

NATIONAL IMAGINATION COMPUTER CLUB

* 515 Shadylane-Barrington-Illinois-60010

SEPTEMBER 1982

Let's clear up the confusion about "club membership"

Some owners have written in about not getting club letters because they feel they are clubmembers when they sent in the card to APF electronics that said they would get a free membership!! That club is inactive and not in existance. If you haven't sent in your application for the 1982 National Imagination Computer Club and paid your fee for 1982; you are not a member!!! We have sent all owners free club letters from time to time to encourage them to join the club for 1982. This also has confused owners who have not sent in their fee. GOOD NEWS!!! The 1983 Club will have a new president dedicated to answer each letter personally and the fee will only be \$10.00 for 1983 if you sign up before Christmas, 1982.

Also, we would like to remind those of you sending in programs, questions and especially change of address information, please indicate on the envelope that it is for the Imagination Club, again, NICC is not enough. Thank you. Also, we have received the tip to list the questions as well as our answers. This will be done beginning with this issue with a "Q." and "A."

ANSWERS/TIPS/QUESTIONS FROM OTHER CLUB MEMBERS

FROM W. HENDERSON OF NEW YORK

In the February 1982 issue of POPULAR ELECTRONICS, page 59, there is an article on constructing a circuit which enables games and computers to produce crisper signals for TV. It might help those APF owners with poor resolution. But we need a hardware expert to put it in APF language.

FROM J. BLAZEK OF WISCONSIN

Has anyone converted other computer programs to the APF? If so, let us know some tips/differences that we can pass on through the letter.

FROM D. MCKITRICK - 218 PINE CIRCLE, DAVISVILLE, WV 26142

1. Does anyone know of anyother computer club to join other than this (in conjunction)?
 2. Does anyone know if there is anyway we can get another basic interpreter with Trig functions and string \$ functions that can be interfaced with the IM-1?
 3. Does anyone know of a program to do something like turtle graphics, for his kids?
-

TO J. CLATFELTER OF CALIFORNIA

1. Q.Is there a program that will allow him to use the computer to write letters, similar to "Word Processor"? A. Look in the for sale section of this letter.
2. Q.Will I be able to use the printer at more than 32 columns? A.Yes, the printer will print as many characters as it will support. Our Epson book indicates what to type in for different character lengths and sizes.

Questions 3 and 4 will be answered in the next issue.

TO R. EBY OF ILLINDIS

Once again, we apologize for the quality of the June letter. TO OTHER CLUB MEMBERS - Mr. Eby wonders if there is anyone who will - for a reasonable price - do programming services? If so, call him (PLEASE NOTE ANY TIME DIFFERENCE AND CALL AT A RESPECTABLE TIME) 312-779-7516. Any questions you stated regarding the programs listed in the letter, they were all run prior to publication and worked. I have passed the question regarding hardware price to Protecto service people.

FROM D. MERRILL OF ?

He is interested in a program that would alphabetize names given in a data statement while keeping their grades. We will publish any program in the newsletter.

FROM GEORGE TAYLOR OF 209 LAKESHORE DR, MUSCLE SHOALS, AL 35660

Radio Shack book #62-2015, has programs that with minor changes will load into IM-1. He also would like to be contacted by other members.

FROM D. DONNELLY OF CALIFORNIA

1. Q. Is there a memory map of all the built-in 14-K ROM procedures? A. We do not have one, if anyone has dis-assembled the 14K ROM basic let us know.
2. Q. Do you have any copies of the Service Manual for sale? A. No.
3. Q. Is there anyway to Single-step a machine language program for debugging purposes? A. Not at the present.
4. Q. How do I use OPEN, CLOSE, DIR basic statements? A. These are disk commands.

ITEMS FOR SALE

ALL OF YOUR WAITING IS OVER - APF-MAN is here. The little muncher scurries around the screen trying to gobble up as many points as he can while eluding four very intelligent robots. Each screen becomes more challenging as the robots pick up speed - complete with bonus points and energizers. The price is \$20.00 and can be ordered from

CARL A. ECHOLS
112 CREEKSIDE LANE73
NOBLESVILLE, IN 46060

ANOTHER PROGRAM WHICH HAS BEEN AWAITED BY MANY OF YOU -

LINE PROCESSING SYSTEM - Create, display and edit letters, notes, and memos. Printout on your printer or save to disk or tape. Available in 4 versions; Please specify 8K or 16K and 32 or 64 characters per line. Order - on cassette with documentation \$9.95; each additional version - \$2.00 - ORDER FROM:

G. R. JONES
419 S. 105 E PL.
TULSA, OK 74128

PROGRAMS FROM OTHER CLUB MEMBERS

ONE-ARM BANDITS

.....from MILES GILLRIE OF CANADA

```
10 DIM L$(8)
12 DIM S$(8)
14 DIM S1$(8)
16 DIM S2$(8)
18 DIM S3$(8)
20 DIM M$(1)
30 PRINT "ARE THERE INSTRUCTIONS REQUIRED"
40 PRINT "TYPE EITHER YES OR NO"
50 INPUT L$
60 IF L$="YES" THEN 100
70 IF L$="NO" THEN 170
80 PRINT "INVALID COMMAND"
90 GOTO 30
100 PRINT "SCORING IS SIMPLE; 3 ORANGES, LEMONS OR BANANAS EARN $10."
105 GOSUB 810
110 PRINT "3 CHERRIES EARN $90."
115 GOSUB 810
120 PRINT " IF THE FIRST FRUIT IS AN APPLE YOU EARN $2."
125 GOSUB 810
130 PRINT " IF THE FIRST AND SECOND ARE APPLES YOU EARN $3."
135 GOSUB 810
140 PRINT " IF THE LAST FRUIT IS A CHERRY AND THE OTHER 2 ARE THE SAME BU
T NOT APPLES YOU EARN $10."
145 GOSUB 810
160 PRINT "EACH TURN COST $1."
165 PRINT " GOOD LUCK"
166 PRINT " -----"
167 GOSUB 810
170 LET J=0
180 PRINT
190 GOSUB 590
200 LET S1=S
210 GOSUB 590
220 LET S2=S
230 GOSUB 590
240 LET S3=S
250 LET S=S1
260 GOSUB 610
270 LET S1$=S$
280 LET S=S2
290 GOSUB 610
300 LET S2$=S$
310 LET S=S3
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ONE-ARM BANDIT(continued)

```

320 GOSUB 610
330 LET S3$=S$
340 IF S1$="CHERRY" THEN 380
350 IF S1$="APPLE" THEN 420
360 IF S1$=S2$ THEN 440
370 GOTO 460
380 IF S1$=S2$ THEN 400
390 GOTO 460
400 IF S2$=S3$ THEN 480
410 GOTO 460
420 IF S1$=S2$ THEN 500
430 GOTO 500
440 IF S2$=S3$ THEN 540
450 IF S3$="CHERRY" THEN 540
460 LET J=J-1
470 GOTO 550
480 LET J=J+89
490 GOTO 550
500 LET J=J+2
510 GOTO 550
520 LET J=J+1
530 GOTO 550
540 LET J=J+9
550 PRINT
560 PRINT S1$;" ";S2$;" ";S3$
565 PRINT
566 PRINT
570 PRINT "YOUR TOTAL EARNINGS ARE NOW $";J
580 GOTO 720
590 LET S=1+ INT ( RND (0)*5.333+1)
600 RETURN
610 ON S GOTO 620,640,660,680,700
620 LET S$=" CHERRY "
630 GOTO 710
640 LET S$=" APPLE "
650 GOTO 710
660 LET S$=" LEMON "
670 GOTO 710
675 PRINT
680 LET S$=" ORANGE "
690 GOTO 710
695 PRINT
700 LET S$=" BANANA "
710 RETURN
720 PRINT
730 PRINT "TO CONTINUE TYPE Y, IF NOT TYPE N"
740 INPUT M$

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ONE-ARM BANDITS (continued)

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150 IF M#="Y" THEN 780
155 PRINT "-----"
160 PRINT "ONE-ARM BANDIT SAYS GOOD-BYE"
165 PRINT "-----"
170 STOP
180 PRINT
190 GOTO 190
200 END
210 MUSIC "100/51/51230001000"
215 MUSIC "400410203000000"
220 MUSIC "100/51/512300010"
225 MUSIC "33302020302000000"
230 RETURN

```

ARTILLERY DIRECTION

.....from ROGER PRICE OF INDIANA

```

3 CALL 17046
5 GOTO 10
8 Y=3.1428*B2/180:L=Y-Y*Y/6+Y*Y*Y/120-Y*Y*Y*Y/5040: RETURN
10 PRINT "ARTILLERY DIRECTOR"
130 PRINT "YOU ARE THE FORWARD OBSERVER GIVEING ORDERS TO A GUN"
140 PRINT "CREW, TELLING THEM THE DEGREES OF ELEVATION YOU ESTIMATE"
150 PRINT "WILL PLACE A PROJECTILE ON TARGET. A HIT WITHIN 100 YARDS"
160 PRINT "OF THE TARGET WILL DESTROY IT"
170 R= INT (4000*(RND (1)+20000))
180 PRINT "MAXIMUM RANGE OF YOUR GUN IS",R,"YARDS"
190 PRINT
195 S1=0
200 T= INT (R*(1+.8*(RND (1))))
210 S=0
220 GOTO 370
230 PRINT "MINIMUM ELEVATION IS ONE DEGREE."
240 GOTO 390
250 PRINT "MAXIMUM ELEVATION IS 89 DEGREES"
260 GOTO 390
270 PRINT "OVER TARGET BY "; ABS (E)," YARDS"
280 GOTO 390
290 PRINT "SHORT OF TARGET BY "; ABS (E)," YARDS"

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ARTILLARY DIRECTION (continued)

```
300 GOTO 390
320 PRINT "***TARGET DESTROYED***";S,"ROUNDS OF AMMUNITION EXPENDED"
325 S1=S1+S
330 IF Z=4 THEN 490
340 Z=Z+1
345 PRINT
350 PRINT "THE FORWARD OBSERVER HAS SIGHTED MORE ENEMY ACTIVITY"
360 GOTO 200
370 PRINT "DISTANCE TO THE TARGET IS",T,"YARDS"
380 PRINT
390 PRINT
400 INPUT "ELEVATION ##.#",B
420 IF B>89 THEN 250
430 IF B<1 THEN 230
440 S=S+1
442 IF S<6 THEN 450
444 MUSIC "/1000000000": PRINT "BOOM!!! YOU HAVE JUST BEEN DESTROYED....."
446 PRINT "BY THE ENEMY.": PRINT : PRINT : PRINT : GOTO 495
450 B2=B+89/45: GOSUB 8
455 I=R*L:X=T-I:E= INT (X)
460 IF ABS (E)<100 THEN 320
470 IF E>100 THEN 290
480 GOTO 270
490 PRINT : PRINT : PRINT " TOTAL ROUNDS EXPENDED WERE":S1
492 IF S1>18 THEN 495
493 PRINT "NICE SHOOTING!!": GOTO 500
495 PRINT "BETTER GO BACK TO FORT SILL FOR REFRESHER TRAINING!"
500 PRINT : INPUT "TRY AGAIN?(YES 1 NO=2)",ZS
510 IF ZS=1 THEN 170
520 PRINT "OK. RETURN TO BASE CAMP FOR R & R"
999 STOP
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BOMBER PILOT

.....from ROGER PRICE OF INDIANA

```
5 CALL 17046
6 PRINT "BOMBER PILOT - FOR APF BY ROGER PRICE 5-82"
7 PRINT "YOU ARE A PILOT"
8 PRINT "IN A WORLD WAR 2 BOMBER"
9 PRINT
10 PRINT "WHAT SIDE? ITALY-1"
12 INPUT "ALLIES-2, JAPAN 3, GERMANY 4",A
20 IF A<5 THEN GOTO 25
22 PRINT "TRY AGAIN...": GOTO 10
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BOMBER PILOT (continued)

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25 ON A GOTO 30,110,200,220
30 CALL 17046: INPUT "YOUR TARGET? ALBANIA 1, GREECE 2, NORTH AFRICA 3",B
40 IF B<4 THEN GOTO 45
42 PRINT "TRY AGAIN...": GOTO 30
45 PRINT : ON B GOTO 50,80,90
50 PRINT "SHOULD BE EASY--YOUR FLYING A NAZI-MADE PLANE."
60 GOTO 280
80 PRINT "BE CAREFUL!!!": GOTO 280
90 PRINT "YOUR GOING FOR THE OIL,EH?": GOTO 280
110 PRINT "YOUR FLYING?"
111 PRINT "LIBERATOR 1","B-29 2"
112 INPUT "B-17 3, LANCASTER 4",G
120 IF G>0ANDG<5 THEN 125
125 PRINT : ON G GOTO 130,150,170,190
130 PRINT "YOU'VE GOT 2 TONS OF BOMBS FLYING FOR PLOESTI.": GOTO 280
150 PRINT "YOU'RE DUMPING THE A-BOMB ON HIROSHIMA.": GOTO 280
170 PRINT "YOU'RE CHASING THE BISMARCK IN THE NORTH SEA.": GOTO 280
190 PRINT "YOU'RE BUSTING A GERMAN HEAVY WATER PLANT IN THE RUHR."
195 GOTO 280
200 PRINT "YOU'RE FLYING A KAMIKAZE MISSION OVER THE USS LEXINGTON."
205 INPUT "YOUR FIRST KAMIKAZE MISSION?(PRESS 1=YES 2=NO)",FS
207 IF FS=2 THEN S=0: GOTO 357
210 PRINT : IF RND (1)>.65 THEN 325
215 GOTO 380
220 CALL 17046: PRINT "A NAZI, EH? OH WELL...ARE YOU GOING FOR: RUSSIA-1"
230 INPUT "ENGLAND-2 OR FRANCE-3",M: IF M<4 THEN GOTO 235
232 PRINT "TRY AGAIN...": GOTO 220
235 PRINT : ON M GOTO 250,260,270
250 PRINT "YOU'RE NEARING STALINGGRAD.": GOTO 280
260 PRINT "NEARING LONDON. BE CAREFUL, THY'VE GOT RADAR.": GOTO 280
270 PRINT "NEARING VERSAILLES. DUCK SOUP. THEY'RE NEARLLY DEFENSELESS."
280 PRINT
285 INPUT "HOW MANY MISSIONS HAVE YOU FLOWN",D
290 IF D<160 THEN 300
292 PRINT "MISSIONS ,NOT MILES..."
295 PRINT "10 MISSIONS IS HGH EVEN FOR OLD-TIMERS."
297 PRINT "HOW THEN ,": GOTO 285
300 PRINT : IF D<100 THEN 310
305 PRINT "THAT'S PUSHING THE ODDS!": GOTO 320
310 IF D<25 THEN PRINT "FRESH OUT OF TRAINING,EH?"
320 PRINT : IF D<160* RND (1) THEN 330
325 PRINT "DIRECT HIT!!!", INT (100* RND (1)),"KILLED"
326 MUSIC "/40 /50 /60 /70 /60 /70"
327 PRINT "MISSION SUCCESSFUL.": GOTO 390
330 PRINT "MISSED TARGET BY ": INT (2+30* RND (1)),"MILES!"
335 PRINT "HOW YOU'RE REALLY IN FOR IT !!!": PRINT
340 PRINT "DOES THE ENEMY HAVE?"
341 INPUT "GUNS 1, MISSILES 2, BOTH 3",R
345 IF R<4 THEN GOTO 350
347 PRINT "TRY AGAIN...": GOTO 340
350 PRINT : I=0: IF R=2 THEN 360
355 INPUT "WHAT'S THE PERCENT HIT RATE OF ENEMY GUNNERS (10 TO 50)",S
357 IF S<10 THEN PRINT "YOU LIE.....BUT YOU'LL PAY....."
358 MUSIC "/7000/6000/5000/4000/3000/2000": GOTO 380

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BOMBER PILOT (continued)

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360 PRINT : IF R>1 THEN T=35
365 IF S+T>100* RND (1) THEN 380
370 PRINT "YOU MADE IT-THROUGH TREMENDOUS FLAK!!!": GOTO 390
380 MUSIC "/10/10000"
381 CALL 17046: PRINT "*****&&..BOOM..%&#"
384 PRINT "YOU HAVE BEEN SHOT DOWN...."
386 PRINT "DEARLY BELOVED, WE ARE GATHERED HERE TODAY TO PAY OUR"
387 PRINT "LAST TRIBUTE..."
390 PRINT : PRINT : PRINT : INPUT "ANOTHER MISSION?(YES=1 NO=2)",U
395 IF U>2 THEN 410: IF U=1 THEN 5: IF U=2 THEN 400
396 IF U=1 THEN 5: IF U=2 THEN 400
400 PRINT "CHICKEN!!!": PRINT : STOP
410 PRINT : PRINT "DO YOU EVER GET ANYTHING RIGHT?": GOTO 390

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HOME LOAN BALANCE

.....also from ROGER PRICE OF INDIANA

```

10 CALL 17046
20 PRINT "HOME LOAN BALANCE"
30 PRINT
40 INPUT "MONTHLY PAYMENT",P
50 INPUT "PRINCIPAL",T
60 INPUT "NO. OF PAYMENTS PER YEAR",Y
70 INPUT "ANNUAL INTEREST RATE",I
80 I=I/100
90 INPUT "NO. OF PAYMENTS MADE",N
100 B0=T
110 FOR L=1 TO N
120 I1= INT ((B0*I/Y)*100+.5)/100
130 A=P-I1
140 B0=B0-A
150 PRINT "NO. ";L;" " ;"INT.=$";I1
160 PRINT "REMAINING BALANCE= $"; INT (B0*100+.5)/100
170 IF B0<=P THEN GOTO 190
180 NEXT L
190 IF B0>P THEN GOTO 220
200 PRINT "MO. ";L+1;" " ;"INT.=$ "
210 PRINT "BALANCE= $0.00"
220 PRINT
230 STOP

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ASCII CODE CONVERSION

.....from P. NEUWALD, MILWAUKEE, WI

```
0 REM *ASCII CODE CONVERSION
5 REM * BY P.NEUWALD
6 REM
10 FOR CLS=1 TO 16: PRINT : NEXT
20 POKE 24578,54
100 DIM A$(1),H1$(1),H2$(1)
105 DIM HT$(1),H3$(1),H4$(1)
110 A#=KEY$(0): IF A#="" THEN 110
115 MUSIC "1"
120 B=ASC(A#): IF B>=64 THEN B=(ASC(A#)-64)
125 B1=B+64
130 C=INT(B/16)
135 C2=INT(B1/16)
140 C1=B-(C*16)
145 C3=B1-(C2*16)
150 LET T=C
160 GOSUB 500
170 LET H1#=HT#
180 LET T=C1
190 GOSUB 500
200 LET H2#=HT#
210 LET T=C2
220 GOSUB 500
230 LET H3#=HT#
240 LET T=C3
250 GOSUB 500
260 LET H4#=HT#
270 PRINT A#; SPC(2);"STD.:";B; SPC(2);H1#;H2#; SPC(2);"REV.:";B1; SPC(2)
;H3#;H4#
280 GOTO 100
290 STOP
500 IF T=0 THEN HT#="0": RETURN
510 IF T=1 THEN HT#="1": RETURN
520 IF T=2 THEN HT#="2": RETURN
530 IF T=3 THEN HT#="3": RETURN
540 IF T=4 THEN HT#="4": RETURN
550 IF T=5 THEN HT#="5": RETURN
560 IF T=6 THEN HT#="6": RETURN
570 IF T=7 THEN HT#="7": RETURN
580 IF T=8 THEN HT#="8": RETURN
590 IF T=9 THEN HT#="9": RETURN
600 IF T=10 THEN HT#="A": RETURN
610 IF T=11 THEN HT#="B": RETURN
620 IF T=12 THEN HT#="C": RETURN
630 IF T=13 THEN HT#="D": RETURN
640 IF T=14 THEN HT#="E": RETURN
650 IF T=15 THEN HT#="F": RETURN
660 RETURN
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IM-1 MILLION

in a

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Club Member

AT THE END OF THE CURRENT SUBSCRIPTION YEAR THE NATIONAL IMAGINATION COMPUTER CLUB WILL BECOME THE 'IM-1 IN A MILLION' UNDER TOTALLY NEW MANAGEMENT.

THE NEW POLICY IS TO UPGRADE EVERYTHING THAT HAS GONE BEFORE. THE 'IM-1 IN A MILLION' WILL MAINTAIN THE MINIMUM OF 10 PAGES PER ISSUE, ISSUED MONTHLY. HOPEFULLY, AS SUBSCRIBERS CONTACT US, EVEN MORE. WE'LL TRY TO CONTINUE THE CLUB DISCOUNT (DEPENDING ON FACTORY) AVAILABILITY) ON BOTH HARDWARE AND SOFTWARE. AS NEW ITEMS BECOME AVAILABLE WE'LL ADD THEM TO OUR LIST.

OF COURSE WE'LL KEEP PRINTING FREE PROGRAMS WRITTEN BY OWNERS SPECIFICLY FOR THE IM-1. WE PROMISE TO PERSONALLY ANSWER EVERY LETTER YOU WRITE.

SOME NEW DEPARTMENTS HAVE BEEN ADDED, SO LOOK FOR THEM IN THE FIRST ISSUE, JAN 1983.

ADDED: THE WANT ADS; HERE IS A PLACE FOR SUBSCRIBERS TO BUY AND SELL PROGRAMS, USED EQUIPMENT OR ANY ASSOCIATED MATERIALS (COST MINIMAL).

ADDED: MAINTENANCE AND REPAIR ADVICE PLUS INFORMATION ON ANY UPGRADES IN THE FUTURE.

WHETHER YOU USE YOUR MACHINE FOR HOME, BUSINESS OR ENTERTAINMENT, WE WILL HAVE SOMETHING FOR YOU.

REMEMBER, SUBSCRIBE NOW FOR 1983 FOR ONLY \$10.00, AFTER DEC 25, 1982 THE RATE GOES BACK TO \$15.00. WE WILL GIVE YOUR MONEY BACK ANYTIME YOU ARE NOT COMPLETELY SATISFIED WITH THE CLUB LETTER, PRORATED OF COURSE!

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IM-1 MILLION

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Club Member

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MEMBERSHIP APPLICATION

FOR 1983

1-1-83 to 12-31-83

NAME= _____

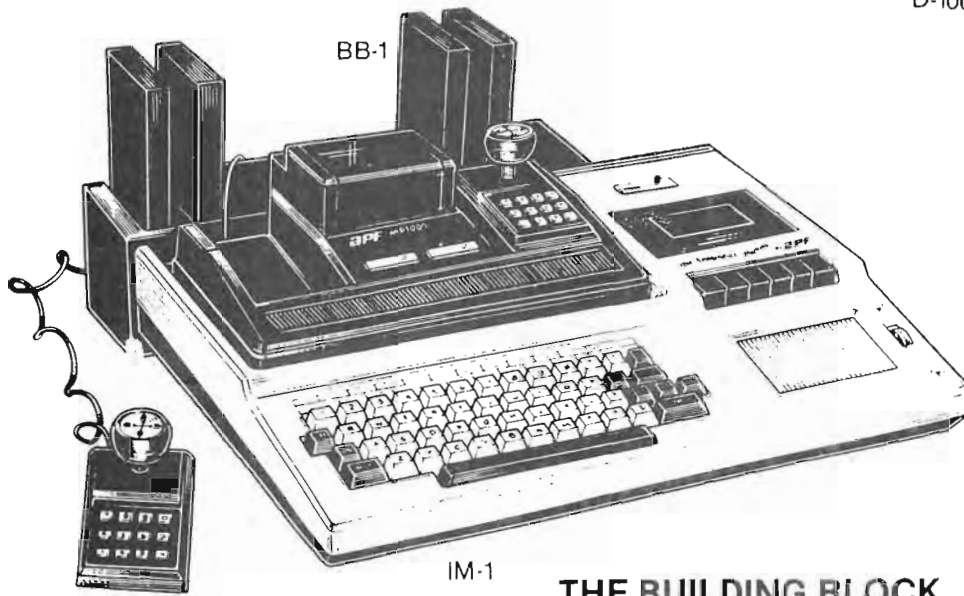
STREET ADDRESS= _____

CITY= _____

STATE= _____ ZIP= _____

ENCLOSED IS MY \$ 10.00 FEE (SPECIAL PRICE)

MAIL TO: EDITOR
 MILLY BREWER
 P.O. BOX 1411
 SPRINGDALE,
 ARKANSAS 72764



BB-1

IM-1

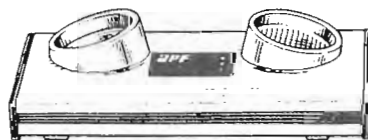
THE IMAGINATION MACHINE (IM-1)

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.

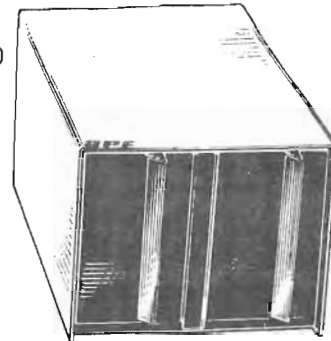
TM-150



THE BUILDING BLOCK (BB-1)

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.

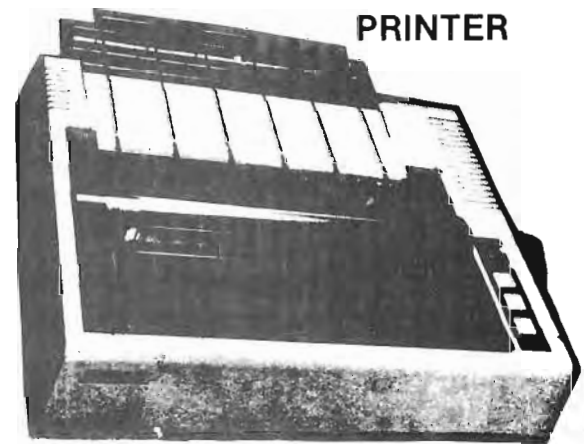
D-100



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.

PROTECTO ENTERPRIZES (FACTORY - DIRECT RELIABILITY)

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