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.

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

Preconfigured Streams

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

😅 CAN Setup				-		×
Mode Streams Test Stream 1 Stream 2 Frame 1 Stream 2 Stream 4 Stream 5 Stream 4 Stream 6 Stream 7 Stream 8 Stream 8 Stream 9 Stream 10	CARUlator CAN Devices C Stream Add Frame Load St Delete Frames Save St	ream ream	ID Position ID (de	ecimal)	arameters Add Delete	:
	Parameter	Start P Width	Byte Or Type	Multi	Divider	Offset
0 1 2 3 4 5 6 7 8 9 10 11	12 13 14 15 16 17 18 19 20 21 22 23 24 25 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6 27 28 29 30 31 32 33 34 35 36 37 3 4	38 39 40 41 42 43 44 45 46 47 48 4 5	6 6	5 56 57 58 59 6 7	0 61 62 63
		He	lp Apply	Ok		Cancel

- 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).



GE CA									~
	N Setup						_		^
Mode	Streams	Test Calculator	CAN Devices	Custom CAN File					
CAN	Configurat	tion	Mada		Dit Data	OBD			
	CAN MODU	CAN 2	User Define	d V	500 kbit/s V	 OFF ISO 157 ISO 157 	765 on CAN 765 on CAN	1 2	
Data Char 2: R 3: 0 4: 0 5: 0 6: 0 6: 0 7: 0 8: 0 9: 0 10: 1	nnel ransmit Us FF FF FF FF FF FF FF FF OFF OFF	er Stream 1 r Stream 2	Trar	ode nsmit User Stream 1 Iransmit Rate 50 Hz v	~	CAN ID ID (decimal) 1088	Form ● No ● Ex	at ormal tended	
					Help A	pply	Ok	Can	cel

- 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.

CAN3 Settings CAN3 Speed 500 kb/s Car Protocol Send ID (hex) Car Protocol Recv ID (hex) Default Output Protocol Displace	N3 Configuration				
Car Protocol Send ID (hex) 430 🕃 Car Protocol Recv ID (hex) 440 🔄 Default Output Protocol Disabled 🗸	CAN3 Settings	CAN3 Speed	500 kb/s	~	
Car Protocol Recv ID (hex) 440		Car Protocol Send ID (hex)	430		
Default Output Protocol Disabled		Car Protocol Recv ID (hex)	440	÷.	
		Default Output Protocol	Disabled	~	

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 VI	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)

