

[PATCH] rtc: Added support for ds1672 control

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2006-03/msg09703.html>

- *From:* Kumar Gala <galak@xxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Tue, 28 Mar 2006 15:07:33 -0600 (CST)
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- * Always enable the oscillator when we set the time
- * If the oscillator is disable when we probe the RTC report back a warning to the user
- * Added sysfs attribute to represent the state of the oscillator

Signed-off-by: Kumar Gala <galak@xxxxxxxxxxxxxxxxxxxxxx>

commit fde7a0afd6f8dca9b498aea689de3ca409c16732
tree c390aefedb2073d8a107ec70efe551993e51c943
parent 329b10bb0feacb7fb9a41389313ff0a51ae56f2a
author Kumar Gala <galak@xxxxxxxxxxxxxxxxxxxxxx> Tue, 28 Mar 2006 15:07:03 -0600
committer Kumar Gala <galak@xxxxxxxxxxxxxxxxxxxxxx> Tue, 28 Mar 2006 15:07:03 -0600

drivers/rtc/rtc-ds1672.c | 51 ++++++++++++++++++++++++++++++++++++++-----
1 files changed, 48 insertions(+), 3 deletions(-)

```
diff --git a/drivers/rtc/rtc-ds1672.c b/drivers/rtc/rtc-ds1672.c
index 358695a..283d19f 100644
--- a/drivers/rtc/rtc-ds1672.c
+++ b/drivers/rtc/rtc-ds1672.c
@@ -72,16 +72,17 @@ static int ds1672_get_datetime(struct i2
static int ds1672_set_mmss(struct i2c_client *client, unsigned long secs)
{
int xfer;
- unsigned char buf[5];
+ unsigned char buf[6];

buf[0] = DS1672_REG_CNT_BASE;
buf[1] = secs & 0x000000FF;
buf[2] = (secs & 0x0000FF00) >> 8;
buf[3] = (secs & 0x00FF0000) >> 16;
buf[4] = (secs & 0xFF000000) >> 24;
+ buf[5] = 0;

- xfer = i2c_master_send(client, buf, 5);
- if (xfer != 5) {
+ xfer = i2c_master_send(client, buf, 6);
+ if (xfer != 6) {
```

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```
dev_err(&client->dev, "%s: send: %d\n", __FUNCTION__, xfer);
return -EIO;
}
@@ -120,6 +121,37 @@ static int ds1672_rtc_set_mmss(struct de
return ds1672_set_mmss(to_i2c_client(dev), secs);
}

+static int ds1672_get_control(struct i2c_client *client)
+{
+ unsigned char addr = DS1672_REG_CONTROL;
+ unsigned char val = 0;
+
+ struct i2c_msg msgs[] = {
+ { client->addr, 0, 1, &addr }, /* setup read ptr */
+ { client->addr, I2C_M_RD, 1, &val }, /* read control */
+ };
+
+ /* read control register */
+ if ((i2c_transfer(client->adapter, &msgs[0], 2)) != 2) {
+ dev_err(&client->dev, "%s: read error\n", __FUNCTION__);
+ return -EIO;
+ } else
+ return val;
+}
+
+/* following are the sysfs callback functions */
+static ssize_t show_control(struct device *dev, struct device_attribute *attr, char *buf)
+{
+ struct i2c_client *client = to_i2c_client(dev);
+ char *state = "enabled";
+
+ if (ds1672_get_control(client))
+ state = "disabled";
+ return sprintf(buf, "%s\n", state);
+}
+
+static DEVICE_ATTR(control, S_IRUGO, show_control, NULL);
+
+static struct rtc_class_ops ds1672_rtc_ops = {
+.read_time = ds1672_rtc_read_time,
+.set_time = ds1672_rtc_set_time,
@@ -202,6 +234,19 @@ static int ds1672_probe(struct i2c_adapt
i2c_set_clientdata(client, rtc);

+ /* read control register */
+ err = ds1672_get_control(client);
+ if (err < 0) {
+ dev_err(&client->dev, "%s: read error\n", __FUNCTION__);
+ goto exit_detach;
+ }
```

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```
+ if (err > 0)
+ dev_warn(&client->dev, "Oscillator not enabled. "
+ "Set time to enable\n");
+
+ /* Register sysfs hooks */
+ device_create_file(&client->dev, &dev_attr_control);
+
+ return 0;
```

exit_detach:

-

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