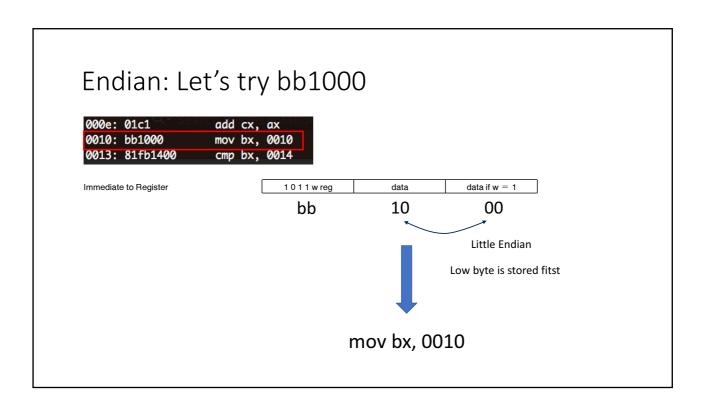
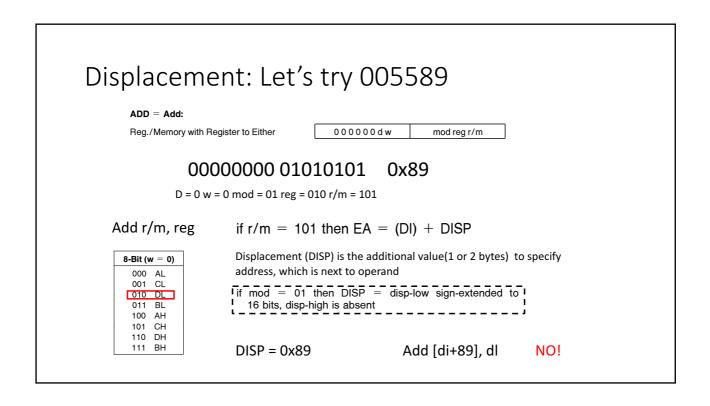
# Advanced Operating System and Virtualization

Disassember 2 and 3 Hiroaki Fukuda

#### Contents

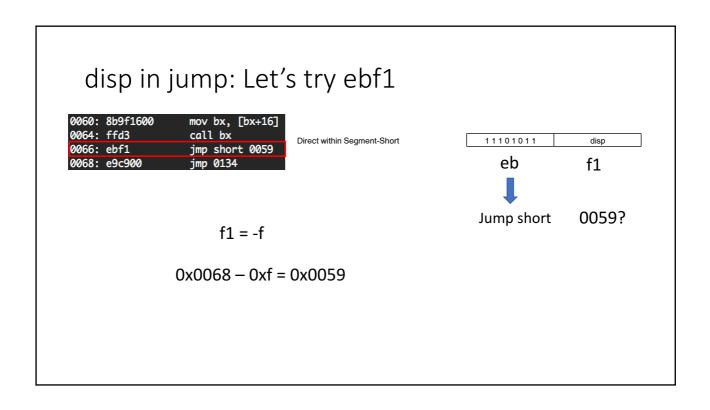
- Endian
  - Little/Big Engian
- Displacemant
  - DISP in the specification
  - disp used with jmp operation





### How to represent minus value?

#### See again! Assume 1 byte if mod = 01 then DISP = disp-low sign-extended to 0 ~ 255 or -128 ~ 127 16 bits, disp-high is absent unsigned signed DISP = 0x89What is this value? 1111111 10001001 Sign extend! 11111111 ==== 255 or -1 00000000 01110111 -77 Using 2 complement, we can Add [di+89], dl translate from unsigned to signed Add [di-77], dl



## Complete your disassembler

- 1.c to 6.c
- nm (/usr/local/core/minix2/usr/bin/nm