



PEG SUS

Applications Note

Using PuTTY to send
commands over RS232



Using PuTTY to send commands over RS232

This document briefly describes how to connect a Wentworth Laboratories Pegasus prober to a PC running the PuTTY terminal emulator, and how to send remote commands over RS232.

PuTTY is a free and open-source terminal emulator, serial console and network file transfer application. It will allow you to send individual commands to the prober, and to see the prober's responses to each command. This will allow you to ensure that the RS232 connection is working, and to test individual commands. Normally you would then write software to control the prober, using these commands. This software is your responsibility and beyond the scope of this application note.

Note: This document is intended to supplement the Pegasus™ prober's user manual, and should be read with that manual.

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1. Pegasus™ Prober Set-Up



The **Pegasus™** prober must have the optional RS232 functionality installed. If not, please contact Wentworth Laboratories for a quote to upgrade your system.

On the prober select the **Settings** option, and then select the **Remote Settings** item. This will display the **Remote Settings** menu. On this menu set the following item:

- Set the **Remote Interface** item to be **RS232**.

Now select the **RS232 Settings** item to display that menu. On this menu set the following items:

- Set the **Parameters** item to be **38400, 7, E**.
- Set the **Mode** item to be **INF**.
- Set the **EOT Character** item to be **10**.

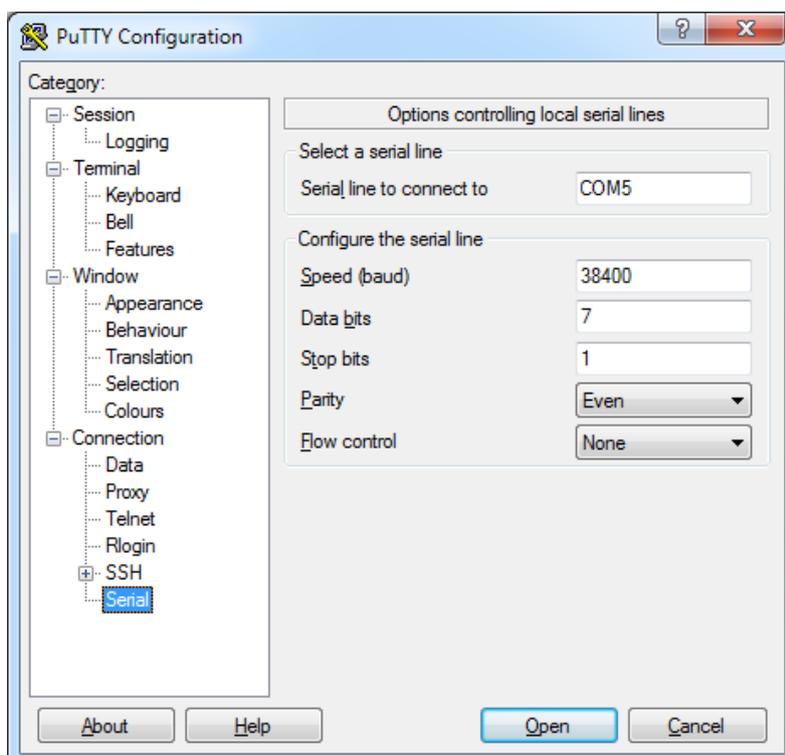
Press the home button to exit the menu (on older systems, press the escape button three times to exit the menu).

Select the **Remote** option to enter remote mode (which allows the terminal emulator to control the prober).

2. PuTTY Set-up

Serial Options

On the **Category** control, click on **Serial** item to display the serial line options:

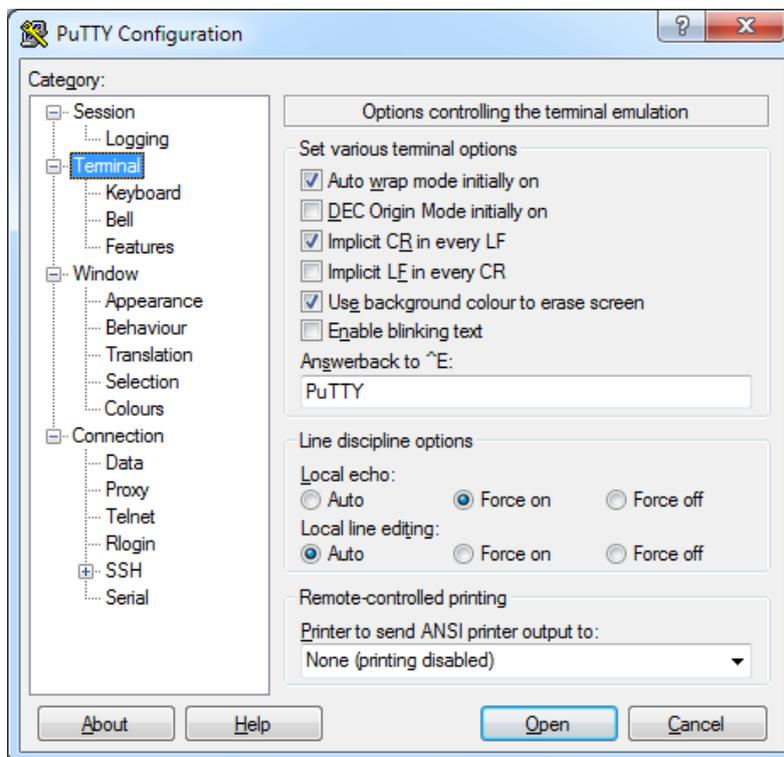


Set the following items:

- Set the **Serial line to connect to** item to the serial port that you will be using to communicate with the prober (COM5 is used in the screen shots in this application note, but your serial port may be different).
- Set the **Speed (baud)** item to be **38400**.
- Set the **Data bits** item to be **7**.
- Set the **Parity** to be **Even**.
- Set the **Flow control** to be **None**.

Terminal Emulation Options

On the **Category** control, click on **Terminal** item to display the terminal emulation options:



Set the following items:

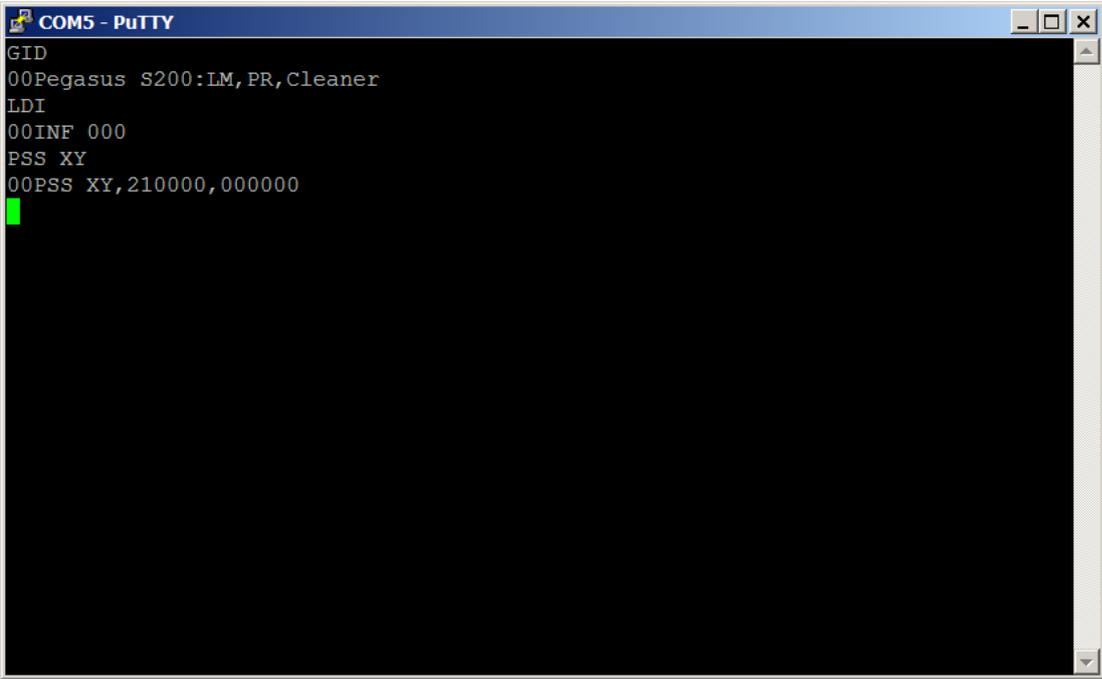
- Tick the **Implicit CR in every LF** item.
- Set the **Local echo** item to be **Force on**.

3. Connecting and Sending Commands

Physically connect the PC to the prober using an RS232 cable. The cable should be connected to the **SERIAL 1** connector on the back of the prober's controller. The other end of the cable should be connected to a USB port on the PC using an RS232 to USB converter.

Ensure that the prober is in remote mode.

On **PuTTY**, ensure that correct serial port has been set, and then press the **Open** button. This will display the terminal emulator window:



```
COM5 - PuTTY
GID
00Pegasus S200:LM,PR,Cleaner
LDI
00INF 000
PSS XY
00PSS XY,210000,000000
```

You can now send commands to the prober. These commands need to be entered without error, and sent by pressing **Control+J**. In the screen shot above, the following commands were sent:

- The **GID** command was sent to display the prober's model.
- The **LDI** command was sent to reference all the motors.
- The **PSS XY** command was sent to display the position of the X, Y motors.



When using PuTTY, all commands must be entered without error (trying to edit them using the backspace key will cause a command error), and Control+J must be used to send each command (pressing the return key will also cause a command error).