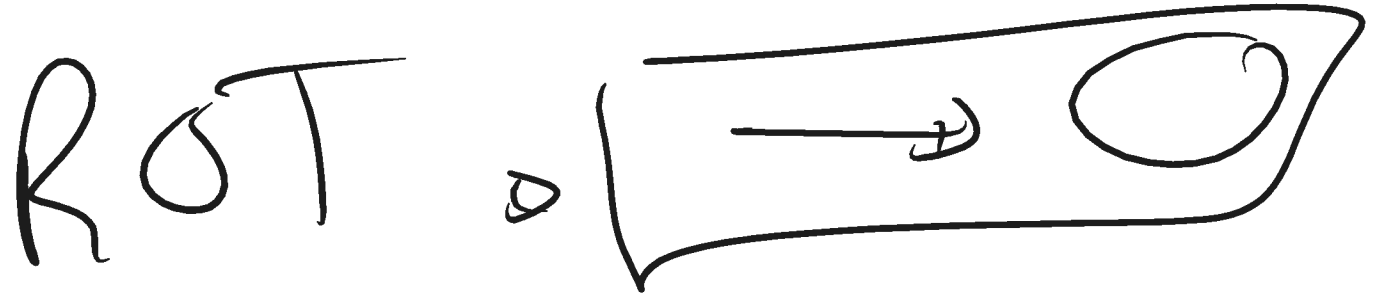


Instruction Variations

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CS 3410, Spring 2010
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More shifts



ARM

$$A = B + 4 * C$$

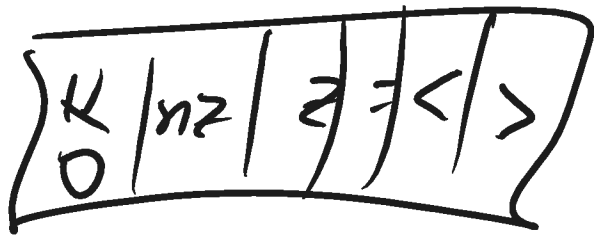
ADD w/shift A, B, 2, C

Condition flags

If $(A < B)$ goto L

SLT ~~SUB~~, D, A, B
BNE ~~BLZ~~ D, L
r0,

Condition flags



x86
ARM

IF (A < B) goto L1
IF (A > B) goto L2
IF (A == B) goto L3

CMP A, B

BLT
BGT
BEQ

Conditional instructions

ARM

top: CMP r3, r4

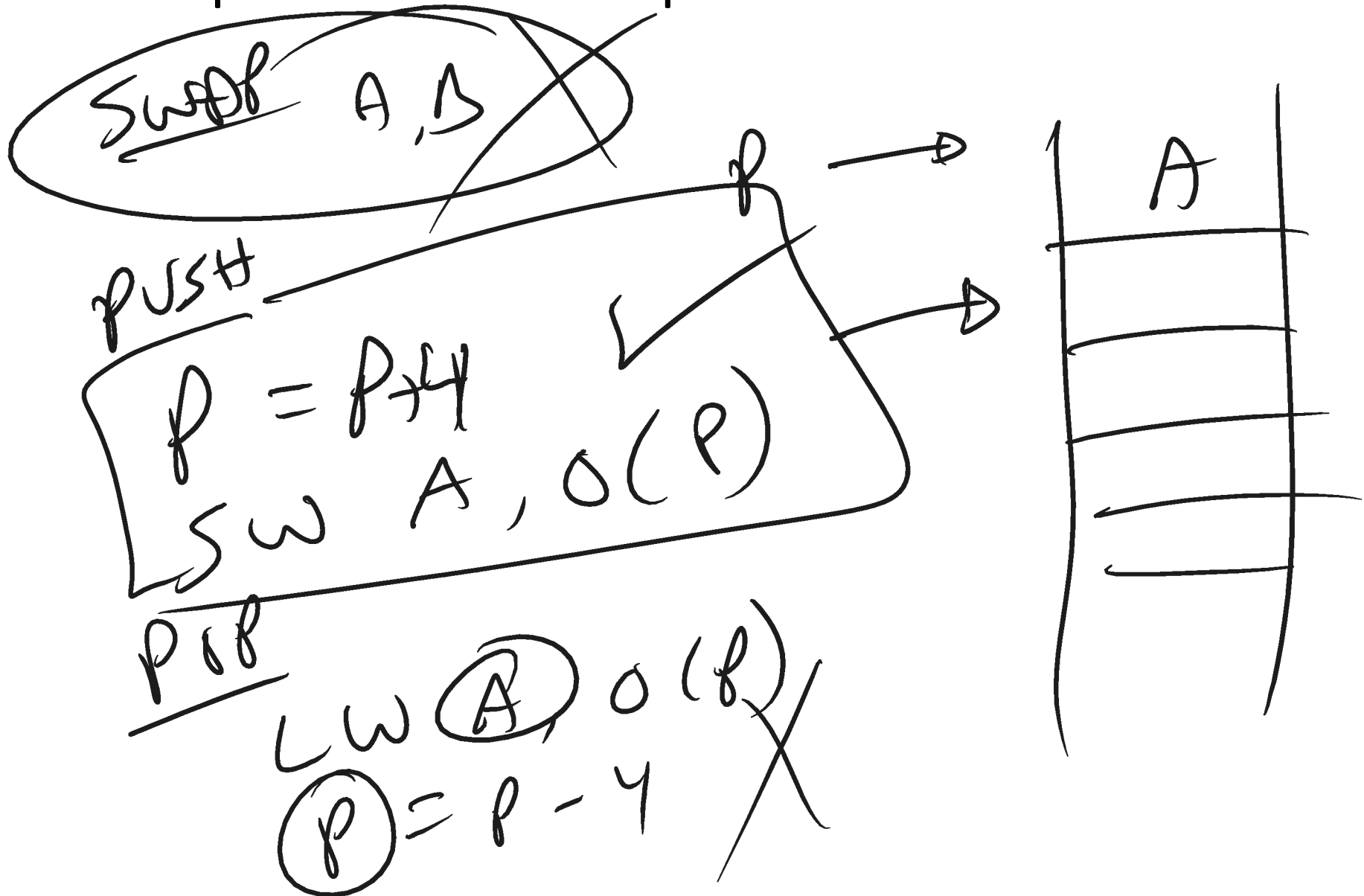
SUBGT r3, r3, r4

SUBLT r4, r4, r3

BNE top

Conditional
subtract

Stack operations & multiple destinations



String instructions

MOV AX, FFh

MOV DI, 5000h

MOV CX, 2000h

REP STOSB

prefix

AX → Mem DI+CX
Decrement CX

Vector instructions

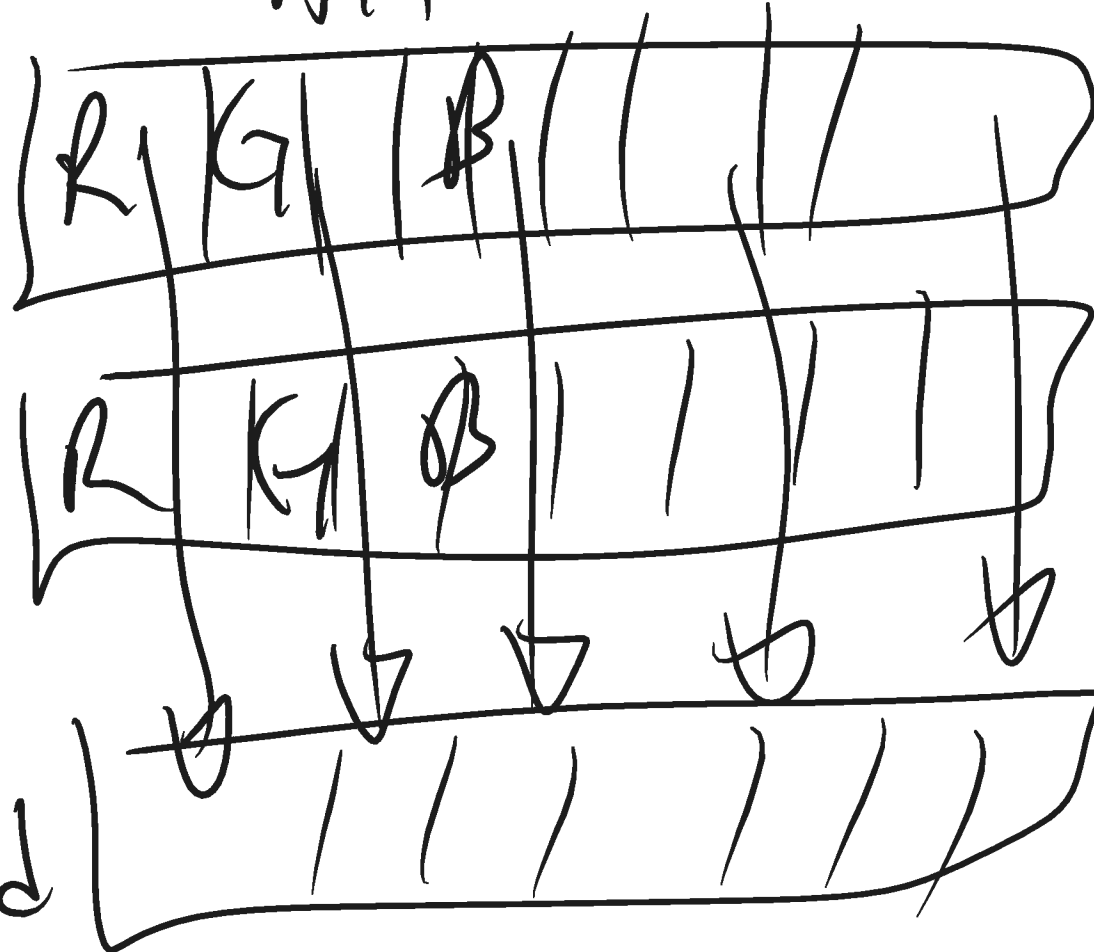
vaddubs(v3, v1, v2)

vector
add
Unsigned

Byte

Saturated

Altivec



SIMD