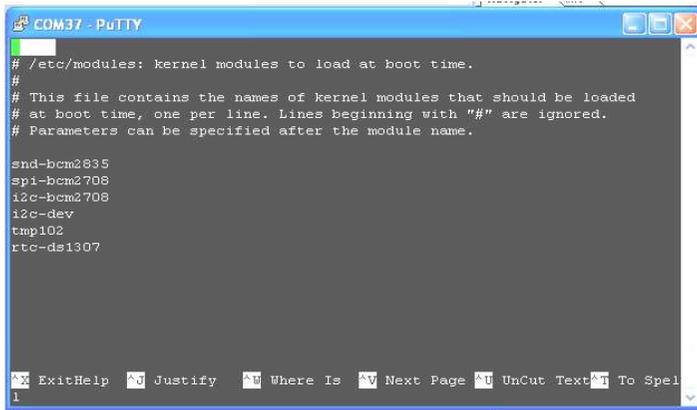




echo ds1307 0x68 > /sys/class/i2c-adapter/i2c-0/new\_device (if you have a rev 1 Pi)  
 echo ds1307 0x68 > /sys/class/i2c-adapter/i2c-1/new\_device (if you have a rev 2 Pi)

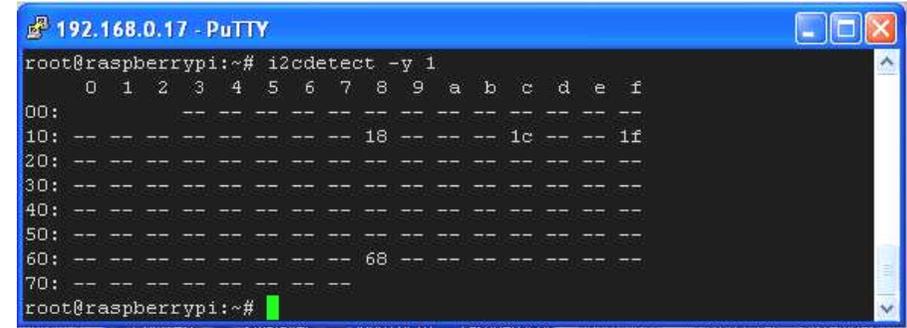
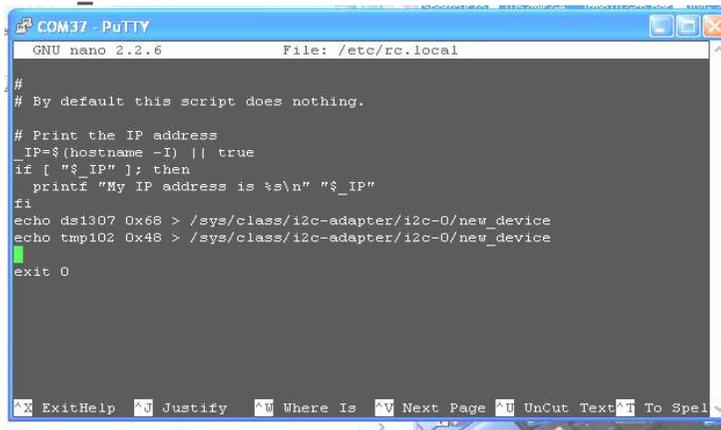
- hwclock -r read time
- hwclock -w write time in RTC
- hwclock -s write time in System
- hwclock --set --date="2013-08-21 08:00:12" --utc write in custom Time in RTC

you'll want to add the RTC kernel module & temp tmp102 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

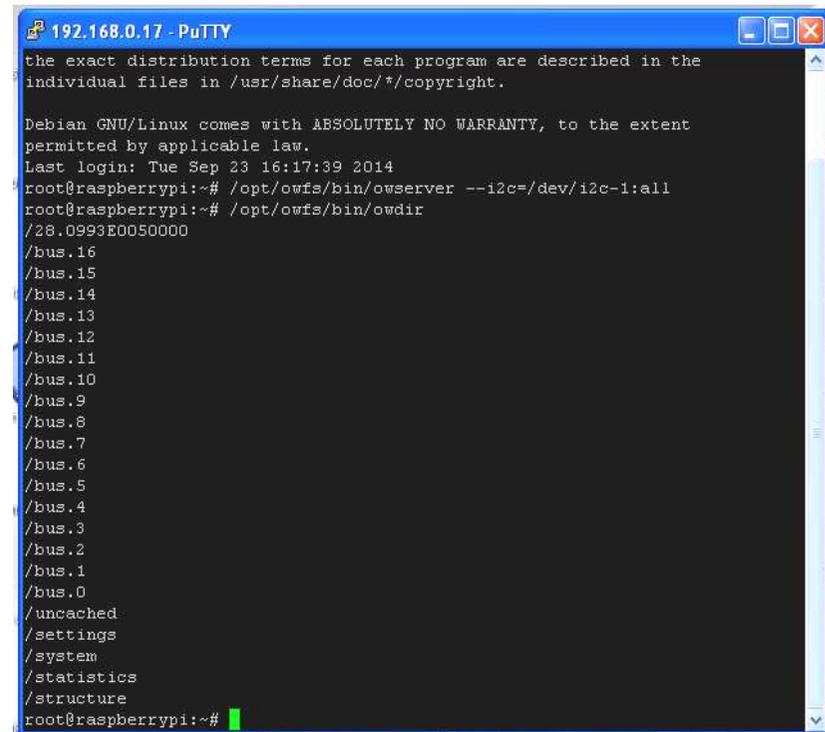


Then you'll want to create the DS1307 device creation at boot, edit /etc/rc.local by running **sudo nano /etc/rc.local**

and add **echo ds1307 0x68 > /sys/class/i2c-adapter/i2c-0/new\_device** before **exit 0**



i2c bus device detect 18 --> DS2482-100 1c --> DS2482-800 1f --> DS2482-800 68 --> DS1307 RTC



It appears that OWServer has found 17 1-wire busses, DS2482-100 is bus.0 DS2482-800 is bus.1 .. bus 8 DS2482-800 is bus.9 .. bus 16

/28.xxxxx - Connect & Detect DALLAS 18B20P TEMP Sensor

## Installation of the OWFS (One Wire File System)

First you need to install the following packages:

```
sudo apt-get update
```

```
sudo apt-get install automake autoconf autotools-dev gcc-4.7 libtool  
libusb-dev libfuse-dev swig python2.6-dev tcl8.4-dev php5-dev i2c-tools
```

If prompted answer Yes on any questions during the install.

Download the latest version of OWFS to your usr/src directory

```
cd /usr/src
```

```
sudo wget -O owfs-
```

```
latest.tgz http://sourceforge.net/projects/owfs/files/latest/download
```

Unpack with the following command:

```
sudo tar xzvf owfs-latest.tgz
```

Next you must configure OWFS: (replace X.XXXX with the version number you downloaded)

```
cd owfs-X.XXXX
```

```
sudo ./configure
```

If everything is correct, you should get a result like this:

Current configuration:

Deployment location: /opt/owfs

Compile-time options:

Caching is enabled

USB is DISABLED

etc.

Next you need to compile OWFS which will take approx. 30 minutes with the following command:

```
sudo make
```

Next install OWFS which will take a few minutes

```
sudo make install
```

Once the installation has completed you need to create a mountpoint for the 1wire folder:

```
sudo mkdir /mnt/1wire
```

In order to use the 1wire devices without root privileges you have to change the FUSE settings, edit the fuse configuration file with:

```
sudo nano /etc/fuse.conf
```

Update this line: #user\_allow\_other and remove the # from the start, then save your changes

You can now start using OWFS to access your i2c devices and any connected sensors:

```
sudo /opt/owfs/bin/owfs --i2c=ALL:ALL --allow_other /mnt/1wire/
```

Using a terminal window navigate to the /mnt/1wire/ directory and use the ls command to list all connected devices.

If you have a temperature sensor connected you should have a folder starting with 28.xxxxxx

cd into this folder and then enter cat temperature to read the temperature of the sensor.

```
cat temperature -- 22.312 & 32.125
```

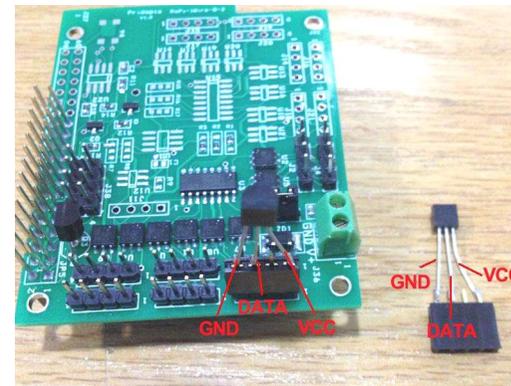
## Download User manual

<http://www.pridopia.co.uk/pi-2482-800-2.html>

## Package Content

1x Rs-Pi DS2482-800 17 Bus 1-wire for Pi B+ board

1x Manual



Example for connect DS18B20