

cycle	instruction retired	reason
	1 -	
	2 -	
	3 -	
	4 -	
	5 lbi r0	
	6 lbi r5	
	7 lbi r6	
	8 lbi r7	
	9 ld r1 r0 0	
	10 nop	st r5 r1 0 is stalled until ld r1 r0 0 can write r1, avoid RAW hazard, st instr begins decoding at cycle 10
	11 nop	st instr begins executing at cycle 11
	12 nop	st instruction begins memory stage at cycle 12
	13 st r5 r1 0	st instruction retired after inserted nops
	14 ld r1 r0 2	
	15 nop	st r6 r1 1 is stalled until ld r1 r0 2 can write r1, avoid RAW hazard, st instr begins decode stage at cycle 15
	16 nop	st instr begins execute stage at cycle 16
	17 nop	st instruction begins memory stage at cycle 17
	18 st r6 r1 1	st instruction retired after inserted nops
	19 ld r1 r0 4	
	20 nop	st r5 r1 1 is stalled until ld r1 r0 4 can write r1, avoid RAW hazard, st instr begins decoding at cycle 20
	21 nop	st instr begins execute stage at cycle 21
	22 nop	st instruction begins memory stage at cycle 22
	23 st r7 r1 1	st instruction retired after inserted nops
	24 halt	
	25 nop	wait until last instruction retired before dumbing memory
	26 nop	wait until last instruction retired before dumbing memory
	27 nop	wait until last instruction retired before dumbing memory
actual cycles in processor: 27		