR$(0)
610 PRINT #2:A1$ :: RETURN
620 END
```

TI-FORTH Screens: by Ed York

The 'Step-By-Step' instructions on how to begin typing in the TI-FORTH screens are really quite simple. The steps listed below should enable you to not only begin typing into the TI-FORTH screens, but also see, save and later recall the 'fruits of your labor'. I will use the program that I wrote as the example in the 'Step-By-Step' instructions. Note: In order to type in the other program, simply substitute where neccessary. The two TI-FORTH programs in this newsletter can be entered into screens 31 and 32.

Step 1: Make a 'working' copy from your master copy of TI-FORTH without covering the protect-notch.

Step 2: Load TI-FORTH, using the working copy, per the instructions in Chapter 1 of the TI-FORTH manual.

Step 3: Load in the following options per the instructions in Chapter 1 of the TI-FORTH manual: -EDITOR -VDPMODES -GRAPH

Step 4: Edit screen 31 by typing in the following: 31 EDIT

Step 5: Type in the program exactly as it is written.

Step 6: Press the 'FUNCTION-BACK' key when you have finished typing in the program.

Step 7: Type in the following in order to save the screen you have just typed: FLUSH

Step 8: Type in the following in order to load the 'fruits of your labor': 31 LOAD

Step 9: Type in the following if you are ready to see the 'fruits of your labor': A9

Note: In order to verify that the screen was indeed saved type in 'MON' and you should return to the title screen. Simply load TI-FORTH again following steps one, two, three, eight and nine.

Free Program: by Ed York

The program listed below is written in TI-FORTH to demonstrate just how easy it is to draw a few lines on the screen. Did I say a few lines? This is the program that is referenced to in the article entitled "TI-FORTH Screens" by Ed York. Note: I want to both acknowledge and thank Rick Mirus for his help in understanding the logic of how to both draw a line and use a loop.

```
SCR #31
   0  ( GRAPHICS EXAMPLE 1 )
   1  (                     )
   2  (        ED   YORK     )
   3  (                     )
   4  ( CIN-DAY USER GROUP )
   5  (                     )
   6  : A0 GRAPHICS2 0 DMODE ! ;
   7  : A1 17 0 DO I 8 * 191 128 191 I 8 * - LINE LOOP ;
   8  : A2 17 0 DO 255 I 8 * - 191 128 191 I 8 * - LINE LOOP ;
   9  : A3 17 0 DO 128 I 8 * + 191 255 191 I 8 * - LINE LOOP ;
  10  : A4 17 0 DO 128 I 8 * - 191 0 191 I 8 * - LINE LOOP ;
  11  : A5 17 0 DO 0 I 8 * 0 128 0 I 8 * + LINE LOOP ;
  12  : A6 17 0 DO 255 I 8 * - 0 128 0 I 8 * + LINE LOOP ;
  13  : A7 17 0 DO 128 I 8 * + 0 255 0 I 8 * + LINE LOOP ;
  14  : A8 17 0 DO 128 I 8 * - 0 0 0 I 8 * + LINE LOOP ;
  15  : A9 A0 A1 A2 A3 A4 A5 A6 A7 A8 ;
```

The program listed below was submitted by Rick Mirus, a member of the Cin-Day User Group. The program is written in TI-FORTH and will display a digital clock on the screen (complete with seconds) and allow you to continue programming in TI-FORTH. Great programming job Rick!

```
SCR #33
  0 < clock  to start enter hour 1 - 24 and minute and TIME >
  1 0 VARIABLE XX 8 ALLOT  58 XX 2 + C! 58 XX 5 + C! 0 VARIABLE TT
  2 : *UPDATE 1 TT +! TT @ 59 > IF 0 TT !
  3 XX 7 + 1 OVER C@ + DUP 58 < IF SWAP C! ELSE DROP 48 SWAP C!
  4 XX 6 + 1 OVER C@ + DUP 54 < IF SWAP C! ELSE DROP 48 SWAP C!
  5 XX 4 + 1 OVER C@ + DUP 58 < IF SWAP C! ELSE DROP 48 SWAP C!
  6 47 TT !
  7 XX 3 + 1 OVER C@ + DUP 54 < IF SWAP C! ELSE DROP 48 SWAP C!
  8 XX 1 + 1 OVER C@ + DUP 58 < IF SWAP C! ELSE DROP 48 SWAP C!
  9 XX DUP C@ 1 + SWAP C! ENDIF XX C@ 50 = XX 1 + C@ 52 = + 2 = IF
 10 48 48 XX C! XX 1+ C! ENDIF ENDIF ENDIF ENDIF ENDIF
 11 XX 22 8 VMBW ENDIF ;
 12 : TIME 10 /MOD 48 + XX 3 + C! 48 XX 6 + C! 48 XX 7 + C!
 13 48 + XX 4 + C! 10 /MOD 48 + XX C! 48 + XX 1+ C!
 14 INTLNK @ ' *UPDATE CFA  ISR !  -31804 ! ;
 15 : STOPCLOCK 0 -31804 ! ;
```

This is a clock program written in TI Forth. To set the clock enter the hours and the minutes and enter TIME. The word STOPCLOCK will stop it. Here is a line by line description of how it works:

LINE 0: Remark. Not needed.
LINE 1: Variable TT will be used to count tenths of a second. Variable XX will be 8 bytes long. 2 bytes for hour, a colon, 2 bytes for minutes, a colon, and 2 bytes for seconds. The time is stored in ASCII so it won't have to be converted before writing to the screen. Char 58 is a colon.
LINE 2: The word *UPDATE is the main portion and is responsible for keeping track of time and displaying it on the screen. The word *UPDATE will be executed 60 times per second. Each 1/60th of a second 1 is added to TT. If TT is greater than 59 then 1 second has elapsed and clock is updated by lines 3 to 10.
LINE 3: XX + 7 (units seconds) is incremented by 1. If greater than 9 (ASCII 58) then it is made equal to zero (ASCII 48) and tens seconds is updated
LINE 4: Update XX + 6 (tens seconds)
LINE 5: Update XX + 4 (units minutes)
LINE 6: Correction factor. Adds 470 milliseconds to clock every ten minutes to make up for inaccuracy in clock. This can be changed from 0 to 59 to slow or speed up the clock.
LINE 7: Update XX + 3 (tens minutes)
LINE 8: Update XX + 1 (units hours)
LINE 9: Update XX (tens hours) If the maximum time has been reached then reset to all zeros. To change from a 24 hour clock to a 12 hour clock change 58 to 49 and change 52 to 50.
LINE 10: Change time to all zeros.
LINE 11: Display time on screen. XX is memory location of time data. 22 is the screen location to start writing. Changing this value will change where the clock appears on the screen. 8 is the number of characters to be displayed. This could be changed to 5 to display hours and minutes only. No seconds.
LINE 12: Create word TIME which breaks up starting time into tens and units and stores the ASCII value (add 48) in variable XX.
LINE 13: Continuation of line 12.
LINE 14: Set up ISR so that the word *UPDATE will be executed 60 times per second. Chapter 10 page 3 of Forth book explains this.
LINE 15: Word STOPCLOCK stops ISR by putting a zero into memory location -31804 (hex 83C4)
This clock will work in the TEXT mode and the GRAPHICS mode. Variable XX is actually an array. In line 2 "8 allot" is similar to "dim XX(8)" in BASIC. This command sets aside 8 bytes for XX. If the time was 12:45 the time would be stored like this:

```
XX XX+1 XX+2 XX+3 XX+4 XX+5 XX+6 XX+7  (variable names)
1   2    :    4    5    :    0    0     (ASCII characters)
49  50   58   52   53   58   48   48    (ASCII codes)
```

Since this clock is updated by an ISR the computer is free to do other things while the clock is running. You can even write and edit Forth programs with the clock running. Use the STOPCLOCK command before using COLD command or Bit-Map modes.

AT LAST !!!   OUR OWN BULLETIN BOARD

THE CLEVELAND AREA USER GROUPS have finally started a new TI electronic bulletin board for members with telecommunication capabilities. It utilizes the best of the TEII module, sending speech and graphics, changes screen colors and has a message base with several sections. Also is a feature section to allow tutorials and longer text files. You can participate by writing an article or column for this section.

We are currently working on a feature to allow downloading of programs.

We are forming a BBS special interest group (SIG) to oversee the operation of the BBS. We are asking for a $10.00(optional) fee to access the board. This money will pay for the phone line, modem, and other expenses. Three of the four Cleveland Area groups have already agreed to pick up the monthly phone charge which amounts to $15.00 total to be split. The fourth group is still considering it. If you are interested in getting this board going, please contact your clubs officers and give them your encouragement and support.

Those persons contributing toward the BBS will be granted special priveleges such as extra access time and the ability to download programs.

So far the response has been very favorable.

Check it out by calling 289-7311 between 7 AM and 12:00 PM(MIDNIGHT). USE THE default values of the TEII module. The board will operate on a 24 hour basis for a trial period starting Sunday 8/5. Based on the usage and support of the groups we will be able to go to 24 hours on a permanent basis in the future.

Next month we will have more detail on how to use the BBS and the features available.
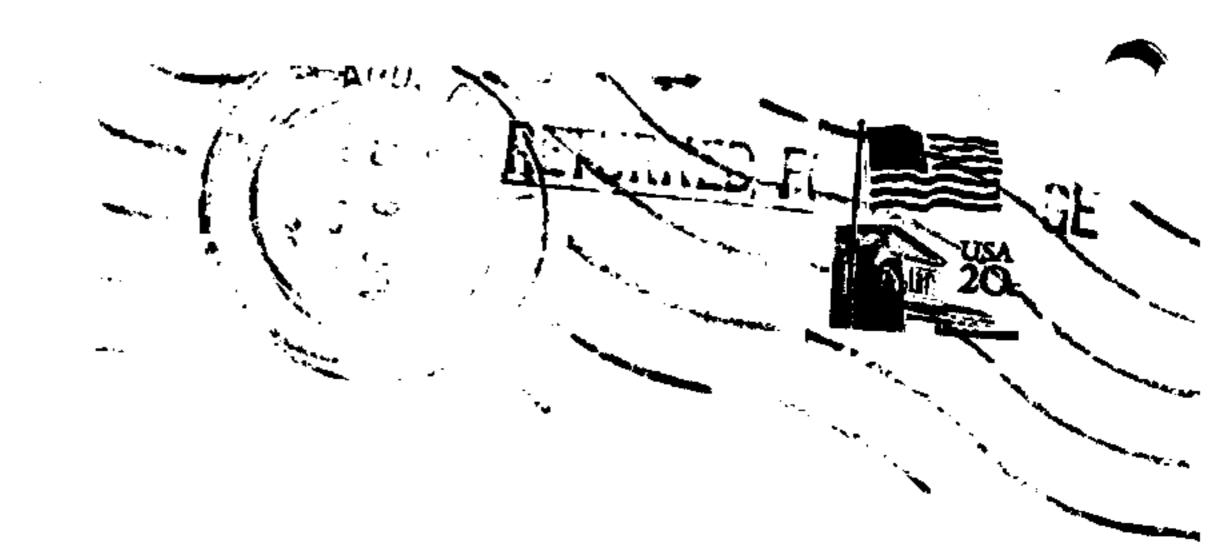
At present, the system is set-up at my home due to continued software developement. However, it could be relocated if there are volunteers.

Jim Cline - SysOp

HOME COMPUTER MAGAZINE - Another Change

HCM has announced that it is changing its format again. Starting in September, HMC will no longer run advertising within the pages of the magazine itself. It will, however, send out by seperate mail a booklet with just advertising about 8 times per year. Also, the program listings will all be grouped together in one section. This move was made in order to improve the quality of the magazine allowing them to concentrate on the articles. Keep you eye out for the next few issues!!

CLEVELAND AREA 99/4A USERS GROUPS
P.O. BOX 391101
SOLON, OH 44139

03/85

!!TIME DATED MATERIAL!!