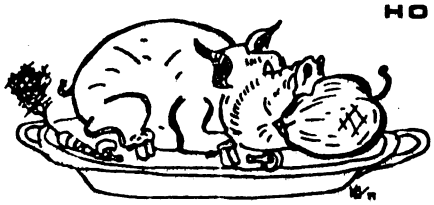
HOUSTON AREA APPLE USERS GROUP



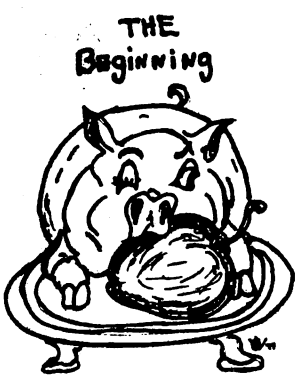
News from the Apple Barrel

VOLUME 3 NO. 5 JUNE-JULY, 1980

President, Bruce Barber

Editor, Ed Seeger

<<< C O N T E N T S >>>



<<< IN CASE YOU HAVEN'T HEARD >>>

(The Apple III is Out!)

Every self-respecting Apple-oriented newsletter is obliged to report something like the following article, and is doing so! Without a doubt the new Apple III is an interesting, maybe to some fascinating machine. BUT IT IS NOT A HOBBYIST MACHINE. I wish there were some easy way to make that point stick. IT IS NOT A HOBBYIST MACHINE. That is to say, you are not going to run out and trade in your faithful Apple II on a brand new III. Nor are you going to want to wait to kick tires on a III before deciding whether or not to spring for an Apple or an Atari (or whatever other seductress you may be about to fall for). All of the hype you are hearing? Don't let it rattle you into believing Apple, Inc., is about to abandon you to the ravages of planned obsolescence. True enough, Apple is out to sell the business market, and that's who the new stuff is aimed at. You don't believe it? Read on, and then judge for yourself if the Apple III is something you'd install in the workroom for accessing the Source, teaching French vocabulary, or outsmarting the wiley space invaders.

Let's run down some specs, and then talk about it:

* CPU is a 6502A, running at 2 MHz.
* Will ultimately address 512K, initially 96K RAM.
* Built-in 5 1/4" disk drive with 143K storage.
* Expandable to 4 drives with built-in disk controller.
* Built-in battery-powered clock/calender.
* 6-bit digital-to-analog converter for good quality audio.
* RS-232C serial port.
* SILENTYPE Printer port.
* 4 analog-to-digital converters can be used with joysticks.
* Full upper/lower-case keyboard with 10-key pad.
* Fast repeat, alpha-lock and 4 cursor movement keys.
* 2 independently-programmable "soft keys".

* Video display 80 x 24 U/L-case.

* Apple II emulation mode.

* 3 new graphics modes:

  Mode I - 140 x 192 dots, 16 colors or shades of gray.

  Mode II - 280 x 192, 16 colors which can change only every 7 dots.

  Mode III - 560 x 192 ultra-hires black and white.

* Sophisticated Operating System (SOS) occupying around 14K.

* An interpretive business BASIC.

* A new VISICALC.

* Comes in 3 versions:

  V.1 - 96K Apple III, built-in disk drive, 12" B&W monitor, SOS, Business BASIC, Visicalc III, Mail List Manager.

  V.2 - Essentially a word-processing system, 96K Apple III, 2 disk drives, monitor, SilenType printer or Qume Letter Quality printer, SOS, Business BASIC, and a word processor with tutorial instructions.

  V.3 - Hardware as in V.2 (excluding printer), has SOS, Business BASIC, FORTRAN, and Apple USCD Pascal. Primarily for software development.

======> COST? $4000-8000+, DEPENDING ON YOUR CHOICE OF VERSION.

After all the noise has died, your Apple IIs will be supported for a promised 5 years by Apple, Inc., not to mention support by the vast second source industry, exemplified by Mountain Hardware, Personal Software, Information Unlimited Software, and scores of smaller shops all over the country. To think the Apple III will compete with your Apple II is like fearing the Corvette would crowd out the Nova! It isn't going to happen. The features and the price suggest a non-hobbyist market, but we also expect to see filter down such innovations as a new DOS (look for 3.3 later in 1980), maybe a scaled-down SOS, FORTRAN (already announced for the II), and also a new BASIC and Pascal. So relax; it appears that everyone will benefit. Hold onto them Apples; they've got a few useful years still

in them. And if you want to soup up the old Nova, turbocharge it with one of those new Z-80 boards. They say it'll really scream!

> EBS

HAAUG MEMBERSHIP SURVEY

Attached within this issue of the Apple Barrel is our first membership survey. The purpose of the survey is to accomplish the following objectives:

1) To update our information such as addresses, phone numbers, etc. (Including Source or Micronet)

2) To find your special interests in using your Apple. (This will help in designing meetings and articles.)

3) To create a force of volunteers for special areas in which we need help.

4) To get any other input that you wish to give.

Please give special attention to the Volunteer section (Sec. 3). This is an opportunity to strengthen our club and its activities, and get more people "involved." The survey will be most valuable if everyone responds. Won't you take a few minutes now to complete it, staple it closed, and mail it? Thanks for your help! (Results will be published soon.)

HAAUG MEMBERSHIP SURVEY

1) _____ ____ _____ ( ) _____
First Name M.I. Last Name A.C. Home Phone #

_____ ____ _____ _____ _____
Street Address APT # City State Zip

_____ _____ ( ) _____
Occupation Company Name A.C. Work Phone #

_____ ____ _____ _____ _____
Business Mailing Address Ste. City State Zip

I PREFER MAIL TO: BUSINESS [ ] RESIDENCE [ ]

Source # _____ Micronet # _____

2) Special Interest (Please check areas of most interest to you):

Games/Puzzles	___	New Languages	___
Science/Engineering	___	Hardware	___
Business Applications	___	Programming	___
Source/Micronet	___	Other _____	___

How do you use your Apple? (Answer approximate percentages):

Games _____% Business _____% Word Processing _____%

Source/Micronet _____%

3) Help is need in the following areas. Please check where you would help if called:

a) Writing Articles For Apple Barrel	___	h) Maintaining Hardcopy Library	___
b) Mailing Apple Barrel (collating, stapling)	___	i) Putting Directory Together	___
c) Writing Programs For Apple Library	___	j) Helping on Membership	___
d) Evaluating Programs	___	k) Membership Orientation	___
e) Maintaining Program Library	___	l) Hardware Projects	___
f) Help Run Program Exchange	___	m) Sale of Discount Merchandise	___
g) Bring Apple to Program Exch.	___	n) Office Assistance	___
		o) Facilities Coordinator	___
		p) Special Projects	___
		q) Other _____	___

4) What else? Any feedback you'd like to give? _____

_____

_____

THANK YOU !!!

(PLEASE STAPLE HERE)

(FOLD HERE)

FROM _____

_____

_____

Please
Affix
Postage

HAAUG SURVEY
% DENNIS CORNWELL
7981 KENDALIA
HOUSTON, TEXAS 77036

(FOLD THIS FLAP IN FIRST)

<<< BUSINESS AND FINANCE MEETING >>>

The next meeting of the Business and Finance Special Interest Group will be on Tuesday, July 22, at the EBASCO offices, 3731 Briar Park at corner of West Park. The program will include a demonstration of Apple's Controller system, including Accounts Receivable, Accounts Payable, and General Ledger. For further information call Rudge Allen, 622-3979, or Lee Gilbreth, 780-4466.

===> Coming up in August: Apple III demo.

FILE CABINET STUFFER

--by Mike Kramer

With all of its capabilities, FILE CABINET (I thru IV) does not lend itself to changing a specific item or items common to all records in a given data base. FILE CABINET STUFFER provides a convenient way to loop through all records and examine, enter, or change any or all values.

When executed, FILE CABINET STUFFER first displays a menu of available data bases as stored in the BASENAMEFILE. When a database has been selected, a list of headers for the selected database is listed. The user is then asked to select which item to list by, how many items are to be changed in each record, and which items they are.

The program loops through the records, displaying the record number, the item to list by, and current values of the selected items. As the current values are displayed, the user can change the value of the item, enter a '/' if no change is to be made, or enter a '*' to stop and return to the menu. When a '*' is entered or the last record has been processed, the user is asked if the files are to be updated.

A sample dialog and the listing follow. Anyone wanting a copy of the program is welcome to copy it.

```
]LIST

10  REM      FILE CABINET STUFFER

20  REM
30  REM
40  REM          WRITTEN BY
50  REM         MIKE KRAMER
60  REM           4/21/80
70  REM
80 D$ =  CHR$ (4)
90  PRINT D$;"NOMON,C,I,O"
100  DIM DB$(20),IP$(40,40),H$(40
),IT(40),TI$(3)
110  GOSUB 1110
120 TI$(1) = "*** FILE CABINET ST
UFFER ***"
130 TI$(2) = "WRITTEN BY"
140 TI$(3) = "MIKE KRAMER"
150  HOME
160  FOR N = 1 TO 3
170  VTAB 6 + 2 * N: PRINT  TAB(
20 -  LEN (TI$(N)) / 2)TI$(N
)
180  NEXT N
190  VTAB 21: PRINT "INSERT FILE
DISC AND PRESS ANY KEY:";
200  GET A$
210  PRINT D$
220 D$ =  CHR$ (4):OP$ = "OPEN":C
L$ = "CLOSE":RD$ = "READ":WR
$ = "WRITE"
230 PD$ = "PERIOD":HD$ = " HEADER
":IX$ = " INDEX":FI$ = "FILE
":BN$ = "BASENAME"
240  REM  ** READ BASENAMEFILE
250 FL$ = BN$ + FI$
260  ONERR  GOTO 1090
270  PRINT D$;OP$;FL$
280  PRINT D$;RD$;FL$
290  INPUT ND$:ND =  VAL (ND$)
300  FOR N = 1 TO ND
310  INPUT DB$(N)
320  NEXT N
330  PRINT D$;CL$;FL$
340  REM  ** DATA BASE MENU
350 TI$ = "FILE CABINET DATA CHAN
GE"
360  HOME : PRINT : PRINT  TAB( 2
0 -  LEN (TI$) / 2)TI$: VTAB
8
370  PRINT "SELECT A DATABASE:"
380  FOR N = 1 TO ND
390  PRINT  TAB( 5)"(";N;") ";DB$
(N)
400  NEXT N
410  REM  ** SELECT DATA BASE
420  PRINT : PRINT : INPUT "ENTER
 NUMBER OR '/' TO END: ";NU$
:NU =  VAL (NU$)
430  IF  LEFT$ (NU$,1) = "/" GOTO
1070
440  IF NU < 1 OR NU > ND GOTO 42
0
450  REM  ** READ HEADER FILE
460 FL$ = DB$(NU) + HD$ + FI$
470  PRINT D$;OP$;FL$
480  PRINT D$;RD$;FL$
490  INPUT NH$:NH =  VAL (NH$)
500  FOR N = 1 TO NH
510  INPUT H$(N)
520  NEXT N
530  PRINT D$;CL$;FL$
540  REM  ** SELECT HEADER TO CHA
NGE
550  HOME : VTAB 2: PRINT DB$(NU)
;" DATA HEADERS:"
560  FOR N = 1 TO NH
570  PRINT  TAB( 5)"(";N;") ";H$(
N)
580  NEXT N
590  POKE 34,NH + 2
600  INPUT "LIST BY ITEM NUMBER:
";IT$:IT =  VAL (IT$): IF IT
 < 1 OR IT > NH GOTO 600
610  PRINT : INPUT "HOW MANY ITEM
S TO CHANGE? ";NI$:NI =  VAL
(NI$): IF NI < 1 OR NI > NH GOTO
610
620  FOR N = 1 TO NI
630  PRINT : PRINT "NUMBER OF ITE
M ";N;: INPUT ": ";IT$:IT(N)
 =  VAL (IT$): IF IT(N) < 1 OR
IT(N) > NH THEN  PRINT : PRINT
"INVALID NUMBER.": GOTO 630
640  NEXT N
650  POKE 34,0: HOME : VTAB 12: PRINT
"READING ";DB$(NU);" DATA"
660  REM  ** READ IN DATA
670 FL$ = DB$(NU) + IX$ + FI$
680  PRINT D$;OP$;FL$
690  PRINT D$;RD$;FL$
700  INPUT NR$:NR =  VAL (NR$)
710  FOR M = 1 TO NR
720  FOR N = 1 TO NH
730  INPUT IP$(M,N)
740  NEXT N
750  NEXT M
760  PRINT D$;CL$;FL$
```

```
770  REM  ** ENTER OR CHANGE DATA

780  HOME : PRINT "ENTER '/' FOR
NO CHANGE OR '*' TO ABORT": POKE
34,2
790  FOR M = 1 TO NR
800  PRINT : PRINT "REC #";M
810  PRINT : PRINT "ITEM #";IT;"
: ";IP$(M,IT)
820  FOR K = 1 TO NI
830  PRINT H$(IT(K));" : ";IP$(M,
IT(K))
840  INPUT "CHANGE TO: ";CH$
850  IF  LEFT$ (CH$,1) = "*" GOTO
900
860  IF  LEFT$ (CH$,1) = "/" THEN
 PRINT "NO CHANGE MADE.": GOTO
880
870 IP$(M,IT(K)) = CH$
880  NEXT K
890  NEXT M
900  PRINT : INPUT "UPDATE DISK F
ILE? ";YN$: POKE 34,0
910  IF  LEFT$ (YN$,1) = "Y" GOTO
940
920  IF  LEFT$ (YN$,1) = "N" GOTO
360
930  GOTO 900
940  POKE 34,0
950  REM  ** UPDATE DISK FILE
960 FL$ = DB$(NU) + IX$ + FI$
970  PRINT D$;OP$;FL$
980  PRINT D$;WR$;FL$
990  PRINT NR$
1000  FOR M = 1 TO NR
1010  FOR N = 1 TO NH
1020  PRINT IP$(M,N)
1030  NEXT N
1040  NEXT M
1050  PRINT D$;CL$;FL$
1060  GOTO 360
1070  POKE 34,0: END
1080  REM  ** APPLESOFT ONERR COR
RECTION
1090  CALL 1013: VTAB 18: PRINT  CHR$
(7): PRINT "FILE CABINET FIL
ES NOT ON THIS DISKETTE.": POKE
216,0
1100  FOR I = 1 TO 1000: NEXT I: GOTO
190
1110  FOR I = 1013 TO 1022: READ
PP: POKE I,PP: NEXT I
1120 I = 0
1130  RETURN
1140  DATA  104,168,104,166,223,1
54,72,152,72,96

]
```

```
]POKE33,33:POKE1913,60

]RUN FILE CABINET STUFFER

FILE NOT FOUND

]RUN FILE CABINET STUFFER

     *** FILE CABINET STUFFER ***
            WRITTEN BY
          MIKE MARMER
INSERT FILE DISC AND PRESS ANY KEY:

FILE CABINET FILES NOT ON THIS DISKETTE.
INSERT FILE DISC AND PRESS ANY KEY:

      FILE CABINET DATA CHANGE
SELECT A DATABASE:
   (1) PERIOD 1
   (2) PERIOD 3
   (3) PERIOD 4
   (4) PERIOD 5
   (5) PERIOD 6
   (6) DAILY TITLES


ENTER NUMBER OR '/' TO END: 1
PERIOD 1 DATA HEADERS:
   (1) NAME
   (2) T1
   (3) T2
   (4) T3
   (5) T4
   (6) T5
   (7) T6
   (8) T7
   (9) D1
   (10) D2
   (11) D3
   (12) D4
   (13) D5
   (14) D6
   (15) D7
   (16) D8
   (17) D9
   (18) D10
   (19) D11
   (20) D12
LIST BY ITEM NUMBER: 1

HOW MANY ITEMS TO CHANGE? 2

NUMBER OF ITEM 1: 2

NUMBER OF ITEM 2: 9
READING PERIOD 1 DATA
ENTER '/' FOR NO CHANGE OR '*' TO ABORT

REC #1

ITEM #1 : ANGELA ASHLEY
T1 : 53
CHANGE TO: /
NO CHANGE MADE.
D1 : 0
CHANGE TO: /
NO CHANGE MADE.

REC #2

ITEM #1 : CHRIS BEHRENS
T1 : 78
CHANGE TO: *

UPDATE DISK FILE? N

      FILE CABINET DATA CHANGE
SELECT A DATABASE:
   (1) PERIOD 1
   (2) PERIOD 3
   (3) PERIOD 4
   (4) PERIOD 5
   (5) PERIOD 6
   (6) DAILY TITLES


ENTER NUMBER OR '/' TO END: /
```

[This page was mistakenly omitted from last month's DOS Disassembly installment. APPLE BARREL regrets the error.]


```
15           ORG   $3D00
16           OBJ   $BD00
17 MOTOROFF  EQU   $C088
18 MOTORON   EQU   $C089
19 DRVOEN    EQU   $C08A
20 DRV1EN    EQU   $C08B
21 Q6L       EQU   $C08C
22 Q6H       EQU   $C08D
23 Q7L       EQU   $C08E
24 Q7H       EQU   $C08F
25 PHASON    EQU   $C081
26 PHSOFF    EQU   $C080
27 *
28 * STATE MACHINE CONTROLS TABLE:
29 *
30 * Q6   Q7   FUNCTION
31 * --   --   --------
32 * LO   LO   READ
33 * HI   LO   SENSE WRITE PROTECT
34 * LO   HI   WRITE
35 * HI   HI   WRITE LOAD
36 * --   --   --------
37 *
38 DRVOTRK  EQU   $478
39 DRV1TRK  EQU   $4F8
40 IOBPL    EQU   $48
41 IOBPH    EQU   $49
42 SLOT     EQU   $5F8 ;HOLDS SLOT NUM USED
43 CURTRK   EQU   $478
44 PTRSDEST EQU   $3C
45 DEVCTBL  EQU   PTRSDEST
46 BUFPTR   EQU   $3E
47 MONTIME  EQU   $46
48 TEMP     EQU   $2C ;PUT ADDRESS INFO HERE
49 CSUM     EQU   TEMP
50 COUNT    EQU   CSUM
51 SECT     EQU   CSUM+1
52 DRIVNO   EQU   $35
53 TRACK    EQU   SECT+1
54 TRKN     EQU   TRACK
55 VOLUME   EQU   TRACK+1
56 SEEKCNT  EQU   $4F8
57 IBRERR   EQU   $80
58 IBDERR   EQU   $40
59 IBVMME   EQU   $20
60 IBWPER   EQU   $10
61 RETRYCNT EQU   $578
62 *
63 * HOOKS TO CORE ROUTINES:
64 *
65 PRENIBL  EQU   $3800 ;PRENIBBLIZE FOR WRITE ROUTINE
66 WRITE    EQU   $386A ;THE ACTUAL WRITE NIBBLES ROUTINE
67 READ     EQU   $38FD ;READ NIBBLES
68 RDADR    EQU   $3965 ;READ AN ADDRESS FIELD
69 POSTNIBL EQU   $39C1 ;CONVERT BACK TO DATA FROM NIBBLES
70 SEEKABS  EQU   $3A1E ;SEEK A HALF-TRACK
```

<<< DOS 3.2 DISASSEMBLY >>>

We continue in this issue the third installment of Lee Meador's excellent series on the Disk Operating System, as originally published in the "Fort Worth Apple Users Group Newsletter." Thank you, Lee and FWAUG, for initiating us into these mysteries.

```
3D00 84 48    162 RWTS    STY   IOBPL ;UPON ENTRY, A&Y POINT AT
3D02 85 49    163         STA   IOBPH ;I/O CONTROL BLOCK (IOB)
3D04 A0 01    164         LDY   #1 ;GET SLOT # FOR THIS OPERATION
3D06 B1 48    165         LDA   (IOBPL),Y
3D08 AA       166         TAX
3D09 8C F8 04 167         STY   SEEKCNT ;ONLY ONE RECALIBRATE PER CALL
3D0C A0 0F    168         LDY   #$0F ;DID HE CHANGE SLOTS?
3D0E D1 48    169         CMP   (IOBPL),Y
3D10 F0 1B    170         BEQ   SAMESLOT ;IF HE DIDN'T, GOOD FOR HIM!
              171 *
              172 * NOW ARE USING A DIFFERENT SLOT.
              173 * NOW WAIT FOR THIS DRIVE TO TURN OFF
              174 * TO SENSE MOTOR NOT SPINNING, DATA FROM DISK MUST
              175 * BE THE SAME FOR AT LEAST 9 MICROSECONDS
3D12 8A       176         TXA   ;SAVE NEW SLOT #
3D13 48       177         PHA
3D14 B1 48    178         LDA   (IOBPL),Y ;GET 'OLD SLOT NUMBER'
3D16 AA       179         TAX
3D17 68       180         PLA
3D18 48       181         PHA   ;PUT BACK ON STACK
3D19 91 48    182         STA   (IOBPL),Y ;SAVE 'NEW SLOT NUMBER'
3D1B BD 8E C0 183         LDA   $7L,X ;GO INTO READ MODE
3D1E A0 08    184 STILLON LDY   #$08 ;TO BE SURE; DATA MUST REMAIN
3D20 BD 8C C0 185         LDA   $6L,X ;STABLE FOR 96 MICROSECONDS
3D23 DD 8C C0 186 NOTSURE CMP   $6L,X ;DATA STILL CHANGING?
3D26 D0 F6    187         BNE   STILLON ;IF SO, STILL SPINNING
3D28 88       188         DEY
3D29 D0 F8    189         BNE   NOTSURE ;STABLE LONG ENOUGH? IF NOT, LOOP
              190 *
              191 * PREVIOUS SLOT'S DRIVE NOW OFF...
              192 *
3D2B 68       193         PLA   ;RESTORE NEW SLOT #
3D2C AA       194         TAX
              195 *
              196 * NOW CHECK IF THE MOTOR IS ON, THEN START IT
              197 *
3D2D BD 8E C0 198 SAMESLOT LDA  $7L,X ;MAKE SURE IN READ MODE
3D30 BD 8C C0 199         LDA   $6L,X
3D33 BD 8C C0 200         LDA   $6L,X ;GET THE DATA
3D36 48       201         PHA   ;DELAY FOR DISK DATA TO CHANGE
3D37 68       202         PLA
3D38 8E F8 04 203         STX   SLOT
3D3B DD 8C C0 204         CMP   $6L,X ;CHECK RUNNING HERE
3D3E 08       205         PHP   ;SAVE TEST RESULTS
3D3F BD 89 C0 206         LDA   MOTORON,X ;TURN ON MOTOR REGARDLESS
3D42 A0 06    207         LDY   #6 ;MOVE OUT ALL POINTERS INTO ZPAGE
3D44 B1 48    208 PTRMOV  LDA   (IOBPL),Y
3D46 99 36 00 209         STA   PTRSDEST-6,Y
3D49 C8       210         INY
3D4A C0 0A    211         CPY   #$0A ;MOVED ALL POINTERS?
3D4C D0 F6    212         BNE   PTRMOV
3D4E A0 02    213         LDY   #2 ;NOW GET PARAMS
3D50 B1 48    214         LDA   (IOBPL),Y ;DETERMINE DRIVE ONE OR TWO
3D52 A0 10    215         LDY   #$10 ;SAME DRIVE USED BEFORE?
3D54 D1 48    216         CMP   (IOBPL),Y
3D56 F0 06    217         BEQ   OK ;IF SO, DON'T NECESSARILY WAIT FOR MOTOR
3D58 91 48    218         STA   (IOBPL),Y ;NOW USING THIS DRIVE
3D5A 28       219         PLP   ;TELL HIM MOTOR WAS OFF
3D5B A0 00    220         LDY   #$00 ;SET ZERO FLAG
3D5D 08       221         PHP
3D5E 6A       222 OK      ROR   ;BY GOING INTO THE CARRY
3D5F BD 8A C0 223         LDA   DRVOEN,X ;ASSUME DRIVE 0 TO HIT
3D62 B0 03    224         BCS   DRVSEL ;IF WRONG, ENABLE DRIVE 1 INSTEAD
```

```
3D64 BD 8B C0 225          LDA   DRV1EN,X
3D67 66 35    226 DRVSEL   ROR   DRIVNO ;SAVE WHICH DRIVE BEING USED
3D69 A0 02    227          LDY   #$02
3D6B B1 3C    228          LDA   (DEVCTBL),Y ;GET MOTOR ON TIME
3D6D 85 46    229          STA   MONTIME
3D6F C8       230          INY
3D70 B1 3C    231          LDA   (DEVCTBL),Y
3D72 85 47    232          STA   MONTIME+1 ;THIS WILL COUNT UP TO 0000
3D74 C8       233          INY
3D75 B1 48    234          LDA   (IOBPL),Y ;GET DESTINATION TRACK
3D77 20 3B 3E 235          JSR   MYSEEK ;AND GO TO IT.
              236 *NOW AT THE DESIRED TRACK.  WAS THE MOTOR
              237 * ON TO START WITH?
3D7A 28       238          PLP   ;WAS MOTOR ON?
3D7B D0 0D    239          BNE   TRYTRK ;IF SO, DON'T DELAY, GET IT TODAY!
              240 *
              241 * MOTOR WAS OFF, WAIT FOR IT TO SPEED UP.
              242 *
3D7D A0 12    243 MOTOF    LDY   #$12 ;DELAY 100 USEC PER COUNT
3D7F 88       244 CONWAIT  DEY
3D80 D0 FD    245          BNE   CONWAIT
3D82 E6 46    246          INC   MONTIME
3D84 D0 F7    247          BNE   MOTOF
3D86 E6 47    248          INC   MONTIME+1
3D88 D0 F3    249          BNE   MOTOF ;COUNT UP TO $0000
              250 *
              251 * DISK IS NOW UP TO SPEED: READ IT!
              252 * NOW CHECK: IF IT IS NOT THE FORMAT DISK COMMAND,
              253 * LOCATE THE CORRECT SECTOR FOR THIS OPERATION.
              254 *
3D8A A0 0C    255 TRYTRK   LDY   #$0C
3D8C B1 48    256          LDA   (IOBPL),Y ;GET COMMAND CODE #
3D8E F0 55    257          BEQ   GALLDONE ;IF NULL COMMAND, GO HOME TO BED.
3D90 C9 04    258          CMP   #$04 ;FORMAT THE DISK?
3D92 F0 53    259          BEQ   FORMDSK ;ALLRIGHT, ALLRIGHT, I WILL...
3D94 6A       260          ROR   ;SET CARRY=1 FOR READ, 0 FOR WRITE
3D95 08       261          PHP   ;AND SAVE THAT
3D96 B0 03    262          BCS   TRYTRK2 ;MUST PRENIBBLIZE FOR WRITE.
3D98 20 00 3B 263          JSR   PRENIBL
3D9B A0 30    264 TRYTRK2  LDY   #$30 ;ONLY 48 RETRIES OF ANY KIND.
3D9D 8C 78 05 265          STY   RETRYCNT
3DA0 AE F8 05 266 TRYADR   LDX   SLOT ;GET SLOT NUM INTO X-REG
3DA3 20 65 39 267          JSR   RDADR ;READ NEXT ADDRESS FIELD
3DA6 90 1F    268          BCC   RDRIGHT ;IF READ IT RIGHT, HURRAH!
3DA8 CE 78 05 269 TRYADR2  DEC   RETRYCNT ;ANOTHER MISTAEK!!
3DAB 10 F3    270          BPL   TRYADR ; WELL, LET IT GO THIS TIME.
3DAD AD 78 04 271          LDA   CURTRK
3DB0 48       272          PHA   ;SAVE TRACK WE REALLY WANT
3DB1 A9 60    273          LDA   #$60 ;RECALIBRATE ALL OVER AGAIN!
3DB3 20 B2 3E 274          JSR   SETTRK ;PRETEND TO BE ON TRACK 80
3DB6 CE F8 04 275          DEC   SEEKCNT ;ONLY RECALIBRATE ONCE!
3DB9 D0 23    276          BNE   DRVERR ;TRIED TO RECALIBRATE A SECOND TIME.
3DBB A9 00    277          LDA   #$00
3DBD 20 3B 3E 278          JSR   MYSEEK ;MOVE TO TRACK 00
3DC0 68       279          PLA
3DC1 20 3B 3E 280 GOCAL    JSR   MYSEEK ;GO TO CORRECT TRACK THIS TIME!
3DC4 4C 9B 3D 281          JMP   TRYTRK2 ;LOOP BACK, TRY AGAIN ON THIS TRA
              282 *
              283 *HAVE NOW READ AN ADDRESS FIELD CORRECTLY.
              284 * MAKE SURE THIS IS THE TRACK, SECTOR, AND VOLUME DESIRED.
              285 *
3DC7 A4 2E    286 RDRIGHT  LDY   TRACK ;ON THE RIGHT TRACK?
3DC9 CC 78 04 287          CPY   CURTRK
```

```
3DCC F0 22    288          BEQ   RTTRK ;IF SO, GOOD
              289 * NO, DRIVE WAS ON A DIFFERENT TRACK.  TRY
              290 * RECALIBRATING FROM THIS TRACK
3DCE AD 78 04 291          LDA   CURTRK ;PRESERVE DESTINATION TRACK
3DD1 48       292          PHA
3DD2 98       293          TYA
3DD3 20 B2 3E 294          JSR   SETTRK
3DD6 68       295          PLA
3DD7 CE 78 05 296          DEC   RETRYCNT
3DDA 10 E5    297          BPL   GOCAL ;GO AHEAD AND RECALIBRATE
3DDC 30 CA    298          BMI   TRYADR2 ;RECAL ALL THE WAY MAN.
3DDE 68       299 DRVERR   PLA   ;REMOVE CURTRK.
3DDF A9 40    300          LDA   #IBDERR ;BAD DRIVE ERROR
3DE1 28       301 JMPTO1   PLP
3DE2 4C 29 3E 302 JMPTOERR JMP   HNDLERR
3DE5 F0 40    303 CALLDONE BEQ   ALLDONE
3DE7 A0 03    304 FORMDSK  LDY   #$03 ;GET VOLUME NUMBER
3DE9 B1 48    305          LDA   (IOBPL),Y
3DEB 85 2F    306          STA   VOLUME
3DED 4C 9C 3E 307          JMP   DSKFORM
              308 *
              309 * DRIVE IS ON RIGHT TRACK.  CHECK VOLUME MISMATCH
              310 *
3DF0 A0 03    311 RTTRK    LDY   #3 ;IS THE RIGHT DISK IN?
3DF2 B1 48    312          LDA   (IOBPL),Y ;GET DESIRED VOLUM
3DF4 48       313          PHA   ;PRESERVE DESIRED VOLUME#
3DF5 A5 2F    314          LDA   VOLUME ;GET ACTUAL VOLUME HERE
3DF7 A0 0E    315          LDY   #$0E ;TELL DOSYS WHAT VOLUME WAS THERE
3DF9 91 48    316          STA   (IOBPL),Y
3DFB 68       317          PLA   ;GET DESIRED VOLUME BACK
3DFC F0 08    318          BEQ   CORRECTVOL ;DESIRED VOLUME 00 MATCHES ALL.
3DFE C5 2F    319          CMP   VOLUME
3E00 F0 04    320          BEQ   CORRECTVOL ;YUP, IT WAS RIGHT
3E02 A9 20    321          LDA   #IBVMME ;HE SWITCHED DISCS!
3E04 D0 D8    322          BNE   JMPTO1 ;ALWAYS TAKEN
3E06 A0 05    323 CORRECTVOL LDY  #5 ;CHECK IF THIS IS THE RIGHT SECTOR
3E08 A5 2D    324          LDA   SECT
3E0A D1 48    325          CMP   (IOBPL),Y
3E0C F0 09    326          BEQ   CORRECTSECT ;IF SO, DO WHATEVER WANTED
3E0E CE 78 05 327          DEC   RETRYCNT ;FAILED AGAIN, SHOULD WE RETRY?
3E11 10 BD    328          BPL   TRYADR ;GUESS SO.
3E13 A9 80    329          LDA   #IBRERR ;READ ERROR
3E15 D0 CA    330 JJTOER   BNE   JMPTO1 ;ALWAYS TAKEN
3E17 28       331 CORRECTSECT PLP
3E18 90 18    332          BCC   WRIT ;CARRY WAS SET FOR READ OPERATION.
3E1A 20 FD 3B 333          JSR   READ ;CLEARED FOR WRITE
3E1D 08       334          PHP   ;SAVE STATUS OF READ OPERATION
3E1E B0 B8    335          BCS   TRYADR2 ;CARRY SET UPON RETURN IF BAD READ
3E20 28       336          PLP   ;CAREFUL OF STACK
3E21 20 C1 39 337          JSR   POSTNIBL ;DECODE INTO REAL WORLD DATA
3E24 AE F8 05 338          LDX   SLOT ;RESTORE SLOTNUM INTO X
3E27 18       339 ALLDONE  CLC
3E28 24       340          HEX   24 ;SKIP OVER NEXT BYTE WITH BIT OPCODE
3E29 38       341 HNDLERR  SEC   ;INDICATE AN ERROR
3E2A A0 0D    342          LDY   #$0D ;GIVE HIM ERROR#
3E2C 91 48    343          STA   (IOBPL),Y
3E2E BD 88 C0 344          LDA   MOTOROFF,X ;TURN IT OFF...
3E31 60       345          RTS
3E32 20 6A 3B 346 WRIT     JSR   WRITE ;WRITE NYBBLES NOW
3E35 90 F0    347          BCC   ALLDONE ;IF NO ERRORS.
3E37 A9 10    348          LDA   #IBWPER ;DISK IS WRITE PROTECTED!!
3E39 B0 EE    349          BCS   HNDLERR ;ALWAYS TAKEN
              350 *
```

```
                    351 * THIS IS THE 'SEEK' ROUTINE
                    352 *  SEEKS TRACK 'N' IN SLOT #X/$10
                    353 * IF DRIVNO IS NEGATIVE, ON DRIVE 0
                    354 * IF DRIVNO IS POSITIVE, ON DRIVE 1
                    355 *
3E3B 48             356 MYSEEK  PHA    ;AND PRESERVE A-REGISTER
3E3C A0 01          357         LDY    #$01 ;IS THIS A TWO-PHASE DISC?
3E3E B1 3C          358         LDA    (DEVCTBL),Y
3E40 6A             359         ROR    ;GET # OF PHASES INTO CARRY
3E41 68             360         PLA
3E42 90 08          361         BCC    SEEK ;IF ONE PHASE PER TRACK
3E44 0A             362         ASL
3E45 20 4C 3E       363         JSR    SEEK
3E48 4E 78 04       364         LSR    CURTRK ;DIVIDE BACK DOWN
3E4B 60             365         RTS
3E4C 85 2E          366 SEEK    STA    TRKN ;SAVE DESTINATION TRACK(*2)
3E4E A0 00          367         LDY    #0 ;TURN ALL PHASES OFF TO BE SURE.
3E51 BD 82 C0       368         LDA    PHSOFF+2,X
3E54 BD 84 C0       369         LDA    PHSOFF+4,X
3E57 BD 86 C0       370         LDA    PHSOFF+6,X
3E5A 20 7B 3E       371         JSR    XTOY ;SET Y=SLOT#
3E5D B9 78 04       372         LDA    DRVOTRK,Y
3E60 24 35          373         BIT    DRIVNO
3E62 30 03          374         BMI    WASDO ;IS MINUS, ON DRIVE ZERO
3E64 B9 F8 04       375         LDA    DRV1TRK,Y
3E67 8D 78 04       376 WASDO   STA    CURTRK ;THIS IS WHERE I AM
3E6A A5 2E          377         LDA    TRKN ;AND WHERE I'M GOING TO
3E6C 24 35          378         BIT    DRIVNO ;NOW UPDATE SLOT DEPENDENT
3E6E 30 05          379         BMI    ISDRVO ;LOCATIONS WITH TRACK
3E70 99 F8 04       380         STA    DRV1TRK,Y ;INFORMATION
3E73 10 03          381         BPL    GOSEEK ;ALWAYS TAKEN
3E75 99 78 04       382 ISDRVO  STA    DRVOTRK,Y
3E78 4C 1E 3A       383 GOSEEK  JMP    SEEKABS ;GO THERE!
3E7B 8A             384 XTOY    TXA
3E7C 4A             385         LSR
3E7D 4A             386         LSR
3E7E 4A             387         LSR
3E7F 4A             388         LSR
3E80 A8             389         TAY
3E81 60             390         RTS
                    391 *
                    392 * THIS SUBROUTINE SETS THE SLOT DEPENDENT TRACK
                    393 * LOCATION.
                    394 *
3E82 48             395 SETTRK  PHA    ;PRESERVE DESTINATION TRACK
3E83 A0 02          396         LDY    #$02
3E85 B1 48          397         LDA    (IOBPL),Y
3E87 6A             398         ROR    ;GET DRIVE # INTO CARRY
3E88 66 35          399         ROR    DRIVNO ;INTO (DRIVNO)
3E8A 20 7B 3E       400         JSR    XTOY ;SET UP Y-REG
3E8D 68             401         PLA
3E8E 0A             402         ASL    ;ASSUME TRACK IS HELD *2
3E8F 24 35          403 SETTRK2 BIT    DRIVNO
3E91 30 05          404         BMI    ONDRVO ;IF ON DRIVE 0(1), DRIVNO MINUS
3E93 99 F8 04       405         STA    DRV1TRK,Y
3E96 10 03          406         BPL    SETRTS
3E98 99 78 04       407 ONDRVO  STA    DRVOTRK,Y
3E9B 60             408 SETRTS  RTS
```

PAGE LIST FOR THE APPLE

BY ROBERT D. DIAZ
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The Apple Computer prints on the TV screen at a rate of about 1,000 characters per second. However, most of the Apple users would prefer to read a listing at a slower rate. This article presents a solution to the dilemma: the Page List. The Page List (or listings by page) enables the Apple to list 20 lines of text, stop, and wait for a command from the keyboard to continue or to quit listing.

When the command "CALL 770" is entered into the computer, every twentieth line printed on the TV screen causes the Apple to stop until any key is pressed. The following are the commands used with Page List:

CALL 770	(Turn on Page List)
LIST	(If Page List was turned on, then the computer lists 20 lines and stops)
ESC	(List one additional line)
CTRL C	(Jumps out of the list mode and back into BASIC)
All other keys except Reset	(Lists 20 more lines)
CALL 815	(Turn off Page List)

This program is very flexible. It will function with either Integer BASIC, Floating-Point BASIC, with or without DOS, or on any size memory. It also will function with other software such as Microproducts Assembler, with the exception that hitting a Control C will send the program to Monitor Mode rather than returning it to the assembler.

Loading Page List Into A System

In order to load the Page List into an Apple that does not have a disk drive, first push Reset, then type the program as shown in Figure 1.

```
300.388

0300- 00 00 A2 04 B5 35 5D 39
0308- 03 D0 06 CA D0 F6 4C 20
0310- 03 A2 04 B5 35 9D 2A 03
0318- BD 39 03 95 35 CA D0 F3
0320- A9 28 8D 00 03 A9 15 8D
0328- 01 03 60 F0 FD 1B FD A2
0330- 04 BD 2A 03 95 35 CA D0
0338- F8 60 3E 03 1B FD 48 49
0340- 8D F0 05 CE 00 03 D0 0A
0348- A9 28 8D 00 03 CE 01 03
0350- F0 04 68 4C F0 FD A9 15
0358- 8D 01 03 AD 00 C0 10 FB
0360- 48 A9 00 8D 10 C0 68 C9
0368- 83 F0 0B C9 9B D0 E3 A9
0370- 01 8D 01 03 D0 DC A5 33
0378- C9 BE D0 03 4C 03 E0 C9
0380- DD D0 03 4C 00 00 4C 69
0388- FF
*
```

Figure 1.

Remember to type a colon and not a dash , then save the program onto tape. The program can be saved onto tape by typing "300.388W". Once the program is saved onto tape, it may be loaded into the Apple by pushing Reset and then typing "300.388R".

If the system has a disk drive, the program can be saved onto a disk instead of tape. The procedure is as follows:

a) Boot up DOS
b) Type "POKE 72,0"
c) Type "CALL -151" (This gets you into Monitor without killing DOS)
d) Type in the program shown in Figure 1
e) Use Control C or Control B to get back into BASIC
f) Save the program on to disk by typing "BSAVE PAGE LIST, A$300,L$89".

The program can be loaded into memory by typing "BLOAD PAGE LIST, A$300".

Some important points to remember about Page List are:
(1) When Page List is turned on, DOS is turned off.
(2) The Page List stays turned on until you turn it off.
(3) If Page List is left on and you run a program, the program will stop when 20 lines of text have been printed.

How It Works

Before the Apple prints anything, it first looks at locations $36 and $37 to find out where to go next. (The dollar sign indicates that the number is in hexidecimal). On a non-disk system, the computer would go to location $FDFO (the output routine in Monitor). When the Apple wishes to input information, it looks at locations $37 and $38 to determine where to go next. When the command "CALL 770" is entered, the Initiation Routine (location $302) first checks to see if Page List is already turned on. If it has not been turned on, the data at locations $36-$39 is moved to locations $32B-$32E, and the data at locations $33A-$33D is moved to locations $36-$39. Counter 1 (location $300) is set to $28 and Counter 2 (location $301) is set to $15.

When Page List is activated, all output is routed first to the Page List routine (location $33E). There are two counters in Page List that keep track of how much has been printed. Counter 1 counts the number of characters on a line and Counter 2 counts the number of lines printed.

The flow chart, (Figure 2), shows how the counters interact and how the Page List routine works.

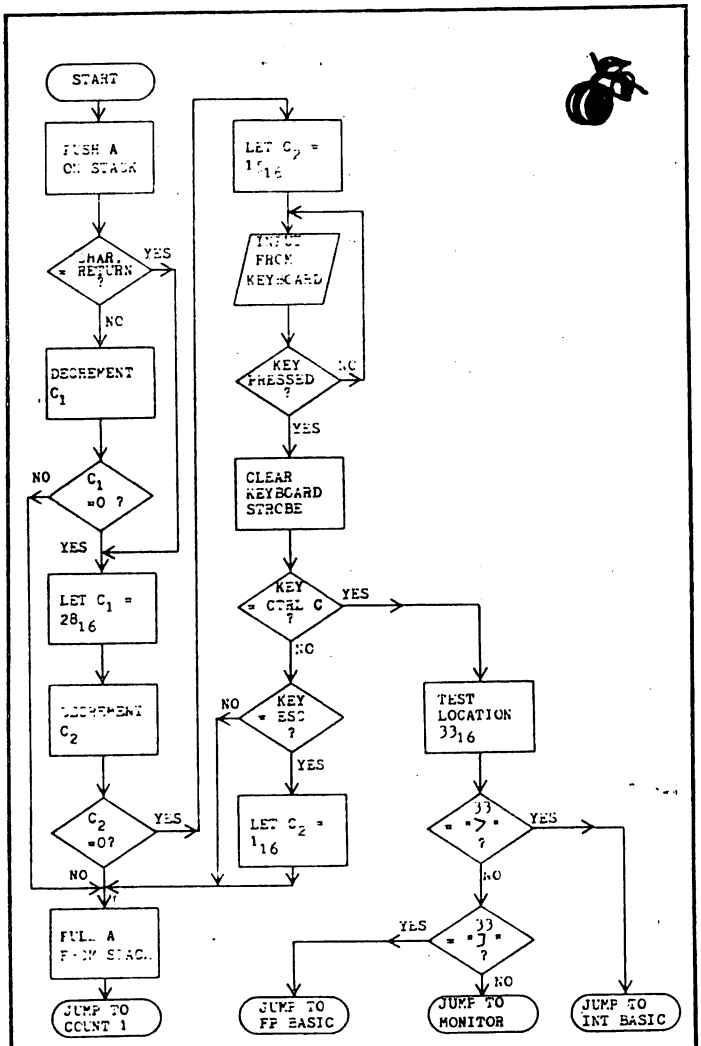

Figure 2. Flowchart to Page-List routine.
C_1 = Counter 1
C_2 = Counter 2

When "CALL 815" is entered, the Restore routine (location $32F) moves the data from locations $32B-$32E back to locations $36-$39.

Program Relocation

One of the concepts connected with Murphy's Law says, "No matter where you put it, that was the wrong place." While Page List and DOS do not conflict with each other as long as DOS is not rebooted, Page List and the Programmer's Aid #1 HIRES Routines do conflict with each other. I'm sure that there are a lot of other programs out there that conflict with Page List in its present location.

The easiest way to relocate the program is to set all Data Bytes, locations $300-$301, $32B-$32E, and $33A-$33D to $00 and relocate the program using Apple's Programmer's Aid #1. You will find relocation much easier if you tell the computer that all of the program is in Machine Code and none of it is Data. Once relocated, look at the program listing using Apple's Disassembler. The part you are looking for is the section with four "BRK's" followed by "PHA." The low order byte of the address is placed in the location of the first of the four "BRK's", and the high order byte is placed in the location of the second "BRK". Place S1B in the location of the third "BRK", and $FD in the final "BRK". The final step is figuring out the new Basic Calls to turn the program on and off.

If a Programmer's Aid is not available, then program relocation will have to be done by hand. The listing in Figure 3 should be of some help in doing the relocation manually.

```
*300LLLL

0300-   00          BRK
0301-   00          BRK
0302-   A2 04       LDX   #$04
0304-   B5 35       LDA   $35,X
0306-   5D 39 03    EOR   $0339,X
0309-   D0 06       BNE   $0311
030B-   CA          DEX
030C-   D0 F6       BNE   $0304
030E-   4C 20 03    JMP   $0320
0311-   A2 04       LDX   #$04
0313-   B5 35       LDA   $35,X
0315-   9D 2A 03    STA   $032A,X
0318-   BD 39 03    LDA   $0339,X
031B-   95 35       STA   $35,X
031D-   CA          DEX
031E-   D0 F3       BNE   $0313
0320-   A9 28       LDA   #$28
0322-   8D 00 03    STA   $0300
0325-   A9 15       LDA   #$15
0327-   8D 01 03    STA   $0301
032A-   60          RTS
032B-   00          BRK
032C-   00          BRK
032D-   00          BRK
032E-   00          BRK
```

Continued on next page

```
032F-   A2 04       LDX   #$04
0331-   BD 2A 03    LDA   $032A,X
0334-   95 35       STA   $35,X
0336-   CA          DEX
0337-   D0 F8       BNE   $0331
0339-   60          RTS
033A-   00          BRK
033B-   00          BRK
033C-   00          BRK
033D-   00          BRK
033E-   48          PHA
033F-   49 8D       EOR   #$8D
0341-   F0 05       BEQ   $0348
0343-   CE 00 03    DEC   $0300
0346-   D0 0A       BNE   $0352
0348-   A9 28       LDA   #$28
034A-   8D 00 03    STA   $0300
034D-   CE 01 03    DEC   $0301
0350-   F0 04       BEQ   $0356
0352-   68          PLA
0353-   4C F0 FD    JMP   $FDF0
0356-   A9 15       LDA   #$15
0358-   8D 01 03    STA   $0301
035B-   AD 00 C0    LDA   $C000
035E-   10 FB       BPL   $035B
0360-   48          PHA
0361-   A9 00       LDA   #$00
0363-   8D 10 C0    STA   $C010
0366-   68          PLA
0367-   C9 83       CMP   #$83
0369-   F0 0B       BEQ   $0376
036B-   C9 9B       CMP   #$9B
036D-   D0 E3       BNE   $0352
036F-   A9 01       LDA   #$01
0371-   8D 01 03    STA   $0301
0374-   D0 DC       BNE   $0352
0376-   A5 33       LDA   $33
0378-   C9 BE       CMP   #$BE
037A-   D0 03       BNE   $037F
037C-   4C 03 E0    JMP   $E003
037F-   C9 DD       CMP   #$DD
0381-   D0 03       BNE   $0386
0383-   4C 00 00    JMP   $0000
0386-   4C 69 FF    JMP   $FF69
0389-   FF          ???
038A-   FF          ???
038B-   FF          ???
038C-   FF          ???
038D-   FF          ???
038E-   FF          ???
038F-   FF          ???
0390-   FF          ???
0391-   FF          ???
0392-   FF          ???
0393-   FF          ???
*
```

Figure 3.

Closing Comments

I have chosen not to copyright this program in order to produce maximum distribution. It is my hope that most of the Apple owners will be able to utilize this program. Therefore, any person or group wishing to copy this program is more than welcome to do so.

$322 - STA Counter 1

$343 - DEC Counter 1

$34A - STA Counter 1

$327 - STA Counter 2

$34D - DEC Counter 2

$358 - STA Counter 2

$371 - STA Counter 2

$315 - STA Tmpdata-1,X

$331 - LDA Tmpdata-1,X

$306 - EOR Listloc-1,X

$318 - LDA Listloc-1,X

$33A - The low order address for the start of the page list routine.

$33B - The high order address for the start of the page list routine.

$30E - JMP Setcounters

Table 1

A list of locations that would have to be changed if the program was relocated.

$33 - Promp Character

$300 - Counter 1

$301 - Counter 2

$302 - Initiation Routine

$320 - Setcounters

$32B - Tmpdata

$32F - Restore Routine

$33A - Listloc

$33C - Low order address of Keyin ($1D)

$33D - High order address of Keyin ($FD)

$33E - Page List Routine

$352 - JMP Cout 1

$37C - JMP Integer Basic

$383 - JMP FP Basic

$386 - JMP Monitor

Table 2
Important Locations

<<< CLUB NOTES >>>

Houston Area Apple Users Group
APPLE BARREL
4331 Nenana Drive
Houston, TX 77035

The HOUSTON AREA APPLE USERS GROUP is an Apple II user club, not affiliated with Apple, Inc., or with any retail computer store. HAAUG is a member of the International Apple Core and supports its purposes and publications. General membership meetings are held on the second Wednesday of each month in the school cafeteria of St. Agnes Academy, 9000 Bellaire Boulevard (just west of Gessner), and start at 6:30 p.m. An additional software swap is held the last Saturday of each month at the clubhouse of the Houston Amateur Radio Club, 7011 Lozier Street, west of the Astrodome. These Saturday meetings begin at 2:00 p.m.

-----*-----

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-----*-----

MEMBERSHIP INFORMATION

Dues are $18.00 per 12-month period for regular memberships, $6.00 for students through high school and where no adult member of the family is an Apple user. Please make checks payable to "Houston Area Apple Users Group," and mail to Lee E. Gilbreth, Membership Chair, 3609 Glenmeadow, Rosenberg, TX 77471. This includes a subscription to APPLE BARREL, which is published nine times a year. Newsletter exchanges with similar clubs are invited.

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SPECIAL INTEREST GROUPS

Members who share a common interest are encouraged to form Special Interest Groups to more fully explore their areas. Meetings may be arranged by common consent of the group and will ordinarily have one member who serves to coordinate or convene the meetings. If you would like to start a group around any given interest, please contact one of the club officers.

Current groups are:

1) BUSINESS APPLICATIONS
   Coordinated by Rudge Allen, 622-3979

2) PASCAL USERS
   Directory being assembled
   Pat McGee coordinating, 663-6806

3) SOURCE USERS
   Directory being assembled
   Coordinator needed

4) HAM RADIO OPERATORS
Coordinated by Ed Seeger, WB5PTW
723-6919

5) NEW MEMBERS
Coordinated by Lee Gilbreth,
342-2685

---==*==---

APPLE BULLETIN BOARD SYSTEM

The Houston Area Apple Users Group supports an ABBS evenings and weekends, 6:00 pm through 8:30 am, and all weekend long. Feel free to sign-on and place your want-ad, meeting notice, request for help, Aggie joke, etc. Any ASCII terminal, Apple computer or not, with suitable modem or coupler, will give you ABBS capability. Call:

713/654-0759

SYSOP is Rudge Allen, 622-3979.

Pascal Course

If you did not sign up for Pat McGee's introduction to Apple Pascal at the June meeting, call him at 666-0004 (after 25 June) for details. The course will meet on two of the following nights per month: 1st Wed, 3rd Wed, 4th Wed. Meeting time will be 7:00 sharp and the first meeting is 16 July. The meeting place is near 59 & Beechnut. There will probably be a special session for beginners, time and place still TBA. Let me emphasize again that homework will be assigned, collected, and graded. The best way to learn something is to do it with feedback from someone who already knows how. Everyone will be expected to contribute to the class project. The textbook will be Ken Bowles MicroComputer Problem Solving Using Pascal. This came with the Language card, and is available from local computer stores and technical book stores if you don't have a language card. The first homework assignment can be found in the March-April Apple Barrel. Bring it to the first class.

For Sale or Trade

Looking for an upgrade path? Tired of running out of room on a disk? Got the 40 column screen blues? Look no further... than this beautiful Cromemco System Z-2 black box with 64K bytes of 150 ns RAM, a 4 megahertz Z-80, and a dual Persci 277 8" floppy (256K bytes each). The Persci floppy has the fastest seek time of any. Watch this sytem shuffle them bits. Need more memory? Just add it - this system is set up for bank select (No, you can't have the First National) all the way up to 512K bytes. Extras include 2 parallel ports, 3 serial ports, 4 variable timers, 5 barrel carb, and (pardon this abrupt return to zombie land) COBOL. Retails for over six grand, drive it home for only $4800. Or if you have an Apple system and want to trade it in, call for reasonable trade-in offer. Pat McGee 666-0004 (Leave message with machine if no one is there)

<<< DUE TO DUES BEING DUE..... >>>

HAAUG has a number of members whose dues are in arrears, but who do not know it. It's not your fault! We have not been very good about keeping our members up-to-date on their expirations, and numerous issues of the APPLE BARREL have gone out 'way past renewal time.

Thanks now to Chris Myers, our Mail Management (c) program has been modified to print your renewal date on the address label of the newsletter. Take a look on the last page mailing wrapper to see when your renewal is due. HAAUG will no longer carry you past your date. We must assume that if your renewal has not reached us before or during the 30-day period following expiration, that you wish to drop your membership.

Dues for a 12-month period are $18.00, and bring you not only the APPLE BARREL, but software swap privileges, local dealer discounts (totaling several hundred dollars in 1979-80), the Apple Bulletin Board System, hardcopy library borrowing rights, programs and speakers, technical advice, and a lot of fun in getting the most out of your Apple!

Send your check for $18.00 to:

Lee E. Gilbreth, Membership Chairman
3609 Glenmeadow
Rosenberg, TX 77471

Make your check payable to "Houston Area Apple Users Group" and mark it for "renewal."

<<< APPLE ORCHARDS GOING, GOING, GONE! >>>

President Bruce Barber still has stacks of APPLE ORCHARDS yet to be picked up by HAAUG members. If you have been a member prior to March 30, your dues included the cost of this premier issue. Those who joined after the end of March can still get a copy for a very nominal $1.00. Extras will be sold by one or more of the area Apple retailers at a price of their choosing. PLEASE PICK UP YOUR COPY AT THE NEXT SATURDAY OR WEDNESDAY CLUB MEETING. They will only be available in the stores after that. As you know, Apple, Inc., has agreed to support the International Apple Core with a library of manuals, technical advice, a hotline, CONTACT as a part of the Apple Orchard, and probably with contributed software as well.

<<< APPLE BULLETIN BOARD SYSTEM >>>

More and more Apple owners are choosing to buy a modem as their next peripheral following purchase of a disk drive. A modem puts your Apple into telephone line communication with another computer, which may be virtually anywhere in the world. HAAUG maintains its own bulletin board system as a service to any and all who wish to call in. Newcomers will need to know the following:

* Phone number - 713/654-0759

* Operating hours - 6:00 pm through 8:30 am weeknights, and 6:00 pm Friday through 8:30 am Monday weekends.

* The system will tell you all you need to know to operate it. Be sure to indicate that it is your first time on the system if that is true for you. You will then see a display of all operating commands and instructions for their use.

* Please do not lock your messages unless there is a very good reason to do so. And please remove messages directed to you after you pick them up. This keeps things tidy and saves disk space.

* Note that "SYSOP" refers to the System Operator, who is currently Rudge Allen. It is not a general designation for all users. Messages for Rudge go to "SYSOP," while those addressed to everybody go to "ALL."

* One feature often overlooked is the command for reviewing a sequence of messages without passing through "Go." Type Rxx;^ where xx is the first of a series of messages you wish to read. If you have scanned messages and noted the ones you wish to read in full, separate the respective message numbers with a semicolon when prompted to enter a number. Saves an awful lot of trouble. Try it long distance around the country for real savings!

* Don't be afraid to play around with the system. Experiment with the control-S, Q, and K. You can't hurt anything by playing.

* Suggestions for improvements to the ABBS are welcomed. Current ideas include a program download feature, a Mountain Hardware clock, fuller use of the sign-on bulletin feature, abbreviated sign-on, etc. All are under study. What's yours?

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THE END

I AM STILL LOOKING FOR AN APPLESOFT ROM CARD. If anyone has bought the Language System and no longer needs their ROM Card, please call Chris Myers, 668-3944.

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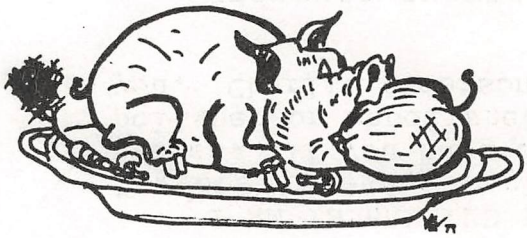

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