Utilizing Pro Dash Inputs in TunerStudio

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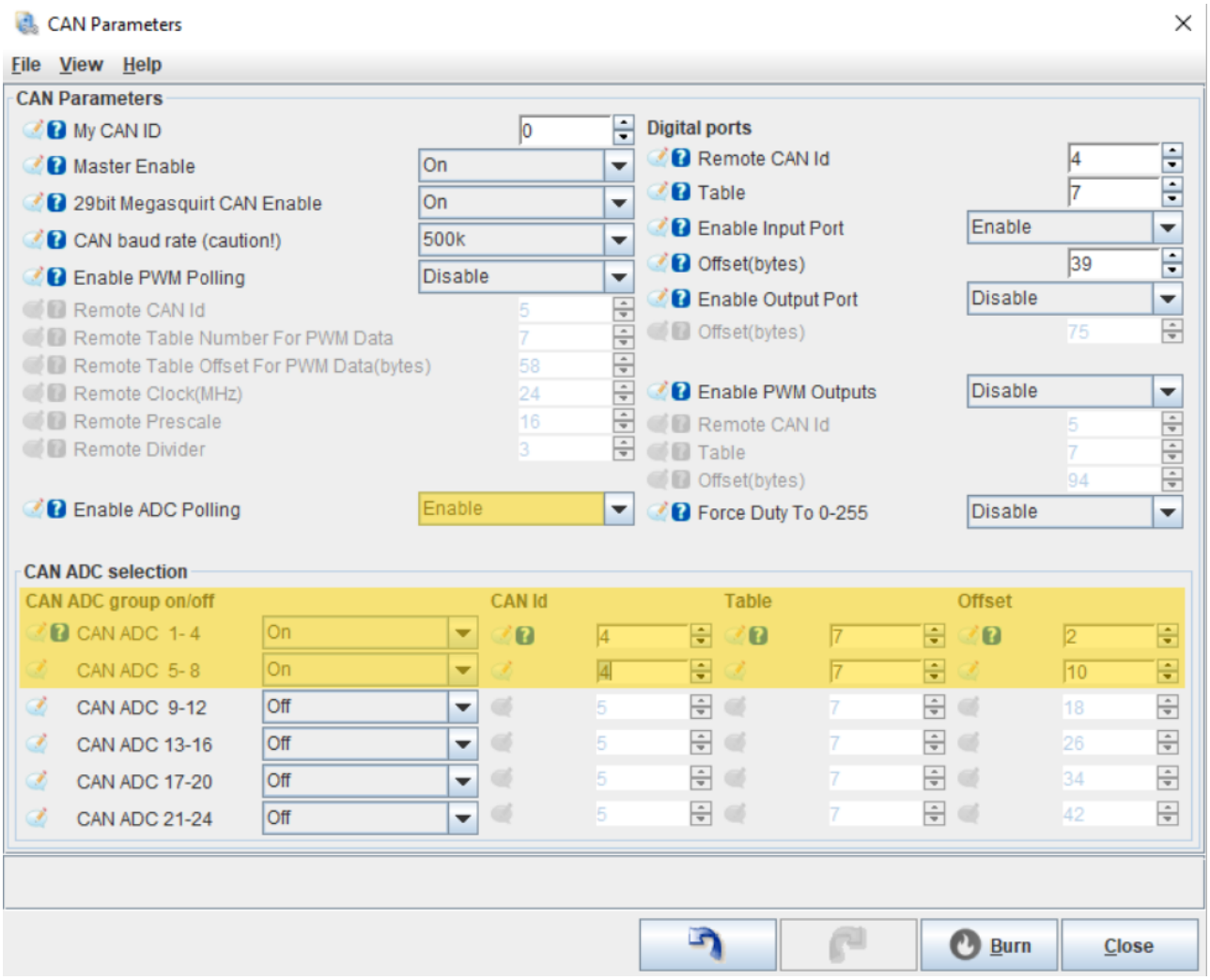
TunerStudio CAN Parameters Setup & Configuration

These instructions are necessary steps for setup and configuration in TunerStudio for usage of the ADC Inputs from your Pro Dash or Pro Expansion Module within Vehicle Project.

Sensor Input Configuration

MS3 Steps:

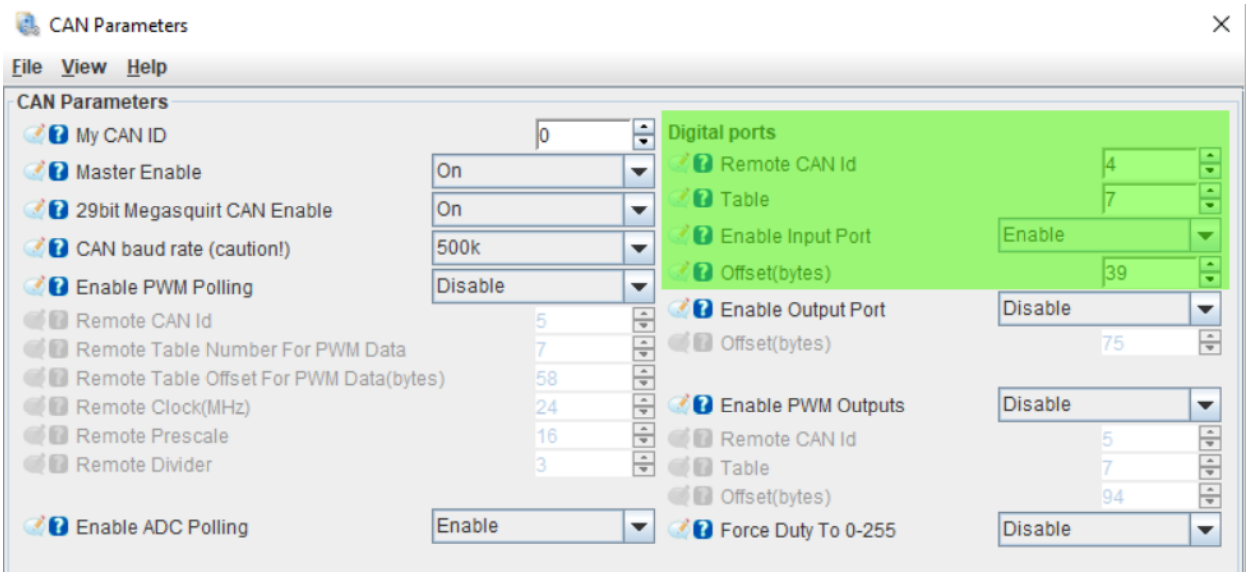
1. Open CAN-bus/Testmodes tab at the top-right in TunerStudio
2. Go to CAN Parameters
3. Enable – “Enable ADC Polling” (Highlighted in diagram below)
4. Setup “CAN ADC selection” (Highlighted in diagram below)
    a. CAN id = 4
    b. Table = 7
    c. Offset
        i. 1-4 = 2
        ii. 5-8 = 10



Digital Input Configuration

MS3 Steps:

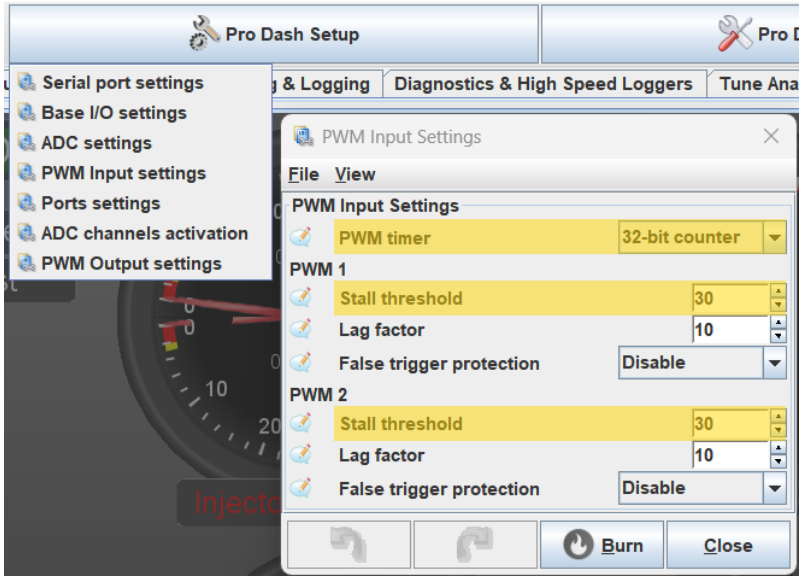
1. Open CAN-bus/Testmodes tab at the top-right in TunerStudio
2. Go to CAN Parameters
3. Enable – “Enable Input Port” (Highlighted in diagram below)
4. Setup “Digital ports”
    a. Remote CAN Id = 4
    b. Table = 7
    c. Offset(bytes)
        i. 47 = Dash’s before 2/1/23
        ii. 39 = Dash’s after 2/1/23



PWM Inputs

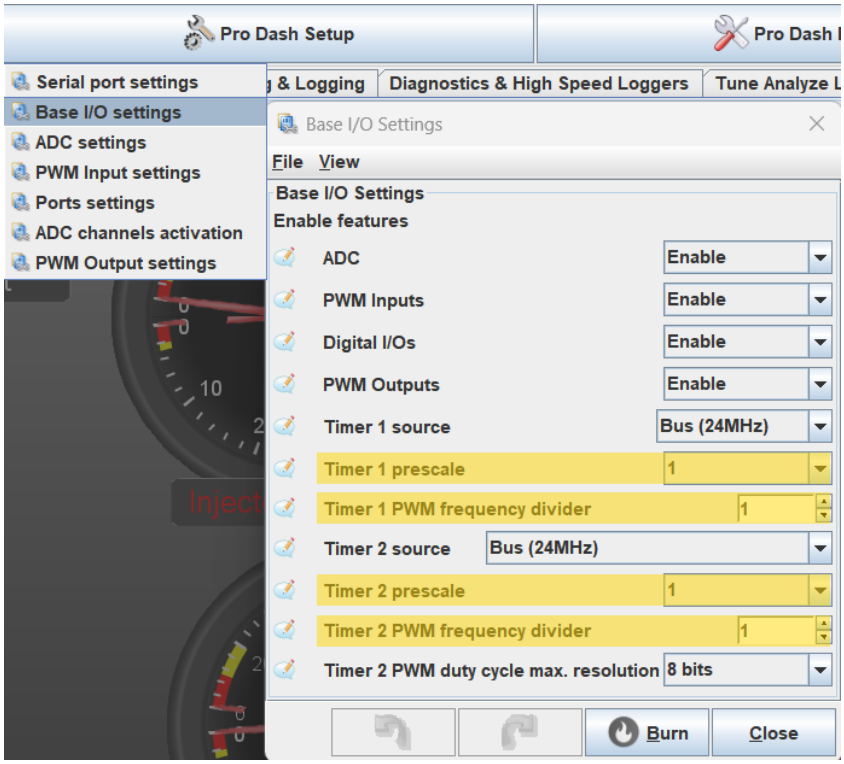
ProDash PWM Input Settings Steps:

1. Open Pro Dash Setup
2. Go to PWM Input settings
3. Set PWM Timer to “32 bit” (Highlighted in diagram below)
4. Set “Stall threshold” to give a zero value with low pulse count
    a. Value of 30 suggested to start



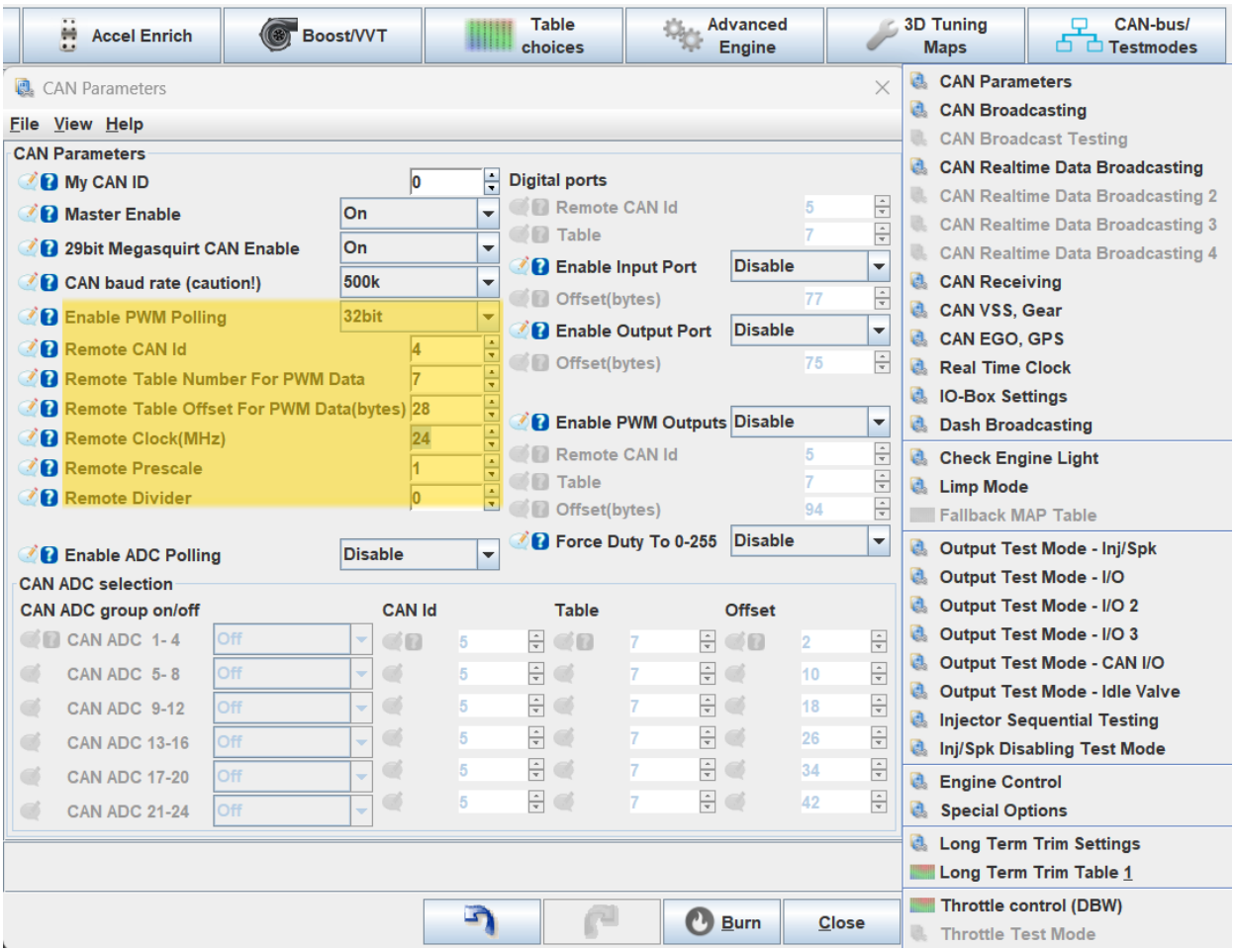
ProDash Base I/O Settings Steps:

1. Open Pro Dash Setup
2. Go to Base I/O settings
3. Set timer prescale to 1 and divider to 0



MS3 Steps:

- Open CAN-bus/Testmodes tab at the top-right in TunerStudio
    - Go to CAN Parameters
    - Enable – “Enable PWM Polling”
        i. CAN id = 4
        ii. Table for PWM Data = 7
        iii. Remote Table Offset For PWM Data = 28
            1. PWM 1 Offset = 28
            2. PWM 2 Offset = 30 for 16 bit and 32 for 32 bit
        iv. Remote Prescale = 1
        v. Remote Divider = 0



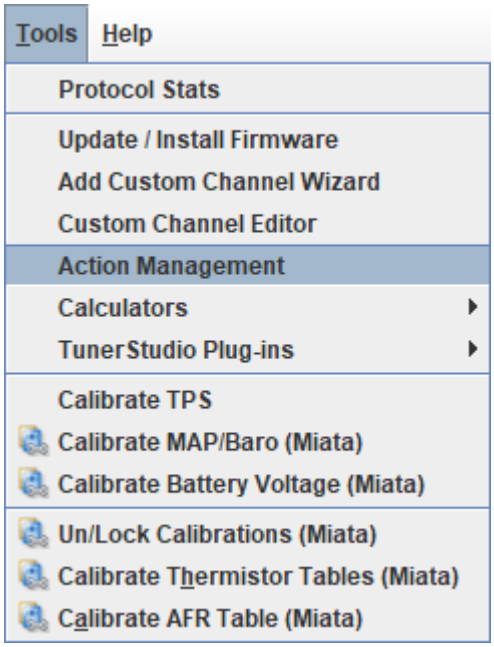
Action Management

This feature is only available in **TunerStudio Ultra**, so if you are using the standard MS version you will need to upgrade your registration to take advantage of this ability.

This feature can be used to take one of the Pro Dash Digital Inputs to trigger an action within TunerStudio. These are typically wired to a momentary push button and triggered on a short or long push of the button.

Examples:

- Change Dashboard
- Reset Trip Meter
- Start/Stop Datalog



Action Triggers = how you want the Action to be triggered

Users Actions = what you would like to happen in TunerStudio

Single Input Trigger

A single input trigger is if you have only **ONE DIGITAL INPUT ACTIVE** at one time

The Digital Inputs status:

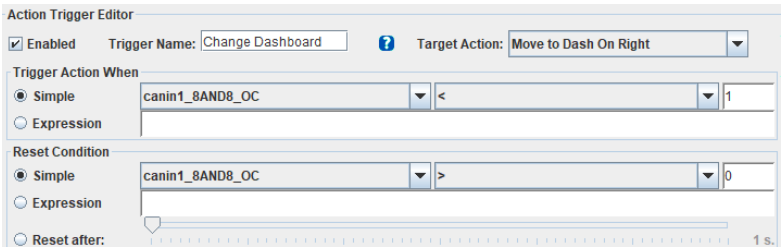
- Not active = 1
- Active = 0

Trigger Name: CANT HAVE SPACES

Digital Input Variable

- Digital 1 = canin1_8AND1_OC
- Digital 2 = canin1_8AND2_OC
- Digital 3 = canin1_8AND4_OC
- Digital 4 = canin1_8AND8_OC
- Digital 5 = canin1_8AND 16_OC
- Digital 6 = canin1_8AND 32_OC
- Digital 7 = canin1_8AND 64_OC

Example: You wire Digital Input 4 to a push button



Trigger Action When

- Use “Simple” and then choose the appropriate Digital Input Variable that it wired to the push button

Reset Condition

- Simple – this is for momentary push button
- Reset After – this is for a Press and HOLD option which you select the number of seconds to hold the button

Multi Input Trigger

A multi input trigger is if you have **MULTIPLE DIGITAL INPUTS ACTIVE** at the same time

Total Digital Input Not Active = 127

Digital Input Values

- Digital 1 = 1
- Digital 2 = 2
- Digital 3 = 4
- Digital 4 = 8
- Digital 5 = 16
- Digital 6 = 32
- Digital 7 = 64

Math Example: Digital 4 and Digital 5 Active for Trigger Action

Digital Inputs 4&5 Active = (Digital 4) 8 + (Digital 5) 16 = 24

127 = Total Digital Input Not Active

24 = Both Digital Inputs Active

103 = Total Digital Input with Digital 4&5 Active

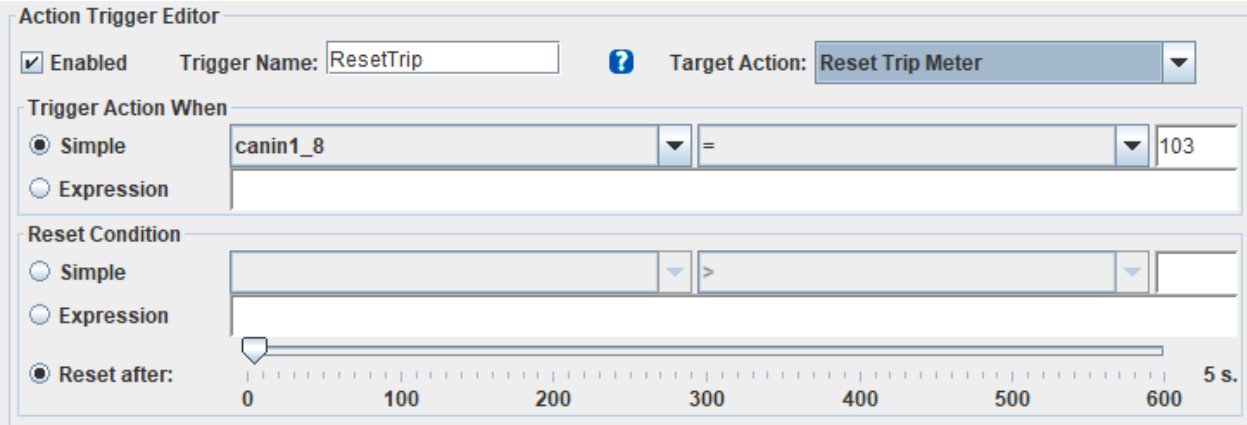
127
-24
103

Trigger Name: CANT HAVE SPACES

Example:

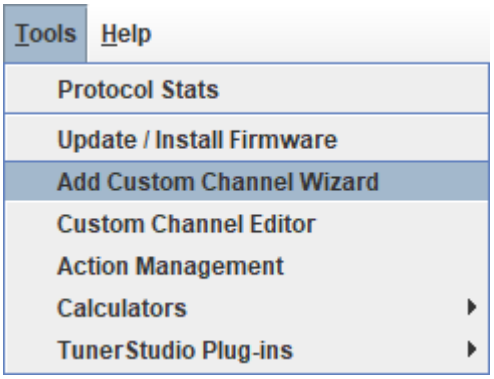
Condition: Digital 4 & 5 Inputs Active to Trigger the Reset Trip Meter action

Reset: resets after time delay of 5 seconds



Custom Output Channel Examples

How to create a Custom Channel



Persistent Trip Meter

Persistent = saves the current value and doesn't reset the value after shutdown of TunerStudio