THE MINUTES OF THE APPLE USERS GROUP MEETING

The Apple User's Group held their February meeting on Friday the 11th at the Southwestern Public Service center at 7:30 p.m.. Dean Powell spoke to the group about continuing our policy of frowning on software piracy and staying within the public domain software as we have been in the past. He said that we should increase our interaction with other clubs and see if we can reach a point where we have disks to offer in trade to other clubs instead of just getting disks from International Apple Corps. Dean asked the group to look for some people who would be willing to give programming classes, perhaps at beginner and intermediate levels. He said that we should plan to hold a computer fair this Spring and that we should continue to have demonstrations at meetings. Dean concluded by suggesting that the group elect Rob Darko as the head of the group and turned the meeting over to Rob.

Someone moved that they elect Rob, there were several seconding motions and Rob Darko was unanimously elected. Rob then announced that Brad Cottingham had brought a Transtar 130 printer to demonstrate. He then said that he had received a letter from Robin Cox, formerly of our club, and that Robin had asked our club to support the Houston Apple clubs candidate, Mike Kramer, in the coming International Apple Corps elections. Darko said that the nominations would close April 5th and that the group would need to vote on the nominations at the March meeting. Rob said that we would get data sheets on each of the candidates from I.A.C.

Rob had made up some information sheets for the members to fill out so that we could find out the most common areas of interests and equipment and then plan future activities accordingly.

THE MINUTES OF THE 99/4 USER'S GROUP MEETING

The /4 user's group held their meeting on Saturday, February 12th, in room 207 of the Lubbock Christian College Administration building where there are 11 systems set up. Dean Powell asked about what activities the group was interested in and about programming skill levels. Aaron Thorne asked about Assembly language classes and Dean said that we would get to that later. Dean handed out some coding sheets that he uses for graphics programming.

Dean then talked about club dues, $20 the first year and $15 each year after that in January, so that we can form a budget for the year. He said that he wanted to start a policy of only sending the newsletter to paid members. Dean and Brett Pijan then spent some time collecting dues and having the group fill out information sheets that Dean had made up.

Dean talked about Scott Tooke of our club and Anne Plenderleith of Perth, West Australia, who Brett received a disk from last month, and said that the club should continue its help to young people with cerebral palsey and other handicaps. Dean demonstrated Anne's music programs and some music programs by Sam Moore.

Dean talked about sending disks and programs to Oklahoma City and Torrence California. He said that Charles Laferra of the National Users Group in Oklahoma City will trade 4 programs for 1 and that the International Home Computer Users Group in Torrence will trade 5 programs for 1.
Dean then demonstrated a Design Logic educational 'Aliens' game that requires the student to pick the correct answer to an arithmetic problem before they can shoot the invaders. He said that the group might get involved in educational programs and have other classes on things such as Logo and TI-Writer.

The group then split up into 2 classes with Dean holding an intermediate class on file structures and handling, file access techniques, and multiple file programming and Brett Pijan held a beginning programming course which started out on the Dragons Cave 3-D graphics game. Both classes will be continued at the next users group meeting on Saturday March 12th at 1:00 p.m. in the LCC /9 lab, room 207.

THE MINUTES OF THE GENERAL CLUB MEETING

The Lubbock Computer Club held its February meeting on Friday, February 18th at the Southwestern Public Service center at 8:00 p.m. Dean announced that the next TRS-80 and Apple group meeting will be on March 4th at SWPS, the first Friday night of March, at 7:30 p.m.; the Osborne group will have the SWPS building on the 2nd Friday, March 11th; and the /4 group will meet on Saturday, March 12th at LCC. The next general club meeting will be held on March 18th at SWPS at 7:30. Dean said that he will be at the West Coast Computer Fair that weekend so he won't be able to preside at the meeting.

Dean brought some literature from various sources and had put the pamphlets, advertisements, catalogs and newsletters on a table for everyone to look through.

Dean talked about the club putting together a Spring computer fair. He explained some of the things involved in getting a place, setting up partitioned areas for exhibitors, and getting the exhibitors lined up to show their wares. Bob McClusky moved that the club have a fair, Brett Pijan seconded the motion and the club voted to pass the motion. Bob and Brett volunteered to serve on the Fair committee and they were joined by Chris Tewes, Lynn Watson, and Forrest Behrens. The committee decided to meet at Lynn's on Saturday, February 19th, at 2:00 p.m.

Brett Pijan then asked the club how they felt about upgrading the newsletter by trying to get advertising at a suggested rate of $25 for a quarter page, 4 inches wide by 5 inches long and paying people $25 for a one page original article. Dean moved that we upgrade the newsletter and Rob Darko seconded the motion, which carried unanimously with the members. We will have to do some experimenting as to format and contact local vendors concerning ad in the newsletter and perhaps demonstrations at meetings.

The business portion of the meeting was then adjourned.

For our club program, Rob Darko demo'ed TI's new Compact Computer 40. Rob has been working on this project at TI and is understandably pround of the small (about 10"x5") portable computer. The CC40 will retail for about $250, run a subset of /4 Basic, has a slot for small modules, and static rams that will hold a program even after the machine is turned off. Rob said that the CC40 uses a TMS7020 processor, has a 6K memory which may be expanded to 18K, a 31 character wide LCD display which can be scrolled over to 80 columns and up and down by using the arrow keys. The CC40 also has user definable function keys. It can be programmed in TMS7020 Assembly language. Rob feels that this is a good machine for people who are interested in a very portable system.

Dean then showed the club TI's new 99/2, a computer about half the size of the 99/4, that uses a TMS9995 processor that is very fast. He said that the 99/2 will have about 4.2K and uses a version of Basic that was rewritten in Assembler instead of Graphics Proramming Language. The 99/2 has no graphics or color, and is aimed at beginning programmers. The 99/2 will have a Hex Bus that will allow programs to be uploaded to a 99/4. Probably its most interesting feature is the Wafer Tape; a tiny cassette that can hold 50K and from which the 99/2 can seek and load a program typically in 20 seconds.

A REPORT ON THE SPRING COMPUTER FAIR
by Brett Pijan

The Spring Computer Fair committee met at Lynn Watson's on February 19th. Besides Dean, myself, and Lynn, there was Forrest Behrens, Bob McClusky, Chris Tewes, Rob Darko, and Aaron Thorne. We decided to call the fair "SHOW AND TELL" and decided to stay with our regular club theme of being open to any kind of personal computers. We discussed trying to show and tell about personal computer use in the home, word processing, education, and finance. Lynn and Forrest said that they might be able to show how the personal computer can allow people to check on markets and conduct business transactions from the comfort of their own home. We discussed the various problems that the club would face in putting the fair together. Our primary problem was where to have it. We decided that in order to accommodate 20 to 30 exhibitors we would need between 5000 and 6000 square feet of space. This includes partitioned areas 10 feet by 10 feet and adequate electrical facilities. Several places were suggested and during the next week I found that we could get a portion of the Civic Center banquet room for $450 a day, Dean found that we could get the Merchants building at the fairgrounds for $300 a day and Forrest found that we could get the All Saints School Gym for FREE ! This is an area big enough for two basketball courts and should be a great place to have "SHOW AND TELL".

The committee thought that the first week in May would be a good time for the Spring Computer Fair. I contacted Steve Moss, the promoter of the annual Tornado Jam, and he told me that the Jam is planned for Saturday, May 7th. He felt that people who were just curious and looking for someplace to go would be at his event and that we should try the next week, May 14th. Steve was interested in our club project and made several good suggestions such as charging a minimal door fee and offering a personal computer as a door prize, contacting all of the radio an television stations in Lubbock because they would probably be interested in helping a local club project such as ours, and having 50 -100 video arcade machines set up and getting a percentage of the days profits. The committee decided to go with the May 14th date, as this does not conflict with any other local events or national computer fairs. We decided to charge $1 per person and give away either the new TI99/2, if available, or a TI99/4 as a doorprize. We also decided that it was a good idea to contact the local radio and TV stations although nobody was too sure if they wanted to appear on television. The committee turned down the idea of having arcade games although we did discuss letting Carl Beck, who owns a local arcade company, have perhaps 6 machines set up in another room at All Saints and perhaps having a machine open on display so that curious people could see what is inside that type of computer. We will discuss this subject at the next general club meeting.

I spoke to Pat Bentley of TI's marketing department about "SHOW AND TELL" and he indicated that they would be interested in exhibiting, especially since it does not conflict with their busy schedule during the Spring. I also discussed the Fair with several other people who have small computer related businesses in town and a couple of them offered to put up the $50 then. So it looks like we are getting some interest from local exhibitors.

Our biggest problem now is manpower. Although the partitions are available from the Chamber of Commerce, we will need people to start setting them up at 8:00 a.m. in order to get the Spring Computer Fair open by 10 o'clock. We will also need warm bodies to man the entry points and the club sponsored booths until 6:00 p.m. when we close "SHOW AND TELL". Then we will need more strong backs to help take the partitions down and clean up. Any way you look at it, it spells WORK. However, there is a bright side; this is shaping up to be the best event that this club has ever put together and everyone who takes part in it will know that they worked hard to do something great.

The Lubbock Computer Club has recently decided to add the meeting of its various user-groups to its monthly agenda. Although this approach has been tried before I feel that we are of sufficient numbers to make this system work. As of now it is still a little unclear as to when we will meet regularly. The Apple user group had planned to meet the friday before the regular club date, but a conflict has arisen and we will meet 2 weeks before the regular meeting this month. Our first order of business this month will more than likely be about meeting dates. One of the topics discussed at our last meeting was that of learning how to program, specifically in BASIC. I neglected to find out what level of skill everyone has in this area, therefore we will need to discuss how to set up these sessions and what topics to cover. If some of you feel that you would rather learn about something other than BASIC then let me know. I am sure we can arrange to learn Pascal, Assembler or some other topic. We also discussed our backing of Mike Kramer for the I.A.C. directorship for our district. Our club seconded the nomination, of Mike Kramer, made by the Houston Area Apple Users Group. I feel by continuing to back Mike we will gain a stronger voice in the I.A.C. affairs. However, this is still up to all of you. We will vote on this at the March user-group meeting. The other two candidates are David Veeneman of the Louisville Apple User Group, and Kent Wilbur of Applejacks in St. Louis. All three candidates' nomination forms are available for anyone interested.

I feel that some of you out there may not be aware of all of the benefits that the club offers. First of all there is the International Apple Corps. The Lubbock Computer Club has been a member of this organization for almost two years now. The membership provides us with public domain software, newsletters, a bi-monthly magazine, discounts on products, and a lot of documentation on hardware and software. I am going to try to make all of these resources as accessible as possible. The public domain software will be at every meeting and a list of their catalogs will be there also. I will also bring the "APNOTES" and some of the other info. that we have. All of this is meant for you and you should feel free to copy any of the software or literature that you desire. We need some input from you, however, to assemble some of our own public domain software. I sure would like to send a disk full of programs to the I.A.C. and have it published as their disk of the month. Don't be worried about how trivial the program may seem to you, it could be very helpful to someone else.

An article from Call-A.P.P.L.E. should appear in this newsletter. It deals with the problem of the RND function in Applesoft. The problem with the function is that it repeats a series of numbers after a relatively short period of time. This can cause some problems for some programs. The solution from Call-A.P.P.L.E. uses the USR function. I have tried it and I am quite impressed with it. The program is located at $300 (768 decimal), but it can be relocated using an assembler. The hex dump is also provided so that you can poke it in if you want. Well this is enough for now, and it should make Brett happy to be able to print it out. Oh, by the way, where are everyone else's articles?

```
          10    *            USRND                *
          16    *  A random-number generator      *
          17    * for 48k ROM or L/C Applesoft     *
          12    * .           by                  *
          13    *   Tom Hare, John Russ, Gary      *
          14    *  Faulkner, and David Sparks      *
          19    * Call -A.P.P.L.E. :Jan. 1983     *
          25    * The following machine language program is
          26    * relocatable, but is shown here assembled
          27    * to reside at $300. It is "hooked" into the
          28    * Applesoft USR function when it is BRUN
          29    * The calling format is (eg.) X= USR(A)
          30    * if A is 1 the value will be a real number
          31    * between 0 and 1 (the ususal form for random
          32    * numbers). If A is a positive number greater
          33    * than 1, an integer 0...(A-1) is returned
          35    * Arguments between 0 and 1 always return 0, and
          35    * arguments < 0 are rejected (error message).
          36    * RND (0) returns the previous value.
          38    * The algorithm for the random number generator
          39    * starts with a seed value S and upon each
          40    * call calcualtes a new seed value
          41    * S' = (8192 * S) MOD 67099547
          42    * Each random number is taken as the seed
          43    * value divided by 67099547. This method
          44    * will pass even quite exacting tests for
          45    * "Randomess", and is strongly recommended
          46    * as an alternative to the Applesoft RND function
          47    * The original algorithm, which is used in some
          48    * large computer programs, was introduced to
          49    * us by Gary Faulkner, Dept. of Physical and
          50    * Mathematical Sciences, North Carolina State
          51    * University. It was first programmed in BASIC
          52    * and subsequently in machine language by Tom
          53    * Hare, School of Engineering, NCSU. His program
          54    * was refined further by John Russ (Engineering
          55    * Research, NCSU) and David Sparks (Call-APPLE
          56    * staff writer). The accompanying article describes
          57    * the method and several tests of this and other
          58    * random number generators.
          60             ORG    $2F4        ;A convenient location
02F4: A9 4C   62          LDA    #$4C        ;"JMP"
02F6: 85 0A   63          STA    $0A         ;The USR vector
02F8: A9 0F   64          LDA    #<RANDOM    ;Program address
02FA: 85 0B   65          STA    $0B
02FC: A9 03   66          LDA    #>RANDOM    ;Hi byte too
02FE: 85 0C   67          STA    $0C
0300: A0 04   68          LDY    #4          ;Use the 4 bytes from
0302: B9 C9 00 69  INITR  LDA    $C9,Y       ;Applesoft's RND seed
0305: 39 BC 03 70         AND    MASK-1,Y    ;to create our seed
0308: 99 B8 03 71         STA    BYT1-1,Y    ;(which may not exceed
030B: 88      72          DEY                ;the magic 67099547)
          73    *NOTE: this means that the random number
          74    * generator can be seeded by rnd (-N) and CALL 768
030C: D0 F4   75          BNE    INITR
030E: 60      76          RTS
          77    *
030F: A5 9D   78  RANDOM  LDA    $9D         ;check for 0
0311: F0 50   79          BEQ    DIVIDE      ;return last one
0313: A5 A2   80          LDA    $A2         ;check positive
0315: 10 03   81          BPL    SAVE
0317: 4C 99 E1 82         JMP    $E199       ;"ILLEGAL QUANTITY"
          83    *
```

```
031A: A0 03       84    SAVE     LDY   #>RANGE      ;save the argument
031C: A2 C1       85             LDX   #<RANGE      ;using the Applesoft
031E: 20 2B EB    86             JSR   $EB2B        ;move FAC->mem. subr.
0321: A2 F3       87             LDX   #$F3         ;-13 into counter
0323: 0E B9 03    88    SUBLOOP  ASL   BYT1         ;shift the seed 13
0326: 2E BA 03    89             ROL   BYT2         ;times to multiply
0329: 2E BB 03    90             ROL   BYT3         ;by 8192
032C: 2E BC 03    91             ROL   BYT4
032F: 38          92             SEC                ;and try to subtract
0330: AD B9 03    93             LDA   BYT1         ;67099547 to perform
0333: E9 9B       94             SBC   #155         ;the MOD function
0335: 48          95             PHA                ;NOTE- the values
0336: AD BA 03    96             LDA   BYT2         ;shown are the floating
0339: E9 DB       97             SBC   #219         ;point representation
033B: 48          98             PHA                ;of the number. The
033C: AD BB 03    99             LDA   BYT3         ;difference is saved
033F: E9 FF       100            SBC   #255         ;on the stack for now
0341: 48          101            PHA
0342: AD BC 03    102            LDA   BYT4
0345: E9 03       103            SBC   #3
0347: 48          104            PHA
0348: 90 12       105            BCC   LESS         ;branch if < 67099547
034A: 68          106            PLA                ;otherwise replace
034B: 8D BC 03    107            STA   BYT4         ;the seed value
034E: 68          108            PLA                ;with the MOD result
034F: 8D BB 03    109            STA   BYT3         ;which we cleverly
0352: 68          110            PLA                ;saved on the stack
0353: 8D BA 03    111            STA   BYT2         ;while testing
0356: 68          112            PLA
0357: 8D B9 03    113            STA   BYT1
035A: B0 04       114            BCS   INCR         ;forced branch
035C: 68          115    LESS     PLA               ;gotta clean up
035D: 68          116            PLA                ;the stack
035E: 68          117            PLA
035F: 68          118            PLA
0360: E8          119    INCR     INX               ;increment counter
0361: D0 C0       120            BNE   SUBLOOP      ;and keep shifting
0363: A9 03       121    DIVIDE   LDA   #3          ;place 67099547
0365: 85 9E       122            STA   $9E          ;into FAC
0367: A9 FF       123            LDA   #255
0369: 85 9F       124            STA   $9F
036B: A9 DB       125            LDA   #219
036D: 85 A0       126            STA   $A0
036F: A9 9B       127            LDA   #155
0371: 85 A1       128            STA   $A1
0373: A9 00       129            LDA   #0
0375: 85 A2       130            STA   $A2
0377: 85 AA       131            STA   $AA
0379: 85 AB       132            STA   $AB
037B: A9 81       133            LDA   #$81
037D: 85 A5       134            STA   $A5
037F: 85 9D       135            STA   $9D
0381: AD BC 03    136            LDA   BYT4         ;and move seed value
0384: 85 A6       137            STA   $A6          ;to auxillary FAC
0386: AD BB 03    138            LDA   BYT3         ;before multiplying
0389: 85 A7       139            STA   $A7
038B: AD BA 03    140            LDA   BYT2
038E: 85 A8       141            STA   $A8
0390: AD B9 03    142            LDA   BYT1
0393: 85 A9       143            STA   $A9
0395: A9 9D       144            LDA   #$9D
0397: 20 2E E8    145            JSR   $E82E        ;Normalize FAC
039A: 20 69 EA    146            JSR   $EA69        ;Divide AUX/FAC
```

```
              147   * These Applesoft calls leave the random number
              148   * in the floating accumulator (FAC)
039D: AD C1 03 149           LDA    RANGE         ;now check the user's
03A0: 38        150           SEC                  ;RANGE argument
03A1: E9 81     151           SBC    #$91          ;is it a 1 (exactly)
03A3: 0D C2 03  152           ORA    RANGE+1
03A6: 0D C3 03  153           ORA    RANGE+2
03A9: 0D C4 03  154           ORA    RANGE-3
03AC: D0 01     155           BNE    SCALE         ;NO
03AE: 60        156           RTS                  ;YES (return with fraction)
03AF: A0 03     157   SCALE   LDY    #>RANGE       ;load address to use
03B1: A9 C1     158           LDA    #<RANGE       ;Applesoft's
03B3: 20 7F E9  159           JSR    $E97F         ;MULTIPLYsubroutine
03B6: 4C 23 EC  160           JMP    $EC23         ;then take integer
              161   * part and return to calling program
              162   * by using Applesoft INTEGER subroutine.
03B9: 00        163   BYT1    DFB    $0            ;4 safe bytes to
03BA: 00        164   BYT2    DFB    $0            ;hold the seed
03BB: 00        165   BYT3    DFB    $0
03BC: 00        166   BYT4    DFB    $0
03BD: 9A DB FF
03C0: 03        167   MASK    DFB    154,219,255,3 ;mask to assure
              168   * that the seed value is <67099547.
03C1: 00 00 00
03C4: 00 00     169   RANGE   DFB    0,0,0,0,0     ;5 bytes for range


--End assembly--


02F4- A9 4C 85 0A
02F8- A9 0F 85 0B A9 03 85 0C
0300- A0 04 B9 C9 00 39 BC 03
0308- 99 B8 03 88 D0 F4 60 A5
0310- 9D F0 50 A5 A2 10 03 4C
0318- 99 E1 A0 03 A2 C1 20 2B
0320- EB A2 F3 0E B9 03 2E BA
0328- 03 2E BB 03 2E BC 03 38
0330- AD B9 03 E9 9B 48 AD BA
0338- 03 E9 DB 48 AD BB 03 E9
0340- FF 48 AD BC 03 E9 03 48
0348- 90 12 68 8D BC 03 68 8D
0350- BB 03 68 8D BA 03 68 8D
0358- B9 03 B0 04 68 68 68 68
0360- E8 D0 C0 A9 03 85 9E A9
0368- FF 85 9F A9 DB 85 A0 A9
0370- 9B 85 A1 A9 00 85 A2 85
0378- AA 85 AB A9 81 85 A5 85
0380- 9D AD BC 03 85 A6 AD BB
0388- 03 85 A7 AD BA 03 85 A8
0390- AD B9 03 85 A9 A9 9D 20
0398- 2E E8 20 69 EA AD C1 03
03A0- 38 E9 81 0D C2 03 0D C3
03A8- 03 0D C4 03 D0 01 60 A0
03B0- 03 A9 C1 20 7F E9 4C 23
03B8- EC 00 00 00 00 9A DB FF
03C0- 03 00 00 00 00 00
```

CLUB CALENDAR

MARCH 4 - FRIDAY - TRS80 USERS GROUP MEETING
                    APPLE USERS GROUP MEETING

     TIME: 7:30 PM
    PLACE: SOUTHWESTERN PUBLIC SERVICE BUILDING
           4201 FRANKFORD AVENUE

FEBRUARY 12 - SATURDAY - TI 99/4 USERS GROUP MEETING

     TIME: 2 PM
    PLACE: LUBBOCK CHRISTIAN COLLEGE
           ADMIN BLDG - ROOM 206

FEBRUARY 18 - FRIDAY - LUBBOCK COMPUTER CLUB MEETING

     TIME: 8:00 PM BUILDING WILL BE OPEN AT 7:30 FOR SETUP
    PLACE: SOUTHWESTERN PUBLIC SERVICE BUILDING
           4201 FRANKFORD

   TOPICS: PLANNING FOR THE SPRING COMPUTER FAIR

CONTACT THE FOLLOWING PEOPLE FOR FURTHER INFORMATION:

DEAN POWELL - 793-3998   PRESIDENT
BRETT PIJAN - 765-0102   VICE PRESIDENT
JOHN CRAWFORD - 745-5604   TREASURER
ROBERT DARKO - 765-6630   APPLE USERS GROUP

99/4 HIGH RESOLUTION PRINT

The routine listed last month used a store to file on disk then retrieve later
to print format. Several modifications may be made to those two routines. You
may want to increase the screen width to 32 characters over the 28 characters
used in STORE28 and RECALL28. To do this you will have to break the screen
into two strings for storage or send the information directly to the printer.
You are forced to break up the screen because 32 characters requires 256 bytes
to store and a single disk sector cannot be longer than 255 bytes to allow for
the record end marker.

The changes you need to make to modify the program for 32 characters and to
dump as you go to the printer follow:

```
29990 FILE$="RS232.BA=4800.DA=8.CR"

30020 OPEN #9:FILE$,OUTPUT

30040 FOR O=1 TO 24 :: Z1$="" :: FOR U=1 TO 32 :: P$(U) = "" :: ...

30090 Z1$=Z1$&P$(U) :: NEXT U :: PRINT #9:CHR$(27);"K"
;CHR$(O);CHR$(1);Z1$;CHR$(27);CHR$(A);CHR$(2);CHR$(10)

30095 NEXT O:: CLOSE #9
```

TO PRINT THE HIGH RESOLUTION CHARACTERS ON THE EPSON OR TI IMPACT PRINTER, YOU
MUST SET THE PRINTER TO PROCESS 8 DATA BITS OTHERWISE THE PRINTER DEFAULTS TO
SEVEN AND THE GRAPHICS CHARACTERS ARE NOT IMPLIMENTED.

THE SUBPROGRAM TECHNIQUE IS USED SO THAT YOU DO NOT HAVE TO WORRY ABOUT THE
VARIBLE NAMES YOU USED IN THE SUBPROGRAM. ALL SUBPROGRAM VARIABLE NAMES ARE
CONSIDERED LOCAL VARIABLE NAMES AND ARE DIFFERENT FROM THE SAME NAME WHEN IT
APPEARS AS PART OF THE MAIN BODY OF THE PROGRAM. ALL SUBPROGRAMS HAVE TO BE AT
THE END OF THE NORMAL PROGRAM.

```
100 CALL CLEAR
101 CALL SCREEN(9)
102 SCORE=0
110 PRINT "        JUMPING JACK"::::::::::
120 FOR DELAY=1 TO 16
121 CALL SCREEN(DELAY)
122 CALL SOUND(100,DELAY*DELAY+110,0)
130 NEXT DELAY
140 PRINT "  TRY TO JUMP THROUGH THE"
150 PRINT "  MINEFIELD, JACK. EACH"
160 PRINT "  JUMP IS WORTH A POINT !"::::::::::
170 FOR DELAY=1 TO 1000
180 NEXT DELAY
190 REM  TWO JUMPING JACKS
200 CALL SCREEN(3)
210 CALL CHAR(96,"18187E9999244281")
220 CALL CHAR(97,"18187E3C5A242466")
230 REM  FLASH
240 CALL CHAR(104,"914A3455AA548A11")
250 REM  MINE
260 CALL CHAR(112,"000000000387C38")
270 CALL COLOR(9,11,3)
280 CALL COLOR(10,10,3)
290 CALL COLOR(11,13,3)
300 ROW=12
310 COL=16
315 CALL CLEAR
320 CALL HCHAR(RND*23+1,RND*31+1,112)
330 CALL HCHAR(ROW,COL,97)
340 REM  START JACK
350 CALL KEY(0,KEY,STATUS)
360 REM  IF STATUS=0 THEN 350
370 OLDROW=ROW
380 OLDCOL=COL
390 IF KEY<>83 THEN 420
400 COL=COL-1
410 GOTO 660
420 IF KEY<>87 THEN 460
430 ROW=ROW-1
440 COL=COL-1
450 GOTO 660
460 IF KEY<>68 THEN 490
470 COL=COL+1
480 GOTO 660
490 IF KEY<>82 THEN 530
500 ROW=ROW-1
510 COL=COL+1
520 GOTO 660
530 IF KEY<>69 THEN 560
540 ROW=ROW-1
550 GOTO 660
560 IF KEY<>67 THEN 600
570 ROW=ROW+1
580 COL=COL+1
590 GOTO 660
600 IF KEY<>88 THEN 630
610 ROW=ROW+1
620 GOTO 660
630 IF KEY<>90 THEN 320
640 ROW=ROW+1
650 COL=COL-1
660 CALL HCHAR(OLDROW,OLDCOL,32)
670 CALL GCHAR(ROW,COL,MINE)
680 CALL HCHAR(ROW,COL,96)
690 CALL SOUND(25,-7,0)
700 CALL HCHAR(ROW,COL,97)
710 SCORE=SCORE+1
720 IF MINE=112 THEN 740
730 GOTO 320
740 CALL HCHAR(ROW,COL,104)
750 CALL SOUND(1000,-6,0)
760 CALL COLOR(10,16,3)
770 CALL SOUND(1000,-7,0)
780 PRINT " YOU GOT BLOWN UP, JACK !!"
782 IF HIGH<SCORE THEN 785
783 IF HIGH=SCORE THEN 785
784 GOTO 790
785 HIGH=SCORE
790 PRINT "     YOUR SCORE ";SCORE
791 PRINT "     HIGH SCORE ";HIGH
800 FOR DELAY=1 TO 2000
810 NEXT DELAY
820 GOTO 100
830 END
```

JUMPING JACK ON THE 99/4
by Brett Pijan

Here is a demonstration game that I call Jack in the minefield, or Jumping Jack. It shows how to use the 4 arrow keys; S, E,D, and X as well as the 'corner keys'; W, R, Z, and C, to move a character around the screen. The program also keeps score and keeps a running high score. This program serves as a starting place for a wide number of run-through-the-maze games. If I counted right, it has only 83 lines.

```
100 REM USERS GROUPS LIST
110 REM BY BRETT PIJAN 1/83
120 CALL CLEAR :: CALL SCREEN(12):: PRINT "    THIS PROGRAM PRINTS" :: PRINT "
USERS GROUPS AS OF 2/83"
130 FOR LINES=1 TO 6 :: PRINT " " :: NEXT LINES
140 OPEN #1:"RS232.BA=4800.DA=8"
150 PRINT " " :: PRINT "    PRESS ENTER" :: INPUT "    WHEN READY FOR TEST":ENT$
160 FOR TEST=1 TO 4
170 PRINT #1:" "
180 PRINT #1:"##################################"
190 PRINT #1:"#                                #"
200 PRINT #1:"#      USERS GROUPS AS OF 2/83    #"
210 PRINT #1:"#          ALIGNMENT PATTERN      #"
220 PRINT #1:"##################################"
230 NEXT TEST
240 PRINT " " :: PRINT "    PRESS ENTER" :: INPUT "    WHEN READY TO PRINT ":ENT$
250 REM FIRST SKIP ONE LINE
260 PRINT #1:" "
270 PRINT #1:"International 99/4 Users Group"
280 PRINT #1:"P.O. Box 67"
290 PRINT #1:"Bethany, Oklahoma"
300 PRINT #1:"        73008"
310 GOSUB 1830
320 PRINT #1:"International Home Computer Users"
330 PRINT #1:"P.O. Box 371"
340 PRINT #1:"Rancho Santa Fe, California"
350 PRINT #1:"        92067"
360 GOSUB 1830
370 PRINT #1:"99/4 Users of America"
380 PRINT #1:"5028 Merit Drive"
390 PRINT #1:"Flint, Michigan"
400 PRINT #1:"        48506"
410 GOSUB 1830
420 PRINT #1:"Sydney, Australia Users Group"
430 PRINT #1:"P.O. Box 101"
440 PRINT #1:"Kings Croff, Australia"
450 PRINT #1:"        2011"
460 GOSUB 1830
470 PRINT #1:"Perth, W. Australia Users Group"
480 PRINT #1:"26a-49 Hedsman PD"
490 PRINT #1:"Wembly, Western Australia"
500 PRINT #1:"        6014"
510 GOSUB 1830
520 PRINT #1:"Surrey Home Computer Users Group"
530 PRINT #1:"157 Bishopsford Road"
540 PRINT #1:"Morden, Surrey, England"
550 PRINT #1:"        SM4 6BH"
560 GOSUB 1830
570 PRINT #1:"Edmonton Users Group"
580 PRINT #1:"Box 11983"
590 PRINT #1:"Edmonton, Alberta, Canada"
600 PRINT #1:"T5J 3L1"
610 GOSUB 1830
```

INSERT ADDITIONAL ADDRESSES HERE, WITH A GOSUB AS THE LAST ENTRY.

```
1770 PRINT #1:"Wisconsin Users Group"
1780 PRINT #1:"2007 North 71st Street"
1790 PRINT #1:"Wauwatosa, Wisconsin"
1800 PRINT #1:"        53213"
1810 GOSUB 1830
1820 GO TO 1850
1830 REM SPACE UP 2 LINES
1840 FOR LINE=1 TO 2 :: PRINT #1:" " :: NEXT LINE :: RETURN
1850 END
```

BRETT'S SIMPLE MAILING LIST
by Brett Pijan

This 99/4 program in Extended Basic is something that I knocked out in a big hurry to get our newsletter out to the other clubs that send us their newsletter. Not even slightly fancy, it does get the job done and is an easy program for the beginner to get a lot of use out of that printer that he just paid good bucks for. Note that the program stops when it has run the alignment pattern so that if your labels are way off you can break the program and start over. Also, I didn't feel like typing in PRINT #1:" " each time twice between every address, so I made that a GOSUB and saved myself several dozen lines. You may also observe that this program does not really need to be in Extended Basic, I just leave my XB module plugged in all the time, and in fact, I think that almost any system can use this sort of code to put out a bunch of labels.