

Logging and Monitoring

There will be times when you want to diagnose a problem or monitor the status of the battery pack when you are charging or discharging. This section will describe how the logging and monitoring process is done with the program.

Logging

Logging of the program is done through syslog. To access the logs, first ssh into the PacMan (Refer to Accessing PacMan). You can find the logs 'pm14.log', 'pm14.notice' and 'pm14.err' in '/var/logs/'. pm14.log contains all logging messages and a string of system parameters and status once about every minute. pm14.notice contains only information about the program such as starting up, charging states, and errors etc. pm14.err contains only error information. As such, pm14.err will be useful to diagnose the program if it encounters an error.

A string of system parameters and status is logged once every minute in pm14.log. However, you may log the string twice every second in a separate file. In /root/pm14, use `./toggle_log`

This will send a signal to the program to start logging to out.dat in /root/pm14. It is advised not to run this for a long time as it will use up the memory. To turn it off, just use `./toggle_log`

again. This will stop the logging. The parameters that are logged are:-

```
Curtime Charging Plugged Ccount realsoc dispsoc current packV packT Bypass_of_all_cells  
Voltage_of_all_cells Temperature_of_all_cells
```

Monitoring

You may find that the LCD display is insufficient to closely monitor the system. Therefore, to monitor the system, ssh into PacMan (Refer to Accessing PacMan) and use

```
./monitorscript.sh
```

in /root/pm14.

Of course, ssh connection must be maintained throughout the monitoring process.