The Ottawa T.I.99/4A Users' Group

NEWSLETTER

VOLUME 9 NUMBER 6 . . . . . . June 1990

SUMMER '90
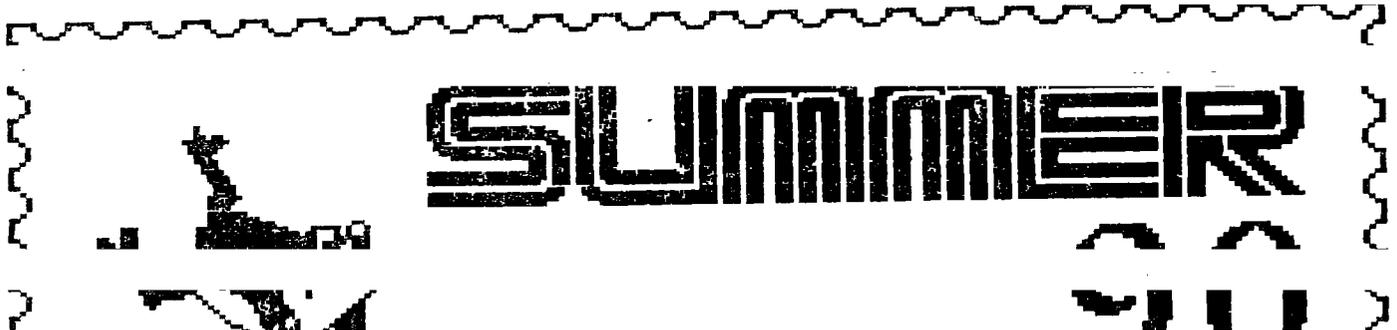
and remember to return your exchange newsletters...

P.O. BOX 2144, STATION D, OTTAWA
*** ONTARIO, CANADA K1P 5W3 ***

COMING EVENTS

June Meeting:	June 5, 1990 7:30 p.m.	Merivale High School
TI-BASE Workshop:	TBP (check at next club mtg and on the BBS)	Bill Sponchia's home. Contact Bill Sponchia or Tom Bentley for details. No need to call if you were at the first meeting, but if you are a newcomer, please let Bill know so he will have an idea of what to prepare for.
Next Meeting:	Sept 11, 1990 7:30 p.m.	Merivale High School

Note: There will be no TIOUG Club Meetings throughout the summer, nor will there be a Newsletter until the September Meeting.

Newsletter Deadline: Aug 12, 1990   (13 Aug if Uploaded to BBS!)

EDITOR'S NOTES
from Philip Harris

In this, our last issue before the summer, we have another X Basic program by Lucie, called "STRINGMAZE". William Gard has given us an article about our TI FEST with some of the hi-lights and behind the scenes happenings.

Also as this is the last issue before those glorious "Hazy, Crazy, Lazy days of Summer", we wind down our series of articles by Bill Sponchia with more Tips on TI-Writer, PR-Base, and Multiplan.

I had promised a couple of issues back, a short hint on how to get more mileage out of your printer ribbons. It's a simple trick of carefully prying open the cartridge and spraying the nylon ribbon with WD40, then re-assemblying the cartridge and storing it for at least a week to allow most of the WD40 to evaporate. You see the problem with most ribbons is not that they run out of ink, but mainly the ink becomes too dry. Additionally, if you've ever looked at your ribbon you'll see that only 1/3 of it is actually used by the print head. This remaining 2/3 of the ribbon contains handy ink reserves. The WD40 acts to disolve the ink and cause it to flow across the ribbon. If you use the ribbon too soon after spraying it, your printed paper will come out oily. There have been some concerns about the WD40 gumming up the printer heads, but I and alot of other consistant computer users have used this trick for years with no difficulty. You can extend your ribbon's life three to five times!

THE PRESIDENT'S TWO CENTS WORTH
by Charles Earl

This year's TI-FEST was definately successful. Despite a lower attendance from previous years, the quality of the demos/lectures, the amount of both Used and New Equipment/Software being bought all testified to the success of the FEST.

There have been a few grumblings still, about our cutting back on our "free" Newsletter to other Clubs. While most of these grumblings appeared to come from the same geographic location, they have not detered us from cutting back on our "overhead". We must ensure that all of the "Funds" from "Paying Members" are used foremost for the Club and lastly for those outside the club.

There will only be one last meeting before the summer. If I don't see you there, than I hope you enjoy the time to "soak-up some rays" and while you're lying there you could perhaps think of a Newsletter article/program for next Fall. As the song says "See you in September ..."

HINTS, TIPS & ANSWERS
from Bill Sponchia

[Editor note: Bill Sponchia has spent a great deal of time compiling a collection of Hints, Tips and Answers, taken from many sources; for that reason, he does not assign the credit to any individual, but wishes to thank the whole TI community and Users' Groups for their work, and he dedicates his "HTA" package to them. The whole package, a collection of text files, is available on disk from Bill, c/o the Ottawa U.G.; please include enough money to cover the disk, mailer, and postage costs.]

The Last Tips from the **PR BASE** collection:

1.   In setting out your fields remember that the index is made on 10 characters starting with the first one in the field you select to index on. Therefore if that field's size is less than 10 characters it will also use characters from the next field. Unless planned for this may give some undesired results.

2.   I found that setting the printer codes in the Report section did not work however if the printer codes were set up in Section 6 "Set Printer Codes" and before typing out the Report a Command C was done and then everything worked okay.

The remainder of the **TI-WRITER** Tips:

3.   If you wish to prevent the form feed at the end of printing when using the Formatter then make the last line of your text ".PL 1". This will suppress the form feed, but note: do not forget to reset PL if you have another document to print.

4.   You can string the formatter commands on the same line separated with a semicolon. eg - LM 10;RM 70;IN +5;FI;AD

5.   If you are having problems with formatter commands, make sure they are UPPERCASE letters.

6.   To avoid a BUFFER FULL notice you just save the files as it gets larger, then use the SD command to see the file size. The BUFFER is full at 92 sectors.

7.   When using the .CE command you MUST also use the .LM and .RM commands because .CE centres the text between the SET margins, not necessarily the middle of your paper.

8.   The Formatter also ensures that you have two spaces after each period. To control this when you are typing such things as "Mrs. E Smith" or "1023 N. Queen Street" then use the " " sign in place of the space after the period.
eg - Mrs. E Smith; 1023 N. Queen Street

9.   If you must have a dot in column one of your text, transliterate it. ".TL 124:46" will allow FCTN A to print out a period.

10.   To create a file with out line feeds yet Formatted, do the following:
       i) use the FORMATTER to print the text to disk
       ii) go back to EDITOR and do a Print File (PF) replacing PIO   with
C DSKn.filename.

11.   If you wish to include a program listing in your document insteadof retyping it into TI-Writer just LIST the program to the diskette using the following command LIST "DSKn.filename". This will save the program in DISPLAY/80 format which allows it to be read by TI-Writer. You can now load this file into TI-Writer and place the carriage return character at the end of each program line.

12.   If you wish to place a Carriage Return at the end of a line of text (an line without the return will usually occur when you have inserted blank

lines in the text and then put text on them) then place the cursor at the end of the text and press CTRL 8. This will place a Carriage Return where you want it and insert a blank line below. If this line is not wanted you can delete it with FCTN 3.

13.   You can get a print out of your file WITH LINE NUMBERS when printing out of the Editor mode by placing an "L" and a space before the printer name in the command instruction. eg - L PIO. This will eliminate the last 6 characters at the end of each line (#75 to #80) therefore keep your line lengths to a maximum of 74.

14.   Did you know that you can type anything you want after a carriage return ON THE SAME LINE and it won't print out; but it will SAVE. This is great for text notes for screen reading.

15.   When typing up a document which uses certain long words or phrases frequently then a time saver (and also added insurance against typing errors) is to type the words in shortform or initials (ie - TI-ARTIST could become TIA; Ottawa TI-99/4A Users Group could become OTIUG). When you are finished with the document use the Replace String function (RS) to change the words back to the full spelling (eg - /TIA/TI-ARTIST/).
        Care must be taken in three forms when using this:
            i) the search only begins from the spot that the cursor is on so to do
               the whole document insure that the cursor is on line 1 before
               starting.
           ii) the search will locate all occurrences of the string. Therefore if
               the string searched for is "at" it will find word "at" and also the
               "at" in "cat" and "that", etc. So before telling the machines to
               "Change all occurrences automatically be sure this program can't
arise.   If you are not confident of this it is best to walk through
and change   each separately as it is found.
          iii) as a reformatting will be done wherever a change is made it would be
               wise to review the document after to be sure that it is still
               formatted correctly.

16.   When using the FIND STRING command you can specify which column range to search.
        eg - 5 15 /text/ will look for the string "text" in the columns 5 through
             to 15 inclusive.

17.   If your printer does not have a slashed zero and you want to print it out that way use the following Transliteration: .TL 48:48,8,47 This will cause the normal zero (48) to be printed; then backspace (8); and then a printing of a slash (47).

18.   Two files can be loaded into the Editor (assuming the total size is not too large for memory) by loading in the first file then doing a LF and entering E DSKn.YYY (where n=disk # and YYY=second file). This will load the second file after the end of the first file.

19.   If you don't like the windowing when using the 80 column format then set the margins for 0 and 40 and turn off the line numbers (FCTN 0). When you are finished reset the left and right margins to what you desire and reformat each paragraph.

20.   You can merge sections of a second file into the current document by the following entry using the LF command: 25 7 12 DSK1.YYY - This will load lines 7 to 12 (inclusive) from file YYY to the current document after line 25.

21.   If you are using FUNNELWEB 4.1 or greater after you have the directory on the screen (using the SD command) you will be able to see how many lines are in a file by marking the file and then requesting (V)iew. The line count will be shown at the bottom of the screen.

Finally some more **MULTIPLAN** Tips:

22.   If your RECALC is OFF, you can recalculate a single cell by setting the pointer to the cell, press "E" for Edit, then press ENTER. Only that cell will be recalculated.
        Note: If that cell relies on another which also had to be calculated

then the information used from that other cell may be uncalculated and therefore the cell you just recalculated will be wrong.

23.   To increase the response time of MP you should file copy the following files in the following order: OVERLAY, MPHLP, MPCHAR, MPDATA, MPINTR and then MPBASE

24.   When you become familiar with MP you can eliminate the MPHLP (Help) file from your work disk and there by free 158 sectors.

25.   If you choose to lock the formulas in a worksheet make an unlocked backup "BEFORE YOU LOCK THEM". Locking the formulas is easy; however unlocking requires you to do it piece by piece.

26.   If someone else will be doing data entry on a complex worksheet, it is a good idea to have them working with a locked copy. This avoids problems such as having someone enter data infto a cell containing formulas or information you use elsewhere.

27.   Use relative references wherever possible. This allows for copying of formulas without editing. Editing of formulas is both time consuming and prone to error.

28.   References in formulas should be done by "pointing". This method is simple, creates relative references and is subject to less errors.

29.   Once you start scrolling, you can release the FCTN or CTRL key and just keep the ARROW key depressed.

30.   On a data disk with more than 18 files you can catalog (display filenames) the additional files (remember the SD command only shows the first 18 files) by placing the cell pointer on the last filename then pressing REDO (FCTN 8). After the screen has been redrawn and displays "TRANSFER LOAD filename" (where filename is the one you have just highlighted) the message line will now display "Enter a filename (arrow for directory)". Now press FCTN down-arrow and the last filename from the previous screen plus the additional files will be displayed.

31.   If there is a rectangular area that will be used frequently on your worksheet, consider giving it a Name. You may then refer it by this name and thus will speed up the moving around the worksheet.

32.   Do you have one large file and wish to make it into two or more smaller parts? It's easy, first you give a name to the section you wish to move to the second sheet and then save the large file to disk. Then load in the blank template and make use of the "eXternal" copy command. Make sure you tell it "no" to linking.

TI-FEST 1990-OTTAWA ONTARIO
by William Gard

Editor's Note: This is the first article for Bill, lets just hope that this is the start of many more to come.

I arrived at the Talisman Motor Inn hospitality suite at about 5 PM on Friday 27th April. The only members present were the regular Ottawa members; Michael Taylor, Dick Piche, Bill Sponchia, and Jane Laflamme. It wasn't long until others from out of town started to arrive. Representatives of the Oshawa and Peterborough Users Groups were the first to arrive then Gary Bowser and Bud Mills were soon to follow. It was time to eat so we left a note on the suite door and headed down the street to the Chinese family restaurant on Carling avenue. Enroute we ran into Charles Earl and Ruth O'Neill. They had already eaten so they headed up to man the Hospitality suite. After dinner we returned to greet other new arrivals. These included Chris Bobbitt and Bruce Harrison. We had some good discussions and drink along with a number of different munchies. I left at about 9:30 PM; however, there were a number of those who remained until about 3:30 AM.

It was soon the next morning and I arrived at the Merivale High School at 7:45 AM. It was not long before we were setting up for the Fest. Within about an hour and fifteen minutes the auditorium was all set to go. During this period vendors started to arrive and set up their tables. Ruth was well organized and and she orchestrated the volunteer setup teams very effectively.

The price for admission was $5 for adults $7 for families and those under 12 were free. It is estimated that throughout the day there were 88 attendees. The Ottawa Users members were organized so that they rotated the manning of stations for one hour periods. The groups and vendors that attended were as follows:

a. Chris Bobbitt of Asgard;
b. Bud Mills of Horizon Ramdisk;
c. Gary Bowser of OPA;
d. John McDevitt of Rave 99;
e. Lou Phillips of Myarc;
f. Bruce Harrison of Harrison Software;
g. Art Green of RAG Software;
h. Laflamme and Wrigley;
j. Bob Boone of Computer Download;
k. The Kawartha 99'ers (The Peterborough group); and
m. CIM 99 (The Montreal group)

One group that wasn't here for the first time was the Nova Scotian contingent from Halifax/Dartmouth. Due to a number of circumstances they were not able to attend. They were missed as their presence has always added to the FEST.

Throughout the day people circulated amongst the tables as well as the used computer hardware/software that was for sale in another room. There were good bargains to be had there that is for sure.

Commencing at 11 AM there was a lecture by John McDevitt on his Rave 99 products. His presentation was very impressive as were his company's fine improvements to the TI system. Coupled with reduced prices it made for some very attractive buys. He was followed by Seargeant King of the RCMP who spoke on the subject of Copyright Laws. After a break for lunch it was back to the auditorium to view hardware and new software. The next lecturer was Chris Bobbitt who spoke about his Asgard products. Bud Mills was next and he gave an update on the Horizon Ramdisk. Gary Bowser, then gave a short talk and demo of RAMBO. It is a most impressive piece of work by Gary and his company Oasis Pensive Abacutors(OPA) which is based in Toronto. The final speaker of the day was Lou Phillips of Myarc who spoke on the Winchester card and the Geneve.

The FEST ended at 4:30 PM as it was time to clean up and remove all of the equipment before 5 PM. With a good team effort the dismantling of the systems and removal from the school went very smoothly. Ruth was absolutely amazed to see how quickly we had been able to restore the school to the condition it was in when we arrived that morning.

After a short return home for a shower it was back to the Talisman for the dinner. I arrived at 6:20 PM to meet a number of fellow Ottawa Group members as well as most of the vendors and attendees of the FEST. I noticed a party of three out-of-towners at one table sitting by themselves. With a beer in hand, I went over to join them. What was to follow was a most facinating evening with very knowledgeable TIers from the United States. They were Mike and Veronica Wright from Salem, New Hampshire; and Terry Masters from Los Angeles, California. Both Mike and Terry are avid TIers. Mike is also an accomplished programmer and a TI collector par excellance. Both he and Terry were able to offer a lot of insight into the TI community and its personalities. It was interesting to hear about such people as Lou Philips, Peter Hoddie, Craig Miller, Clint Pulley, Tony and Will McGovern, Todd Kaplan, and Gerry Price of Tex*Comp. We spoke on all sorts of subjects from the very beginning of TI and their equipment, their marketing strategies, their products and the way TI came to the decision to stop marketing the TI 99/4A. Before I knew it it was time to leave the dining room. Bud Mills and Gary Bowser set out for Toledo, Ohio via Toronto. I said good-bye to my dinner companions and headed home to contemplate and think about the excellent day that had just occurred.

I look forward to the Fest next year and the opportunity to see the latest developments in software and hardware for the 99/4A. The organizing committee and those personnel involved in putting on the TI FEST deserve a tremendous amount of credit for their planning and execution of a most successsful event!

FAST
EXTENDED BASIC
by Lucie Dorais

How about a game to keep you busy during the summer months? A maze game, but
with a twist: instead of guiding the mouse with the arrow keys, deciding at
each step which will be the next, you enter the complete escape plan all at
once, in a string. When you press <ENTER>, Tex will analyze its content and
move the mouse accordingly. The full instructions are in lines 710-820; when
they are displayed on the screen, a sample maze will also be shown, together
with its command string. Be careful when you type these lines: see near the
end of the text.

```
100 REM ** STRINGMAZE ** L.Dorais - Ottawa UG - May 1990
110 REM
120 CALL SPRITE(#1,32,1,1,1,#2,32,1,1,1)
130 CALL CLEAR :: DISPLAY AT(1,10):"STRINGMAZE" :: DIM M$(9),C$(4) ::
    GOTO 210
140 A,A$,B$,BL,C,C1,C2,CA,CD,K,OB$,PL$,PT,R,RA,RD,S,S$,TB,TC,TK,TR,TOT,W,X
150 CALL KEY :: CALL SOUND :: CALL COLOR :: CALL CHAR :: CALL HCHAR :: CALL
    VCHAR :: CALL GCHAR :: CALL LOCATE :: CALL DISTANCE
160 DATA 10101038383810,001038383810101,0000001CFE1C,000000387F38
170 !@P-
180 DATA UNRECOGNIZED CHARACTER...,STRING TOO SHORT TO ESCAPE!,NO NEED TO
    BLAST HERE...
190 DATA "GOT IT, but NO points...","  CONGRATULATIONS!!!",Decoded string
    too long...
200 DATA You walked on your trail...,You met an outside wall...,No more
    dynamite...,You forgot to blast here...
210 RANDOMIZE :: FOR X=1 TO 4 :: READ C$(X) :: NEXT X :: FOR X=0 TO 9 ::
    READ M$(X) :: NEXT X
220 CALL CHAR(133,"00003C3C3C3C",134,"0000001818",34,"0000101010543810",
    35,"103854101010")
230 A$="FFFFFFFFFFFFFFFF" :: CALL CHAR(37,"",61,A$,135,A$,136,A$,137,"",
    138,"") :: S$=RPT$(" ",28)
240 DISPLAY AT(20,6):"INSTRUCTIONS? (Y/N)" :: GOSUB 840 :: IF K=89 THEN 700
250 ! == new maze ==
260 CALL CLEAR :: CALL COLOR(13,5,1,14,1,1)
270 FOR R=8 TO 22 :: CALL HCHAR(R,2,135,30) :: NEXT R
280 C1=INT(4*RND)+1 :: C2=INT(4*RND+1) :: CALL CHAR(64,C$(C1))
290 IF C1<3 THEN CALL CH(RD,CD,C1)ELSE CALL CH(CD,RD,C1)
300 IF C2>2 THEN 320
310 CALL CH(RA,CA,C2) :: IF RA=RD AND ABS(CA-CD)<10 THEN 310 ELSE 330
320 CALL CH(CA,RA,C2) :: IF CA=CD AND ABS(RA-RD)<6 THEN 320
330 CALL LOCATE(#1,8*RD-7,8*CD-7,#2,8*RA-7,8*CA-7)
340 CALL DISTANCE(#1,#2,A) :: A=SQR(A) :: TB=INT(A/16)
350 FOR R=9 TO 21 :: FOR C=3 TO 30 :: CALL HCHAR(R,C,136+INT(2*RND))
    :: NEXT C :: NEXT R
360 CALL COLOR(14,5,1) :: CALL HCHAR(RD,CD,64) :: CALL HCHAR(RA,CA,138)
370 ! == input escape plan and decode it ==
380 PRINT "DYN(m"&STR$(TB)&") ESCAPE PLAN(UDLR*):" :: INPUT S$:PL$
390 CALL GCHAR(1,2,K) :: IF K=32 THEN PRINT :: GOTO 390
400 DISPLAY AT(23,10):"DECODING..." :: A$=""
410 FOR X=1 TO LEN(PL$) :: B$=SEG$(PL$,X,1)
420 IF B$<"1" OR B$>"9" THEN A$=A$&B$ :: GOTO 450
430 IF B$="1" THEN X=X+1 :: B$=B$&SEG$(PL$,X,1)
440 A=VAL(B$) :: A$=A$&RPT$(OB$,A-1)
450 OB$=B$ :: NEXT X :: A=LEN(A$)-LEN(PL$) :: PL$=A$&"\" :: DISPLAY
    AT(19,1):PL$
460 ! == try escape plan ==
470 W,BL=0 :: PT=5*TB+2*A :: R=RD-7 :: C=CD :: K=137
480 IF LEN(PL$)>56 THEN A=5 :: GOTO 620
490 DISPLAY AT(23,7):"LET'S TRY IT..." :: FOR X=1 TO LEN(PL$)
500 A=POS("\*DURL",SEG$(PL$,X,1),1) :: IF A<3 THEN 620 ELSE A=A-2
510 TR=R :: TC=C :: TK=K-3 :: CALL CHAR(64,C$(A))
520 IF A<3 THEN R=R+1+2*(A=2) ELSE C=C+1+2*(A=4)
530 CALL GCHAR(R,C,K) :: ON K-132 GOTO 540,540,540,550,570,570
540 A=6-(K=135) :: GOTO 620 ! outside wall or trail
550 A$=SEG$(PL$,X+1,1) :: IF A$<>"*" THEN A=9 :: GOTO 620 ELSE IF BL=TB
    THEN A=8 :: GOTO 620 ! blast needed
560 CALL SOUND(150,-5,0) :: X=X+1 :: PT=PT-4 :: BL=BL+1 ! blast ok
570 CALL HCHAR(TR,TC,TK) :: CALL HCHAR(R,C,64) :: PT=PT-1 ! mouse move
```

```
580 DISPLAY AT(17,9):USING "##    POINTS ###":BL,PT
590 IF K=138 THEN PT=PT+5*(TB-BL) :: W=ABS(PT>0) :: A=W+3 :: GOTO 620 !exit
600 NEXT X
610 ! == end if mouse wins or is broken ==
620 DISPLAY AT(22,1):M$(A):"" :: IF W=0 THEN PT=0
630 IF A<3 OR A>5 THEN A=(X>28) :: R=18-3*A :: C=X+2+28*A :: K=34-A ::
    CALL HCHAR(R,C,K) ! show error in string
640 DISPLAY AT(17,15):"POINTS";PT :: IF W=0 THEN 670
650 CALL SOUND(100,392,0) :: CALL SOUND(100,494,0) :: CALL SOUND(100,523,0)
    :: CALL SOUND(200,622,0)
660 CALL SOUND(100,494,0) :: CALL SOUND(200,622,0) :: GOTO 680
670 CALL SOUND(600,110,0) :: CALL SOUND(300,110,0) :: CALL SOUND(300,110,0)
    :: CALL SOUND(300,110,0)
680 TOT=TOT+PT :: DISPLAY AT(24,1):"TOT:";TOT;"  PLAY AGAIN? (Y/N)"
690 CALL KEY(0,K,S) :: IF S=0 OR K<>89 AND K<>78 THEN 690 ELSE IF K=89
    THEN 260 ELSE END
700 CALL COLOR(4,5,1) ! == instructions ==
710 DISPLAY AT(1,1):"To help a mechanical mouse  out of a random maze,
    you    must program it with a":"command string, using only"
720 DISPLAY AT(5,1):"these characters": :" U - up    L - left %%%==S==":
    " D - down  R - right %%% =":TAB(25);"===="
730 DISPLAY AT(10,1):"To blast a wall, use %%%=%%=* after the command:%[JOIN]
    %%==%==":TAB(24);"==%=="
740 DISPLAY AT(13,4):"DD*DDDR*DDDDDDD %%% == =":"%% LLULLDDDRRRR*D %%%[JOIN]
    %%==%=":TAB(23);"==== ="
750 DISPLAY AT(16,1):"The EXIT space must %%%= = =be incl. in string. %[JOIN]
    ==== =":TAB(22);"= % = ="
760 DISPLAY AT(19,1):"Get bonus points by %= = %%=using digits: %%%%%%[JOIN]
    = =====":TAB(22);"= %% ==":"DD*D3R*D7LLULLD3R4*D  ====E="
770 GOSUB 840 :: CALL COLOR(4,2,1)
780 DISPLAY AT(1,1):"But beware: if your decoded string is longer than
    two    screen lines, your mouse is"
790 DISPLAY AT(4,1):"broken.  In fact, any error in the program will kill
    themouse, and you will lose allyour points."
800 DISPLAY AT(9,1):"Each move costs you one":"point, each blast five.": :
    "You have a maximum number  of dynamite charges,"
810 DISPLAY AT(14,1):"derived from the distance   between Start and Exit;":
    "distance also determines   your starting points."
820 DISPLAY AT(19,1):"On the other hand, you get  five bonus points for
    each  unused dynamite charge."
830 GOSUB 840 :: GOTO 260
840 DISPLAY AT(24,9)BEEP:"PRESS A KEY"
850 CALL KEY(0,K,S) :: IF S=0 THEN 850 ELSE CALL CLEAR :: RETURN
860 !@P+
870 SUB CH(A,B,C) :: IF C>2 THEN 890
880 A=8-14*(C=2) :: B=INT(27*RND+3) :: SUBEXIT ! top/bottom: random column
890 A=2-29*(C=4) :: B=INT(13*RND+9) :: SUBEND  ! left/right: random row
```

The first DATA line 160 is for our mouse in four positions (pointing towards down, up, right or left), then the long list of the misfortunes she can encounter; some DATAs are between quotation marks, because they contain spaces and/or commas.

Before drawing the maze, we make color set 14 invisible, while the wall set (13) will not be; the maze starts life on screen as a big blue rectangle, while the Start and Exit points are first chosen by Tex. C1 determines if Start will be at 1)top, 2)bottom, 3)left, or 4)right, and C2 does the same for the Exit point. Then the mouse, character 64, is set to the corresponding direction, taking as pattern the corresponding C$ definition (the DATA in line 160). Now Tex wants to know where on top, bottom, left or right border it must put the Start and Exit! If departure choice C1 is top or bottom, i.e. C1<3, the SUB CH (where C1 becomes C) uses line 880, where the A, alias RD, is set to 8 or 22 (top or bottom border), and the CD column is chosen randomly. But if Tex has decided that you start at left or right, the starting column CD is set to 2 or 30, and it is the starting row that is randomly chosen in line 890. RA and CA are the exit row and column, chosen the same way in SUB CH; this time, Tex makes sure that if both Start and Exit are on the same row or column, they are not too close together; otherwise the maze is very boring.

With Start and Exit, Tex can now determine the distance between them; the XB guru gave us a CALL DISTANCE statement, but it works only with sprites, so sprites we put over our Start and Exit points; they are called on screen once

in line 120, but you never see them, since they use the space character. In line 330, they are located on the pixelrow and pixelcolumn of RD/CD and RA/CA, and their distance is put into variable A (a variable that is used over and over in the program for temporary values). The result must be squared before we can used it (see XB manual), and since it is in pixels, we also divide it by 8, then by 2 (therefore A/16) to get the maximum number of dynamite charges that you will be allowed to use: this will be variable TB, total blasts. Finally, in line 350, the maze is drawn on the screen, randomly chosing a space character (137) or an inside wall (136). When all is done, color set 14 is colored to blue, the starting mouse (char. 64) is put in the Start point, and Exit character 138 (a space) is also put on screen.

Before you enter your escape plan, the maximum number of dynamite blasts is given to you; why dynamite? To blast your way through the inside walls of course! But you cannot use more than you got. You then enter your escape plan, an INPUT statement rather than ACCEPT, so you can keep your eyes on the screen while entering it. You can use only five characters: U (up), D (down), L (left) and R (right); the blasts are entered as an asterisk, but the move before the blast should always be entered: to move through a wall at your right, enter R*. The S$ string in the INPUT puts an empty line before your entry, so that the input can start in screen column one. Since the INPUT line can be of variable length, after you press <ENTER> the maze is moved to the top screen line, so that the rest of the program will always find the maze at the same place! This is done in line 390, which looks for a wall char.; if not there, a regular space is, so print one more line.

If you use digits in your command string (see instructions in the program), your string will need to be decoded by Tex; it reads each character until it finds a digit; when he finds one, it replaces it with the repetition of the previous character, kept in OB$; if the number is 10 or above, it reads the next character to get the total value into A. For example, Tex will decode "R4D5" as "RRRRDDDDD". But there is a vicious twist here: if your decoded line is longer than 56 char., i.e. two screen lines, the program will end, so plan your moves carefully! This checking is done in line 480, after Tex has added a final character "\" to your string. In line 470, we initialize the winning variable W and the blast counter BL to zero; the starting points PT are set to five times your allowed blasts TB, plus twice the value of A, which this time is carrying the difference in length of your string PL$ and the decoded string A$ (see line 450) as a little bonus.

Your mouse finally gets moving in line 490. The decoded string is read character by character in a FOR-NEXT loop. If Tex finds an end character before the maze is completed, or a blast that shouldn't be there, A takes the value of the position of these character (or zero for an unrecognized one) and goes to line 620 to end the current game. If all is well, A is decremented by two to be used in the ON GOTO: where to go next... Since we must replace our advancing mouse by some trailing characters, we keep its current position into temporary variables TR and TC; TR keeps the value of the character that was there before the mouse advanced: an inside wall or a space, since there are two kinds of trailing characters: a small dot for a space, a big dot to replace an inside wall character (all that to give you a chance of analyzing your plan if you make a mistake somewhere). Line 520 replaces four lines to move the mouse (if char. is "U", then R=R-1, or if "R" then C=C+1, etc.) Here, if position A is 1 or 2 (U or D), we change row R accordingly; on the other hand, if A is position of L or R, we change the C column.

After the next move is thus interpreted, Tex looks at the character that the mouse is now facing, by a CALL GCHAR. If it is a trail or an outside wall (char. 133-135), goto 540, where the ubiquitous variable A now takes a value of six (trail error) or seven (wall error), before going to line 620 to end the game; if the next character is a wall, K=136, it needs to be blasted! Tex looks in your string for the char. following your current move; if it is a "*", no problem, it will blast the wall; but if not, down you go to line 620; and if you have used all your dynamite, you face the same fate.

If there is no problem with the blast, line 560 will get you through the wall with an appropriate sound. The loop counter X is incremented, so that the next character read will not be a blast (since we have already dealt with it); the points are decremented by four, because the next line will take another one, for a total of five; the blast counter BL is also incremented. Line 570 is passed through by all the correct characters, the UDLRs and the blasts; it simply puts on screen the trailing character TK at the previous row and column

of our mouse, and places the mouse at the new location; the points are decremented by one for each move. Line 580 displays on screen your points and the number of blasts already used.

If the K character replaced by the mouse was 138, this is the Exit: you get more bonus points, five for each dynamite charge that you have not used (TB-BL). The winning variable W is set to one if you have points, to zero if none: it takes the absolute value of the relational expression (PT>0), i.e. one if PT is positive, zero if it is negative or zero. But how could you get zero points if you win? You could have used all your starting points in blasts or too many moves... Temporary variable A then takes a value of three or four, to get you the appropriate message in line 620. If you have not reached the end of the maze, Tex goes back to read the NEXT X character.

Lines 620-690, where an appropriate message is put on screen, deals with the end of each game. If you have earned no points, or if they are negative, or if an error in your command string has aborted the game, your PT points are zero. If your command string had an error, it will be pointed to you by line 630, which displays an arrow above or below your string; here A, no longer needed as a message carrier, takes the value of the relational expression (X>28), i.e. if the incriminating character is in the first or second screen line (this is why your string has to be no more than 56 char. long...).

Your final game points are displayed; if you have won, GOTO 650 for an appropriate fanfare! If not, the music in line 670 is more subdued... The running point TOTal is displayed, and Tex asks you if you want to try another maze.

The rest of the program are the instructions. To make them easier to type, some spaces are replaced by a "%", made empty in line 230. The "=" character in those lines will draw the sample maze, so be very careful when you type these lines. Do NOT type the "[JOIN]": it means join together (no space) the last character of the first line and the first character of the next one. On the other hand, if two words are joined together, type them as such: they will be on two separate screen lines.

This is a big program. If you don't feel like typing it, just wait a few weeks: the third volume of my XB columns should be the D.O.M. for June; it will contain all the columns and programs for the year 1989-1990. The previous years are still available in the Club's Library.

ART LOVER CONTEST
by Lucie Dorais

I thought of this contest for our members who could not attend the monthly meeting, where we usually have a raffle. The question was not really hard, since the artist in question is none other than PICASSO, probably the most common name that comes to mind if you see something crooked in a picture (i.e. cubist...). Well, I got... three entries, two at a meeting, and one by mail; of these three, two had the good answer, so I drew one name. AND THE WINNER IS.... ROLAND LAMER of Montreal, who not only sent me the name of the artist, but the title and the date (with day and month!) of the picture, entitled, logically, "Pitcher, Candle and Casserole", and dated February 16, 1945. The prize is a copy of TI-ARTIST PLUS, generously contributed by Laflamme & Wrigley, or an equivalent prize if Roland already has it.

HOTLINE NUMBERS

The executive has expressed a desire to assist all members should you have some problems or questions, want to do some library swapping or borrow a book. This will be the place to look. Listed here are the members of the executive, committee heads, and others in the group willing to help in their specialized areas. Of course, if you wish to be placed on the list, just give me a call. I know there is a lot of expertise within our Group, so I hope to add to this list. Please respect normal hours unless you specifically know that someone doesn't mind a call at 3a.m., or use the BBS to leave a message at 738-0617, 24 hours a day, 7 days a week.

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