

Micro-instruction Template

<microN>

This is a **template** for describing any of the micro-operations in Figure 4-17 of our text. In this first paragraph, briefly describe what `microN` does.

```
TOS=H; goto Main1 // copy the operations from Figure 4-17 here
```

Step-by-step operation:

- B bus -What register is read onto the B bus?
- ALU - What does the ALU do this cycle?
- Memory - Memory read, write, fetch or nothing?
- Next instr - Usually, jump bits are 000, so the next address is used

The bits!

Field	Bits	Description
Next addr	0 0000 0000	The next addr in ROM
JAM bits [JMPC/JAMN/JAMZ]	000	
ALU [SLL8/SRA1/F0/F1/ ENA/ENB/INVA/INC]	00 11 1100	Shift, operation, and enables/inv/inc
C bus [H/OPC/TOS/OPP/ LV/SP/PC/MDR/MAR]	0 0100 0010	Save to zero or more registers
Mem [write/read/fetch]	100	Describe memory interaction
B bus [see below]	0000	Read value from 1 register onto the B bus

B bus bits: 0=MDR, 1=PC, 2=MBR, 3=MBRU, 4=SP, 5=LV, 6=OPP, 7=TOS, 8=OPC

Put out bits together: 0000 0000 0000 0000 0000 0000 0000 0000 0000

Hex: 0 00 00 00 00