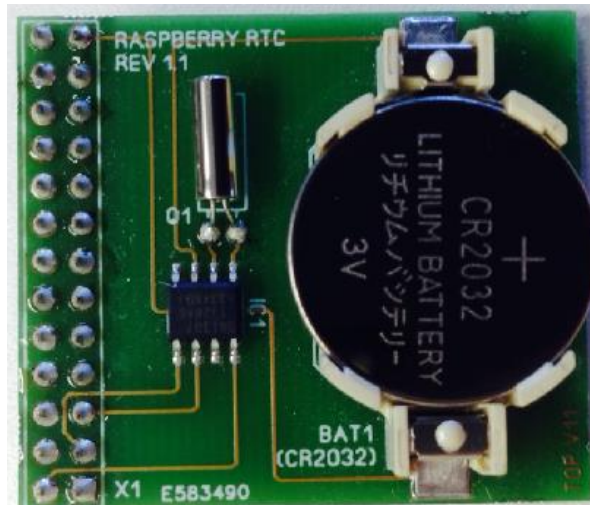


Raspberry PI Real Time Clock Module



Set RTC Time

Now that we have installed the module we can set up the module.

First, load up the RTC module by running

- `sudo modprobe rtc-ds1307`

Then, as root (type in `sudo bash`) run

- `echo ds1307 0x68 > /sys/class/i2c-adapter/i2c-0/new_device` (if you have a rev1 Pi)
- `echo ds1307 0x68 > /sys/class/i2c-adapter/i2c-1/new_device` (if you have a rev 2Pi)

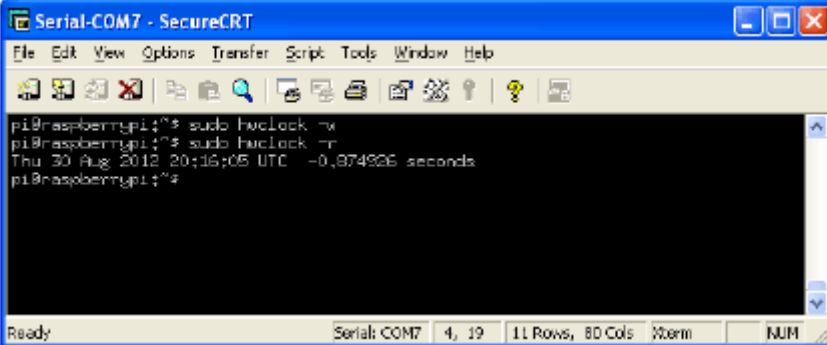
You can then type in `exit` to drop out of the root shell.

Then check the time with `sudo hwclock -r` which will read the time from the DS1307 module. If this is the first time the module has been used, it will report back Jan 1 2000, and you'll need to set the time

```
pi@raspberrypi:~$ sudo hwclock -r
Sat 01 Jan 2000 00:01:20 UTC -0.081747 seconds
pi@raspberrypi:~$ date
Thu Aug 30 20:14:56 UTC 2012
pi@raspberrypi:~$
```

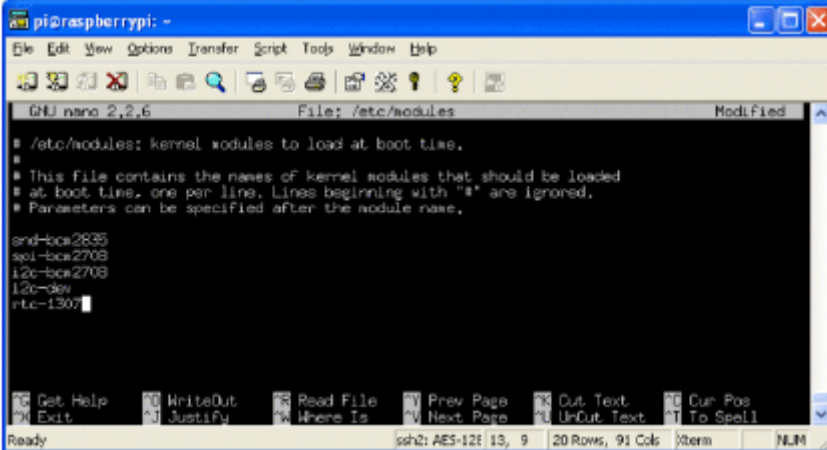
Ethernet or Wifi - it will automatically set the time from the network. Once the time is correct (check with the `date` command), run `sudo hwclock -w` to write the system time to the RTC

You can then verify it with **sudo hwclock -r**



```
pi@raspberrypi:~$ sudo hwclock -r
pi@raspberrypi:~$ sudo hwclock -r
Thu 30 Aug 2012 20:16:05 UTC -0.074926 seconds
pi@raspberrypi:~$
```

Next, you'll want to add the RTC kernel module to the `/etc/modules` list, so its loaded when the machine boots. Run **sudo nano /etc/modules** and add **rtc-ds1307** at the end of the file (the image blow says rtc-1307 but its a typo)



```
pi@raspberrypi: ~
GNU nano 2.2.6 File: /etc/modules Modified
# /etc/modules: kernel modules to load at boot time.
#
# This file contains the names of kernel modules that should be loaded
# at boot time, one per line. Lines beginning with '#' are ignored.
# Parameters can be specified after the module name.

snd-bcm2835
spi-bcm2708
i2c-bcm2708
i2c-dev
rtc-ds1307
```

thoThen you'll want to create the DS1307 device creation at boot, edit `/etc/rc.local` by running

- **sudo nano /etc/rc.local**

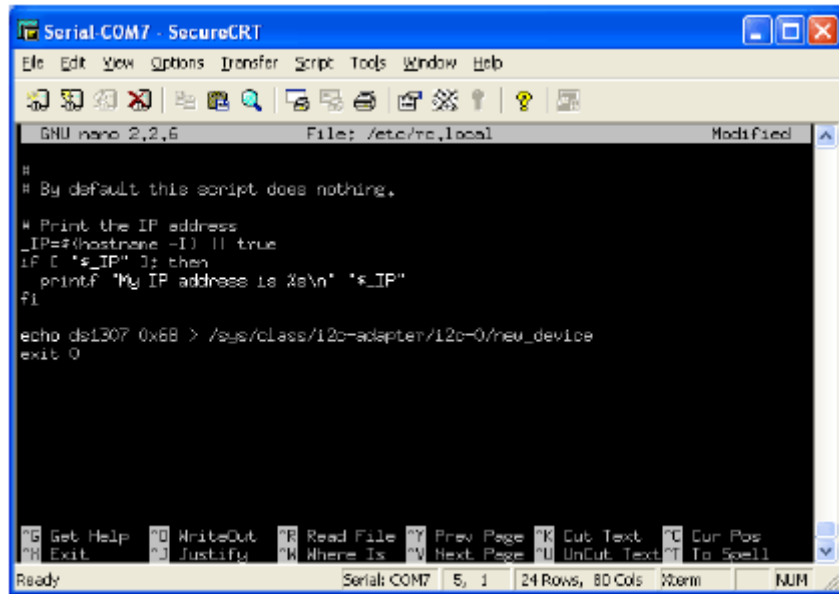
and add:

echo ds1307 0x68 > /sys/class/i2c-adapter/i2c-0/new_device (for v1 raspberry pi)

echo ds1307 0x68 > /sys/class/i2c-adapter/i2c-1/new_device (v2 raspberry pi)

sudo hwclock -s (both versions)

before **exit 0** (we forgot the hwclock -s part in the screenshot below)



```
GNU nano 2.2.6 File: /etc/rc.local Modified
#
# By default this script does nothing.
# Print the IP address
_IP=$(hostname -I) || true
if [ "$_IP" ]; then
  printf "My IP address is %s\n" "$_IP"
fi

echo ds1307 0x68 > /sys/class/rtc-adapter/rtc0/new_device
exit 0
```

That's it! Next time you boot the time will automatically be synced from the RTC module