

Homework 5

Due Wednesday, October 12

68000 PROGRAMMING AND ADDRESSING MODES

Read 3.1, 3.2. Start reading chapter 5. Look at 2.4 as necessary.

Do Chapter 2 #29, 30abcghij; Chapter 3 #9,12,14,15, and:

- Suppose the following bytes are stored in memory:
 $\$9000: 03\ 05\ 90\ 00$
 Fill in the following table:

Instruction	Value in D0 (after instruction)	Value in A1 (after instruction)
CLR.L D0		
MOVE.L #\$009000,A1		
MOVE.B (A1),D0		
MOVE.B 1(A1),D0		
MOVE.W (A1)+,D0		
MOVE.W (A1)+,D0		
MOVE.W D0,A1		
MOVE.W #1,D1 ;note D1		
MOVE.B (A1,D1),D0		

- In post-increment addressing, the address register is incremented after use. In pre-decrement, it's decremented before use. Why not do both the same way? (What is the main reason for this design decision?)

- What does this code do?

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VALUE EQU $9000
RESULT EQU $9001

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ORG $8000
CLR.W D0
MOVE.B VALUE,D0
MOVE.L #SQUARES,A0
MOVE.B (A0,D0),D1
MOVE.B D1,RESULT
TRAP #14

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SQUARES DC.B 0,1,4,9,16,25,36,49,64,81,100
          DC.B 121,144,169,196,225

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