Subject: Re: [PATCH] saa7134-tvaudio: Convert to kthread API.
Posted by akpm on Thu, 19 Apr 2007 22:52:45 GMT
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On Thu, 19 Apr 2007 01:58:58 -0600
"Eric W. Biederman" <ebiederm@xmission.com> wrote:

> It is my goal to replace all kernel code that handles signals
> from user space, calls kernel_thread or calls daemonize.  All
> of which the kthread_api makes unncessary.  Handling signals
> from user space is a maintenance problem becuase using a
> kernel thread is an implementation detail and if user space
> cares it does not allow us to change the implementation.  Calling
> daemonize is a problem because it has to undo a continually changing
> set of state generated by user space, requiring the implemetation
> to change continually.  kernel_thread is a problem because it
> returns a pid_t value.  Numeric pids are inherently racy and
> in the presence of a pid namespace they are no longer global
> making them useless for general use in the kernel.
>
> So this patch renames the pid member of struct saa7134_thread
> started and changes it's type from pid_t to int.  All it
> has ever been used for is to detect if the kernel thread
> is has been started so this works.
>
> allow_signal(SIGTERM) and the calls to signal_pending have
> been removed they are needed for the driver to operation.
>
> The startup of tvaudio_thread and tvaudio_thread_dep have
> been modified to use kthread_run instead of a combination
> of kernel_thread and daemonize.
>
> The result is code that is slightly simpler and more
> maintainable.

This one also really wants to be converted to full use of the
API.  ie: use kthread_stop(), kthread_should_stop(), remove all
the hand-woven equivalent stuff we have in there.

I'll tag this as an -mm-only thing as well, in the hope that someone
who can test the changes will be able to find time to address
all this.

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