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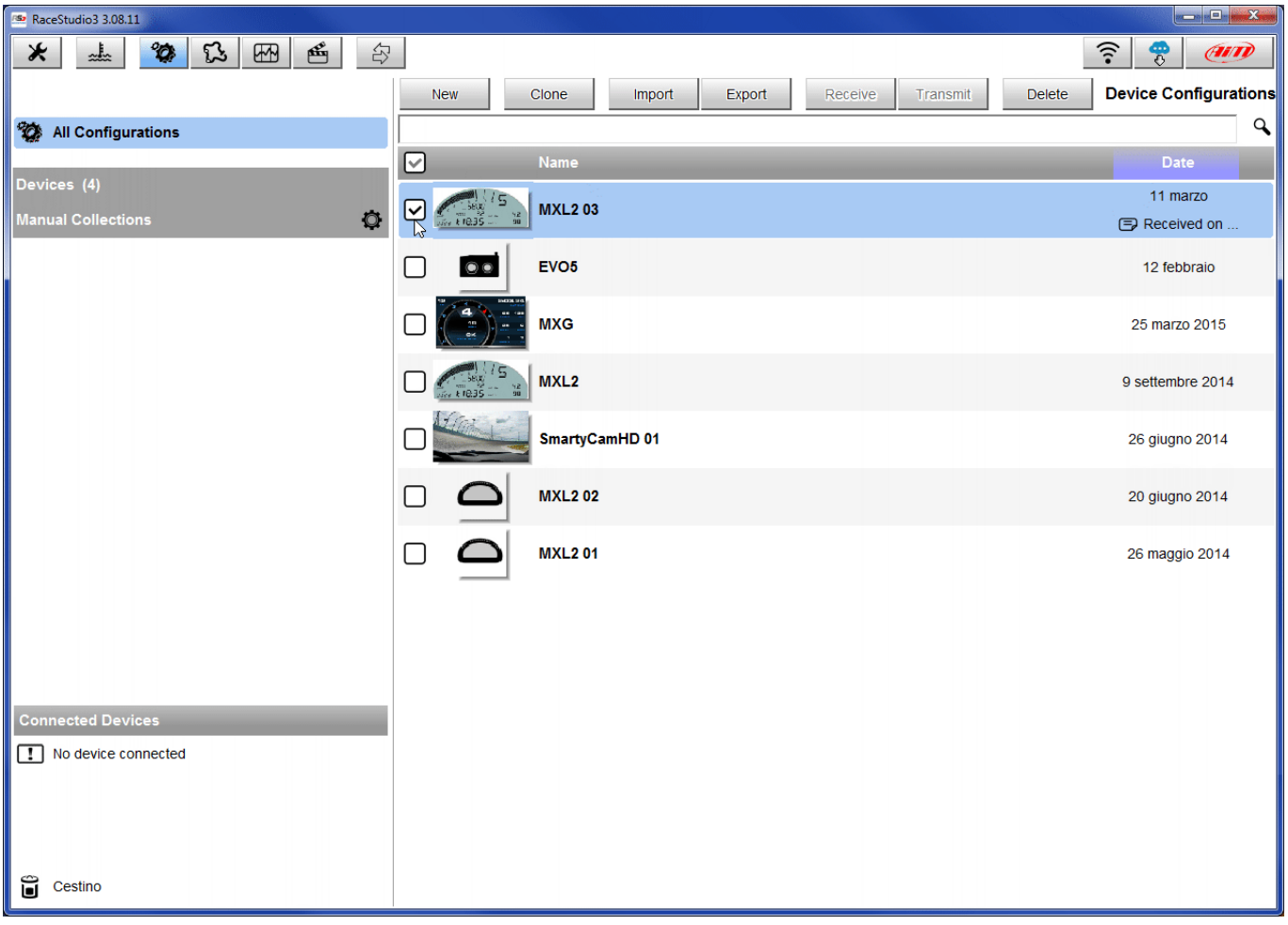
Configuring a TPS potentiometer with RS3

Question:
How do I configure the TPS potentiometer installed on my car/bike using RS3?

Answer:
The TPS potentiometer is configurable using RS3 in the way shown here below:

- Run the software RS3.
- Click "Configuration" ( ) and select the configuration you are going to load the sensor on.



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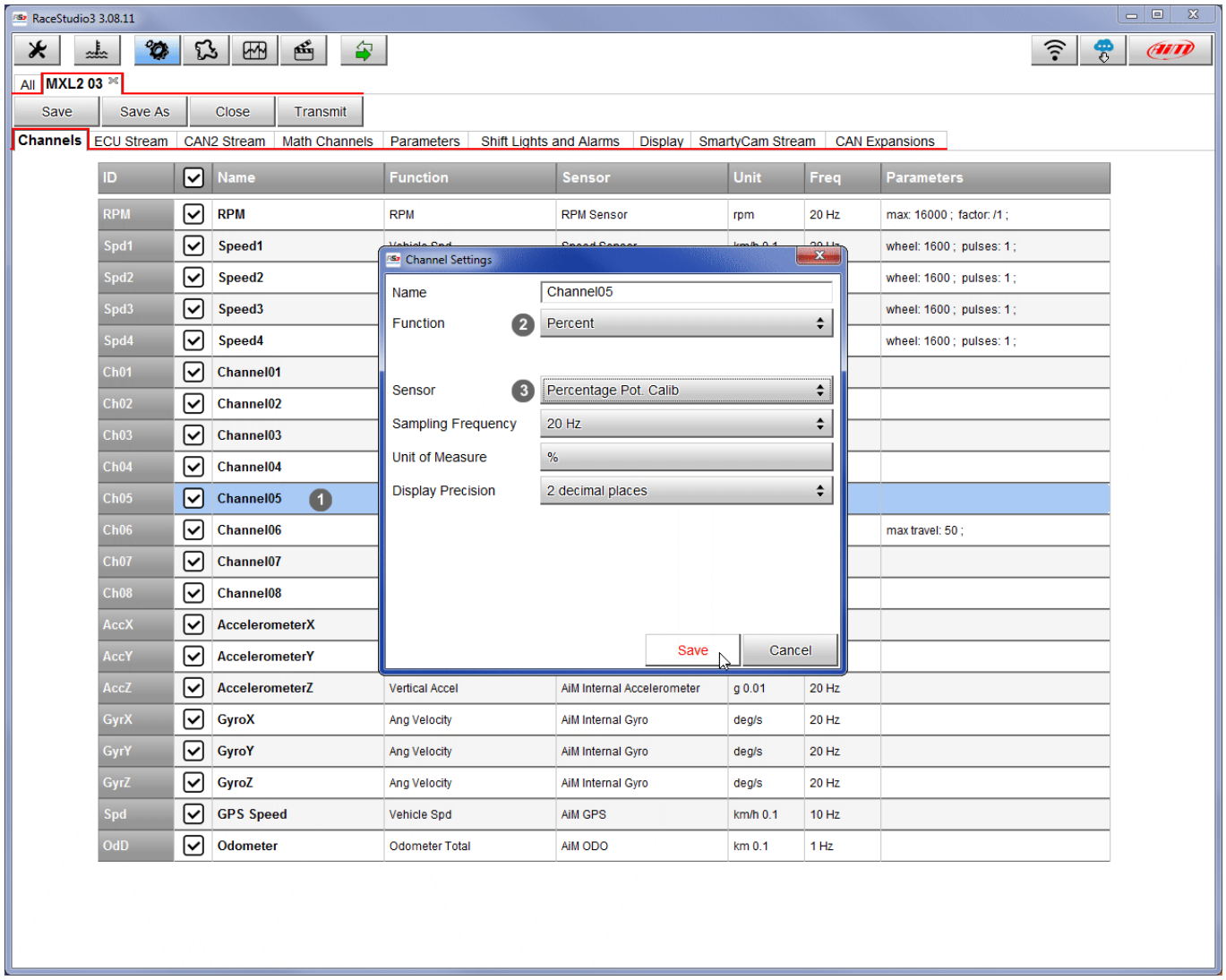
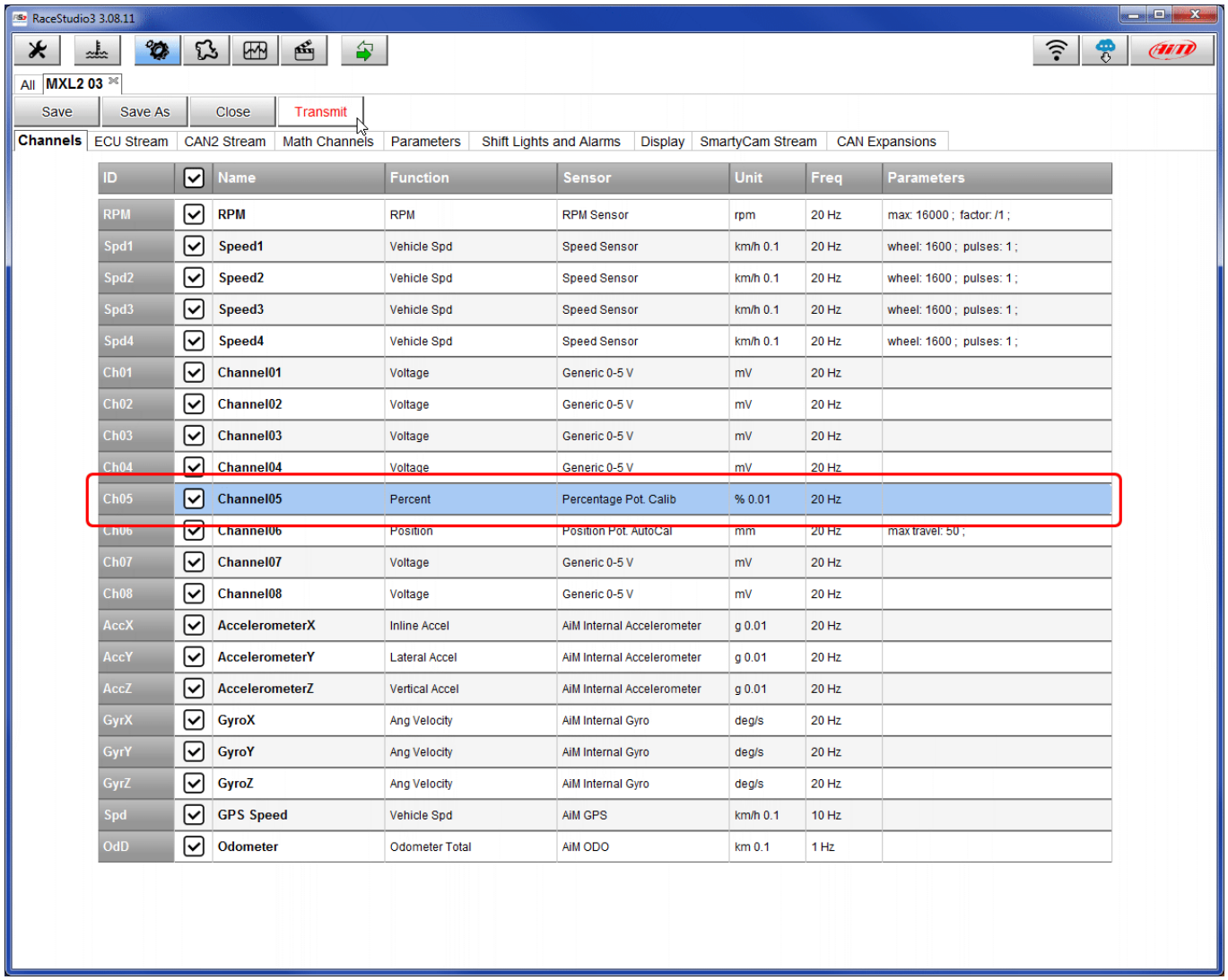
- Enter the configuration (in the example MXL2 03) and the related "Channels" layer.
- Select the channel where to set the potentiometer on – in the example channel 5 (**1**) and fill in the panel that shows up.
- Function: "Percent" (**2**; also "Position" and "Angle" function can be selected, but the potentiometer total motion must be known accurately, respectively in millimeters and in degrees).
- Sensor: "Percentage Pot. Calib" (**3** – this implies that the potentiometer will be calibrated as shown in the following pages).
- Fill in the other fields.
- Click "Save".



When the software comes back to "Channels" layer the potentiometer has been set on the desired channel as shown here below.

- Transmit the configuration to the logger pressing "Transmit" on the top keyboard.



ID	Name	Function	Sensor	Unit	Freq	Parameters
RPM	RPM	RPM	RPM Sensor	rpm	20 Hz	max: 16000 ; factor: /1 ;
Spd1	Speed1	Vehicle Spd	Speed Sensor	km/h 0.1	20 Hz	wheel: 1600 ; pulses: 1 ;
Spd2	Speed2	Vehicle Spd	Speed Sensor	km/h 0.1	20 Hz	wheel: 1600 ; pulses: 1 ;
Spd3	Speed3	Vehicle Spd	Speed Sensor	km/h 0.1	20 Hz	wheel: 1600 ; pulses: 1 ;
Spd4	Speed4	Vehicle Spd	Speed Sensor	km/h 0.1	20 Hz	wheel: 1600 ; pulses: 1 ;
Ch01	Channel01	Voltage	Generic 0-5 V	mV	20 Hz	
Ch02	Channel02	Voltage	Generic 0-5 V	mV	20 Hz	
Ch03	Channel03	Voltage	Generic 0-5 V	mV	20 Hz	
Ch04	Channel04	Voltage	Generic 0-5 V	mV	20 Hz	
Ch05	Channel05	Percent	Percentage Pot. Calib	% 0.01	20 Hz	
Ch06	Channel06	Position	Position Pot. AutoCal	mm	20 Hz	max travel: 50 ;
Ch07	Channel07	Voltage	Generic 0-5 V	mV	20 Hz	
Ch08	Channel08	Voltage	Generic 0-5 V	mV	20 Hz	
AccX	AccelerometerX	Inline Accel	AiM Internal Accelerometer	g 0.01	20 Hz	
AccY	AccelerometerY	Lateral Accel	AiM Internal Accelerometer	g 0.01	20 Hz	
AccZ	AccelerometerZ	Vertical Accel	AiM Internal Accelerometer	g 0.01	20 Hz	
GyrX	GyroX	Ang Velocity	AiM Internal Gyro	deg/s	20 Hz	
GyrY	GyroY	Ang Velocity	AiM Internal Gyro	deg/s	20 Hz	
GyrZ	GyroZ	Ang Velocity	AiM Internal Gyro	deg/s	20 Hz	
Spd	GPS Speed	Vehicle Spd	AiM GPS	km/h 0.1	10 Hz	
OdD	Odometer	Odometer Total	AiM ODO	km 0.1	1 Hz	

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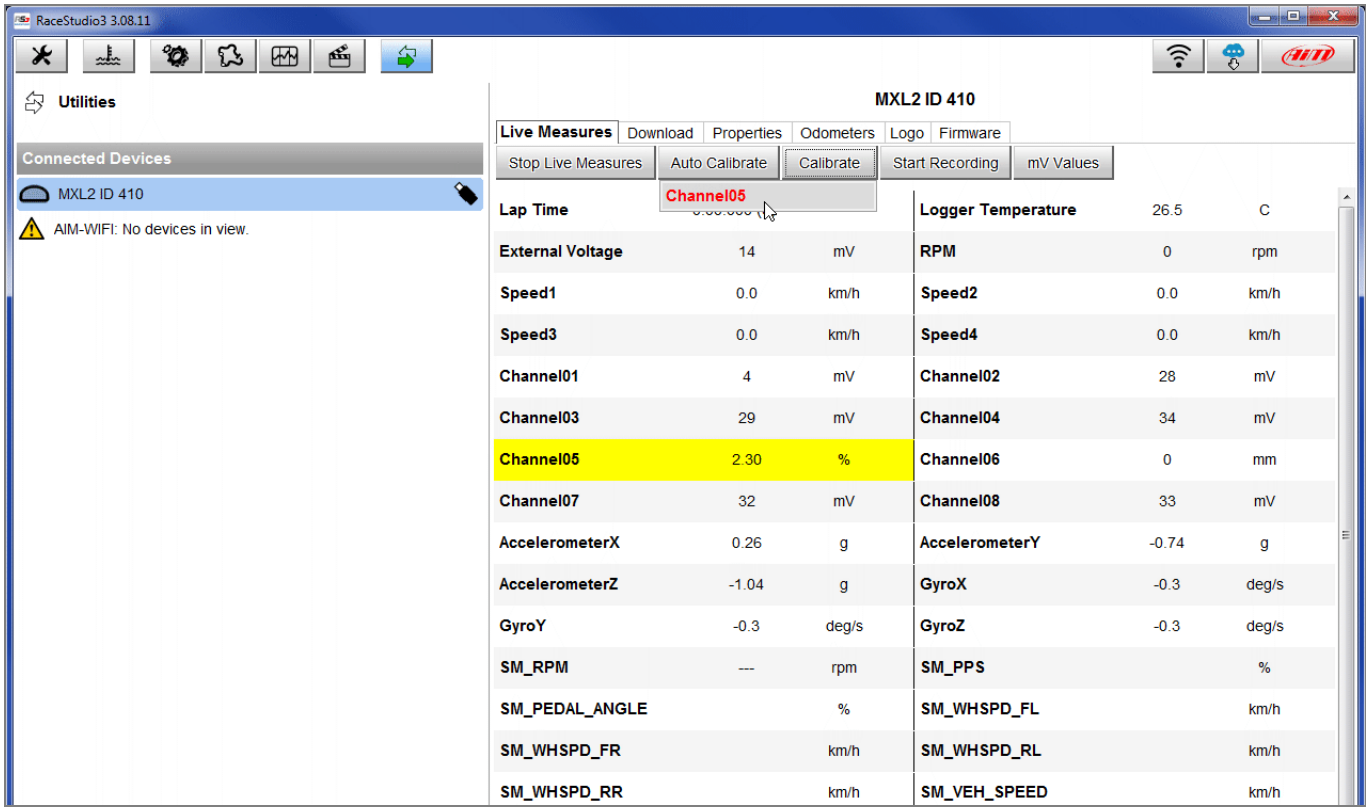
To calibrate the potentiometer:

- Press "Device" ()on the top keyboard.
- Select the configuration – in the example "MXL2 ID 410".

- Press "Calibrate".
- The system shows all channels to be calibrated: choose the one where the potentiometer has been set – in the example "Channel 5".



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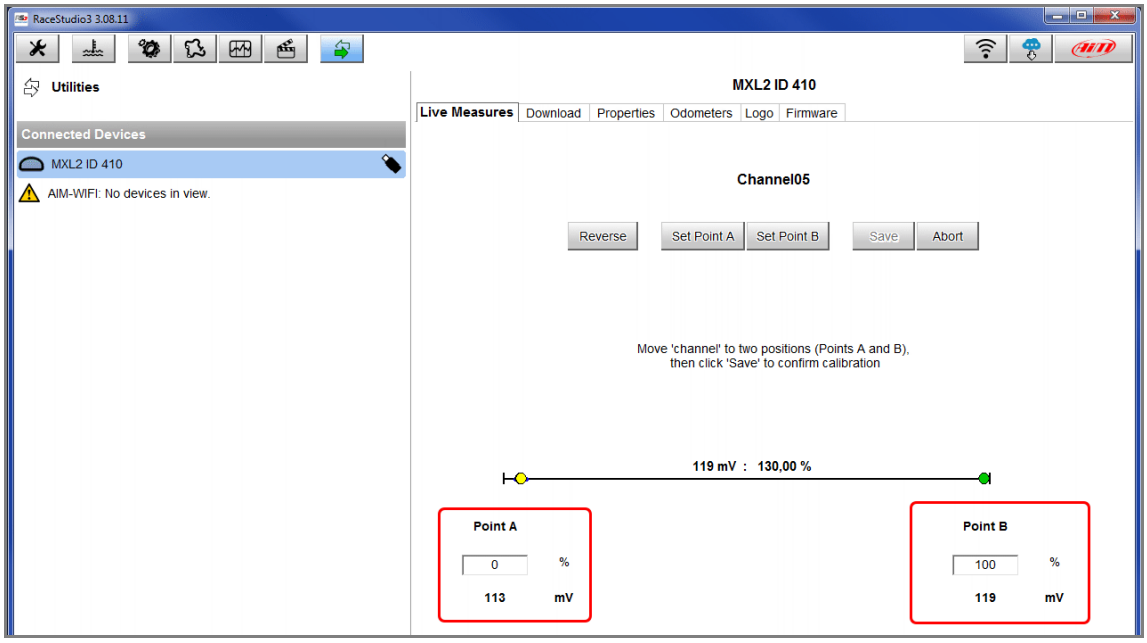
- Fill in the values corresponding to the two measure points:
  - "0" for point "A".
  - "100" for point "B".



- With the potentiometer in its zero position press "Set Point A" as shown here below on the left;
- With the throttle all open press "Set Point B" as shown here below on the right.
- Press "Save".