

```
0000000000010184 <main>:
10184:    ff010113      addi    sp,sp,-16
10188:    00113423      sd      ra,8(sp)
1018c:    06400793      li      a5,100
10190:    fff7879b      addiw   a5,a5,-1
10194:    fe079ee3      bnez    a5,10190 <main+0xc>
10198:    00001637      lui     a2,0x1
1019c:    3ba60613      addi    a2,a2,954 # 13ba <register_fini-0xecf6>
101a0:    06400593      li      a1,100
101a4:    00021537      lui     a0,0x21
101a8:    19050513      addi    a0,a0,400 # 21190 <__clzdi2+0x48>
101ac:    26c000ef      jal     ra,10418 <printf>
101b0:    00000513      li      a0,0
101b4:    00813083      ld      ra,8(sp)
101b8:    01010113      addi    sp,sp,16
101bc:    00008067      ret

00000000000101c0 <atexit>:
101c0:    00050593      mv      a1,a0
101c4:    00000693      li      a3,0
101c8:    00000613      li      a2,0
101cc:    00000513      li      a0,0
101d0:    4390206f      j       12e08 <__register_exitproc>

00000000000101d4 <exit>:
101d4:    ff010113      addi    sp,sp,-16
101d8:    00000593      li      a1,0
101dc:    00813023      sd      s0,0(sp)
101e0:    00113423      sd      ra,8(sp)
:
```

sumiton.o: file format elf64-littleriscv

Disassembly of section .text:

```
0000000000100b0 <main>:
100b0: 00001637      lui    a2,0x1
100b4: 00021537      lui    a0,0x21
100b8: ff010113      addi   sp,sp,-16
100bc: 3ba60613      addi   a2,a2,954 # 13ba <main-0xecf6>
100c0: 06400593      li     a1,100
100c4: 18050513      addi   a0,a0,384 # 21180 <__clzdi2+0x44>
100c8: 00113423      sd     ra,8(sp)
100cc: 340000ef      jal    ra,1040c <printf>
100d0: 00813083      ld     ra,8(sp)
100d4: 00000513      li     a0,0
100d8: 01010113      addi   sp,sp,16
100dc: 00008067      ret

0000000000100e0 <register_fini>:
100e0: ffff0797      auipc  a5,0xfffff0
100e4: f2078793      addi   a5,a5,-224 # 0 <main-0x100b0>
100e8: 00078863      beqz   a5,100f8 <register_fini+0x18>
100ec: 00000517      auipc  a0,0x0
100f0: 11050513      addi   a0,a0,272 # 101fc <__libc_fini_array>
100f4: 0c00006f      j      101b4 <atexit>
100f8: 00008067      ret
```

:|

vsduser@vsduser-VirtualBox:~\$ spike -d pk sun1ton.o

(spike) until pc 0 100b8

bbl loader

(spike) reg 0 sp

0x0000003fffffffb50

(spike)

core 0: 0x000000000000100b8 (0xff010113) addi sp, sp, -16

(spike) reg 0 sp

0x0000003fffffffb40

(spike)

vsworkshop (C lab) [Running] - Oracle VirtualBox

File Machine View Input Devices Help

Activities Terminal

Sat 19:58

vsduser@vsduser-VirtualBox: ~

```
vsduser@vsduser-VirtualBox:~$ riscv64-unknown-elf-gcc -Ofast -mabi=lp64 -march=rv64i -o sum1ton.o sum1ton.c
vsduser@vsduser-VirtualBox:~$ gcc sum1ton.c
vsduser@vsduser-VirtualBox:~$ ./a.out
sum of the numbers from 1 to 100 is 5050
vsduser@vsduser-VirtualBox:~$ riscv64-unknown-elf-gcc -Ofast -mabi=lp64 -march=rv64i -o sum1ton.o sum1ton.c
vsduser@vsduser-VirtualBox:~$ spike pk sum1ton.o
bbl loader
sum of the numbers from 1 to 100 is 5050
vsduser@vsduser-VirtualBox:~$ spike -d pk sum1ton.o
(spike) untill pc 0 100b0
Unknown command untill
(spike) until pc 0 100b0
bbl loader
(spike) reg 0 a2
0x0000000000000000
(spike)
core 0: 0x000000000000100b0 (0x00001637) lui      a2, 0x1
(spike) reg 0 a2
0x00000000000001000
(spike)
core 0: 0x000000000000100b4 (0x00021537) lui      a0, 0x21
(spike) reg 0 a0
0x00000000000021000
(spike)
core 0: 0x000000000000100b8 (0xff010113) addi     sp, sp, -16
(spike) reg 0 sp
0x00000003ffffffb40
(spike) q
vsduser@vsduser-VirtualBox:~$
```

ENG IN 19:58 11-01-2025