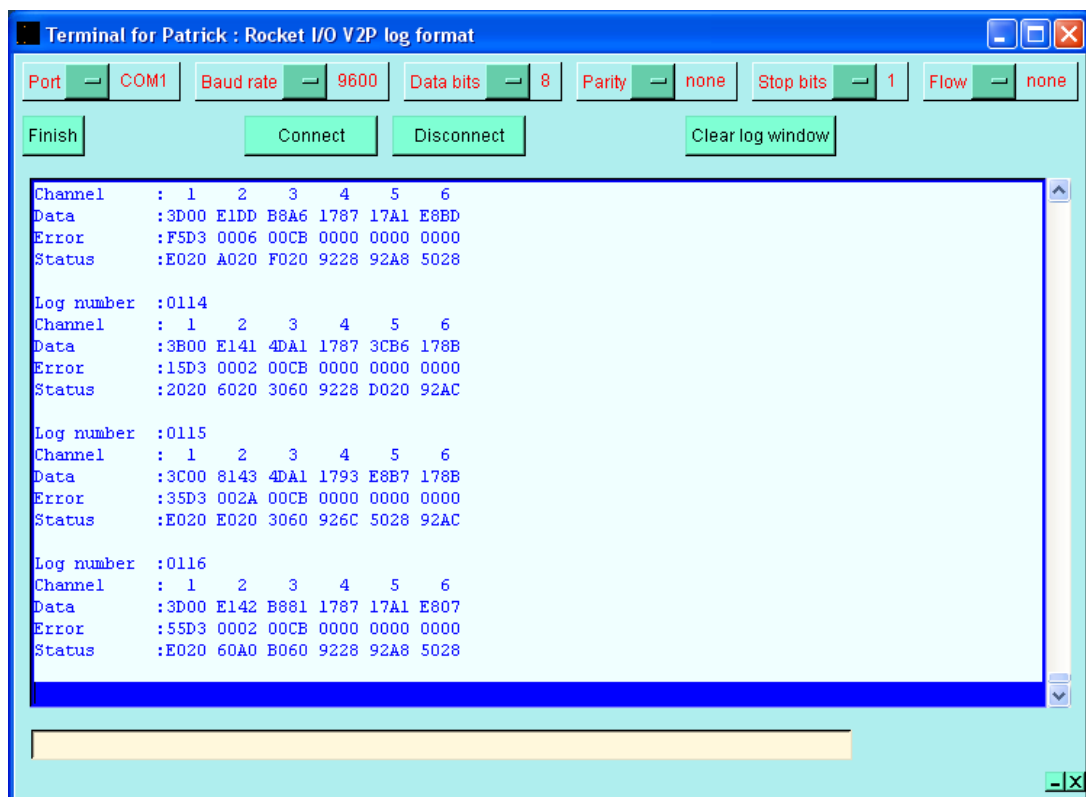


## Agata Digitiser Fiber Optic connections test

This test is to verify that the fiber modules are powered ok by the power supply board.

1. Power on the digitiser with the default vhdl code (not samwise).
2. Power on DL fiber test Board set-up
3. Connect fiber cable 202658A to core module and 202659A to segment module.
4. Open com port in MIDAS, connect and press Push Button 3 on the DL fiber test Board (see com port screenshot below).



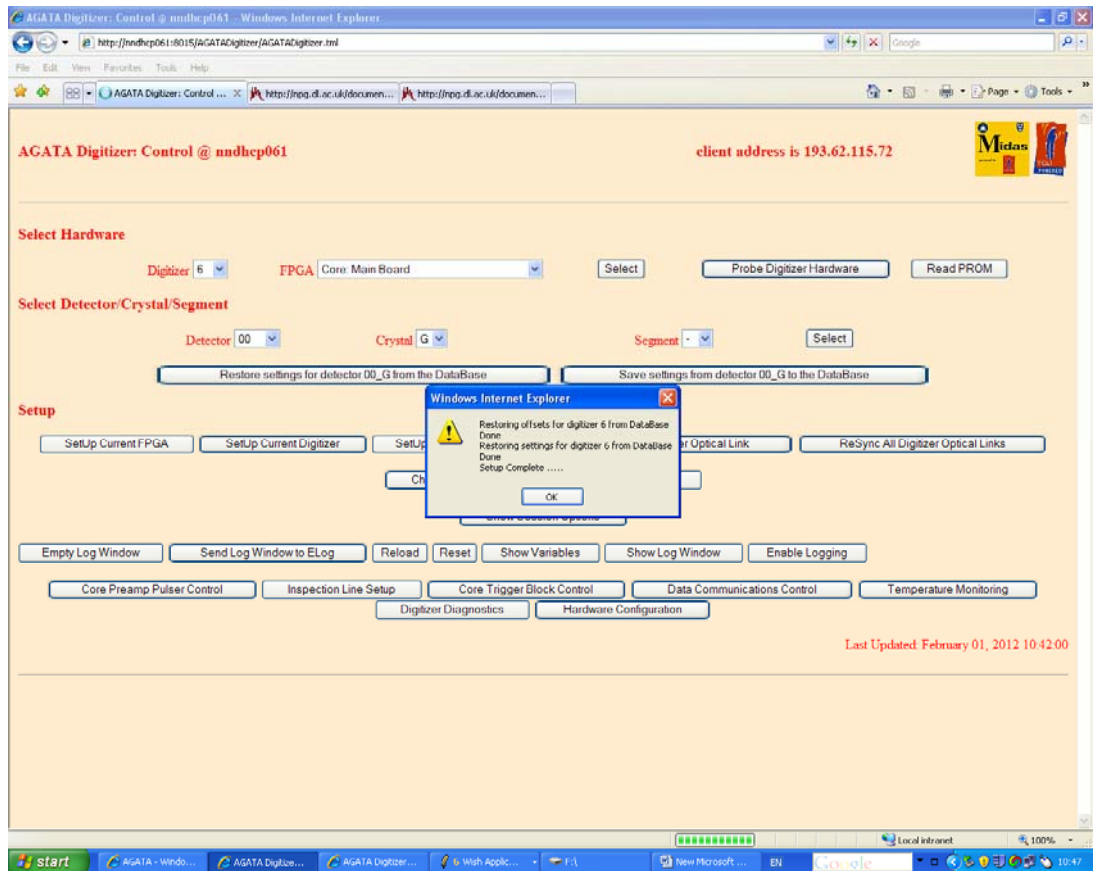
```
Terminal for Patrick : Rocket I/O V2P log format
Port COM1 Baud rate 9600 Data bits 8 Parity none Stop bits 1 Flow none
Finish Connect Disconnect Clear log window
Channel : 1 2 3 4 5 6
Data : 3D00 E1DD B8A6 1787 17A1 E8BD
Error : F5D3 0006 00CB 0000 0000 0000
Status : E020 A020 F020 9228 92A8 5028

Log number : 0114
Channel : 1 2 3 4 5 6
Data : 3B00 E141 4DA1 1787 3CB6 178B
Error : 15D3 0002 00CB 0000 0000 0000
Status : 2020 6020 3060 9228 D020 92AC

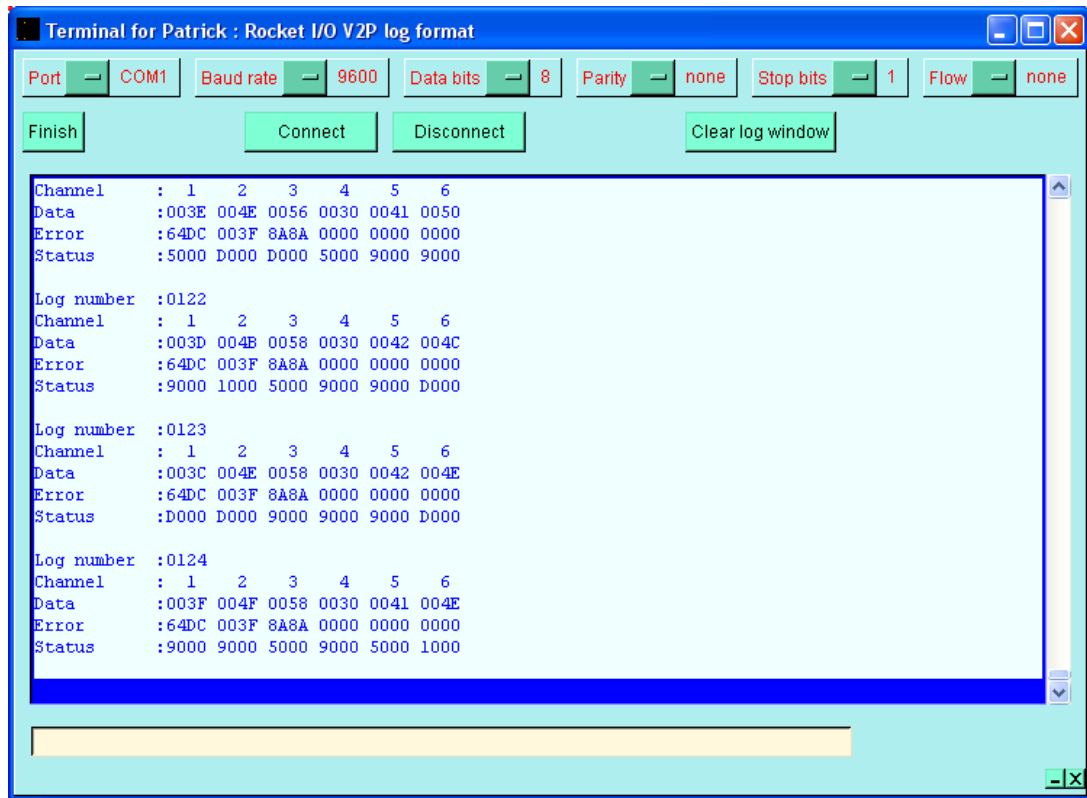
Log number : 0115
Channel : 1 2 3 4 5 6
Data : 3C00 8143 4DA1 1793 E8B7 178B
Error : 35D3 002A 00CB 0000 0000 0000
Status : E020 E020 3060 926C 5028 92AC

Log number : 0116
Channel : 1 2 3 4 5 6
Data : 3D00 E142 B881 1787 17A1 E807
Error : 55D3 0002 00CB 0000 0000 0000
Status : E020 60A0 B060 9228 92A8 5028
```

5. In order to sync, open the agata digitizer control web page, probe hardware and then "Setup Current Digitiser". If successful, then we get the message as shown below. Sometimes the sync pulse is not transmitted correctly and this step report an error. In this case reprogram the DL fiber test Board set-up.



- Looking back at the COM port then in status we should get "X000" and the data should be zero or close to it (above and below zero , see snapshot below).



7. Repeat for the rest of the segment module by plugging the fiber cable to the module under test, then "Resync Current Digitiser" from the control webpage and finally viewing the COM port.
8. For testing the core fiber move the 2 diff pairs from the segment fiber module to the core fiber module, resync and check the com port. Only channel 1 and 2 are relevant.