

Operating the Aida Pi_Monitor

The Pi_Monitor comprises a Raspberry Pi 2 Model B with USB Hubs connecting to USB-RS232 cables from each FEE64 console.

When operational all output from each FEE64 console will be recorded in a separate log file.

To operate

Connect the Ethernet from the Pi to a spare port on the Aida network. The server should provide an IP address in response to the DHCP request from the Pi. The Pi system name is npg-monitor.

Before power-up of the Pi Ensure all the USB Hubs are disconnected from the Pi. I have found that the power from the hubs via the USB cables can confuse the Pi.

Once the green LED has finished flashing, plug in the four USB hubs.

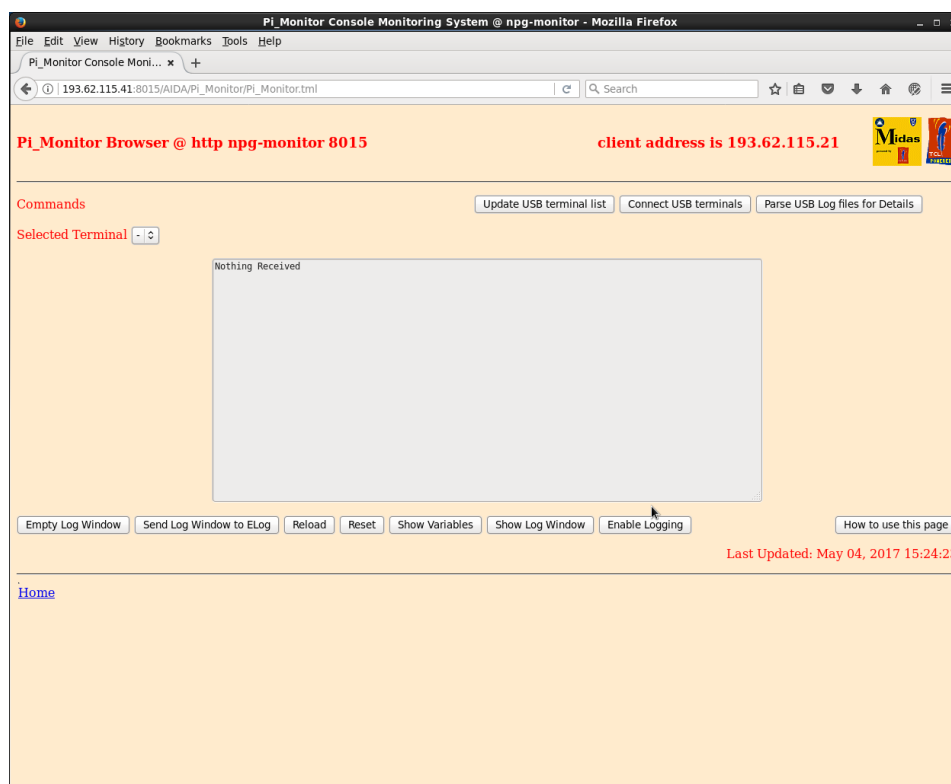
Connect the required number of console cables to the FEE64s and to the USB hubs. I suggest a fair distribution across the hubs with the cables plugged in from left to right in the USB hub. The 7 port hub is internally several 4 port hub chips.

On the Aida server determine the IP address of the Pi.

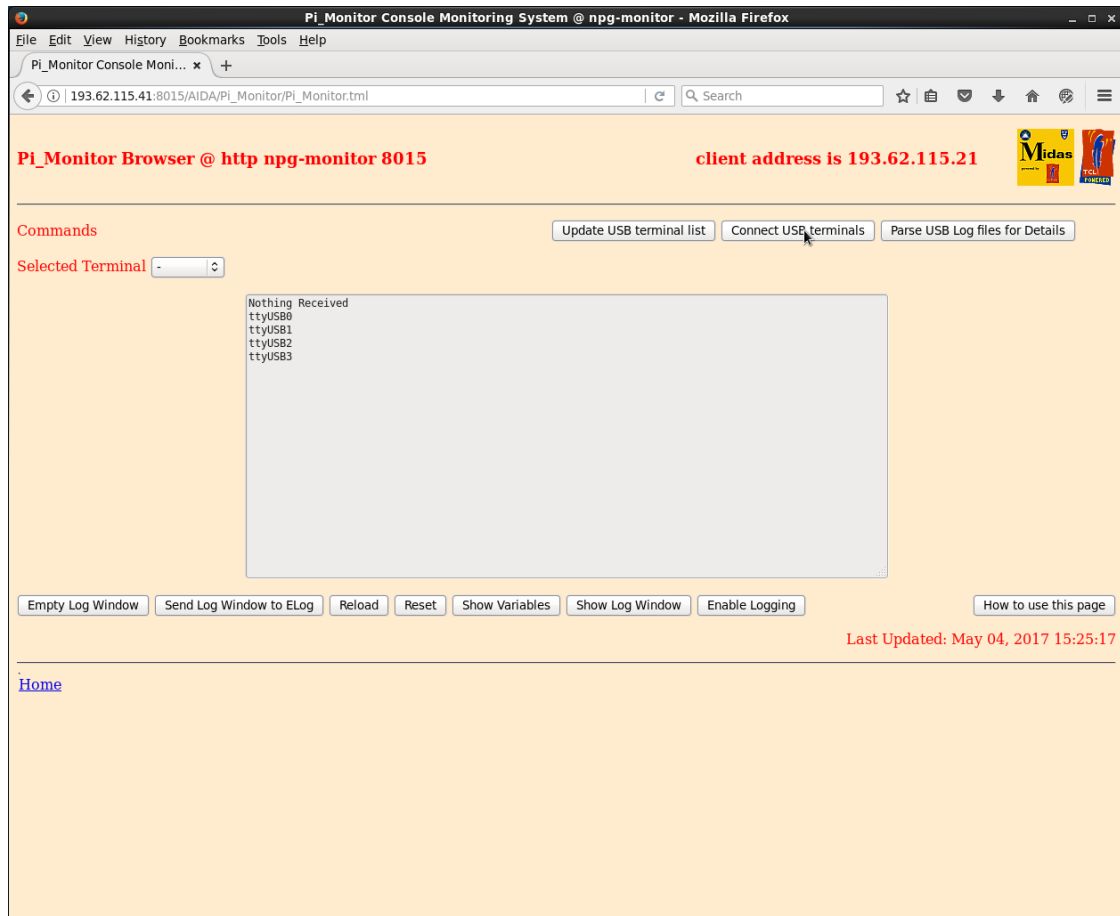
Open a browser page and connect to the Pi at

http://<npg_monitor IP>:8015/AIDA/Pi_Monitor/Pi_Monitor.tml

You should see the following.



Press the button marked “Update USB terminal list” and you should see a list of all the ttyUSBs that are connected.



Next press the button marked “Connect the USB terminals”. There is no change to the screen.

This action connects each of the ttyUSB devices to a file in a logs directory at the home folder of the pi user. When a line of text is received from an FEE64 it is recorded in the appropriate log file.

These files can be viewed by logging into the Pi (user = pi , password = nuclear).


The final button on the browser parses the files and extracts the last host name and IP address of the FEE64 connected to the ttyUSB#. It also looks for the keyword “panic” in the log file and displays the number of times it has occurred. The final screenshot shows the results of one of these actions.

Pi_Monitor Console Monitoring System @ npg-monitor - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Pi_Monitor Console Moni... x +

193.62.115.41:8015/AIDA/Pi_Monitor/Pi_Monitor.tml Search

Pi_Monitor Browser @ http npg-monitor 8015 **client address is 193.62.115.21** 

Commands

Selected Terminal - ▾

```
ttyUSB0 => last host=nnlycca4, => last addr=193.62.115.240, ; #panics => 0 ; Finished OK
ttyUSB1 => last host=nnaida14, => last addr=193.62.115.227, ; #panics => 1 ; Finished OK
ttyUSB2 => last host=nnaida12, => last addr=193.62.115.233, ; #panics => 0 ; Finished OK
ttyUSB3 => last host=nnaida11, => last addr=193.62.115.232, ; #panics => 0 ; Finished OK
```

Last Updated: May 04, 2017 15:25:51

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