

Re: [PATCH 10/11] LED: Add IDE disk activity LED trigger

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2006-01/msg11524.html>

- *From:* Jens Axboe <axboe@xxxxxxx>
 - *Date:* Tue, 31 Jan 2006 21:35:53 +0100
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On Tue, Jan 31 2006, Richard Purdie wrote:

> Hi,

>

> On Tue, 2006-01-31 at 15:46 +0100, Bartlomiej Zolnierkiewicz wrote:

>>

>> Why cannot existing block layer hook be used for this?

>

> The trigger is supposed to be reflecting actual hardware activity, not
> block layer activity.

>

> I'll experiment with the feasibility of the block later as I've always
> been uneasy about the hooks into the lower level layers. There are a
> number of issues to consider though.

>

> 1. The block layer isn't always aware of device activity (eg. flash
> block erasing in mtd devices) (is this the case for IDE?).

>

> 2. Default trigger naming becomes problematic for led devices. Currently
> an MMC card reader's LED could set its trigger to say "mmc-disk" and end
> up with some kind of sensible activity light. (ignoring the more than
> one card reader case where all the lights would be synced :).

>

> A potential solution would be to add individual gendisk triggers by
> hooking add_disk/del_disk. The MMC read would presumably know its
> major/minor number before registering its LED.

>

> I'm not sure how to intercept disk activity for a given gendisk offhand.
> There is also a question of where the led_trigger pointers end up.
> struct gendisk may or may not be acceptable.

>

> 3. Matching something like all IDE disks becomes hard (and is actually
> more desirable than individual devices at times – see below).

>

> At first glance a potential solution would be to hook
> register_blkdev/unregister_blkdev and create yet more triggers but where
> do you hook the activity? There is no data structure the led trigger
> pointer can be part of either.

>

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- > These solutions are going to end up with a lot of unused led triggers on
- > any given system.

Perhaps a generic solution isn't feasible, because this isn't really a generic problem. The LED stuff has very limited use – you mention embedded platforms, perhaps they should just be doing this on their own?

Generally I'm finding a hard time justifying an LED api, honestly. It just feels like one of those things where the actual abstraction ends up being a lot bigger than code needed. Abstracting and creating an API isn't always useful.

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Jens Axboe

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• *Follow-Ups:*

- ◆ **[Re: \[PATCH 10/11\] LED: Add IDE disk activity LED trigger](#)**
 ◇ From: Richard Purdie
- ◆ **[Re: LED: Add IDE disk activity LED trigger](#)**
 ◇ From: Jordan Crouse

• *References:*

- ◆ **[\[PATCH 10/11\] LED: Add IDE disk activity LED trigger](#)**
 ◇ From: Richard Purdie
- ◆ **[Re: \[PATCH 10/11\] LED: Add IDE disk activity LED trigger](#)**
 ◇ From: Bartlomiej Zolnierkiewicz
- ◆ **[Re: \[PATCH 10/11\] LED: Add IDE disk activity LED trigger](#)**
 ◇ From: Richard Purdie

- Prev by Date: **[Re: GPL V3 and Linux – Dead Copyright Holders](#)**
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