
Subject: [PATCH] kthread: saa7134-tvaudio.c

Posted by [Sukadev Bhattiprolu](#) on Tue, 29 Aug 2006 21:15:55 GMT

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Replace kernel_thread() with kthread_run() since kernel_thread() is deprecated in drivers/modules.

Note that this driver, like a few others, allows SIGTERM. Not sure if that is affected by conversion to kthread. Appreciate any comments on that.

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```
drivers/media/video/saa7134/saa7134-tvaudio.c | 33 ++++++++-----
drivers/media/video/saa7134/saa7134.h      |  4 ---
2 files changed, 17 insertions(+), 20 deletions(-)
```

Index: lx26-18-rc5/drivers/media/video/saa7134/saa7134.h

=====

--- lx26-18-rc5.org/drivers/media/video/saa7134/saa7134.h 2006-08-29 14:02:44.000000000 -0700

+++ lx26-18-rc5/drivers/media/video/saa7134/saa7134.h 2006-08-29 14:04:21.000000000 -0700
@@ -311,10 +311,8 @@ struct saa7134_pgtable {

```
/* tvaudio thread status */
struct saa7134_thread {
- pid_t          pid;
- struct completion  exit;
+ struct task_struct * task;
  wait_queue_head_t wq;
- unsigned int      shutdown;
  unsigned int      scan1;
  unsigned int      scan2;
  unsigned int      mode;
```

Index: lx26-18-rc5/drivers/media/video/saa7134/saa7134-tvaudio.c

=====

--- lx26-18-rc5.org/drivers/media/video/saa7134/saa7134-tvaudio.c 2006-08-29 14:02:44.000000000 -0700

+++ lx26-18-rc5/drivers/media/video/saa7134/saa7134-tvaudio.c 2006-08-29 14:06:24.000000000 -0700

@@ -28,6 +28,7 @@
#include <linux/slab.h>
#include <linux/delay.h>

```

#include <linux/smp_lock.h>
#include <linux/kthread.h>
#include <asm/div64.h>

#include "saa7134-reg.h"
@@ -357,7 +358,7 @@ static int tvaudio_sleep(struct saa7134_
DECLARE_WAITQUEUE(wait, current);

add_wait_queue(&dev->thread.wq, &wait);
- if (dev->thread.scan1 == dev->thread.scan2 && !dev->thread.shutdown) {
+ if (dev->thread.scan1 == dev->thread.scan2 && !kthread_should_stop()) {
    if (timeout < 0) {
        set_current_state(TASK_INTERRUPTIBLE);
        schedule();
@@ -525,7 +526,7 @@ static int tvaudio_thread(void *data)
allow_signal(SIGTERM);
for (;;) {
    tvaudio_sleep(dev,-1);
- if (dev->thread.shutdown || signal_pending(current))
+ if (kthread_should_stop() || signal_pending(current))
    goto done;

restart:
@@ -633,7 +634,7 @@ static int tvaudio_thread(void *data)
for (;;) {
    if (tvaudio_sleep(dev,5000))
        goto restart;
- if (dev->thread.shutdown || signal_pending(current))
+ if (kthread_should_stop() || signal_pending(current))
    break;
    if (UNSET == dev->thread.mode) {
        rx = tvaudio_getstereo(dev,&tvaudio[i]);
@@ -649,7 +650,6 @@ static int tvaudio_thread(void *data)
}

done:
- complete_and_exit(&dev->thread.exit, 0);
return 0;
}

@@ -798,7 +798,6 @@ static int tvaudio_thread_ddep(void *dat
struct saa7134_dev *dev = data;
u32 value, norms, clock;

- daemonize("%s", dev->name);
allow_signal(SIGTERM);

clock = saa7134_boards[dev->board].audio_clock;

```

```

@@ -812,7 +811,7 @@ static int tvaudio_thread_ddep(void *dat

    for (;;) {
        tvaudio_sleep(dev,-1);
-   if (dev->thread.shutdown || signal_pending(current))
+   if (kthread_should_stop() || signal_pending(current))
        goto done;

    restart:
@@ -894,7 +893,6 @@ static int tvaudio_thread_ddep(void *dat
    }

    done:
-   complete_and_exit(&dev->thread.exit, 0);
    return 0;
}

@@ -1004,15 +1002,16 @@ int saa7134_tvaudio_init2(struct saa7134
    break;
}

-   dev->thread.pid = -1;
+   dev->thread.task = NULL;
    if (my_thread) {
        /* start tvaudio thread */
        init_waitqueue_head(&dev->thread.wq);
-   init_completion(&dev->thread.exit);
-   dev->thread.pid = kernel_thread(my_thread,dev,0);
-   if (dev->thread.pid < 0)
+   dev->thread.task = kthread_run(my_thread,dev,dev->name);
+   if (IS_ERR(dev->thread.task)) {
        printk(KERN_WARNING "%s: kernel_thread() failed\n",
            dev->name);
+       dev->name);
+   dev->thread.task = NULL;
+   }
    saa7134_tvaudio_do_scan(dev);
}

@@ -1023,10 +1022,10 @@ int saa7134_tvaudio_init2(struct saa7134
int saa7134_tvaudio_fini(struct saa7134_dev *dev)
{
    /* shutdown tvaudio thread */
-   if (dev->thread.pid >= 0) {
-       dev->thread.shutdown = 1;
-       wake_up_interruptible(&dev->thread.wq);
-       wait_for_completion(&dev->thread.exit);
+   if (dev->thread.task) {

```

```

+ /* kthread_stop() wakes up the thread */
+ kthread_stop(dev->thread.task);
+ dev->thread.task = NULL;
}
saa_andorb(SAA7134_ANALOG_IO_SELECT, 0x07, 0x00); /* LINE1 */
return 0;
@@ -1034,7 +1033,7 @@ int saa7134_tvaudio_fini(struct saa7134_

int saa7134_tvaudio_do_scan(struct saa7134_dev *dev)
{
- if (dev->thread.pid >= 0) {
+ if (dev->thread.task) {
    dev->thread.mode = UNSET;
    dev->thread.scan2++;
    wake_up_interruptible(&dev->thread.wq);

```

Containers mailing list
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