



Configuring

Overlays configuration

Question:

The overlays of my SmartyCam video do not show the proper value, why?

Answer:

SmartyCam overlay can show the data stream only if correctly configured. To do so:

- run RS2 or RS3 (according to the device you have)
- connect your device to the PC
- enter device configuration section
- associate each channel to its function (in the example a RS3 channel configuration is shown)

ID	<input checked="" type="checkbox"/>	Name	Function	Sensor	Unit	Freq	Parameters
RPM	<input checked="" type="checkbox"/>	RPM	Engine RPM	RPM Sensor	rpm	20 Hz	max: 16000 ; factor: /1 ;
Spd1	<input checked="" type="checkbox"/>	Speed1	Vehicle Spd	Speed Sensor	km/h 0.1	20 Hz	wheel: 1600 ; pulses: 1 ;
Spd2	<input checked="" type="checkbox"/>	Speed2	Vehicle Spd	Speed Sensor	km/h 0.1	20 Hz	wheel: 1600 ; pulses: 1 ;
Spd3	<input checked="" type="checkbox"/>	Speed3	Vehicle Spd	Speed Sensor	km/h 0.1	20 Hz	wheel: 1600 ; pulses: 1 ;
Spd4	<input checked="" type="checkbox"/>	Speed4	Vehicle Spd	Speed Sensor	km/h 0.1	20 Hz	wheel: 1600 ; pulses: 1 ;
Ch01	<input checked="" type="checkbox"/>	WAT	Water Temp	AiM PT-100	C 0.1	20 Hz	
Ch02	<input checked="" type="checkbox"/>	CHT	Head Temp	AiM PT-100	C 0.1	20 Hz	
Ch03	<input checked="" type="checkbox"/>	ThrottlePos	Throttle Pos	Position Pot. Calib	mm	20 Hz	
Ch04	<input checked="" type="checkbox"/>	BRKPress	Brake Press	AiM 0-10 bar (X05SNP31010R)	bar 0.1	20 Hz	
Ch05	<input checked="" type="checkbox"/>	FuelLvl	Fuel Level	Fuel Level	l 0.1	2 Hz	
Ch06	<input checked="" type="checkbox"/>	Lambda	Lambda of Engine Output	AiM LCU-One Lambda (0.65 - 1.	λ 0.01	20 Hz	
Ch07	<input checked="" type="checkbox"/>	EXT	Exhaust Temp	K type thermocouple	C 0.1	20 Hz	
Ch08	<input checked="" type="checkbox"/>	Battery	Voltage	Generic 0-5 V	mV	20 Hz	
Acc1	<input checked="" type="checkbox"/>	InlineAcc	Inline Accel	AiM Internal Accelerometer	g 0.01	50 Hz	
Acc2	<input checked="" type="checkbox"/>	LateralAcc	Lateral Accel	AiM Internal Accelerometer	g 0.01	50 Hz	
Acc3	<input checked="" type="checkbox"/>	VerticalAcc	Vertical Accel	AiM Internal Accelerometer	g 0.01	50 Hz	
Gyr1	<input checked="" type="checkbox"/>	RollRate	Roll Rate	AiM Internal Gyro	deg/s 0.1	50 Hz	
Gyr2	<input checked="" type="checkbox"/>	PitchRate	Pitch Rate	AiM Internal Gyro	deg/s 0.1	50 Hz	
Gyr3	<input checked="" type="checkbox"/>	YawRate	Yaw Rate	AiM Internal Gyro	deg/s 0.1	50 Hz	
Accu	<input checked="" type="checkbox"/>	GPS Accuracy	GPS Accuracy	AiM GPS	mm	10 Hz	
Spd	<input checked="" type="checkbox"/>	GPS Speed	Vehicle Spd	AiM GPS	km/h 0.1	10 Hz	
Alt	<input checked="" type="checkbox"/>	Altitude	Altitude	AiM GPS	m	10 Hz	
OdD	<input checked="" type="checkbox"/>	Odometer	Odometer Total	AiM ODO	km 0.1	1 Hz	



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- click “SmartyCam Functions setting” in RS2 or “SmartyCam Stream” in RS3 (images below: RS2 left, RS3 right)
- associate each SmartyCam function (left column) to its reference channel (right column) among these previously configured. With RS2, the association has to be performed manually; while with RS3 the software automatically shows the channels that fits the SmartyCam function described in the tab; in both cases, to enable all channels enable “Enable Channels for All Functions” checkbox
- transmit the configuration to the device

Set Functions to Channels

FUNCTION	CHANNEL
ENGINE RPM	RPM
REFERENCE SPEED	Speed_1
GEAR	-- none available --
WATER TEMP	WAT
HEAD TEMP	CHT
EXHAUST TEMP	EXT
OIL TEMP	--- NOT SET ---
OIL PRESS	--- NOT SET ---
BRAKE PRESS	--- NOT SET ---
THROTTLE POSITION	ThrottlePos
BRAKE POS	--- NOT SET ---
CLUTCH POS	--- NOT SET ---
STEER POS	--- NOT SET ---
LAMBDA	Lambda
LATERAL ACCEL	LatAcc
LONG ACCEL	--- NOT SET ---
FUEL LEVEL	FuelLvl
BATTERY	Battery

☒ Enable Channel for all Functions

OK Cancel

☒ Enable all channels for functions

SmartyCam Function	Channel
Engine RPM	RPM
Speed	Speed1
Gear	--- Not Set ---
Water Temp	WAT
Head Temp	CHT
Exhaust Temp	EXT
Oil Temp	--- Not Set ---
Oil Press	--- Not Set ---
Brake Press	BRKPress
Throttle Pos	ThrottlePos
Brake Pos	--- Not set ---
Clutch Pos	--- Not Set ---
Steering Pos	--- Not Set ---
Lambda	Lambda
Fuel Level	FuelLvl
Battery Voltage	Battery

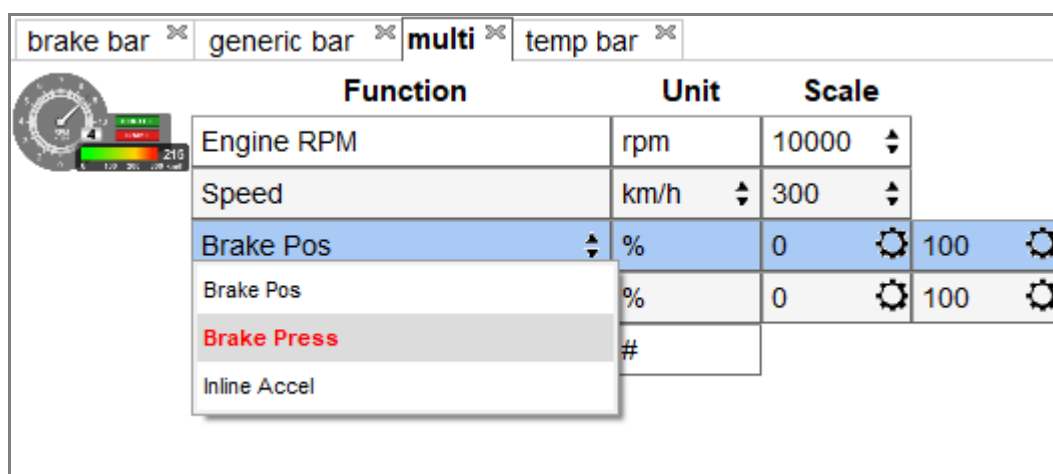
Configuring

It is now necessary to configure each SmartyCam overlay:

- start Race Studio 3
- connect SmartyCam HD/GP HD with the proper mini USB cable
- enter camera configuration page: right on the page are the available overlay sets labelled with their respective function; drag and drop them in the left part of the page and bottom of the preview box each overlay menu appears.

Some overlays category functions can be modified:

- **brake bar**: brake position brake pressure, inline acceleration; in the example below "brake bar" overlay is included "multi" overlay and set to show brake pressure (Brake Press).
- **generic bar; short/long dgt**: fit all the function; "short/long dgt" overlay show values in digital format
- **temp bar**: exhaust, head, oil and water temperature
- **multi**: include some of the previous overlays
- **label**: it is possible to manually fill in a text



Function	Unit	Scale
Engine RPM	rpm	10000
Speed	km/h	300
Brake Pos	%	0 100
Brake Pos	%	0 100
Brake Press	#	
Inline Accel		