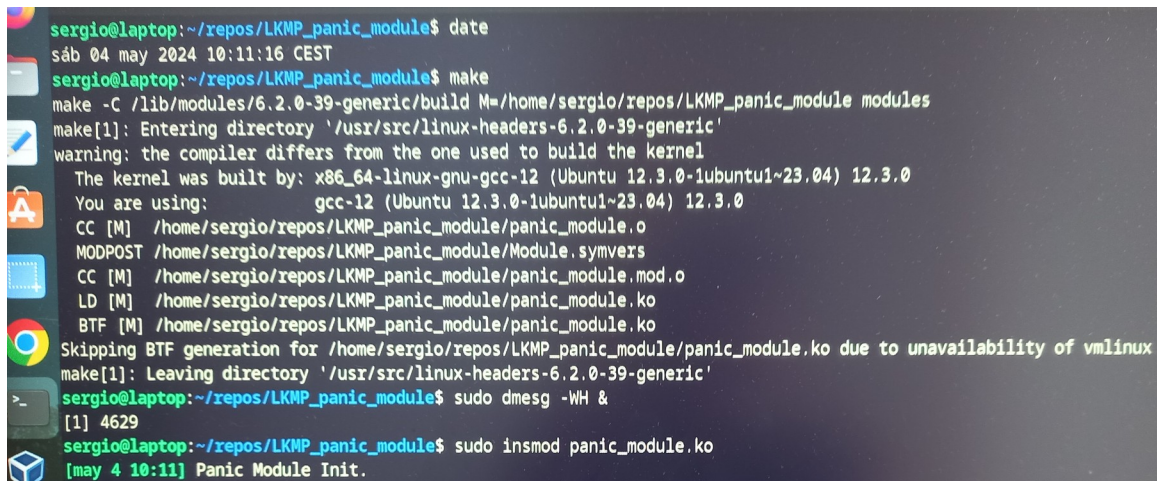


The execution of the module that creates a panic, is like follows:



```
sergio@laptop:~/repos/LKMP_panic_module$ date
sáb 04 may 2024 10:11:16 CEST
sergio@laptop:~/repos/LKMP_panic_module$ make
make -C /lib/modules/6.2.0-39-generic/build M=/home/sergio/repos/LKMP_panic_module modules
make[1]: Entering directory '/usr/src/linux-headers-6.2.0-39-generic'
warning: the compiler differs from the one used to build the kernel
The kernel was built by: x86_64-linux-gnu-gcc-12 (Ubuntu 12.3.0-1ubuntu1~23.04) 12.3.0
You are using:          gcc-12 (Ubuntu 12.3.0-1ubuntu1~23.04) 12.3.0
CC [M] /home/sergio/repos/LKMP_panic_module/panic_module.o
MODPOST /home/sergio/repos/LKMP_panic_module/Module.symvers
CC [M] /home/sergio/repos/LKMP_panic_module/panic_module.mod.o
LD [M] /home/sergio/repos/LKMP_panic_module/panic_module.ko
BTF [M] /home/sergio/repos/LKMP_panic_module/panic_module.ko
Skipping BTF generation for /home/sergio/repos/LKMP_panic_module/panic_module.ko due to unavailability of vmlinux
make[1]: Leaving directory '/usr/src/linux-headers-6.2.0-39-generic'
sergio@laptop:~/repos/LKMP_panic_module$ sudo dmesg -WH &
[1] 4629
sergio@laptop:~/repos/LKMP_panic_module$ sudo insmod panic_module.ko
[may 4 10:11] Panic Module Init.
```

After loading the module, just the message previous to the panic is visible, after that, the panic occurs, and the system freezes. At this point you need to restart the system to recover it.

```

[ 0.745816] ACPI Error: No handler for Region [ECRM] (00000000c63bc28a) [Embe
idedControl] (20221020/curegion-130)
[ 0.747085] ACPI Error: Region EmbeddedControl (ID=3) has no handler (20221020/xfldio-261)
[ 0.747140] ACPI Error: Aborting method \_SB.GPI0._EVT due to previous error (AE_NOT_EXIST) (20221020/psparse-529)
/dev/nvme0n1p2: recovering journal

```

The patch of the

From 88a9b9d5f55759829e41fe9f237cb561651a3c34 Mon Sep 17 00:00:00 2001

From: =?UTF-8?q?Sergio=20Gonz=C3=A1lez=20Collado?=
<sergio.collado@gmail.com>

Date: Sat, 4 May 2024 18:56:11 +0200

Subject: [PATCH] LKMP - panic module - Sergio Gonzalez Collado

This is an example of a module that would cause a panic:

Watch out! loading this module will crash your system, so save everything before loading the module

- To compile the module, execute: "make".
- check the files have been generated with 'ls'
- To read the log of the system use: "sudo dmesg -WH &"
- To load the module, use: "sudo insmod panic_module.ko"
- once the module is loaded, a Panic will occur so, you will need to restart the system to recover.

```

Makefile      | 9 ++++++++
panic_module.c | 35 +++++
2 files changed, 44 insertions(+)
create mode 100644 Makefile
create mode 100644 panic_module.c

```

```

diff --git a/Makefile b/Makefile
new file mode 100644
index 0000000..bedf897
--- /dev/null
+++ b/Makefile
@@ -0,0 +1,9 @@
+obj-m += panic_module.o
+
+PWD := $(CURDIR)
+
+all:
+    make -C /lib/modules/$(shell uname -r)/build M=$(PWD) modules
+
+clean:
+    make -C /lib/modules/$(shell uname -r)/build M=$(PWD) clean
diff --git a/panic_module.c b/panic_module.c
new file mode 100644
index 0000000..0f06e79
--- /dev/null
+++ b/panic_module.c
@@ -0,0 +1,35 @@
+// SPDX-License-Identifier: GPL-2.0+
+
+/*
+ * panic_module.c -- A Kernel module that panics the kernel
+ * NOTE: Running the following code, WILL CRASH YOUR SYSTEM. An
+ * easy poweroff poweron should fix it though
+ */
+
+#include<linux/init.h>
+#include<linux/module.h>
+#include<linux/panic.h>
+#include<linux/delay.h>
+
+static int __init panic_module_init(void)
+{
+    pr_info("Panic Module Init.\n");
+
+    /* giving a chance to log the previous message */
+    msleep(1000);
+
+    panic("panic_module: Kernel panicked due to panic().\n");
+
+    return 0;
+}
+
+static void __exit panic_module_cleanup(void)
+{
+    pr_info("Panic Module Cleanup. -- I dont think we get here\n");
+}
+
+module_init(panic_module_init);
+module_exit(panic_module_cleanup);
+
+MODULE_LICENSE("GPL");
+MODULE_AUTHOR("Sergio Gonzalez Collado");
+MODULE_DESCRIPTION("A Kernel Module to panic the kernel");
--

```

2.39.2