

Re: [PATCH] ieee1394: dv1394: sem2mutex conversion

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2006-06/msg07763.html>

- *From:* Stefan Richter <stefanr@xxxxxxxxxxxxxxxxxxxx>
- *Date:* Sat, 24 Jun 2006 20:02:59 +0200 (CEST)

On 24 Jun, Arjan van de Ven wrote:

On Sat, 2006-06-24 at 19:37 +0200, Stefan Richter wrote:

```

- if (down_trylock(&video->sem)) {
+ if (mutex_trylock(&video->mtx)) {

```

this is a bug!

mutex_trylock follows the spinlock trylock convention, not the semaphore trylock convention!!!

Oops, thanks.

----- 8< -----

From: Stefan Richter <stefanr@xxxxxxxxxxxxxxxxxxxx>
Subject: [PATCH] ieee1394: dv1394: sem2mutex conversion

Signed-off-by: Stefan Richter <stefanr@xxxxxxxxxxxxxxxxxxxx>

```

---
drivers/ieee1394/dv1394-private.h | 6 +----
drivers/ieee1394/dv1394.c | 31 ++++++-----
2 files changed, 19 insertions(+), 18 deletions(-)

```

Index: linux/drivers/ieee1394/dv1394-private.h

```

=====
--- linux.orig/drivers/ieee1394/dv1394-private.h 2006-06-24 19:18:07.000000000 +0200
+++ linux/drivers/ieee1394/dv1394-private.h 2006-06-24 19:18:31.000000000 +0200
@@ -460,7 +460,7 @@ struct video_card {
int dma_running;

```

/*

- 3) the sleeping semaphore 'sem' - this is used from process context only,
- + 3) the sleeping mutex 'mtx' - this is used from process context only,

Re: [PATCH] ieee1394: dv1394: sem2mutex conversion

to serialize various operations on the video_card. Even though only one open() is allowed, we still need to prevent multiple threads of execution from entering calls like read, write, ioctl, etc.

@@ -468,9 +468,9 @@ struct video_card {

I honestly can't think of a good reason to use dv1394 from several threads at once, but we need to serialize anyway to prevent oopses =).

- NOTE: if you need both spinlock and sem, take sem first to avoid deadlock!

+ NOTE: if you need both spinlock and mtx, take mtx first to avoid deadlock!

*/

- struct semaphore sem;

+ struct mutex mtx;

/* people waiting for buffer space, please form a line here... */

wait_queue_head_t waitq;

Index: linux/drivers/ieee1394/dv1394.c

=====

--- linux.orig/drivers/ieee1394/dv1394.c 2006-06-24 19:18:28.000000000 +0200

+++ linux/drivers/ieee1394/dv1394.c 2006-06-24 19:58:13.000000000 +0200

@@ -96,6 +96,7 @@