Technion Computer Science Department -- PDP/11 X-Assembler Version (5.5) AA.

S O U R C E F I L E : ex1.s11

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000000 1 . = torg + 1000

2

001000 016700 000034 3 main: mov lngth, r0 ;Initialize registers

001004 012701 001042 4 mov #arr1, r1

001010 012702 001056 5 mov #arr2, r2

001014 012703 001072 6 mov #sum, r3

001020 012704 001106 7 mov #diff, r4

8

001024 011113 9 loop: mov (r1), (r3) ;Read element from arr1

001026 061223 10 add (r2), (r3)+ ;Read element from arr2 and compute result into sum

001030 012114 11 mov (r1)+, (r4) ;Read element from arr1

001032 162224 12 sub (r2)+, (r4)+ ;Read element from arr2 and compute result into diff

001034 077005 13 sob r0, loop ;Go to next iteration

001036 000000 14 halt

15

001040 000006 16 lngth: .word 6

001042 000022 000011 000020 17 arr1: .word 22, 11, 16., 14, 11, 200

000014 000011 000200

001056 000002 000011 000020 18 arr2: .word 2, 11, 20, 12, 7, 208

000012 000007 000210

001072 000000 000000 000000 19 sum: .blkw 6

001106 000000 000000 000000 20 diff: .blkw 6

21

001122 22 . = torg + 2000

002000 000000 23 halt

S Y M B O L T A B L E

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SYMBOL VALUE TYPE

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main 001000 text

lngth 001040 text

arr1 001042 text

arr2 001056 text

sum 001072 text

diff 001106 text

loop 001024 text

@ b 001024

breakpoint set at 001024

@ c

breakpoint at 001024 (001024)

@ r

r0 r1 r2 r3 r4 r5 sp pc priTNZVC IR time

000006 001042 001056 001072 001106 000000 001000 001024 0 00000 012704 11.

@ d 001024

breakpoint deleted at 001024

@ c

HALT - HALT INSTRUCTION.

@ c

HALT - HALT INSTRUCTION.

@ e sum, sum+12

----------------------------------------------------------------------------

addr 12 14 16 00 02 04 06 10

----------------------------------------------------------------------------

001072 000024 000022 000040 000026 000020 000410

@ e diff, diff+12

----------------------------------------------------------------------------

addr 06 10 12 14 16 00 02 04

----------------------------------------------------------------------------

001106 000020 000000 000000 000002 000002 177770

@ r

r0 r1 r2 r3 r4 r5 sp pc priTNZVC IR time

000000 001056 001072 001106 001122 000000 001004 016702 0 11100 000000 106.

@ L-