Analyzing the Knock Detective's output with Nistune
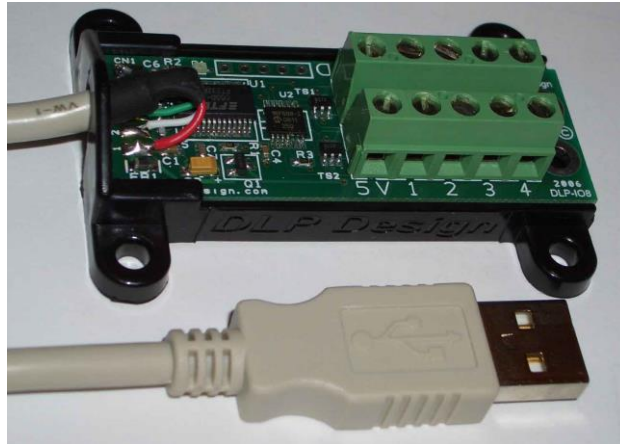### V1.0 – Jan 15, 2025

1 – In order to datalog external voltages you will require a DLP-IO8 connected to your laptop while datalogging. It's very affordable and easy to use:


2 – Once you have your DLP-IO8 installed with the appropriate drivers, connect the **BLUE** wire from the Knock Detective to one of the 8 inputs. Splice in a ground wire from your Knock Detective to the GND pin on the DLP-IO8.

3 – Click **File** and then click **Configuration**:
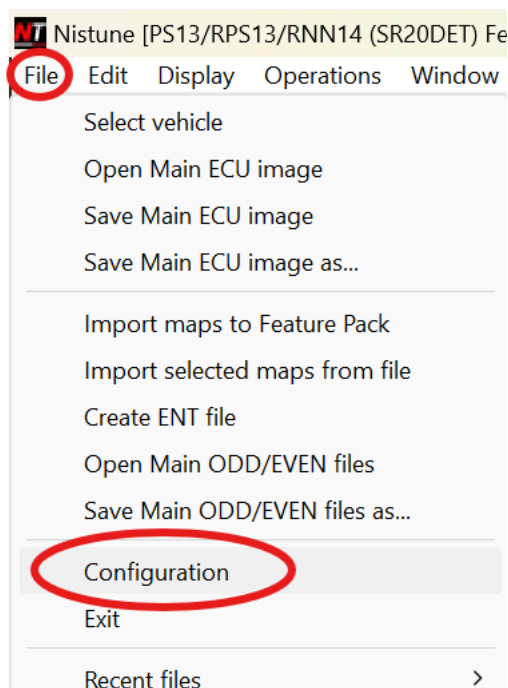
4 – Click the **Wideband Settings** tab and then under the **Wideband Type** dropdown select **DLP A/D converter**. It's a bit misleading, but the external analog inputs are all considered "widebands" by Nistune. Under the **Port** tab select your COM port that represents the connected DLP device. In this example I do not have the DLP connected:
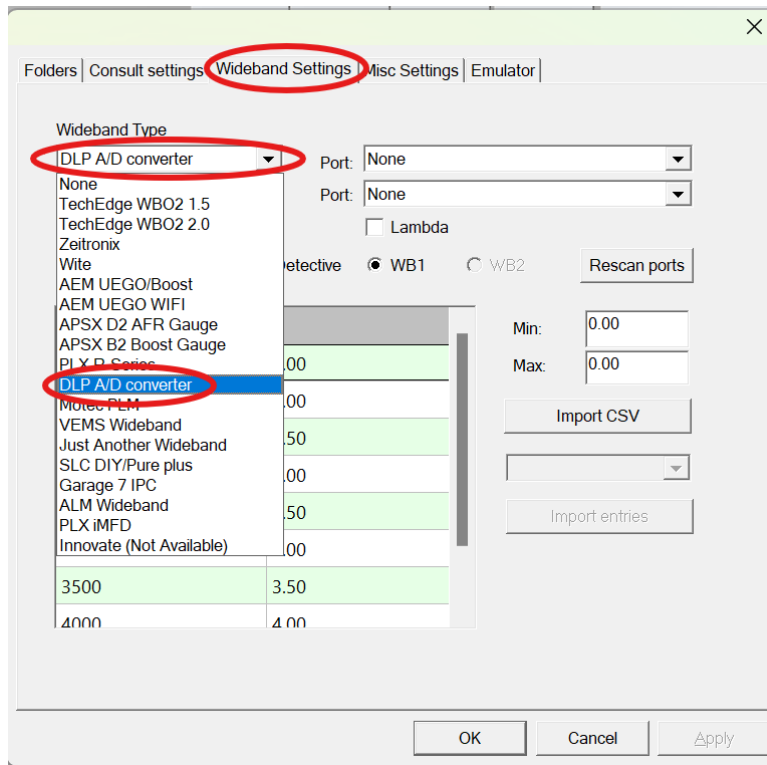
5 – Under the **Channel** dropdown, select whichever input you have wired the Knock Detective to:
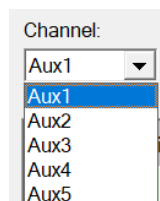
6 – Change the title to Knock Detective:
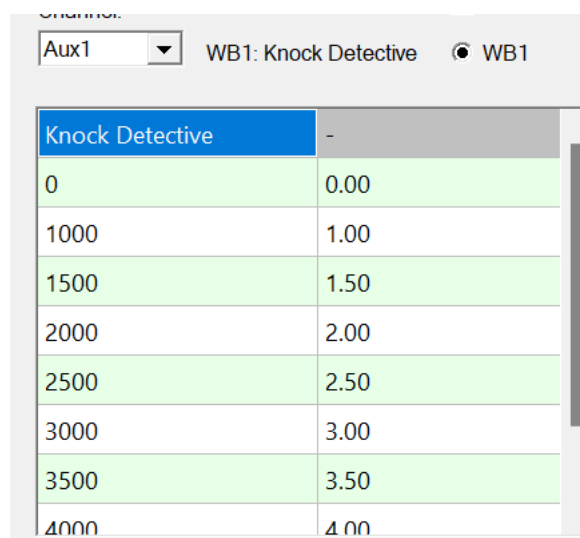
7 – Scroll down to the bottom of the table and delete all but the 0, and 1000 row by selecting them and hitting the delete key. The left-hand column represents the input in millivolts, and the right-hand column represents the reported value to Nistune:

8 – Double click the 1000 field and change it to 5000, and then double click the 1.00 field and change it to 100. You now are reading 0-5V and reporting it as a value from 0-100:
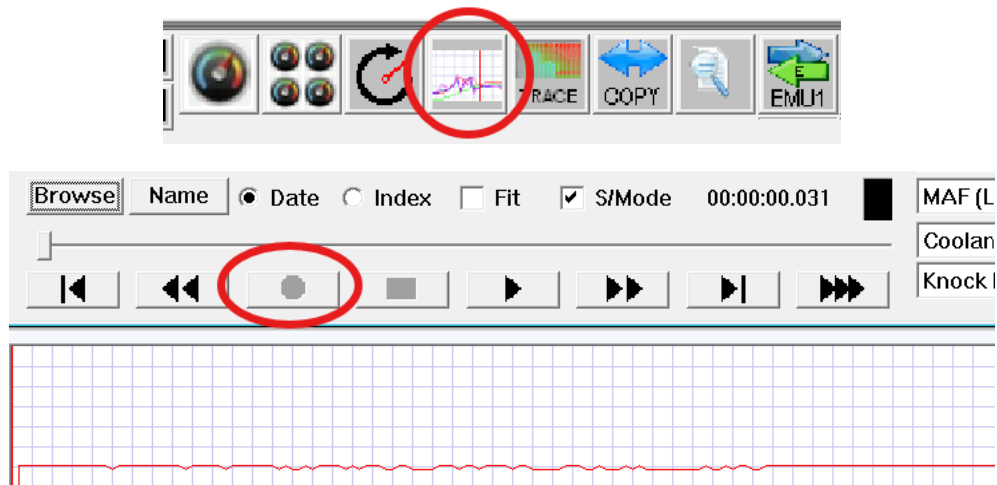

9 – Now in order to connect to the DLP and datalog the Knock Detective's output, you will need to connect to the "wideband" by clicking the **lambda icon**.
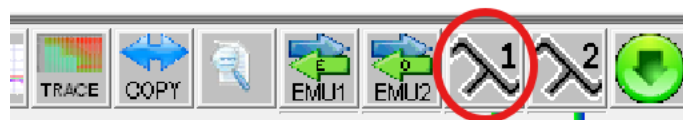
10 – While connected to both the ECU, and the "wideband" you can start a datalog by clicking the **datalog icon** and then the **record button**:

11 – The Knock Detective's signal will now be available as a dropdown and will be saved in your datalog for reviewing. Remember the voltage will grow with RPM, but you're looking for sharp spikes in the amplitude indicating potential knock events. I will have an example datalog in the future (it's currently winter in Canada):