CEDAR VALLEY 99'ER USER GROUP
NEWSLETTER

DECEMBER 1988
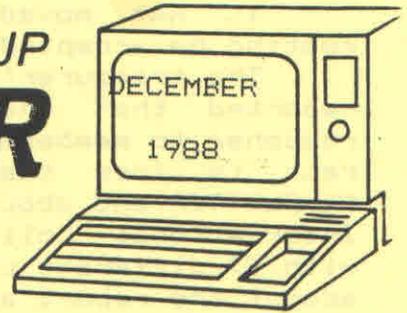
CEDAR RAPIDS/MARION, IOWA

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****NEWSLETTER TOPICS****

1. Future Meeting Dates
2. Next Meeting Notes
3. Minutes from the Dec. Meeting
4. Tips from the Tigercub #47
5. Murphy's Computer Laws
6. For Sale/Wanted
7. Home Publishing on the 99/4A
8. The "Zenoboard"

****FUTURE MEETING DATES****

Please mark the following dates on your calendar for future meetings: JANUARY 9, FEBRUARY 13, MARCH 13.

*********NEXT MEETING********

This month's meeting will be Monday, January 9 at West Music store, in the Collins Road Square shopping center. Opening is at 6:30 PM. We will take a look at some of the most useful utility programs available in our library. Bring along your new Christmas software to show off!

* MINUTES FROM THE DECEMBER MEETING *

The December meeting was called to order by Vice President Gary Bishop. There were 14 in attendance for the meeting.

It was moved, seconded and passed that the minutes of the November meeting be accepted as printed in the NEWSLETTER.

The treasurer's report was given by treasurer Bruce Winter. He reported that there are now 22 members in our UG at this time. In response to members' questions the following was reported: 1. Our room rent is free thanks to West Music Company. 2. The printing of the NEWSLETTER and about half of its distribution is free thanks to Rockwell International Collins Groups. 3. At this time we exchange NEWSLETTERS with 27 different user groups. It was moved, seconded and passed that we accept the report as read. Bruce announced that we would probably be out of disks after the meeting. This was confirmed when John claimed the rest available for use in the library. A quick survey found a need in the future for more by other members. An order for another 200 disks with labels will be made. They probably will be available at the meeting next January.

OLD BUSINESS 1. The second drive for the club system is still being researched. Gary has not had the time to fully accomplish the information yet. Gary stated that our ss drive could be used immediately if we get a box with a power supply in it. More on this in January. 2. There is no information yet on the power stabilizing transformer for Sr Pat.

NEW BUSINESS 1. None.

DISCUSSION: 1. Gary announced that TYPEWRITER is now available. Jim Reiss was out of town at this time but will be mailing them to all who ordered them. Press has still not been released yet. 2. Gary read a letter from Sr. Pat. 3. Bob introduced his neighbor who is a new user of the TI 99/4A. Vic (sorry no last name was available in my notes. secretary) told the interesting story of how he acquired his TI. His son happened to spot it in the dumpster at the local college and brought it home to his dad. Three keys were missing but Gary thought he could find replacement caps for them in his junk box. Welcome to the 4A world Vic. 4. Question: What is the PAB address when using Forth Language? Gary said he could look up the info. 5. The CATLIB program is now working correctly and Jim will be starting the cataloging soon. 6. Mike asked if MERGE can be used in an ASSEMBLY language program. Answer No. It can be used in immediate mode only. Try to do the job in a different way.

The meeting was adjourned.

DEMONSTRATION: The demo for this evening was "The amazing world of MIDI" and was put on by Kirk Davis , Combo Manager at West Music Company. MIDI stands for Musical Instrument Digital Interface. It allows musical instruments and computers to talk to each other. Using several synthesizers to create sounds Kirk played on one keyboard but sounded like a combo. The final bit of magic came when Kirk enticed Mike to sing a note then proceded to reproduce Mike's voice on the keyboard.

Submitted by Bill Paeth, Secretary

* * FOR SALE/WANTED * *

FOR SALE: ***CLEANING OUT THE BASEMENT *** TUNNELS OF DOOM CARTRIDGE AND CASSETTE, $5; 99'ER MAGAZINE CASSETTE WITH ELECTRONIC HOME SECRETARY, MUSIC TEXT EDITOR, MUSIC FILE PLAYER, MICRO BARTENDER, AND INTERACTIVE FORMS GENERATOR, ALL CONSOLE BASIC, $2; RING DESTROYER GAME CASSETTE BY REPUBLIC SOFTWARE, XB, $4; TEACH YOURSELF BASIC AND EXTENDED BASIC CASSETTES, 3 TOTAL, $5 FOR LOT; THIEF, SHOOTIT, AND CHICKEN GAME CASSETTE

BY TOMPUTER, XB, $5; HOWARD SAMS BOOK TI-99/4A CALC ELECTRONIC
SPREADSHEET, $4; BOOK 101 PROGRAMMING TIPS && TRICKS FOR THE TI BY LEN
TURNER, NEW, $5; BOOK: PROGRAMS FOR THE TI HOME COMPUTER BY STEVE DAVIS,
$5; TIGERCUBS NUTS AND BOLTS #1 DISK WITH PRINTED INSTRUCTIONS, I BOUGHT
THE WRONG ONE AT THE CHICAGO FAIRE, $12; SPEECH SYNTHESIZER, $35; EXTENDED
BASIC MANUAL, NO CARTRIDGE, $4; CHILTONS REPAIR AND TUNE UP GUIDE FOR
67-78 CHEVY AND GMC VANS, $5; MPI DOT MATRIX PARALLEL OR SERIAL PRINTER,
TRACTOR OR FRICTION FEED, HAS GRAPHICS CAPABILITY BUT IS NOT EPSON OR
GEMINI COMPATIBLE, WITH MANUAL, HIGH SPEED SERIAL CARD (9600 BAUD), 2 K
BUFFER, 80/96/132 CHARS PER LINE, IBM AND TI COMPATIBLE CABLE, $40; OLD
ISSUES OF 99'ER AND HOME COMPUTER MAGAZINE, $1 EA.; TWO 4 FT. BY 8 FT HOT
AIR SOLAR PANELS, ONE IS ALREADY BUILT AND RECENTLY REMOVED FROM SERVICE
DUE TO AN IMPENDING MOVE, ONE IS IN KIT FORM, WORKS GREAT! $200 EA; CALL
HOSS-TRADER GARY BISHOP, 319-377-9574 AFTER 5 PM.

* * Murphy's Computer Laws * *
Courtesy of The Snark

Laws of Computer Programming
1. There is always one more bug.
2. Any given program, when running, is obsolete.
3. If a program is useless, it will have to be documented.
4. If a program is useful, it will have to be changed.
5. Any program will expand to fill all available memory.
6. The value of a program is proportional to the weight of its output.
7. Program complexity grows until it exceeds the capability of the
programmer to maintain it.
8. Make it possible for programmers to write in English and you will
find out that programmers cannot write in English.

Weinberg's Law
If builders built buildings the way programmers wrote programs, then the
first woodpecker that came along would destroy civilization.

Hare's Law of Large Programs
Inside every large program is a small program struggling to get out.

Troutman's Programming Laws
1. If a test installation functions perfectly, all subsequent systems
will malfunction.
2. Not until a program has been in production for at least six months
will the most harmful error then be discovered.
3. Job control cards that cannot be arranged in improper order will be.
4. Interchangeable tapes won't
5. If the input editor has been designed to reject all bad input, an
ingenious idiot will discover a method to get bad data past it.
6. Machines work, people should think.

Golub's Laws of Computerdom
1. A carelessly planned project takes three times longer to complete
than expected; a carefully planned project will take only twice as long.
2. The effort required to correct the error increases geometrically with
time.

Bradley's Bromide
If computers get too powerful, we can organize them into a committee --
that will do them in.

HOME PUBLISHING ON THE 99/4A

There is good news for all of you who enjoy or of necesssity must combine words with graphics! This unique manual, *Home Publishing on the 99/4A* has been done by Harry T. Brashear of 2753 Main St., Newfane, N.Y. 14108. It is a $15 package which comes in three installments. The first is a professionally prepared manual of 74 pages with one disk. The two supplementary issues will be at least 20 pages and will include those programs and materials time and availability prevented being in the first one. Furthermore, the author wants your input, the questions you have in this area.

If you write newsletters, prepare ads and wish to use fresh ideas for using/combining one or more of the available art or graphic-orientated programs such as: *TI-ARTIST JOY PAINT , GRAPHX , PICASSO , CSGD , FONTW RITER , CERTIFICATE 99 , CALENDAR 99* , here is an idea source to assist your efforts to add variety and style. It also has a section on columnizing.

If like myself, you do multiple banners, signs, and cards, it has ideas you may not have considered such as techniques that would make the solid fonts less so....As I read about using texture fills for fonts, I got excited as it would require less ribbon ink than the solid ones and add style. If you would like to use your multiple collection of graphics in even more ways ... know which utilities convert them them to other formats, the possibilities, here is an idea source for you. *Tass , Displaymaster , RLE , ARTIST ENLARGER* are here too. There are a few important tools not covered, both recent and earlier Shareware and Commercial ones,perhaps these will be in the supplements. Had you ever considered using the FONTWRITER's stretch factor for sign painting? Are you effectively using its DUMP? Are you aware of CSGD's catalog program which prints out beautifully a reference page of graphics, fonts with their height etc. I believe there is a slight difference in the terminology used in the manual as it is referred to as a "dictionary disk". While it is called a "Catalog" in ads, it is more like a camera: what you see is what you get.

Did you find the directives in TI-ARTIST not too specific on making instances? Here it is spelled out for you. Or have you paled at the thought of making or improving fonts ... this might give you the courage! Would you like to see some of the fonts in existence in a table by height...it is there too. Is the graphic vocabulary overwhelming ...a number of common ones are covered, ask the author about the ones that still puzzle you. Do you want instances printed in proportion for newsletters, ads etc.? Robert Coffey's program is on the disk, and its potential use is explained.

Are you a person who has to see an example to get a clear idea of what is being said ... plate after plate using TI's own programs are there to illustrate clearly the point discussed! If you like to see differences illustrated, that too is done in some parts. Is your mind still boggled by *TI-WRITER* and how one combines it with graphics? That too is addressed; I still have questions in that area to ask.

The manual is an excellent guide if it falls in the area of your needs. Thank you, Harry for your work, to make ours easier!

TIPS FROM THE TIGERCUB

#47

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TIGERCUB SOFTWARE
156 Collingwood Ave.
Columbus, OH 43213

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Software to TI-99/4A Users
Groups for promotional
purposes and in exchange for
their newsletters. May be
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users groups, with credit to
Tigercub Software.

Over 120 original programs
in Basic and Extended Basic,
available on cassette or
disk, NOW REDUCED TO JUST
$1.00 EACH!, plus $1.50 per
order for cassette or disk
and PP&M. Minimum order of
$10.00. Cassette programs
will not be available after
my present stock of blanks
is exhausted. The Handy Dan-
dy series, and Color Prog-
ramming Tutor, are no longer
available on cassette.
Descriptive catalogs, while
they last, $1.00 which is
deductable from your first
order.

Tigercub Full Disk Collec-
tions, reduced to $5 post-
paid. Each of these contains
either 5 or 6 of my regular
catalog programs, and the
remaining disk space has
been filled with some of the
best public domain programs
of the same category. I am
NOT selling public domain
programs - they are a free
bonus!
TIGERCUB'S BEST, PROGRAMMING
TUTOR, PROGRAMMER'S UTILI-
TIES, BRAIN GAMES, BRAIN
TEASERS, BRAIN BUSTERS!,
MANEUVERING GAMES, ACTION
REFLEX AND CONCENTRATION,
TWO-PLAYER GAMES, KID'S
GAMES, MORE GAMES, WORD
GAMES, ELEMENTARY MATH, MID-
DLE/HIGH SCHOOL MATH, VOCAB-

ULARY AND READING, MUSICAL
EDUCATION, KALEIDOSCOPES AND
DISPLAYS

NUTS & BOLTS DISKS
These are full disks of 100
or more utility subprograms
in MERGE format, which you
can merge into your own pro-
grams and use, almost like
having another hundred CALLs
available in Extended Basic.
Each is accompanied by prin-
ted documentation giving an
example of the use of each.
NUTS & BOLTS (No. 1) has 100
subprograms, a tutorial on
using them, and 5 pp. docum-
entation. NUTS & BOLTS No. 2
has 108 subprograms, 10 pp.
of documentation. NUTS &
BOLTS #3 has 140 subprograms
and 11 pp. of documentation.
NOW JUST $15 EACH, POSTPAID.

TIPS FROM THE TIGERCUB
These are full disks which
contain the programs and
routines from the Tips from
the Tigercub newsletters, in
ready-to-run program format,
plus text files of tips and
instructions.
TIPS (Vol. 1) contains 50
original programs and files
from Tips newsletters No. 1
through No. 14. TIPS VOL. 2
contains over 60 programs
and files from Nos. 15 thru
24. TIPS VOL. 3 has another
62 from Nos. 25 through 32.
TIPS VOL. 4 has 48 more from
issues No. 33 through 41.
NOW JUST $10 EACH, POSTPAID.

****
*   NOW READY   *
* TIPS FROM TIGERCUB VOL.5   *
* Another 49 programs and   *
* files from issues No. 42   *
* through 50. Also $10 ppd   *
****

TIGERCUB CARE DISKS #1,#2,#3
and #4. Full disks of text
files (printer required).
No. 1 contains the Tips news
letters #42 thru #45, etc.
Nos. 2 and 3 have articles
mostly on Extended Basic

programming. No. 4 contains
Tips newsletters Nos. 46-52.
These were prepared for user
group newsletter editors but
are available to anyone else
for $5 each postpaid.

If you bought my C11 disk,
Kid's Games, please check
line 100 of the Butterfly
and Flowers program and, if
necessary, change it to -
1000 CALL CLEAR :: CALL SCR
EEN(4).
If you bought my C12 disk,
More Games, and have trouble
loading Lost Plane and
Andromedan Invasion, please
go to line 1000 of the LOAD
program and change #TC-18#
to #TC-18 and #TC-23# to
#TC-23. Or, return the
disks to me and I will fix
them.

Thanks to Ollie Hebert for
this fix to the Gordian Knot
in Tips #36. This will keep
it from running off the edge
and crashing in the
automatic mode.

270 GOSUB 480 :: R=R-24*(R<1
)+24*(R>24):: C=C-28*(C<3)+2
8*(C>30):: CH=128-(D=1)-(D=3
):: CALL GCHAR(R,C,G):: IF G
<>32 THEN IF INT(2*RND+1)<>1
THEN CH=G

The trouble with me is that,
before I finish one program
I've thought of another that
I want to try writing - and
so I don't take time time to
test completed programs as
well as I should. The Decom-
pactor in Tips #35 was one
that should have been tested
more thoroughly. I think
this version will work. It
will break an XBasic program
into single-statement lines
to make it easier to modify.
Then, John Dow's Compactor
or a similar program will
put it back together.

100 !DECOMPACTER V.1.1 by Ji
m Peterson fixed 12/87
110 DISPLAY AT(3,1)ERASE ALL

:"TIGERCUB DECOMPACTER V.1.1
": :" Program must first be
-": :"RESequenced to greater
 in-":"crements than the num
ber"
120 DISPLAY AT(9,1):"of stat
ements in any one":"line.":
:"SAVEd by":" SAVE DSK(file
name),MERGE"
130 DISPLAY AT(16,1):"INPUT
FILENAME?":"DSK" :: ACCEPT A
T(17,4):IF$
140 DISPLAY AT(16,1)ERASE AL
L:"OUTPUT FILENAME?":"DSK" :
: ACCEPT AT(17,4):OF$
150 OPEN #1:"DSK"&IF$,INPUT
,VARIABLE 163 :: OPEN #2:"DS
K"&OF$,OUTPUT,VARIABLE 163
160 LINPUT #1:M$ :: LN=ASC(S
EG$(M$,1,1))*256+ASC(SEG$(M$
,2,1)):: IF LN>LN2 THEN 180
170 DISPLAY AT(12,1)ERASE AL
L BEEP:"ERROR! RESEQUENCE PR
OGRAM TO":"GREATER INCREMENT
S AND TRY":"AGAIN." :: CLOSE
 #1 :: CLOSE #2 :: STOP
180 LN2=LN
190 P=POS(M$,CHR$(130),3)::
IF P=0 THEN PRINT #2:M$ :: G
OTO 260
200 A$=SEG$(M$,1,P-1):: R=PO
S(A$,CHR$(132),3):: S=POS(A$
,CHR$(201),3)
210 IF R=0 THEN PRINT #2:A$&
CHR$(0):: GOTO 250
220 IF S=0 AND R<>0 THEN PRI
NT #2:M$ :: GOTO 260
230 IF S<>0 THEN IF S-R<3 TH
EN PRINT #2:A$&CHR$(0):: GOT
O 250
240 PRINT #2:M$ :: GOTO 260
250 LN=LN+1 :: LN2=LN :: GOS
UB 270 :: M$=LN$&SEG$(M$,P+1
,255):: GOTO 190
260 IF EOF(1)<>1 THEN 160 EL
SE CLOSE #1 :: CLOSE #2 :: D
ISPLAY AT(12,1)ERASE ALL:"En
ter NEW": :"Then Enter":" M
ERGE DSK"&OF$ :: END
270 LN$=CHR$(INT(LN/256))&CH
R$(LN-256*INT(LN/256)):: RET
URN

If you have my BXB routine
from Tips #40 (corrected in
Tips #42) or from my TIPS
disk Vol. 4 or NUTS & BOLTS
#3, or Genial Traveller Vol.
1 No. 6, here is a neat im-
provement that Barry Traver

one will read the disk directory, ignore everything other than programs, ask you for a complete program name for each filename, and write all that into a MERGE format program called CATMERGE.

```
100 !CATWRITER by Jim Peterson
110 OPEN #1:"DSK1.",INPUT,RELATIVE,INTERNAL :: INPUT #1:N$,A,J,K :: OPEN #2:"DSK1.CATMERGE",VARIABLE 163 :: LN=1000 :: FN=1100
120 X=X+1 :: INPUT #1:P$,A,J,B :: IF LEN(P$)=0 THEN 160 :: IF ABS(A)=5 OR ABS(A)=4 AND B=254 THEN 130 ELSE X=X-1 :: GOTO 120
130 DISPLAY AT(12,1)ERASE ALL:P$;"    PROGRAM NAME?" :: ACCEPT AT(14,1)SIZE(25):F$
140 PRINT #2:CHR$(INT(FN/256))&CHR$(FN-256*INT(FN/256))&CHR$(147)&CHR$(200)&CHR$(LEN(F$))&F$&CHR$(0) :: FN=FN+1
150 M$=M$&CHR$(200)&CHR$(LEN(P$))&P$&CHR$(179) :: IF X<11 THEN 120
160 IF M$="" THEN 180
170 PRINT #2:CHR$(INT(LN/256))&CHR$(LN-256*INT(LN/256))&CHR$(147)&SEG$(M$,1,LEN(M$)-1)&CHR$(0) :: LN=LN+1 :: M$="" :: X=0 :: IF LEN(P$)<>0 THEN 120
180 PRINT #2:CHR$(INT(LN/256))&CHR$(LN-256*INT(LN/256))&CHR$(147)&CHR$(200)&CHR$(3)&"END"&CHR$(0)
190 PRINT #2:CHR$(255)&CHR$(255):: CLOSE #1 :: CLOSE #2
```

Next, key in the Quickloader. Do not change the line numbers, do not RESequence, because CATMERGE will be merged into the middle of it and that last line must be the last. Then, enter MERGE DSK1.CATMERGE and then SAVE DSK1.LOAD .

```
100 CALL CLEAR :: DIM M$(48) :: CALL CHAR(94,"3C4299A1A199423C"):: CALL SCREEN(2):: FOR SET=1 TO 14 :: CALL COLOR(SET,15,1):: NEXT SET :: DISPLAY AT(1,4):"TIGERCUB QUICK LOADER"
110 X=X+1 :: READ M$(X):: IF M$(X)<>"END" THEN 110
115 CALL PEEK(8198,A):: IF A<>170 THEN CALL INIT
120 R=3 :: FOR J=1 TO X-1 :: READ X$ :: DISPLAY AT(R,1):STR$(J);TAB(4):X$ :: R=R+1 :: IF R<23 THEN 150
130 DISPLAY AT(24,1):"CHOICE? OR 0 TO CONTINUE 0" :: ACCEPT AT(24,26)VALIDATE(DIGIT)SIZE(-2):N
140 IF N<>0 THEN 155 :: R=3
150 NEXT J :: DISPLAY AT(24,1):"CHOICE?" :: ACCEPT AT(24,9)VALIDATE(DIGIT):N
160 IF SEG$(M$(N),LEN(M$(N)),1)="*" THEN DISPLAY AT(12,1)ERASE ALL:"Return to BASIC" : :"Type OLD DSK1."&M$(N):: STOP
170 CALL CHARSET :: CALL CLEAR :: CALL SCREEN(8):: CALL PEEK(-31952,A,B):: CALL PEEK(A*256+B-65534,A,B):: C=A*256+B-65534 :: A$="DSK1."&M$(N):: CALL LOAD(C,LEN(A$))
180 FOR J=1 TO LEN(A$):: CALL LOAD(C+J,ASC(SEG$(A$,J,1))):: NEXT J :: CALL LOAD(C+J,0):: GOTO 30000
30000 RUN "DSK1.1234567890"
```

If you don't want to give your Basic-only programs a filename ending in an asterisk, you can leave out that warning routine, or you can modify it to warn of E/A or MiniMemory programs. If Catwriter has picked up any unloadable program-format files, etc., just delete them from the DATA lines.

The first issue of the GENIAL TRAVelER has arrived, and it is SUPERB! This is a magazine-on-a-disk, a SS/SD flippy loaded with 700 sectors of some of the finest articles and programs you'll ever see! And the programs are ready to run, you don't have to key anything in. The subscription price, until the end of 1985 at least, is $30 for 6 issues, which computes out to $5 per disk - many of you are paying your own user group that much for a one-sided disk of public domain!
If the subscribers will only have the guts to refuse to let their friends copy this for free, this venture will surely survive and contribute greatly to the advancement of the TI. The address is -
GENIAL COMPUTERWARE, 835 Green Valley Drive, Philadelphia PA 19128.

Gene Burchfield asked if I had a program to print banners vertically. I had never heard of such a thing, so I wrote one.

```
100 DISPLAY AT(12,1)ERASE ALL:"TIGERCUB STREAMER PRINTER" :by Jim Peterson
110 DATA 0000,0001,0010,0011,0100,0101,0110,0111,1000,1001,1010,1011,1100,1101,1110,1111
120 RESTORE 110 :: DIM B$(16):: FOR J=1 TO 16 :: READ B$(J):: NEXT J :: P$(0)=" " :: P$(1)=CHR$(238)
130 INPUT "TEXT TO BE PRINTED? ":T$ :: PRINT :: INPUT "PRINTER DESIGNATION? ":PD$ :: OPEN #1:PD$
140 PRINT :: INPUT "SIZE? (1-10) ":Z :: IF Z<1 OR Z>10 THEN 140
150 FOR J=1 TO LEN(T$):: A=ASC(SEG$(T$,J,1)):: IF A=32 THEN GOTO 200
160 CALL CHARPAT(A,M$):: FOR W=1 TO 15 STEP 2 :: K$=SEG$(M$,W,2):: FOR L=1 TO 2 :: L$=SEG$(K$,L,1):: B=POS("0123456789ABCDEF",L$,1)
170 M$=B$(B):: FOR M=1 TO 4 :: N=VAL(SEG$(M$,M,1)):: N$=N$&RPT$(P$(N),Z):: NEXT M
180 NEXT L :: FOR Q=1 TO Z/2+.5 :: PRINT #1:TAB((81-Z*8)/2+.5);N$ :: NEXT Q :: N$="" :: NEXT W :: FOR R=1 TO Z/2+.5 :: PRINT #1:"" :: NEXT R
190 NEXT J :: STOP
200 FOR T=1 TO Z*4 :: PRINT #1:"" :: NEXT T :: GOTO 190
210 CALL KEY(0,K,S):: IF S=0 THEN 210 ELSE RETURN
```

If your printer doesn't have the special characters of the Gemini, substitute 88 instead of 238 in line 120, to print X's, or whatever else you want. If you do have the special characters, try some others, such as 239, for this and other graphics printing programs. This routine will print a handy reference chart of them.

```
100 IMAGE 000 0   000 0   00
00 0   000 0   000 0   000 0
110 P$=RPT$(CHR$(251)&CHR$(253),21):: X=0
120 OPEN #1:"PIO" :: PRINT #1:CHR$(27);"E"
130 PRINT #1:P$;" ASCII CODES FOR GEMINI SPECIAL CHARACTERS";P$
140 FOR J=160 TO 175 :: K=J-X
150 PRINT #1,USING 100:K,CHR$(J),K+16,CHR$(J+16),K+32,CHR$(J+32),K+48,CHR$(J+48),K+64,CHR$(J+64),K+80,CHR$(J+80) :: NEXT J
160 IF FLAG=1 THEN STOP ELSE FLAG=1 :: PRINT #1:"":"":P$;"TI-WRITER CODES FOR GEMINI SPECIAL CHARACTERS":P$ :: X=128 :: GOTO 140
```

Another one that just looks pretty -

```
100 !KALEIDOSPRITES by Jim Peterson
110 CALL CLEAR :: FOR CH=100 TO 128 STEP 4 :: FOR L=1 TO 4 :: RANDOMIZE :: X$=SEG$("0018243C425A667E8199A5BDC3DBE7FF",INT(16*RND+1)*2-1,2)
120 B$=B$&X$ :: C$=X$&C$ :: NEXT L :: CALL CHAR(CH,RPT$(B$&C$,4)):: B$,C$="" :: NEXT CH :: Z=2 :: CALL SCREEN(5)
130 CALL MAGNIFY(Z):: K=1 :: FOR J=1 TO 7 :: S=96+4*J :: R=16*J :: C=100*RND+20
140 IF J>5 AND Z=4 THEN T=5 :: GOTO 160
150 T=INT(15*RND+2):: IF T=5 THEN 150
160 CALL SPRITE(#K,S,T,R,C,#K+1,S,T,177-R,C,#K+2,S,T,R,241-C,#K+3,S,T,177-R,241-C):: K=K+4 :: NEXT J
170 Z=INT(2*RND+1)*2 :: GOTO 130
```

```
100 !DISK MATCHER by Jim Peterson
110 DISPLAY AT(8,9)ERASE ALL:"DISK MATCHER" : : : :" To compare a backup disk":"with a master and list any":"files found on one but not"
120 DISPLAY AT(15,1):"on the other." : : :"      Press any key"
130 CALL KEY(0,K,S):: IF S=0 THEN 130
140 DISPLAY AT(12,1)ERASE ALL:"INSERT MASTER - PRESS ENTER" :: CALL KEY(0,K,S):: IF S=0 THEN 140
150 OPEN #1:"DSK1.",INPUT,RELATIVE,INTERNAL :: INPUT #1:D1$,A,J,K :: DIM F1$(127)
160 X=X+1 :: INPUT #1:F1$(X),A,J,B :: IF LEN(F1$(X))<>0 THEN 160 ELSE CLOSE #1
170 DISPLAY AT(12,1)ERASE ALL:"INSERT BACKUP DISK": :"PRESS ENTER" :: CALL KEY(0,K,S):: IF S=0 THEN 170
180 OPEN #1:"DSK1.",INPUT,RELATIVE,INTERNAL :: INPUT #1:D2$,A,J,K :: DIM F2$(127)
190 Y=Y+1 :: INPUT #1:F2$(Y),A,J,B :: IF LEN(F2$(Y))<>0 THEN 190 ELSE CLOSE #1
200 DIM F(127):: FOR J=1 TO X :: FOR L=1 TO Y :: IF F2$(L)=F1$(J)THEN F(L)=1 :: GOTO 220
210 NEXT L :: PRINT F1$(J);" NOT ON BACKUP"
220 NEXT J
230 FOR M=1 TO Y :: IF F(M)=0 THEN PRINT F2$(M);" NOT ON MASTER"
240 NEXT M :: END
```

A very useful tip from Jim Swedlow, in the Orange County ROM newsletter -
INPUT respects any trailing print separator on a preceding PRINT command. Try it -

```
100 PRINT TAB(20);::: INPUT B$
```

MEMORY FULL IN LINE 400
Jim Peterson

THE "ZENOBOARD"................ (A new piece of hardware for the TI-994A)
by Eric Zeno (West Penn 99'ers) December, 1988
(written by John F. Willforth)

Have you had your console lock-up after you had just about finished keying in a long XBasic program, or have you had a game running under XBasic just stop when you were about to get your all time best score, or has a utility stopped as you were just about done entering the last of the names and addresses? The "ZENOBOARD" (as I call it) some reference to "ZUCKERBOARD" will accept the chips from your XBasic cartridge, as well as a 32K Byte Static Ram chip, and a battery backed clock circuit and the chips from your speech synthesizer. It will also have GROM chip locations, so you can install your most used GROM based cartridges right in your console. The Extend Basic is a very common cause of lockups, and can now be installed inside the console, almost eliminating lockups. Included , you'll get the installation instructions to aid in the installation of this board inside the console and the above mentioned items on this board.

Eric plans to offer this board for less than $15. The intent here is to find out if there is enough genuine interest or need for the board for him to continue. If you would like to see one of these, and would support it write or call Eric at the address below.

Specifications:
* Fits inside console above CPU board and solders directly to back of GROM conn., with just a few wires to the CPU board.
* Requires no additional power.
* Includes RESET circuit
* Can be expanded or configured as the user requires.
* Supports 32K STATIC RAM
* Supports Battery-backed CLOCK
* Supports SPEECH SYNTHESIZER
* Supports EXTENDED BASIC
* Supports additional switch selectable GROM
* Do-It-Yourself low cost

>>> SOME TECHNICAL ASSEMBLY REQUIRED<<<

DO not order at this time, because the idea is quite attainable, but there may not be enough demand to complete the project. Write/call:

ERIC ZENO   (412) 371-4779
414 HIGHLAND RD.
PITTSBURGH, PA 15235   (SASE Please!)

NOTE: I didn't have a more recent drawing of the board at this printing, but I didn't want to delay passing this new hardware effort to you until January. Eric needs to know soon so that he can take advantage of the longe winter nights to finish the board and get it out to you.   JFW
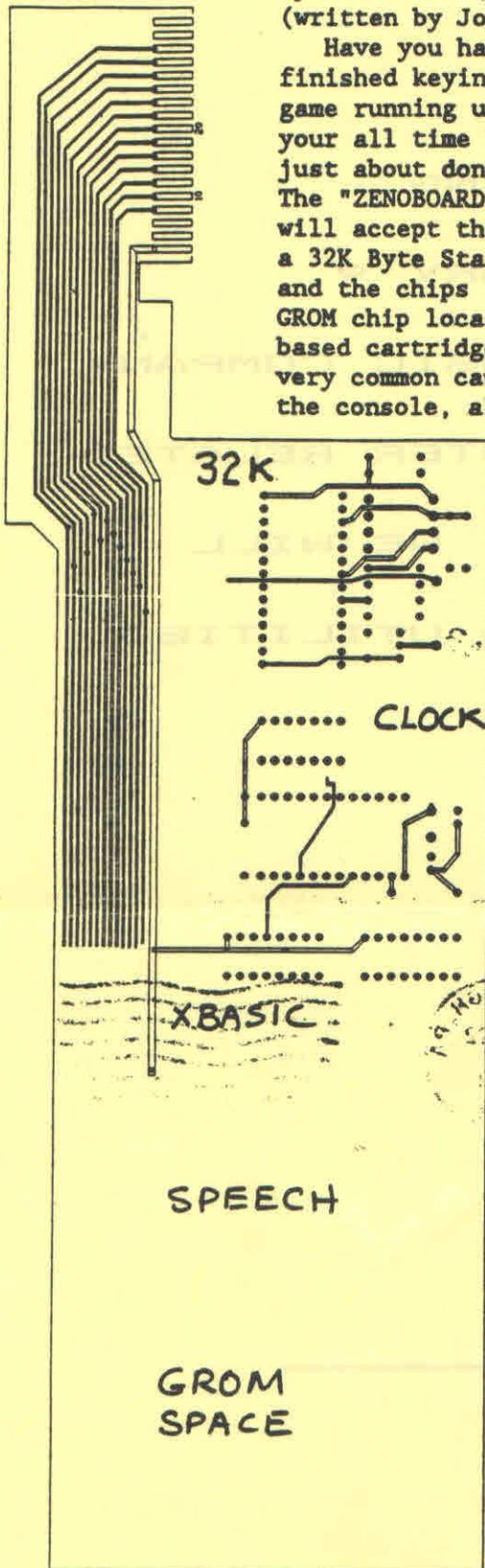

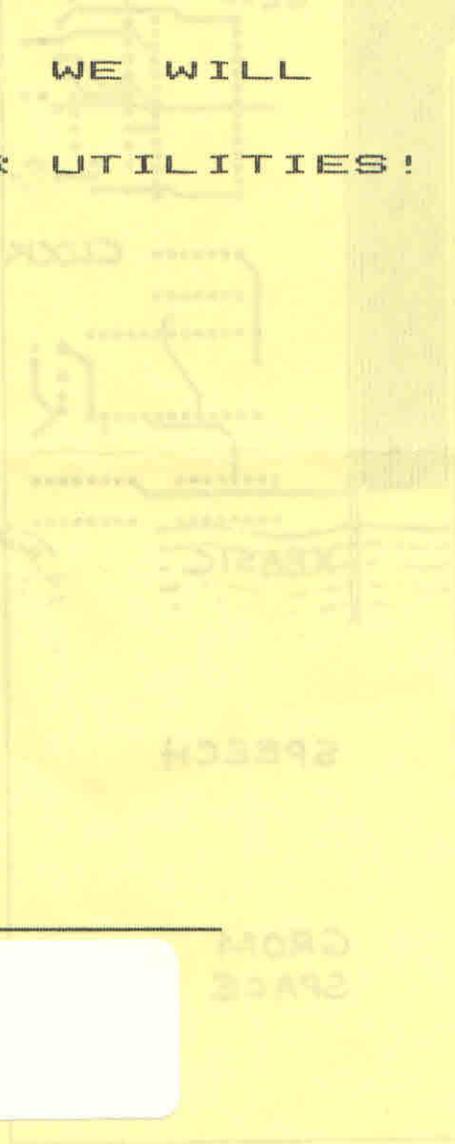FIG. 1 THE ZENOBOARD

NEXT MEETING

MONDAY, JANUARY 9

6:30 PM --- WEST MUSIC COMPANY

SHOW OFF YOUR COMPUTER RELATED

CHRISTMAS GIFTS!   WE WILL

SHOW OFF SOME SUPER UTILITIES!

Cedar Valley 99'er Users Group
288 Windsor Dr. NE
Cedar Rapids, Iowa 52402

Send To: