

# APSP Test Studio

## User manual

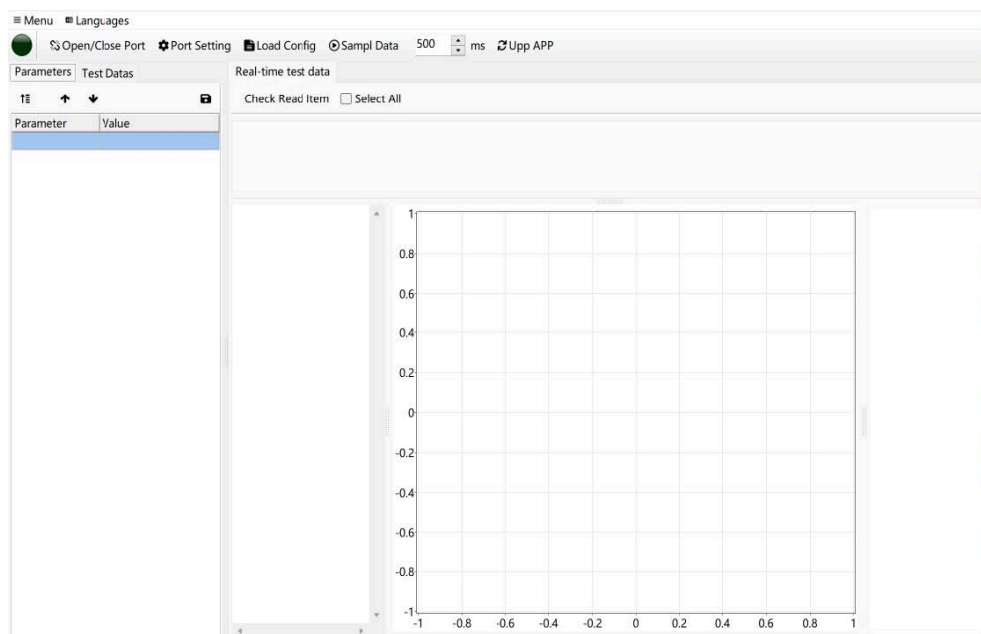
### 1 Software Setup

- Unzip the zipped file.
- There will be an executable file in the folder.

### 2 Run the software

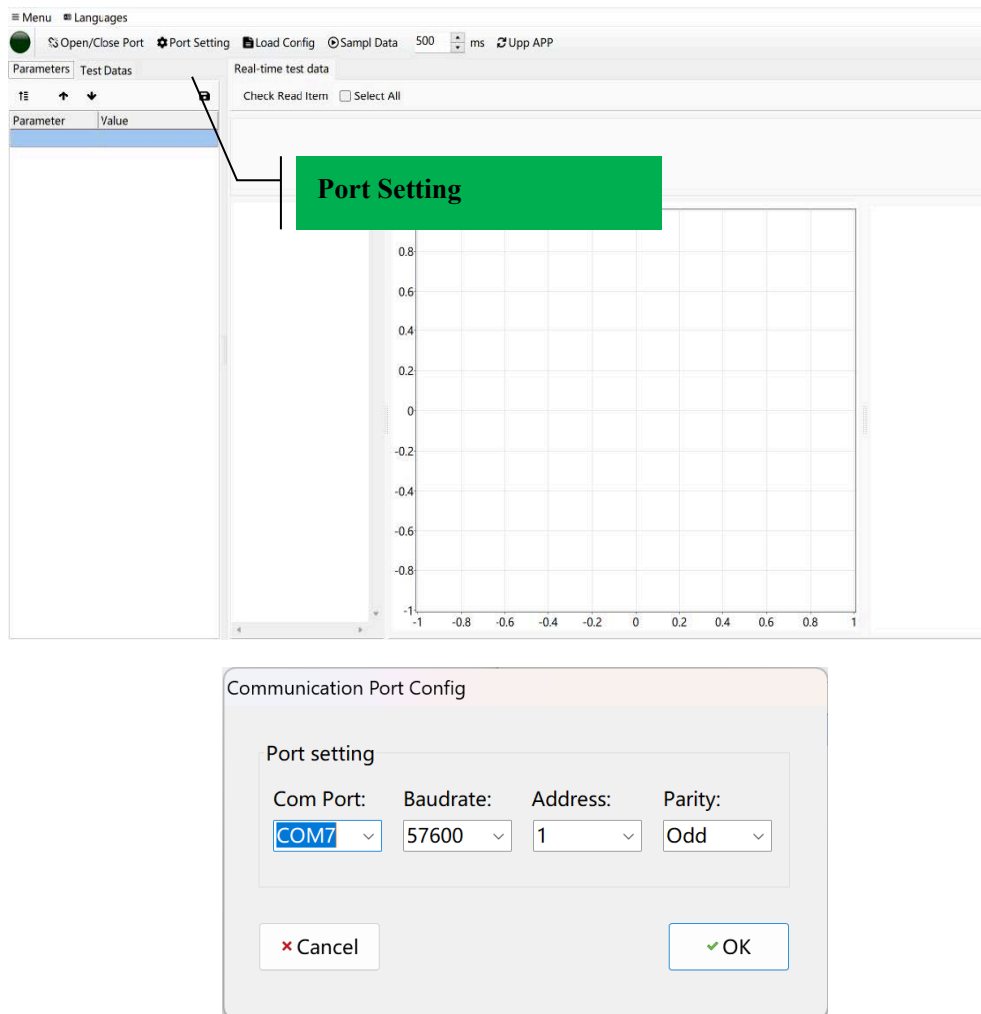
#### 2.1 Open the software

Double click the “**AngstPflasterTestStudioForUser.exe**” icon, you will have the following window:



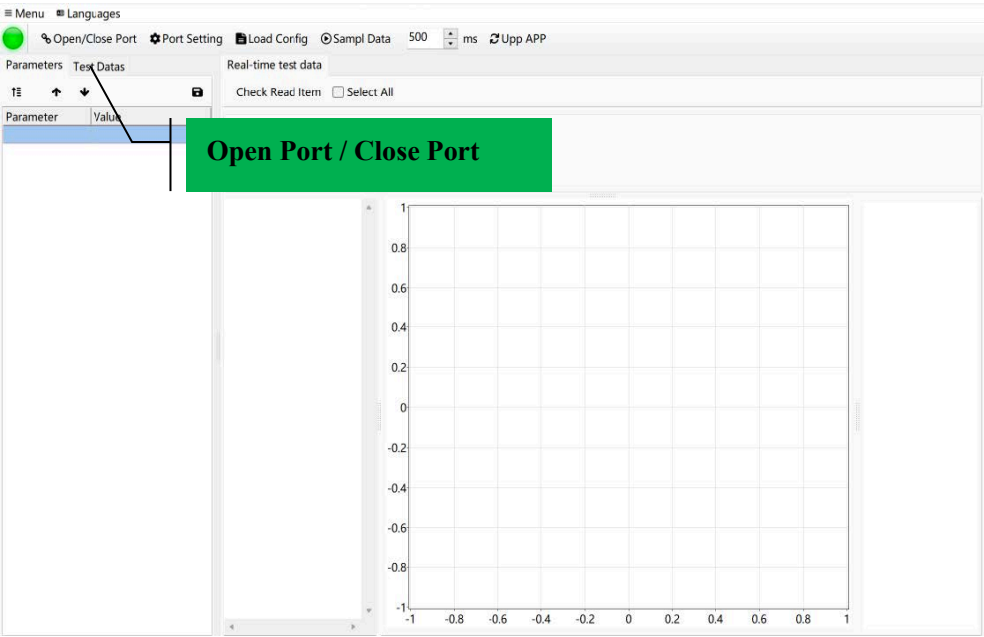
## 2.2 Port Setting

➤ Click the “**Port Setting**” button. “Communication Port Config ” window will appear:



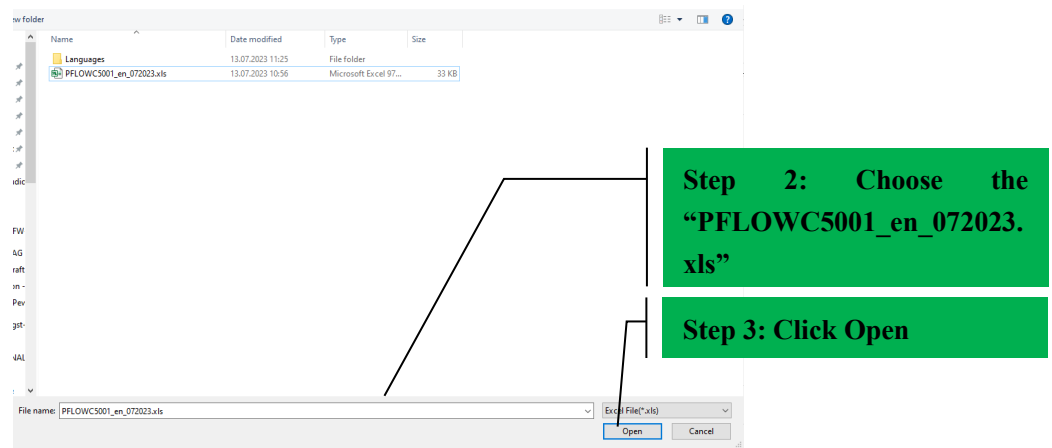
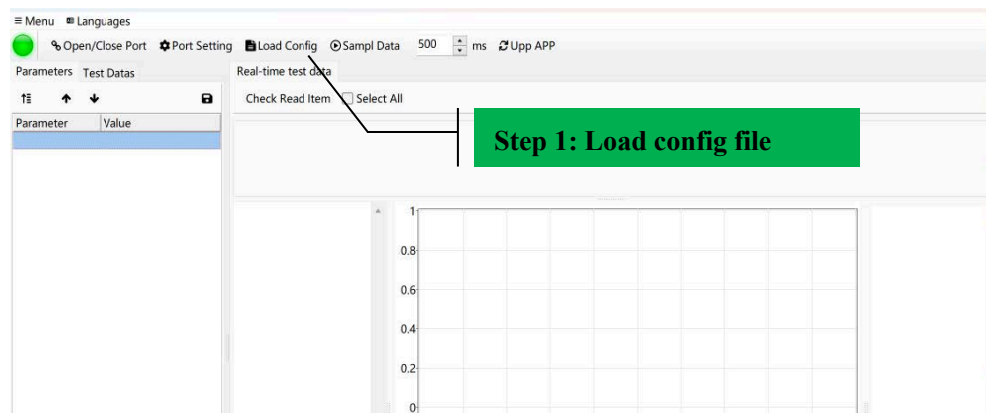
- ◆ Select the appropriate **COM port**;
- ◆ Select "**Baudrate**" to **57600**;
- ◆ Select “**Address**” to **1** (default Modbus address);
- ◆ Select “**Parity**” to **Odd**;
- ◆ Click “OK” to finish the port setup.

### 2.3 Open Port / Close Port

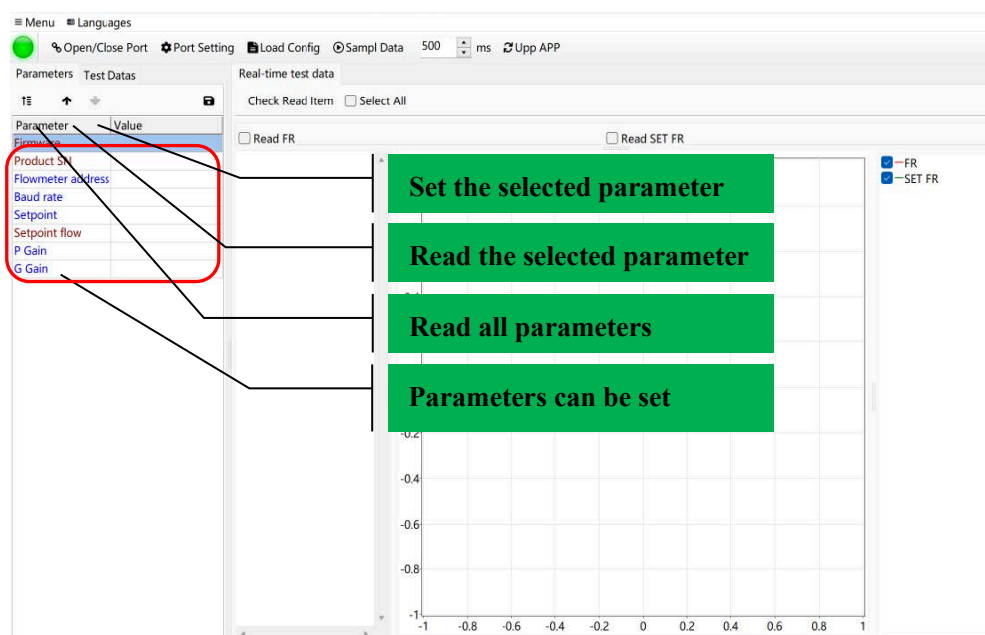


### 3 Operation

### 3.1 Load config file



Then the parameters which can be set will be shown as below:



- Firmware: Firmware version [Read only];
- Product SN: Serial number of the product [Read only];
- Flowmeter address: The Modbus address, 1~247. Default value is 1;
- Baud rate: Communication baud rate; Available valve: 0 ~ 5.  
0 - 4800; 1 - 9600; 2 - 19200; 3 - 38400; 4 - 57600; 5 - 115200.
- Setpoint: Set the flow rate in percentage of the full-scale flow;  
Available valve: 0 ~ 65535.  
0 ~ 64000 corresponding to 0% ~ 100%.
- Setpoint flow: Read the current flow rate set by the user [Read only];  
Available valve: 0 ~ 110000, means of 0 ~ 110.000 SLPM.
- P Gain: PD proportional control of the valve/flow rate;  
Available valve: 0 ~ 9999. The default value is 150.
- G Gain: PD differential control of the valve/flow rate;  
Available valve: 0 ~ 9999. The default value is 250.

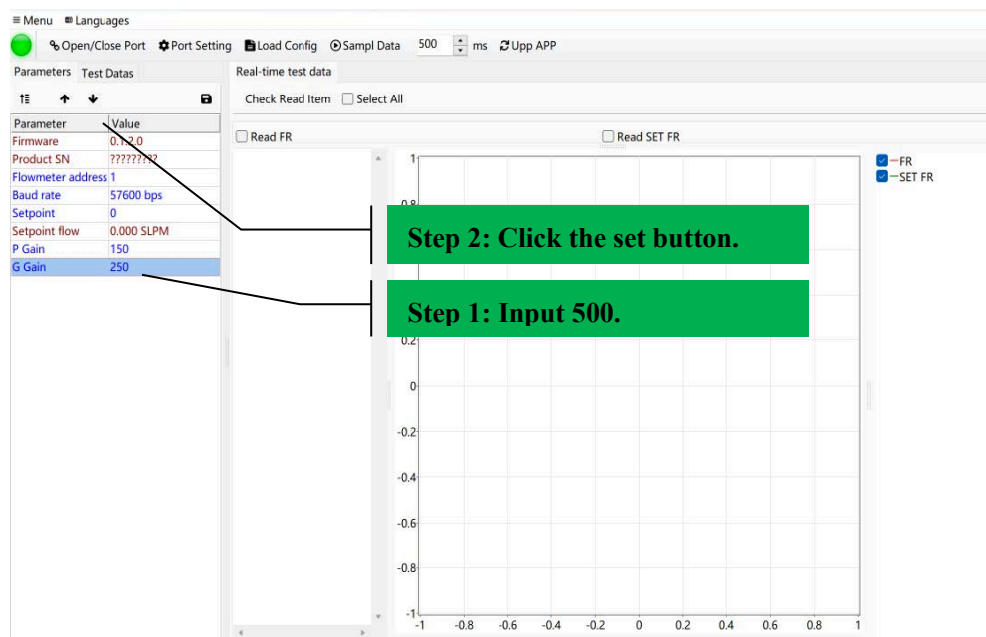
### 3.2 Read all Parameters

The screenshot shows the software interface with the 'Parameters' tab selected. A red box highlights the 'Read all parameters' button. Two green callout boxes provide instructions: 'Step 1: Click the read all parameters button.' and 'Step 2: all parameters will be shown here.' The interface also shows a 'Real-time test data' section with a graph.

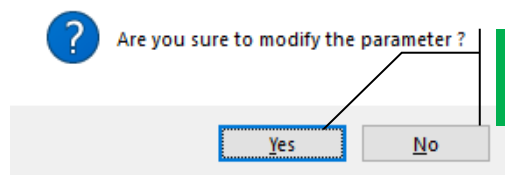
| Parameter         | Value      |
|-------------------|------------|
| Firmware          | 0.1.2.0    |
| Product SN        | ????????   |
| Flowmeter address | 1          |
| Baud rate         | 57600 bps  |
| Setpoint          | 0          |
| Setpoint flow     | 0.000 SLPM |
| P Gain            | 150        |
| G Gain            | 250        |

### 3.3 Write (set) parameter

For instance: if you want to set the G Gain to 500:

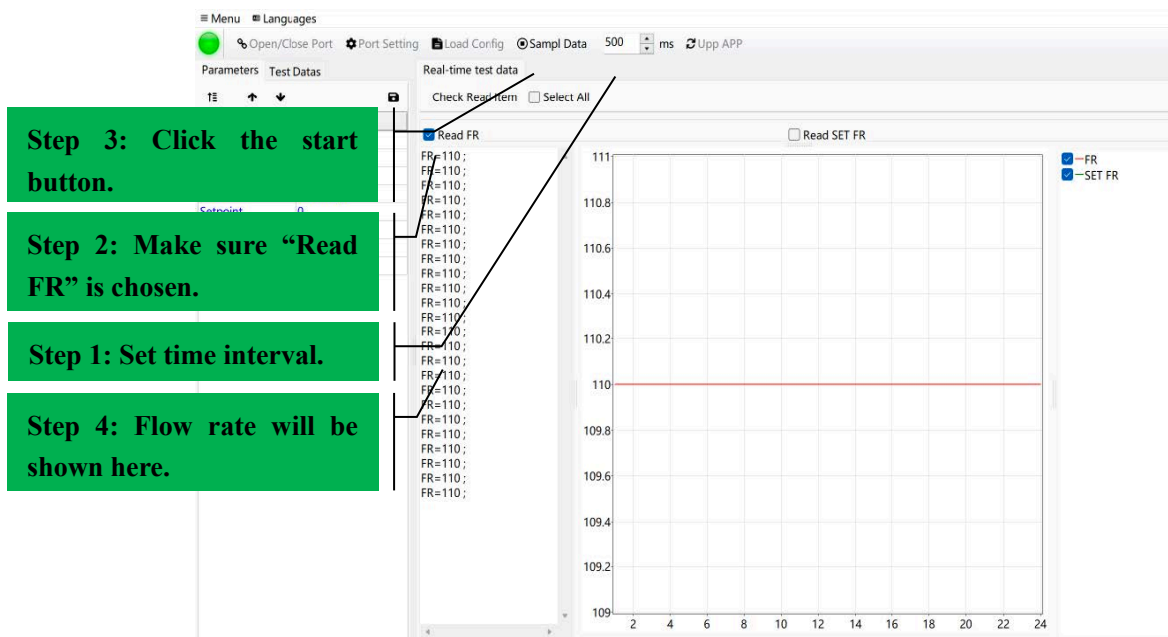


Information



**Note:** When the parameter is set OK, please read out to do a double check.

### 3.4 Read Flow Rate



**Zoom in:** Left click Data Chart, and shift the mouse **from left to right**, the chart which you chose will be zoom in;

**Zoom out:** Left click Data Chart, and shift the mouse **from right to left**, the chart will get back to the original one.

### 3.5 Firmware upgrade

