

AAL 9

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pi@gibsgibs: ~/Desktop
pi@gibsgibs:~/Desktop $ vim asml9_1.s
pi@gibsgibs:~/Desktop $ as -o asml9_1.o asml9_1.s
pi@gibsgibs:~/Desktop $ gcc -o asml9_1 asml9_1.o
pi@gibsgibs:~/Desktop $ ./asml9_1 ; echo $?
45
pi@gibsgibs:~/Desktop $
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pi@gibsgibs: ~/Desktop
(gdb) start
Temporary breakpoint 1 at 0x10414
Starting program: /home/pi/Desktop/asml9_1
d
Temporary breakpoint 1, 0x00010414 in main ()
(gdb) disas
Dump of assembler code for function main:
=> 0x00010414 <+0>:      ldr     r1, [pc, #40]      ; 0x10444 <addr_return1>
0x00010418 <+4>:      str     lr, [r1]
0x0001041c <+8>:      ldr     r4, [pc, #28]      ; 0x10440 <addr_array>
0x00010420 <+12>:     ldr     r5, [r4], #4
0x00010424 <+16>:     ldr     r6, [r4], #4
0x00010428 <+20>:     ldr     r7, [r4], #4
0x0001042c <+24>:     bl      0x103e8 <largest>
0x00010430 <+28>:     str     r0, [r4]
0x00010434 <+32>:     ldr     lr, [pc, #8]      ; 0x10444 <addr_return1>
0x00010438 <+36>:     ldr     lr, [lr]
End of assembler dump.
(gdb) break end
Breakpoint 2 at 0x1043c
(gdb) continue
Continuing.

Breakpoint 2, 0x0001043c in end ()
(gdb) info registers r0 r1 r2 r3 r4 r5 r6 r7
r0             0x2d      45
r1             0x205f4   132596
r2             0x7efff39c 2130703260
r3             0x10414   66580
r4             0x205ec   132588
r5             0x14      20
r6             0x2d      45
r7             0x9       9
(gdb)
```

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pi@gibsgibs: ~/Desktop
pi@gibsgibs:~/Desktop $ vim asml9_2.s
pi@gibsgibs:~/Desktop $ as -o asml9_2.o asml9_2.s
pi@gibsgibs:~/Desktop $ gcc -o asml9_2 asml9_2.o
pi@gibsgibs:~/Desktop $ ./asml9_2 ; echo $?
219
pi@gibsgibs:~/Desktop $

(gdb) start
Temporary breakpoint 1 at 0x10434
Starting program: /home/pi/Desktop/asml9_2

Temporary breakpoint 1, 0x00010434 in main ()
(gdb) disas
Dump of assembler code for function main:
0x0001042c <+0>:      push    {lr}           ; (str lr, [sp, #-4]!)
0x00010430 <+4>:      sub      sp, sp, #4
=> 0x00010434 <+8>:      ldr      r1, [pc, #24]    ; 0x10454 <addr_fibinput>
0x00010438 <+12>:     ldr      r0, [r1]
0x0001043c <+16>:     bl       0x103e8 <fibonacci>
0x00010440 <+20>:     ldr      r2, [pc, #16]    ; 0x10458 <addr_fibnumber>
0x00010444 <+24>:     str      r0, [r2]
0x00010448 <+28>:     add      sp, sp, #4
0x0001044c <+32>:     pop      {lr}           ; (ldr lr, [sp], #4)
End of assembler dump.
(gdb) break end
Breakpoint 2 at 0x10450
(gdb) continue
Continuing.

Breakpoint 2, 0x00010450 in end ()
(gdb) info registers r0 r1 r2
r0                0x3db    987
r1                0x205f4   132596
r2                0x205f8   132600
(gdb)
```