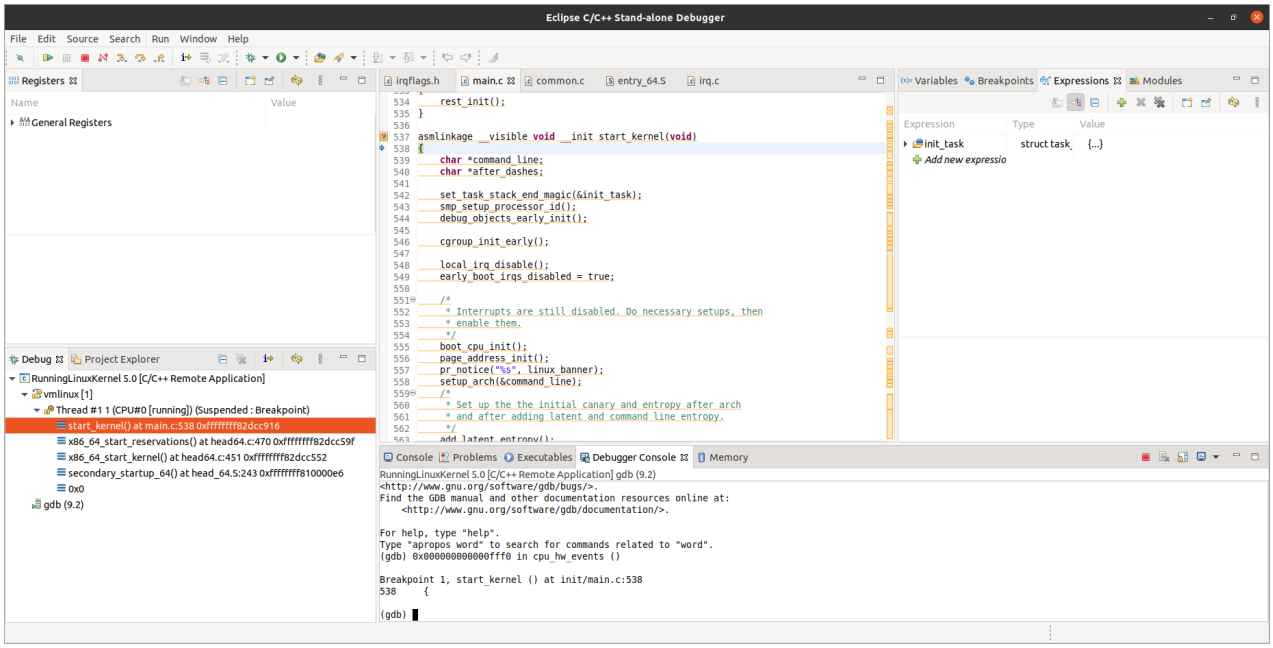
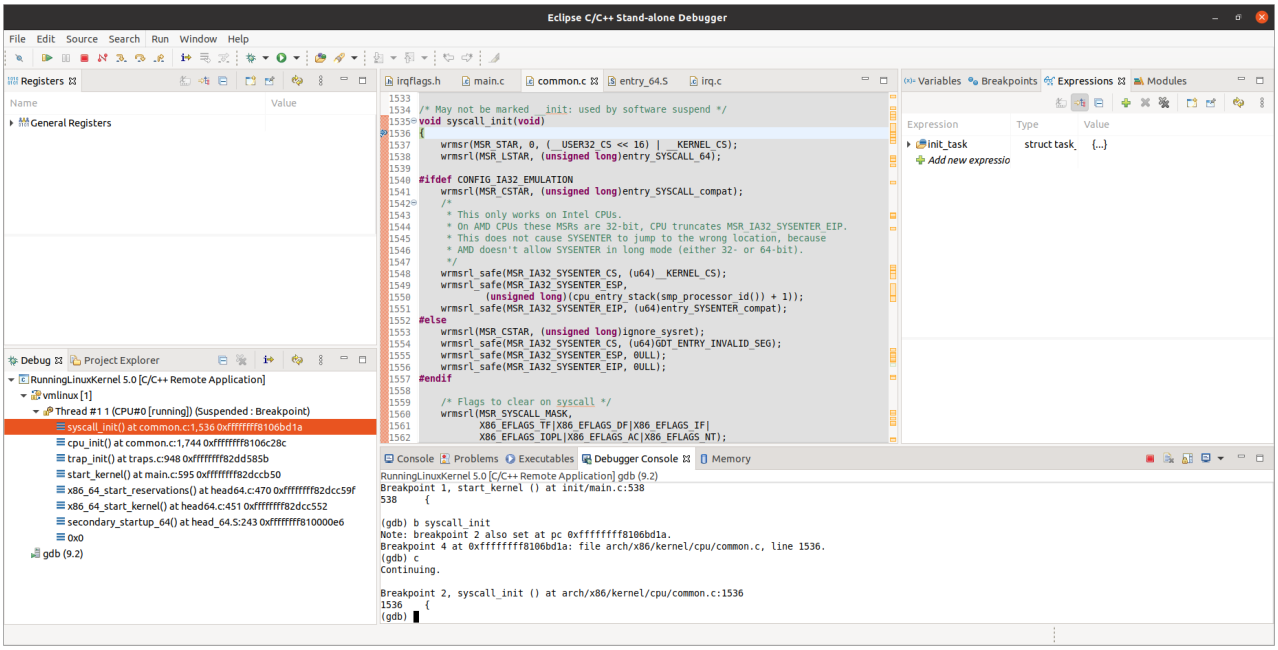
HW1

408410094 葉X勛

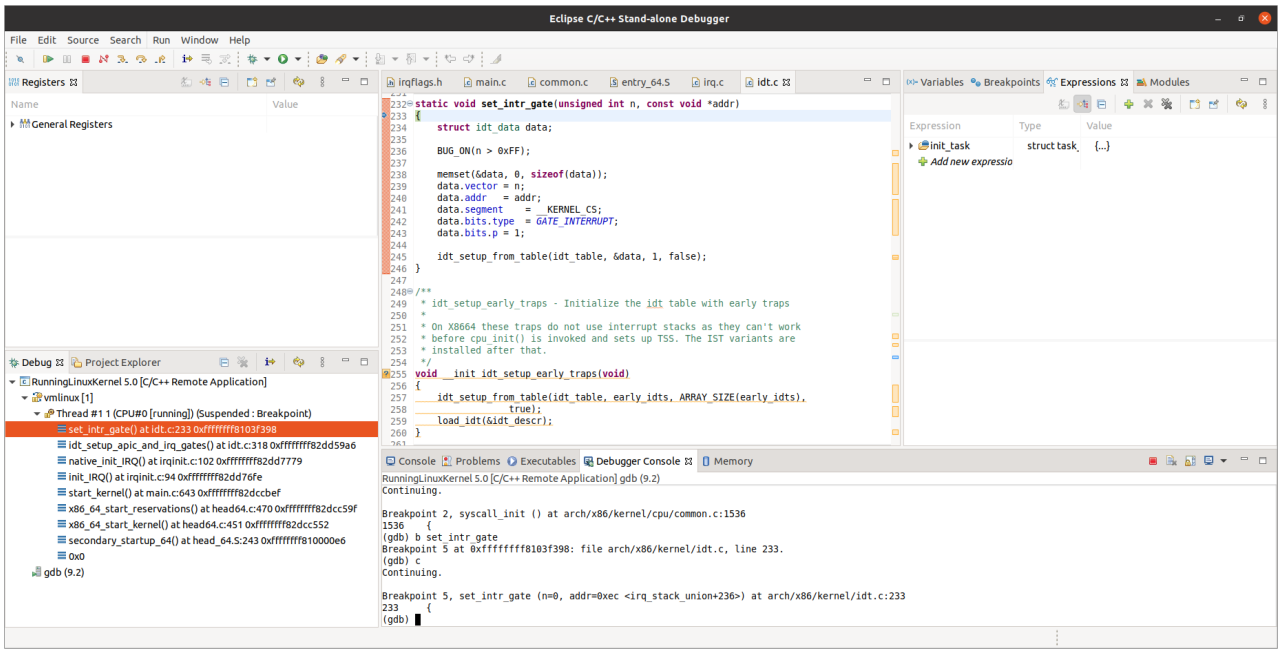
1.start_kernel



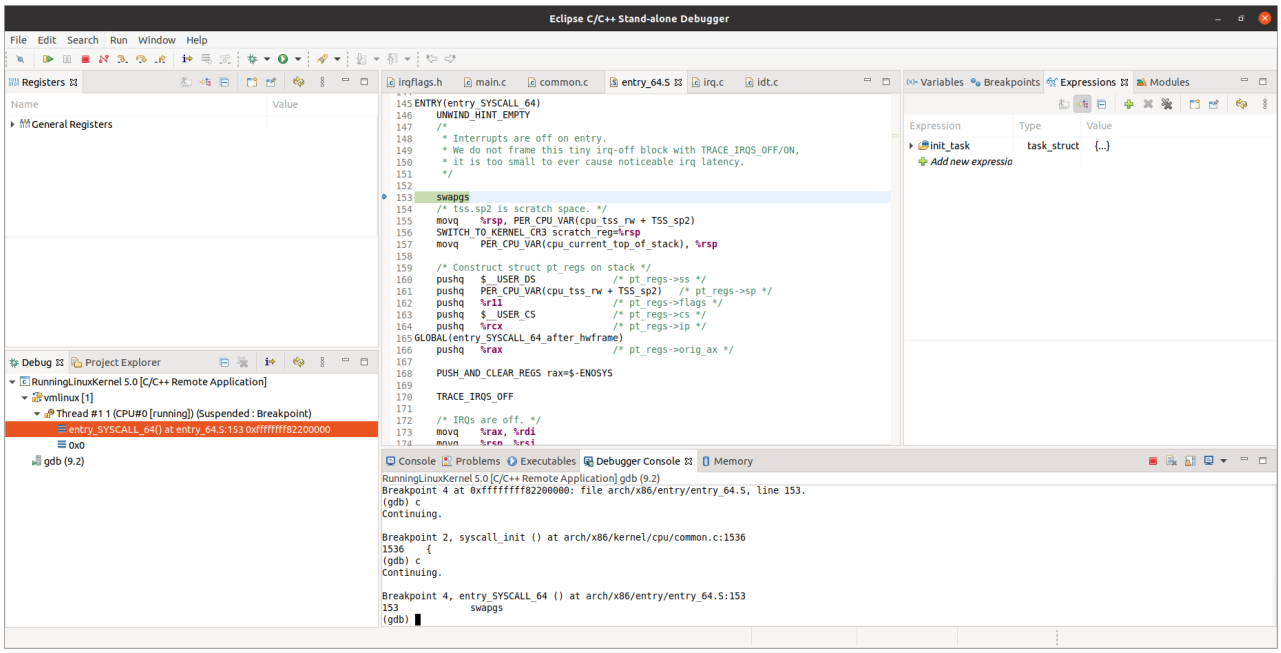
2.syscall_init



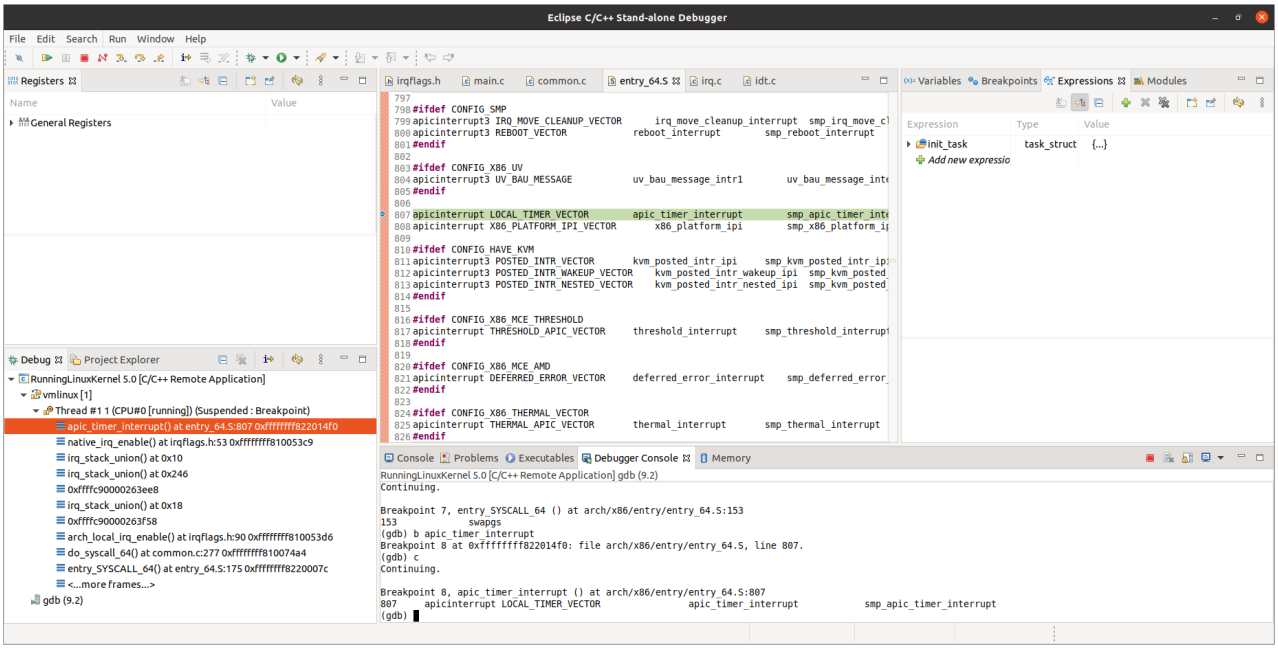
3.set_intr_gate



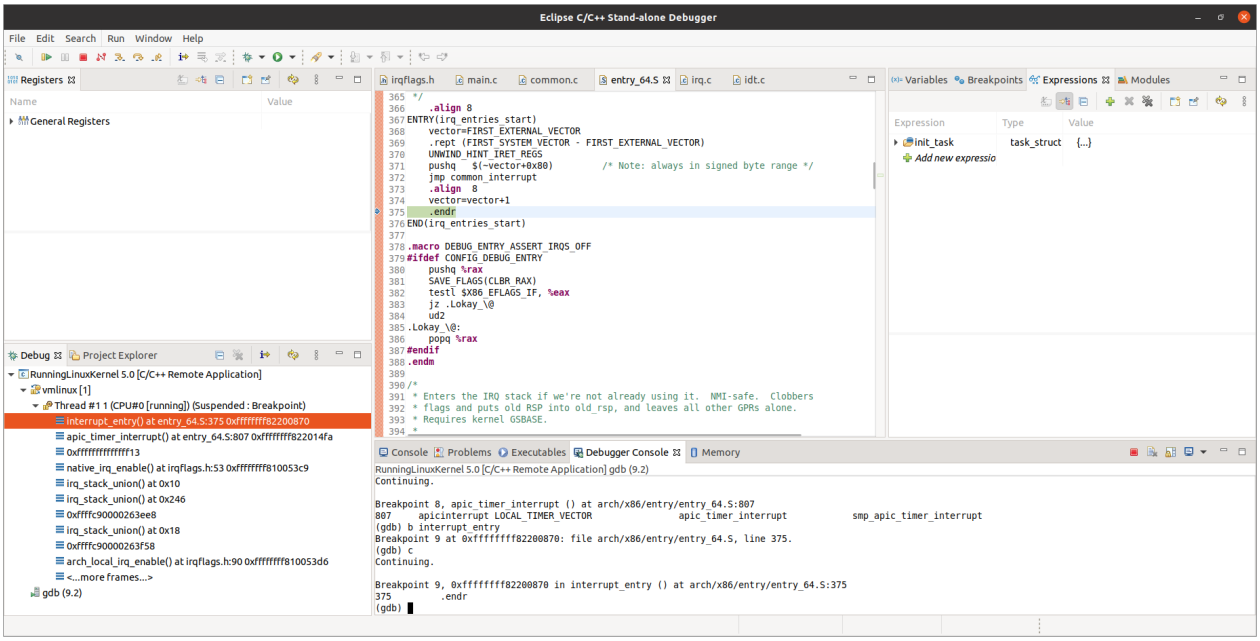
4.entry_SYSCALL_64



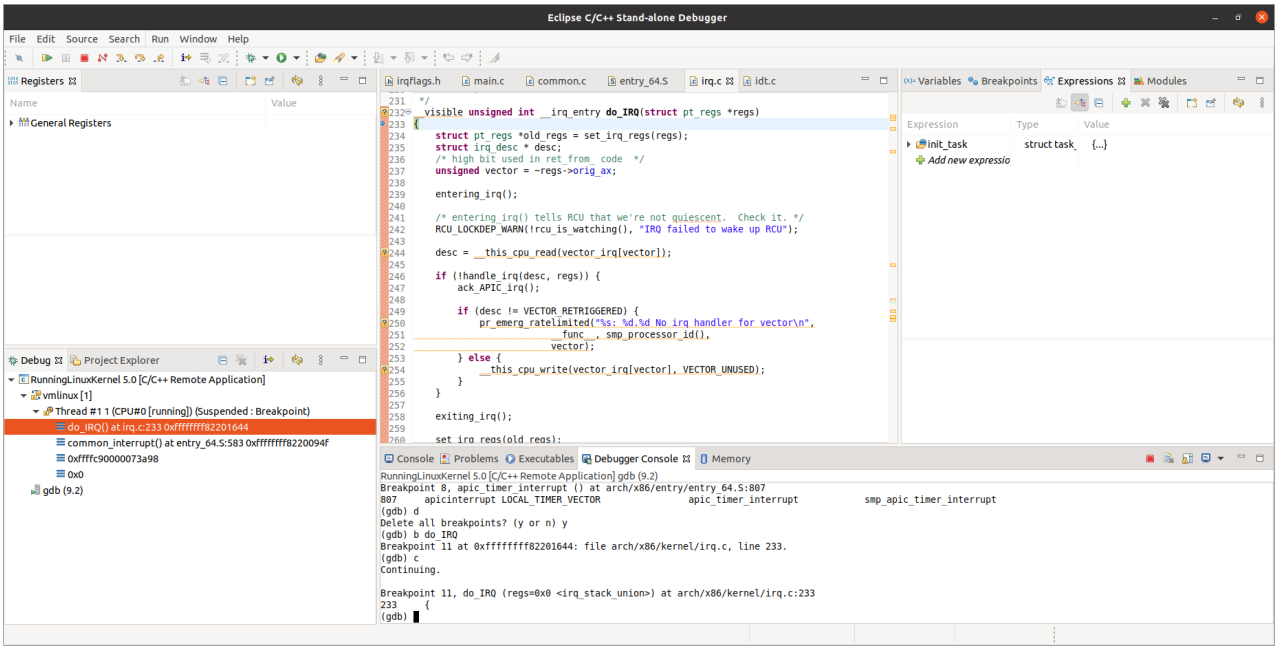
5.apic_timer_interrupt



6.interrupt_entry



7.do_IRQ


Eclipse C/C++ Stand-alone Debugger
File Edit Source Search Run Window Help
Registers
Name
Value
General Registers
irqflags.h
main.c
common.c
entry_64.S
irq.c
idt.c
*/
__visible unsigned int __irq_entry do_IRQ(struct pt_regs *regs)
{
struct pt_regs *old_regs = set_irq_regs(regs);
struct irq_desc * desc;
/* high bit used in ret_from_ code */
unsigned vector = ~regs->orig_ax;
entering_irq();
/* entering_irq() tells RCU that we're not quiescent. Check it. */
RCU_LOCKDEP_WARN(!rcu_is_watching(), "IRQ failed to wake up RCU");
desc = __this_cpu_read(vector_irq[vector]);
if (!handle_irq(desc, regs)) {
ack_APIC_irq();
if (desc != VECTOR_RETRIGGERED) {
pr_emerg_ratelimited("%s: %d.%d No irq handler for vector\n",
__func__, smp_processor_id(),
vector);
} else {
__this_cpu_write(vector_irq[vector], VECTOR_UNUSED);
}
}
exiting_irq();
set_irq_regs(old_regs);
Variables
Breakpoints
Expressions
Modules
Expression
Type
Value
init_task
struct task_
{...}
Add new expressio
Debug
Project Explorer
RunningLinuxKernel 5.0 [C/C++ Remote Application]
vmlinux [1]
Thread #1 1 (CPU#0 [running]) (Suspended : Breakpoint)
do_IRQ() at irq.c:233 0xffffffff82201644
common_interrupt() at entry_64.S:583 0xffffffff8220094f
0xffffc90000073a98
0x0
gdb (9.2)
Console
Problems
Executables
Debugger Console
Memory
RunningLinuxKernel 5.0 [C/C++ Remote Application] gdb (9.2)
Breakpoint 8, apic_timer_interrupt () at arch/x86/entry/entry_64.S:807
807 apicinterrupt LOCAL_TIMER_VECTOR apic_timer_interrupt smp_apic_timer_interrupt
(gdb) d
Delete all breakpoints? (y or n) y
(gdb) b do_IRQ
Breakpoint 11 at 0xffffffff82201644: file arch/x86/kernel/irq.c, line 233.
(gdb) c
Continuing.
Breakpoint 11, do_IRQ (regs=0x0 <irq_stack_union>) at arch/x86/kernel/irq.c:233
233 {
(gdb)