

CENTRAL TEXAS 99-4A

Central Texas  
99-4A  
1/19/86

USERS GROUP

THE PAPER PERIPHERAL

From the Presidents Corner

Greetings from your new president. First of all I want to introduce myself. I am Joe Pizzi. I got into computers during high school where I worked with them for two years. Then I attended U.T. majoring in Computer Science. Presently I work two jobs, neither of which is connected with computers, although at one I use one. Enough of that...

I would like to thank our past officers for their time and devotion to the group, with special thanks to Mike Schultz. Hopefully I (we) can continue and maybe (hopefully) improve the group. How about some more special interest groups? BASIC? Extended BASIC? Logo? PASCAL? Games? We also need volunteers for demonstrations at the meetings. Or how about just some ideas for demos? What do you think about a meeting where everyone brings in a piece of software and demonstrates it? We could continue this for several meetings, possibly, depending on participation.

Well so long for now, see 'ya at the meeting.  
Joe Pizzi

From the Business End of the Mailbox

Hello, hello, ello, o, o. Hello, hello, ello, o, o. Oh hi, hi, hi! I hate to tell you this, but the mailbox has been real empty this month, month, onth, th, th. So this what we have, plus some of last month's.

99"Fest-West"86 is being hosted by Los Angeles 99er Computer Group. It is being billed as the First Annual L.A. 99/4A Expo and is being held March 1st and 2nd 1986 in the Mezzanine level of the Shrine Exposition Hall; 700 West 32nd Street; Los Angeles, Ca. The time is 10 AM to 6 PM. There will be presentations, seminars, vendors, hardware, CompuServe, new products, mini-workshops, fairware, software, user groups, program video review area, and a communal meeting area. For early arrivals there will be Disneyland, Universal Studio Tour, Whale Watching. Advance admission is \$4.00 for both days, \$5.00 with a coupon which came with the letter. For more information, send SASE to: T.A. Masters, 148 S. Maple Drive, Beverly Hills, Ca 90212. (Gee I wish I could go!)

T.A.P.E.; 1439 Solano Place; Ontario, Ca 91761; has sent us a flyer about some of the products that they offer. Included are: 128K RAM card, \$159.95; 128K External with parallel printer interface, \$149.95; Mouse with icon screen graphics, \$98.00; 2.8 floppy quik disk drive, \$199.95; Extended BASIC II, \$79.95; 128K-Byte "GRAM-KARTE" (a GRAM-KRACKER type of device), price unknown, plus a book called "The Operating System of the 99/4A, with ROM, GROM, and GPL listing", \$17.95

Craig Deere; 8104 Forest Mesa; Austin, Tx 78759 has a system for sale. Call him at 346-2609 (home with recorder) and 837-8553 (work).

Mike Schultz

Central Texas 99/4A Users Group  
General Membership Meeting  
January 1986

The January 9, 1986 meeting of the Central Texas 99/4A Users Group was called to order at 7:20 in the Commissioner's Court Room of the Travis County Court house.

The first order of business was to elect new officers. The nominees were: Joe Pizzi, President; Al Caldwell, Vice President; Mike Schultz, Secretary; and Paul Dunn, Treasurer. The nominees were elected with only one dissenting vote. Putnam Monroe made the motion that the out going President, Mike Schultz, be given a round of applause for his efforts. The round was given. The new President, Joe Pizzi, then assumed control of the group.

The next order of business was to discuss the new meeting place for the group. Mike Schultz described the results of his research, and the group decided that the present location of the Commissioner's Court room to be more than adequate. The Secretary was instructed to get the room reserved for the rest of the year, except that the time should be from 7:00 PM to 10:00 PM.

The Secretary then read interesting items from the mailbox, since the mailbox article wasn't printed in the newsletter last month. Susan Donaldson discussed having a swap meet and hardware exchange. Paul Dunn then announced that the Users Group had diskettes for sale, \$7.00 for a box of 10.

The program for the evening was Ron Hanson. He is a friend of member Linda Oakes and worked in TI Lubbock on the /4A and /8 projects. He had REAL /8 for everyone to see and touch. He told several interesting stories about the life and times of the /8. It was a very interesting program and we thank Ron for his demonstration.

Mike Schultz  
Secretary

Central Texas 99/4a Users Group

WHO WE ARE:

We are a non profit organization whose membership is open to anyone interested in the activities of the group. All members pay annual dues of \$12 for individual and for family's are \$15. The membership year is Jan. - Dec. You are invited to attend a couple of meetings before deciding if you wish to join. OUR MEETINGS: Our meetings are on the second Thursday of each month, at 7:00 PM, in the county courthouse at the corner of 10th and San Antonio, on the second floor. Each meeting starts with club business and is followed by a demonstration or talk. The second meeting of the month is our special interest group, the assembly language SIG. Everyone is urged to share information on topics related to the TI 99/4A -- software review, hardware availability, programming tips, etc. MEMBERSHIP: You may join as an individual or as a family unit. Each membership "unit" has one vote in club matters and only one person from a "unit" may hold club office (on the other hand your entire family is invited to serve on club committees and participate at meetings and in meeting planning!). Our monthly newsletter is available to members at the first monthly meeting and is sent to those who don't attend. At meetings, you may buy C-10 cassettes for \$.75 each, 5 1/4 " disks for \$7 each box. We buy these items in bulk quantity and charge cost plus enough to keep several of each item in our library. OUR LIBRARY: Currently, our library is located at the librarian's house and will be available at each of our meetings. Our library has some TI command modules and 350 programs on disk and tape. Roughly half of the library's programs will run on just the console (some may require joysticks) and most of

the others only require the Extended Basic module. We have programs of all types( games, education, scientific, and business and household management) and we poll the membership's interests before purchasing more. Above all, we are a membership organization. We depend on everyone for directions the group should go and activities we should undertake. Join our group and share your ideas!

### MEMBERSHIP STUFF

#### WELCOME

I wish to welcome to our group the following new members:

Pat Blackman  
Tom Hare  
Tony Johnson  
Lon Fitzgerald

I wish to thank the following persons for renewing their membership:

Futnam Monroe  
William Feale Jr.  
Susan Donaldson  
J. Fowley Broaddus  
M.A. Manhart  
John Lesene  
Wendell Weatherford  
Mr. Ervin Jameson  
Don Lynch

And not to forget, Joe Pizzi (our NEW fearless leader)

I hope that all of this information is correct, but if it is not I am sure somebody will let me know.

### TIME AGAIN FOR THE RENEWALS

The following persons will be expiring this month, and will not be getting a newsletter next month.

Carl Brininstool  
Paul Calmes  
Michael Lynn Jones  
Michael Killian  
James W. Knox  
Patrick O'Donnell  
Roland Starr  
Wayne Talbot  
Brenda Gale Webb

Thanks again,  
Mark

### 3-D TIC-TAC-TOE

This one will sneak up on you. It's a 4x4x4 tic-tac-toe game that's a real challenge to beat (but it can be beaten). The original game was written in Fortran (but not by me). I tried rewriting it in Basic for the 4A but discovered that it took over 30 minutes for the computer to decide on its third move. After verifying that everything was working properly, I decided that this brute force algorithm was too much for the 4A's interpreted Basic interpreter.

Recently, however, while avoiding other things I should've been doing, I converted it to Forth. Since I couldn't find the Fortran listing, I had to convert it from the converted Basic, so the readability suffered somewhat but here it is. Yes, ALL the numbers must be keyed in CORRECTLY (otherwise it cheats). Improvements? How about a way to back out the last move; or start over before a game is complete; or maybe a dump of the moves in order to help see where you made your mistake.

The first screen is thrown in for the IDL word, which is useful to track down crashes when compiling screens; it just displays the number of the screen being loaded. The other words aren't used here but are nice to have sometimes. Enjoy.

Dave Wolfe

#### Screen #6

```
0 ( Misc things ) 0 CLOAD SFLUSH BASE->R HEX
1 CODE PICK C019 , A000 , A009 , C650 , 045F ,
2 CODE ROLL C079 , A041 , A049 , 0641 , C011 , 0641 ,
3       C851 , 0002 , 8049 , 1AFB , C640 , 045F ,
4 CODE <CMOVE C039 , C0B9 , C079 , C000 , 1307 , A040 , A080 ,
5       0601 , 0602 , D491 , 0600 , 16FB , 045F ,
6 : DEC DECIMAL ;
7 : E-B EMPTY-BUFFERS ;
8 : IDL CR ." Loading " BLK @ . ;
9 : SFLUSH DISK_LO @ 0 DISK_LO ! FLUSH DISK_LO ! ;
10 R->BASE
11
12
13
14
15
```

Screen #152

```

0 ( 3-D Tic Tac Toe ) 0 CLOAD TTT3D BASE->R DECIMAL 51 52 R->BASE
1 CLOAD GRAPHICS CLOAD TEXT IDL BASE->R DECIMAL : MARKER ;
2 4 VARIABLE ROW 22 , 43 , 64 , 01 , 23 , 42 , 61 , 04 , 26 ,
3 39 , 52 , 13 , 27 , 38 , 49 , 16 , 22 , 42 , 62 , 02 , 23 ,
4 43 , 63 , 03 , 33 , 38 , 53 , 08 , 27 , 42 , 57 , 12 , 26 ,
5 38 , 50 , 14 , 27 , 39 , 51 , 15 , 22 , 39 , 56 , 05 , 26 ,
6 43 , 60 , 09 , 22 , 38 , 54 , 06 , 23 , 39 , 55 , 07 , 26 ,
7 42 , 58 , 10 , 27 , 43 , 59 , 11 , 22 , 23 , 24 , 21 , 26 ,
8 27 , 28 , 25 , 22 , 26 , 30 , 18 , 23 , 27 , 31 , 19 , 22 ,
9 27 , 32 , 17 , 23 , 26 , 29 , 20 , 38 , 39 , 40 , 37 , 42 ,
10 43 , 44 , 41 , 38 , 42 , 46 , 34 , 39 , 43 , 47 , 35 , 38 ,
11 43 , 48 , 33 , 39 , 42 , 45 , 36 , 61 , 01 , 21 , 41 , 64 ,
12 04 , 24 , 44 , 49 , 04 , 19 , 34 , 61 , 16 , 31 , 46 , 49 ,
13 13 , 25 , 37 , 52 , 16 , 28 , 40 , 52 , 01 , 18 , 35 , 64 ,
14 13 , 30 , 47 , 49 , 01 , 17 , 33 , 52 , 04 , 20 , 36 , 61 ,
15 R->BASE -->

```

Screen #153

```

0 ( 3-D Tic Tac Toe cont. ) IDL BASE->R DECIMAL
1 13 , 29 , 45 , 64 , 16 , 32 , 48 , 04 , 01 , 02 , 03 , 16 ,
2 13 , 14 , 15 , 13 , 01 , 05 , 09 , 16 , 04 , 08 , 12 , 16 ,
3 01 , 06 , 11 , 13 , 04 , 07 , 10 , 52 , 49 , 50 , 51 , 64 ,
4 61 , 62 , 63 , 61 , 49 , 53 , 57 , 64 , 52 , 56 , 60 , 64 ,
5 49 , 54 , 59 , 61 , 52 , 55 , 58 , 18 , 34 , 50 , 02 , 19 ,
6 35 , 51 , 03 , 21 , 37 , 53 , 05 , 24 , 40 , 56 , 08 , 25 ,
7 41 , 57 , 09 , 28 , 44 , 60 , 12 , 30 , 46 , 62 , 14 , 31 ,
8 47 , 63 , 15 , 06 , 07 , 08 , 05 , 10 , 11 , 12 , 09 , 06 ,
9 10 , 14 , 02 , 07 , 11 , 15 , 03 , 18 , 19 , 20 , 17 , 30 ,
10 31 , 32 , 29 , 21 , 25 , 29 , 17 , 24 , 28 , 32 , 20 , 34 ,
11 35 , 36 , 33 , 46 , 47 , 48 , 45 , 37 , 41 , 45 , 33 , 40 ,
12 44 , 48 , 36 , 54 , 55 , 56 , 53 , 58 , 59 , 60 , 57 , 54 ,
13 58 , 62 , 50 , 55 , 59 , 63 , 51 ,
14 R->BASE -->
15

```

Screen #154

```

0 ( 3-D Tic Tac Toe cont. ) IDL BASE->R DECIMAL
1 22 VARIABLE WAIT 43 , 23 , 42 , 26 , 39 , 27 , 38 , 01 ,
2 64 , 13 , 52 , 04 , 61 , 16 , 49 , 22 , 43 , 23 , 42 ,
3
4 3 VARIABLE TEST 04 , -1 , -1 , 15 , -1 , -1 , 03 , -1 , -1 ,
5 10 , 10 , -1 , 10 , 05 , 10 , 02 , 02 , -1 , 02 , 01 , 02 ,
6 02 , 01 , 01 , 02 , 00 , 02 , 05 , 05 , 10 , 05 , 05 , 05 ,
7 05 , 00 , 10 , 05 , 00 , 05 , -1 , -1 , -1 ,
8
9 0 VARIABLE MOVES 62 ALLOT 0 VARIABLE SUM 150 ALLOT
10 0 VARIABLE J1 0 VARIABLE J2 0 VARIABLE J4
11 0 VARIABLE M1 0 VARIABLE M2 0 VARIABLE KK
12 0 VARIABLE T0 0 VARIABLE T1 0 VARIABLE T2
13 0 VARIABLE GAME
14 R->BASE -->
15

```

## Screen #155

```

0 ( 3-D Tic Tac Toe cont. ) IDL BASE->R DECIMAL
1 : ARRAY2 ( row col adr -- n ) ROT OVER @ * ROT + DUP + + 2+ @ ;
2 : ARRAY ( col adr -- n ) SWAP DUP + + @ ;
3 : BOX- ( col row -- ) GOTOXY ." !-!-!-!-!" ;
4 : BOX! ( col row n -- ) >R GOTOXY R> ." ! ! ! ! !" ;
5 : BOX ( col row n -- ) >R OVER 3 + OVER GOTOXY ." Level " R> .
6   5 1 DO 1+ OVER 2+ OVER BOX- 1+ OVER OVER I BOX! LOOP
7   1+ OVER 2+ OVER BOX- 1+ SWAP 3 + SWAP GOTOXY ." 1 2 3 4" ;
8 : INIT MOVES 64 ERASE 0 KK ! 0 GAME !
9   CLS 4 0 DO I 2 MOD 15 * 3 + ( compute box column )
10  I 2 / 12 * I 1+ BOX LOOP ( compute box row & draw )
11  2 23 GOTOXY ." Your move?" 18 23 GOTOXY ." My move=" ;
12 : CRACK-MOVE ( n -- l r c ) 16 /MOD 1+ SWAP 4 /MOD 1+ SWAP 1+ ;
13 : MARK-MOVE ( n c -- ) >R CRACK-MOVE ROT DUP 1- 2 MOD 15 * 4 +
14   ROT DUP + + SWAP 1- 2 / 12 * ROT DUP + + GOTOXY R> EMIT ;
15 R->BASE -->

```

## Screen #156

```

0 ( 3-D Tic Tac Toe cont. ) IDL BASE->R DECIMAL
1 : DISPLAY-MOVE ( n -- ) CRACK-MOVE 26 23 GOTOXY ROT 48 + EMIT
2   SWAP 48 + EMIT 48 + EMIT ;
3 : MARK-WIN 4 0 DO M1 @ 1- I ROW ARRAY2 1- 42 MARK-MOVE LOOP ;
4 : GET-MOVE ( -- n ) 13 23 GOTOXY ." LRC" 0 0 52 GPLLNK
5   BEGIN DROP BEGIN DROP 0 13
6     BEGIN DUP 23 GOTOXY DUP 16 < WHILE
7       KEY DUP 5 = IF TEXT QUIT
8       ELSE DUP 15 < IF DROP DROP 13
9       ELSE DUP 49 < OVER 52 > OR IF DROP 54 GPLLNK
10      ELSE DUP EMIT 49 - ROT 4 * + SWAP 1+
11      ENDIF ENDIF ENDIF
12    REPEAT DROP
13    KEY 13 = UNTIL DUP MOVES + DUP C@ DUP IF 54 GPLLNK ENDIF
14    0= UNTIL 1 SWAP C! ;
15 R->BASE -->

```

## Screen #157

```

0 ( 3-D Tic Tac Toe cont. ) IDL BASE->R DECIMAL
1 : PICK-MOVE 0
2   14 0 DO I 0 TEST ARRAY2 DUP 0< IF DROP ELSE TO ! I J1 !
3     I 1 TEST ARRAY2 T1 ! I 2 TEST ARRAY2 T2 !
4   76 0 DO I SUM ARRAY TO @ = IF J1 @ 2 <
5     IF I 1+ M1 ! 1+ LEAVE ELSE I J2 !
6   4 0 DO J2 @ I ROW ARRAY2 DUP M1 ! 1- MOVES + C@ 0=
7     IF T1 @ 0< IF 1+ LEAVE ELSE
8   76 0 DO I SUM ARRAY T1 @ = IF I J2 @ = 0= IF I J4 !
9     4 0 DO J4 @ I ROW ARRAY2 M1 @ = IF T2 @ 0< IF 1+ LEAVE ELSE
10    4 0 DO J4 @ I ROW ARRAY2 DUP M2 ! 1- MOVES + C@ 0= IF
11    76 0 DO I SUM ARRAY T2 @ = IF I J2 @ = 0= IF I J4 @ = 0= IF
12    4 0 DO J I ROW ARRAY2 M2 @ = IF 1+ LEAVE ENDIF LOOP
13 [ R->BASE --> ]
14
15

```

Screen #158

```
0 ( 3-D Tic Tac Toe cont. ) [ IDL BASE->R DECIMAL ]
1     ENDIF ENDIF ENDIF DUP IF LEAVE ENDIF LOOP
2         ENDIF DUP IF LEAVE ENDIF LOOP
3     ENDIF ENDIF DUP IF LEAVE ENDIF LOOP
4     ENDIF ENDIF DUP IF LEAVE ENDIF LOOP
5     ENDIF ENDIF DUP IF LEAVE ENDIF LOOP
6     ENDIF ENDIF DUP IF LEAVE ENDIF LOOP
7     ENDIF DUP IF LEAVE ENDIF LOOP
8     0= IF 0 M1 ! ENDIF ;
9 : SUM-MOVES 76 0 DO SUM I DUP + + 0 OVER !
10  4 0 DO MOVES J I ROW ARRAY2 1- + C@ OVER +! LOOP DROP LOOP ;
11 : DRAW-MOVE ( -- n ) 20 KK @ DO I WAIT ARRAY DUP 1- MOVES + C@
12  IF DROP ELSE M1 ! LEAVE ENDIF 1 KK +! LOOP ;
13 : ON -31788 C@ 64 OR DUP -31788 C! 1 VWTR ;
14 R->BASE -->
15
```

Screen #159

```
0 ( 3-D Tic Tac Toe cont. ) IDL BASE->R DECIMAL
1 : TTT3D GRAPHICS BEGIN INIT
2     BEGIN GET-MOVE 88 MARK-MOVE 26 23 GOTOXY 3 SPACES
3     SUM-MOVES PICK-MOVE ON J1 @ 1 > IF M1 @ 1 <
4     IF DRAW-MOVE M1 @ 1 < IF 3 GAME ! ENDIF ENDIF
5     GAME @ 0= IF M1 @ 1- 5 OVER MOVES + C!
6     DUP 48 MARK-MOVE DISPLAY-MOVE ENDIF
7     ELSE MARK-WIN J1 @ 1+ GAME ! ENDIF
8     GAME @ UNTIL
9     2 23 GOTOXY 28 SPACES 10 23 GOTOXY
10    GAME @ CASE
11      1 OF ." YOU WIN!" ENDOF
12      2 OF ." I WIN!" ENDOF
13      3 OF ." TIE GAME" ENDOF
14    ENDCASE KEY 5 = UNTIL TEXT ;
15 R->BASE
```

Assembly Language  
Special Interest Group  
Meeting Date : January 15, 1985

The meeting was called to order at 7:00 pm. Members present were: Craig Dunn, Foley Broaddus, Joe Pizzi, and Foleys grandson (sorry I forgot his name). The main topics discussed were:

- #1 the Ultimate counter, which would count to 10,000 in 0.8 seconds! Whew!
- #2 How to convert from a dis/fix 80 file to a E/A option #5 ,run program file.
- #3 Briefly demonstrated a few assembly language games.
- #4 Demonstrated the use of a disk sector editor program.

The meeting was adjourned about 9:00 pm. I wish to thank all that attended for a very nice meeting

Mark Milam

### Classified Ads

HAS YOUR P-BOX BEEN TOO NOISY? Well, it isn't too loud you say? WHAT'S THAT? I CAN'T HEAR YOU OVER THE P-BOX! Has this ever happened to YOU? If it has (or even if it hasn't but you're tired of the LOUD fan in your P-Box) I can help. I will replace your fan with a new QUIET fan for only \$30.00 . Now you may note that the price has increased. That is because installing these beauties for so many people the last few months has used up my original supply. After searching high and low for a new source I am forced to buy new fans (not used ones) at 4 times the cost. My installation charge remains the same. I am just trying to help out my fellow 4A'ers, so if you are interested call:

Mark Milam , 836-3301 after 6:00 pm  
Or leave a message on The Hideout(BBS) 339-1822

WANT TO ADD 32K BUT DON'T HAVE A P-BOX? For a mere \$35.00 I'll put 32k directly into your console. You supply console and cash and I'll do the rest. Call Mark at 836-3301 after 6:00 PM or drop me a note,

Mark Milam ,4203 Yucatan,  
Austin, Texas 78727-5967

### Commercial Ads

Commercial advertisements are welcomed by our newsletter. This newsletter can provide a select, specialized audience for advertisers. Advertisements also help our group by offsetting the printing and mailing costs of the monthly newsletter. Any advertisement must arrive by the first of the month to be included in that month's newsletter.

The cost of placing a full-page ad is \$20. The cost of a half-page ad is \$10. The ad should be camera (actually photocopy) ready. Some flexibility is allowed in the size of half- and full-page ads--but let's not overdo it!

Classified ads are free to individuals both members and non-members. Send your ads to Central Texas 99/4A Users Group; Box 200246; Austin, Texas 78720-0246

### Current Officers

<b>President</b>	Joe Pizzi	444-6829
	1300 S.Pleasant Valley Rd., #121, Austin, Texas 78727	
<b>Vice President</b>	Al Caldwell	327-8462
<b>Treasurer</b>	Paul Dunn	258-4308
<b>Secretary</b>	Mike Schultz	835-2377
<b>Librarian</b>	Mark Milam	836-3301
<b>Newsletter Editor</b>	Mark Milam	836-3301

Correspondence for the Users Group can be sent to the address given for the President, or to the Central Texas 99/4A Users Group; Box 200246; Austin, Texas 78720.

### Meetings Calendar

The following is a list of the currently scheduled meetings.

February 13	March 13	April 10
May 8	June 12	July 10
August 14	September 11	October 9
November 13	December 11	

This month's meeting is scheduled to be held in the Commissioner's Court Room on the second floor of the Travis County Courthouse annex, which is at 10th and San Antonio, in Austin Texas. (Whew!)

Meetings start at 7:00 PM and last until they throw us out!

The Assembly Language SIG is held the Wednesday following the general meeting.

### Newsletter Exchange

Our users group exchanges newsletters with several other recognized 99/4A Users Groups. The exchange is made with the understanding that, with proper credit to both the newsletter and author (if listed), your users group can reprint articles from our newsletter and, with proper credit, we can reprint articles from exchanged newsletters. (Please feel free to correct any typos, misspelling, bad grammar, etc.; we will do the same.)

Please send your exchange newsletters to:

Central Texas 99/4A Users Group  
P.O. Box 200246  
Austin, Texas 78720-0246

Revision Calendar

The following is a list of the currently scheduled meetings.

January 12	February 12
March 12	April 12
May 12	June 12
July 12	August 12
September 12	October 12
November 12	December 12

The meeting is scheduled to be held at the Commodore's Club  
 located at the intersection of the University Boulevard and  
 and San Antonio, Austin, Texas. The meeting is scheduled  
 for the 12th of each month and last night they were held  
 at the Commodore's Club. The meeting is held the 12th of each  
 month.

Our users will be notified by mail of any changes in the  
 meeting schedule. If you have any questions, please contact  
 the user group and we will be happy to help you. The user  
 group is located at the intersection of the University Boulevard  
 and San Antonio, Austin, Texas. Please call us at 787-0246  
 or write to us at P.O. Box 200246, Austin, Texas 78720-0246.

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Central Texas 99/4A Users Group  
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Edmonton 99'er Computer UG  
 P.O. Box 110007