

10. Rotation

General Description

This is an enormously frustrating game to be played against the computer. The user must key in a two number vector which will manifest itself as a line on the screen. Each of your moves will be mirrored by the computer. Your objective is to locate the centre and force the computer to meet your own line. The user takes the blue line and any key can be pressed to start the program. To run this program on the Model A, all the REM statements should be removed.

Detailed Description

Lines 10-90 Credits.

100-160 Display title.

170-410 Fancy pattern (can be deleted if not enough memory).

420-520 Display instructions.

530 Go to procedure to display grid.

540 Go to procedure to input move from keyboard.

550 Go to procedure to move computer.

560 Go to procedure to check if hit computer.

570 Go and do it again.

580-730 Make grid and display starting points.

740-860 Input vector from player and validate, if OK then move player.

870-920 Procedure to move computer.

930-950 Procedure to check if computer is at the same point as you are.

960-1040 Procedure to show score when finished.

1050-1140 Finish.

Educational Notes

This is essentially an intelligence test which appears to leave the majority of adults floundering in grave despair. For some reason (!) to most youngsters seem to get the hang of it fairly quickly.

Program Listing

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>
10 REM *****
20 REM *          ROTATION          *
30 REM *          *                  *
40 REM *   WRITTEN FOR THE BBC-A   *
50 REM *          BY              *
60 REM *   ANDREW PUSEY            *
70 REM *          FEB 1983         *
80 REM *****
90 REM
100 MODE7
110 ENVELOPE 1,1,0,0,0,20,30,50,124,-2,-1,-1,126,126
120 TITLE$="ROTATION"
130 PRINT TAB(10,10);CHR$141;CHR$133;TITLE$
140 PRINT TAB(10);CHR$141;CHR$133;TITLE$
150 PRINT TAB(5,15);CHR$136;CHR$130;"Press any key to begi
n"
160 A$=GET$
170 MODE4
180 FOR X=0TO1279 STEP 50
190   MOVE X,0
200   DRAW 640,1023
210   MOVE X,1023
220   DRAW 640,0
230   MOVE0,X
240   IFX<1024 DRAW1279,512
250   MOVE 1279,X
260   IF X<1024 DRAW 0,512
270   SOUND 1,1,X/50,1
280 NEXT
290 A$=INKEY$(100)
300 SOUND 1,1,100,10
310 VDU19,1,5,0,0,0
320 A$=INKEY$(70)
330 SOUND 1,1,150,10
340 VDU19,0,2,0,0,0
350 A$=INKEY$(70)
360 SOUND 1,1,200,10
370 VDU 19,1,2,0,0,0
380 VDU 19,0,0,0,0,0
390 A$=INKEY$(80)
400 SOUND 1,1,255,10
410 MODE7
420 PRINT TAB(2,4);"***** I N S T R U C T I O N S *****"
430 PRINT TAB(1,7);CHR$129;"You input a vector to move."
440 PRINT TAB(1,9);CHR$134;"The vector must be two numbers
."
450 PRINT TAB(1,11);CHR$131;"The computer will reflect you
r move."
460 PRINT TAB(1,13);CHR$130;"When you think you know where
the"
470 PRINT TAB(1,15);CHR$133;"center is, you must force the
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480 PRINT TAB(1,17);CHR$129;"computer's line to meet yours
."

490 PRINT TAB(1,19);CHR$134;"You are the blue line"
500 PRINT TAB(3,21);CHR$136;CHR$130;"Press any key to star
t"

510 A$=GET$
520 MODE 5:VDU23;8202;0;0;0;
530 PROC_grid
540 PROC_player
550 PROC_computer
560 PROC_check
570 GOTO 540
580 DEF PROC_grid
590 GCOL0,1
600 FOR X=0 TO 1279 STEP 32
610     MOVE X,0:DRAWX,1023
620     MOVE 0,X:DRAW1279,X
630 NEXT
640 CX=RND(20)*32+500:CY=RND(15)*32+400
650 PX=RND(10)*32+500:PY=RND(10)*32+400
660 VDU 19,2,5,0,0,0
670 VDU 19,3,6,0,0,0
680 MOV=0
690 GCOL0,2
700 PLOT69,CX,CY
710 GCOL0,3
720 PLOT69,PX,PY
730 ENDPROC
740 DEF PROC_player
750 MOV=MOV+1
760 PRINT TAB(0,0);SPC(20)
770 PRINT TAB(0,0);:INPUT"Vector ",X,Y
780 IF PX+X*32 < 0 OR PX+X*32 > 1279 THEN VDU7:GOTO760
790 IF PY+Y*32 < 0 OR PY+Y*32 > 900 THEN VDU7:GOTO760
800 IF CY-Y*32 < 0 OR CY-Y*32 > 900 THEN VDU7:GOTO760
810 IF CX-X*32 < 0 OR CX-X*32 > 1279 THEN VDU7:GOTO760
820 MOVE PX,PY
830 PX=PX+X*32:PY=PY+Y*32
840 GCOL0,3
850 DRAW PX,PY
860 ENDPROC
870 DEF PROC_computer
880 MOVE CX,CY
890 CX=CX-X*32:CY=CY-Y*32
900 GCOL0,2
910 DRAW CX,CY
920 ENDPROC
930 DEF PROC_check
940 IF CX=PX AND CY=PY PROC_finish
950 ENDPROC
960 DEF PROC_finish
970 A$=INKEY$(200)
980 CLS
990 COLOUR 3
1000 PRINT"";"You took "TAB(10);MOV;" moves"
1010 PRINT"";"Press SPACE to start again"
1020 IF INKEY(-99)=FALSE THEN 1020
1030 CLEAR
1040 GOTO 410
1050 DEFPROC_end
1060 CLS
1070 COLOUR3
1080 PRINT TAB(4,4);"Continue (Y/N)";
1090 A$=GET$
1100 IFA$<>"Y" AND A$<>"N" THEN VDU7:GOTO1090
1110 IF A$="Y"THEN ENDPROC
1120 PRINT A$
1130 PRINT "";"Thanks for playing"

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1140 END