CANTCU – Link ECU integration

- **CAN Speed** is configurable
- CAN2.0B, Standard 11bit identifiers

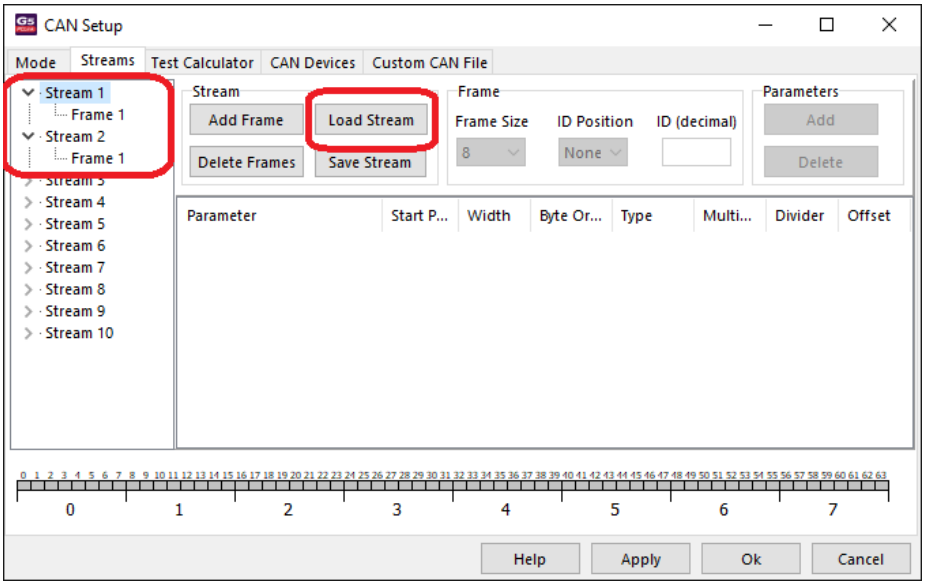
Configuring CAN Streams in Link

The CAN streams consist of necessary running parameters exchanged between the Link ECU and CANTCU. Depending on your general setup and ECU model, you might need/want to use the "Extra Streams" additionally.

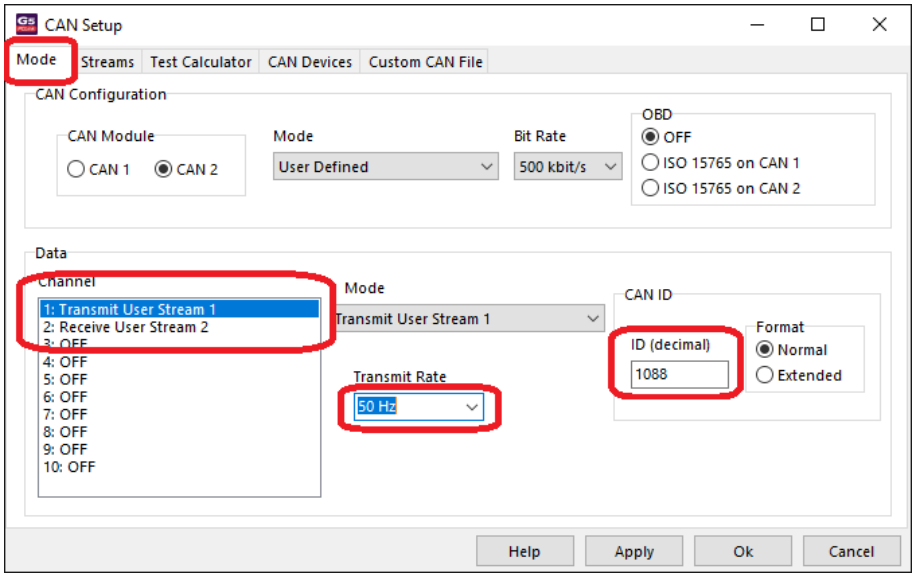
Preconfigured Streams

Stream	**Contents**	**CAN ID**	**Example ID – Dec. (Hex)**
Transmit Stream	Running parameters	Base ID	1088 (0x440)
Receive Stream	Running parameters	Base ID	1072 (0x430)
Extra Transmit Stream	WheelSpeeds	Base ID + 1	1089 (0x441)
Extra Receive Stream	Torque Values	Base ID + 1	1073 (0x431)

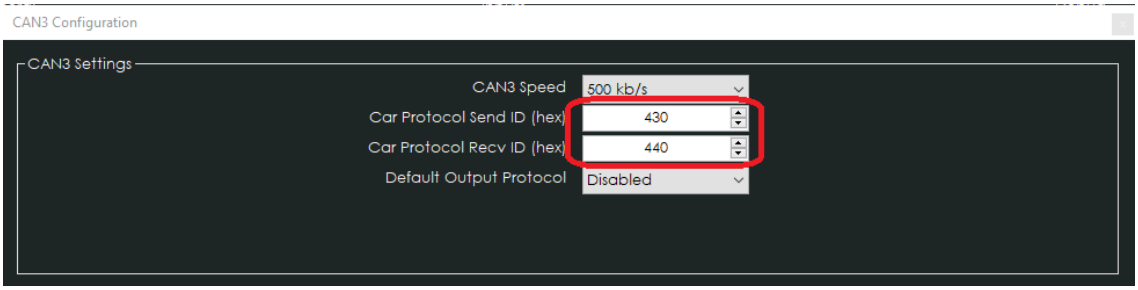
- Load the transmit and receive Streams (downloaded from the CANformance wiki - Link Integration page) into suitable/free Stream slots in the Link PC software.



- Assign Suitable CAN ID:s for the loaded Streams. The transmit Streams from Link to CANTCU should be sent at minimum at a 50Hz rate to ensure proper communication. Link CAN ID is shown in decimals, use a suitable converter (e.g. Windows calculator in programmer mode) to convert between decimal and hexadecimal CAN ID:s (used in CANTCU).



- CAN ID:s can be freely configured, be sure to match them in both CANTCU and Link. The example configuration in these instructions use **0x440** (1088 decimal) for the "**Transmit Stream**" from Link to CANTCU, and **0x430** (1072 decimal) for the "**Receive Stream**" sent from CANTCU to Link.



Available Realtime-values in CANTCU (sent from Link)

- *Engine RPM*
- *TPS Value*
- *Engine MAP*
- *Brake Switch*
- *WheelSpeeds (extra Transmit Stream)*

Available Realtime-values in Link (sent from CANTCU)

- *Gear Number*
- *Gearbox Mode*
- *Gearbox Oil Temp*
- *Shiftcut 0/1*
- *Blip 0/1*
- *Engine Torque (extra Receive Stream)*
- *Target Torque (extra Receive Stream)*

Value Mapping

Start bit	Size	Link parameter	CANTCU variable	Factor	Offset
0	8	Gear	Gearbox Gear	1	
8	8	CAN AN V1	Cut %	1	
16	8	CAN AN V2	Blip %	1	
24	8	CAN AN V3	TCU Oil Temp	1	40
32	8	CAN AN V4	TCU Drive Mode	1	
40	8	CAN AN V5	TCU DL mode	1	
56	1	CAN DIG 1 state	Cut 0/1	1	
57	1	CAN DIG 2 state	Blip 0/1	1	

Value Mapping – Extra Receive Stream

Start bit	Size	Link parameter	CANTCU variable	Factor	Offset
0	16	CAN AN V6	Engine Torque	1	
16	16	Torque Reduction Request	Torque Request	1	

NOTE!

All tuning should always be done by a professional in safe environment (track/dyno)