

Configuring

Configuring a digital status channel

Question:

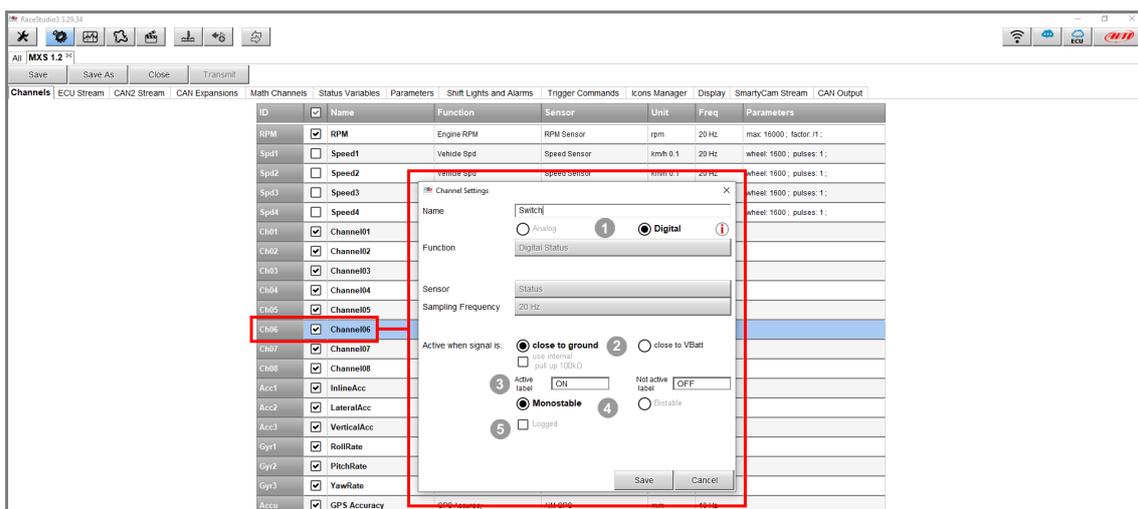
How can I replicate my original instrumentation warning and indicator lamps once the signal has been connected to my AiM device channel?

Answer:

Indicator and warning lamps are digital signals, that is to say they can have only two status: ON or OFF. To correctly handle such digital status signals, the latest AiM units feature a specific set up, described here following. This digital status signal can be used to display icons, switch on LEDs or warning messages as well, exactly like an OEM instrumentation would display such info.

N.B.: the digital status channel setting is available only for **MXx 1.2 devices** configurations.

- Open Race Studio 3 software, enter the Configurations section, create a new configuration or modify an existing one.
- Enter the Channels tab: select the channel to which the digital signal (i.e. hi-beam) is connected to.
- Complete the Channel Settings choosing “Digital” (**following picture – 1**): the channel function is automatically set as Digital Status, the sensor type as Status and the sampling frequency at 20Hz.



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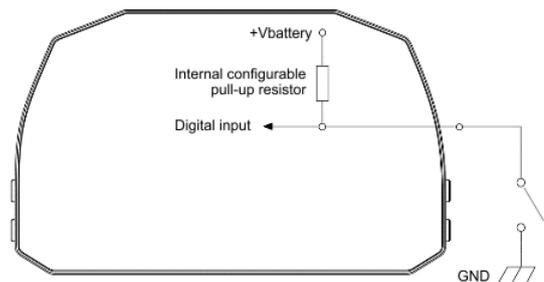
According to the type of signal being connected, there are different options (2) to choose from:

Close to ground:

is the option for switch to ground signals.

Common examples are oil pressure, oil level, neutral, side stand, alternator switches which turn on the warning light once the switch closes the contact to ground.

If with the switch opened the signal results to be floating, the selection of the **use internal pull up 100 kOhm** will help handling the signal properly.

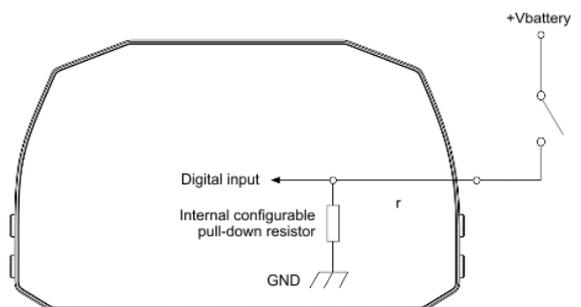


Close to Vbatt:

is the option for switch to Vbatt signals (12V).

Common examples are low/hi beam, direction or hazard lights, rear fog warning lamps, which turn on once the switch closes the contact to Vbatt (12V).

If with the switch opened the signal results to be floating, the selection of the **use internal pull down 100 kOhm** will help handling the signal properly.





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Labels **(3)** can be customized (ON/OFF - True/False - Closed/Open ...) and displayed or used in combination to other warnings.

Signal status type **(4)** can be chosen between:

monostable - channel active only when circuit is closed.

bistable - channel is enabled the first time the circuit is closed and disabled the second time the circuit is closed.

Ticking the **Logged** box **(5)**, the channel status is recorded in the data memory.

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Once the digital status input has been created, it can be set as condition for other actions: in the following image, for example, high beam stalk is connected to a digital channel, whose signal is set as reference for the high beam icon displaying.

Only when the stalk is pulled (monostable), the signal is closed to Vbatt, the corresponding label is ON and the icon is the blue one, hence will be displayed on the screen.

