

[patch 4/5] MMC OMAP driver

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2006-01/msg11403.html>

- *From:* Anderson Briglia <anderson.briglia@xxxxxxxxxxx>
 - *Date:* Tue, 31 Jan 2006 09:38:04 -0400
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Some MMC cards don't set the R1_READY_FOR_DATA bit if EOFB interrupt comes first. In this case we need to mask R1_READY_FOR_DATA to avoid polling card status forever.

This patch needs to be discussed as it requires interface change.

This interface change is done here only for omap for now.

Signed-off-by: Tony Lindgren <tony@xxxxxxxxxxx>

Index: linux-2.6.15-mmc_omap/drivers/mmc/mmc_block.c

```
=====
--- linux-2.6.15-mmc_omap.orig/drivers/mmc/mmc_block.c 2006-01-26 16:57:08.000000000 -0400
+++ linux-2.6.15-mmc_omap/drivers/mmc/mmc_block.c 2006-01-26 17:04:52.000000000 -0400
@@ -218,6 +218,10 @@ static int mmc_blk_issue_rq(struct mmc_q
goto cmd_err;
}

+ /* No need to check card status after a read */
+ if (rq_data_dir(req) == READ)
+ goto card_ready;
+
do {
int err;

@@ -239,6 +243,8 @@ static int mmc_blk_issue_rq(struct mmc_q
if (mmc_decode_status(cmd.resp))
goto cmd_err;
#endif
+
+card_ready:
/*
* A block was successfully transferred.
*/
@@ -336,6 +342,7 @@ static struct mmc_blk_data *mmc_blk_allo

card_ready:

+card_ready:
/*
* As discussed on lkml, GENHD_FL_REMOVABLE should:
```

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Index: linux-2.6.15-mmc_omap/drivers/mmc/omap.c

```
=====
--- linux-2.6.15-mmc_omap.orig/drivers/mmc/omap.c 2006-01-26 16:57:11.000000000 -0400
+++ linux-2.6.15-mmc_omap/drivers/mmc/omap.c 2006-01-26 16:57:11.000000000 -0400
@@ -319,7 +319,7 @@ mmc_omap_dma_done(struct mmc_omap_host *
}

static void
-mmc_omap_cmd_done(struct mmc_omap_host *host, struct mmc_command *cmd)
+mmc_omap_cmd_done(struct mmc_omap_host *host, struct mmc_command *cmd, int card_ready)
{
host->cmd = NULL;

@@ -332,6 +332,9 @@ mmc_omap_cmd_done(struct mmc_omap_host *
cmd->resp[0] =
OMAP_MMC_READ(host->base, RSP6) |
(OMAP_MMC_READ(host->base, RSP7) << 16);
+ if (card_ready) {
+ cmd->resp[0] |= R1_READY_FOR_DATA;
+ }
break;
case MMC_RSP_LONG:
/* response type 2 */
@@ -428,6 +431,7 @@ static irqreturn_t mmc_omap_irq(int irq,
u16 status;
int end_command;
int end_transfer;
+ int card_ready;
int transfer_error;

if (host->cmd == NULL && host->data == NULL) {
@@ -442,6 +446,7 @@ static irqreturn_t mmc_omap_irq(int irq,

end_command = 0;
end_transfer = 0;
+ card_ready = 0;
transfer_error = 0;

while ((status = OMAP_MMC_READ(host->base, STAT)) != 0) {
@@ -542,10 +547,19 @@ static irqreturn_t mmc_omap_irq(int irq,
(! (status & OMAP_MMC_STAT_A_EMPTY))) {
end_command = 1;
}
+ /* Some cards produce EOFB interrupt and never
+ * raise R1_READY_FOR_DATA bit after that.
+ * To avoid infinite card status polling loop,
+ * we must fake that bit to MMC layer.
+ */
+ if ((status & OMAP_MMC_STAT_END_OF_CMD) &&
+ (status & OMAP_MMC_STAT_END_BUSY)) {
```

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```
+ card_ready = 1;
+ }
}

if (end_command) {
- mmc_omap_cmd_done(host, host->cmd);
+ mmc_omap_cmd_done(host, host->cmd, card_ready);
}
if (transfer_error)
mmc_omap_xfer_done(host, host->data);
-
```

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- *Follow-Ups:*

- ◆ ***Re: [patch 4/5] MMC OMAP driver***
 - ◇ *From:* Pierre Ossman

- Prev by Date: ***Re: CD writing in future Linux (stirring up a hornets' nest)***
- Next by Date: ***[PATCH 9/11] LED: Add device support for tosa***
- Previous by thread: ***[patch 3/5] MMC OMAP driver***
- Next by thread: ***Re: [patch 4/5] MMC OMAP driver***
- Index(es):
 - ◆ ***Date***
 - ◆ ***Thread***