

Program Code

File

../y86-code/asum.yo

Load

Control

```
0x0  30f400020000000000000000
0xa  803800000000000000000000
0x13 00
0x18 0d000d000d000000
0x20 c000c000c0000000
0x28 000b000b000b0000
0x30 00a000a000a00000
0x38 30f7180000000000000000
0x42 30f6040000000000000000
0x4c 8056000000000000000000
0x55 90
0x56 30f8080000000000000000
0x60 30f9010000000000000000
0x6a 6300
0x6c 6266
0x6e 7087000000000000000000
0x77 50a7000000000000000000
0x81 60a0
0x83 6087
0x85 6196
0x87 7477000000000000000000
0x90 90
```

```
irmovq stack, %rsp      # Set up stack pointer
call main               # Execute main program
halt                    # Terminate program

array: .quad 0x000d000d000d
       .quad 0x00c000c000c0
       .quad 0x0b000b000b00
       .quad 0xa000a000a000

main:  irmovq array,%rdi
       irmovq $4,%rsi
       call sum          # sum(array, 4)
       ret

sum:   irmovq $8,%r8      # Constant 8
       irmovq $1,%r9      # Constant 1
       xorq %rax,%rax     # sum = 0
       andq %rsi,%rsi     # Set CC
       jmp test           # Goto test

loop:  mrmovq (%rdi),%r10  # Get *start
       addq %r10,%rax     # Add to sum
       addq %r8,%rdi      # start++
       subq %r9,%rsi      # count--. Set CC
test:  jne loop           # Stop when 0
       ret                # Return
```

Assembly Code

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Currently executing instruction

Object code