

NEP50xx USB option & data visualisation (Application notes)

Water Quality



**Food
Processing**



**Waste
Treatment**



**Environmental
Compliance for
Dredging Operations**



This document describes how to visualise NEP50xx USB sensor data using variety of methods and their sensor configurations.

This document describes following scenarios.

1. Simple Free-Flow data using a terminal software (with auto wipe and Auto single/range).
2. Simple Free-Flow data using NEP50xx windows app (with auto wipe and Auto single/range).
3. Advance Polled data including statistical parameters using a NEP50xx windows app (With manual wipe and single/auto range).
4. Simple Free-Flow data using Android app (with auto wipe and Auto single/range).

1. Simple Free-Flow data using a terminal software (with auto wipe and Auto single/range).

Mode of operation- Sensor is configured to output measurement data from power up. Also user may select auto wipe and single or auto range features.

Please Download “RealTerm terminal software” or similar software.

To download RealTerm software please use this link

[“https://realterm.sourceforge.io/index.html#downloads_Download”](https://realterm.sourceforge.io/index.html#downloads_Download)

Use following settings.

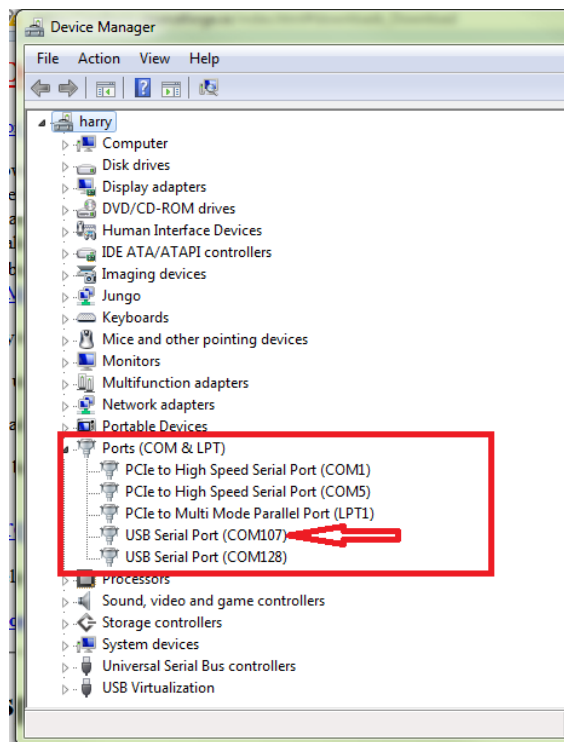
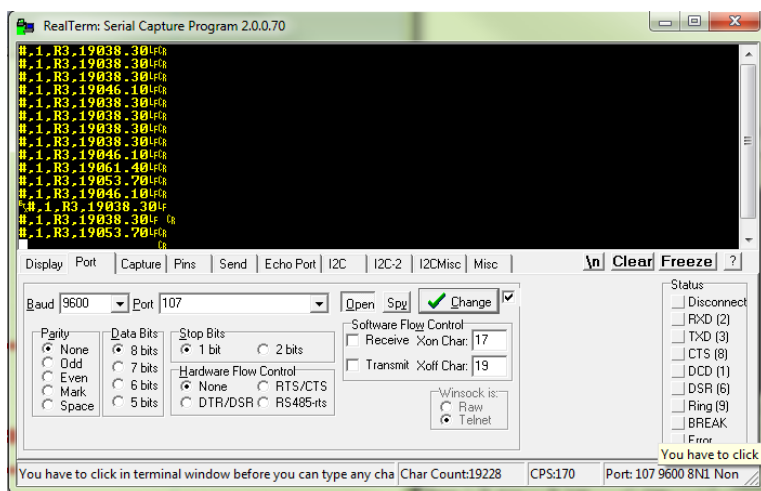
Select the correct COM port using “device manager”

Baud rate = 9600

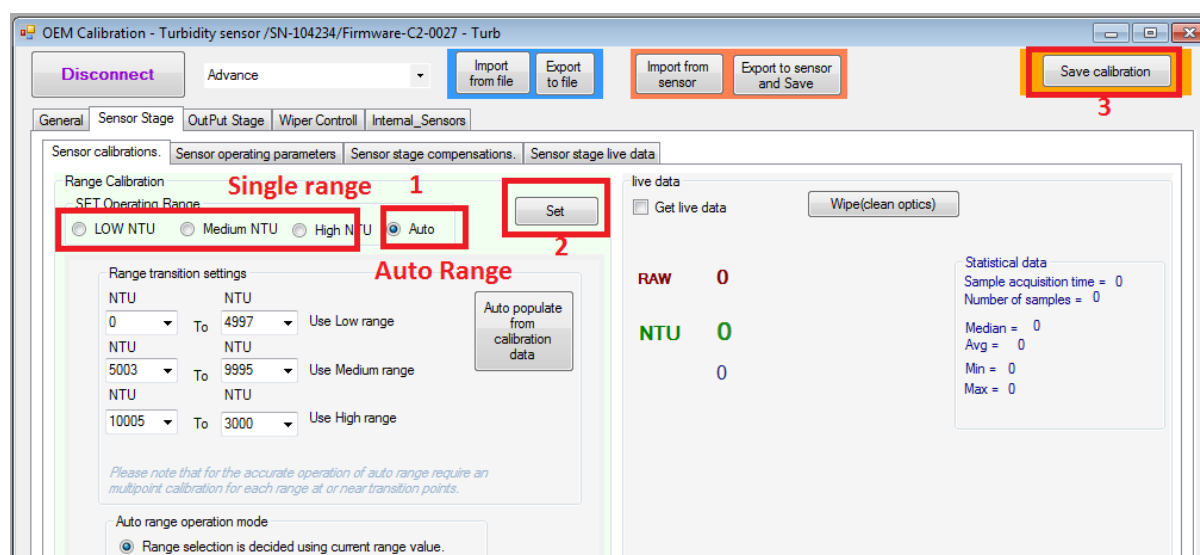
Data bits = 8

Parity = None

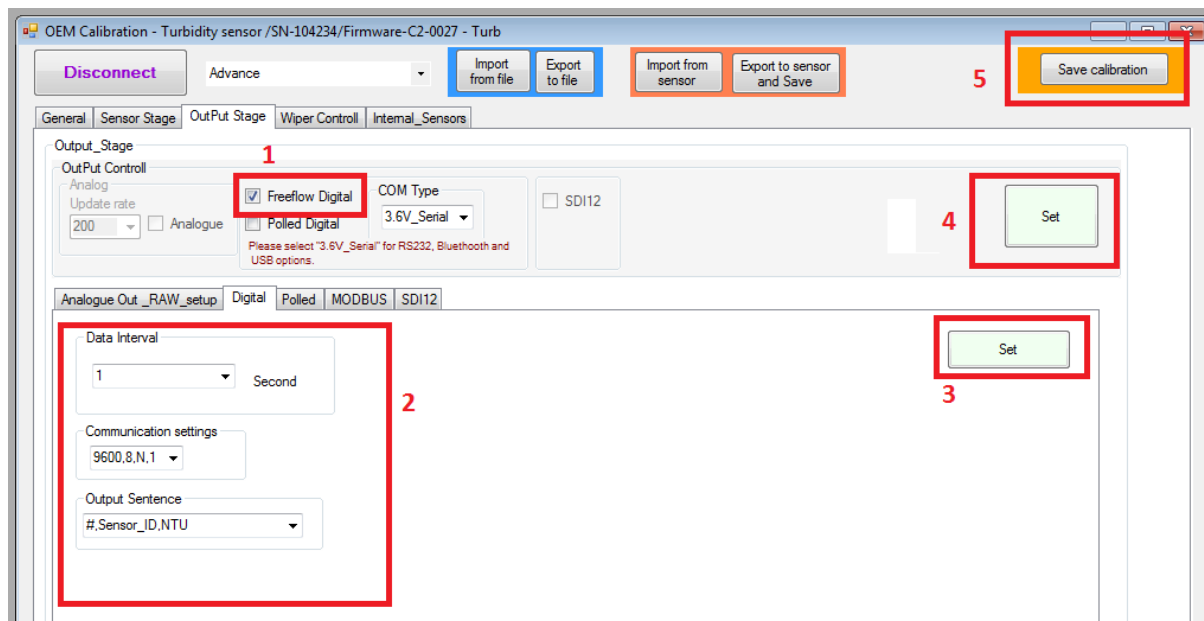
Stop bits= 1



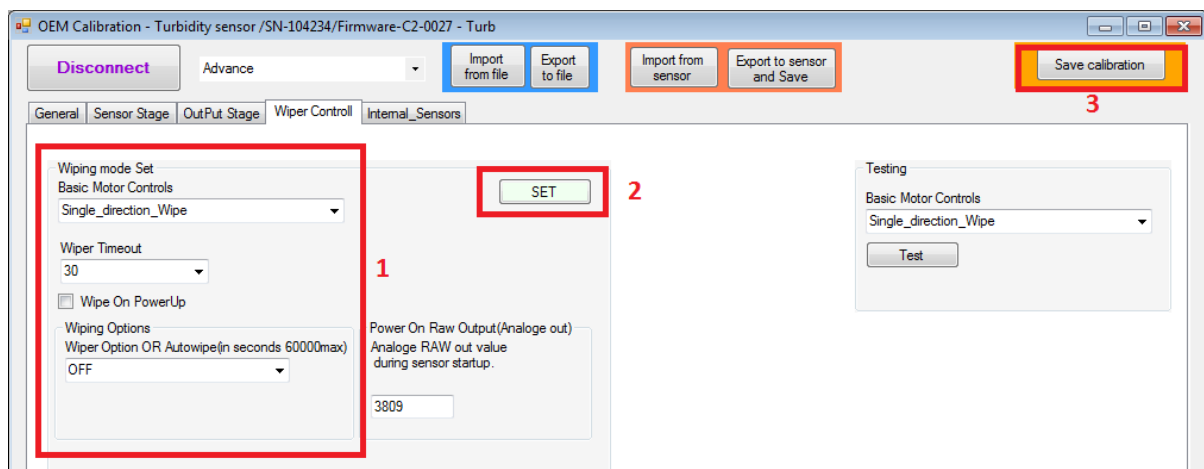
Selecting measurement ranging method. (Please select and press buttons in sequence as shown in red)



Selecting the output method. (Please select and press buttons in sequence as shown in red)



Selecting the wiping method if available in your sensor. (Please select and press buttons in sequence as shown in red)



2. Simple Free-Flow data using NEP50xx windows app (with auto wipe and Auto single/range).

Mode of operation- Sensor is configured to output measurement data from power up. Also user may select auto wipe and single or auto range features.

To download *USB NEP5000 V4.exe* software please use this link "<http://download.observator.com/files/Software/NEP50xx/USB%20NEP5000%20V4.exe>"

Use following settings.

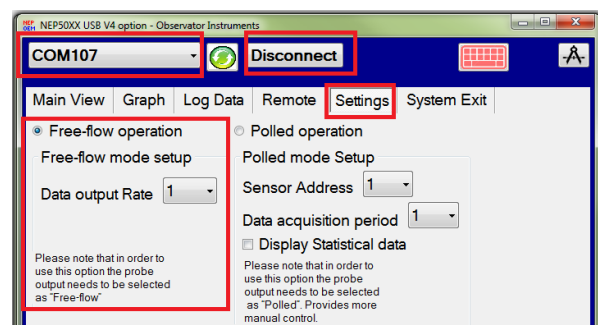
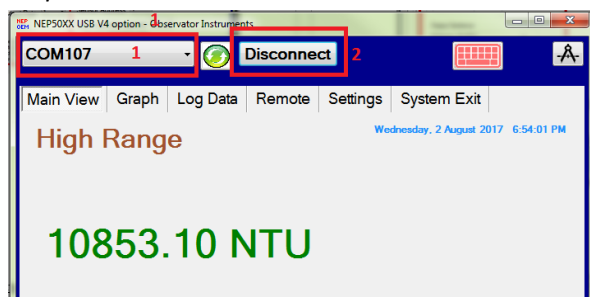
Select the correct COM port using "device manager"

Baud rate = 9600

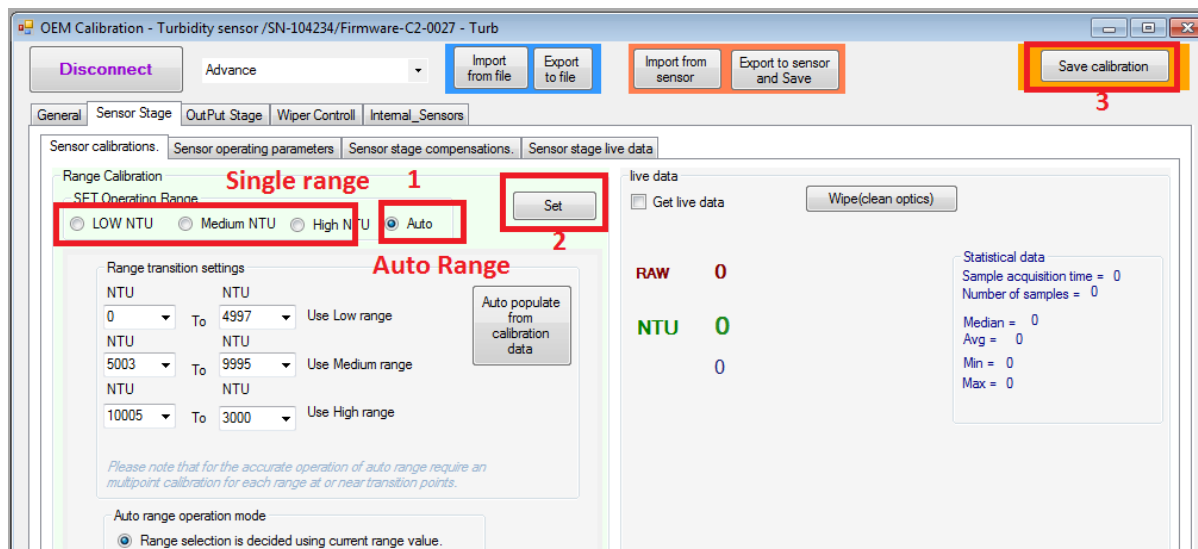
Data bits = 8

Parity = None

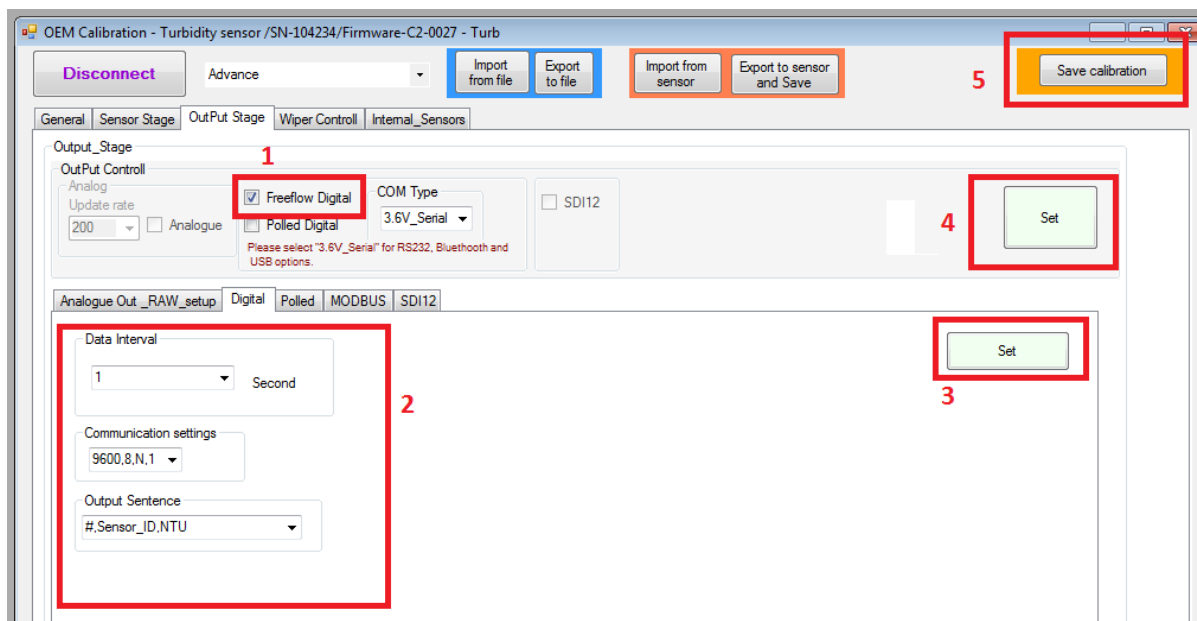
Stop bits= 1



Selecting measurement ranging method. (Please select and press buttons in sequence as shown in red)



Selecting the output method. (Please select and press buttons in sequence as shown in red)



OEM Calibration - Turbidity sensor /SN-104234/Firmware-C2-0027 - Turb

Disconnect Advance Import from file Export to file Import from sensor Export to sensor and Save Save calibration

General Sensor Stage OutPut Stage Wiper Control Internal_Sensors

Output Stage

OutPut Control

Update rate 200 Analog Polled Digital ☒ Freeflow Digital COM Type 3.6V_Serial SDI12

Please select "3.6V_Serial" for RS232, Bluetooth and USB options.

Analogue Out_RAW_setup Digital Polled MODBUS SDI12

Data Interval 1 Second

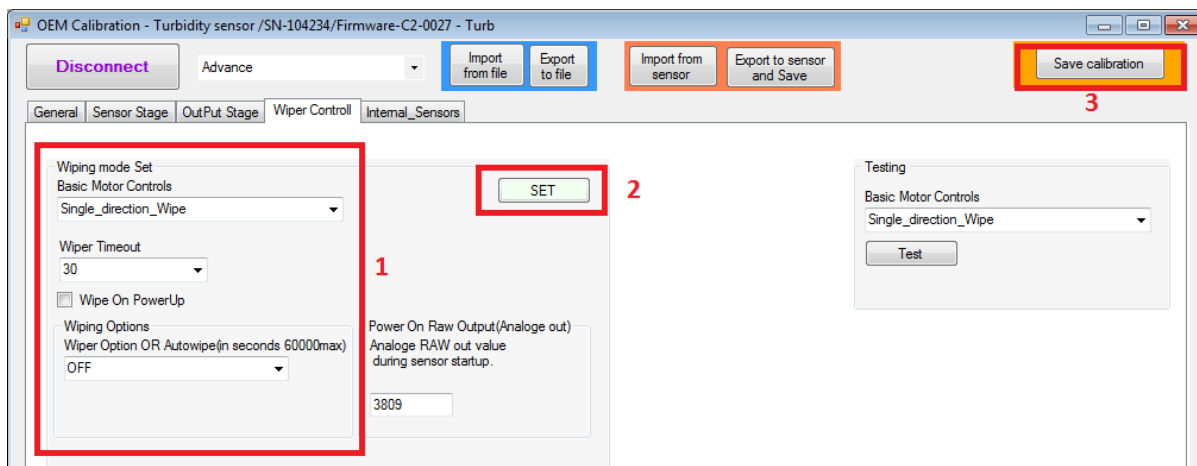
Communication settings 9600,8,N,1

Output Sentence #,Sensor_ID,NTU

Set

Set

Selecting the wiping method if available in your sensor. (Please select and press buttons in sequence as shown in red)



OEM Calibration - Turbidity sensor /SN-104234/Firmware-C2-0027 - Turb

Disconnect Advance Import from file Export to file Import from sensor Export to sensor and Save Save calibration

General Sensor Stage OutPut Stage Wiper Control Internal_Sensors

Wiping mode Set

Basic Motor Controls Single_direction_Wipe

Wiper Timeout 30

Wipe On PowerUp

Wiping Options Wiper Option OR Autowipe(in seconds 60000max) OFF

Power On Raw Output(Analogue out) Analogue RAW out value during sensor startup. 3809

SET

Testing

Basic Motor Controls Single_direction_Wipe

Test

3. Advance Polled data including statistical parameters using a NEP50xx windows app (With manual wipe and single/auto range).

4. Simple Free-Flow data using Android app (with auto wipe and Auto single/range).