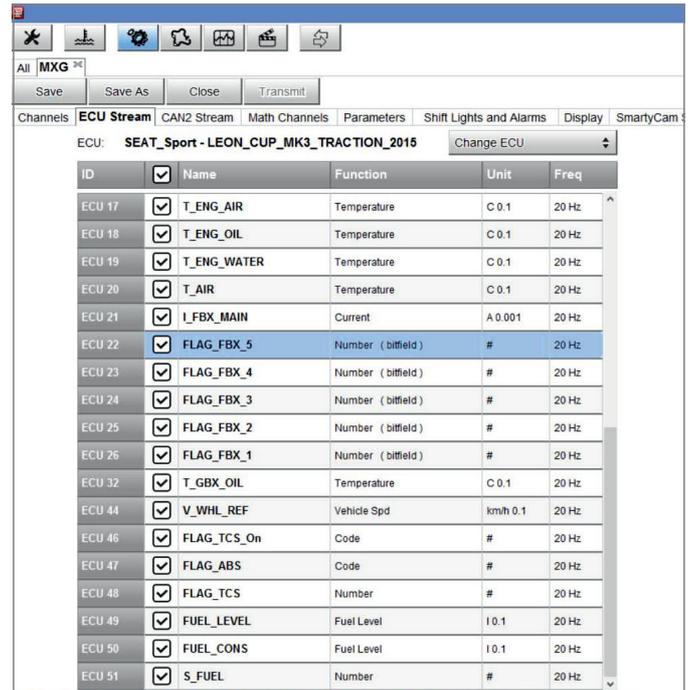


BitField management

Race Studio 3 Ver. **3.08.02** | Firmware **1.18.12**

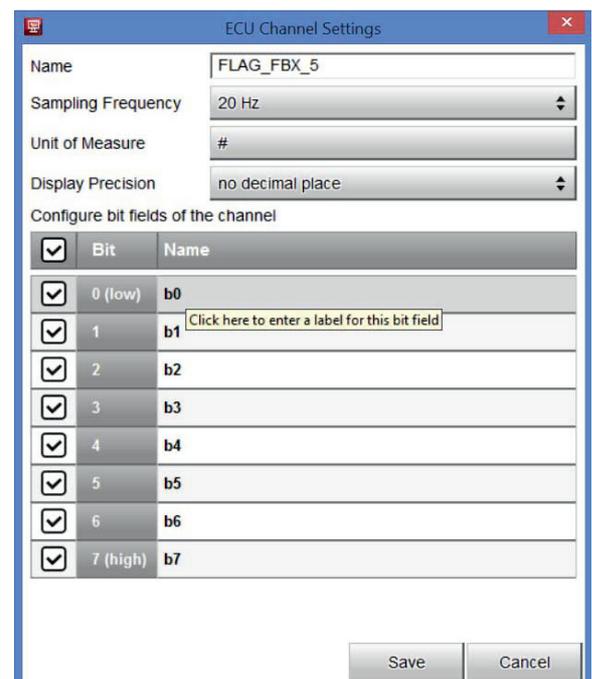
The RS3 3.08.02 release, in conjunction with the firmware 1.18.12 release, features the BitField management.

If a field of the ECU Stream is defined as BitField, like, for example, FLAG_FBX_1 - FLAG_FBX_5 in the SEAT SPORT LEON CUP MK3 TRACTION 2015 protocol, every bit of these fields can be considered as independent channels:



ID	Name	Function	Unit	Freq
ECU 17	T_ENG_AIR	Temperature	C 0.1	20 Hz
ECU 18	T_ENG_OIL	Temperature	C 0.1	20 Hz
ECU 19	T_ENG_WATER	Temperature	C 0.1	20 Hz
ECU 20	T_AIR	Temperature	C 0.1	20 Hz
ECU 21	I_FBX_MAIN	Current	A 0.001	20 Hz
ECU 22	FLAG_FBX_5	Number (bitfield)	#	20 Hz
ECU 23	FLAG_FBX_4	Number (bitfield)	#	20 Hz
ECU 24	FLAG_FBX_3	Number (bitfield)	#	20 Hz
ECU 25	FLAG_FBX_2	Number (bitfield)	#	20 Hz
ECU 26	FLAG_FBX_1	Number (bitfield)	#	20 Hz
ECU 32	T_GB_X_OIL	Temperature	C 0.1	20 Hz
ECU 44	V_WHL_REF	Vehicle Spd	km/h 0.1	20 Hz
ECU 46	FLAG_TCS_On	Code	#	20 Hz
ECU 47	FLAG_ABS	Code	#	20 Hz
ECU 48	FLAG_TCS	Number	#	20 Hz
ECU 49	FUEL_LEVEL	Fuel Level	l 0.1	20 Hz
ECU 50	FUEL_CONS	Fuel Level	l 0.1	20 Hz
ECU 51	S_FUEL	Number	#	20 Hz

Clicking on one of these fields, the bits are shown:



ECU Channel Settings

Name: FLAG_FBX_5

Sampling Frequency: 20 Hz

Unit of Measure: #

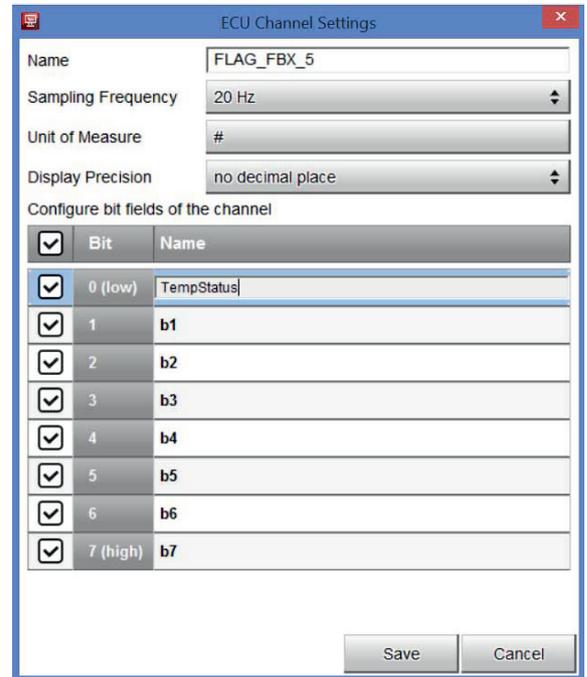
Display Precision: no decimal place

Configure bit fields of the channel

Bit	Name
<input checked="" type="checkbox"/>	0 (low) b0
<input checked="" type="checkbox"/>	1 b1 Click here to enter a label for this bit field
<input checked="" type="checkbox"/>	2 b2
<input checked="" type="checkbox"/>	3 b3
<input checked="" type="checkbox"/>	4 b4
<input checked="" type="checkbox"/>	5 b5
<input checked="" type="checkbox"/>	6 b6
<input checked="" type="checkbox"/>	7 (high) b7

Save Cancel

The bits are named b0-b7 by default, but you can change their name for a better management:



Once saved the configuration, it is possible to use the bitfields in order to activate alarms or digital outputs:

In this example, the LED1 is turned ON when the bit called TempStatus of the channel FLAG_FBX_5 is ON.

The bitfield recording is not changed, so all the bits of a channel are recorded in one single channel.

