

Міністерство освіти і науки України
Національний технічний університет України «КПІ» імені Ігоря Сікорського
Кафедра обчислювальної техніки ФІОТ

ЗВІТ

з лабораторної роботи №6

з навчальної дисципліни «Архітектура комп'ютерів-2. Процесори»

Виконав:

Студент 3 курсу кафедри ОТ
ФІОТ,

Навчальної групи ІВ-91

Бойко М.І.

Перевірив:

Нікольський С. С.

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```
Please press Enter to activate this console.
/ # modinfo hello2.ko
filename:      hello2.ko
author:        Boyko Michael <m.boyko1228@gmail.com>
description:    LabWork #6
license:       Dual BSD/GPL
parm:          amount: Number of times 'Hello, world!' will be printed
depends:
vermagic:      4.19.220 SMP mod_unload ARMv7 p2v8
```

```
/ # insmod hello2.ko amount=9
[ 36.846058] hello2: loading out-of-tree module taints kernel.
[ 36.853473] Amount is greater than 5 and less than 10
[ 36.853527] Hello, world!
[ 36.855059] Hello, world!
[ 36.855858] Hello, world!
[ 36.856980] Hello, world!
[ 36.858425] Hello, world!
[ 36.858575] Hello, world!
[ 36.859468] Hello, world!
[ 36.860329] -----[ cut here ]-----
[ 36.860498] kernel BUG at /home/ubuntu/Desktop/lab6/hello2.c:50!
[ 36.860764] Internal error: Oops - BUG: 0 [#1] SMP ARM
[ 36.861046] Modules linked in: hello2(0+)
[ 36.861868] CPU: 0 PID: 63 Comm: insmod Tainted: G          0      4.19.220 #1
[ 36.862229] Hardware name: Generic DT based system
[ 36.863238] PC is at hello_init+0xd4/0x1000 [hello2]
[ 36.863561] LR is at 0x17
[ 36.863669] pc : [<bf0050d4>]   lr : [<00000017>]   psr: 600f0013
[ 36.863913] sp : c8b7ddb8   ip : 40000000   fp : 00000000
[ 36.864163] r10: 006000c0   r9 : bf0010e4   r8 : c8b8c540
[ 36.864402] r7 : c135a34c   r6 : bf002000   r5 : c8b8c580   r4 : bf002280
[ 36.864749] r3 : 00000007   r2 : f0000000   r1 : 00000008   r0 : 9310b1b0
[ 36.865049] Flags: nZCv IRQs on FIQs on Mode SVC_32 ISA ARM Segment none
[ 36.865399] Control: 10c5387d Table: 48b0806a DAC: 00000051
[ 36.865701] Process insmod (pid: 63, stack limit = 0x(ptrval))
[ 36.866046] Stack: (0xc8b7ddb8 to 0xc8b7e000)
[ 36.866384] dda0:                                     c1788300 c1604c48
[ 36.866876] ddc0: fffffe00 bf005000 00000000 c1604c48 bf002040 c0302d4c c8b8c2c0 c04f0a48
[ 36.867424] dde0: 00210d00 00000002 c1604c48 c8b2f500 8040003f c04f143c 00000000 706ff1e0
[ 36.867952] de00: ffe00000 c8b2f180 8040003e e0968000 c8b2f180 706ff1e0 e0968000 c8b2f500
[ 36.868470] de20: bf002040 706ff1e0 bf002040 00000002 c8b8c380 00000002 c8b8c2c0 c03d1ba8
[ 36.868896] de40: 00000001 c03d3f04 c8b7df30 c8b7df30 00000002 c8b8c280 00000002 c03d3f20
[ 36.869277] de60: bf00204c 00007fff bf002040 c03d0de0 c8b6a818 bf002088 c8b6aa9c bf002234
[ 36.869713] de80: bf002170 c1358818 00000000 c121f204 c121f274 c1604c48 c1608f04 c8b2f180
[ 36.870105] dea0: ffffff00 c8b2f180 006002c2 c8b2f500 00000000 00000000 00000000 00000000
[ 36.870501] dec0: 00000000 00000000 6e72656b 00006c65 00000000 00000000 00000000 00000000
[ 36.870942] dee0: 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
[ 36.871353] df00: 00000000 706ff1e0 00000080 000015a4 00000000 e09695a4 0011c7f4 c1604c48
[ 36.871931] df20: 0011b1f8 fffffe00 00000051 c03d4380 e0968306 e0968400 e0968000 000015a4
[ 36.872490] df40: e0969054 e0968efc e0968be4 00003000 00003040 00000000 00000000 00000000
[ 36.873906] df60: 00001678 0000001f 00000020 00000017 00000000 00000010 00000000 706ff1e0
[ 36.874821] df80: 000f411e 0011b1f8 b6f2d950 000015a4 00000080 c0301204 c8b7c000 00000080
[ 36.875984] dfa0: 000f411e c0301000 0011b1f8 b6f2d950 0011b250 000015a4 0011b1f8 00000000
[ 36.876348] dfc0: 0011b1f8 b6f2d950 000015a4 00000080 00000001 bea3bea0 001086c4 000f411e
[ 36.876639] dfe0: bea3bb58 bea3bb48 0003b270 b6de71b0 600f0010 0011b250 00000000 00000000
[ 36.877807] [<bf0050d4>] (hello_init [hello2]) from [<c0302d4c>] (do_one_initcall+0x54/0x208)
[ 36.878238] [<c0302d4c>] (do_one_initcall) from [<c03d1ba8>] (do_init_module+0x64/0x224)
[ 36.878441] [<c03d1ba8>] (do_init_module) from [<c03d3f20>] (load_module+0x2150/0x2458)
[ 36.880859] [<c03d3f20>] (load_module) from [<c03d4380>] (sys_init_module+0x158/0x18c)
[ 36.881940] [<c03d4380>] (sys_init_module) from [<c0301000>] (ret_fast_syscall+0x0/0x54)
[ 36.882786] Exception stack(0xc8b7dfa8 to 0xc8b7dff0)
[ 36.883454] dfa0: 0011b1f8 b6f2d950 0011b250 000015a4 0011b1f8 00000000
[ 36.884621] dfc0: 0011b1f8 b6f2d950 000015a4 00000080 00000001 bea3bea0 001086c4 000f411e
[ 36.885625] dfe0: bea3bb58 bea3bb48 0003b270 b6de71b0
[ 36.886564] Code: e3550000 13530007 e1c500f8 1a000000 (e7f001f2)
[ 36.888005] ---[ end trace e8a5395f3d14cac6 ]---
Segmentation fault
```