AiM Infotech

Car/Bike speed sensor
Race Studio 3 configuration

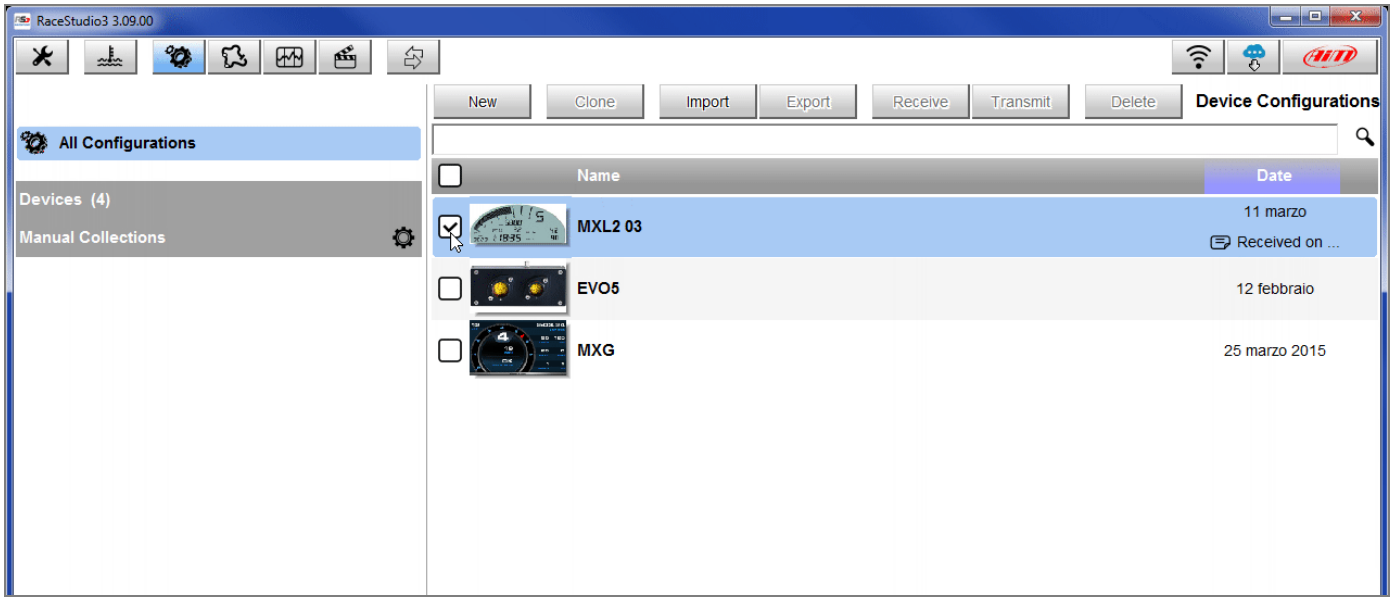
Release 1.00

1 Introduction

When the sensor is physically connected to a channel of AiM device it is necessary to load it in the related configuration using AiM configuration. In this datasheet it is loaded using **Race Studio 3** software.

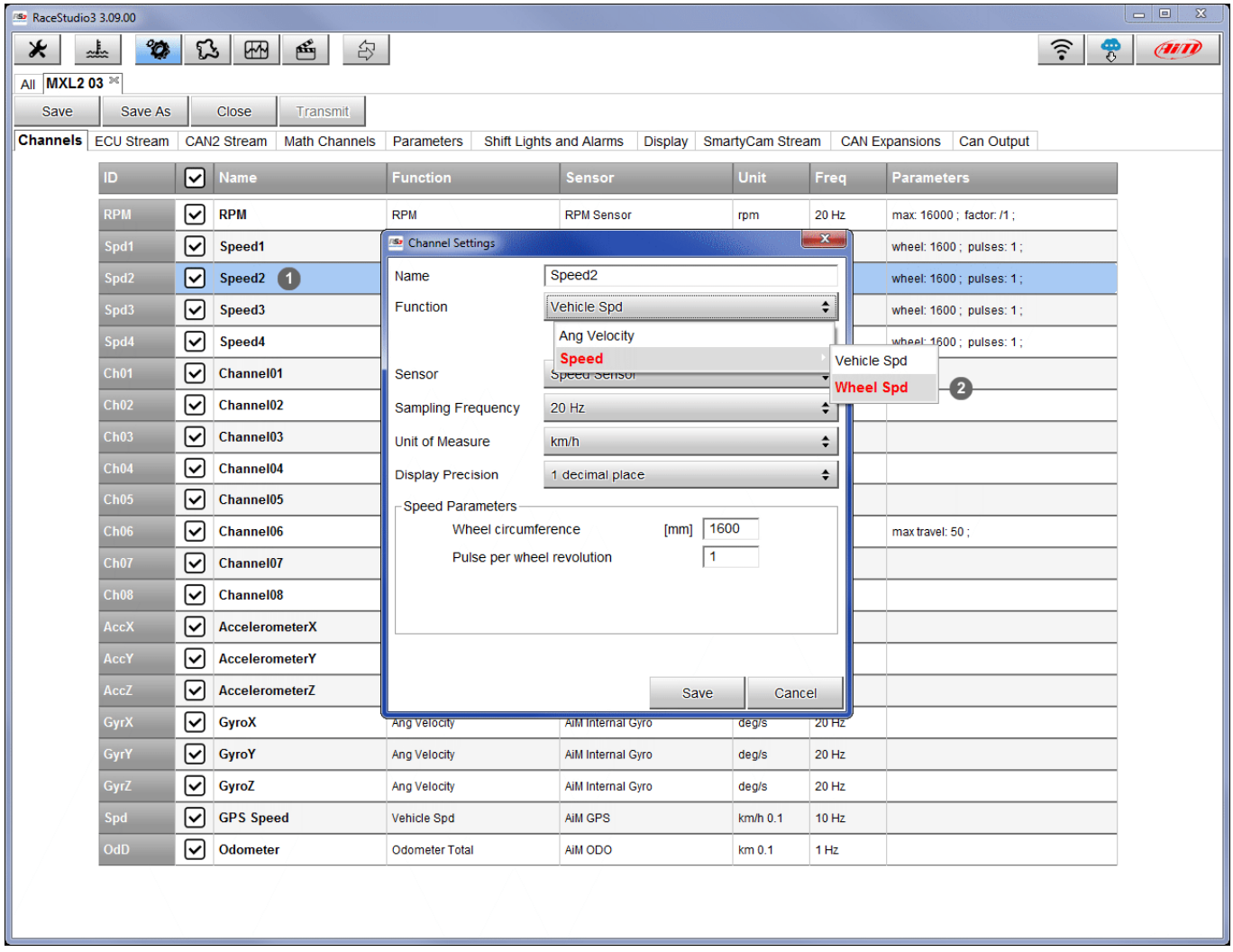
2 Configuration with Race Studio 3

To load the car speed sensor in AiM logger configuration run the software and select the configuration to load it on (in the example MXL2 03).



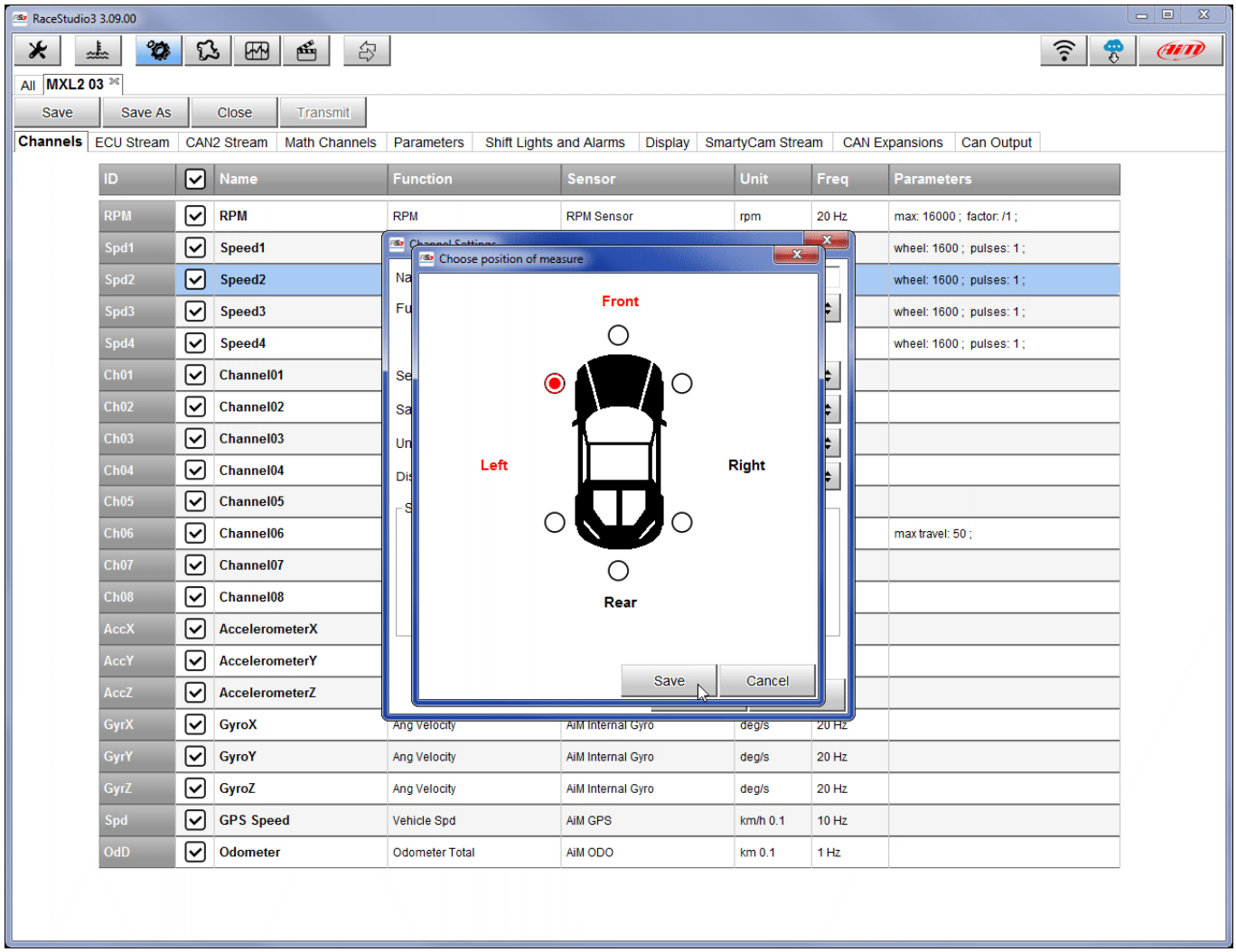
The software enters "Channels" layer.

- Select the speed channel where you want to set the sensor on – in the example Speed2 (**1**) and fill in the panel that shows up
- Select "Speed" function and choose:
    - Vehicle Speed, fill in other fields and press "Save" or
    - Wheel Speed(**2**)



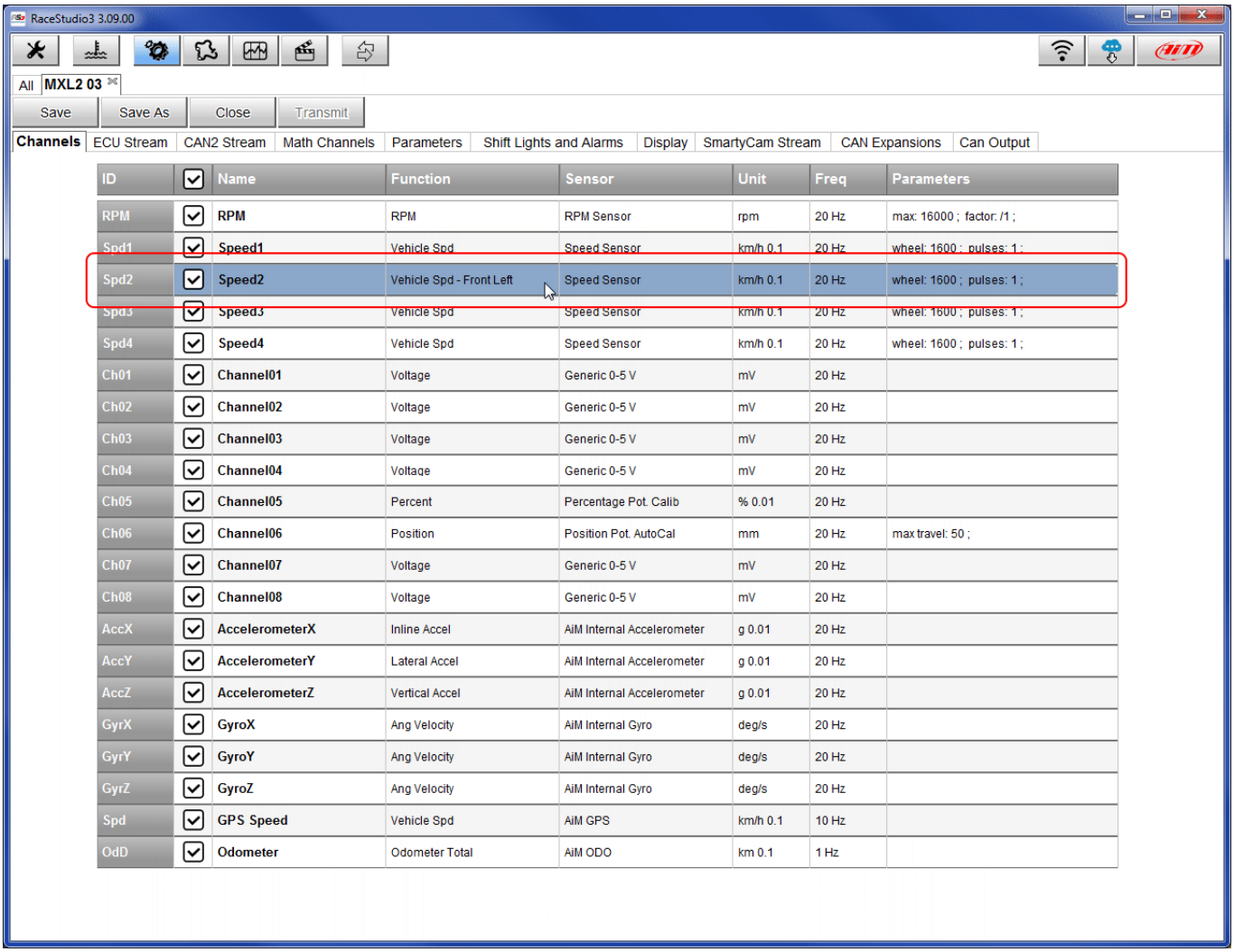
In this second case "Position" option appears in the panel:

- click and the panel below shows up:
    - choose the wheel the sensor is connected to
    - press "Save"
- press "Save" again



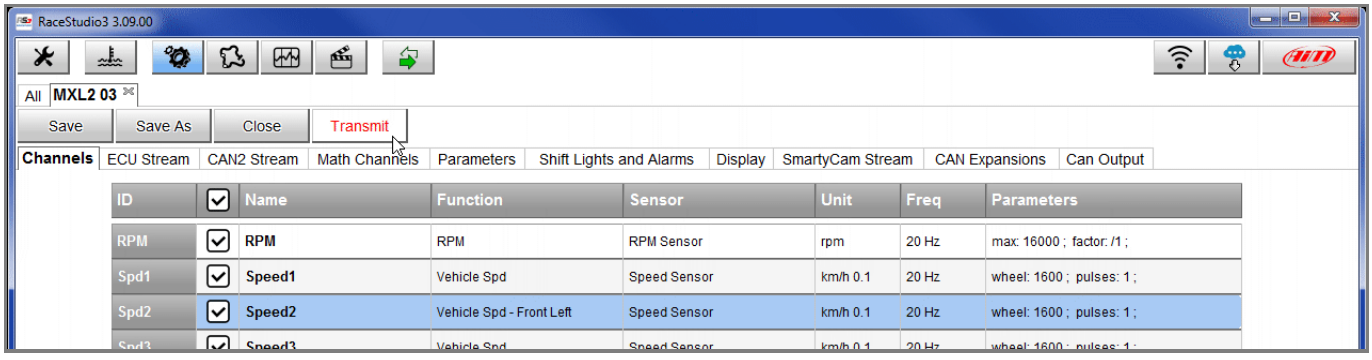
ID	Name	Function	Sensor	Unit	Freq	Parameters
RPM	RPM	RPM	RPM Sensor	rpm	20 Hz	max: 16000 ; factor: /1 ;
Spd1	Speed1					wheel: 1600 ; pulses: 1 ;
Spd2	Speed2					wheel: 1600 ; pulses: 1 ;
Spd3	Speed3					wheel: 1600 ; pulses: 1 ;
Spd4	Speed4					wheel: 1600 ; pulses: 1 ;
Ch01	Channel01					
Ch02	Channel02					
Ch03	Channel03					
Ch04	Channel04					
Ch05	Channel05					
Ch06	Channel06					max travel: 50 ;
Ch07	Channel07					
Ch08	Channel08					
AccX	AccelerometerX					
AccY	AccelerometerY					
AccZ	AccelerometerZ					
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	

The software shows the sensor installed: in the example it is installed on the front left wheel.



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 - Front Left	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	

Transmit the configuration to the logger pressing "Transmit".



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 - Front Left	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 ;