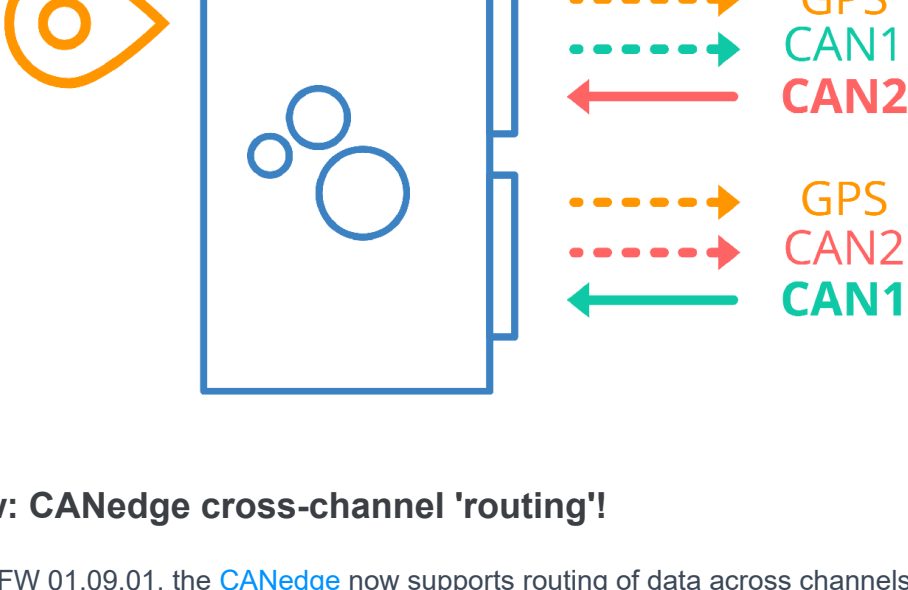


FW 01.09.01: CANedge now supports cross-channel routing (incl. GPS-to-CAN)

CSS Electronics newsletter - March 2025



New: CANedge cross-channel 'routing'!

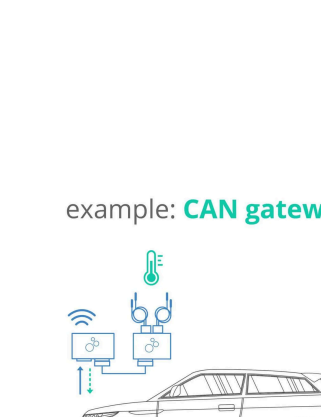
With FW 01.09.01, the [CANedge](#) now supports routing of data across channels!

This has been a #1 feature request for a long time - and with this update the device can be used as a GPS-to-CAN module, CAN gateway - or even LIN-to-CAN converter!

KEY FEATURES

- Route from CAN1/2/9, LIN1/2 to CAN1/2
- Re-map IDs (e.g. from 0x67 to 0x18FFA227)
- Add up to 32 routing rules
- Data is routed after filters/prescaling/triggers

example: **GPS-to-CAN**



Ex1: GPS-to-CAN

The CANedge incl. GPS/IMU records data like position, trip distance, speed, heading/pitch/roll, acceleration, GPS time and more into log files along with data from the 2 x CAN/LIN channels.

You can now route this data onto CAN1/2 - enabling the CANedge to serve as a GPS-to-CAN module. This lets you e.g. display GPS info on CAN displays, react based on geofence events, provide precise GPS time to ECUs and more!

example: **CAN gateway**



Ex2: Basic CAN gateway

You can also safely route messages between CAN1 and CAN2 and optionally re-map IDs to avoid collisions (and for added compatibility). This opens up a ton of flexibility in your deployments.

You can combine this with the advanced filter/prescaler/cross-channel trigger functionality of the CANedge for sophisticated use cases.

example: **LIN-to-CAN converter**

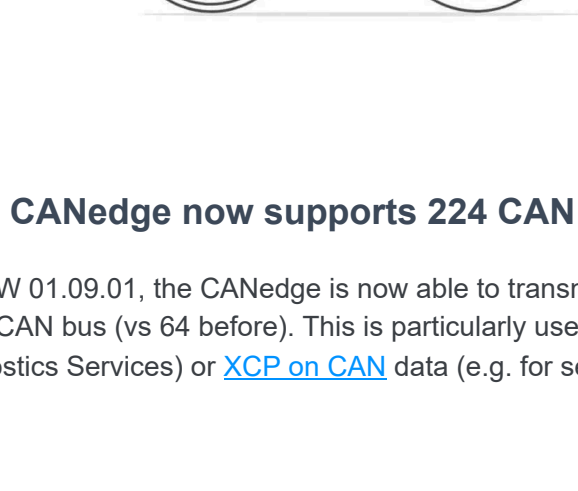


Ex3: LIN-to-CAN converter

You can even route LIN1/LIN2 messages onto CAN1/CAN2 - which is particularly powerful as the CANedge can operate as both a LIN master and slave. This gateway support is great if you need to share certain LIN data with CAN nodes. We even have users that now use this to stream LIN bus data in real-time via their CAN-USB interfaces!

[Learn more](#)

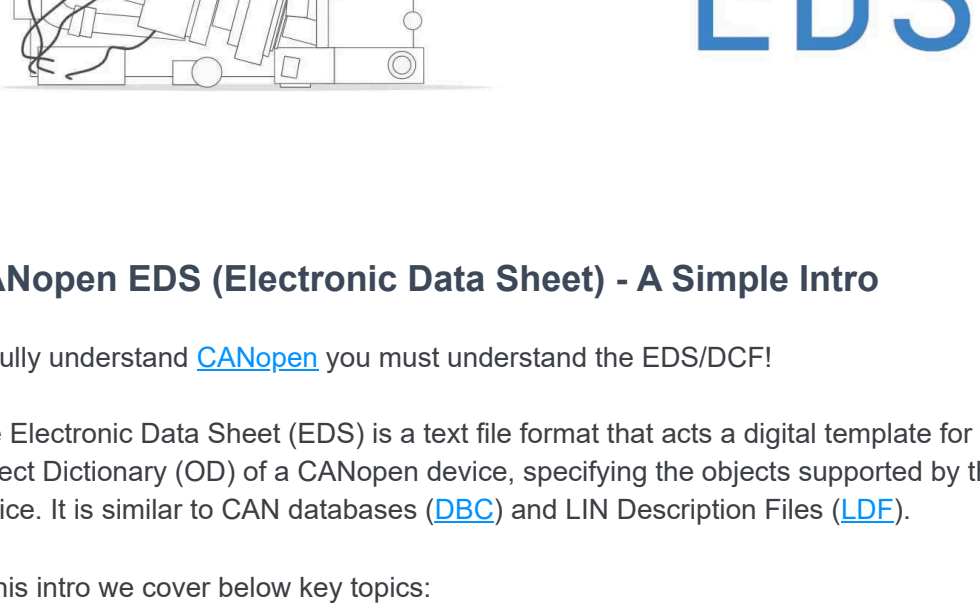
CANedge FW 01.09.01: Add 224 CAN transmit frames (+160) on one channel



New: CANedge now supports 224 CAN transmit frames!

With FW 01.09.01, the CANedge is now able to transmit up to **224 CAN frames** onto a single CAN bus (vs 64 before). This is particularly useful if you're recording [UDS](#) (Unified Diagnostics Services) or [XCP on CAN](#) data (e.g. for setting up DAQ lists).

[Learn more](#)



CANopen EDS (Electronic Data Sheet) - A Simple Intro

To fully understand [CANopen](#) you must understand the EDS/DCF!

The Electronic Data Sheet (EDS) is a text file format that acts a digital template for the Object Dictionary (OD) of a CANopen device, specifying the objects supported by the device. It is similar to CAN databases ([DBC](#)) and LIN Description Files ([LDF](#)).

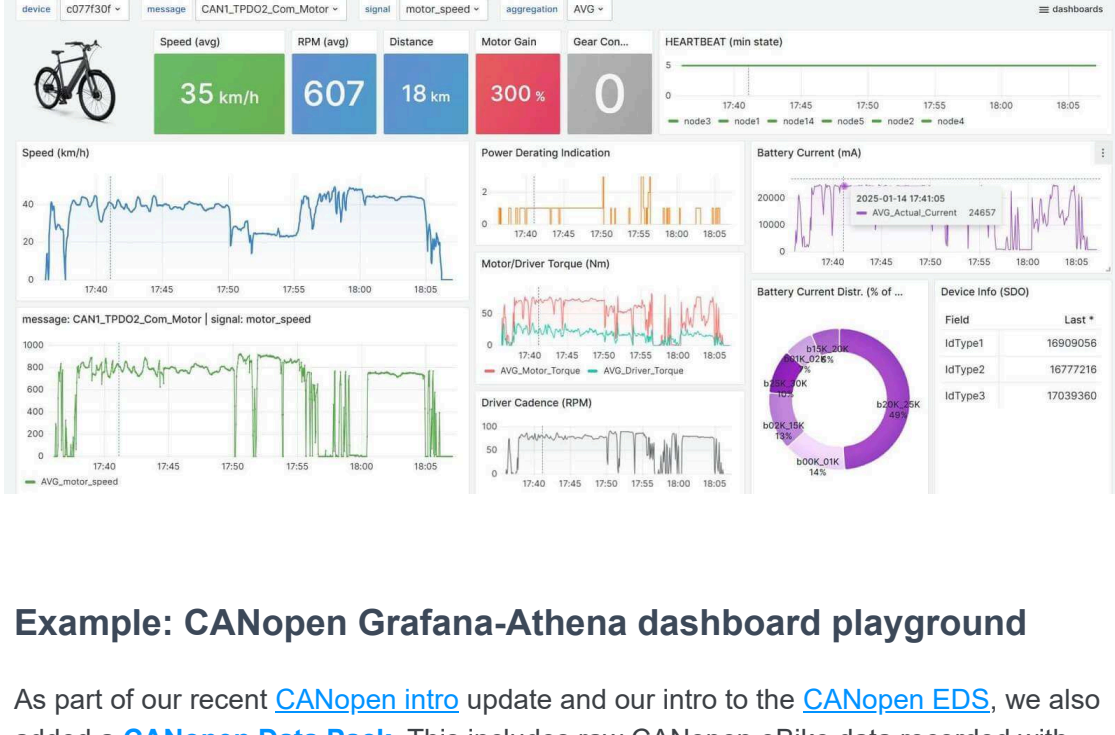
In this intro we cover below key topics:

- What is an EDS?
- EDS/DCF syntax
- How to get the EDS?
- EDS software tools
- EDS vs. DBC files
- Convert EDS to DBC

The [CANedge](#) is often used to log CANopen data. It can silently sniff any traffic on the bus - or e.g. send requests to poll data via SDO upload requests.

With the latest update to canmatrix, you can now **auto-convert your EDS to the DBC format**. This enables you to easily DBC decode raw CANopen data - incl. any PDOs/SDOs. In this tutorial we explain step-by-step how this works.

[Learn more](#)



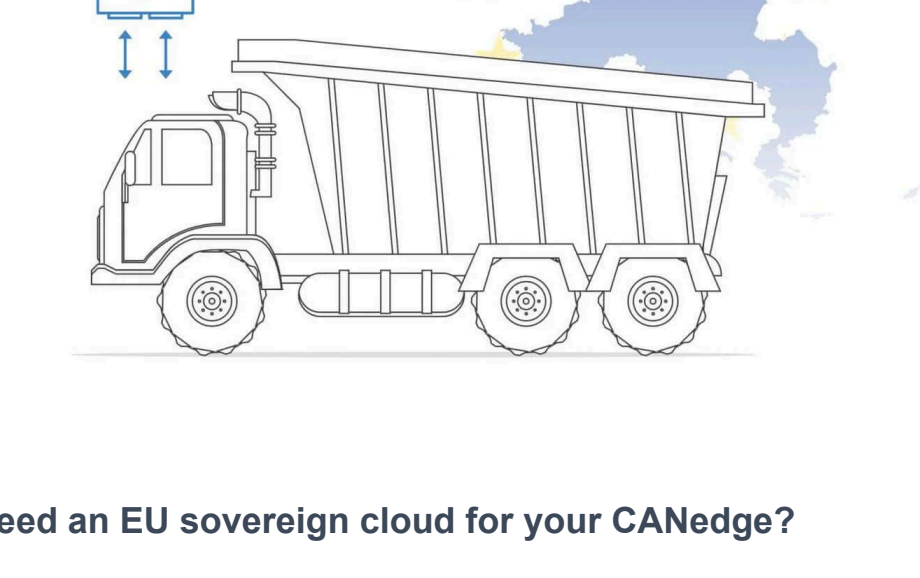
Example: CANopen Grafana-Athena dashboard playground

As part of our recent [CANopen intro](#) update and our intro to the [CANopen EDS](#), we also added a [CANopen Data Pack](#). This includes raw CANopen eBike data recorded with the CANedge, the EDS file and the auto-converted DBC file (with all the PDOs/SDOs).

Using the DBC file, we also added a new [Grafana dashboard](#) playground showcasing the DBC decoded CANopen data. This includes PDOs with e.g. speed, torque and current info. Further, it contains 'standard' CANopen messages like the HEARTBEAT - and SDO based meta info on various IDs extracted from the eBike. Check it out below!

[Open dashboard playground](#)

Need an EU sovereign cloud for your CANedge?



Need an EU sovereign cloud for your CANedge?

Based on a recent events, we decided to provide a [step-by-step guide](#) for EU users that prefer to go with a 100% EU sovereign cloud for their [CANedge2/CANedge3](#).

Many options exist, but we suggest Scaleway, which offers S3 compatible storage and serverless functions. In our new setup guide, we also provide a plug & play TLS certificate for Scaleway, making it easy to deploy your CANedge units securely.

As an EU-based company, Scaleway is not subject to the American Cloud Act.

Of course, you can also go with fully self-hosted S3 storage via [MiniQ](#).

[Learn more](#)



CANmod.gps enclosure now updated!

The new CANmod.gps enclosure includes flanges to simplify installation.

This standalone GPS-to-CAN module produces GNSS position and 3D inertial data (via a gyroscope & accelerometer) and outputs it via CAN bus.

The module supports 'Untethered Dead Reckoning' - meaning that even if the GNSS fix is lost, the module can deliver continuous positioning via IMU-based estimates (no external inputs required). You can integrate the module with any CAN bus, e.g. vehicle networks or CAN hardware.

Note: With the new CANedge routing functionality, you can of course also use a CANedge incl. GPS/IMU as your GPS-to-CAN module. However, if you do not need to record CAN data, the CANmod.gps remains the lowest cost option.

[Learn more](#)