

```

.....
AF= 0000 0000 -BC' 0000 0000
DE'= 0000 0000 -HL' 0000 0000
AE= A800 0000 -BC 0600 0000
DE= 0000 0000 -HL 0000 0000
IX= 0000 0000 -IX 0000 0000
SP= 7680 7004 -PC 7680 7001
SZ=H-PNC X J SZ=H-PNC
00000000
P NZ PO NC P NZ PO NC
7680 00 30AE 20 7680 00 30AE 20
7681 00 30AF 20 7681 00 30AF 20
7682 00 30B0 20 7682 00 30B0 20
7683 00 30B1 20 7683 00 30B1 20
7684 00 30B2 20 7684 00 30B2 20
.....

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STRETCH SUPER STEP

(C)1982 ALLEN CLEVER

M 7000 ZE LD A,ASH
7001 AB
7002 32 LD (30B0),A
7003 80
7004 3C
7005 00

SPRSTP is entered from CP1 by keying M ronn, where ronn is a hex address. The user may key in hex bytes under this control point. x denotes autorepeating keys.

KEY KEY FUNCTION

- ENTER Return control to CP1.
- M Transfer control to FLOWR.
- U Transfer control to BUFSTP.
- P Print screen pic.
- Editing the scrolled strip
 - x Advance memory to next location and display byte in hexadecimal.
 - ↑ Advance memory to previous location and display byte in hex.
 - (SH) ↓ Advance memory to next location and display byte in hex and ASCII.
 - (SH) ↑ Advance memory to previous location and display byte in hex and ASCII.
- R Displays Relative location.
- (SH) R Advance memory to Relative location.
- I Displays Immediate location.
- (SH) I Advance memory to Immediate location.
- Y Return memory to reference location where (SH) R or (SH) I was most recently pressed.
- 'key Load current memory location with the ASCII value key.
- (SH) > Insert byte. Moves string right one space. String runs from current location to FFFF string delimiter. USER MUST PLACE FFFF.
- (SH) < Delete byte. Moves string left one space. String runs from current location to FFFF string delimiter.

FORMATTING THE P-MODELS

- Z Alternately disable/enable the P-Model display. Note that P-Model activity is still taking place.
- (SH) Z Change the registers in the P-Model display. Opens a cursor to accept byte, →, ←, exit via "ENTER".
- M Alternates RAM Windows with a trailing (entry state) P-Model display.

(SH) M Change RAM Window locations. Opens a cursor to accept a byte, →, ←, exit via "ENTER".
T Alternately enables/disables the Instruction Time display and collection of instruction frequency counts in the stat buffer (if defined).

(SH) T Zero the Instruction Timer.
CLEAR Clears the screen.

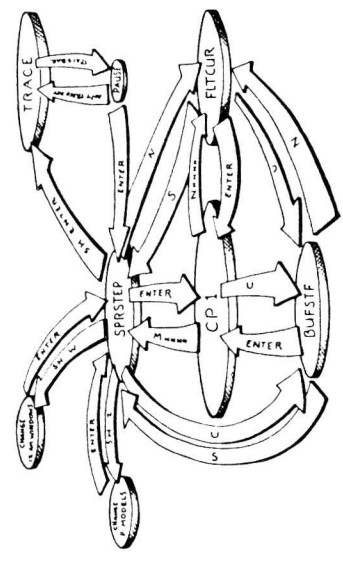
SIMULATOR CONTROL

- / Alternately disables/enables the P-Model activity. When "/" appears in the status panel the simulation is suppressed and the disassembler becomes straight line. Otherwise program-flow order is followed the P-Models are active.
- x Alternates the execution mode for the CALL and RST instruction groups. When "x" appears in the status panel all CALL and RST instructions will be directly executed and simulation resumes with the next instruction (if the subroutine returns "normally"). Otherwise these instructions are single-stepped as usual.
- SPACEBAR x Single-steps current instruction. Disassembler is active on first byte, P-Models active on last byte the instruction.

TRACE MODE

- (SH) ENTER Start the TRACE (automatic single-stepping) at the current instruction. TRACE continues until (1) the foreground breakpoint (76-HALT) is encountered or (2) the user presses SPACEBAR, which will pause the TRACE. Subsequent commands will resume the TRACE. Note that the 76-HALT is placed by the user. Pause the TRACE. If SPACEBAR is subsequently keyed instructions will be single-stepped. If keyed quickly the TRACE will resume. If SPACEBAR is used by the subject program the user may change the pause character, which is located at A684.
- SPACEBAR Halts the TRACE and returns control to SPRSTP.
- ENTER Slow TRACE speed.
- 1 Fast TRACE speed.
- 2 Controls subroutine mode as in SPRSTP.
- x Controls P-Model display as in SPRSTP.
- Z Controls RAM Window display as in SPRSTP.
- H Controls Instr. Timer/Instr. Counter as in SPRSTP.
- T Controls scrolling field as in CP1.
- X Clears screen.
- CLEAR Skips next instruction.
- / Load B register with 01 to fall out of DUNZ loop.
- D Sets bit 7 of F flag register.
- M Resets bit 7.
- P Sets bit 6.
- (SH) Z Resets bit 6.
- NZ Resets bit 2.
- E Resets bit 2.
- O Resets bit 2.

STRETCH SuperStep



Reference Card



Box 11721 San Francisco, CA 94101

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CONTROL POINT 1 CAN ALWAYS BE REACHED FROM ANY OTHER CONTROL POINT BY
KEYING "ENTER".
KEY          KEY FUNCTION
-----
5           Initialize, bring up copyright notice.
M nnnn     Opens SP85TP over location nnnn (see SP85TP).
N nnnn     Opens FLTDR over location nnnn (see FLTDR).
          JUMP, BREAKPOINT COMMANDS
J nnnn     Jump (transfer real-time program flow) to location
          nnnn.
B n nnnn   Set breakpoint n, (n=1,2,3,4) at location nnnn.
(SH) B n   Clear breakpoint n, (n=1,2,3,4), 5 is TRACE
          breakpoint.
?          Examine all breakpoints.
          FORWARDING SCREEN
Z          Alternately suppresses/returns the P-model display.
M          Alternates RAM Window display and trailing P-model.
T          Alternately brings up/suppresses Instruction Timer
          / Instruction frequency counter.
(SH) Z     Change P-model registers. Opens cursor over #. You
(SH) M     may enter byte, →, ←, exit by keying "ENTER".
          Change RAM Windows. Opens cursor over the 8-byte
          window, enter byte, →, ←, exit by keying "ENTER".
          CLEAR
          Clear the screen.
          FLTDR is reached from CP1 by keying N nnnn. Bytes may be entered at
          the current cursor position.
          X denotes autorepeating keys.
          KEY          KEY FUNCTION
          -----
          ENTER       Returns control to Control Point 1.
          S           Transfer control to SP85TP.
          U           Transfer control to BLSTIF.
          P           Print screen pic.

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CURSOR CONTROL
          0000 F3 DI
          0000 F3 AF C3 74 06 C3 08 49 C3 06 40 C3 0F 06
          0018 C3 03 46 C5 06 01 18 C3 06 40 C3 06 02 18 26
          0018 C3 09 46 C5 06 04 18 1E C3 0C 40 11 15 40 18 E3
          0020 C3 09 46 C5 06 04 18 1E C3 0C 40 11 15 40 18 E3
          0038 C3 0F 48 11 10 48 18 E3 C3 12 46 11 25 40 18 08
          0048 C3 09 05 C9 00 00 C3 C2 03 C0 28 00 07 C0 18 F9
          0058 00 00 1F 1F 01 01 58 18 04 1A 08 18 09 19 20 28
          0064 08 78 81 20 F8 C9 31 00 04 3A EC 57 3C FE 02 02
          0078 00 00 C3 C2 06 11 00 40 21 F7 18 01 27 00 ED 08
          0088 21 E3 41 36 3A 23 70 23 36 2E 23 22 07 40 11 20
          0098 01 06 1E 21 52 41 36 C3 23 73 23 72 73 18 F7 06
          00A4 15 36 C9 23 23 18 F9 21 E3 42 70 31 F8 41 01
          00B0 0F 18 C0 C9 01 21 05 01 C0 07 28 C0 B3 18 38 F5
          00C4 07 07 28 12 21 4C 43 23 7C 05 28 18 7E 47 7F 77
          1-2-3-4-5-6-7-8-9-A-B-C-D-E-F

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BLSTIF
          X denotes autorepeat keys.
          KEY          KEY FUNCTION
          -----
          ENTER       Return control to CP1.
          S           Transfer control to SP85TP.
          M           Transfer control to FLTDR.
          P           Print screen pic.
          0000 F3 DI
          0001 AF XOR A
          0002 C3 JP 0274
          0003 74
          0004 06
          0005 C3 JP 4000
          0006 00
          0007 40 JP 4000
          0008 00
          0009 00
          000A 40
          000B E1 POP HL
          000C E9 JP (HL)
          000D C3 JP 067F
          000E 9F
          000F 06
          0010 C3 JP 4003
          0011 03
          0012 40
          0013 C3 PUSH BC
          0014 06 LD B,01H
          0015 01
          0016 10 JP 0446
          0017 40
          0018 C3 JP 4006
          0019 06
          001A 40
          001B C5 PUSH BC
          001C 06 LD B,02H
          001D 02
          001E 10 JP 0446
          001F 26

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          the current cursor position.
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          00B0 0F 18 C0 C9 01 21 05 01 C0 07 28 C0 B3 18 38 F5
          00C4 07 07 28 12 21 4C 43 23 7C 05 28 18 7E 47 7F 77
          1-2-3-4-5-6-7-8-9-A-B-C-D-E-F
          R          Displays eight bytes at Relative location.
          /          Displays eight bytes at Immediate location.
          I          Displays line as ASCII.
          SPACEBAR   Disassembles current instruction.
          ASCII CURSOR
          (SH) 0     Material displayed as ASCII, keystrokes (except
          ENTER     keys will be entered directly.
          Return to CP1. FLTDR remains in ASCII mode.
          →        X Cursor right one location.
          ←        X Cursor left one location.
          ↑        X Cursor up one location.
          ↓        X Cursor down one location.
          (SH) ↑    X Material up one location.
          (SH) ↓    X Material down one location.
          (SH) ENTER nnnn Material repositioned so that current line starts
          at nnnn.
          BREAK
          (SH) 0     Special comment line printed from start of material
          to cursor.
          Return FLTDR to regular hex mode.

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          U nnnn nnnn Define buffer. Example: U DEFBF 0000 F7FF
          V nnnn      Define 512-byte stat buffer. Example V STABUF
          F800 defines stat buffer at F800-F9FF.
          V          Load BLSTIF buffer with stat buffer material.
          ! nnnn nnnn Load buffer with memory in hex.
          + nnnn nnnn Load buffer with memory in hex/ASCII.
          - nnnn nnnn Load buffer with disassembled listing.
          ! nnnn nnnn Load buffer with RAM affecting instructions.
          " nnnn nnnn Load buffer with comparison instructions.
          $ nnnn nnnn Load buffer with program-flow affecting instr.
          # nnnn nnnn Load buffer with aa, bb, cc, dd instructions.
          aa bb cc dd
          Note that ! + and - are combinable, as are ! $ and $. After the
          key function has been performed the user is provided for more buffer
          loading. If finished key "ENTER", otherwise enter the next command.

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