

Keyboard Interrupt - Nicolas MICHEL

This is the report concerning the implementation of Keyboard Interrupt kernel module

Makefile Code

```
obj-m := KeyboardInterrupt.o
KDIR := /lib/modules/4.10.0-40-generic/build
PWD := $(shell pwd)

all: KeyboardInterrupt.c
    make -C $(KDIR) SUBDIRS=$(PWD) modules

clean:
    make -C $(KDIR) SUBDIRS=$(PWD) clean
```

KeyboardInterrupt.c Code

```
#include <linux/module.h>
#include <linux/kernel.h>
#include <linux/init.h>
#include <linux/interrupt.h>

#define PRINT_PREF "[KEYBOARDINTERRUPT]: "

static irqreturn_t keyboard_interrupt(int irq, void *data){

    unsigned char code = inb(0x60);

    printk(PRINT_PREF "%c", code);
    return IRQ_HANDLED;
}

static int __init my_mod_init(void)
{
    if(request_irq(1, keyboard_interrupt, IRQF_SHARED, "keyboard_interrupt", (void *) (keyboard_interrupt))){
        printk(PRINT_PREF " Entering module.¥n");
        return 0;
    }
}

static void __exit my_mod_exit(void)
{
    free_irq(1, (void *) (keyboard_interrupt));
    printk(PRINT_PREF "Exiting module.¥n");
}

module_init(my_mod_init);
module_exit(my_mod_exit);

MODULE_LICENSE("GPL");
```

The log after pressing some keys

```
Nov 29 00:14:45 nicolas-Lemur kernel: [18772.444672] [KEYBOARDINTERRUPT]: Entering module.¥n
Nov 29 00:14:50 nicolas-Lemur kernel: [18772.574607] [KEYBOARDINTERRUPT]: 
Nov 29 00:14:50 nicolas-Lemur kernel: [18777.447862] [KEYBOARDINTERRUPT]: *
Nov 29 00:14:50 nicolas-Lemur kernel: [18777.522954] [KEYBOARDINTERRUPT]: '
Nov 29 00:14:51 nicolas-Lemur kernel: [18759.038157] [KEYBOARDINTERRUPT]: Exiting module.¥n
```