SUMMIT 99'ER
USERS GROUP

JANUARY 1985 Vol. 3 No. 1

This month's meeting will be held on Thursday, January 17th at Cuyahoga Falls High School at the corner of 4th and Stow streets in Room 413-Physic's Lab. The February meeting will be held on February 15th. Please remember to sign in.

This month's program will be on the modem. Norm will be giving the demonstration.

BASIC CLASS

Rich's subject this month will be "How to Load and Save on Cassette". Bring your unit: monitor, keyboard, cassette recorder, and blank tape. He will also have a Question and Answer period on all levels of Basic.

MEMBERSHIP DUES

Those people whose membership dues are due in January will be due in January. Remember the constitution voted on this year, increased the dues to $15.00 from $10.00 last year.

The Club's offering a special deal. Wabash disks, 2 sided, double density, 10 pack for $18.00. This is a Club price, which is 1/3 the price in the stores. Contact Bert Haase at 753-7846.

NEWSLETTER DEADLINE

The deadline for the February newsletter is February 2.

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Library Shelves

In November 15 Cassettes were checked out, but at the December Meeting only 10 of the 15 were turned back in. The wayward Cassettes are: 1000-2B, 1000-30A, 1000-33A, 1000-40A and 8000-3. If you happen to have any of these on your shelves, either contact me or drop them off at the next Meeting(January).

At the December Meeting we were busy handing out both Cassettes and "DISKS". We had an overall total of 22 Items checked out. Were starting to progress some. Please remember when you turn the Cassettes back in to rewind them and put them back in the plastic holder the same way as when you checked them out(Plastic holder open, Cassette with leader facing front and Blue Label down), this will help all involved.

SURPRISE!!! WINGING IT WORKS(I crashed 5 times,not to bad since I was in the air 4 of the 5 times I crashed), there will be two copies available at the January Meeting. NO RESERVATIONS ACCEPTED.

The Cassette Library is now up to 96 Cassettes with an average of 2 programs per Cassette. The Disk Library has about - since this is changing - 10 Disks for check-out(some of the Disks have all 358 sectors filled)

Cassette 4000-3 has been changed to the following:CAPITOLS, WORLD-FLAGS, AND SPANISH.

LIBRARY RULES:

1) Must be a paid up member in good standing of the Summit 99er User's Group.

2) Inital entry Fee: $2.00 or Donate a usable(not already in Library) Program to Library.

3) No more than 2 Cassettes, 1 Disk or 1 Command Module may be checked out per month per member.NO EXCEPTIONS.

4) No reproduction of Library Property is permitted without permission of owner(Copyright Law).

5) Items checked out of the Library are due to be returned by the next regular Meeting. Fines for late return: Cassettes $1.00, Disks $2.00, Books $2.00 and Modules $10.00. FAILURE TO ABIDE::::: LOSS OF LIBRARY MEMBERSHIP.

Now on the brighter side, the"FORTH" Disks are ready and the Manuals are being printed and should be ready for the January Meeting. Price the same $10.00(Disk with Manual)

CASSETTE LIBRARY

4000-4
    BLOCK LETTERS
    CIVIL WAR

4000-5
    SPEAK AND SPELL(TE II & SP SYN)
    TIME CLOCK

4000-6
    HAPPY SPELL(T E II & SP SYN)
    WORD TEACHER(TE II & SP SYN)

4000-7
    SAY AND SPELL(ExBAsic & SP SYN)
    MATH(ExBasic & SP SYN)
    SPEAK AND SPELL(ExBasic & SP SYN)

4000-8

5000-1
    FINANCIAL MATH
    MAILING LIST(ExBasic)
    LOAN AMORTIZATION(ExBasic)

5000-2
    ADDRESS 1
    ADDRESS 2

5000-3
    MAIL LIST
    MAIL PREP

5000-4
    RULE OF 78
    WORD PROCESSOR
    COLUMN AND PARAGRAPHS(ExBasic)

5000-5
    1040EZ
    AMORTIZATION
    CHECKBOOK BALANCE

5000-6
    TEX SCRIBE
    SORTS
    MAILLIST

5000-7

6000-1
    RADEC(ExBASIC)
    RISE/SET(ExBasic)
    LUNAR PHASES(ExBasic)

6000-2
    WEATHER STATION(ExBasic)
    SOLAR SYSTEM

6000-3
    LAT/LONG(ExBasic)
    METRIC CONVERSION
    GEO-SAT-LOCATION

6000-4
    ELECTRONICS
    BLDG-HEAT-EFFENCY

6000-5
    AIRCRAFT PREFORMANCE(ExBasic)
    FLIGHT PLAN
    SPACE CRAFT ORBITS

6000-6

7000-1
    HOME SECURITY
    HOME MORTAGE
    HOUSEHOLD INVENTORY

7000-2
    FREEZER INVENTORY
    GAS/ELECTRIC
    BULLETINS

7000-3
    MEDICAL EXPENSES
    KITCHEN AIDS(ExBasic)

7000-4
    HOME SECRETARY
    HOUSEHOLD BUDGET

7000-5
    CHECKBOOK
    CALENDER(DATA INPUT)

7000-6

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CASSETTE LIBRARY

8000-1
BIORYTHEM CALCULATOR
ENCODE
DECODE

8000-2
NUMBER BASE CONVERSION(ExBasic)
SCREEN CENTERING(ExBasic)
MENU(ExBasic)

8000-3
BIORYTHEM(FOR 2)
TAROT READER(ExBasic)

8000-4

8000-5
SPEECH EDITOR
H PLOT
SHRINK

8000-6
LOAD
LISTS
LOWER CASE

8000-7
AUTO LOG-ON(MODEM REQ)
CALENDER
CHARACTER DEFINITIONS

9000-1
DOW FLIGHT SIMULATOR
(WITH MANUAL)

9000-2
WINGING IT
(WITH MANUAL)

9000-3
TEACH YOURSELF BASIC(TI)

9000-4
TEACH YOURSELF EXTENDED BASIC(TI)

9000-5
51 FUN AND EDUCATIONAL GAMES(SAMS)

9000-6
STRANGE ODESSEY(ADVENTURE MOD REQ)

9000-7
MISSION IMPOSSIBLE(ADV MOD REQ)

9000-8
WALL STREET

9000-9
STRIKEFORCE 99

9000-10
SAT NIGHT BINGO(ExBasic) (TI)

FOR SALE

1ea P/E Box with 32K,Disk Controller, Disk Drive and Disk Managerl II $200.00

1ea TI Phone Modem $60.00   2ea Widget $35.00/ea   1ea TI Writer $50.00

1ea TI MultiPlan $50.00   1ea Cassette Recorder with Cables $20.00

2ea Hunt the Wumpus $5.00/ea   2ea Parsec $5.00/ea   2ea Chisholm Trail $5.00/ea

1ea Blasto ,1ea Car Wars, 1ea Household Budget, 1ea Home Financial, 1ea Zero Zap,

1ea Early Learning, 1ea Attack and 1ea Munchman all $5.00/ea

    Call Bert Haase 753-7046 or see me at the January Meeting

to help me keep my kitchen
 .able enterprise alive. One
users group reprinted my entire
catalog in their newsletter, another
is putting it on their BBS, another
made me an honorary life member, many
others have mentioned and recommended
my software in their newsletters.

Unfortunately, all that support
hasn't helped very much. From
reading the editorials in many
newsletters, I can easily see that
most users groups consist of a few
dedicated hard-working individuals
and a lot of.....well, frankly,
freeloaders. And freeloaders don't
buy software!

To borrow a few quotable quotes
from the newsletters, "too many
getters and not enough givers", and
"users are users!". That is why
users groups are fading away,
software producers are going out of
business, and the TI-99/4A will die
before its time.

In the last Tips, I mentioned
the one remaining bug in my 28-Column
Converter. I have found a fix for
it. The version published in Tips#15
was a horrible example of sloppy
programming, so I have rewritten it
entirely -

```
100 DISPLAY AT(1,4)ERASE ALL
:"28-COLUMN CONVERTER" :: DI
SPLAY AT(3,12):"by Jim Peter
son"
110 DISPLAY AT(5,1):" To con
vert a program, saved":"with
 LIST ""DSK1.FILENAME"",":"i
nto 28-column format which":
"can be merged into the text
"
120 DISPLAY AT(9,1):"buffer
of TI-Writer."
130 DISPLAY AT(11,1):" Optio
nally with transliter-":"ate
d e, k, 3, ^ and , for":"pri
nting from formatter":"mode.
"
140 DISPLAY AT(16,1):" Progr
am should be RES in":"steps
of 10 starting at 100":"befo
re LISTING to disk."
150 DISPLAY AT(20,1):" Do yo
u want to print the":"file f
rom the":" (E)ditor?":" (F)o
rmatter?"
```

```
160 ACCEPT AT(24,1)VALIDATE(
"EF")BEEP:Q$
170 LN=100 :: CALL CLEAR ::
INPUT "What is the FILENAME?
       DSK1.":FN$ :: FN$="DS
K1."&FN$ :: PRINT : :
180 INPUT "What is the new F
ILENAME?   DSK1.":PN$ :: PN$
="DSK1."&PN$ :: OPEN #1:FN$,
DISPLAY ,VARIABLE 80,INPUT :
: OPEN #2:PN$,DISPLAY ,VARIA
BLE 80,OUTPUT
190 IF Q$="E" THEN 200 :: PR
INT #2:".TL 126:94;" :: PRIN
T #2:".TL 123:64;" :: PRINT
#2:".TL 125:38;" :: PRINT #2
:".TL 124:42;" :: PRINT #2:"
.TL 92:46;" :: PRINT #2:".NF
"
200 IF EOF(1)=1 THEN 300 ::
LINPUT #1:A$
210 IF LEN(A$)<80 THEN LN=LN
+10 :: GOTO 260
220 LINPUT #1:B$ :: IF POS(B
$,STR$(LN),1)=1 THEN FLAG=1
:: LN=LN+10 :: GOTO 260
230 A$=A$&B$ :: IF LEN(A$)<1
60 THEN LN=LN+10 :: GOTO 260
240 LINPUT #1:B$ :: IF POS(B
$,STR$(LN),1)=1 THEN FLAG=1
:: LN=LN+10 :: GOTO 260
250 A$=A$&B$ :: LN=LN+10
260 S=1
270 L$=SEG$(A$,S,28):: IF Q$
="E" THEN 280 :: GOSUB 320
280 IF L$<>"" THEN 290 :: IF
 FLAG=1 THEN FLAG=0 :: A$=B$
 :: GOTO 210 :: ELSE GOTO 20
0
290 PRINT #2:L$ :: S=S+28 ::
 GOTO 270
300 IF Q$="E" THEN 310 :: PR
INT #2:".F1;AD;"
310 CLOSE #1 :: CLOSE #2 ::
END
320 DATA (see instructions below")
330 RESTORE 320 :: FOR W=1 T
O 5 :: READ CH$,R$
340 X=POS(L$,CH$,1):: IF X=0
 THEN 360
350 L$=SEG$(L$,1,X-1)&R$&SEG
$(L$,X+1,LEN(L$))):: GOTO 340
360 NEXT W :: RETURN
```

The DATA elements to be typed in
line 320, separated by commas, are -
the 'at' sign above the 2, the left
brace on the front of the F key, the

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ampersand above the 7, the right brace on the front of the 6, the carat sign above the 6, the tilde on the front of the N, the asterisk above the B, the whatsit? on the front of the A, the period, and the backslash on the front of the Z. If you don't want to revert to FILL and ADJUST, delete the second statement in line 300.

Beware the A6 bug! The asterisk in the above program is transliterated because of an odd quirk of TI-Writer which causes it to change A$256 into A6! It happened to me, and I've seen it in two published programs.

If my Autoloader gives you a couple of asterisks instead of the number of sectors, it's because you have files over 49 sectors long. You can change the image in line 170 to ### if you want to.

Here is probably the last word on the challenge to write a 1-line XBasic program which would scramble the numbers 1 to 255 into a random sequence without duplication. This one runs in 17 seconds!

```
100 ! FROM TISOFT (BELGIUM)
NEWSLETTER V.6 #4 JULY-SEPT
84 - ANONYMOUS
110 DIM R(255):: FOR I=0 TO
255 :: R(I)=I :: NEXT I :: F
OR I=0 TO 255 :: RANDOMIZE :
: CALL PEEK(-31808,J):: K=R(
J):: R(J)=R(I):: R(I)=K :: N
EXT I
120 FOR J=0 TO 255 :: PRINT
R(J);:: NEXT J
```

I believe that Craig Miller is due the credit for publishing the PEEK used in that routine. He also found a PEEK to get two random numbers, which I fooled around with until I discovered I had a mosquito trapped behind my TV screen.

```
100 ' MOSQUITO by Jim Peter
son from a PEEK by Craig Mil
ler
110 CALL CLEAR :: CALL SPRIT
E(#1,42,2,100,100)
```

```
120 RANDOMIZE :: CALL PEEK(-
31808,A,B):: CALL MOTION(#1,
A-128,B-128):: GOTO 120
```

If you're worried about the mosquito getting out, you can put a screen on the window by adding a statement to line 110 - CALL CHAR(32,"FF88888FF888888")

Here's one for the kiddies -

```
100 REM - DANCING STICKMAN p
rogrammed by Jim Peterson
110 CALL CLEAR
120 DIM S(26),T(60),NN(60)
130 FOR CH=48 TO 80 STEP 8
140 CALL CHAR(CH,"000028107C
1028")
150 NEXT CH
160 GOSUB 590
170 FOR SET=3 TO 7
180 CALL COLOR(SET,1,1)
190 NEXT SET
200 DATA " H  000 P"," H
 000 F"," H  0  F"," 00
0000000"," 8  000 e"," 8
 000 e"
210 DATA " 88  000 ee"," H
HH000PPP"," H 8 e P"," H
 8 e F","HHH 8 e FFF","
  8 e","  8 e"," 888
eee"
220 PRINT "    dancing stic
kman": : : :
230 RESTORE 200
240 FOR J=1 TO 14
250 READ A$
260 PRINT TAB(6);A$
270 NEXT J
280 CALL COLOR(3,16,5)
290 CALL COLOR(4,16,7)
300 CALL COLOR(5,5,16)
310 GOTO 690
320 ON INT(3*RND+1)GOSUB 340
,400,460
330 RETURN
340 CALL COLOR(4,1,1)
350 CALL COLOR(6,16,5)
360 GOSUB 560
370 CALL COLOR(6,1,1)
380 CALL COLOR(4,16,7)
390 RETURN
400 CALL COLOR(5,1,1)
410 CALL COLOR(7,16,7)
420 GOSUB 560
430 CALL COLOR(7,1,1)
```

```
440 CALL COLOR(5,7,16)
450 RETURN
460 CALL COLOR(4,1,1)
470 CALL COLOR(5,1,1)
480 CALL COLOR(6,16,5)
490 CALL COLOR(7,16,7)
500 GOSUB 560
510 CALL COLOR(6,1,1)
520 CALL COLOR(7,1,1)
530 CALL COLOR(4,16,7)
540 CALL COLOR(5,5,16)
550 RETURN
560 FOR D=1 TO 30
570 NEXT D
580 RETURN
590 F=262
600 FOR N=1 TO 25
610 S(N)=INT(F*1.059463094^N
)
620 NEXT N
630 S(26)=40000
640 RESTORE 740
650 FOR J=1 TO 60
660 READ T(J),NN(J)
670 NEXT J
680 RETURN
690 FOR J=1 TO 60
700 CALL SOUND(T(J)*100,S(NN
(J)),0,S(NN(J))+5,5)
710 GOSUB 320
720 NEXT J
730 GOTO 690
740 DATA 4,6,4,13,4,13,4,15,
4,17,4,13,4,17,4,15,4,12,4,1
3,4,13,4,15,4,17,8,13,4,12
750 DATA 4,8,4,13,4,13,4,15,
4,17,4,18,4,17,4,15,4,13,4,1
2,4,8,4,10,4,12,8,13,4,13,4,
26
760 DATA 4,10,4,12,4,10,4,9,
4,10,4,12,8,13,4,8,4,10,4,8,
4,6,4,5,4,6,8,8
770 DATA 4,10,4,12,4,10,4,9,
4,10,4,12,4,13,4,10,4,8,4,13
,4,12,4,15,8,13,4,13,4,26
```

I used to sign off with "happy hackin'", but the vandals and thieves have made hacking a disreputable word, so

Meeowww
The Tigercub
Jim Peterson

HOLDING FORTH
by
John F. Schmidt
3688 Olympia Circle
Lexington, Ky 40582

FORTH is an elegant language. That's partly why I love it. But I, like most of you, am a newcomer to it and enamored perhaps by "surface beauty". This article will further explore the graphics capabilities of FORTH, and in doing so, we will learn more about some other features of FORTH, such as the floating point numbers package. I suspect that we will find FORTH's beauty more than skin deep.

In the last issue of Holding Forth we examined the stack and reverse polish notation used by FORTH. The explanation was necessarily brief, and if you want to learn more, I suggest the books "STARTING FORTH" and "THINKING FORTH" by Leo Brodie. They are both somewhat more expensive than I like, but they are really excellent and will give you considerable insight into the workings of FORTH.

Last issue we also dissected the "BOX" routine. There were several limitations to the program as it was written. Perhaps someone "out there" will be interested in working out the answers. First, the name BOX has a few problems: it's already used by one of the system routines. Nothing bad seems to happen when I use it, but just to avoid future trouble, rename the routine something else like "square". The other limitations of the program are less serious, but for the purist, just as irritating: BOX's colors are fixed. Being able to redefine the color of each separate box on the screen can lend some real zip to a visual display. Chapter six of the forth manual gives the secret away...shouldn't be to hard to change.

I forgot to tell you that the BOX word could be used in GRAPHICS2, SPLIT and SPLIT2 MODES. GRAPHICS2 Gives you the entire screen to mess with, but you lose the advantage of seeing what instructions you are typing in. That can be a real bummer, especially if you make a mistake and the computer seems to lock up (which it really can do). If you want to try to regain control of your 99/4A just type 'TEXT' and <ENTER>. That should do it. Next time watch your typing. Another shortcoming of BOX is that it only makes boxes parallel with the horizontal and vertical planes. If we could tilt the thing, some really neat graphics could result. All that is necessary is to add another parameter, say 'THETA', which is an angle in degrees (or radians, whatever you want). Offset the calculation of the starting and ending points according to the angle, and there you have it. How about somebody working that out and sending in the solution. We will print it (if it works).

One of the things which may cause some trouble is that some manipulations of numbers requires decimal point type numbers, called in computer parleyance: FLOATING POINT NUMBERS. It may come as a suprise to you that the computer has a much easier time working with integers

than with "real" numbers. Some early versions of BASIC only worked with integers. Our TI has one of the most excellent capabilities of any home or professional computer when it comes to handling floating point numbers. The programming for those tasks resides in some GROM-based routines call the "floating point package". FORTH has made these available to us and I find them easy to use.

Before we get any further into a discussion of how to use this package, I suppose that it would help if I told you what I aim to accomplish in this and the next several issues of HOLDING FORTH. We already have a simple version of the BOX routine, next we will develop a CIRCLE routine. In the development of this, we will definitely need the floating point package, so let's clear that up first.

Doing integer arithmetic with FORTH is very easy. If we want to add two numbers together, we push them onto the stack and ' + ' them. For example, 22 plus 35. That enters like this: " 22 35 + . " . Note the spaces between the operators. The period after the plus is a 'print' command, remember? The same procedure holds true for subtraction, multiplication, and division. The order of entry doesn't make much difference for addition and multiplication, but it sure does for the other two. The way to know the order is to remember how the problem normally looks when we write it out: "22 + 35 =" The numbers remain in that order when you enter them in FORTH. Easy huh?

The floating point arithmetic is just a little different, but really is just as easy. First, to push a number onto the stack two things must be kept in mind: The floating point system has it's own stack, and it has special command words to get the numbers on and off. To push a number onto the Floating Point (FP) stack we do it like this: ')F '. Then we follow it with the number to go onto the stack. An example: Put 3.14159 onto the floating point stack. Answer: ')F 3.14159 '. To check to see if it made it, we can print off of the FP stack by using ' F. '. Remember that we print off of the integer stack using just a period. This is similar, but takes the Floating Point characeristic into account in the word. Let's add two numbers together: 3.456 + 7.821 = ?. You might try that using the integer stack. What do you get? Can you explain the answer you get? Anyway, the way we do this problem is like this: ')F 3.456)F 7.821 F+ F. '. The answer is 11.2770888 . We will be wanting to take the square root of a number. That's in the FP package also. Try this: ')F 99 SQR F. ' the answer should be 9.9498744 or something very close to that. Do more reading in chapter seven of the TI-FORTH manual now that you have your feet wet.

Next issue we will present the circle routine and explain how it works. I predict that it will have a flaw in that it will not produce a perfectly filled-in line, but it will make the circle in a pretty slick way, and rather interesting, visually. Until next issue, keep REACHING FORTH, while I contiue HOLDING FORTH.

LIST OF BOARD MEMBERS AND THEIR HOME PHONE NUMBERS

President, Norm Sorkin	678-2360
Vice President,	
Librarian, Bert Haase	753-7846
V.P. Program, John Tuesday	644-2616
Secretary, Vicky Chrisman	784-0943
Treasurer, Betty Duncan	633-5217
Educational Director, Rich Williams	626-2423
Editor, Kathi Anderson	923-7530

Hope everyone had a happy holiday. See you at the meeting.
Kathi Anderson, Editor

PRESIDENTS CORNER

HAPPY NEW YEAR !!! I hope everyone had a very happy and safe holiday season, and that you didn't put on too much weight.

For those of you that didn't make it to our Christmas party, you missed a lot. First of all we have decided to have prize drawings on a regular basis, so that the group could purchase a computer of it's own to use at meetings etc.

Secondly we had a vistitor, a jolly little fat man who not only brightened our evening. He brought us a present from a very special couple in our group, Jim & Linda Silcox.

Due to the generosity of this couple, the group now has it's own basic computer. Thank You Jim & Linda.

The other night as I was on the Modem getting ready for this month's demonstration. I got into the BBS "FIRECOMM". On this system I ran across file called "How to Kill an Organization". With thanks to Firecomm here it is.
1. Don't attend meetings, but if you do, arrive late.
2. Be sure to leave before the meeting is over.
3. Never have anything to say at meetings: wait until you get outside.
4. When at meetings, vote to do everything, then go home and do nothing.
5. The next day find fault with your officers and fellow members.
6. Take no part in the organization's affairs.
7. Set in the back so you can talk things over with another member. Nobody will notice.
8. Get all the organization will give; but give nothing in return.
9. Talk cooperation, but never cooperate.
10. Never ask anyone to join the organization.
11. Threaten to resign at every opportunity: like when things are going opposite from the way you think.
12. If asked to help, always say you haven't time.
13. Never read anything pertaining to the organization; you might learn somthing about it.
14. Never accept an office: it is much easier to criticize than to do things.

15. If appointed to a committee, never give any time to it;
    let the chairman do it all.
16. Don't do anything more than you have to, and when
    others willingly and unselfishly use their ability to
    help the cause, speak out because the organization is
    being run by a clique.

That's enough of my ramblings on, it's time to read the
good stuff in this newsletter .
SEE YOU AT THE NEXT MEETING   NORM SORKIN

TUMBLE EFFET TS USERS GROUP
P.O. BOX 3201
CUYAHOGA FALLS, OHIO 44223


```
100 CALL CLEAR
110 FOR X=1 TO 5 :: PRINT "Address ";X;:: LINPUT A$(X):: NEXT X
120 FOR X=1 TO 5 :: PRINT :: PRINT A$(X):: PRINT :: NEXT X
130 INPUT "Correct? ":Y$ :: IF Y$="Y" THEN 150 ELSE IF Y$<>"N" THEN 130
140 INPUT "Line to correct? ":X :: PRINT "Address";X;:: INPUT A$(X):: GOTO 120
150 INPUT "ENTER AMT NEEDED? ":Z
160 OPEN #3:"RS232.BA=9600",OUTPUT
170 FOR Y=1 TO Z
180 FOR Y=1 TO 5 :: PRINT #3:A$(Y)
190 NEXT Y
200 PRINT #3:
210 RESTORE :: NEXT Y
```


INDIVIDUAL ADDRESS LABEL PROGRAM IN EXTENTED BASIC

The above extended basic program allows you to make individual address
labels (standard size) in the quanities desired. This program allows for
entry of five (5) lines per label. Note: line 160 must match the type of
printer - 're used. Equipment required: Extented basic, P.E. box, 32K
extended memory, RS232 card, cassette or disk storage, and printer.

AUTO LOAD AND RUN PROGRAM


```
1 OPTION BASE 1 :: DIM P$(129):: CALL COLOR(9,2,2):: P=1 :: P=20 :: P$(128)="OUT
T" :: P$(129)="MORE"
2 IMAGE ###
3 DISPLAY AT(12,6)ERASE ALL:"DISK? (1-3): 1" :: ACCEPT AT(12,19)SIZE(-1)VALIDATE
("123"):D$
4 OPEN #1:"DSK"&D$&".",INPUT ,RELATIVE,INTERNAL :: INPUT #1:N$,A,A,K :: DISPLAY
AT(1,1)ERASE ALL:"DSK"&D$&":"&N$
5 DISPLAY AT(1,19):"AVAIL:";K :: CALL HCHAR(3,1,61,32):: DISPLAY AT(2,3):"# FRO
GRAM    SIZE  PROTECT :: FOR X=1 TO P :: I=X+4-P
6 INPUT #1:P$(X),A,K,B :: IF LEN(P$(X))=0 THEN 8 ELSE IF ABS(A)<5 THEN 6
7 DISPLAY AT(I,1):USING 2:X :: DISPLAY AT(I,4):". "&P$(X):: DISPLAY AT(I,16):USI
NG 2:K :: DISPLAY AT(I,25):CHR$(76-11*(A<1)):: NEXT X
8 DISPLAY AT(24,1):USING 2:X :: DISPLAY AT(24,4):". "&P$(128-(I=23))&"    CHOICE
1"
```

9

```
9 ACCEPT AT(24,22)SIZE(-LEN(STR$(X)))VALIDATE(DIGIT):K :: IF (K<1)+(K>X)THEN 9 E
LSE IF (K=X)*(X<F+1)THEN CLOSE #1 :: GOTO 14
10 IF (K>=E)*(K<=F)THEN CALL CLEAR :: GOTO 11 ELSE CALL HCHAR(4,1,32,677):: E=E+
20 :: F=F+20 :: GOTO 5
11 A=-726 :: CLOSE #1 :: CALL INIT :: FR$="DSK"&D$&"."&F$(K):: L=LEN(FR$):: FOR
I=1 TO 16-L :: CALL LOAD(A,0):: A=A-1 :: NEXT I
12 FOR I=L TO 1 STEP -1 :: B=ASC(SEG$(FR$,I,1)):: CALL LOAD(A,B):: A=A-1 :: NEXT
 I :: CALL LOAD(A,L):: A=A-1 :: CALL LOAD(A,199)
13 A=A-1 :: CALL LOAD(A,169):: A=A-1 :: L=L+4 :: CALL LOAD(A,L):: GOTO 10
14 CALL CLEAR :: RUN "DSK1.LOAD1"
```

   Are you tired of typing OLD DSK1.FILENAME waiting for the disk to find and
   load the program then typing RUN. This program may save you a lot of time
   and frustration. When this 6 sector program is loaded on your disk and you
   are using extented basic the computer automaticly will display a listing of
   all the programs on the disk. All you do is enter the corresponding and the
   computer will automaticly LOAD and RUN the program.