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\*\*\* START ENV,1(506) - PRIMATIVES START \*\*\*

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\*\*\* START ENV,1(506) - PRIMATIVES START \*\*\*

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\*\*\* START ENU,1(506) - PRIMATIVES START \*\*\*

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10 DIM MM(50,20), RR(50,20)
20 FOR A=1 TO 50:RR(A,1)=1:RR(A,20)=1:NEXT A
30 FOR A=1 TO 20:RR(1,A)=1:RR(50,A)=1:NEXT A
35 READ X1,Y1,X2,Y2:IF X1<>-1 THEN FOR X=X1 TO X2:FOR Y=Y +
  TO Y2:RR(X,Y)=1:NEXT Y,X:GOTO 35
40 GOSUB 40000
50 X=1:Y=22:GOSUB50020:GOSUB50040:INFUT* STARTING*;XD,YD: +
X=30:GOSUB50020:GOSUB50040:INPUT    ENDING";X2,Y2
55 IF XD<0 OR XD>50 OR YD<0 OR YD>20 OR X2<0 OR X2>50 OR
Y2<0 OR Y2>20 THEN 50
60 IF (X2-YD) 2 < (Y2-YD) 2 THEN PP=-1 ELSE PP=0
65 TR=0
70 IF PP THEN IF X2=XD THEN PP=0
80 IF PP=0 THEN IF Y2=YD THEN IF X2=XD THEN 50 ELSE PP=-1
90 OF=2:IF PP THEN OF=0
92 XC=XD:YC=YD:IF FP THEN XC=XD+SGN(X2-XD) ELSE YC=YD+SGN +
 (Y2-YII)
94 IF MM(XC,YC)=2 THEN GOTO 200
100 IF FP THEN IF SGN(X2-XD)=1 THEN M=0F+1 ELSE M=0F+2
105 IF NOT PP THEN IF SGN(Y2-YD)=1 THEN M=OF+1 ELSE M=OF+2
110 GOSUB 40100
120 IF NOT OB THEN IN=0:GOTO 60
130 OUT 17,7
200 IN=IN+1
210 IF PP THEN M1=3 ELSE M1=1
220 IF PP THEN IF SGN(X2-XD)=1 THEN M2=1 ELSE M2=2
230 IF NOT PP THEN IF SGN(Y2-YD)=1 THEN M2=3 ELSE M2=4
240 M=M1:GOSUB 40200:IF MM(XN,YN)=2 THEN 300 ELSE GOSUB 4 +
 0100
250 M=M2:GOSUB 40200:IF MM(XN,YN)=2 THEN 200 ELSE GOSUB 4 +
 0100: IF OB THEN 200
260 GOTO 60
10000 DATA 20,5,35,10
10030 DATA -1,-1,-1
40000 'PRIMATIVES
40010 'PRINT OUT A NEW COPY OF THE COMBINED MAP
40015 GOSUB 50000
40017 FOR X=1 TO 50:FOR Y=1 TO 20
40020 IF MM(X,Y)=0 AND RR(X,Y)=0 THEN 40060
40030 CR$=".":IF MM(X,Y)=0 THEN CR$=""
40040 IF RR(X,Y)=1 AND CR$="" THEN CR$="+"
40045 IF MM(X,Y)=2 THEN CR$="#"
40050 IF CR$<>"" THEN GOSUB 50020:OUT 17,ASC(CR$)
40060 NEXT Y,X
40070 RETURN
40100 'MOVEMENT, M=1 MEANS ONE TO X+,2=X-,3=Y+,4+Y-
40120 'IF OB=O THEN NO OBSTACLE, IF OB=-1 THEN THERE IS
40125 XN=XD; YN=YD
40130 IF M=1 THEN XN=XD+1
40140 IF M=2 THEN XN=XD-1
40150 IF M=3 THEN YN=YD+1
40160 IF M=4 THEN YN=YD-1
40170 IF RR(XN, YN)=0 THEN OB=0 ELSE OB=-1
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40180 IF OB THEN MM(XN, YN) = 2: X = XN: Y = YN: GOSUB 50020: OUT 17 +
 35 RETURN
40190 MM(XN,YN)=1:XD=XN:YD=YN:X=XD:Y=YD:GOSUB50020:OUT 17 +
 .46: RETURN
40200 XN=XD:YN=YD:IF M=1 THEN XN=XD+1
40210 IF M=2 THEN XN=XD-1
40220 IF M=3 THEN YN=YD+1
40230 IF M=4 THEN YN=YN-1
40240 RETURN
50000 'CURS - CURSUR AND LINE PRINTER CONTROL - THOR
50010 OUT 17,27:OUT 17,42:WAIT 16,2:RETURN 'CLEAR SCREEN
50020 OUT 17,27:OUT 17,61:OUT 17,31+Y:OUT 17,31+X:WAIT16, +
 2: RETURN 'MOVE TO X,Y
50030 OUT 17,27:OUT 17,84:WAIT 16,2:RETURN 'LINE ERASE
50040 OUT 17,27:OUT 17,89:WAIT 16,2:RETURN 'PAGE ERASE
50050 DUT 17,30:WAIT 16,2:RETURN 'GO HOME
50060 GDSUB50020:DUT17,13:WAIT16,2:GDTD50030 'GDTD X,Y AN +
 D CLEAR LINE
50070 GDSUB50020:GOTO50050 'GOTO X,Y AND CLEAR RIGHT AND +
 DOWN
50080 GOSUB 50120:LP=0:RETURN 'SET PERM TERM TO TTY
50090 GOSUB 50130:LF=-1:RETURN 'SET FERM TERM TO LFT
50100 IF LP THEN 50130 ELSE 50120 'SET TO PERM TERM
50110 IF LP THEN OUT 17,12:RETURN ELSE RETURN 'TOP OF FOR +
 M IF ON LPT
50120 WD=79:CONSOLE16,1:WIDTHWD:NULLO:RETURN 'SET TEMP TE +
 RM TO TTY
50130 WD=132:CONSOLE18,1:WIDTHWD:NULL3:RETURN 'SET TEMP T +
 ERM TO LFT
50140 IFWD=OTHENGOSUB50080 'FRINT C$ CENTERED FLUS D$ AT D
50150 FRINTSTRING$(ABS((WD-LEN(C$))/2),32),C$,TAB(D),D$;C +
 $="":D$="":D=O:RETURN
50160 IFBL<=OTHENRETURNELSEFORB9=1TOBL:PRINT:NEXTB9:RETUR +
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N 'BL BLANKS

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