

FAST FORWARD

By Jim

Most of the programs I've written are programs to aid in programming. This is no exception. It's one of my first programs of any complexity.

It is written for the MON-1 series of MONitors and as a result will not run with JMON or the MON-2 series.

FAST FORWARD is a program designed to automatically step through the memory and display the address and data on the TEC LED display.

The purpose of this is to allow you to write down your program without having to hit the increment key all the time.

FAST FORWARD can step through the memory both forwards and backwards at slow speed and also at high speed. It does not, however, have a manual step feature. (strangely, I did not think it necessary at the time).

Each time FAST FORWARD changes to a new address, a beep is sounded to let you know. This way you can keep in time with the changes.

The following keys are used:

A is the fast forward key
B is the fast reverse key
C is the stop key
D is the slow reverse key
ANY other key for slow forward

Two MONitor routines are called by fast forward. These are the LED scan routine at 0140 and the beep routine at 018E.

FAST FORWARD has its own binary-to-display code conversion as I must not of known where this routine was located in the MON-1 ROM at the time.

The conversion routine for FAST FORWARD is at 0A00.

FAST FORWARD also has its own display code table located at 0B00.

The speed of the stepping is controlled by the values loaded into the BC register pair at addresses 0906, 0950 and 095A. Depending on your oscillator, you may need to alter this values.

The purpose of presenting FAST FORWARD is to allow you to play around with the program for whatever purposes you like.

As an interesting challenge, see if you can add a manual step function, it shouldn't be too hard.

FAST FORWARD is hardly a example of good programming, but it does produce the results!

```

0900 21 00 00      LD HL,0000
0903 01 0F 04      LD BC,040F
0906 11 00 0B      LD DE,0B00
0909 DD 21 00 0C   LD IX,0C00
090D 7E            LD A,(HL)
090E CD 00 0A      CALL 0A00
0911 7D            LD A,L
0912 CD 00 0A      CALL 0A00
0915 7C            LD A,H
0916 CD 00 0A      CALL 0A00
0919 C5            PUSH BC
091A E5            PUSH HL
091B CD 8E 01      CALL 018E
091E E1            POP HL
091F 23            INC HL
0920 DD 21 00 0C   LD IX,0C00
0924 D1            POP DE
0925 CD 40 01      CALL 0140
0928 ED 57         LD A,I
092A FE 0A         CP 0A
092C CA 50 09      JP Z 0950
092F FE 0B         CP 0B
0931 CA 5A 09      JP Z 095A
0934 FE 0C         CP 0C
0936 CA 65 09      JP Z 0965
0939 FE 0D         CP 0D
093B CA 6A 09      JP Z 096A
093E 1B           DEC DE
093F 7B           LD A,E
0940 B2           OR D
0941 20 E2        JR NZ 0925
0943 C3 03 09     JP 0903

0950 01 00 01      LD BC,0100
0953 C3 6F 09     JP 096F

095A 01 00 01      LD BC,0100
095D 2B           DEC HL
095E 2B           DEC HL
095F C3 6F 09     JP 096F

0965 C3 25 09     JP 0925
0968 FF          RST 38
0969 FF          RST 38
096A 01 00 04     LD BC,0400
096D 2B           DEC HL
096E 2B           DEC HL
096F C5           PUSH BC
0970 D1           POP DE
0971 CD 40 01     CALL 0140
0974 1B           DEC DE
0975 7A           LD A,D
0976 B3           OR E
0977 20 F8        JR NZ 0971
0979 C3 06 09     JP 0906

0A00 E5           PUSH HL
0A01 F5           PUSH AF

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```

0A02 E6 0F      AND 0F
0A04 26 00      LD H,00
0A06 6F         LD L,A
0A07 19         ADD HL,DE
0A08 7E         LD A,(HL)
0A09 DD 77 00   LD (IX+00),A
0A0C DD 23      INC IX
0A0E F1         POP AF
0A0F E6 F0     AND F0
0A11 1F        RRA
0A12 1F        RRA
0A13 1F        RRA
0A14 1F        RRA
0A15 26 00     LD H,00
0A17 6F        LD L,A
0A18 19        ADD HL,DE
0A19 7E        LD A,(HL)
0A1A DD 77 00   LD (IX+00),A
0A1D DD 23      INC IX
0A1F E1        POP HL
0A20 C9        RET

```

DISPLAY TABLE

0B00: EB 28 CD AD 2E A7 E7 29
0B08: EF 2F 6F E6 C3 EC C7 47

MON-1 SCAN ROUTINE

```

0140 DD E5      PUSH IX
0142 01 01 06   LD BC,0601
0145 DD 7E 00   LD A,(IX+00)
0148 D3 02      OUT 02,A
014A DD 23      INC IX
014C 79         LD A,C
014D D3 01      OUT 01,A
014F CB 27      SLA A
0151 4F        LD C,A
0152 3E 0A      LD A,0A
0154 3D        DEC A
0155 C2 54 01   JP NZ 0154
0158 D3 01      OUT 01,A
015A 10 E9      DJNZ 0145
015C DD E1      POP IX
015E C9        RET

```

MON-1 BEEP ROUTINE

```

018E 0E 0A      LD C,0A
0190 21 50 00   LD HL,0050
0193 29         ADD HL,HL
0194 01 01 00   LD DE,0001
0197 AF        XOR A
0198 D3 02      OUT 02,A
019A 3D        DEC A
019B D3 01      OUT 01,A
019D 41        LD B,C
019E 10 FE      DJNZ 019E
01A0 EE 80     XOR 80
01A2 ED 52     SBC HL,DE
01A4 20 F5     JR NZ 019B
01A6 C9        RET

```