

File Edit View Search Terminal Help

multiply.o: file format elf64-littleiscv

Disassembly of section .text:

```
0000000000100b0 <main>:
100b0: fe010113      addi    sp,sp,-32
100b4: 00a00793      li      a5,10
100b8: 0002b537      lui     a0,0x2b
100bc: 00f12423      sw      a5,8(sp)
100c0: d1050513      addi    a0,a0,-752 # 2ad10 <__clzdl2+0x3c>
100c4: 01400793      li      a5,20
100c8: 00113c23      sd      ra,24(sp)
100cc: 00f12623      sw      a5,12(sp)
100d0: 4b8000ef      jal     ra,10588 <puts>
100d4: 0002b537      lui     a0,0x2b
100d8: 00c10613      addi    a2,sp,12
100dc: 00810593      addi    a1,sp,8
100e0: d2850513      addi    a0,a0,-728 # 2ad28 <__clzdl2+0x54>
100e4: 4b4000ef      jal     ra,10598 <scanf>
100e8: 00c12583      lw      a1,12(sp)
100ec: 00812503      lw      a0,8(sp)
100f0: 0f8000ef      jal     ra,101e8 <__muldi3>
100f4: 0005059b      sext.w  a1,a0
100f8: 0002b537      lui     a0,0x2b
100fc: d3050513      addi    a0,a0,-720 # 2ad30 <__clzdl2+0x5c>
10100: 364000ef      jal     ra,10464 <printf>
10104: 01813083      ld      ra,24(sp)
10108: 00000513      li      a0,0
1010c: 02010113      addi    sp,sp,32
10110: 00008067      ret

000000000010114 <register_fini>:
10114: ffff0797      auipc   a5,0xffff0
10118: eec78793      addi    a5,a5,-276 # 0 <main-0x100b0>
1011c: 00078863      beqz    a5,1012c <register_fini+0x18>
10120: 00000517      auipc   a0,0x0
10124: 13450513      addi    a0,a0,308 # 10254 <__libc_fini_array>
10128: 0e40006f      j       1020c <atextlt>
1012c: 00008067      ret

000000000010130 <_start>:
10130: 0001e197      auipc   gp,0x1e
```

*(instructions.c)

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encoding:00000000100010010011110100011
result:0x00F12623

Instruction:jal(jump and link)
jal ra, 10588 <puts>
type:J-type
opcode:1101111
rd:ra(x1)-00001
immediate:10588(12-bit signed:000000001100)
encoding:00000000100010010011110100011
result:0x00F12623

Instruction:addi(add immediate)
addi a2, sp,12
type:I-type
opcode:0010011
funct3:000
rs1:sp(x2)-00010
rd:a2(x12)-01100
immediate:12(12-bit signed:000000001100)
encoding:00000000110000010000011000010011
result:0x00C10613

Instruction:addi(add immediate)
addi a1, sp,8
type:I-type
opcode:0010011
funct3:000
rs1:sp(x2)-00010
rd:a2(x11)-01011
immediate:8(12-bit signed:000000001000)
encoding:00000000100000010000010110010011
result:0x00810593

Instruction:jal(jump and link)
jal ra, 10598 <scanf>
type:J-type
opcode:1101111
rd:ra(x1)-00001
immediate:10598(20-bit signed:00000010101111110110)
encoding:0000001010111111011000001101111
result:0x4B4000EF

```
vsduser@vsduser-VirtualBox: -
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multiply.o: file format elf64-littleriscv

Disassembly of section .text:

0000000000100b0 <main>:
100b0: fe010113      addi    sp,sp,-32
100b4: 00a00793      li      a5,10
100b8: 0002b537      lui     a0,0x2b
100bc: 00f12423      sw      a5,8(sp)
100c0: d1050513      addi    a0,a0,-752 # 2ad10 <__clzdi2+0x3c>
100c4: 01400793      li      a5,20
100c8: 00113c23      sd      ra,24(sp)
100cc: 00f12623      sw      a5,12(sp)
100d0: 4b8000ef      jal     ra,10588 <puts>
100d4: 0002b537      lui     a0,0x2b
100d8: 00c10613      addi    a2,sp,12
100dc: 00810593      addi    a1,sp,8
100e0: d2850513      addi    a0,a0,-728 # 2ad28 <__clzdi2+0x54>
100e4: 4b4000ef      jal     ra,10598 <scanf>
100e8: 00c12583      lw      a1,12(sp)
100ec: 00812503      lw      a0,8(sp)
100f0: 0f8000ef      jal     ra,101e8 <__muldi3>
100f4: 0005059b      sext.w  a1,a0
100f8: 0002b537      lui     a0,0x2b
100fc: d3050513      addi    a0,a0,-720 # 2ad30 <__clzdi2+0x5c>
10100: 364000ef      jal     ra,10464 <printf>
10104: 01813083      ld      ra,24(sp)
10108: 00000513      li      a0,0
1010c: 02010113      addi    sp,sp,32
10110: 00008067      ret

000000000010114 <register_flni>:
10114: ffff0797      auipc   a5,0xffff0
10118: eec78793      addi    a5,a5,-276 # 0 <main-0x100b0>
1011c: 00078863      beqz    a5,1012c <register_flni+0x18>
10120: 00000517      auipc   a0,0x0
10124: 13450513      addi    a0,a0,308 # 10254 <__libc_flni_array>
10128: 0e40006f      j       1020c <atexit>
1012c: 00008067      ret

000000000010130 <_start>:
10130: 0001e197      auipc   gp,0x1e
```

```
*(Instructions.c)
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Instruction:addi(add immediate)
addi sp, sp,-32
type:I-type
opcode:0010011
funct3:000
rs1:sp(x2)-00010
rd:sp(x2)-00010
immediate:32(12-bit signed:111111110000)
encoding:1111111100000010000000100010011
result:0xFFFF12013

Instruction:li(load immediate)
li a5, 10
type:I-type
opcode:0010011
funct3:000
rs1:x0-00000
rd:a5(x15)-01111
immediate:10(12-bit signed:000000001010)
encoding:0000000010100000000011110010011
result:0x00A00793

Instruction:lui(load upper immediate)
lui a0,0x2b
type:U-type
opcode:0110111
rd:a0(x10)-01010
immediate:0x2b(20-bit signed:0000000000000000101011)
encoding:0000000000000000101010110111
result:0x002B537

Instruction:sw(store word)
sw a5,8(sp)
type:S-type
opcode:0100011
funct3:010
rs1:sp(x2)-00010
rd:a5(x15)-01111
immediate:8(12-bit signed:000000001000)
encoding:00000000000010010011110100011
result:0x00F12423

Instruction:addi(add immediate)
```

```
viduser@viduser-VirtualBox: ~  
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multiply.o: file format elf64-littleriscv  
  
Disassembly of section .text:  
  
00000000000100b0 <main>:  
100b0: fe010113      addl    sp,sp,-32  
100b4: 00a00793      ll      a5,10  
100b8: 0002b537      lui     a0,0x2b  
100bc: 00f12423      sw      a5,8(sp)  
100c0: d1050513      addl    a0,a0,-752 # 2ad10 <__clzdl2+0x3c>  
100c4: 01400793      ll      a5,20  
100c8: 00113c23      sd      ra,24(sp)  
100cc: 00f12623      sw      a5,12(sp)  
100d0: 4b8000ef      jal     ra,10588 <puts>  
100d4: 0002b537      lui     a0,0x2b  
100d8: 00c10613      addl    a2,sp,12  
100dc: 00810593      addl    a1,sp,8  
100e0: d2850513      addl    a0,a0,-728 # 2ad28 <__clzdl2+0x54>  
100e4: 4b4000ef      jal     ra,10598 <scanf>  
100e8: 00c12583      lw      a1,12(sp)  
100ec: 00812503      lw      a0,8(sp)  
100f0: 0f8000ef      jal     ra,101e8 <__muldi3>  
100f4: 0005059b      sext.w  a1,a0  
100f8: 0002b537      lui     a0,0x2b  
100fc: d3050513      addl    a0,a0,-720 # 2ad30 <__clzdl2+0x5c>  
10100: 364000ef      jal     ra,10464 <printf>  
10104: 01813083      ld      ra,24(sp)  
10108: 00000513      ll      a0,0  
1010c: 02010113      addl    sp,sp,32  
10110: 00008067      ret  
  
0000000000010114 <register_fini>:  
10114: ffff0797      aulpc   a5,0xffff0  
10118: eec78793      addl    a5,a5,-276 # 0 <main-0x100b0>  
1011c: 00078863      beqz    a5,1012c <register_fini+0x18>  
10120: 00000517      aulpc   a0,0x0  
10124: 13450513      addl    a0,a0,308 # 10254 <__libc_fini_array>  
10128: 0e40006f      j       1020c <atexit>  
1012c: 00008067      ret  
  
0000000000010130 <_start>:  
10130: 0001e197      aulpc   gp,0x1e
```

```
*(instructions.c)  
File Edit Search Options Help  
result:0x4B4000EF  
  
Instruction:lw(load word)  
lw a1, 12(sp)  
type:I-type  
opcode:0000011  
funct3:010  
rs1:sp(x2)-00010  
rd:a0(x1)-01011  
immediate:12(12-bit signed:000000001100)  
encoding:0000000010000010010010110000011  
result:0x00C12583  
  
Instruction:lw(load word)  
lw a0, 8(sp)  
type:I-type  
opcode:0000011  
funct3:010  
rs1:sp(x2)-00010  
rd:a0(x1)-01010  
immediate:8(12-bit signed:000000001000)  
encoding:00000000100000010010010100000011  
result:0x00812403  
  
Instruction:jal(jump and link)  
jal ra, 101e8 <__muldi3>  
type:J-type  
opcode:1101111  
rd:ra(x1)-00001  
immediate:101e8(20-bit signed:00000010100000000100)  
encoding:00000010100000000100000011101111  
result:0x000080EF
```

```

vsduser@vsduser-VirtualBox: ~
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multiply.o:      file format elf64-littleriscv

Disassembly of section .text:

0000000000100b0 <main>:
100b0:    fe010113      addi    sp,sp,-32
100b4:    00a00793      li      a5,10
100b8:    0002b537      lui     a0,0x2b
100bc:    00f12423      sw      a5,8(sp)
100c0:    d1050513      addi    a0,a0,-752 # 2ad10 <__clzdi2+0x3c>
100c4:    01400793      li      a5,20
100c8:    00113c23      sd      ra,24(sp)
100cc:    00f12623      sw      a5,12(sp)
100d0:    4b8000ef      jal     ra,10588 <puts>
100d4:    0002b537      lui     a0,0x2b
100d8:    00c10613      addi    a2,sp,12
100dc:    00810593      addi    a1,sp,8
100e0:    d2850513      addi    a0,a0,-728 # 2ad28 <__clzdi2+0x54>
100e4:    4b4000ef      jal     ra,10598 <scanf>
100e8:    00c12583      lw      a1,12(sp)
100ec:    00812503      lw      a0,8(sp)
100f0:    0f8000ef      jal     ra,101e8 <__muldi3>
100f4:    0005059b      sext.w  a1,a0
100f8:    0002b537      lui     a0,0x2b
100fc:    d3050513      addi    a0,a0,-720 # 2ad30 <__clzdi2+0x5c>
10100:    364000ef      jal     ra,10464 <printf>
10104:    01813083      ld      ra,24(sp)
10108:    00000513      li      a0,0
1010c:    02010113      addi    sp,sp,32
10110:    00008067      ret

000000000010114 <register_flnl>:
10114:    ffff0797      auipc   a5,0xffff0
10118:    eec78793      addi    a5,a5,-276 # 0 <main-0x100b0>
1011c:    00078863      beqz    a5,1012c <register_flnl+0x18>
10120:    00000517      auipc   a0,0x0
10124:    13450513      addi    a0,a0,308 # 10254 <__libc_flnl_array>
10128:    0e40006f      j       1020c <atexit>
1012c:    00008067      ret

000000000010130 <start>:
10130:    0001e197      auipc   gp,0x1e

```

```

*(instructions.c)
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Instruction:addi(add immediate)
addi a0,a0,-752
type:I-type
opcode:0010011
funct3:000
rs1:a0(x2)-01010
rd:a0(x2)-01010
immediate:-752(12-bit signed:1100100100000)
encoding:11001001000000101000001010001001
result:0xD2050513

Instruction:li(load immediate)
li a5, 20
type:I-type
opcode:0010011
funct3:000
rs1:x0-00000
rd:a5(x15)-01111
immediate:20(12-bit signed:000000010100)
encoding:00000001010000000000011110010011
result:0x01400793

Instruction:sd(store doubleword)
sd ra, 24(sp)
type:S-type
opcode:0100011
funct3:000
rs1:sp(x2)-00010
rd:ra(x1)-00001
immediate:24(12-bit signed:0000000110000)
encoding:00000001100010011000010100011
result:0x00113c23

Instruction:sw(store word)
sw a5,12(sp)
type:S-type
opcode:0100011
funct3:010
rs1:sp(x2)-00010
rd:a5(x15)-01111
immediate:12(12-bit signed:000000001100)
encoding:000000001000100110011110100011
result:0x00F12623

```