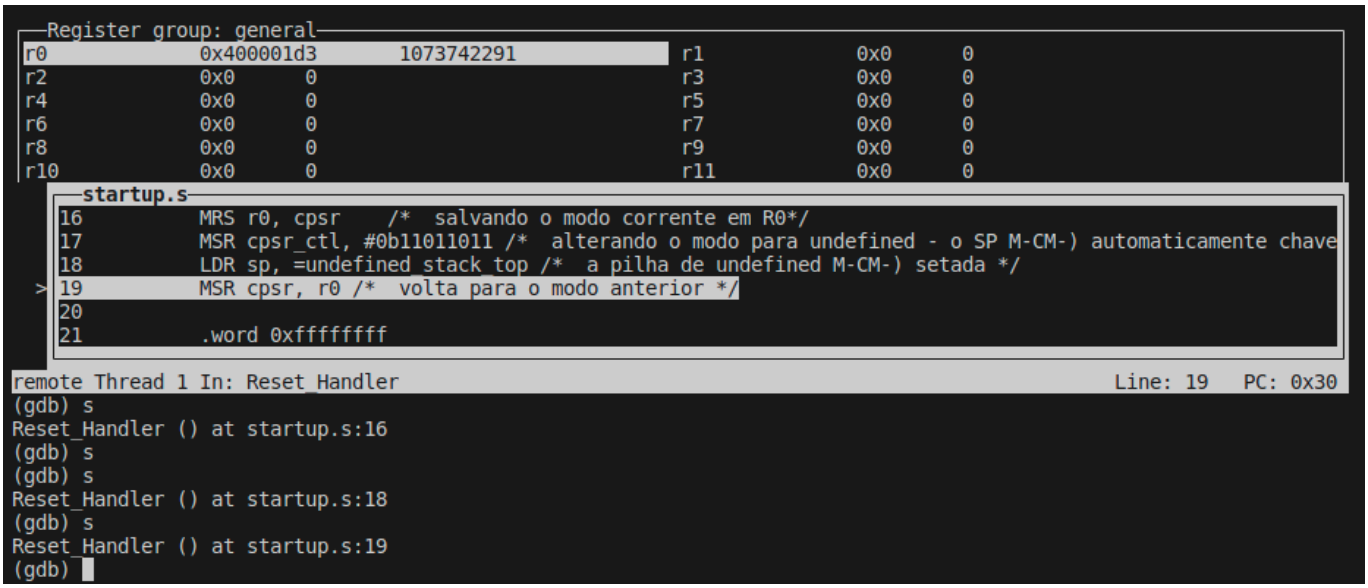
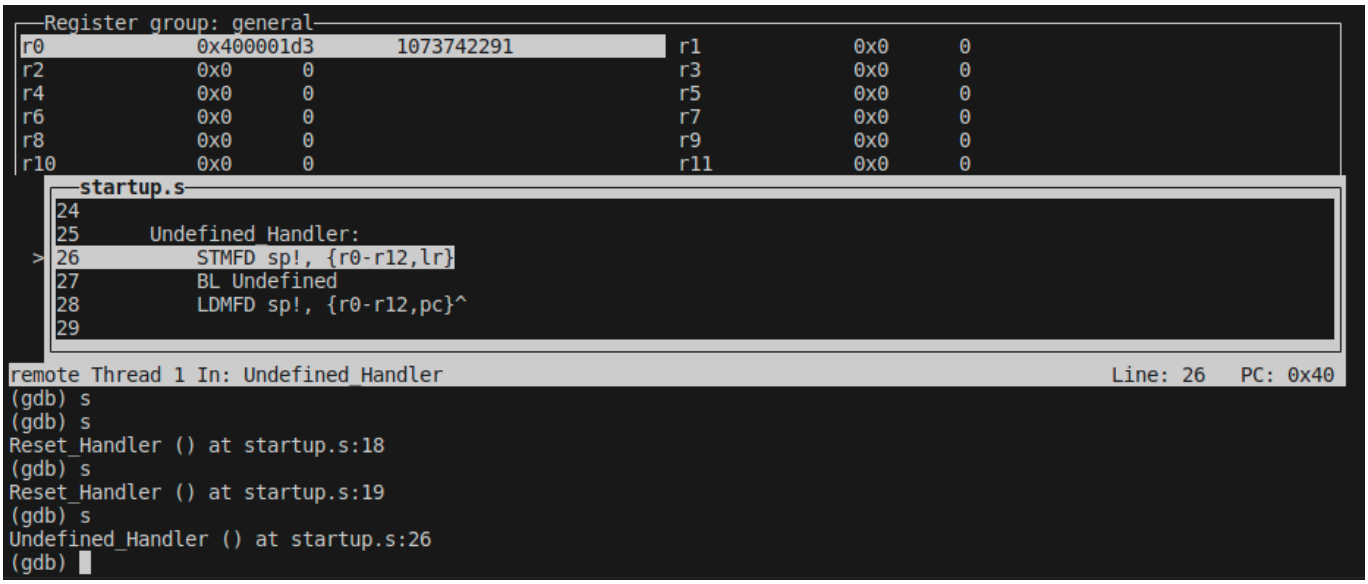
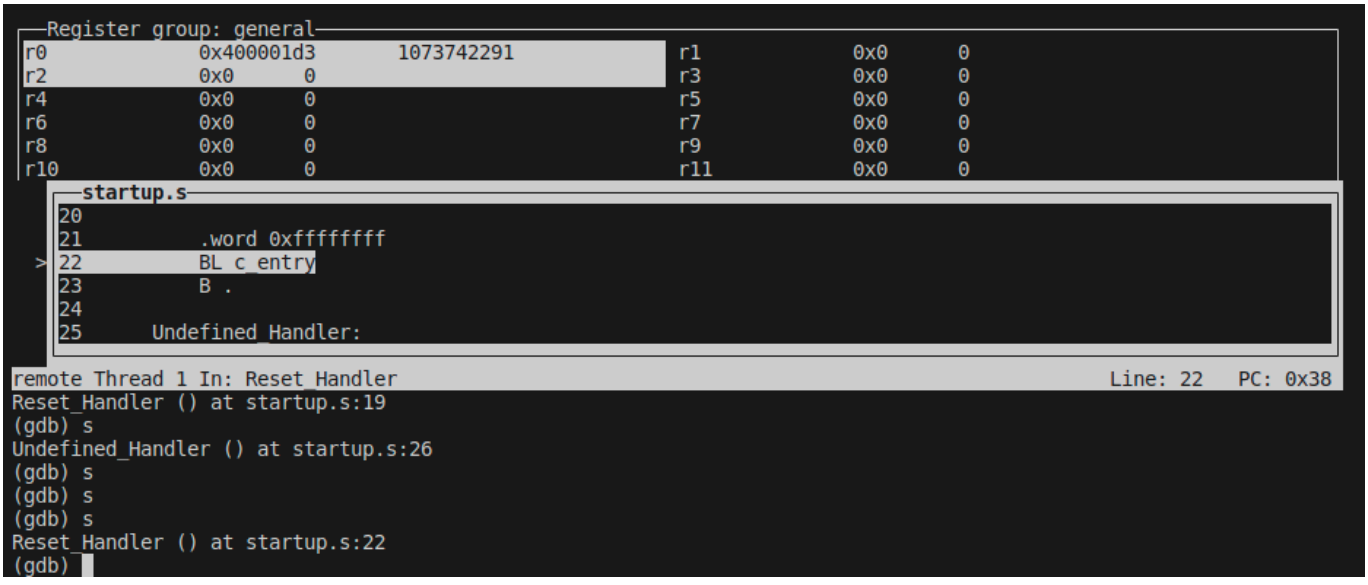
Foi gerado o programa de startup:

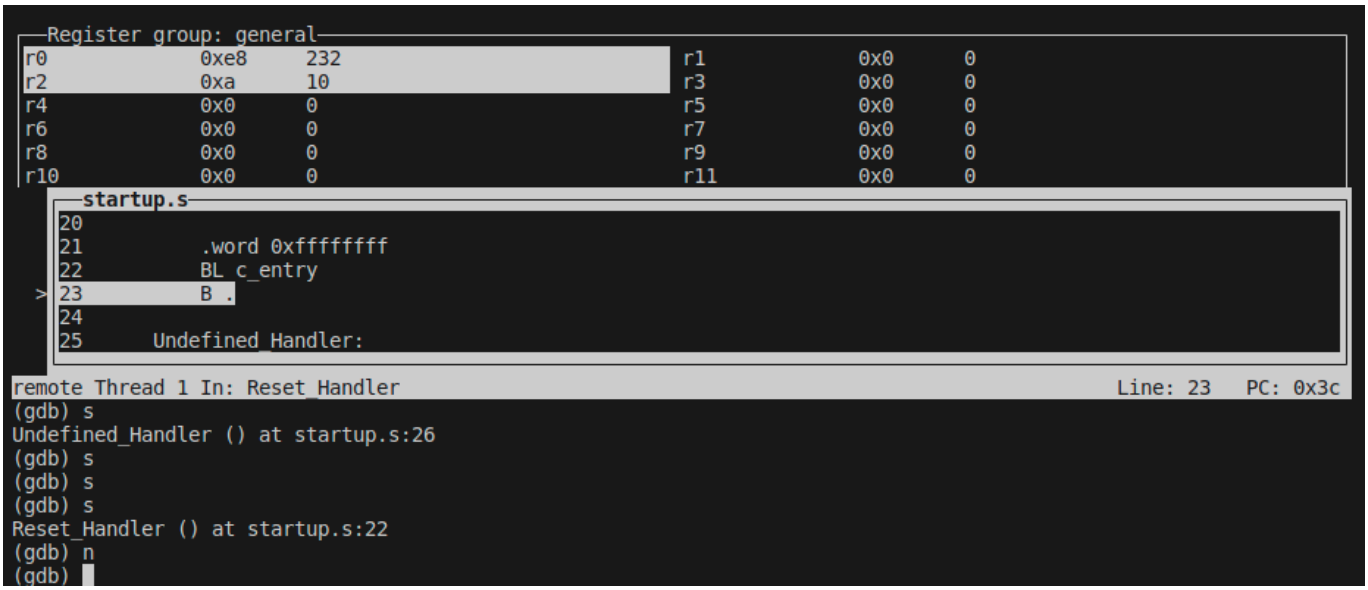
```
.section INTERRUPT_VECTOR, "x"
.global _Reset
_Reset:
  B Reset_Handler /* Reset */
  B Undefined_Handler /* Undefined */
  B . /* SWI */
  B . /* Prefetch Abort */
  B . /* Data Abort */
  B . /* reserved */
  B . /* IRQ */
  B . /* FIQ */

Reset_Handler:
    LDR sp, =svc_stack_top

    MRS r0, cpsr    /*  salvando o modo corrente em R0*/
    MSR cpsr_ctl, #0b11011011 /*  alterando o modo para undefined - o SP é
automaticamente chaveado ao chavear o modo*/
    LDR sp, =undefined_stack_top /*  a pilha de undefined é setada */
    MSR cpsr, r0 /*  volta para o modo anterior */

    .word 0xffffffff
    BL c_entry
    B .

Undefined_Handler:
    STMFD sp!, {r0-r12,lr}
    BL Undefined
vesaida:
    LDMFD sp!, {r0-r12,pc}^
```

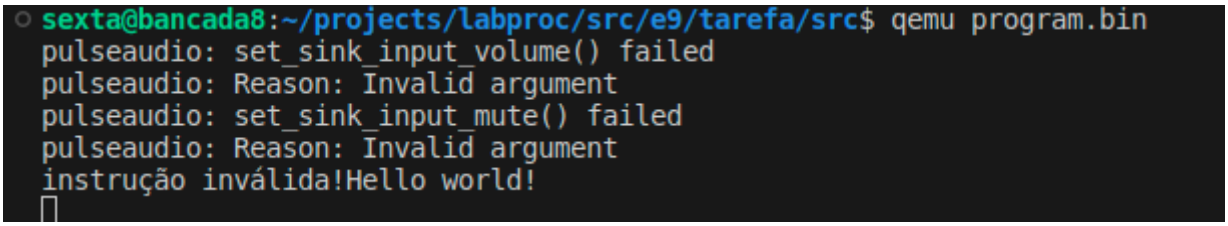
Inicialmente foi executado o programa acima, e foram feitos os prints em cada etapa, observando ao fim que a função Undefined foi executada e depois o código retornou ao ponto onde estava em Reset_Handler, onde foi chamado c_entry:


Register group: general
r0 0x400001d3 1073742291
r1 0x0 0
r2 0x0 0
r3 0x0 0
r4 0x0 0
r5 0x0 0
r6 0x0 0
r7 0x0 0
r8 0x0 0
r9 0x0 0
r10 0x0 0
r11 0x0 0
startup.s
16 MRS r0, cpsr /* salvando o modo corrente em R0*/
17 MSR cpsr_ctl, #0b11011011 /* alterando o modo para undefined - o SP M-CM-) automaticamente chave
18 LDR sp, =undefined_stack_top /* a pilha de undefined M-CM-) setada */
> 19 MSR cpsr, r0 /* volta para o modo anterior */
20
21 .word 0xffffffff
remote Thread 1 In: Reset_Handler
Line: 19 PC: 0x30
(gdb) s
Reset_Handler () at startup.s:16
(gdb) s
(gdb) s
Reset_Handler () at startup.s:18
(gdb) s
Reset_Handler () at startup.s:19
(gdb)

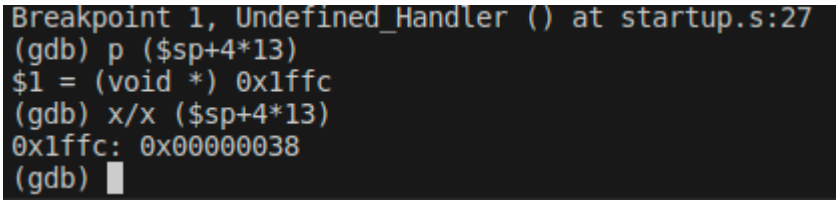

Register group: general
r0 0x400001d3 1073742291
r1 0x0 0
r2 0x0 0
r3 0x0 0
r4 0x0 0
r5 0x0 0
r6 0x0 0
r7 0x0 0
r8 0x0 0
r9 0x0 0
r10 0x0 0
r11 0x0 0
startup.s
24
25 Undefined_Handler:
> 26 STMFD sp!, {r0-r12,lr}
27 BL Undefined
28 LDMFD sp!, {r0-r12,pc}^
29
remote Thread 1 In: Undefined_Handler
Line: 26 PC: 0x40
(gdb) s
(gdb) s
Reset_Handler () at startup.s:18
(gdb) s
Reset_Handler () at startup.s:19
(gdb) s
Undefined_Handler () at startup.s:26
(gdb)

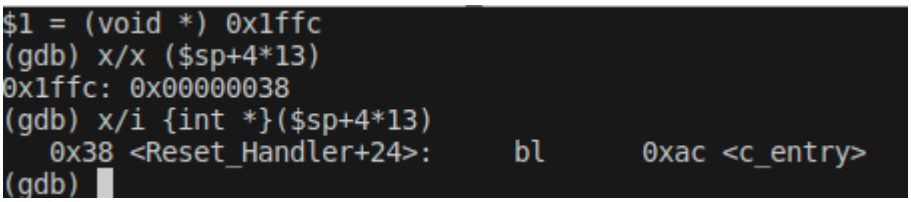

Register group: general
r0 0x400001d3 1073742291
r1 0x0 0
r2 0x0 0
r3 0x0 0
r4 0x0 0
r5 0x0 0
r6 0x0 0
r7 0x0 0
r8 0x0 0
r9 0x0 0
r10 0x0 0
r11 0x0 0
startup.s
20
21 .word 0xffffffff
> 22 BL c_entry
23 B .
24
25 Undefined_Handler:
remote Thread 1 In: Reset_Handler
Line: 22 PC: 0x38
Reset_Handler () at startup.s:19
(gdb) s
Undefined_Handler () at startup.s:26
(gdb) s
(gdb) s
(gdb) s
Reset_Handler () at startup.s:22
(gdb)





Parando o programa antes da instrução em vesaida, foram feitos os prints a seguir:





Isso é o esperado, pois a próxima instrução a ser executada ao sair de Undefined_Handler é o branch para c_entry.