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10 REM*****
20 REM*Program:ARTISTS ONLY
30 REM*A utility or something to do on a rainy day*
40 REM*By Wai Tsang and MEMPHIS SOFT*
50 REM*29/12/84 to 1/1/85,1 am*
60 REM*Written so that it might get published in YOUR COMPUTER.*
70 REM*****
80 CLS:PRINT" This program turns your CFC 464 into a working sketch pad with facilities such as an AIR BRUSH ,a LINE DRAWER,a routine which enables you to draw CIRCLES easily,and last but not least a RUBBER."
90 PRINT:PRINT" You can also save you drawings on cassette to be finished later or to be kept and used in your own programs."
100 PRINT" The final drawing can be dumped to a printer.To do this or to save you drawing on cassette press (G) and then follow the simple yes or no questions."
110 PRINT:PRINT" If you are a sucker for your own works of art and you don't have a printer thenyou should load the programs onto the screen using PROGRAM 2 and then admire your master piece fresh from the tape you saved it on earlier"

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120 LOCATE 10,24:PRINT"PRESS A KEY"
130 IF INKEY$<>"" THEN 140 ELSE 130
140 CLS:PRINT" The instructions are simple.Position the little white graphics cursor to the place where you want things to be and press the right key to change the mode."
150 PRINT:PRINT" The cursor is moved using the joystick but if you pick the all key board optionthen you use the numeric key pad where UP=8,RIGHT=6,DOWN=2,LEFT=4.
160 PRINT" To set the position of a point or to turn something on and off press the FIREBUTTON on joystick or if you're using the key board then on the numeric pad press '5'."
170 PRINT:PRINT" For the different modes its 'L' for LINE DRAWER,'C' for CIRCLE DRAWER,'A' for AIR BRUSH,'E' for ERASER and 'Q' to QUIT."
180 PRINT" The size of the AIR BRUSH's spray can be changed using the UP and DOWN ARROW KEYS on the cursor cluster."
190 LOCATE 10,24:PRINT"PRESS A KEY"
200 IF INKEY$<>"" THEN 210 ELSE 200
210 CLS:PRINT" Lastly for the screen dump and the save to cassette press (Q)UIT and you can still return t

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o your drawing after saving it or you can take a
rest and load it in later and then finish it."
220 PRINT "Incidentally you start off in the LINE DRAW
ING mode with the cursor in the centre of the scre
en."
230 LOCATE 10,15:PRINT"PRESS ANY KEY TO START"
240 IF INKEY<>" " THEN 250 ELSE 240
250 MODE 1:INK 0,27:INK 1,0:INK 2,26
260 GOSUB 1460
270 LOCATE 8,1:PRINT"(K)EYBOARD OR (J)OYSTK."
280 IF INKEY(37)=0 THEN U%=11:D%=14:J%=20:Q%=4:F%=12:6
OTO 310
290 IF INKEY(45)=0 THEN U%=72:D%=73:J%=74:Q%=75:F%=76:
GOTO 310
300 GOTO 280
310 GOSUB 1460:LOCATE 1,1:PRINT"WORK ON PICTURE STORED
ON CASSETTE (Y/N)"
320 IF INKEY(43)=0 THEN GOSUB 1460:LOAD"!ART WORK":GOT
O 350
330 IF INKEY(46)=0 THEN GOTO 350
340 GOTO 320
350 ss%=10
360 x%=320:y%=200
370 GOSUB 1460:LOCATE 1,1:PRINT"LINE DRAWER"
380 LOCATE 15,1:PRINT"SET FIRST POINT "
390 OX%=0
400 GOSUB 1430
410 GOSUB 1290
420 GOSUB 1390:GOSUB 1430
430 GOSUB 1240
440 GOSUB 1390
450 IF INKEY(F%)=0 THEN GOTO 470
460 GOTO 400
470 IF OX%=1 THEN GOTO 540
480 AX%=X:B%=Y
490 OX%=1
500 SOUND 1,300
510 LOCATE 15,1:PRINT"SET SECOND POINT"
520 FOR S=1 TO 120:NEXT
530 GOTO 400
540 MOVE AX,BY
550 DRAW X%,Y%,1
560 OX%=0
570 SOUND 1,200
580 LOCATE 15,1:PRINT"SET FIRST POINT "
590 FOR I=1 TO 100:NEXT
600 GOTO 400
610 *****Pixel brush routine*****
620 GOSUB 1460
630 LOCATE 1,1:PRINT"AIR BRUSH "
640 LOCATE 11,1:PRINT"OFF"
650 LOCATE 23,1:PRINT"DIAMETER=":LOCATE 32,1:PRINT ss%
660 SPX%=0
670 GOSUB 1430
680 IF INKEY(0)=0 THEN ss%=ss%+2:LOCATE 32,1:PRINT ss%
:IF ss%>48 THEN ss%=48
690 IF INKEY(2)=0 THEN ss%=ss%-2:LOCATE 32,1:PRINT ss%
:IF ss%<3 THEN ss%=3
700 GOSUB 1290
710 GOSUB 1240
720 IF INKEY(F%)=0 AND SPX%=0 THEN SPX%=1:SOUND 1,200:LO
CATE 11,1:PRINT"ON ":GOTO 730 ELSE IF INKEY(F%)=0 AND
SPX%=1 THEN SPX%=0:SOUND 1,200:LOCATE 11,1:PRINT"OFF":FO
R L=1 TO 150:NEXT:GOTO 730
730 GOSUB 1390
740 IF SPX%=1 THEN 750 ELSE 670
750 FOR I=1 TO 5
760 R%=INT((RND*ss%)-(ss%/2))
770 P2%=INT((RND*ss%)-(ss%/2))
780 PLOTR R%,P2%,1
790 NEXT
800 GOTO 670
810 *****Rubber routine*****
820 GOSUB 1460
830 LOCATE 1,1:PRINT"ERASER":LOCATE 8,1:PRINT"OFF"
840 RLX%=0
850 GOSUB 1430
860 GOSUB 1290
870 GOSUB 1240
880 GOSUB 1400:GOSUB 1430
890 IF INKEY(F%)=0 AND RB%=0 THEN RB%=1:SOUND 1,200:FO
R I=1 TO 150:NEXT:LOCATE 8,1:PRINT"ON ":GOTO 900 ELSE
IF INKEY(F%)=0 AND RB%=1 THEN RB%=0:SOUND 1,200:LOCATE
3,1:PRINT"OFF":FOR L=1 TO 150:NEXT:GOTO 900
900 IF RB%=1 THEN GOTO 910 ELSE GOSUB 1390:GOTO 850
910 FOR VX=-2 TO 2
920 MOVE X%-3,Y%+V%:DRAW :X%+3,Y%+V%,2
930 NEXT
940 FOR VX=-2 TO 2
950 MOVE X%-3,Y%+V%:DRAW :X%+3,Y%+V%,0
960 NEXT
970 GOTO 850
980 *****Circle drawing subroutine*****
990 GOSUB 1460
1000 LOCATE 1,1:PRINT"SET CENTRE OF CIRCLE"
1010 GOSUB 1240
1020 GOSUB 1430

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1030 GOSUB 1290
1040 GOSUB 1390:GOSUB 1430
1050 IF INKEY(F%)=0 THEN CX%=X:CY%=Y:SOUND 1,200:LOC
ATE 1,1:PRINT"SET CIRCUMFERENCE OF CIRCLE":FOR I=1 TO
200:NEXT:GOTO 1080
1060 GOSUB 1390
1070 GOTO 1010
1080 GOSUB 1430
1090 GOSUB 1290
1100 GOSUB 1240
1110 GOSUB 1390:GOSUB 1430
1120 IF INKEY(F%)=0 THEN OX%=X:OY%=Y:SOUND 1,200:LOC
ATE 1,1:PRINT"SET CENTRE OF CIRCLE ":GOTO 1150
1130 GOSUB 1390
1140 GOTO 1080
1150 D1%=CX-OX%:D2%=CY-OY%
1160 D1%=ABS(D1%):D2%=ABS(D2%)
1170 R=SGR((D1^2)+(D2^2))
1180 FOR AX=1 TO 360
1190 DEG
1200 PLOT CX%,CY%,1
1210 PLOT CX%+R*COS(A%),CY%+R*SIN(A%),1
1220 NEXT
1230 GOTO 980
1240 IF Y%<1 THEN Y%=1
1250 IF Y%>100 THEN Y%=100
1260 IF X%<1 THEN X%=1
1270 IF X%>640 THEN X%=640
1280 RETURN
1290 IF INKEY(UX)=0 THEN Y%=Y%+4
1300 IF INKEY(JX)=0 THEN Y%=Y%-4
1310 IF INKEY(JX)=0 THEN X%=X%-4
1320 IF INKEY(JX)=0 THEN X%=X%+4
1330 IF INKEY(59)=0 THEN 520
1340 IF INKEY(58)=0 THEN 810
1350 IF INKEY(34)=0 THEN 370
1360 IF INKEY(62)=0 THEN 980
1370 IF INKEY(67)=0 THEN GOSUB 1480
1380 RETURN
1390 *****Graphic cursor routine*****
1400 IF TEST(X%,Y%)=1 THEN P=1
1410 PLOT X%,Y%,2
1420 RETURN
1430 IF P=1 THEN PLOT X%,Y%,1 ELSE PLOT X%,Y%,0
1440 P=0
1450 RETURN
1460 LOCATE 1,1:PRINT"
"
1470 RETURN
1480 REM *QUIT,SAVE OR PRINT OUT*
1490 GOSUB 1460
1500 LOCATE 1,1:PRINT"SCREEN DUMP (Y/N)"
1510 IF INKEY(43)=0 THEN GOSUB 1700:GOTO 1540
1520 IF INKEY(46)=0 THEN GOTO 1540
1530 GOTO 1510
1540 GOSUB 1460
1550 LOCATE 1,1:PRINT"CASSETTE SAVE (Y/N)"
1560 IF INKEY(43)=0 THEN GOSUB 1650:GOTO 1590
1570 IF INKEY(44)=0 THEN GOTO 1590
1580 GOTO 1560
1590 GOSUB 1460
1600 LOCATE 1,1:PRINT"(A)NOTHER,(Q)UIT, OR (C)ONTINUE"
1610 IF INKEY(69)=0 THEN CLS:GOTO 310
1620 IF INKEY(67)=0 THEN BASIC
1630 IF INKEY(62)=0 THEN RETURN
1640 GOTO 1610
1650 REM** cassette save **
1660 SPEED WRITE 1
1670 GOSUB 1460
1680 SAVE "!ART WORK",0,&C000,&4000
1690 RETURN
1700 REM** Screenshot dump. **
1710 GOSUB 1460
1720 DIM I$(320)
1730 PIXLN=413
1740 FOR KX=1 TO 28
1750 PIXLN=PIXLN-14
1760 FOR I%=1 TO 319
1770 GOSUB 1870
1780 I$(I%)=P1%+P2%+P3%+P4%+P5%+P6%+P7%
1790 NEXT
1800 PRINT#3,CHR$(27);CHR$(75);CHR$(12);CHR$(64);
1810 FOR J%=1 TO 320:PRINT#8,CHR$(1%(J%));:NEXT
1820 PRINT#3,CHR$(1%(320))
1830 NEXT
1840 PRINT#3,CHR$(15)
1850 ERASE I$
1860 RETURN
1870 P1%=TEST(1%+2,PIXLN)
1880 P2%=TEST(1%+2,PIXLN-2)+2
1890 P3%=TEST(1%+2,PIXLN-4)+4
1900 P4%=TEST(1%+2,PIXLN-6)+8
1910 P5%=TEST(1%+2,PIXLN-8)+16
1920 P6%=TEST(1%+2,PIXLN-10)+32
1930 P7%=TEST(1%+2,PIXLN-12)+64
1940 RETURN

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