

*****SRC Assembler***** (SRCTools Version 2.01)

HexLoc	MachWord	Label	Source Code	Comments
00000000	00000000	first:	.equ -4	;The first element
00000000	00000000	last:	.equ 5	;The last element
00000000	00000000		.org 1000H	;Starting memory location for
00001000	00000000			;the results
00001000	00000000	SUM:	.dc 0	;This will contain the sum of
00001004	00000000			;all the elements
00001004	00000000	Array:	.dw 100	;Sets aside space for 100 elements
00001194	00000000		.org 2000H	;The code starts here
00002000	2841ffff		la r1, first	;r1 will contain the current element
00002004	28800005		la r2, last	;r2 contains the value at which to stop
00002008	28c00000		la r3, 0	;r3 contains the sum
0000200c	29000000		la r4, 0	;r4 holds the displacement
00002010	00000000			;from the start of the array
00002010	00000000			;to where the current element
00002010	00000000			;will be stored
00002010	2a802018		la r10, loop	;r10 holds the address of the
00002014	00000000			;start of the loop
00002014	2d002034		la r20, end	;r20 has the address to which to
00002018	00000000			;branch when finished
00002018	71441000	loop:	sub r5, r2, r1	;tests to see if finished
0000201c	40285005		brmi r20, r5	;branches to end when finished
00002020	60c61000		add r3, r3, r1	;adds the current element to the sum
00002024	18481004		st r1, Array(r4)	;stores the current element in the array
00002028	68420001		addi r1, r1, 1	;forms the value of the next element
0000202c	69080004		addi r4, r4, 4	;forms the displacement for the next element
00002030	40140001		br r10	;branches to see if it is finished
00002034	18c01000	end:	st r3, SUM	;stores the sum in memory
00002038	f8000000		stop	;quit

PC = 0000203c

r0 =	00000000	r1 =	00000006	r2 =	00000005	r3 =	00000005
r4 =	00000028	r5 =	ffffffff	r6 =	00000000	r7 =	00000000
r8 =	00000000	r9 =	00000000	r10 =	00002018	r11 =	00000000
r12 =	00000000	r13 =	00000000	r14 =	00000000	r15 =	00000000
r16 =	00000000	r17 =	00000000	r18 =	00000000	r19 =	00000000
r20 =	00002034	r21 =	00000000	r22 =	00000000	r23 =	00000000
r24 =	00000000	r25 =	00000000	r26 =	00000000	r27 =	00000000
r28 =	00000000	r29 =	00000000	r30 =	00000000	r31 =	00000000

Exit	Print	Load	Reload	Edit	Step	Run	Stop
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Clear RegFile	Clear BreakPts	Clear Memory
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☒ Hex ☐ Dec ☒ Update Screen ☐ Allow Exceptions

Loc	BreakPt	MachWord	Source Code	
[00002034]	<input type="checkbox"/>	18c01000	st r3, 4096(r0)	Prev. 8
[00002038]	<input type="checkbox"/>	f8000000	stop	Prev. 4
[0000203c]	<input type="checkbox"/>	00000000	nop	Prev. 1
[00002040]	<input type="checkbox"/>	00000000	nop	Next 1
[00002044]	<input type="checkbox"/>	00000000	nop	Next 4
[00002048]	<input type="checkbox"/>	00000000	nop	Next 8
[0000204c]	<input type="checkbox"/>	00000000	nop	
[00002050]	<input type="checkbox"/>	00000000	nop	

Loc	Offset 00	Offset 04	Offset 08	Offset 0c	
[00001000]	00000005	fffffffc	fffffffd	fffffffe	Prev. 16
[00001010]	ffffffff	00000000	00000001	00000002	Prev. 8
[00001020]	00000003	00000004	00000005	00000000	Prev. 4
[00001030]	00000000	00000000	00000000	00000000	Next 4
					Next 8
					Next 16

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