

NATIONAL IMAGINATION COMPUTER CLUB

* 515 Shadylane-Barrington-Illinois-60010

MAY 1982

Here we are again. If you have sent in questions, just hangon, we are working on answers. If you wish to contact/be contacted by other members, just write us and we will publish your name and address, also if you have any particular reason to be contacted, just let us know, that will also be listed. If you have something to sell, we need to put a limit on them to one item per member. Also, since there is alot of computer mail coming in to the shop, please label you envelope "Imagination Computer Club" this will help the mail openers to place it in the correct bin and not causing a delay in it reaching us, "NICC" will NOT help, it must be "Imagination Computer Club". Thank you.

ANSWERS/TIPS FROM OTHER CLUB MEMBERS

FROM TED HINES OF VIRGINIA

For those of you who received the premier issue of the newsletter and were interested in the poke statement for removing the buzzing. Mr. Hines has done the following to be rid of the buzzing permanently. A SPST switch from Radio Shack was installed in series with one of the speaker leads as seen below. If you have any questions, just let us know and we will publish a request for more information.



Many of you (including Mr. Hines) have expressed a desire to place a loan payment calculation on the AFF, if anyone has done so, send the program and we will publish it (unless we come up with one first.)

FROM MICHAEL E. DAVIS OF OHIO

For all of us who have requested books/help with the 6800 machine language, here are a few tips and recommendations:

USING THE 6800 MICROPROCESSOR

WRITTEN BY ELMER POE published by Howard W. Sams ' Co., Inc.

and

HOW TO PROGRAM AND INTERFACE THE 6800

WRITTEN BY ANDREW C. STANGAARD, JR. published by (same)

source: Priority One Electronics
9161 Deering Avenue
Chatsworth, CA 91311

The first book is rather simple. The second book is interesting and includes machine language programs and exercises that work well on the APF machine.

ITEMS FOR SALE

DUKDOM - You are the ruler of a country in the middle ages. You must lead your people through 22 years, with wars and famines. While doing this, you must keep up the population, land and grain.

FISH - The card game of Fish with the computer. First to get rid of all of their cards in books wins.

DUKDOM & FISH - \$10.95 SEND CHECK OR MONEY ORDER

ORDER FROM: Larry Greenfield (714) 842-7876
17300 Santa Clara
Fountain Valley, CA 92708

PROGRAMS FROM OTHER CLUB MEMBERS

CHECKBOOK

.....from Christopher Phillips of CA

This program maintains your checkbook balance. Lines 1 and 2 are used to create a screen when saved to tape. When you run it the first time, you can enter 0 and then CSAVE the program. It will the cload the title page, otherwise you can eliminate lines 1,2 3 and 3. Also, thank you Mr. Phillips for all of the compliments to APF in your letter. Someone's head probably doesn't fit into a doorway anymore.

```
1 FOR I=1 TO 12: NEXT I: REM CLEAR SCREEN-ALL GREEN
2 PRINT , "CHECKBOOK": PRINT : PRINT : PRINT "BY CHRIS PHILLIPS": PRINT : PRINT
3 INPUT A: IF A=0 THEN 150: REM INPUT NUMBER TO START PROGRAM
5 CALL 17046: POKE 24578,38: REM CLEAR SCREEN, TURN OFF TAPE
10 DIM A$(32): REM USE STRING FOR FORMAT
12 A$="## $$$$$,###.## $$$$$,###.##"
15 INPUT "BALANCE",B
20 INPUT "CHECK",A
21 B=B-A: REM SUBTRACT CHECK, ENTER DEPOSITS AS A NEGATIVE AMOUNT
22 IF A=0 THEN 150
25 IF A<0 THEN 60
30 PRINT USING A$, "CK", A, B
50 GOTO 20
60 PRINT USING A$, "DP", A, B
80 GOTO 20
150 END
```

SHAPE TO MUSIC

.....from DENNIS PERRY of New Jersey

This program was written to help clubmembers to understand the shape table and color for low graphics. Mr. Perry added music to jazz it up. Note that were it is stated - 12 sp - the hyphehs are not included in the program, that is just to tell you how many spaces are between the numbers.

SHAPE TO MUSIC (continued)

```
5 CALL 17046
10 PRINT "CHOSE SHAPE 1 TO 15 FOR A, INPUT A AND PRESS RETURN"
20 INPUT "NUMBER 1 TO 15 FOR A=",A
30 IF A=0 GOTO 20
40 IF A>15 GOTO 20
50 SHAPE =A: CALL 17046
60 POKE 745,03: POKE 746,15: POKE 747,12: POKE 748,15: POKE 749,18: POKE 750,05
: POKE 751,04
70 POKE 753,13: POKE 754,21: POKE 755,19: POKE 756,09: POKE 757,03
80 FOR I=0 TO 6
90 IF I=1 MUSIC "100"
100 IF I=2 MUSIC "200"
110 IF I=3 MUSIC "300"
120 IF I=4 MUSIC "400"
130 IF I=5 MUSIC "500"
140 IF I=6M MUSIC "600 — 12 sp. — 700"
150 FOR P=1 TO 100: NEXT
160 COLOR =1
170 HLIN I,31-I,I
180 HLIN I,31-I,15-I
190 VLIN I,15-I,I
200 VLIN I,15-I,31-I
210 NEXT I: MUSIC C"600 - 12 sp. - 500 - 12 sp - 400 - 12 sp - 300 - 12 sp -
200 - 12 sp - 100"
220 GOTO 20
```

NAME & ADDRESS

.....from GREG LONGFIELD

Enter the address or names in the form as shown above. You do not need a printer, when it asks to "position paper and turn printer on", just hit return. it will print on the screen. Also, please note the rem statements in 320 and 330 before adding any names of your own.

NAME & ADDRESS (continued)

```

10 POKE 24578,54: CALL 34061
20 CALL 17046: POKE 40960,2: POKE 40961,0
30 N=35000
40 DIM G$(30)
50 REM - ENTRY OR NUMBERS TO PRINT
140 READ N2
150 PRINT "POSITION PAPER & TURN PRINTER ON"
160 INPUT "PRESS RETURN",G$
170 FOR I=1 TO N
180 READ N1
190 IF N1=0 THEN 300
200 FOR J=1 TO N1
205 G$="      30 sp"
210 READ G$
220 PRINT G$
230 NEXT J
240 IF N1>=N22 THEN 280
250 FOR K=N1 TO N2
260 PRINT
270 NEXT K
280 NEXT I
290 REM TERMINATION
300 PRINT I-1;"RECORDS WERE PRINTED"
310 STOP
320 REM LINE 999 CONTINS # OF LINES FOR PAGE MOVEMENT
330 REM LINE 1000 AND 1004 CONTAINS THE # OF LINES IN THE ADDRESSES
999 DATA 2
1000 DATA 3
1001 DATA "JOHN DOE"
1002 DATA "555 SMOKEY DRIVE"
1003 DATA "GROVERVILLE, IL 69999"
1004 DATA 2
1005 DATA "BOX 515 N CHICAGO STREET"
1007 DATA "BILL SMITH"
1008 DATA 0

```

FINPUTERS

.....from RICK CARMAN

The following program illustrates how to effectively use READ-DATA. Mr. Carman stated that his computer gets fouled up on the spacing if a word in the data statement contains a keyword. He therefore invented the words in the program to illustrate this. I have changed his program by adding the quotation marks. These seemed to space the words exactly as I had typed the data statements. However, it appears this did not help Mr. Carman all of the time. If anyone else has this problem, please let us know.

FINPUTERS (continued)

```

10 DIM A$(1),B$(70),NULL$(70)
20 READ A$,B$
30 IF B$="END" THEN STOP
40 PRINT B$
45 A$=NULL$
47 B$=NULL$
50 GOTO 20
60 DATA "THIS IS ABOUT FINPUTERS AND BOGOTONIANS"
65 DATA "FINPUTERS ARE POPULAR IN BOGOTONIA."
70 DATA "BOGOTONIANS LOVE THEIR FINPUTERS."
75 DATA "BOGOTONIANS GIVE THEIR FINPUTERS NAMES...LIKE EYEMARD."
76 DATA "BLISTOM - A BOGOTONIAN HAS A FINPUTER"
80 DATA ,END

```

STR\$ EMULATOR

from RUSSELL LETSON OF MN

You may find the next couple of programs useful as subroutines. Their usefulness for Mr. Letson is in packing and unpacking data for disk files.

```

10 REM A STR$(N) EMULATOR FOR INTEGERS UP TO 5 DIGITS
20 DIM N$(4),NU$(6),X(4): REM N$=OUTPUT STRING;NU$=NULL STRING
7000 REM MAIN LOOP COUNTS N$(I) UP AND X(J) DOWN. T=A POWER OF 10
7050 INPUT N
7075 I=0
7100 IF N>9999 THEN J=4:T=10000: GOTO 7200
7110 IF N>999 THEN J=3:T=1000: GOTO 7200
7120 IF N>99 THEN J=2:T=100: GOTO 7200
7130 IF N>9 THEN J=1:T=10: GOTO 7200
7140 IF N<10 THEN J=0:X(J)=N: GOTO 7500
7200 X(J)=INT(N/T): REM X=DIGIT FOR POSITION J
7300 N=N-X(J)*T: REM N=REMAINDER FOR NEXT DIGIT
7400 IF T>=10 THEN T=T/10
7500 N$(I)=CHR$(X(J)+48): REM PUT DIGIT INTO N$ AT POSITION I
7550 I=I+1
7600 J=J-1
7610 IF J<0 THEN 7700
7620 GOTO 7200

```

STR\$ EMULATOR (continued)

```
7700 PRINT N$: REM OR OUTPUT TO MAIN PROGRAM
7750 N$=NU$
7800 GOTO 7050
7801 REM INELEGANT BUT MINE OWN--RUSSELL LETSON 4/82
```

VAL EMULATOR

```
10 REM A VAL(A$) EMULATOR GOOD FOR 5-DIGIT NUMBERS (UP TO 99999)
15 REM ADAPT AND USE AS A SUBROUTINE
8000 DIM A$(4),NU$(6),X(4): REM A$=INPUT STRING, NU$=NULL STRING
8100 INPUT A$
8500 J=0
8505 FOR I=0 TO 4:X(I)=0: NEXT I: REM CLEAR X'S
8507 REM MAIN LOOP TURNS STRING DIGITS INTO NUMBERS
8508 REM X(I) COUNTS DOWN; A$(J) COUNTS UP; X(I)=NUMERICAL EQUIV. OF DIGIT
8510 FOR I= LEN (A$)-1 TO 0 STEP -1
8520 X(I)= ASC (A$(J))-48
8530 J=J+1
8535 NEXT I
8536 REM CALCULATE N
8540 N=10000*X(4)+1000*X(3)+100*X(2)+10*X(1)+X(0)
8550 PRINT N
8555 A$=NU$: REM CLEAR A$ TO NULLS
8570 GOTO 8100
8580 REM RUSSELL LETSON 4/82
```

DICE

.....from BERNARD SAMANSKY

DICE (continued)

```

50 CALL 17056
60 C= INT (6* RND (1)+1):D= INT (6* RND (1)+1)
70 W=C+D
80 COLOR =4: SHAPE =15
90 PLOT 3,5
100 FOR X=3 TO 9
110 FOR Y=5 TO 11
120 PLOT X,Y
130 NEXT X
140 NEXT Y
145 COLOR =4: SHAPE =15
150 PLOT 22,5
155 FOR X=22 TO 28
160 FOR Y=5 TO 11
165 PLOT X,Y
170 NEXT X
175 NEXT Y
180 IF C=1 THEN COLOR =6: SHAPE =0: PLOT 6,8
185 IF D=1 THEN COLOR =6: SHAPE =0: PLOT 25,8
190 IF C=2 THEN COLOR =6: SHAPE =0: PLOT 4,6: PLOT 8,10
195 IF D=2 THEN COLOR =6: SHAPE =0: PLOT 23,6: PLOT 27,10
200 IF C=3 THEN COLOR =6: SHAPE =0: PLOT 4,6: PLOT 6,8: PLOT 8,10
205 IF D=3 THEN COLOR =6: SHAPE =0: PLOT 23,6: PLOT 25,8: PLOT 27,10
210 IF C=4 THEN COLOR =6: SHAPE =0: PLOT 4,6: PLOT 8,6: PLOT 4,10: PLOT 8,10
215 IF D=4 THEN COLOR =6: SHAPE =0: PLOT 23,6: PLOT 27,6: PLOT 23,10: PLOT 27,
10
220 IF C=5 THEN COLOR =6: SHAPE =0: PLOT 4,6: PLOT 8,6: PLOT 6,8: PLOT 4,10: P
LOT 8,10
225 IF D=5 THEN COLOR =6: SHAPE =0: PLOT 23,6: PLOT 27,6: PLOT 25,8: PLOT 23,1
0: PLOT 27,10
230 IF D=6 THEN COLOR =6: SHAPE =0: PLOT 4,6: PLOT 8,6: PLOT 4,8: PLOT 8,8: PL
OT 4,10: PLOT 8,10
235 IF D=6 THEN COLOR =6: SHAPE =0: PLOT 23,6: PLOT 27,6: PLOT 23,8: PLOT 27,6
: PLOT 23,10: PLOT 27,10
245 IF W=7 PRINT "WINNER!!!": GOTO 450
250 IF W=11 PRINT "WINNER!!!": GOTO 450
255 IF W=2 PRINT "SNAKE EYES, YOU LOSE!!!": GOTO 475
260 IF W=12 PRINT "BOX CARS, YOU LOSE!!!": GOTO 475
265 GOTO 495
270 CALL 17046
280 PRINT "POINT IS ",W
285 A= INT (6* RND (1)+1):B= INT (6* RND (1)+1)
290 D=A+B
295 COLOR =4: SHAPE =15
300 PLOT 3,5

```

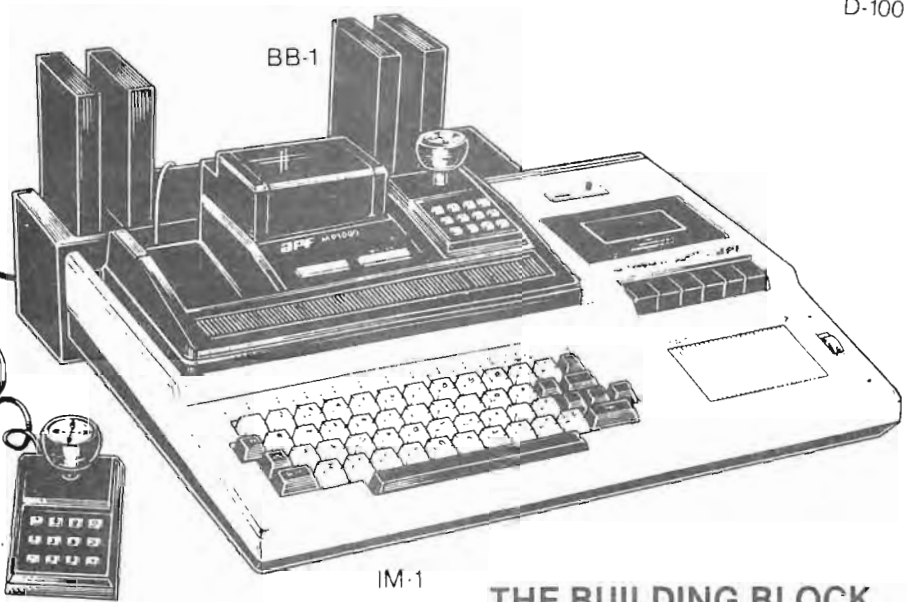

DICE (continued)

```

305 FOR X=3 TO 9
310 FOR Y=5 TO 11
315 PLOT X,Y
320 NEXT X
325 NEXT Y
330 COLOR R=4: SHAPE =15
335 PLOT 22,5
340 FOR X=22 TO 28
345 FOR Y=5 TO 11
350 PLOT X,Y
355 NEXT X
360 NEXT Y
365 IF A=1 THEN COLOR =6: SHAPE =0: PLOT 6,8
370 IF B=1 THEN COLOR =6: SHAPE =0: PLOT 25,8
375 IF A=2 THEN COLOR =6: SHAPE =0: PLOT 4,6: PLOT 8,10
380 IF B=2 THEN COLOR =6: SHAPE =0: PLOT 23,6: PLOT 27,10
385 IF A=3 THEN COLOR =6: SHAPE =0: PLOT 4,6: PLOT 6,8: PLOT 8,10
390 IF B=3 THEN COLOR =6: SHAPE =0: PLOT 23,6: PLOT 25,8: PLOT 27,10
400 IF B=4 THEN COLOR =6: SHAPE =0: PLOT 23,6: PLOT 27,6: PLOT 23,10: PLOT 27,
10
405 IF A=5 THEN COLOR =6: SHAPE =0: PLOT 4,6: PLOT 8,6: PLOT 6,8: PLOT 4,10:
PLOT 8,10
410 IF B=5 THEN C COLOR =6: SHAPE =0: PLOT 23,6: PLOT 27,6: PLOT 25,8: PLOT 23,
10: PLOT 27,10
415 IF A=6 THEN COLOR =6: SHAPE =0: PLOT 4,6: PLOT 8,6: PLOT 4,8: PLOT 8,8: PL
OT 4,10: PLOT 8,10
420 IF B=6 THEN COLOR =6: SHAPE =0: PLOT 23,6: PLOT 27,6: PLOT 23,8: PLOT 23
,10: PLOT 27,10
425 IF D=W THEN PRINT "WINNER!!!": GOTO 450
430 IF D=7 THEN PRINT "YOU CRAPPED OUT!!!": GOTO 475
435 IF D=11 THEN PRINT "YOU CRAPPED OUT!!!": GOTO 475
445 GOTO 495
450 MUSIC "10305*10 50*100000"460 GOTO 520
475 MUSIC "7*615000"
485 GOTO 520
495 INPUT "NEXT ROLL, TYPE (1) THEN RETURN"
500 IF Z=1 THEN GOTO 270
520 INPUT "NEW ROLL, TYPE (5) THEN RETURN"
525 IF F=5 THEN GOTO 50
2400 PRINT "POINT IS",W

```

PERIPHERALS ARE NOW IN STOCK
MAY 15, 82



IM-1

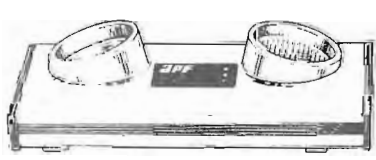
THE IMAGINATION MACHINE (IM-1)

Exciting, personal, home computer for home management, entertainment and education. User-programmable in BASIC or uses APF software cassette programs. Features 9K RAM, 14K ROM, 53-key keyboard, 32 characters x 16 line screen format, alpha numerics in up to 8 colors. Built-in sound synthesizer, built in tape deck, 2 game-style hand held controllers.

TELEPHONE MODEM (TM-150)

The APF modem (modulator/demodulator) allows you to hook up the computer to a remote terminal over telephone lines and access time-sharing services or trade programs with a compatible computer.

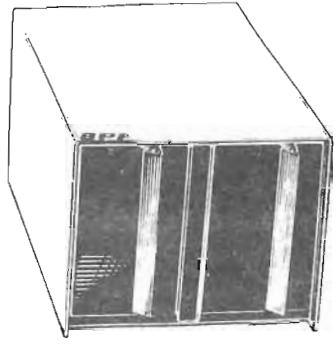
TM-150



THE BUILDING BLOCK (BB-1) Now In Stock

This expansion device lets you use your APF Imagination Machine to its fullest degree. Easily plugged into the machine and requiring no additional power supply, it contains four universally adaptable ports for peripheral drive cartridges. For example, a cartridge,* enabling hookup to any standard printer or telephone modem. Ports can also hold cartridges for 8K RAM * memory and mini-floppy disk drive.

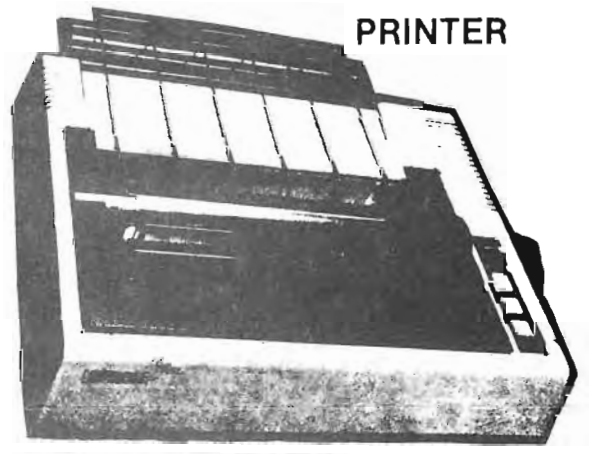
D-100



MINI-FLOPPY DISK DRIVE (D-100)

Each APF mini-floppy disk drive gives you 72,000 bytes of additional storage capacity plus loading and accessing of data within seconds. Industry standard mini-floppy connections.

PRINTER



The EPSON MX

The MX-80, shown above, is an 80-column bidirectional printer featuring the full 96-character ASCII set with descenders for easier reading, and offers a user-defined choice of 40, 66, 80 or 132 columns.

One of the biggest breakthroughs offered by the MX-80 is the world's first disposable print head. After its 50-million-character life expectancy, you simply buy a new one for under \$30 and replace it yourself in seconds.

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BOX 550, BARRINGTON, ILLINOIS 60010 - Phone 312/382-5244 to order

12 HOUR CLOCK

.....from DEAN MCKITRICK OF W. VIRGINIA

If time needs to be slowed down or speeded up, change the pause loop at line 50 >125 to slow down and < 125 to speed up. However change it one at a time.

```
5 CALL 17046
10 POKE 24578,52
15 INPUT "THE HOUR IS ",E
20 F= INT (E/10);E=E-(F*10)
25 INPUT "THE MIUTES ARE ",C
30 D= INT (C/10);C=C-(D*10)
35 INPUT "THE SECONDS ARE ",A
40 B= INT (A/10);A=A-(B*10)
45 CALL 17046
50 FOR N=1 TO 125: NEXT N
55 A=A+1
60 IF A>9 THEN 70
65 GOTO 180
70 A=0
75 B=B+1
80 IF B>5 THEN 90
85 GOTO 180
90 B=0
95 C=C+1
100 IF C>9 THEN 110
105 GOTO 180
110 C=0
115 D=D+1
120 IF D>5 THEN 130
125 GOTO 180
130 D=0
135 E=E+1
140 IF E>9 THEN 150
145 GOTO 160
150 E=0
155 F=F+1
160 IF F=1 THEN 175
165 GOTO 180
170 B=0:C=0:D=0:E=1:F=0
175 IF E=3 THEN A=0:B=0:C=0:D=0:E=1:F=0
180 X=1:Y=14:Z=X*32+Y+512
185 POKE 40960,Z/256
190 POKE 40961,Z- INT (Z/256)+256
195 PRINT F;E;";";D;C;";";B;A: GOTO 50
```

