M.U.N.C.H.
C/O J. W. COX
305 EGDEBROOK DRIVE
BOYLSTON, MASS. 01505

NEXT MEETING: TUESDAY, JANUARY 9th.

POSTMASTER: Forwarding and Address Correction Requested.
AT OUR NEW HOME:

FIRST CLASS!!

RETURN TO
RA BISHOP

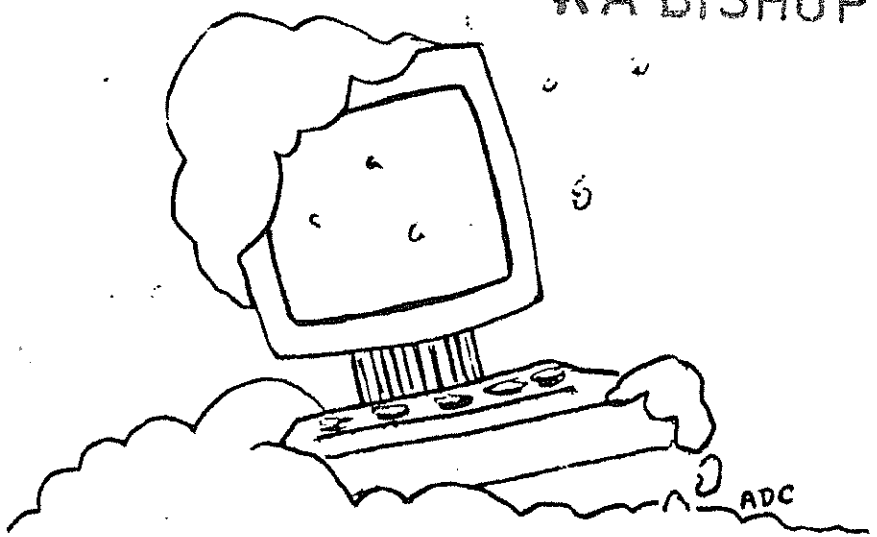
Mass Users of the Ninety-nine and Computer Hobbyists

JANUARY 1996 Monthly Newsletter Version 15.01

AT OUR NEW HOME IN WORCESTER

MUNCH

RETURN TO
RA BISHOP



BRRR JAN. 96

NEXT MEETING TUESDAY, January 9, 1996 7:00 PM. Happy New Year!!!!!

MUNCH OFFICERS AND NUMBERS (all in 508 area unless noted)

PRESIDENT	Walt Nowak	413-436-7675		
VP./Treas./Editor	Jim Cox	869-2704	MUNCH DUES:	
DEMO LEADERS:	Corson Wyman	865-1213	New Membership	$25.00
	Jack Sughrue	476-7630	Renewal	$15.00
CLERK	Ben Parda		Newsletter Sub.	$13.00
Advanced Programmer	Dan Rogers	248-5502		

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DECEMBER MEETING. I am sorry but I was not able to attend the December meeting due to personal and job related problems. I hope to see everyone this month.

JANUARY MEETING. I expect we will also do some more with the Tigercub Library. If Jack can attend he will probably have something of interest to all, maybe Mickey's Loaders disk.

RAFFLE. Occasionally we have a raffle to help defer the rental cost of our meeting hall, it depends on the number present.

REPRINTS. Reprints are permitted as long as credit is given to M.U.N.C.H.

ARTICLES. I am always looking for articles for this newsletter, anything which interest you will probably interest other members of the T.I. community, so please share your ideas and opinions with all of us.

DISK LIBRARY. The disk library is at all meetings. We have copies of all disks in the library and they are available to members for just $1.00 for each disk unless otherwise specified. You can order them through the mail, please add $1.00 for the first disk and $.40 for each additional disk ordered to cover postage and handling.

DISK OF THE MONTH. This month's disk #149 is the DSSD of the Tigercub Public Domain library and the MUNCH library, as far as I can get it updated. We will have the entire Tigercub Public Domain library very shortly.

ADVENTURE II. This is our fund-raiser for 1994/95. The cost to members is $4.00 add $2.00 for first class postage. The regular price is $6.95 plus postage. This is a two DSSD disk set, archived. There is also a special on The Adventure Compendium and Adventure II for members it is $8.00 plus $3.00 for first class postage.

"KEYBOARD" continues

recessed. After undoing the screws, the bottom shell should come off. If it does not, recheck and make sure that you have removed all seven screws.

Once the bottom shell has been removed, three components will be visible: A printed circuit board, approximately 4" square, which houses the power supply; the Keyboard assembly, which runs from the power supply board to the edge of the console; and a larger assembly which runs parallel to Keyboard and power supply all the way across the console, the motherboard.

The power supply is held in place by two Phillips screws along the edge closest to the Keyboard assembly. Remove these two screws and gently move the power supply board an inch or so to the side. Don't force anything since there are wires attached to the power supply board.

Next, locate and undo the four Phillips head screws that secure the Keyboard assembly. Gently lift the Keyboard assembly an inch or so. You might have to lift the edge of motherboard just a little to allow the Keyboard assembly to clear.

At this point you will notice that the Keyboard is attached to the motherboard by a ribbon cable. Locate the connector at the motherboard side. Use a flashlight, if necessary. GENTLY pry the connector loose by pressing down with a screwdriver. Do this in several small steps along the length of the connector. The idea is to remove the connector without bending any of the pins on the motherboard.

Once the connector has unsnapped, remove the old Keyboard assembly. Take time to take a good look at the row of gold pins that were uncovered when the connector came off. Make sure that all pins are straight and evenly spaced. If not, very gently try to straighten whatever pins were bent. If this is necessary, proceed with caution and use a minimum amount of force!

Insert the new Keyboard assembly without forcing it in place. Line up the connector of your new Keyboard with the pins. GENTLY start connecting the pins with the connector. Visually double-check that all pins mated with the connector. If not, pry the connector loose and try again. Being too hasty at this step could result in a broken pin, so do be careful! Once you are sure that everything is lined up properly, firmly but gently press the connector down on the pins.

Relax now, the most ticklish part of the job is behind you! Next, observe that there is approximately one to two inches of extra ribbon cable. This extra length needs to be folded up and into the space between motherboard and console housing as you simultaneous seat the Keyboard assembly in place. To seat the assembly you also need to lift the motherboard edge just a bit for the edge of the Keyboard assembly to slip under it, simultaneously try to get the extra length of ribbon cable to fold as described. If this sounds like a job for three hands, you are right and a helper at this point of the installation does make things easier.

Now, line up the screw holes and secure the Keyboard assembly with one screw. Lift the console a little bit (remember, everything should still be upside down) and test the row of Keys with the numbers on it. There should be full travel for all Keys, particularly the Keys numbered 4 through 8. If any of these Keys appear to bind or feel different from the 1 or 0 key, then the ribbon cable is not folded properly. Undo the one screw and recheck the ribbon cable. Remember, any extra length of the ribbon cable should not touch the Keyboard assembly but be tucked into the empty space above the motherboard.

Once the Keys check out, replace all four screws on the Keyboard assembly.

Relocate the power board, make sure that the ON/OFF switch connects properly. If necessary, lift the board just a little and observe the switch action. Once the switch works properly, secure the power board with its two screws.

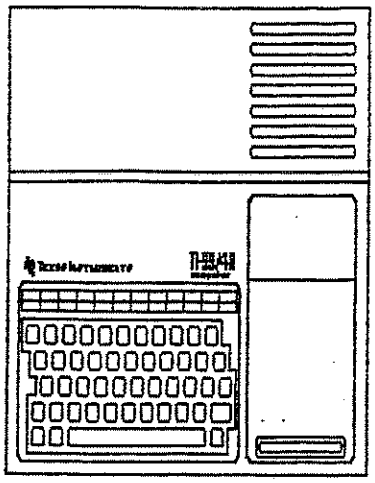
Replace the console bottom cover. Make sure that it lines up properly with the top before replacing the screws. Seat all seven screws and then tighten by working over cross.

Your replacement Keyboard is now installed and should be working properly. Don't throw your old Keyboard away just yet. If it is only a few Keys that refuse to work, take it to your friendly radio or tv repairman. Quite often the judicious application of contact cleaner and a good general cleaning can restore a balky Keyboard to pristine health.

Please remember - YOU try all hardware projects at your own risk.

THANKS AL!

Just wanted to send along a THANK YOU to Al Bristol,My pal and fellow employee here at work for his generous gift of a disabled 286 clone so our club could rob some parts off it to make our BBS even nicer. The main item we are now using is a nice color monitor instead of the monochrome we had before. Now Jim Ely can see how his colorful magic looks right on the system instead of logging on.



REPLACING A TI-99/4A KEYBOARD

by Herman Geschwind

Replacing a Keyboard on a 99/4A is really a very simple job that requires no special skills beyond the use of common sense and ordinary prudence, nor are any special tools or soldering required.

By the way of tools, all that will be required is a medium size (1/8") Phillips-head screw driver and perhaps a flashlight.

First off, inspect your Keyboard purchase and make sure that the Keyboard layout is the same as your 99/4A Keyboard. If there are any extra Keys or if the Keycaps are labelled differently STOP. Adapting a non-99/4A Keyboard for use with a TI home computer requires special skills which are beyond the Ken of the average layman, if it can be done at all.

TI had subcontracted for Keyboards from various sources in Japan and Korea. Thus the shape and texture of the Keycaps might be different. Don't let that put you off, the main thing is that the number of Keys and the layout are the same as your original.

If your Keyboard passed this test, unpack it and test all Keys. Look for Keys that might be binding or feel "sticky". Try to get a feel for the Key action. Once you are satisfied that your replacement passed this test, go on.

Disconnect all cables from the console (power, video, PE box, etc.). Your console should be cool. If you had just used it, allow some time for it to cool down and for whatever residual electrical charges there might be to dissipate. Observe normal precautions about static electricity!

On a clean working surface turn the console over. There will be seven Phillips screws to undo. Four at the the narrow end of the console, three are at the other end and

see "KEYBOARD", page 8

Maze Maker
by Steve Karasek

This program will print mazes for you to solve. It asks for the number of mazes to print, then for the level of difficulty, from 0 to 9. Level 0 is a VERY trivial maze (a child's first maze, perhaps), while level 9 is fairly challenging. The level number is printed at the top of the maze.

No matter what level you select, the maze will be printed to fill as much of the page as possible, so the lower-level mazes will have wider pathways which are easier for young children. There will always be exactly one path from Start to Finish.

The higher-level mazes take a while to compute. In particular, level 9 mazes take over 20 minutes each. You can always start up the program and come back a few hours later. The program keeps track of how far it has gone in computing each maze by displaying a line of the form M / N on the screen, where N is the number of squares in the maze and M is the number of squares the program has computed a path to. When M equals N, the maze is done and is sent to the printer.

If your printer is not named "PIO", change the name in line 110. The last part of this line sets the printer line spacing to 7/72 inch. If you do not have an EPSON-compatible printer, you will have to change this to the codes needed by your printer to set the line spacing. If you can't set it to 7/72 inch, set it to 8 or (preferably) 10 lines per inch.

The !'s and numbers at the end of each line are the checksums for Tom Freeman's CHECKSUM program, and are not needed by the maze program.

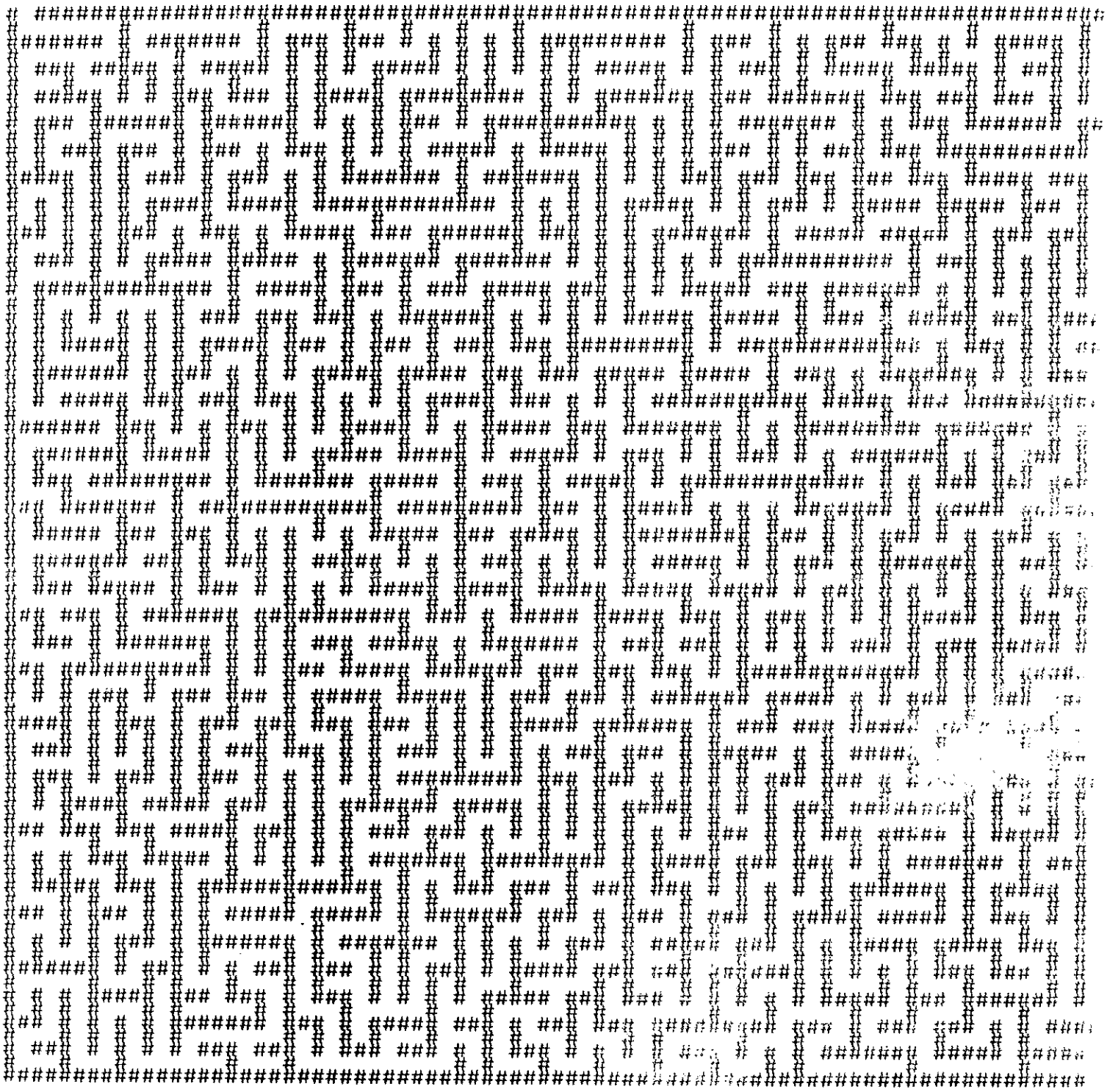
```
**********************
* MAZE - THE PROGRAM *
**********************

100 RANDOMIZE :: OPTION BASE
 1 :: DIM M(39,39):: INPUT "
HOW MANY MAZES? ":Z :: PRINT
 !223
110 INPUT "LEVEL OF DIFFICUL
TY(0-9)? ":L :: IF L<0 OR L>
9 THEN 110 ELSE OPEN #1:"PIO
",OUTPUT :: PRINT #1:CHR$(27
);"A";CHR$(7);!131
120 N=INT(L+1)*4+(L=4 OR L=9
):: X=80/N :: S=INT(X):: S=S
+(X=S)!138
130 PRINT #1:"Start";TAB(30)
;"Level";L :: FOR X=1 TO N ::
 : FOR Y=1 TO N :: M(X,Y)=0 ::
 : NEXT Y :: NEXT X :: IF N=3
9 THEN 150 !174
140 FOR X=1 TO N :: M(N+1,X)
,M(X,N+1)=16 :: NEXT X !203
150 C,X,Y=1 :: DISPLAY ERASE
 ALL AT(12,12):"1 /";N*N ::
ON ERROR 290 !059
160 W=INT(RND*4):: DX=X+(W=0
)-(W=1):: DY=Y+(W=2)-(W=3)::
 K=M(DX,DY):: IF K THEN
160 !229
170 M(X,Y)=M(X,Y)+2^W :: IF
INT(W/2)*2=W THEN W=W+1 ELSE
 W=W-1 !125
180 X=DX :: Y=DY :: M(X,Y)=M
(X,Y)+2^W :: C=C+1 :: DISPLA
Y AT(12,9)SIZE(4):USING "###
#":C :: IF C=N*N THEN 240 !0
53
190 IF X<N THEN IF M(X+1,Y)=
0 THEN 160 !198
200 IF Y<N THEN IF M(X,Y+1)=
0 THEN 160 !199
210 IF Y>1 THEN IF M(X,Y-1)=
0 THEN 160 !117
220 IF X>1 THEN IF M(X-1,Y)=
0 THEN 160 !116
230 X=INT(RND*N)+1 :: Y=INT(
RND*N)+1 :: IF M(X,Y)>THEN 19
0 ELSE 230 !248
240 ON ERROR STOP :: PRINT #
1 :: PRINT #1:"#";TAB(S+1);R
PT$("#",S*(N-1)+1):: S=S
-1 :: S$=RPT$(" ",S):: X$=RP
T$("#",S)!069
250 M(N,N)=M(N,N)+8 :: FOR Y
=1 TO N :: FOR W=1 TO S :: P
RINT #1:"#";:: FOR X=1 TO N
:: PRINT #1:S$;!076
260 IF M(X,Y)AND 2 THEN PRIN
T #1:" ";ELSE PRINT #1:"#";!
084
270 NEXT X :: PRINT #1 :: NE
XT W :: PRINT #1:"#";:: FOR
X=1 TO N :: IF M(X,Y)AND
 8 THEN PRINT #1:S$;ELSE PRI
NT #1:X$;!244
280 PRINT #1:"#";:: NEXT X :
: PRINT #1 :: NEXT Y :: S=S+
1 :: PRINT #1: :TAB(S*N-4);"
Finish";CHR$(12);:: Z=Z-1 ::
 IF Z>0 THEN 130 ELSE END !0
20
290 ON ERROR 290 :: RETURN 1
60 !159
```

EXAMPLE OF A MAZE FROM "MAZE MAKER"

by Steve Karasek

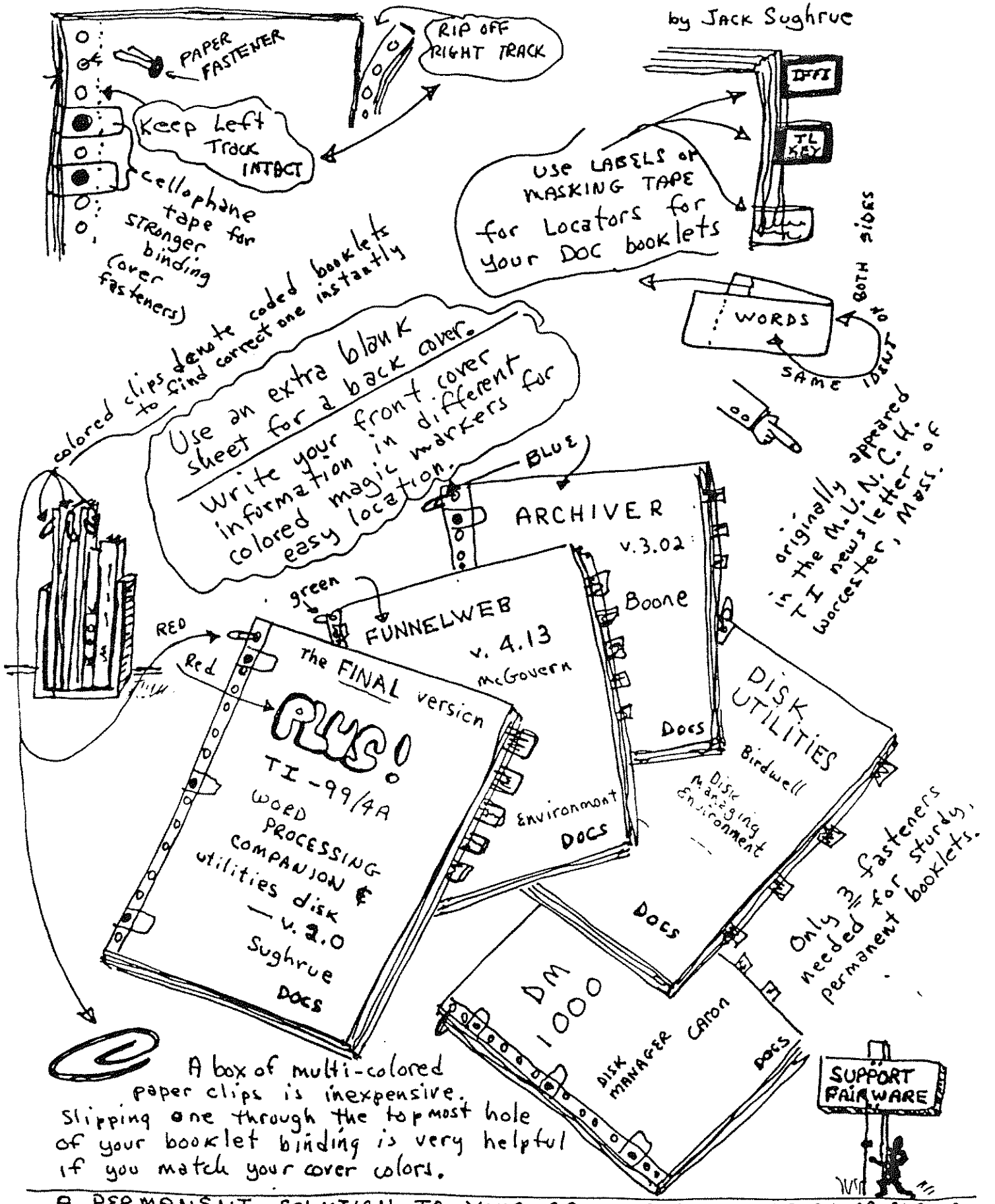
Start Level 9



Finish

BUILT-IN BOOKLETS with Tractor-Feed Paper

by Jack Sughrue



A box of multi-colored paper clips is inexpensive. Slipping one through the topmost hole of your booklet binding is very helpful if you match your cover colors.

A PERMANENT SOLUTION TO YOUR GROWING DOCS LIBRARY PROBLEMS

FUN IN THE GAME ROOM
by DAVID TRUESDALE II

THE MAZE OF GROG

The object of the game is to guide Woodstock through a maze of tunnels and pitfalls to rescue his girlfriend Penelope from the stomach of Grog.

The first thing I would recommend is that you print out the docs to this game. They are very well written and a bit humorous.

Each level is divided into three sections. The top section is sort of where you practice flying and obtaining food and prizes. Remember to check your energy level every now and then or you'll run out before you know it. The number one thing you want to do in this section is to get what is called a SNOOZE DART. Not only do you get 350 points for this but you can't get past Grog in the second section without it. If you forget to get this and you make it into the second section you can't go back and get it. Also, the secret transporter is around in this area but I'm not telling where it is or how to reach it. (The author didn't want to and I don't want to give away the secret.)

The second section is where Grog hangs out. You have to really watch it in this section. There are alot of pits to fall in, and as you know the only way out is to slam poor little Woodstock into the wall and start again at the top of this section. If you have to do this, try to remember your mistake and don't duplicate it. Again, don't forget to check your energy and keep it up with all the Ham hocks and Perrier you can find. The food supply gets harder to find the farther you go down.

When you finally come face to face with Grog you should stand there in front of his nose and Woodstock will stick him with the SNOOZE DART. If you don't have this and you try to go by him while he is awake he will squash Woodstock like a bug and the game ends. If you stick him with the dart you can then proceed safely under his feet and advance to the third or bottom section.

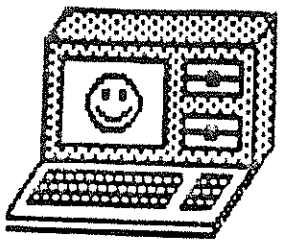
Remember, get all the energy you can built up in this section. Food is sparse in the bottom section and you use up alot of energy flying from platform to platform.

After you get through the second section and enter the third or bottom section the fun really begins. You do alot more flying in this section. Food is sparse so hopefully you built up alot of energy. Penelope is locked away behind five locks. As you know, Woodstock can only carry one key at a time. You have to have him find a key, then travel to the top and over to one of the locked doors and unlock it. Then you lose the key and you must go back and repeat this process. Now you know why he must have alot of energy saved up. Once you rescue Penelope you get 5000 points for each level you advanced and additional points for each life Woodstock has left. Then you get to do all this again.

Another thing to remember as you pick up GOLD BEATLES, MING VASES, and even MAGIC KEYS, you not only gain points but you lose 20 energy units per piece. This can help your score but hurt you when you reach the bottom of the maze.

This game is very challenging, and very addictive. Once you play this game a few times and develop a pattern you should be able to play this till your eyes fall out. By the way, so far my console and rave keybord haven't burned out playing this game. I think Ray just had a bad day. So if you can possibly afford it, sent five bucks to Ray Kazmer, 13225 Azores Ave., Sylmar CA, 91342 so he can buy a new console.

!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!



A CHILD'S FIRST LOOK AT MULTIPLICATION

by Tony Falco

"Dad, today I heard someone talk about three times four. What does that mean?"

"Get that jar of pennies in your room and I'll try to show you. Three times four means three fours. Make a row of four pennies. Now two more rows like that one. That's four plus four plus four or twelve. You can see that it is also four rows of three each. Four times three is the same as three times four. Hey, we could do this on the computer."

The program listed below grew out of a conversation much like the one above. I strongly believe that understanding numerical concepts at all levels is aided by, or maybe even only possible with, a physical or mental picture that gives the learner a comfortable and familiar feeling. With this in mind, I try to help my child build a conceptual basis for ideas that tend to become rote with time. With a program that is conceptually sound, the computer's infinite patience provides an ideal means for acquiring insight into basic numerical concepts.

To use the program you pick the highest factor the child is to work with. For example, for products up to 6X6 or 36 pick 6. The program randomly picks problems and displays the problem with an array of asterisks to show the factors to be multiplied. The user types an answer. If wrong he tries again until correct. The format in which the array appears on the screen encourages the child to try repeated additions or, as a last resort, counting. To end the program enter <Q> instead of an answer. The interaction between computer and learner is reinforced with speech. I feel this makes a program more friendly and familiar. The TI-99/4A has been, and continues to be, the only machine for inexpensive, high quality and easy to use speech.

```
10 FOR S=1 TO 14 :: CALL COL
OR(S,2,12):: NEXT S
20 CALL SCREEN(12):: CALL CO
LOR(2,2,16):: CALL CLEAR
30 INPUT "  HIGHEST FACTOR=>
":H
40 RANDOMIZE :: CALL CLEAR
50 A=INT(H*RND)+1 :: B=INT(H
*RND)+1
60 IF A*B>H*H THEN 50
70 P$=STR$(A)&"x"&STR$(B)&"=
" :: DISPLAY AT(5,12):P$
80 S$=RPT$("*",B)
90 FOR T=1 TO A
100 DISPLAY AT(T+7,14-LEN(S$
)/2):S$ :: NEXT T
110 K=12-LEN(S$)/2+(A>9)
120 DISPLAY AT(8+INT(A/2),K)
SIZE(-2):STR$(A)
130 DISPLAY AT(9+A,13):B
140 ACCEPT AT(5,12+LEN(P$))B
EEP:ANS$
150 IF ANS$="Q" OR ANS$="q"
THEN 180
160 IF VAL(ANS$)=A*B THEN R=
R+1 :: CALL SAY("GOOD"):: GO
TO 40
170 CALL SAY("SORRY TRY AGAI
N"):: W=W+1 :: GOTO 140
180 CALL CLEAR :: PRINT :;:;
:;:: PCT=INT(100*R/(R+W)+.5)
190 PRINT "  ";W+R;"TRIED"
200 PRINT "  ";R;"CORRECT"
210 PRINT "  ";PCT;"%"
220 CALL SAY("GOOD BYE")
230 END
```

A SHORT HISTORY OF M.U.N.C.H.

"In the Beginning..."

Our group started through the efforts of John Deery of the Video Connection, at the time, the primary outlet for T.I. hardware and software. The first organizational meeting was held in May 1982 and in attendance were: John, Peter Blackford, Mike Porter, Steve Spector, Howard Drake and myself. We continued to meet during the summer to plan what the group would be, how it would work and what we wanted to accomplish. Craig Lippman, Ken Quan and Eric Drewery also got involved and by the end of the summer we had a name, a constitution and an outline of what we wanted to do. We were now ready for our first meeting.

On September 21, 1982; at the Worcester Public Library, we held our first meeting. There were 32 people in attendance. The first order of business was the selection of interim officers, who were: Howard Drake, President; Craig Lippman, Vice-President; Jim Cox, Treasurer and John Deery, Secretary. Most of those present signed up for membership.

By our third meeting, with the help of Ron Nicholas, we were meeting at the U. Mass. Medical Center in a large conference room. This was to be our home for almost five years. We continued to promote our group throughout that winter and by the Spring of 1983 we had over 80 members. In March we held the first M.U.N.C.H. Olympics, which consisted of kids of all ages playing five different T.I. Games. There was a great turn out for this event with prizes and certificates being given to the winners. In April Ota Jiroutek was elected President and the group continued to prosper.

At the end of our first year we had over 100 members, our newsletter was circulated throughout the country and we helped to make the T.I. computer the #1 home computer in our area. Included in our membership were people who would, and still do, make a lasting impression on the T.I. community. Tony Falco and Howard Drake had articles published in 99er Magazine, Tony continues to write short programs which are reprinted in many user group newsletters. Bernie Miller and his friend Chris Bobbitt, of Asguard fame, gave demos, conducted training sessions and wrote for the newsletter. A gentleman started to attend meetings, ask questions, write articles and reviews for this newsletter and quickly gained an understanding of this computer which continues to be a great benefit to the T.I. community; Jack Sughrue had joined M.U.N.C.H.

Then October 30, 1983 came and went.

WE ARE STILL HERE. (to be continued)

by: Jim Cox