Lab Report 2.C – Addressing Modes

Description:

In this lab, we were asked to experiment with memory partitions and addressing modes by initializing memory with certain values and tracing a premade program. This program modified certain parts of memory and used several addressing modes discussed in previous labs/lectures. We were also asked to determine how the program changed the registers and memory values.

Equipment Used:

• EASy 68K simulator

Procedure:

I started by initializing parts of memory using MOVE.L to copy up to four bytes of data into memory at a time. The values I copied are listed in a table below:

Table 1 A list of memory addresses and values.

Address Location	Contents
2518	4433
	4241
	0000
	0000
	2553
	0000
	01EF
	ABCD
	5476
	CC22
	FF34
	12FF
2544	A267
	1FEE
	FFFF
	FFFF
	0100
	0000
	ABCD
	FFFF
	0000
	0000

Next, I initialized the address and data registers with the contents of the following table:

Table 2 A list of registers and values.

Register	Contents
A3	002468FA
A4	00002544
A6	00002518
D3	00000000
D5	FFFFFFF
D6	00000000

Then I copied the code from the project document and pasted it into the simulator. Finally, assembled the source code, enabled log mode, traced my output, and ran the program.

Program Description:

This program starts by storing a list of bytes starting at address \$2518 (seen in table 1). Then it stores values in address registers A3, A4, and A6 and data registers D3, D5, and D6 (seen in table 2). Finally, the program modifies the registers and memory locations using several addressing modes, including displacement, address indirect, postincrement, and predecrement.

Results:

The results of initialization can be seen in figure 2. As you can see, the data near addresses \$2518 and \$2544 were modified with the values from table 1. After the program ran, I observed several changes in registers and memory, which are described below:

- Register D3 holds \$00000041 (from copying a byte from address \$251B into D3)
- Memory address \$0000251E (from copying a word from address \$2548 into address \$251E)
- Register D5 holds \$44334241 (from copying a longword from address \$2518)
- Memory address \$2522 holds \$0000A267 (from copying a word from address \$2544 to address \$2522)
- Memory address \$252E holds \$00000012 (from copying a byte from address \$2545 to address \$252E)
- Register A3 holds \$0000252A (from loading address \$00252A into A3)
- Register D6 holds \$0000CC22 (from copying a word from address \$252A into D6)
- Register A4 holds \$00002545 (from being incremented as a word and decremented as a byte)
- Register A6 holds \$0000251C (from being incremented as a longword)

Before and after photos of memory are also provided below.

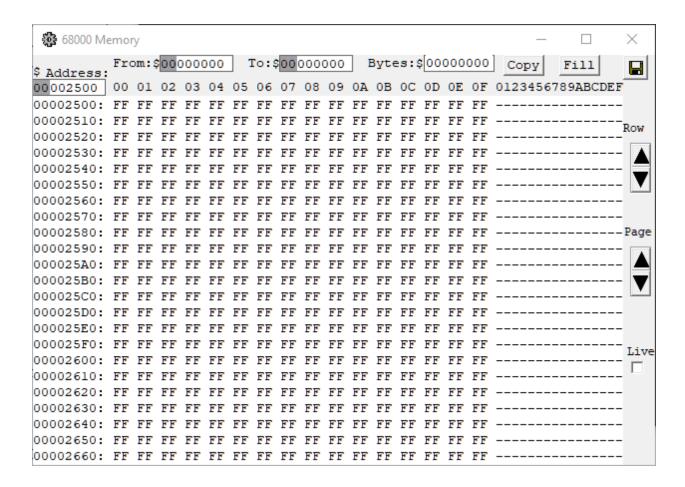


Figure 1 The memory window before running the program.

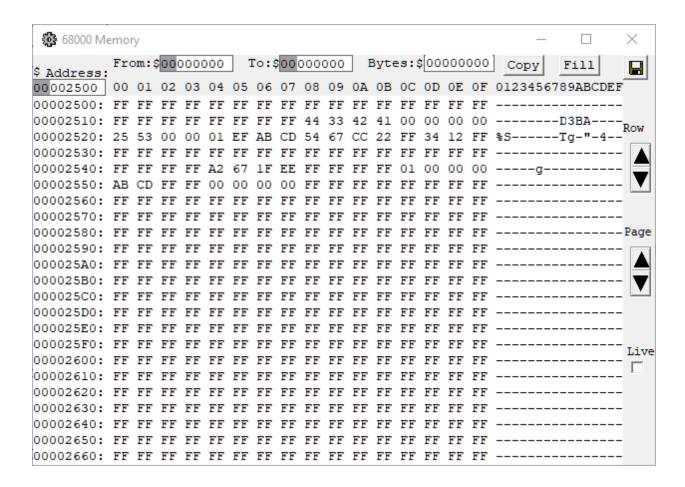


Figure 2 The memory window after initializing the registers and memory.

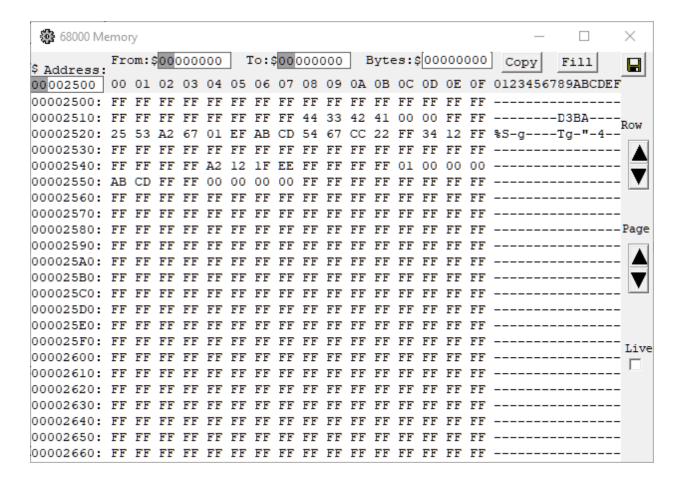


Figure 3 The memory window after executing the full program.

Conclusions:

This lab helped me learn more about addressing modes in 68K Assembly and some novel ways of initializing parts of memory. It also helped me better understand how bytes, words, and longwords word in 68k assembly, especially in regards to incrementing and decrementing. I also learned how to trace a program, which will help me understand my code better and finds bugs more easily.

Code Listing:

```
START: ; first instruction of program
MOVE.L #$44334241,$00002518
MOVE.L #$00000000,$0000251C
MOVE.L #$25530000,$00002520
MOVE.L #$01EFABCD,$00002524
```

```
MOVE.L #$5467CC22,$00002528
MOVE.L #$FF3412FF,$0000252C
MOVE.L #$A2671FEE,$00002544
MOVE.L #$FFFFFFF, $00002548
MOVE.L #$01000000,$0000254C
MOVE.L #$ABCDFFFF,$00002550
MOVE.L #$0000000,$00002554
LEA.L $002468FA, A3
LEA.L $00002544,A4
LEA.L $00002518,A6
MOVE.L #$0000000, D3
MOVE.L #$FFFFFFF,D5
MOVE.L #$0000000, D6
MOVE.B 3(A6), D3
MOVE.W 4(A4),6(A6)
MOVE.L (A6) + , D5
MOVE.W (A4) + , $002522
MOVE.B $00252E, - (A4)
LEA.L $00252A,A3
MOVE.W (A3), D6
SIMHALT
                   ; halt simulator
END START
                   ; last line of source
```

RunLog:

EASy68K execution log file: 2/9/2023 9:37:49 AM

000025D0: FF
000025E0: FF
000025F0: FF
D0=00000000 D4=00000000 A0=00000000 A4=00000000 T_S_INTXNZVC
D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=0010000000000000
D2=00000000 D6=00000000 A2=00000000 A6=00000000 US=00FF0000
D3=00000000 D7=00000000 A3=00000000 A7=01000000 SS=01000000
PC=00000000 Code=21FC 44334241 2518 Line= 2 MOVE.L #\$44334241,\$00002518
00002500: FF
00002510: FF FF FF FF FF FF FF FF FF 44 33 42 41 FF FF FF FF FFD3BA
00002520: FF
00002530: FF
00002540: FF
00002550: FF
00002560: FF
00002570: FF
00002580: FF
00002590: FF
$000025 A0: FF \ FF$
000025B0: FF
$000025C0: FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF$
000025D0: FF
000025E0: FF
000025F0: FF
D0=00000000 D4=00000000 A0=00000000 A4=00000000 T_S_INTXNZVC
D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=001000000000000
D2=00000000 D6=00000000 A2=00000000 A6=00000000 US=00FF0000
D3=00000000 D7=00000000 A3=00000000 A7=01000000 SS=01000000
PC=00000008 Code=21FC 00000000 251C Line= 3 MOVE.L #\$00000000,\$0000251C
00002500: FF
00002510: FF FF FF FF FF FF FF FF FF 44 33 42 41 00 00 00 00D3BA
00002520: FF
00002530: FF
00002540: FF

00002550: FF
00002560: FF
00002570: FF
00002580: FF
00002590: FF
000025A0: FF
000025B0: FF
000025C0: FF
000025D0: FF
000025E0: FF
000025F0: FF
D0=00000000 D4=00000000 A0=00000000 A4=00000000 T_S_INTXNZVC
D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=00100000000100
D2=00000000 D6=00000000 A2=00000000 A6=00000000 US=00FF0000
D3=00000000 D7=00000000 A3=00000000 A7=01000000 SS=01000000
PC=00000010 Code=21FC 25530000 2520 Line= 4 MOVE.L #\$25530000,\$00002520
00002500: FF
00002500: FF
00002510: FF FF FF FF FF FF FF FF 44 33 42 41 00 00 00 00D3BA
00002510: FF
00002510: FF
00002510: FF
00002510: FF
00002510: FF
00002510: FF
00002510: FF
00002510: FF
00002510: FF
00002510: FF
00002510: FF
00002510: FF

D0=00000000 D4=00000000 A0=00000000 A4=00000000 T_S_INT__XNZVC

D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=001000000000000

D2=00000000 D6=00000000 A2=00000000 A6=00000000 US=00FF0000

D3=00000000 D7=00000000 A3=00000000 A7=01000000 SS=01000000

PC=00000018 Code=21FC 01EFABCD 2524 Line= 5 MOVE.L #\$01EFABCD,\$00002524

00002500: FF
00002510: FF FF FF FF FF FF FF FF 44 33 42 41 00 00 00 00D3BA
00002520: 25 53 00 00 01 EF AB CD FF FF FF FF FF FF FF %S
00002530: FF
00002540: FF
00002550: FF
00002560: FF
00002570: FF
00002580: FF
00002590: FF
000025A0: FF
000025B0: FF
000025C0: FF
000025D0: FF
000025E0: FF
000025F0: FF

D0=00000000 D4=00000000 A0=00000000 A4=00000000 T_S_INT_XNZVC

D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=0010000000000000

D2=00000000 D6=00000000 A2=00000000 A6=00000000 US=00FF0000

D3=00000000 D7=00000000 A3=00000000 A7=01000000 SS=01000000

PC=00000020 Code=21FC 5467CC22 2528 Line= 6 MOVE.L #\$5467CC22,\$00002528

000025C0: FF
000025D0: FF
000025E0: FF
000025F0: FF
D0=00000000 D4=00000000 A0=00000000 A4=00000000 T_S_INTXNZVC
D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=0010000000000000
D2=00000000 D6=00000000 A2=00000000 A6=00000000 US=00FF0000
D3=00000000 D7=00000000 A3=00000000 A7=01000000 SS=01000000
PC=00000028 Code=21FC FF3412FF 252C Line= 7 MOVE.L #\$FF3412FF,\$0000252C
00002500: FF
00002510: FF FF FF FF FF FF FF FF FF 44 33 42 41 00 00 00 00D3BA
00002520: 25 53 00 00 01 EF AB CD 54 67 CC 22 FF 34 12 FF %STg-"-4
00002530: FF
00002540: FF
00002550: FF
00002560: FF
00002570: FF
00002580: FF
00002590: FF
000025A0: FF
000025B0: FF
000025C0: FF
000025D0: FF
000025E0: FF
000025F0: FF
D0=00000000 D4=00000000 A0=00000000 A4=00000000 T_S_INTXNZVC
D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=001000000001000
D2=00000000 D6=00000000 A2=00000000 A6=00000000 US=00FF0000
D3=00000000 D7=00000000 A3=00000000 A7=01000000 SS=01000000
PC=00000030 Code=21FC A2671FEE 2544 Line= 8 MOVE.L #\$A2671FEE,\$00002544
00002500: FF
00002510: FF FF FF FF FF FF FF FF 44 33 42 41 00 00 00 00D3BA
00002520: 25 53 00 00 01 EF AB CD 54 67 CC 22 FF 34 12 FF %STg-"-4
00002530: FF

D0=00000000 D4=00000000 A0=00000000 A4=00000000 T_S_INT__XNZVC D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=001000000001000 D2=00000000 D6=00000000 A2=00000000 A6=00000000 US=00FF0000

D3=00000000 D7=00000000 A3=00000000 A7=01000000 SS=01000000

PC=00000040 Code=21FC 01000000 254C Line= 10 MOVE.L #\$01000000,\$0000254C

00002510: FF FF FF FF FF FF FF FF FF 44 33 42 41 00 00 00 00 ------D3BA----00002520: 25 53 00 00 01 EF AB CD 54 67 CC 22 FF 34 12 FF %S-----Tg-"-4--00002540: FF FF FF FF A2 67 1F EE FF FF FF FF 01 00 00 00 ----g-----

D0=0000000 D4=0000000 A0=0000000 A4=0000000 T_S_INT_XNZVC
D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=001000000000000
D2=00000000 D6=00000000 A2=00000000 A6=00000000 US=00FF0000
D3=0000000 D7=00000000 A3=00000000 A7=01000000 SS=01000000
PC=00000048 Code=21FC ABCDFFFF 2550 Line= 11 MOVE.L #\$ABCDFFFF,\$00002550

000025B0: FF
000025C0: FF
000025D0: FF
000025E0: FF
000025F0: FF
D0=00000000 D4=00000000 A0=00000000 A4=00000000 T_S_INTXNZVC
D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=001000000001000
D2=00000000 D6=00000000 A2=00000000 A6=00000000 US=00FF0000
D3=00000000 D7=00000000 A3=00000000 A7=01000000 SS=01000000
PC=00000050 Code=21FC 00000000 2554 Line= 12 MOVE.L #\$00000000,\$00002554
00002500: FF
00002510: FF FF FF FF FF FF FF FF 44 33 42 41 00 00 00 00D3BA
00002520: 25 53 00 00 01 EF AB CD 54 67 CC 22 FF 34 12 FF %STg-"-4
00002530: FF
00002540: FF FF FF FF A2 67 1F EE FF FF FF FF 01 00 00 00g
00002550: AB CD FF FF 00 00 00 00 FF FF FF FF FF FF FF
00002560: FF
00002570: FF
00002580: FF
00002590: FF
000025A0: FF
000025B0: FF
000025C0: FF
000025D0: FF
000025E0: FF
000025F0: FF
D0=00000000 D4=00000000 A0=00000000 A4=00000000 T_S_INTXNZVC
D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=001000000000100
D2=00000000 D6=00000000 A2=00000000 A6=00000000 US=00FF0000
D3=00000000 D7=00000000 A3=00000000 A7=01000000 SS=01000000
PC=00000058 Code=47F9 002468FA Line= 14 LEA.L \$002468FA,A3
00002500: FF
00002510: FF FF FF FF FF FF FF FF 44 33 42 41 00 00 00 00D3BA
00002520: 25 53 00 00 01 FF AB CD 54 67 CC 22 FF 34 12 FF %SΤσ-"-4

00002530: FF
00002540: FF FF FF FF A2 67 1F EE FF FF FF FF 01 00 00 00g
00002550: AB CD FF FF 00 00 00 00 FF FF FF FF FF FF FF
00002560: FF
00002570: FF
00002580: FF
00002590: FF
000025A0: FF
000025B0: FF
000025C0: FF
000025D0: FF
000025E0: FF
000025F0: FF
D0=00000000 D4=00000000 A0=00000000 A4=00000000 T_S_INTXNZVC
D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=00100000000100
D2=00000000 D6=00000000 A2=00000000 A6=00000000 US=00FF0000
D3=00000000 D7=00000000 A3=002468FA A7=01000000 SS=01000000
D3=00000000 D7=00000000 A3=002468FA A7=01000000 SS=01000000 PC=0000005E Code=49F8 2544
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4
PC=0000005E Code=49F8 2544
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4 00002500: FF
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4 00002500: FF
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4 00002500: FF
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4 00002500: FF
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4 00002500: FF
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4 00002500: FF
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4 00002500: FF
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4 00002500: FF
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4 00002500: FF
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4 00002500: FF
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4 00002500: FF
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4 00002500: FF
PC=0000005E Code=49F8 2544 Line= 15 LEA.L \$00002544,A4 00002500: FF

D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=001000000000100 D2=00000000 D6=00000000 A2=00000000 A6=00000000 US=00FF0000 D3=00000000 D7=00000000 A3=002468FA A7=01000000 SS=01000000 PC=00000062 Code=4DF8 2518 Line= 16 LEA.L \$00002518,A6 00002510: FF FF FF FF FF FF FF FF FF 44 33 42 41 00 00 00 00 ------D3BA----00002520: 25 53 00 00 01 EF AB CD 54 67 CC 22 FF 34 12 FF %S-----Tg-"-4--00002540: FF FF FF FF A2 67 1F EE FF FF FF FF 01 00 00 00 ----g------D0=00000000 D4=00000000 A0=00000000 A4=00002544 T_S_INT__XNZVC D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=001000000000100 D2=00000000 D6=00000000 A2=00000000 A6=00002518 US=00FF0000 D3=00000000 D7=00000000 A3=002468FA A7=01000000 SS=01000000 Line= 18 MOVE.L #\$0000000,D3 PC=00000066 Code=7600 00002510: FF FF FF FF FF FF FF FF FF 44 33 42 41 00 00 00 00 ------D3BA----00002520: 25 53 00 00 01 EF AB CD 54 67 CC 22 FF 34 12 FF %S-----Tg-"-4--00002540: FF FF FF FF A2 67 1F EE FF FF FF FF 01 00 00 00 ----g-----

000025A0: FF
000025B0: FF
000025C0: FF
000025D0: FF
000025E0: FF
000025F0: FF
D0=00000000 D4=00000000 A0=00000000 A4=00002544 T_S_INTXNZVC
D1=00000000 D5=00000000 A1=00000000 A5=00000000 SR=00100000000100
D2=00000000 D6=00000000 A2=00000000 A6=00002518 US=00FF0000
D3=00000000 D7=00000000 A3=002468FA A7=01000000 SS=01000000
PC=00000068 Code=7AFF Line= 19 MOVE.L #\$FFFFFFF,D5
00002500: FF
00002510: FF FF FF FF FF FF FF FF FF 44 33 42 41 00 00 00 00 00D3BA
00002520: 25 53 00 00 01 EF AB CD 54 67 CC 22 FF 34 12 FF %STg-"-4
00002530: FF
00002540: FF FF FF FF A2 67 1F EE FF FF FF 01 00 00 00g
00002550: AB CD FF FF 00 00 00 00 FF FF FF FF FF FF FF
00002560: FF
00002570: FF
00002580: FF
00002590: FF
000025A0: FF
000025B0: FF
000025C0: FF
000025D0: FF
000025E0: FF
000025F0: FF
D0=00000000 D4=00000000 A0=00000000 A4=00002544 T_S_INTXNZVC
D1=00000000 D5=FFFFFFF A1=00000000 A5=00000000 SR=001000000001000
D2=00000000 D6=00000000 A2=00000000 A6=00002518 US=00FF0000
D3=00000000 D7=00000000 A3=002468FA A7=01000000 SS=01000000
PC=0000006A Code=7C00 Line= 20 MOVE.L #\$0000000,D6
00002500: FF
00002510: FF FF FF FF FF FF FF FF FF 44 33 42 41 00 00 00 00D3BA

00002520: 25 53 00 00 01 EF AB CD 54 67 CC 22 FF 34 12 FF %STg-"-4
00002530: FF
00002540: FF FF FF FF A2 67 1F EE FF FF FF FF 01 00 00 00g
00002550: AB CD FF FF 00 00 00 00 FF FF FF FF FF FF FF
00002560: FF
00002570: FF
00002580: FF
00002590: FF
000025A0: FF
000025B0: FF
000025C0: FF
000025D0: FF
$000025E0: FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF$
$000025F0: FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF$
D0=00000000 D4=00000000 A0=00000000 A4=00002544 T_S_INTXNZVC
D1=00000000 D5=FFFFFFF A1=00000000 A5=00000000 SR=001000000000100
D2=00000000 D6=00000000 A2=00000000 A6=00002518 US=00FF0000
D3=00000000 D7=00000000 A3=002468FA A7=01000000 SS=01000000
PC=0000006C Code=162E 0003 Line= 22 MOVE.B 3(A6),D3
00002500: FF
00002510: FF FF FF FF FF FF FF FF 44 33 42 41 00 00 00 00D3BA
00002520: 25 53 00 00 01 EF AB CD 54 67 CC 22 FF 34 12 FF %STg-"-4
00002530: FF
00002540: FF FF FF FF A2 67 1F EE FF FF FF FF 01 00 00 00g
00002550: AB CD FF FF 00 00 00 00 FF FF FF FF FF FF FF
00002560: FF
00002570: FF
00002580: FF
00002590: FF
000025A0: FF
000025B0: FF
000025C0: FF
000025D0: FF
000025D0: FF

D0=0000000 D4=0000000 A0=0000000 A4=00002544 T_S_INT__XNZVC
D1=00000000 D5=FFFFFFFF A1=00000000 A5=00000000 SR=00100000000000000
D2=00000000 D6=00000000 A2=00000000 A6=00002518 US=00FF0000
D3=00000041 D7=00000000 A3=002468FA A7=01000000 SS=01000000
PC=00000070 Code=3D6C 0004 0006 Line= 23 MOVE.W 4(A4),6(A6)

00002510: FF FF FF FF FF FF FF FF FF 44 33 42 41 00 00 FF FF -------D3BA----00002520: 25 53 00 00 01 EF AB CD 54 67 CC 22 FF 34 12 FF %S-----Tg-"-4--00002540: FF FF FF FF A2 67 1F EE FF FF FF 01 00 00 00 ----g-----

D0=00000000 D4=00000000 A0=00000000 A4=00002544 T_S_INT__XNZVC
D1=00000000 D5=FFFFFFFF A1=00000000 A5=00000000 SR=001000000001000
D2=00000000 D6=00000000 A2=00000000 A6=00002518 US=00FF0000
D3=00000041 D7=00000000 A3=002468FA A7=01000000 SS=01000000
PC=00000076 Code=2A1E Line= 24 MOVE.L (A6)+,D5

00002590: FF
000025A0: FF
000025B0: FF
000025C0: FF
000025D0: FF
000025E0: FF
000025F0: FF
D0=00000000 D4=00000000 A0=00000000 A4=00002544 T_S_INTXNZVC
D1=00000000 D5=44334241 A1=00000000 A5=00000000 SR=001000000000000
D2=00000000 D6=00000000 A2=00000000 A6=0000251C US=00FF0000
D3=00000041 D7=00000000 A3=002468FA A7=01000000 SS=01000000
PC=00000078 Code=31DC 2522 Line= 25 MOVE.W (A4)+,\$002522
00002500: FF
00002510: FF FF FF FF FF FF FF FF 44 33 42 41 00 00 FF FFD3BA
00002520: 25 53 A2 67 01 EF AB CD 54 67 CC 22 FF 34 12 FF %S-gTg-"-4
00002530: FF
00002540: FF FF FF FF A2 67 1F EE FF FF FF 01 00 00 00g
00002550: AB CD FF FF 00 00 00 00 FF FF FF FF FF FF FF
00002560: FF
00002570: FF
00002580: FF
00002590: FF
000025A0: FF
000025B0: FF
000025C0: FF
000025D0: FF
000025E0: FF
000025F0: FF
D0=00000000 D4=00000000 A0=00000000 A4=00002546 T_S_INTXNZVC
D1=00000000 D5=44334241 A1=00000000 A5=00000000 SR=001000000001000
D2=00000000 D6=00000000 A2=00000000 A6=0000251C US=00FF0000
D3=00000041 D7=00000000 A3=002468FA A7=01000000 SS=01000000
PC=0000007C Code=1938 252E Line= 26 MOVE.B \$00252E,-(A4)
00002500. EE

00002510: FF FF FF FF FF FF FF FF FF 44 33 42 41 00 00 FF FFD3BA
00002520: 25 53 A2 67 01 EF AB CD 54 67 CC 22 FF 34 12 FF %S-gTg-"-4
00002530: FF
00002540: FF FF FF FF A2 12 1F EE FF FF FF FF 01 00 00 00
00002550: AB CD FF FF 00 00 00 00 FF FF FF FF FF FF FF
00002560: FF
00002570: FF
00002580: FF
00002590: FF
000025A0: FF
000025B0: FF
000025C0: FF
000025D0: FF
000025E0: FF
000025F0: FF
D0=00000000 D4=00000000 A0=00000000 A4=00002545 T_S_INTXNZVC
D1=00000000 D5=44334241 A1=00000000 A5=00000000 SR=001000000000000
D2=00000000 D6=00000000 A2=00000000 A6=0000251C US=00FF0000
D3=00000041 D7=00000000 A3=002468FA A7=01000000 SS=01000000
PC=00000080 Code=47F8 252A Line= 27 LEA.L \$00252A,A3
$00002500: FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF$
00002510: FF FF FF FF FF FF FF FF FF 44 33 42 41 00 00 FF FFD3BA
00002520: 25 53 A2 67 01 EF AB CD 54 67 CC 22 FF 34 12 FF %S-gTg-"-4
00002530: FF
00002540: FF FF FF FF A2 12 1F EE FF FF FF FF 01 00 00 00 \cdots
00002550: AB CD FF FF 00 00 00 00 FF FF FF FF FF FF FF
$00002560: FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF$
$00002570: FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF\ FF$
00002580: FF
00002590: FF
000025A0: FF
000025B0: FF
000025C0: FF
000025D0: FF
000025E0: FF
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

D0=0000000 D4=0000000 A0=0000000 A4=00002545 T_S_INT__XNZVC
D1=00000000 D5=44334241 A1=00000000 A5=00000000 SR=0010000000000000000
D2=00000000 D6=00000000 A2=00000000 A6=0000251C US=00FF0000
D3=00000041 D7=00000000 A3=0000252A A7=01000000 SS=01000000
PC=00000084 Code=3C13 Line= 28 MOVE.W (A3),D6

00002510: FF FF FF FF FF FF FF FF FF 44 33 42 41 00 00 FF FF -------D3BA----00002520: 25 53 A2 67 01 EF AB CD 54 67 CC 22 FF 34 12 FF %S-g----Tg-"-4--00002540: FF FF FF FF A2 12 1F EE FF FF FF 01 00 00 00 ------

D0=00000000 D4=00000000 A0=00000000 A4=00002545 T_S_INT__XNZVC
D1=00000000 D5=44334241 A1=00000000 A5=00000000 SR=001000000001000
D2=00000000 D6=0000CC22 A2=00000000 A6=0000251C US=00FF0000
D3=00000041 D7=00000000 A3=0000252A A7=01000000 SS=01000000

Line= 30 SIMHALT

: halt simulator

PC=00000086 Code=FFFF FFFF