

ISSUE #8 August 1989

FOR THE RECORD

by FRANK N. ZIC

The July meeting was called to order by President Mickey Schmitt at 7:15 PM. She began the meeting as usual giving thanks to the many busy hands that helped make the transition to our new meeting place. Special thanks to Scott Coleman and his wife Mary for setting up the use of our new location. One of the first orders of business was to be a Treasurer's report by Jan Trayers, alas the report was really bad, oh-not the financial report, quite the contrary, but Mickey reported that Jan was no longer going to be able to handle the Treasurer's job due to her outside job and commitments. We all wish you good luck and we'll miss your goodies. Don't forget us and come back and join us as soon as you can. Lynn Gardner graciously accepted the Treasurers position. Thanks Lynn. Rob Ekl reported some additions of music and Mac pictures, along with 15 undisclosed disks received tonight that will be added to the library. Gene Kelly passed around an old (huge) 40Meg hard drive, a small 1/2 height size and then showed us a new (very small) 100 Meg drive. Technology has really made a big advancement in the last 5 years. Much of this miniaturization was made possible as a spin-off of the space program. If you need to have a special program written for yourself, it can be contracted through Gee Bee Basics. They are located in Strongsville, Ohio 44136. Joe Ekl had no new info on membership. No word yet on the software order from Great Lakes. Let it be duly noted by Mickey that Jerry Petrulak for once came to the meeting early and even took a front row seat. At the end of the meeting they were going to have Jerry take home the makings for our coffee for next month, when it was remarked that the supplies would have to be there early. A quick change of plans followed. Don't forget to buy disks by lots of \$2, \$4, and \$10. Also available are many newsletters from other clubs. VCR tapes of the Lima Faire are available for check out. Our meeting was attended by 32 members, a nice turn out for a summer meeting at a new location, St. Stevens Bysantine Catholic Church on Bethel Road near the Norwin Towne Square.

Under new business a lengthy discussion on the Zeno board was held with many helpful ideas submitted. A go-no-go decision will soon be made by Eric, with notification to all interested parties. The TI show schedule for the remainder of this year follows: The TI International Expo 99 will be held on Sept. 16, at Washington, D.C; The Harrisburg TI show and Ham Fiest will be held on Oct. 15, both the PUG and West Penn clubs will be a part of this show. Plan to attend if at all possible, some great buys should be available; The Chicago Show will be on Nov. 4. Fall classes being planned for our club will include: John's always popular hardware class, on printers this session; Lynn's class on TI Base and Gene's Assembly programming. Tonights demos included: Mickey-Jiffy Flyer; Rob-Batch-It; Lynn-TI Sort and myself on Bigfoot (personal high score-screen #13 and 42,910 points/so far). I didn't mention the last demo presented with the others because we were treated to a World Premier presentation of Zoom Flume by the author herself, Lynn Gardner. This adventure game looks really good and we wish you fine success on Asgard's release. Some new Swedish Adventure games will soon be in our club's library due to Mickey's foreign correspondence. Well I'm running out of space again, you better get back Ed. May the good 4's be with you.

WEST PENN 99'ERS CLUB INFORMATION

TREASURER'S REPORT FOR JULY 18, '89

NEXT MEETING DATE: AUGUST 15, 1989
 MEETING LOCATION: ST. STEPHEN'S
 BYZANTINE CATHOLIC
 CHURCH
 JUST OFF ROUTE 30
 BETHEL ROAD, NORWIN
 TIME OF MEETING: 7:00 P.M.

LIST OF WEST PENN OFFICERS FOR 1989

412-

PRESIDENT: MICKEY 335-0163
 VICE PRESIDENT: SCOTT 523-3754
 TREASURER: LYNN 835-4304
 RECORDING SEC: ED 864-4924
 CORRESPONDING SEC: GENE 829-0469
 LIBRARIAN: ROB 864-1233
 NEWSLETTER EDITOR: JOHN 527-6656

GENERAL ITINERARY OF THE CLUB'S MEETING

6:45 P.M. DOORS OPEN
 7:00 P.M. GENERAL MEETING
 7:45 P.M. DEMOS AND NEW INFO
 8:45 P.M. HARDWARE CLASS
 8:45 P.M. INTRO TO FORTH
 8:45 P.M. TIPS FOR BEGINNERS
 8:45 P.M. USING YOUR CASSETTE
 11:00 P.M. DOORS CLOSE

MEETING HIGHLIGHTS FOR THIS MONTH

ALL THE LATEST T. I. NEWS AND SHOW DATES
 PLANS FOR THE UPCOMING HARRISBURG SHOW!
 DISK O' PYRATES, DEMO BY MICKEY SCHMITT
 LIBRARY "DEMO OF THE MONTH" BY ROB EKL
 LATEST SOFTWARE DEMOS BY JOHN WILLFORTH

RENEW YOUR MEMBERSHIP DUES!

\$15.00 PER YEAR FOR INDIVIDUAL / FAMILY
 \$10.00 PER YEAR FOR JUST THE NEWSLETTER

FROM LYNN GARDNER	
7/18	CASH ON HAND \$ 50.00
	LIBRARY SALES 18.00
	MICROPENDIUMS 20.00
	DISKS & CASES 59.00
	DUES 25.00
	RAFFLE 41.00
	TOTAL \$213.00
	EQUIPMENT - 10.59
	DEPOSIT - 152.41
7/19	CASH ON HAND \$ 50.00
7/7	BANK BALANCE \$1188.02
7/18	POSTAGE (JOHN) - 70.00
	1118.02
7/19	MICROPENDIUM - 30.00
	1088.02
7/19	DEPOSIT +152.41
	BALANCE \$1240.43
	TOTAL CASH BALANCE \$1290.43

OK: !E EDITOR--Rev2 99%

* ZOOM FLUME *

In this adventure, you are in your bathing suit at the water park. Want fun and excitement? Try the fast and slippery track of the Super Slide, a 5-story-high water slide. Speed down a twisting course on the Zoom Flume, a water-filled gully plunging you to the bottom. See if you can hang onto the Tarzan Trolley, a rope strung on a pulley between platforms. Ride the bumper boats in the lake or ride the waves in the wave pool. It's a cool day, but surf's up. Enjoy!

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.....PRESS ANY KEY TO BEGIN.....

A P-BOX MEMORY MAPPER.....by Rickey Morgan of Forest Lane T.I. Users Group

Those of you who have ever looked at the P-BOX buss realize that there are actually nineteen address bits available. This was implemented for a future product which was not officially released; namely the 99/8 which had a built in memory mapper for the 512K of address space. When used with a 99/4 or 99/4A, the address space is only 64K bytes or sixteen bits of address. The remaining three bits are pulled high on the P-BOX interface board.

Any P-Box board that meets Texas Instruments' specifications will use the three address bits labeled AMA, AMB, and AMC in it's address decode. At this point, it becomes obvious that if these bits were mapped to a CRU port, all T.I. boards would be turned off by changing any or all of these bits. This would give eight times the available address space.

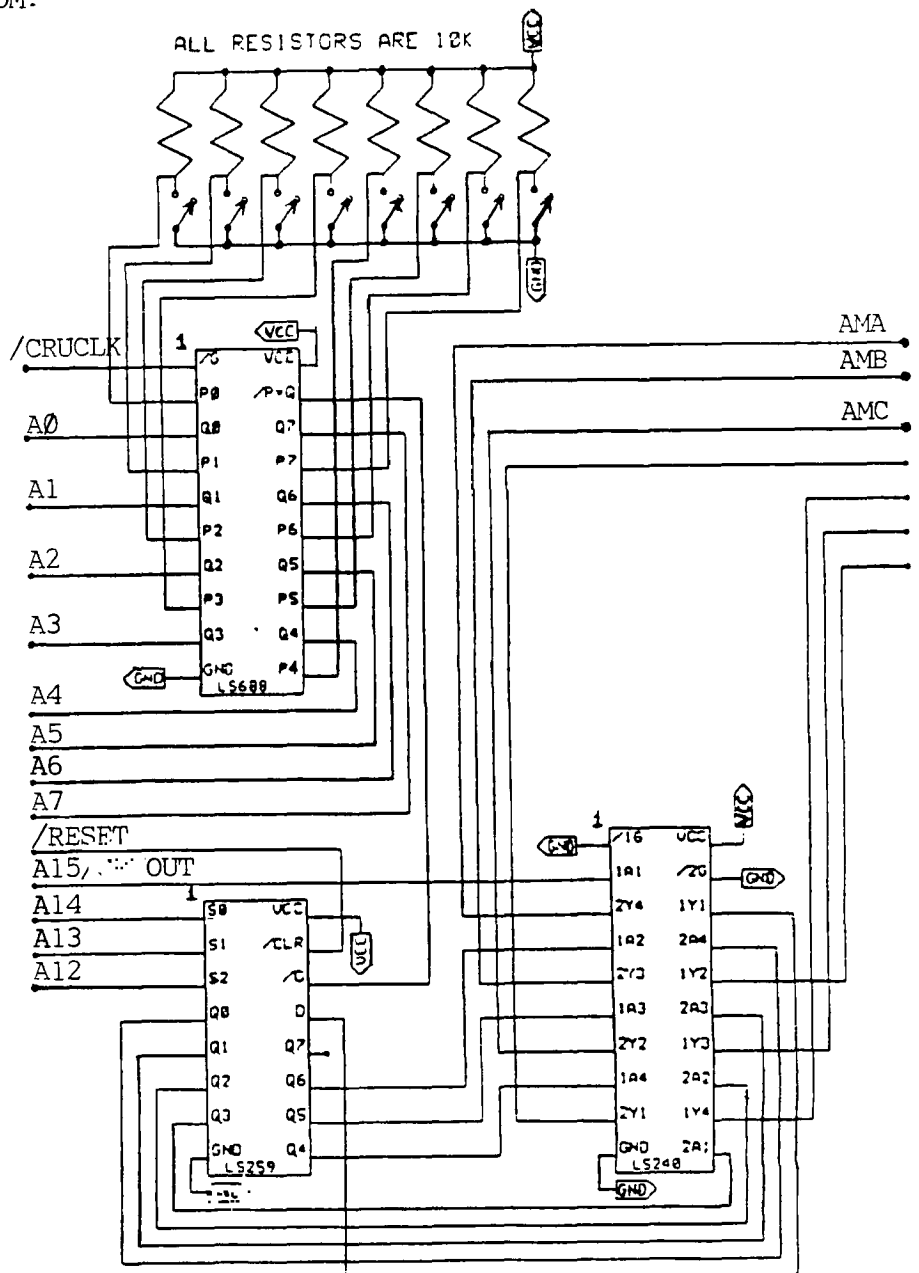
There are some exceptions to this, as the console itself does not use these bits in it's internal decode. Therefore, certain blocks of address space will map into all eight banks of address space.

ADDRESS MAP OF THE 99/4A

- 0000 Internal and maps in all eight spaces.
- 2000
- 4000 Any non-standard boards, such as the Horizon Ramdisk, maps in all eight spaces. Includes the one Meg. Board.
- 6000 Internal and maps in all eight spaces if a module is present that has RAM or ROM in it, not just GROM.
- 8000 Internal and maps in all eight spaces.
- A000
- C000
- E000

This leaves the normal 32K expansion space that can be used by the mapper at all times. This will give 262,144 bytes of memory space available to the programmer with a module or nonstandard board present. However, if neither of these conditions is true, the space increases to 385,024 bytes. This could be built into a special RAM card or into multiple RAM cards.

Initially, I will start with the interface board modification. There are only three integrated circuits necessary to add our three address lines. They are a 74LS688, 74LS259, and a 74LS240. The '688 is an eight bit address comparator which decodes the eight MSBs of the address buss and CRUCLK* to select the CRU address that your mapper will respond to. The '259 is an addressable latch to store one byte of the data from CRU. This will be AMA, AMB, AMC and five spare bits for future use. The '240 is an inverting bus driver to invert the input and outputs of the '259 insuring that on reset the three address lines are set to all ones as required by all T.I. boards in the P-Box.



MORE NEXT MONTH.....

LEGENDS II.....

Asgard Software is pleased to announce that the sequel to Legends is now shipping. This is a shipwrecked adventure on the island of Femble where you can acquire enough dough to buy your passage home. 3-disk adventure. \$17.95, plus \$.75 S&H. If you'd like both LEGENDS and LEGENDS II send \$32.35, plus \$1.50 S&H to:

ASGARD SOFTWARE (703)255-3085
P.O. BOX 10306
ROCKVILLE, MD 20850

HORIZON RAMDISK 3000.....

Bare Board w/man. & software (you supply parts)_____ \$ 40.
0K Kit_\$100. 384K Kit_\$320.
90K Kit_\$155. 512K Kit_\$395.
1000K Kit_(1-MEG)_____ \$695.
Add \$30. for built and tested w/90-day warranty. S&H included also:

P-GRAM CARD (complete & kits)

Kit \$150., Kit + Clock \$170.
Built \$180., Built w/CLK \$200.
*built includes 6 mnth. warranty
All inc. User and construction guides plus software. S&H incl.

ORDER FROM:

BUD MILLS SERVICES (419)385-5946
166 DARTMOUTH DRIVE
TOLEDO, OH 43614

WORD PROCESSOR

A new word processor that may be just what your looking for. It runs in X BASIC and is an ALL ASSEMBLY LANGUAGE program. It seems to offer great flexibility to set up printers and allows setting up "printer action tables" as well as file conversion to/from TI-Writer or ASCII files. A config. utility to tailor allow customizing the boot-up. Menu driven and easy to use. 48 page manual. (on disk). \$20. Write or call:

HARRISON SOFTWARE (301)277-3467
5705 40th PLACE
HYATTSVILLE, MD 20781

THIRD ANNUAL

CPUG

COMPUTER EXPO

AT CARLISLE FAIRGROUNDS,
ON CLAY ST. IN CARLISLE, PA.

SUNDAY, OCT. 15, 1989

HOURS: 7AM - 2PM

DOOR PRIZES DEMOS BARGAINS
COMPUTER VENDORS TAILGATING
USER GROUPS



Admission: \$3.00, Women and
Children under 12 FREE
TAILGATING AREA: \$2.00

Sponsored by Central Pa.
99/4A Users Group

Co-Sponsored by Cumberland
County Amateur Radio Service
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6TH ANNUAL CUMBERLAND COUNTY RAMFEST

DISK ONLY SOFTWARE new 800 number
24-hour, 7-day order number for
credit cards. VISA, MC, Am. Exp.
1-800 736-4951

A GOOD TURN OUT AT JULY MEETING.....

The meeting at our new facility on July 18th, was well attended. Thirty-four members, including two guests were present. I'm printing the list of those who braved the elements (75 degrees and comfortable) to attend the meeting. We did feel a little cramped since the meeting facility which was being renovated, as we met, isn't ready for our occupancy yet. The August meeting should be held in the newly renovated facility. The July attendees were:

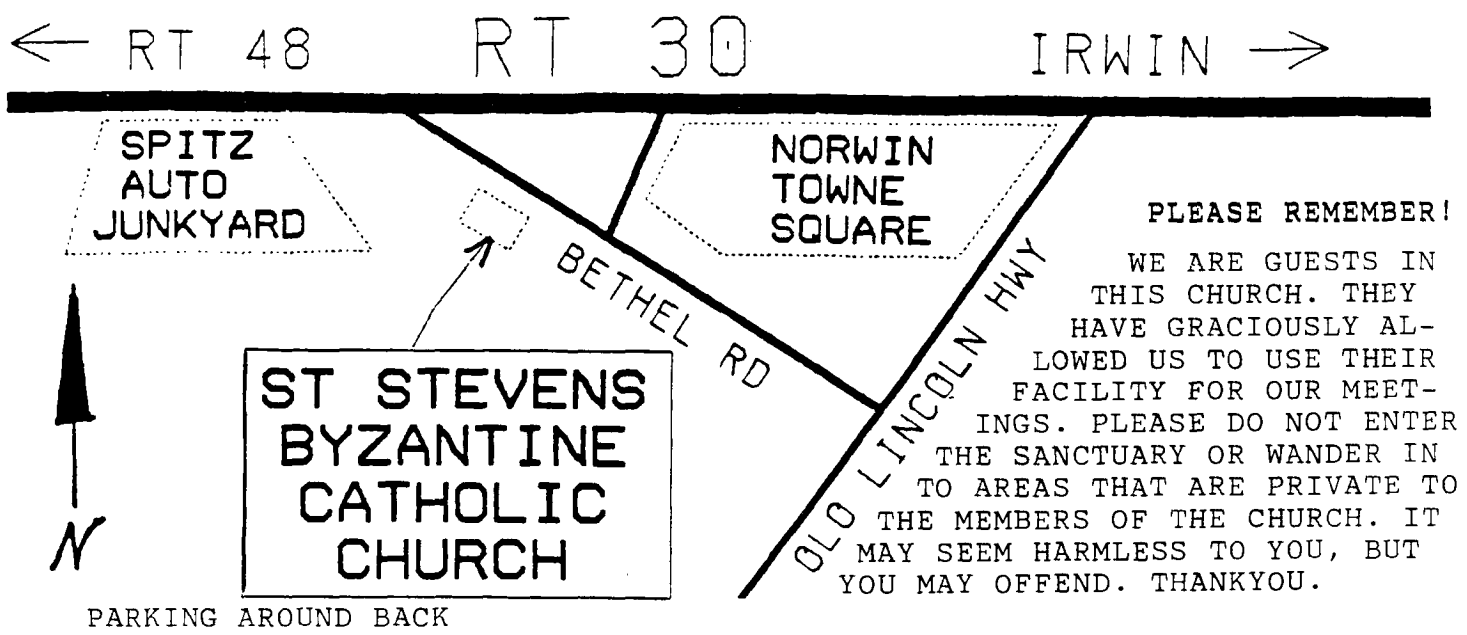
- | | | |
|----------------|------------------|----------------|
| Ed Bittner | Gene Kelly | Jack Skinner |
| Paul Brock | Timothy Kljun | Gary Taylor |
| Frank Cardello | Bob McGinity | Melissa Taylor |
| Scott Coleman | Judy Muir | Gerry Taylor |
| James Conn | Richard Ohl | Ralph Vasko |
| Rob Ekl | Jim Peters | William Vorp |
| Joe Ekl | Jerry Petrulak | John Vukman |
| Kenneth Farr | Norman Rokke | John Willforth |
| Lynn Gardner | Bob Sadusky | Eric Zeno |
| Art Gardner | Mickey Schmitt | Frank Zic |
| Francis Heck | Mike Sealy | TOTAL: |
| Stan Katzman | Leon Sienkiewicz | 34 |

Our current membership is 81, and is still growing. 23 are members who by distance (out of state or country cannot attend) so the number of members who could attend but didn't was 26 (we had two guests). Attendance therefore was 57%. I suppose that wasn't bad for a mid-summer meeting.

Those of you who were unable to attend, will find a list of West Penn members in this newsletter. I am not publishing this list for general mailing. Some of you may not want your name, address, and phone number distributed throughout the country. I am missing some information, such as a phone number. If you could review your name, address, and phone number, as well as the letter that appears in the extreme right column (A or F for Associate or Family) and let me know of any errors that exist. All memberships are Jan 1 to Jan 1 unless you join after July 1 in which case your membership is July 1 to Jan 1.

Address correction: Mike Sealy moved since the new list was printed. His phone number remains the same, however, Mike's new address is: RR#1 BOX 184, TORONTO, OH 43964

I've included a drawing done by Scott Coleman showing the new meeting location. I feel that all those who didn't come last month would like to correct that oversight this month.



HERE IS A PROGRAM CALLED VICIOUS. IT IS WRITTEN IN EXTENDED BASIC AND WILL RUN IN A BARE CONSOLE W/XBASIC. THERE IS NO CREDIT TO THE AUTHOR. THIS WILL REMIND SOME OF "SPYS". VERY GOOD AND ACCEPTS EITHER KEYBOARD OR JOYSTICKS.

```

10 @=1 :: _=2 :: CALL CLEAR
:: CALL SCREEN(_):: RANDOMIZ
E :: CALL MAGNIFY(3):: FOR A
=@ TO 14 :: CALL COLOR(A,16,
@):: NEXT A :: CALL COLOR(11
,11,@):: CALL CHAR(48,"007C4
444444447C")
20 CALL CHAR(96,"070B132141B
1E3FFFFE3814121130B07E0D0C88
48281C7FFFFC7818284C8D0E")
30 CALL CHAR(100,"030C302040
4080808080404020300C03C0300C
040202010101010202040C30C",1
08,"007E7E7E7E7E7E001C2A497F
492A1C")
40 CALL CHAR(112,"8080808080
80808001010101010101FF0000
000000000000000000000000FF")
:: DISPLAY AT(@,8):"VICIOUS
CIRCLE"
50 DISPLAY AT(4,@):"AVOID TH
E CIRCLES WHILE":"CLEARING T
HE GRID. ": "USE THE JOYSTIC
K OR ARROW KEYS TO MOVE."
60 DISPLAY AT(10,@):"YOU REC
EIVE 10 PTS FOR EACH SQUARE,
OR 1000 PTS FOR AN ENTIRE
GRID. ": "ONCE YOU HAVE BEEN
HIT 10 TIMES, THE GAME WI
LL END."
70 DISPLAY AT(17,@):"FOR EVE
RY 5000 PTS, YOU":"GET AN EX
TRA LIFE. ": DISPLAY AT(23,
7):"JOYSTICKS?(Y/N)"
80 CALL KEY(I,B,C):: IF C=[
THEN 80
90 D=[ :: IF B=89 OR B=121 T
HEN D=@ :: IF B=121 THEN 120
100 IF D=[ THEN 120
110 FOR A=@ TO 4 :: DISPLAY
AT(23,4):"RELEASE ALPHA-LOCK
KEY" :: FOR E=@ TO 40 :: NE
XT E :: DISPLAY AT(23,4):: N
EXT A
120 CALL CLEAR
130 F=85 :: G=117 :: H,I,J=[
:: K=10 :: L=5000 :: CALL H
CHAR(_,9,115,17):: CALL HCHA
R(20,9,114,17):: CALL VCHAR(
3,8,113,17):: CALL VCHAR(3,2
6,112,17)
140 DISPLAY AT(@,_):"00000"
150 FOR A=4 TO 18 STEP _ ::
DISPLAY AT(A,8)SIZE(16):RPT$(
"1 ",8):: NEXT A :: FOR A=
TO 9 :: IF A/_=INT(A/_)THEN
M=-@ ELSE M=@
160 M=M*INT(RND*10+12+J):: C
ALL SPRITE(#A,100,INT(RND*14
+3),200,A*16+37,M,I):: NEXT

```

```

A :: GOSUB 330
170 DISPLAY AT(22,9):"PRESS
ANY KEY" :: DISPLAY AT(22,9)
:: CALL KEY(I,N,O):: CALL KE
Y(@,P,Q):: IF O=[ AND Q=[ TH
EN 170 ELSE CALL SOUND(500,2
62,3,330,3,392,3)
180 CALL SPRITE(#@,96,15,F,G)
:: GOTO 210
190 IF D=[ THEN 300 ELSE CAL
L JOYST(@,B,C):: IF ABS(B)=A
BS(C)THEN 230
200 G=MIN(181,MAX(69,G+B*4))
:: F=MIN(133,MAX(21,F-C*4))
: CALL LOCATE(#@,F,G)
210 CALL GCHAR(INT(F/8)+_,IN
T(G/8+_),R):: IF R(>)108 THEN
230 ELSE CALL SOUND(140,-6,
3,900,4,1100,5,1300,6)
220 CALL HCHAR(INT(F/8+_),IN
T(G/8+@),32,_): I=I+@ :: IF
I=64 THEN 240
230 CALL COINC(ALL,R):: IF R
=[ THEN 190 ELSE CALL SOUND(
200,-6,_): K=K-@ :: GOSUB 3
30 :: IF K=[ THEN 260 ELSE 1
90
240 CALL SOUND(1600,131,_,39
2,_,1047,_): J=J+ _ :: CALL
DELSPRITE(ALL):: I=[ :: F=85
:: G=117 :: H=H+1000 :: DIS
PLAY AT(@,7-LEN(STR$(H)))SIZ
E(6):STR$(H)
250 IF H=L THEN K=K+@ :: GOS
UB 330 :: L=L+500 :: GOTO 15
0 ELSE 150
260 FOR A=@ TO I :: H=H+10 :
: CALL SOUND(30,523,_): DIS
PLAY AT(@,7-LEN(STR$(H))):ST
R$(H):: CALL SOUND(20,200,30
): NEXT A :: DISPLAY AT(22,
11):"GAME OVER" :: FOR A=@
TO 340 :: NEXT A
270 DISPLAY AT(22,8):"PLAY A
GAIN?(Y/N)"
280 CALL KEY(I,B,C):: IF C=[
THEN 280
290 IF B=89 OR B=121 THEN CA
LL DELSPRITE(ALL):: CALL CLE
AR :: GOTO 130 ELSE END
300 CALL KEY(I,N,O):: B,C=[
:: IF N=83 OR N=115 THEN B=-
4 ELSE IF N=68 OR N=100 THEN
B=4
310 IF N=69 OR N=101 THEN C=
4 ELSE IF N=88 OR N=120 THEN
C=-4
320 GOTO 200
330 DISPLAY AT(@,16):RPT$("
",13-K)&RPT$("m",K):: RETURN

```

ENVELOPES

by ALLEN BIGGS

The following program will allow you to print letter & legal size envelopes. Just insert and let your computer do the rest.

```

10 ! ST. LOUIS 99ERS
20 ! COMPUTER BRIDGE
30 ! JULY 1988 ISSUE
100 ! ENVELOPE PRINTER
110 ! BY ALLEN BIGGS
120 ! CHANGE "x" IN LINE 150
    TO WHAT EVER CODE YOUR PRIN
    TER HAS FOR "NLO" OR EMPHASI
    ZED
130 ! CHANGE INFO IN LINE 21
    0 TO YOUR MOST USED RETURN A
    DDRESS
140 CALL CLEAR :: CALL SCREE
    N(5):: FOR I=0 TO 12 :: CALL
    COLOR(I,16,5):: NEXT I
150 OPEN #1:"P10" :: PRINT #
    1:CHR$(27)&"x"&CHR$(1)
160 DISPLAY AT(1,6):"ENVELOP
    E PRINTER": " BY ALLEN
    BIGGS"
170 FOR D=1 TO 50 :: NEXT D
180 GOSUB 780 :: CALL CLEAR
190 DISPLAY AT(6,5):"USE RET
    URN ADDRESS IN": " ME
    MORRY? (Y/N):Y" :: ACCEPT AT(
    8,22)SIZE(-1)VALIDATE("YnN"
    ):A#
200 IF A#="N" OR A#="n" THEN
    220
210 R$(1)="Allen D. Biggs" :
    : R$(2)="3212 Brown St." ::
    R$(3)="Alton, IL 62002-3003"
    :: R$(4)=" " :: R$(5)=" " :
    GOTO 230
220 GOSUB 570
230 GOSUB 330
240 !PRINTING
250 FOR I=1 TO 5 :: PRINT #1
    :TAB(2);R$(I):: NEXT I
260 FOR I=1 TO L :: PRINT #1
    :CHR$(10):: NEXT I :: PRINT
    #1:CHR$(10)
270 FOR J=1 TO 5 :: PRINT #1
    :TAB(E);S$(J):: NEXT J
230 CALL PROGENO

290 DISPLAY AT(5,2)ERASE ALL
    : "SAME ENVELOPE SIZE? (Y/N):
    Y" :: ACCEPT AT(5,28)SIZE(-1
    )VALIDATE("YnN"):Z# :: IF Z
    #="N" OR Z#="n" THEN GOSUB 7
    80
300 DISPLAY AT(7,1)ERASE ALL
    : "SAME RETURN ADDRESS? (Y/N)
    :Y" :: ACCEPT AT(7,28)SIZE(-
    1)VALIDATE("YnN"):Z# :: IF
    Z#="N" OR Z#="n" THEN 220
310 DISPLAY AT(9,1)ERASE ALL
    : "SAME MAILING ADDRESS?(Y/N)
    :Y" :: ACCEPT AT(9,28)SIZE(-
    1)VALIDATE("YnN"):Z# :: IF
    Z#="N" OR Z#="n" THEN 230
320 GOTO 240
330 ! MAILING ADDRESS
340 DISPLAY AT(4,5)ERASE ALL
    : "LOAD MAILING ADDRESS?": "
    (Y/N):N" :: ACCEPT AT(
    6,13)SIZE(-1)VALIDATE("YnN"
    ):E#
350 IF E#="N" OR E#="n" THEN
    390
360 DISPLAY AT(10,5):"DISK D
    RIVE? 2" :: ACCEPT AT(10,17)
    SIZE(-1)VALIDATE("1234"):D#
370 DISPLAY AT(12,5):"FILE N
    AME?": " :: ACCEPT AT(12,17)SI
    ZE(10):SF#
380 OPEN #2:"DSK"&D#&". "&SF#
    ,DISPLAY ,VARIABLE 80 :: FOR
    J=1 TO 5 :: LINPUT #2:S$(J)
    :: NEXT J :: CLOSE #2
390 DISPLAY AT(4,5)ERASE ALL
    : "MAILING ADDRESS"
400 DISPLAY AT(6,5):"LINE 1:
    " :: DISPLAY AT(7,1):S$(1)
410 DISPLAY AT(9,5):"LINE 2:
    " :: DISPLAY AT(10,1):S$(2)
420 DISPLAY AT(12,5):"LINE 3
    " :: DISPLAY AT(13,1):S$(3)
430 DISPLAY AT(15,5):"LINE 4
    " :: DISPLAY AT(16,1):S$(4)
440 DISPLAY AT(18,5):"LINE 5
    " :: DISPLAY AT(19,1):S$(5)
450 DISPLAY AT(22,4):"ANY CO
    RRECTIONS? (Y/N):N" :: ACCEPT
    AT(22,26)SIZE(-1)VALIDATE("
    YnN"):C#
460 IF C#="N" OR C#="n" THEN
    560
470 ACCEPT AT(7,1)SIZE(-28):
    S$(1):: ACCEPT AT(10,1)SIZE(
    -28):S$(2):: ACCEPT AT(13,1)
    SIZE(-28):S$(3):: ACCEPT AT(
    16,1)SIZE(-28):S$(4):: ACCEP
    T AT(19,1)SIZE(-28):S$(5)

480 DISPLAY AT(22,4):"ANY CO
    RRECTIONS? (Y/N):N" :: ACCEPT
    AT(22,26)SIZE(-1)VALIDATE("
    YnN"):C#
490 IF C#="Y" OR C#="y" THEN
    470
500 DISPLAY AT(23,4):"SAVE?
    (Y/N):N" :: ACCEPT AT(23,16)
    SIZE(-1)VALIDATE("YnN"):D#
510 IF D#="Y" OR D#="y" THEN
    520 ELSE 560
520 DISPLAY AT(5,5)ERASE ALL
    : "SAVE MAILING ADDRESS"
530 DISPLAY AT(7,5):"DISK DR
    IVE? 2" :: ACCEPT AT(7,17)SI
    ZE(-1)VALIDATE("1234"):D#
540 DISPLAY AT(9,5):"FILE NA
    ME?": " :: DISPLAY AT(10,5):SF#
    :: ACCEPT AT(10,5)SIZE(-10)
    :SF#
550 OPEN #2:"DSK"&D#&". "&SF#
    ,DISPLAY ,VARIABLE 80 :: FOR
    J=1 TO 5 :: PRINT #2:S$(J):
    : NEXT J :: CLOSE #2
560 RETURN
570 !RETURN ADDRESS
580 DISPLAY AT(4,5)ERASE ALL
    : "LOAD RETURN ADDRESS?": "
    (Y/N):N" :: ACCEPT AT(6
    ,13)SIZE(-1)VALIDATE("YnN")
    :C#
590 IF C#="N" OR C#="n" THEN
    630
600 DISPLAY AT(10,5):"DISK D
    RIVE? 2" :: ACCEPT AT(10,17)
    SIZE(-1)VALIDATE("1234"):D#
610 DISPLAY AT(12,5):"FILE N
    AME?": " :: ACCEPT AT(12,17)SI
    ZE(-10):RF#
620 OPEN #2:"DSK"&D#&". "&RF#
    ,DISPLAY ,VARIABLE 80 :: FOR
    I=1 TO 5 :: LINPUT #2:R$(I)
    :: NEXT I :: CLOSE #2
630 DISPLAY AT(4,5)ERASE ALL
    : "RETURN ADDRESS"
640 DISPLAY AT(6,5):"LINE 1:
    " :: DISPLAY AT(9,5):"LINE 2
    " :: DISPLAY AT(12,5):"LINE
    3:" :: DISPLAY AT(15,5):"LI
    NE 4:" :: DISPLAY AT(18,5):"
    LINE 5:"
650 DISPLAY AT(7,1):R$(1)::
    DISPLAY AT(10,1):R$(2):: DIS
    PLAY AT(13,1):R$(3):: DISPLA
    Y AT(16,1):R$(4):: DISPLAY A
    T(19,1):R$(5)
660 DISPLAY AT(22,4):"ANY CO
    RRECTIONS? (Y/N):N" :: ACCEPT
    AT(22,26)SIZE(-1)VALIDATE("
    YnN"):C#
670 IF C#="Y" OR C#="y" THEN
    680 ELSE 770
680 ACCEPT AT(7,1)SIZE(-28):
    R$(1):: ACCEPT AT(10,1)SIZE(
    -28):R$(2):: ACCEPT AT(13,1)
    SIZE(-28):R$(3):: ACCEPT AT(
    16,1)SIZE(-28):R$(4):: ACCEP
    T AT(19,1)SIZE(-28):R$(5)
690 DISPLAY AT(22,4):"ANY CO
    RRECTIONS? (Y/N):N" :: ACCEPT
    AT(22,26)SIZE(-1)VALIDATE("
    YnN"):C#
700 IF C#="Y" OR C#="y" THEN
    680
710 DISPLAY AT(23,4):"SAVE?
    (Y/N):N" :: ACCEPT AT(23,16)
    SIZE(-1)VALIDATE("YnN"):D#
720 IF D#="Y" OR D#="y" THEN
    730 ELSE 770
730 DISPLAY AT(5,5)ERASE ALL
    : "SAVE RETURN ADDRESS"
740 DISPLAY AT(7,5):"DISK DR
    IVE? 2" :: ACCEPT AT(7,17)SI
    ZE(-1)VALIDATE("1234"):D#
750 DISPLAY AT(9,5):"FILE NA
    ME?": " :: DISPLAY AT(10,5):RF#
    :: ACCEPT AT(10,5)SIZE(-10)
    :RF#
760 OPEN #2:"DSK"&D#&". "&RF#
    ,DISPLAY ,VARIABLE 80 :: FOR
    I=1 TO 5 :: PRINT #2:R$(I):
    : NEXT I :: CLOSE #2
770 RETURN
780 ! ENVELOPE SIZE
790 DISPLAY AT(7,7):"ENVELOP
    E SIZE?"
800 DISPLAY AT(10,2):"1 BUSI
    NESS (4 1/8 X 9 1/2)"
810 DISPLAY AT(12,2):"2 REGU
    LAR (3 1/2 X 6 1/2)"
820 DISPLAY AT(14,15):"1" ::
    ACCEPT AT(14,15)SIZE(-1)VAL
    IDATE("12"):EV#
830 IF EV#="1" THEN 840 ELSE
    850
840 E=40 :: L=4 :: GOTO 860
850 E=30 :: L=2
860 RETURN
870 SUB PROGENO
880 DISPLAY AT(5,5)ERASE ALL
    : "ANOTHER ENVELOPE?" :: DISP
    LAY AT(7,10):" (Y/N)?":Y" :: A
    CCEPT AT(7,17)SIZE(-1)VALIDA
    TE("YnN"):Z#
890 IF Z#="N" OR Z#="n" THEN
    900 ELSE 910
900 CLOSE #1 :: CALL CLEAR :
    : END
910 SUBEND

```

GEE*BEE BASICS

* CUSTOM SOFTWARE WITH A PERSONAL TOUCH *
13246 Harper Road
Strongsville, Ohio 44136

GEE*BEE BASICS is a newly formed company that will (we hope) fill a niche in the TI-99/4A user's world. There are many loyal users out there who realize the power of the 99/4A, but, for one reason or another, are unable to completely satisfy their personal home use needs with commercial or Public Domain TI-Basic / Extended Basic software. There are many of us who do not have either the time or the knowledge, or for that matter the interest, to sit down and customize or create a program on the TI-99/4A that will meet or satisfy our individual needs.

This is where GEE*BEE BASICS comes in. We are offering, for a VERY nominal fee, custom programing to suit your precise needs. We will enhance or revise existing Public Domain software, or create a custom routine or program just for you! Think about it. You may have said to yourself, "This program is pretty good, but I wish it would do just one more thing for me. I only wish I had the time or the know-how to make it do what I want it to do." For a base charge, depending on complexity, of \$2.50 per routine (eg. printer, data file recording, sorting, etc.), GEE*BEE BASICS will be at your service.

Just send your software requirements and one (1) blank 5 1/4" disk or cassette tape to GEE*BEE BASICS - 13246 Harper Road - Strongsville, Ohio 44136, and let us write something just for you! (There will be no obligation to pay the itemized billing if you are not satisfied with our product. All we ask is that you let us know what your dissatisfaction is. Of course, GEE*BEE BASICS would appreciate prompt payment if our efforts are satisfactory.)

Have you ever wished that you could tell the difference between the alpha character "O" and the numeric "0", or the alpha "1" and the numeric "1" while editing a program in Extended Basic. I've seen this program a number of times in the last couple of years, but always forgot to include it in our newsletter. Well here it is. You must have 32K memory exp. and Extended basic for this to run. Enter the following program and run it:

```
100 CALL INIT :: CALL LOAD(16128,2,224,38,0,2,0,8,17,2,1,63,36,2,2,0,3,  
4,32,32,36,2,224,131,192,3,128):: CALL LOAD(16164,240,240,240)
```

(Before you run it save it to cassette or disk for further use)

To turn this feature **ON** type in command mode (no line numbers), CALL LOAD(-31804,63) and when you wish to turn it **OFF**, CALL LOAD(-31804,0).

This will turn ALL NUMBERS and some symbols to WHITE and then you will be able to easily identify an "O" from a "0" or an "1" from a "1".

Last month I included a program TETRIS (TI version) as a key in effort. It will run as printed in the newsletter! There is one error at the very end of the program. Remove the "E" at the end of line 590. This causes a blue smudge on one of the shapes. Thank you.

The Computer Programmer

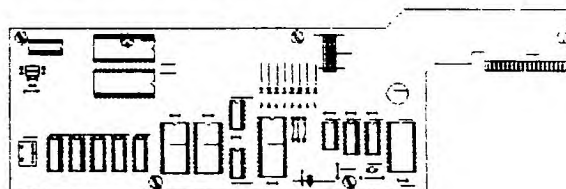
One who passes himself off as an exacting expert on the basis of being able to turn out, after innumerable debugs, an infinite series of incomprehensible answers calculated with micrometric precision from vague assumptions based on debatable figures taken from inconclusive documents of problematical accuracy by persons of dubious reliability and questionable mentality for the purpose of annoying and confounding a hopelessly defenseless department that was unfortunate enough to have asked for the information in the first place.

ANNOUNCING THE "INTERNAL BOARD"

The "Internal Board" AKA the "Zenoboard" is now in production. The PC board is being manufactured by one of the best quality manufacturers around. As promised, this board will allow you to build 32K memory, a clock circuit and add your extended basic and speech synthesizer to the interior of your console. Orders are now being accepted at a cost of \$17.50. Documentation will consist of approximately 8 pages of schematics, builders notes, parts list, software for the clock and parts placement overlay.

Specifications:

- * 32K STATIC RAM
- * battery-backed clock
- * speech synthesizer
- * extended basic
- * 3 additional, switched grom sockets
- * any circuit configuration can be used
- * requires no additional power
- * move your extended basic and speech synthesizer inside
- * eliminates nearly all lock-ups due to extended basic cartridge
- * in addition to soldering components connectors, only 12 additional wire connections have to be made to build a complete board
- * switches lights may be added to turn off any or all circuitry
- * grom reset switch
- * compatible with all other known hardware/software
- * circuit designs have been tested



Orders and technical questions/comments can be directed to:

Eric Zeno 414 Highland Rd., Pgh, PA, USA 15235 (412)371-4779

The boards are being manufactured in quantities of 100. Don't delay and get caught waiting for the subsequent manufacturing runs!

Small modifications must be made to the plastic on the inside of the console. Hand soldering skills are recommended.

Please allow sufficient time for delivery.

Overseas shipping may require additional invoicing.

Sorry no C.O.D., US currency only!

SHIPPING			QTY.	AMOUNT
USA	OTHER			
FIRST PC BOARD	\$2.50	\$8.00		
EACH ADDITIONAL BOARD	\$.50	\$6.75		
SHIPPING ADDRESS:			-TOTAL-	
NAME:	ERIC ZENO			
STREET:	414 HIGHLAND RD.			
CITY:	STATE:	ZIP:	PGH. PA. 15235	

EDITORS NOTE: You will supply ALL chips and parts for the above project They are NOT included in the \$17.50 price.

TI INTERNATIONAL EXPO 89

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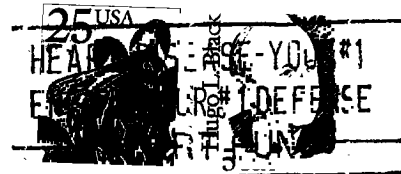
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Call the EXPO 89 Info Line: 301-340-7179

Delphi: TELEDATA - CIS 74405.1207

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