AiM Infotech

# Life F88 CAN

## Release 1.02

---

This tutorial explains how to connect AiM devices to Life F88 CAN ECU using the CAN Bus.

# 1
# Requested ECU firmware version and software setup

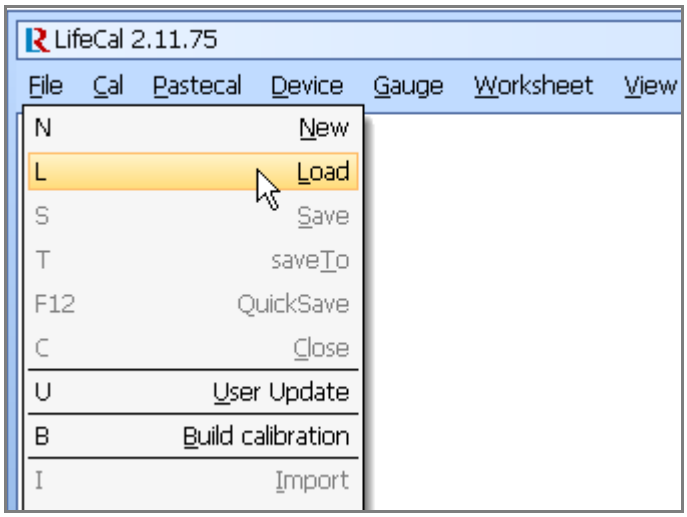
Life F88 CAN firmware is compatible with AiM devices only from version 1.142.1 onwards. In case your ECU firmware is older please address to your ECU dealer to upgrade it.

**Please note**: always ensure that your AiM device is upgraded to the latest available firmware version checking www.aim-sportline.com download area, firmware section.

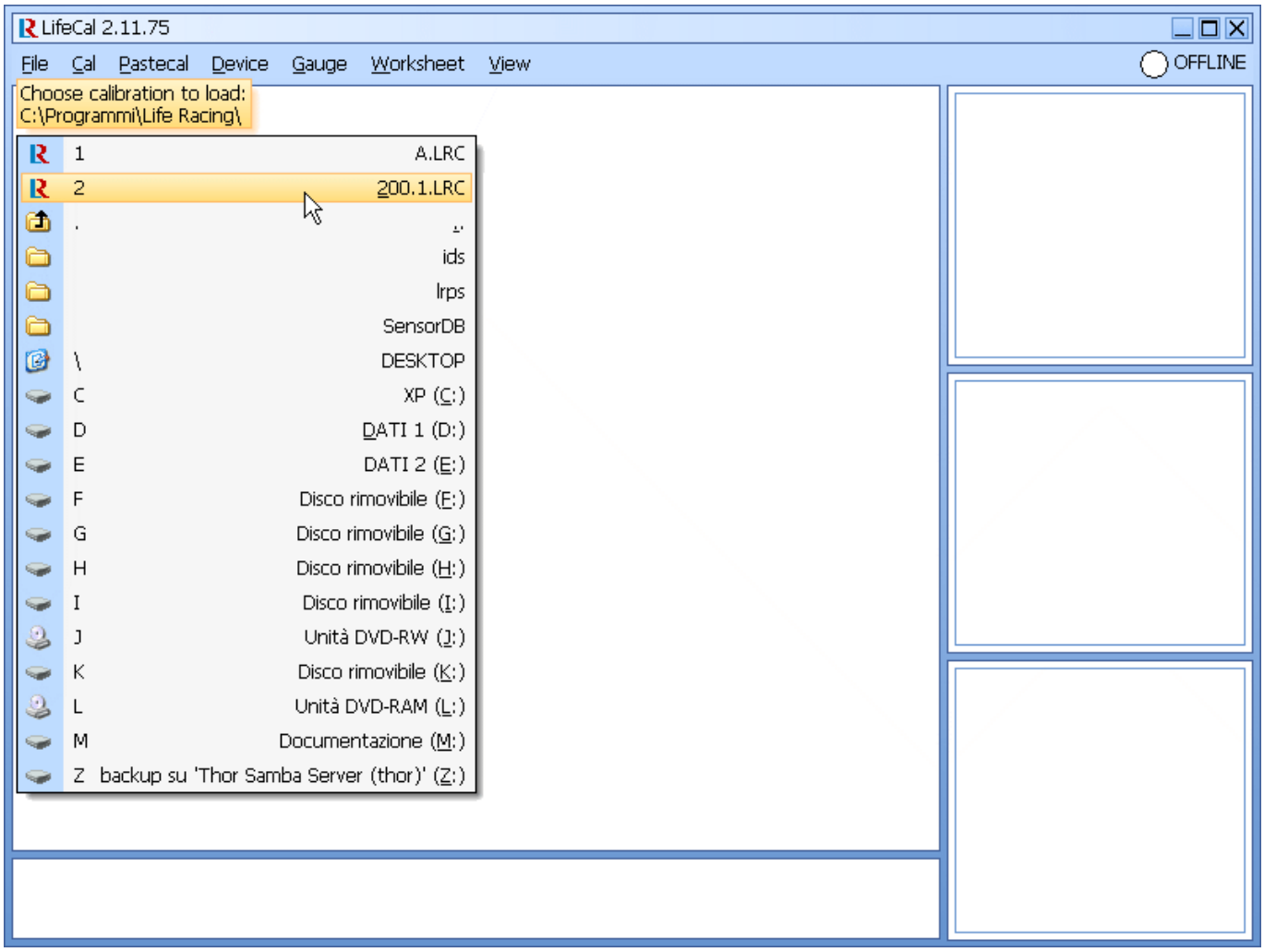
## 1.1
## Software setup

To setup your Life F88 CAN use LifeCal software and carefully perform this procedure.

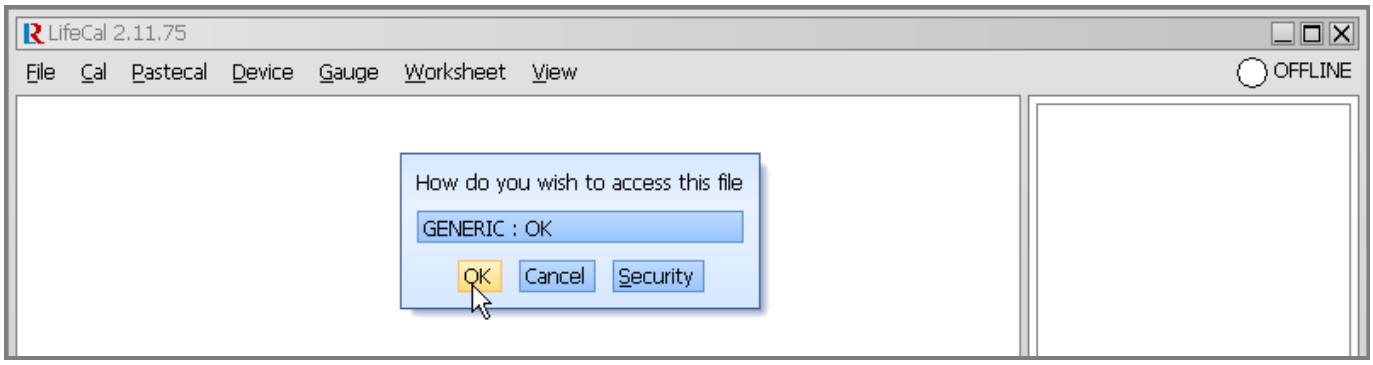
Run “LifeCal” software and select “File –> Load”



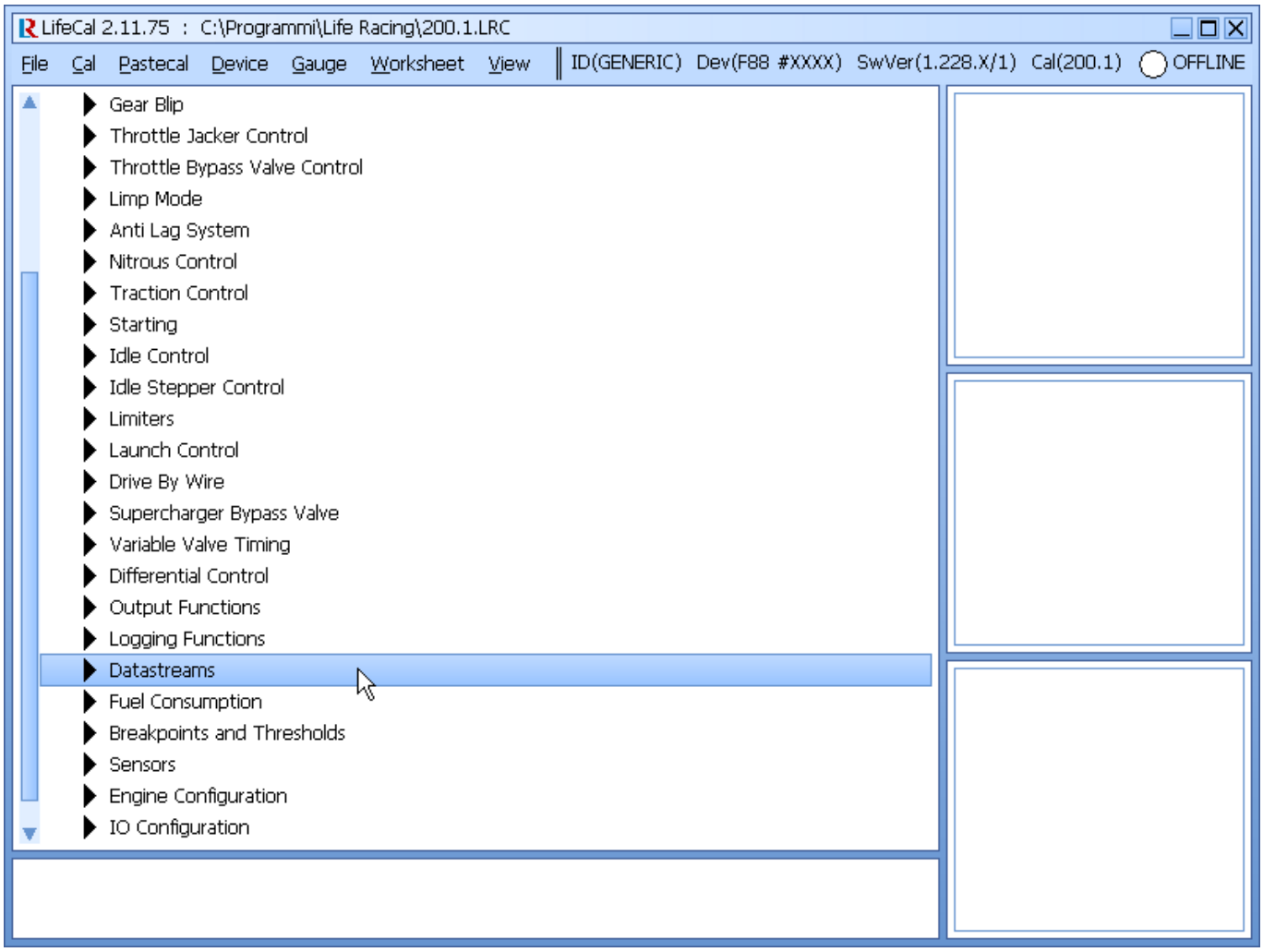
Browse your PC to find the ".LRC" calibration file.



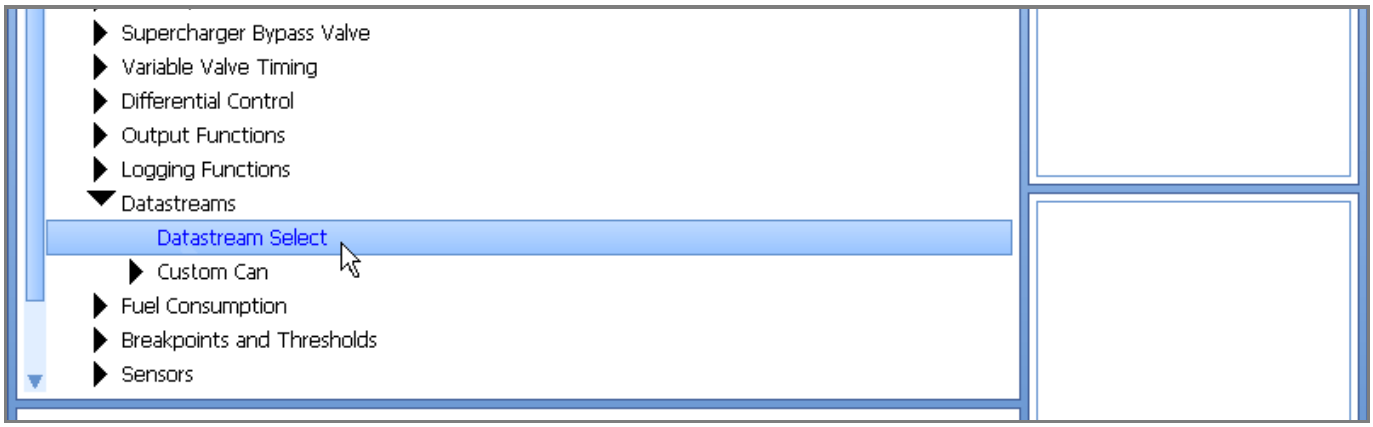

Access this file as "Generic" selecting OK.



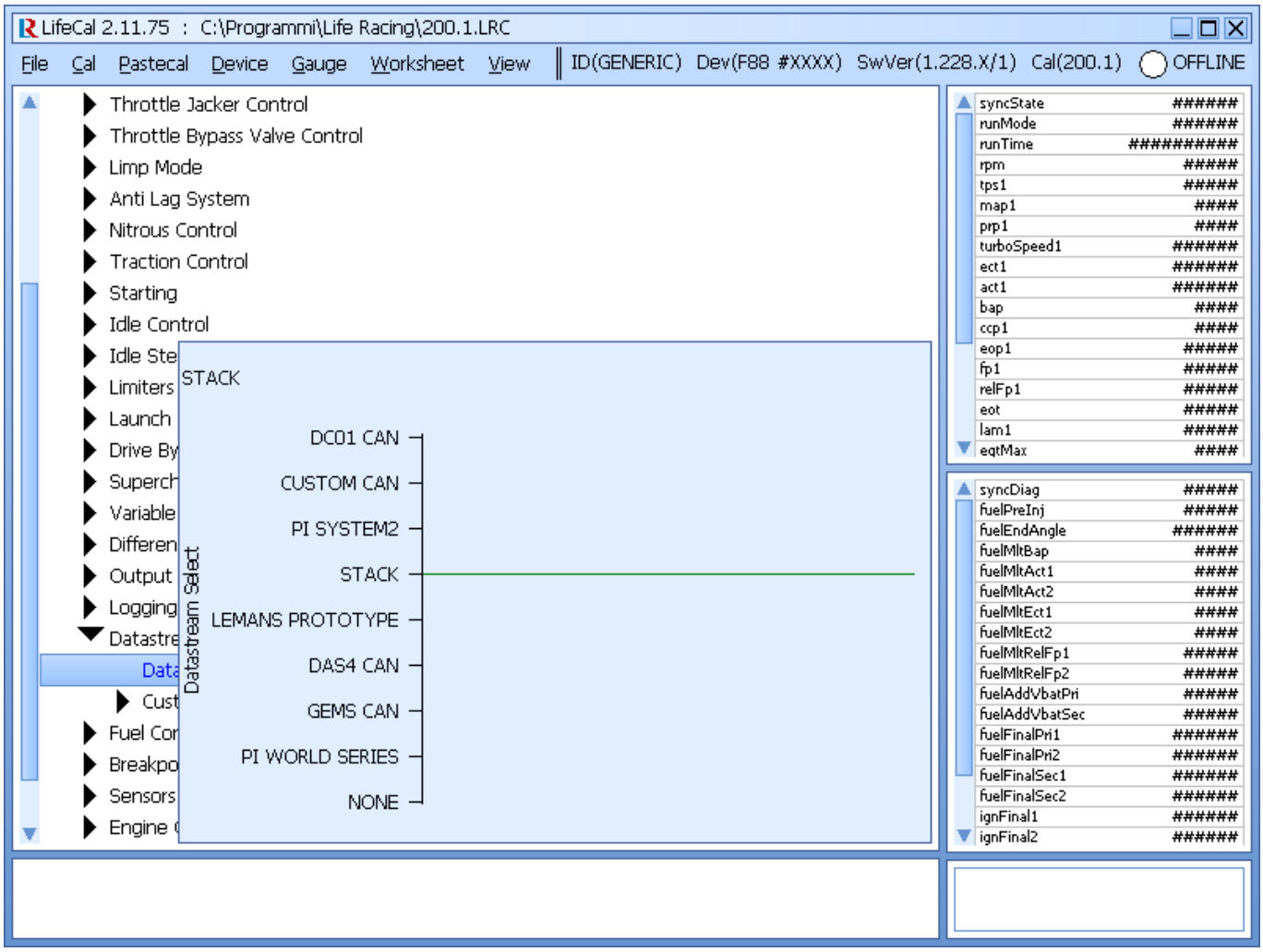
Scroll the page down to “Datastreams” and select it.



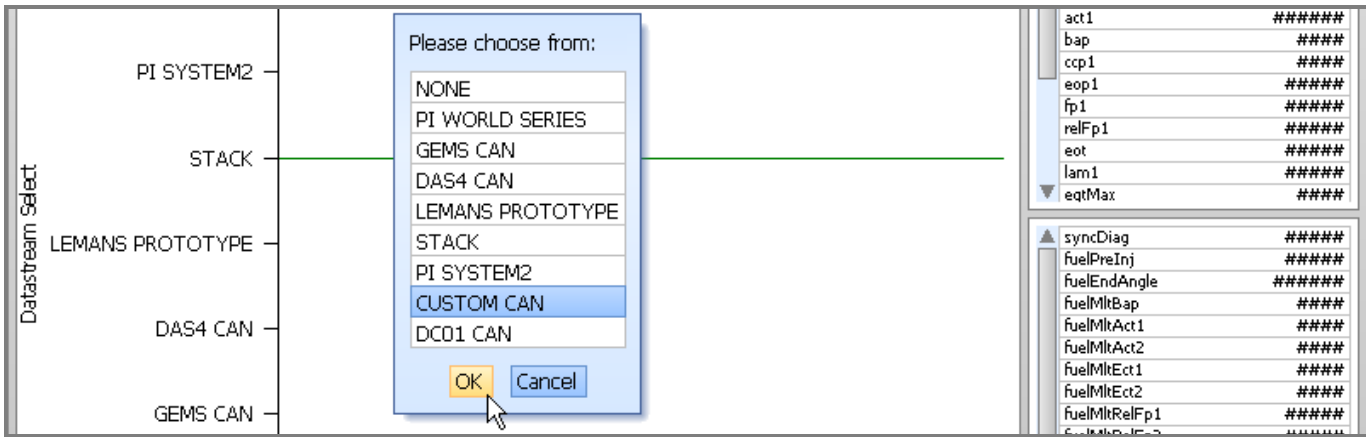

Then, “Datastream Select”.



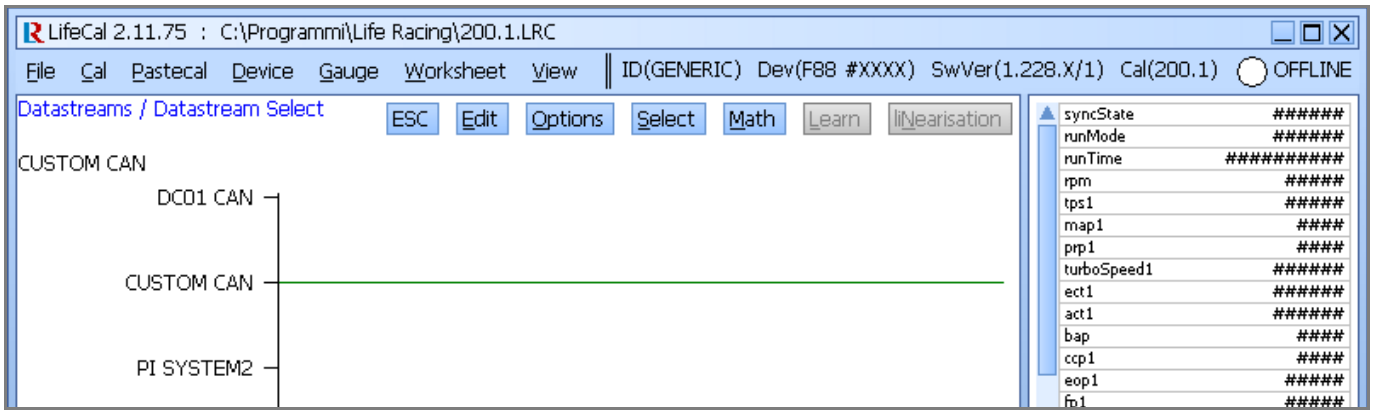
"Datastream Select" panel shows the current setting (STACK). Double click and press enter.



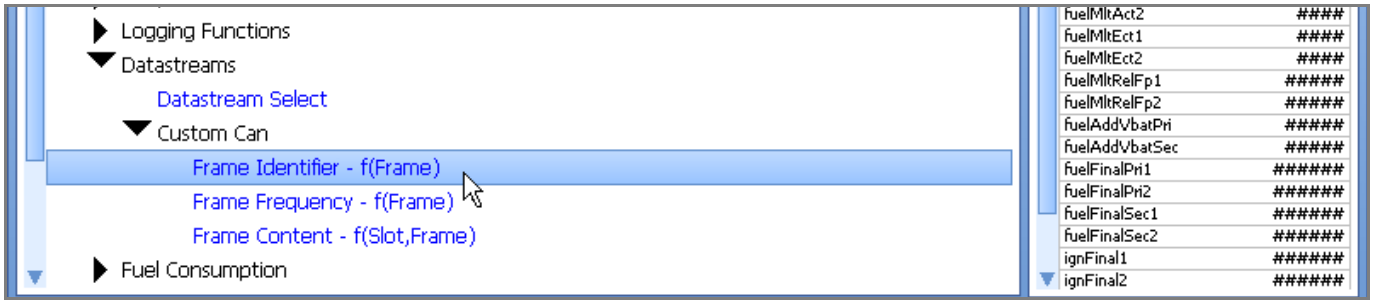

Select "CUSTOM CAN" or "LIFE RACING CAN" according to your software version and then press OK.



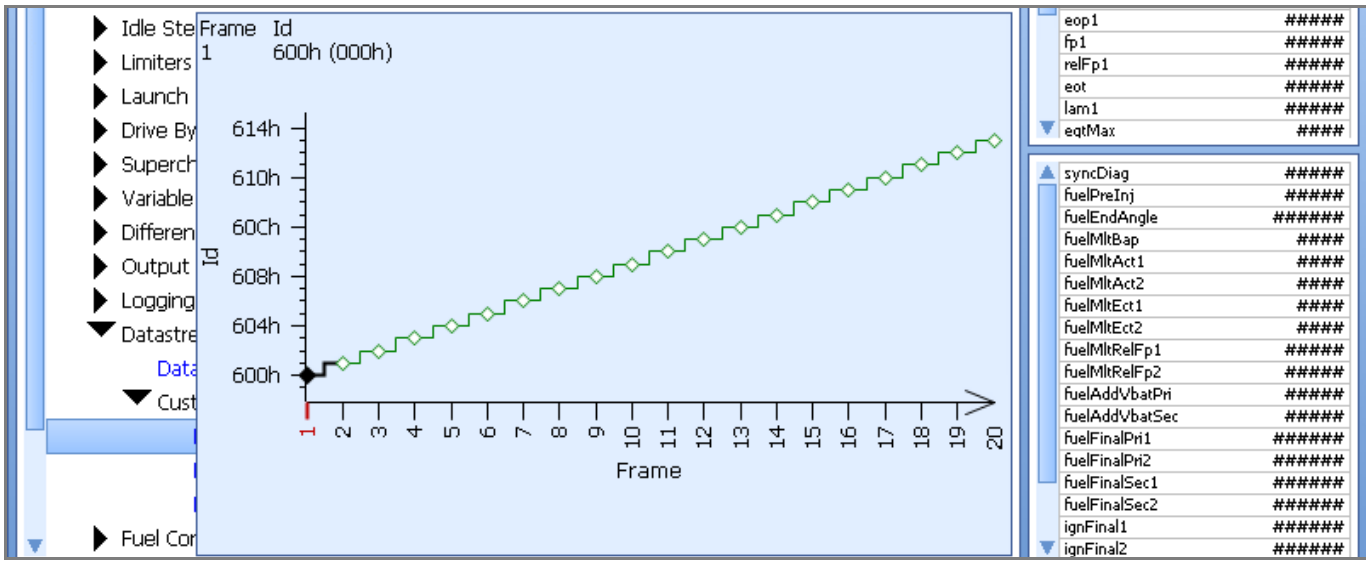
A green line appears to indicate the current setting. Quit this page pressing “ESC”.



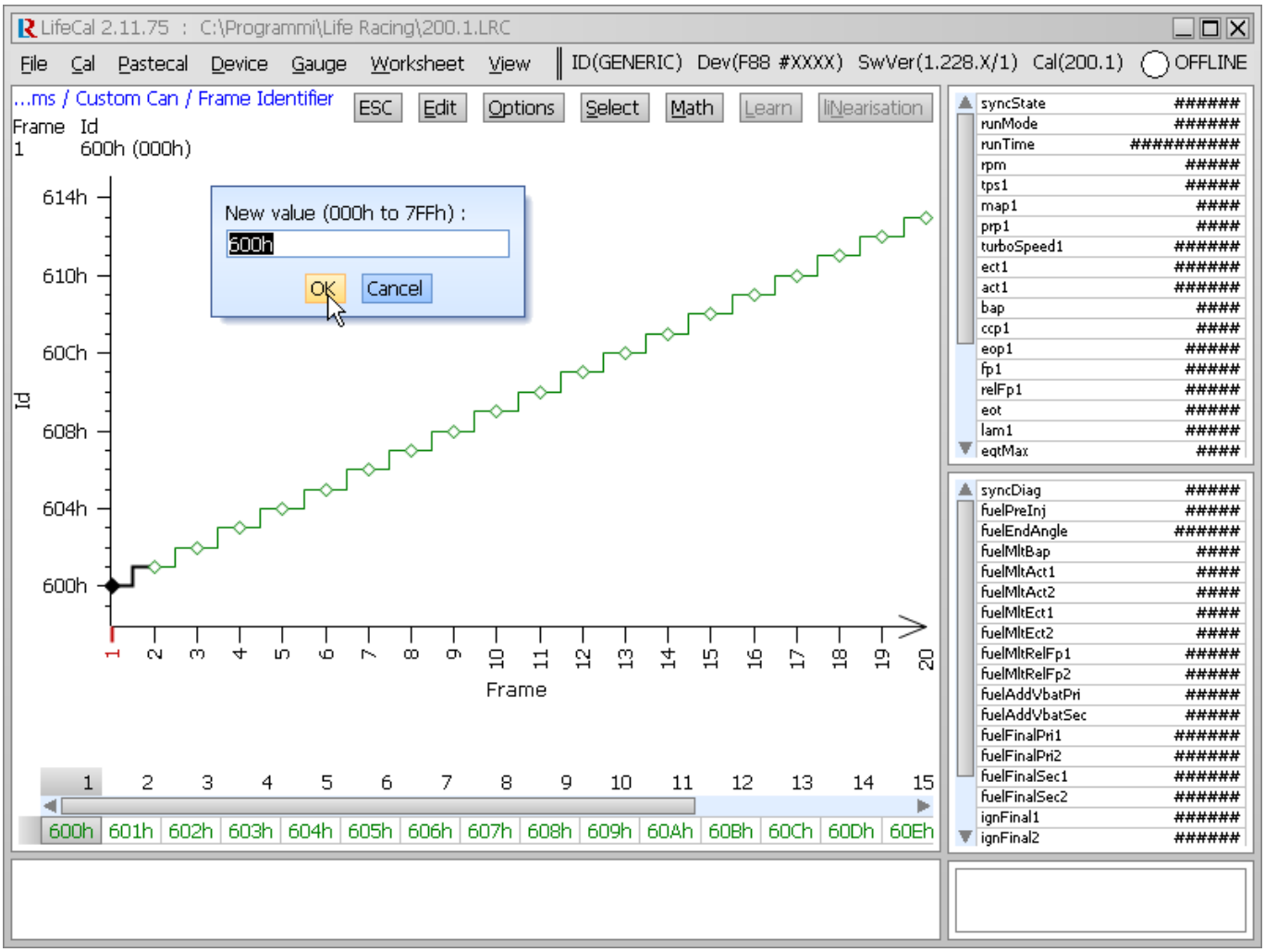

The software comes back to the previous page. Scroll the list up to “Custom CAN”, double click and select “Frame identifier – f(frame)”



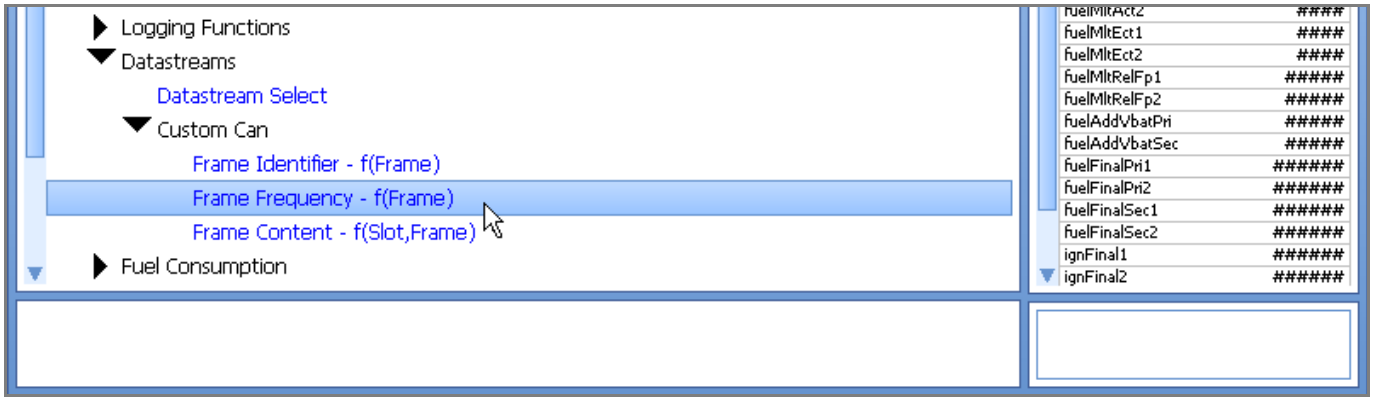

The related panel shows up in preview. Double click on it.



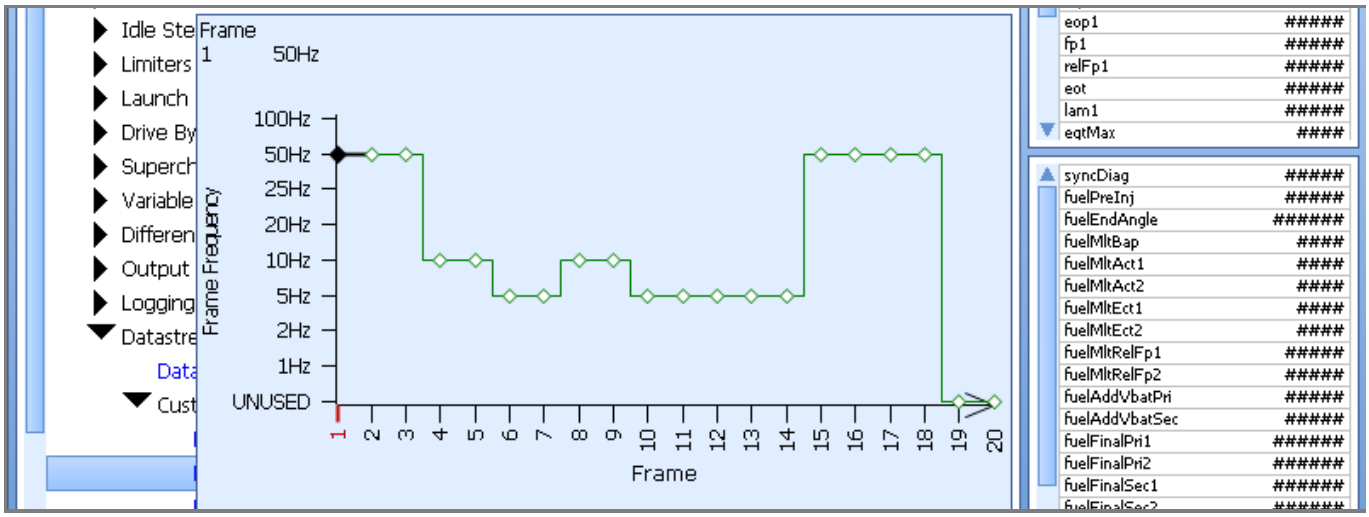
Check the default setting of Frame Identifier page. It should start from 600h as here below and constantly raise. If not press enter and set it. Use "→" button to scroll "X" axis values. Then quit.



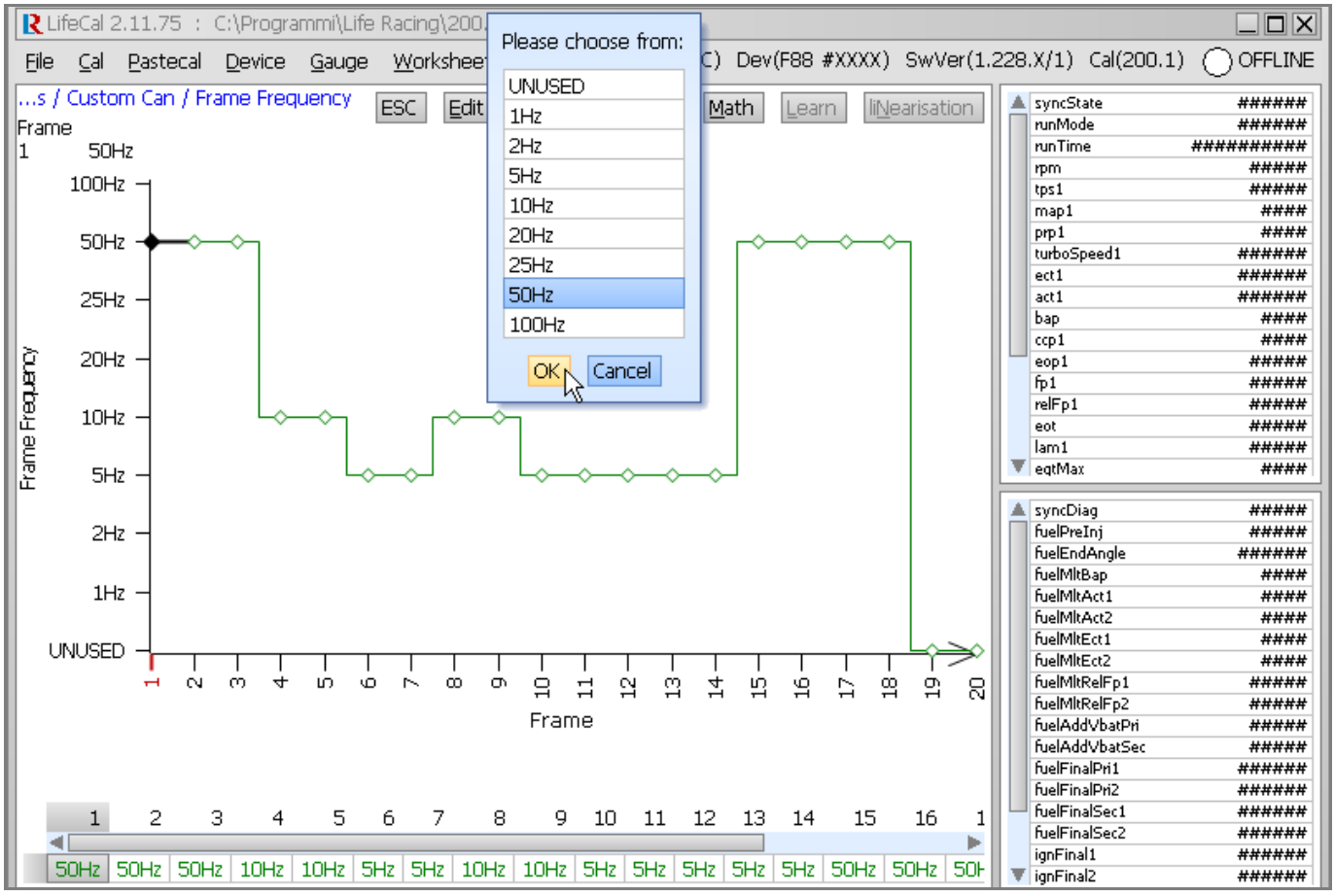

The software comes back to the previous page. Press " ↓ " to select "Frame Frequency – f(Frame)".



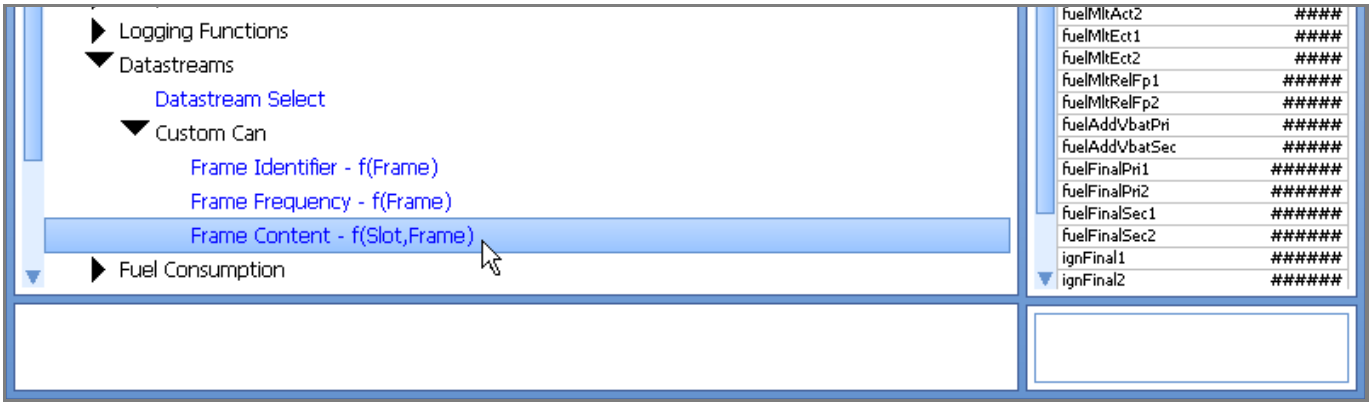
You will see this preview window. Double click on it.



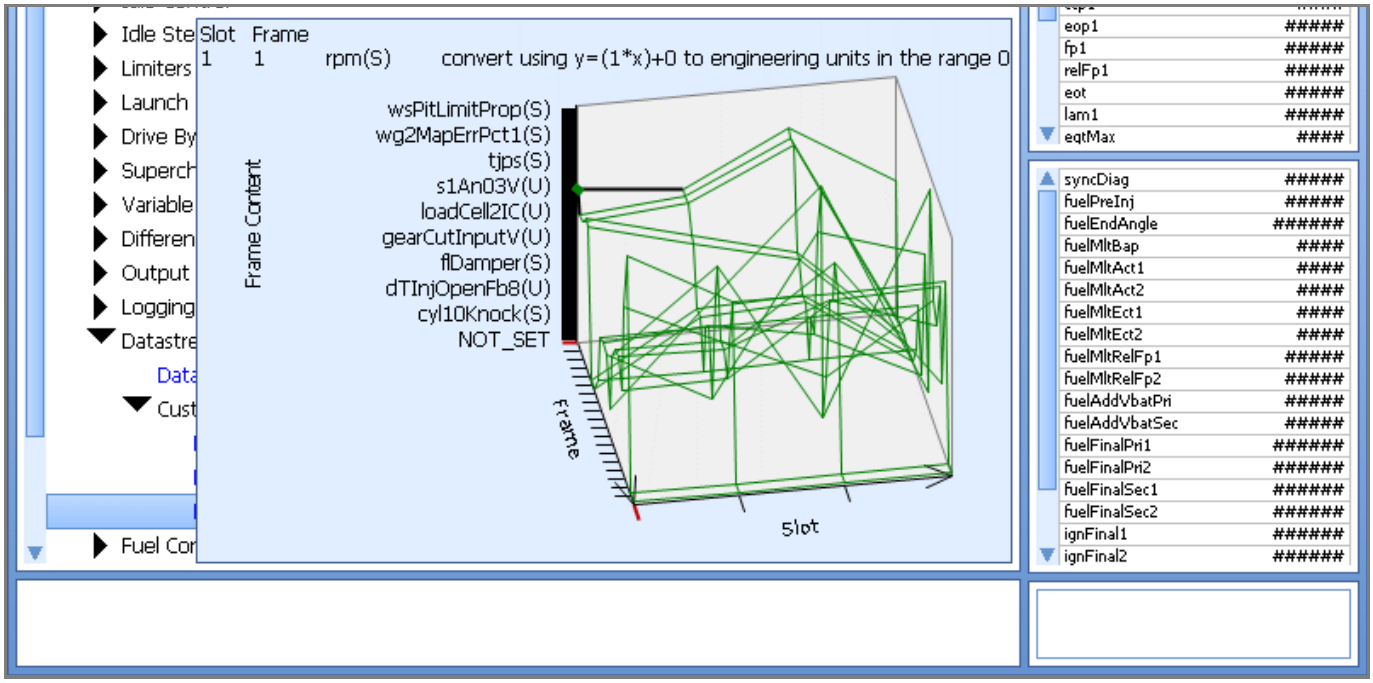

The default setting should be as below. If not click enter and set it up as this one. Use "→" button to scroll "X" axis values. Then quit.



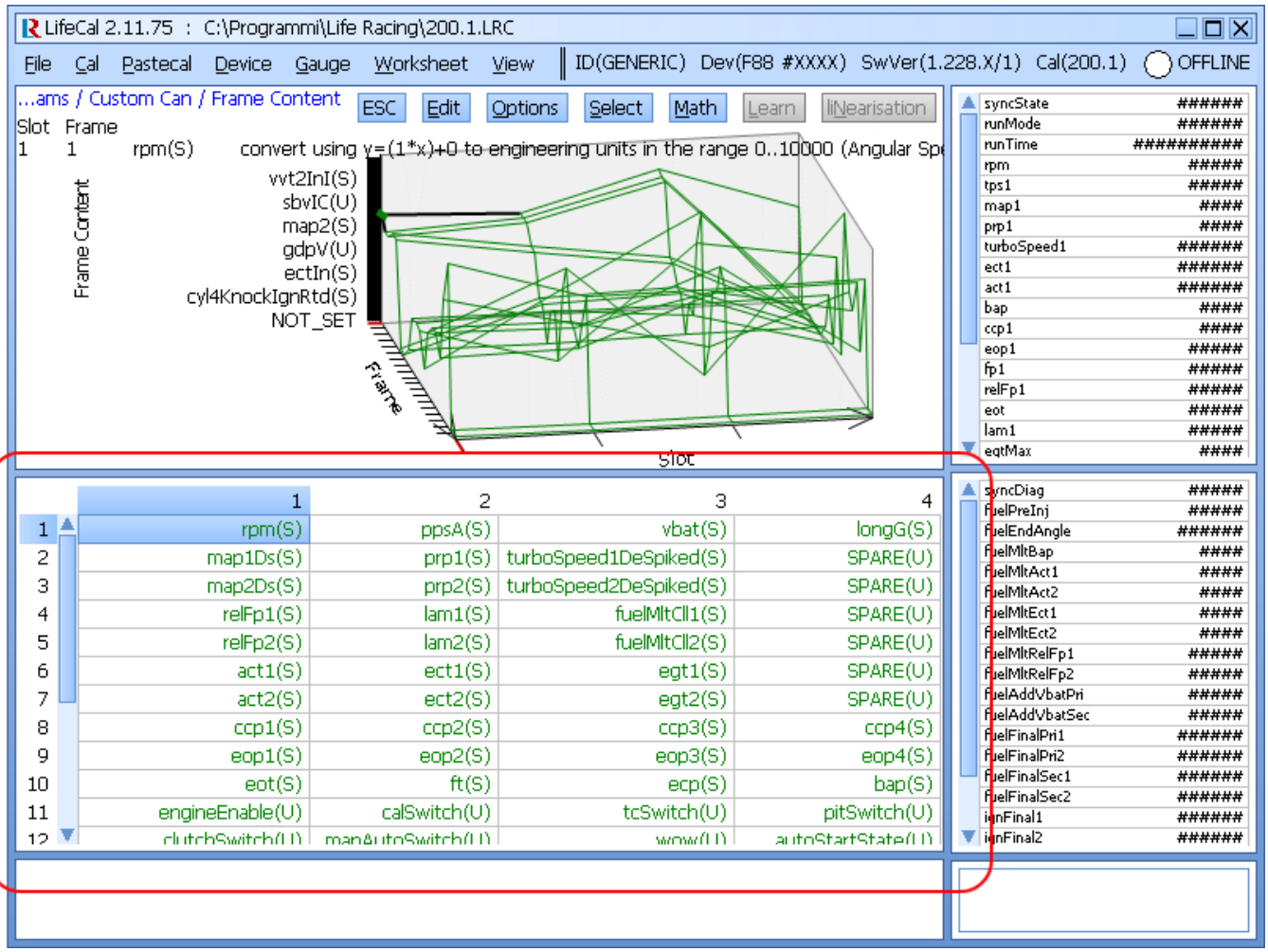

The software comes back to the previous page. Press " ↓ " to select "Frame Content – f(Slot, Frame)".



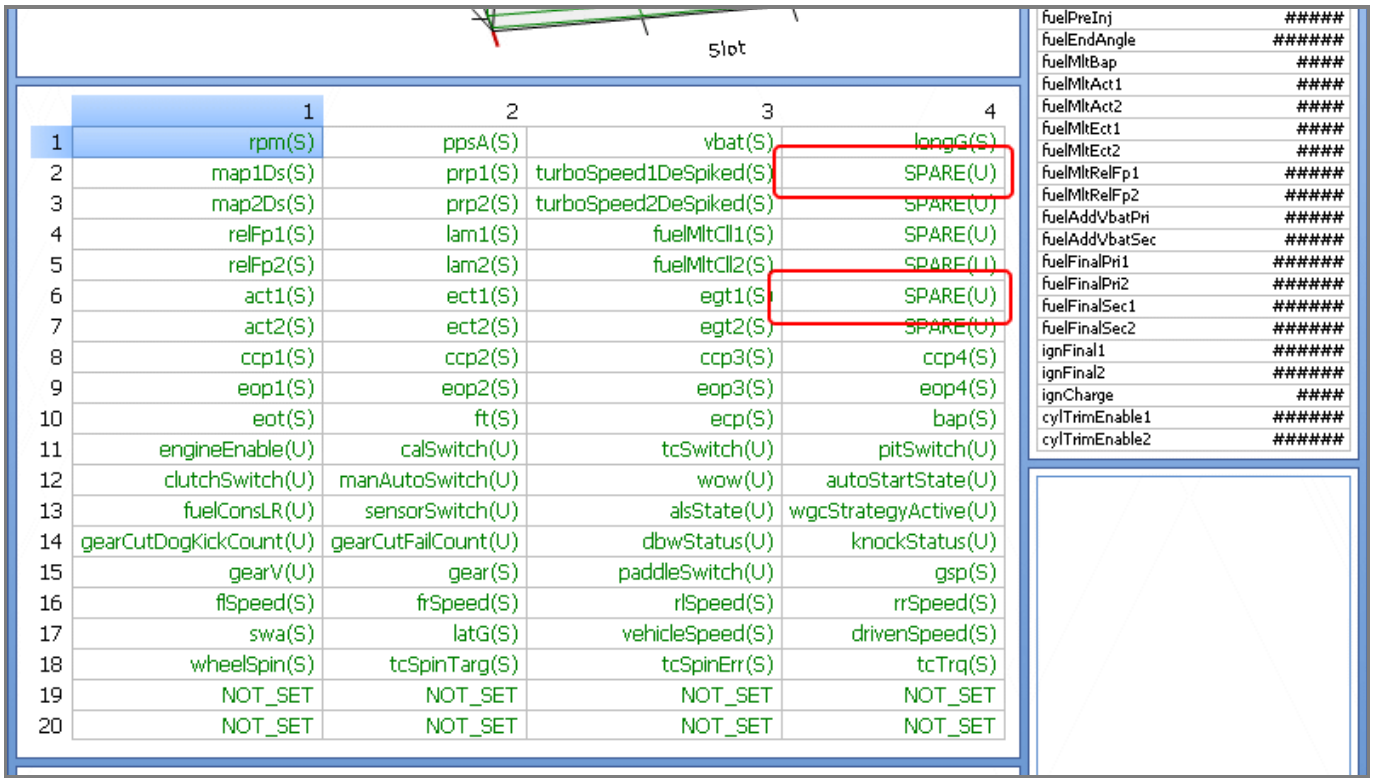

You will see this preview window. Double click on it.

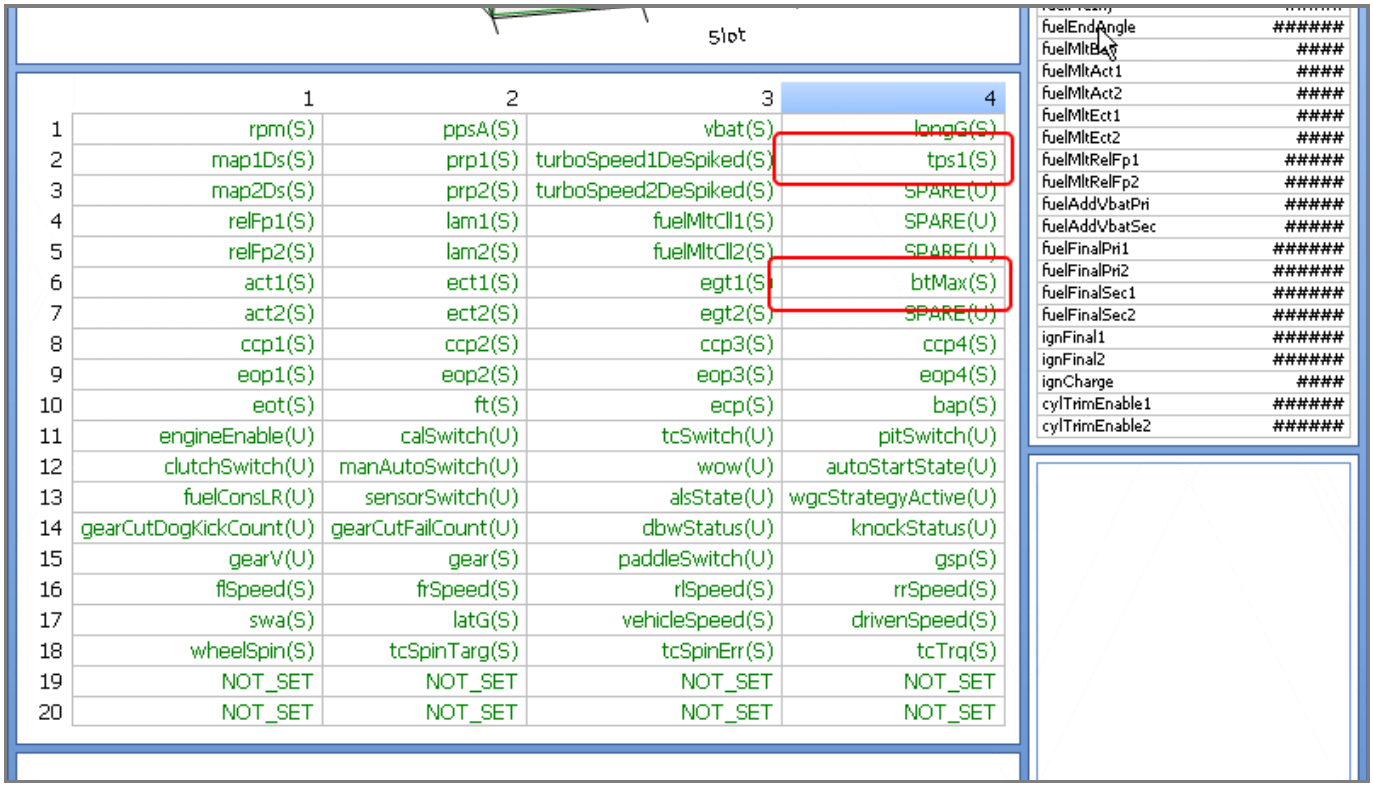

Idle Ste
Limiters
Launch
Drive By
Superch
Variable
Differen
Output
Logging
Datastre
Data
Cust
Fuel Cor
Slot Frame
1 1
rpm(S)
convert using y=(1*x)+0 to engineering units in the range 0
Frame Content
wsPitLimitProp(S)
wg2MapErrPct1(S)
tps(S)
s1An03V(U)
loadCell2IC(U)
gearCutInputV(U)
flDamper(S)
dTInjOpenFb8(U)
cyl10Knock(S)
NOT_SET
frame
Slot
eop1 ######
fp1 ######
relFp1 ######
eot ######
lam1 ######
eqtMax ####
syncDiag ######
fuelPreInj ######
fuelEndAngle #######
fuelMltBap ####
fuelMltAct1 ####
fuelMltAct2 ####
fuelMltEct1 ####
fuelMltEct2 ####
fuelMltRelFp1 ######
fuelMltRelFp2 ######
fuelAddVbatPri ######
fuelAddVbatSec ######
fuelFinalPri1 #######
fuelFinalPri2 #######
fuelFinalSec1 #######
fuelFinalSec2 #######
ignFinal1 #######
ignFinal2 #######

You need to set up the table highlighted in the image below.



The values to be modified are highlighted below. Use keyboard arrows to reach the cell to set; press enter and select the correct value in the drop down window. The bottom image shows the values set.



# 2
# Wiring connection

To connect Life F88 CAN ECU with AiM devices use the 88 pins AMP male connector located frontally on it. Here below is connection table.

| AMP connector pin | Pin function | AiM cable |
|---|---|---|
| 82 | CAN High | CAN+ |
| 81 | CAN Low | CAN- |

# 3
# AiM device configuration

Once the ECU connected to AiM device set this up using AiM Race Studio software. The parameters to select in the device configuration are:

- ECU manufacturer “Life”
- ECU Model “F88_CAN”;

# 4
# Available channels

Channels received by AiM loggers connected to "Life" "F88_CAN" protocol are:

| ID | CHANNEL NAME | FUNCTION |
|---|---|---|
| ECU_1 | F88_RPM | RPM |
| ECU_2 | F88_PPSA | "A" Pedal position |
| ECU_3 | F88_V_SPEED | Vehicle speed |
| ECU_4 | F88_D_SPEED | Driven speed |
| ECU_5 | F88_SPEED_FL | Front left wheel speed |
| ECU_6 | F88_SPEED_FR | Front right wheel speed |
| ECU_7 | F88_SPEED_RL | Rear left wheel speed |
| ECU_8 | F88_SPEED_RR | Rear right wheel speed |
| ECU_9 | F88_LONG_ACC | Longitudinal acceleration |
| ECU_10 | F88_LAT_ACC | Lateral acceleration |
| ECU_11 | F88_MAP1 | Manifold air pressure bank 1 |
| ECU_12 | F88_MAP2 | Manifold air pressure bank 2 |
| ECU_13 | F88_TRBO_SPD1 | Turbo speed bank 1 |
| ECU_14 | F88_TRBO_SPD2 | Turbo speed bank 2 |
| ECU_15 | F88_LAMBDA1 | Lambda value bank 1 |
| ECU_16 | F88_LAMBDA2 | Lambda value bank 2 |
| ECU_17 | F88_ACT1 | Air coolant temperature bank 1 |
| ECU_18 | F88_ACT2 | Air coolant temperature bank 2 |
| ECU_19 | F88_ECT1 | Engine coolant temperature bank 1 |
| ECU_20 | F88_ECT2 | Engine coolant temperature bank 2 |
| ECU_21 | F88_EGT1 | Exhaust gas temperature bank 1 |
| ECU_22 | F88_EGT2 | Exhaust gas temperature bank 2 |
| ECU_23 | F88_FUEL_CONS | Fuel consumption |
| ECU_24 | F88_GEAR | Engaged gear |
| ECU_25 | F88_OIL_P1 | Oil pressure 1 |

| | | |
|---|---|---|
| ECU_26 | F88_OIL_P2 | Oil pressure 2 |
| ECU_27 | F88_OIL_P3 | Oil pressure 3 |
| ECU_28 | F88_OIL_P4 | Oil pressure 4 |
| ECU_29 | F88_V BATT | Battery supply |
| ECU_30 | F88_FUEL_PR1 | Fuel pressure bank 1 |
| ECU_31 | F88_FUEL_PR2 | Fuel pressure bank 2 |
| ECU_32 | F88_EOT | Engine oil temperature |
| ECU_33 | F88_FUEL_T | Fuel temperature |
| ECU_34 | F88_BARO_PR | Barometric pressure |
| ECU_35 | F88_STEER_ANGLE | Steering angle |
| ECU_36 | F88_TPS1 | Throttle position 1 |
| ECU_37 | F88_BTMAX | Max ECU internal temperature |
| ECU_38 | F88_OVERBOOST | Over boost pressure |
| ECU_39 | F88_CRANK1_PR | Crank 1 pressure |
| ECU_40 | F88_COOL_PRESS | Engine coolant pressure |
| ECU_41 | F88_ENG_ENABLE | Engine enable |
| ECU_42 | F88_CAL_SWITCH | Calibration switch |
| ECU_43 | F88_TC_SWITCH | Traction control switch |
| ECU_44 | F88_PIT_SWITCH | Pit lane limiter switch |
| ECU_45 | F88_ALS_STATE | ALS signal status |
| ECU_46 | F88_GEAR_VOLT | Gearbox voltage |
| ECU_47 | F88_GEAR_PRESS | Gear pressure |
| ECU_48 | F88_WHEEL_SPIN | Wheel spin |
| ECU_49 | F88_PPSB | "B" Pedal position |
| ECU_50 | F88_DBW_STATUS | DBW Status |
| ECU_51 | F88_KNK_STATUS | Knock status |