

```

901 RETURN
1000 PRINT "++++"
1005 RETURN
1010 PRINT "t@t"
1015 RETURN
1020 PRINT "@t@t"
1025 RETURN
1030 PRINT "@t"
1035 RETURN
1040 PRINT "t@t@"
1045 RETURN

```

Note: † = SHIFT Z
@ = CONTROL S

Mr.G.PHILLIPS

Maze

The program is developed to run on an MK/14 but could be easily altered to suit any machine. The idea is to negotiate a maze without being eaten on falling down holes etc. To code your own mazes draw them out complete with the obstacles and code from start to finish including the comments on any obstacles etc. After hazards you can either return to the start or kill off the victim in an endless loop.

0F10		Count -1, Count
0F12	C4 00 C8 FB	Initialise count 1 to zero
0F16	C4 0F 36	
0F19	C4 80 32	Load maze address to P2
0F1C	C4 0D 37	
0F1F	C4 00 33	Load display address to P3
0F22	C4 0B 35	Load message address to P1
0F25	C6 01 01 40	Get first maze section
0F29	31	Also use as message pointer
0F2A	C4 08 C8 E4	Let count =8
0F2E	C5 01 CF 01	Load one character, display
0F32	8F 01	Shine it
0F34	B8 DC 9C F6	Loop 8 times
0F38	C2 FF 31	Restore P1
0F3B	C4 00 33	Restore P3
0F3E	C2 00 9C 08	Is second part of maze code
0F42	B8 CD 9C E4	00, if not display message
0F46	C6 01	Next part of maze
0F48	90 D8	Go to 0F22
0F4A	C2 FF 94 02	If code positive jump 2
0F4E	90 04	If code negative jump 4
0F50	D4 01 98 06	Odd or even, if even jump 6
0F54	C6 80	Alter P2 accordingly
0F56	C6 FF	
0F58	90 C8	Next part of maze
0F5A	40 98 B9	If code 00xx back to start
0F5D	AB 00	Input 0? INC P3, load
0F5F	98 04	No input, jump 4
0F61	C6 01	Continue in maze
0F63	90 06	Jump 6
0F65	AB 01 9C 02	Input 1? Jump 2
0F69	90 BF	Wait for decision
0F6B	8F FF	Wait
0F6D	90 B3	Back to 0F22, more maze

POINTERS

P1 Current message
P2 Maze position
P3 Keyboard / display

Note: Abort will not work as the monitor routine is not used. Maze from 0F80 onwards, could be relocated. Messages from 0B00 to 0BF8 as required.

LITERAL POOL FOR MESSAGES

Note: Not all of these are used in the example program, but should you wish to invent your own maze you could use them where you like. The ones used in the example are marked *

0B00		Not used
0B08*	00 76 76 76 76 76 76 77	'ahhhhhh'
0B10*	53 78 71 38 40 5E 50 71	'frd-lft?'
0B18*	53 78 50 40 5E 50 3F 71	'ford-rt?'
0B20*	53 78 50 40 78 71 79 38	'left-rt?'
0B28*	00 00 79 38 5E 5E 1C 73	'puddle'
0B30	5E 54 79 40 5E 77 79 5E	'dead-end'
0B38	6E 50 79 73 73 06 38 6D	'slippery'
0B40	73 1C 40 79 73 3F 38 6D	'slope-up'
0B48	00 38 38 06 76 73 1C 00	'uphill'
0B50	00 7C 1C 50 76 6D 00 00	'shrub'
0B58*	00 78 50 5E 54 79 7C 00	'bendr'
0B60*	78 71 79 38 5E 54 79 7C	'bendleft'
0B68*	00 79 1C 78 77 78 6D 00	'statue'
0B70*	00 5E 54 79 00 79 76 78	'the end'
0B78	00 76 39 54 79 7C 00 00	'bench'
0B80*	00 00 78 50 77 78 6D 00	'start'
0B88*	79 76 78 5E 54 1C 3F 50	'roundthe'
0B90*	00 50 79 54 50 3F 39 00	'corner'
0B98*	00 00 5E 54 79 7C 00 00	'bend'
0BA0*	54 06 77 78 54 1C 3F 71	'fountain'
0BA8*	00 6F 54 06 54 50 1C 78	'turning'
0BB0*	00 00 5E 54 1C 3F 50 00	'round'
0BB8	00 50 79 6F 06 78 00 77	'A tiger'
0BC0*	54 3F 06 38 00 79 76 78	'the lion'
0BC8*	1C 3F 6E 00 6D 78 77 79	'eats you'
0BD0*	79 6D 3F 38 00 1C 3F 6E	'you lose'
0BD8	00 5E 54 1C 3F 50 6F 00	'ground'
0BE0	00 00 6E 5E 5E 1C 55 00	'muddy'
0BE8*	00 6D 6D 79 38 5E 54 79	'endless'
0BF0*	00 00 00 78 06 73 00 00	'pit'

EXAMPLE MAZE

0F80	80 00 18 41 A0 00 18 45
	68 00 10 55 88 00 90 00
0F90	18 0F 10 09 C0 00 C8 00
	D0 00 00 01 20 E7 E2 01
0FA0	20 35 88 00 98 00 10 35
	58 00 18 F7 20 E5 60 00
0FB0	18 2F 68 00 10 17 A8 00
	88 00 90 00 A0 00 60 00
0FC0	10 03 BE 01 20 03 CE 01
	10 D7 E4 01 20 03 DA 01


```

0FDD  A8 00 90 00 20 D7 60 00
      18 03 F6 01 20 AB D8 01
0FE0  20 05 70 00 00 01 E8 00
      F0 00 08 00 D0 00 00 01

```

Mr.Q.A.RICE

The following five programs are all written for the TRITON and are really intended for use as routines within other programs.

Factorials (Limit of seven with Tiny-BASIC)

```

10 INPUT "FACTORIAL OF", N
20 X=1
30 FOR Y=N TO 2 STEP -1
40 X=X*Y
50 NEXT Y
60 PRINT X
70 GOTO 10

```

Square Roots (Integer result with Tiny-BASIC)

```

10 INPUT "THE SQUARE ROOT OF", X
20 Y=0,Z=170
30 Z=((X/Z)/2)
40 IF Z*Z=X PRINT "=", Z;GOTO 10
50 Y=Y+1
60 IF Y=15 PRINT "NEAREST INTEGER":Z;GOTO 10
70 GOTO 30

```

Clock (Adjust line 80 for accuracy)

```

10 INPUT "HOURS"A,"MINUTES"B
20 C=0
30 PRINT A, // 4,B, // 4,C
40 C=C+1
50 IF C=60,C=0,B=B+1
60 IF B=60,B=0,A=A+1
70 IF A=13,A=1
80 FOR X=1 TO 330
90 NEXT X
100 GOTO 30

```

Spiral Screen Wipe

```

10 VDU 0,12
20 A=1,B=64,C=1024,D=961
30 FOR W=A TO B
40 VDU W,122;NEXT W
50 FOR X=B TO C STEP 64
60 VDU X,122;NEXT X
70 B=B+63
80 FOR Y=C TO D STEP-1
90 VDU Y,122;NEXT Y
100 C=C-65
110 FOR Z=D TO A STEP-64
120 VDU Z,122;NEXT Z
130 D=D-63,A=A+65
140 GOTO 30

```

Chess Board

```

10 VDU 0,12
20 X=32
30 FOR A=1 TO 8

```

```

40 FOR B=3 TO 10
50 FOR C=1 TO 3
60 VDU (A*64)+(B*3)+C,X
70 NEXT C
80 GOSUB 130
90 NEXT B
100 GOSUB 130
110 NEXT A
120 STOP
130 IF X=32,X=122;RETURN
140 IF X=122,X=32;RETURN

```

Mr.I.POWELL

File Finder

The program is in machine code for the TRITON and is designed to allow the user to list the names of files on a tape recorded in TRITON format. It is designed to be recorded onto and recovered from tape using the monitor. The start address is at 1602H, bytes 1600H and 1601H containing the length code for the monitor tape I/O routines. When the program switches on the tape recorder it starts to look for a file header, which in TRITON format consists of 64 CR characters followed by the file identifier terminated with an EOT character. Having found the 64 CR's the program prints the file identifier on the VDU and searches for the next one on the tape. This continues until the character M is pressed on the keyboard. It is a good idea to load this program onto the start of each tape.

0000		ORG	1600H
1600	4D16	DB	4DH,16H
		TPEON	EQU 0327H
		RST2	EQU 0010H
		TPEOFF	EQU 032CH
		OUTCH	EQU 0013H
1602	CD2703	CALL	TPEON
1605	CD3616	START: CALL	TPEIN
1608	FE0D	CPI	0DH
160A	C20516	JNZ	START
160D	063F	MVI	B,63
		INC:	
160F	CD3616	CALL	TPEIN
1612	05	DCR	B
1613	FE0D	CPI	0DH
1615	C20516	JNZ	START
1618	78	MOV	A,B
1619	FE0D	CPI	0
161B	C20F16	JNZ	INC
161E	3E0D	MVI	A,0DH
1620	CD1300	CALL	OUTCH
1623	3E0A	MVI	A,0AH
1625	CD1300	CALL	OUTCH
1628	CD3616	WRT: CALL	TPEIN
162B	FE04	CPI	04H
162D	CA0516	JZ	START
1630	CD1300	CALL	OUTCH
1633	C32816	JMP	WRT