

```
# [...]

#-----
# Initialize IDT gates for the user primitives. This gates must have user level
# GLs as the User module must be able to use these interrupts from the provided
# primitives.
#-----

# EXTENSION 2017-02-07

    # natq countres();
    carica_gate TIPO_CRES      a_countres      LIV_UTENTE

    # void nonresident(natl id);
    carica_gate TIPO_NONRES    a_nonresident    LIV_UTENTE

# EXTENSION 2017-02-07 )

# SOLUTION 2017-02-07

    # natl resident(addr base, natq size);
    carica_gate TIPO_RES      a_resident      LIV_UTENTE

# SOLUTION 2017-02-07 )

# [...]

# EXTENSION 2017-02-07

#-----
# IDT Subroutines definitions.
#-----

#-----
.EXTERN c_countres                                     # natq countres();
#-----
a_countres:
    .cfi_startproc
    .cfi_def_cfa_offset 40
    .cfi_offset rip, -40
    .cfi_offset rsp, -16
    call c_countres                                # call C++ implementation
    iretq                                           # return from interrupt
    .cfi_endproc

#-----
.EXTERN c_nonresident                                 # void nonresident(natl id);
#-----
a_nonresident:
    .cfi_startproc
    .cfi_def_cfa_offset 40
    .cfi_offset rip, -40
    .cfi_offset rsp, -16
    call salva_stato                                # save current process state
    call c_nonresident                              # call C++ implementation
    call carica_stato                               # load new process state
    iretq                                           # return from interrupt
    .cfi_endproc

# EXTENSION 2017-02-07

# SOLUTION 2017-02-07

#-----
.extern c_resident                                    # natl resident(addr base, natq size);
#-----
a_resident:
    .cfi_startproc
    .cfi_def_cfa_offset 40
    .cfi_offset rip, -40
```

```
.cfi_offset rsp, -16
call salva_stato          # save current process state
cavallo_di_troia %rdi     # check addressed pages base
cavallo_di_troia2 %rdi %rsi # check addressed pages length
call c_resident           # call C++ implementation
call carica_stato         # load new process state
iretq                    # return from interrupt
.cfi_endproc
```

```
# SOLUTION 2017-02-07 )
```

```
# [...]
```