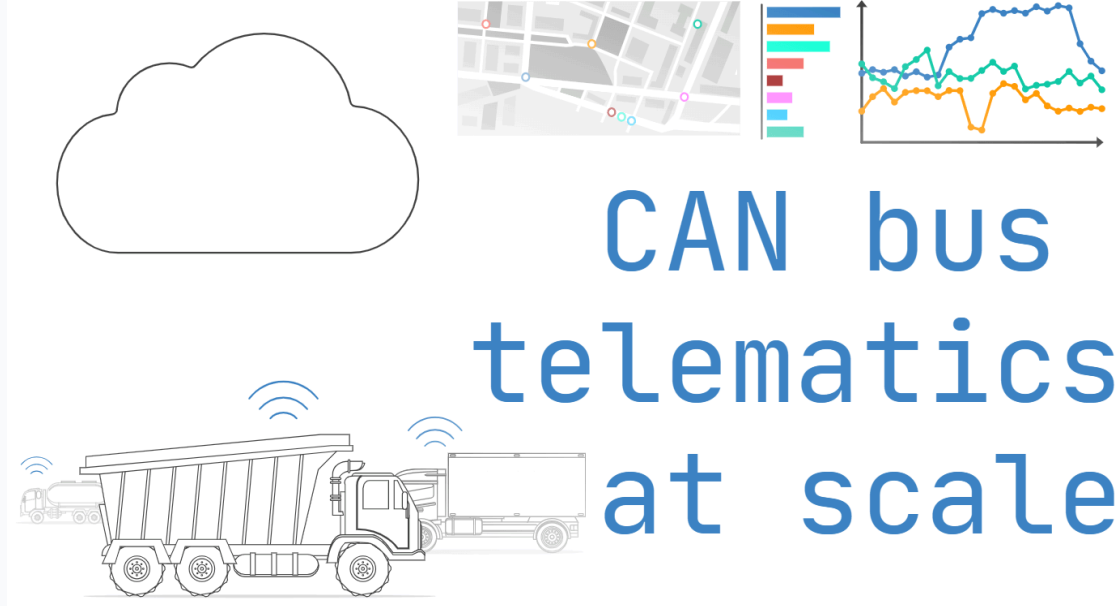


CAN telematics at scale (incl. trip summary dashboards) and new DB25-DB25/DB9 adapter

CSS Electronics newsletter - April 2024



CAN telematics at scale: Device management & data lakes

Check out our latest article where we deep-dive on how to use the [CANedge2/CANedge3](#) to perform CAN bus telematics at scale!

The article covers the following topics:

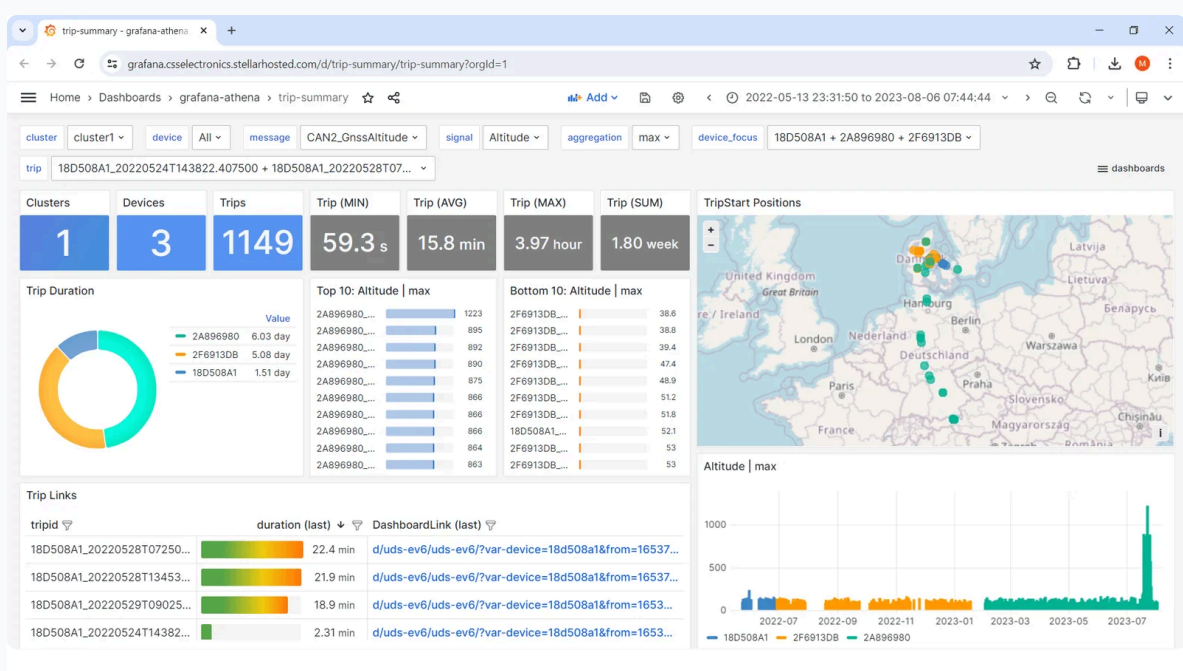
1. Device fleet management
2. Backend: Data pre-processing
3. Backend: Data aggregation + meta
4. Frontend: Data visualization
5. Frontend: Advanced analysis
6. Example use cases

The purpose of this article is to provide guidance and inspiration on how you can make your deployment and data processing workflow scalable, cost-effective and insightful.

While it is targeted towards larger fleet deployments, a lot of the sections can be relevant even for single-unit deployments - e.g. topics like data pre-processing and aggregation.

Definitely give this a read - and if you have questions, contact us!

[Learn more](#)



Grafana-Athena 'trip summary' dashboards

Check out our new 'trip summary dashboard' [public playground!](#)

A core topic in our [CAN telematics at scale](#) article is 'data aggregation': Extracting trip-by-trip signal aggregations into summary tables for fast and simple queries.

Why is this relevant?

As you may know, our default 'data pre-processing' workflow enables you to create a Parquet data lake with your DBC decoded CAN/LIN data, stored e.g. in an AWS S3 bucket. This is excellent for querying results from specific device/message pairs.

However, the structure has limitations:

- It is impractical to extract cross-device results in a single query
- Extracting results across e.g. 100 GB remains time consuming
- It is non-trivial to extract results at a trip-by-trip level

Data aggregation helps you resolve this by supplementing your data lake with a 'trip summary Parquet table' with your configured signal aggregations (e.g. avg, min, max, sum, delta_sum, ...) across all trips/devices.

This enables a ton of use cases:

1. Show daily reports of KPIs across any number of vehicles/machines
2. Browse/filter your data at a trip level to find trips of interest
3. Supercharge diagnostics by quickly spotting specific events
4. Easily jump from summary dashboards to device dashboards
5. Identify top X trips/devices based on select statistics

To show case how the table can be visualized, we have created a ['trip summary' dashboard template](#) for our [Grafana-Athena integration](#). Check it out via the playground above - and note in particular how you can jump to trips of interest in another dashboard!

Naturally, the deployment of the aggregation can be fully automated and we provide a step-by-step guide for setting it up in the CANedge Intro.

[Learn more](#)



DB25-DB25/DB9 - add 12V/24V for your input sensors!

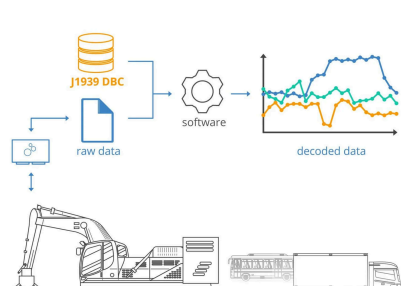
The [CANmod.input](#) lets you connect 8 sensors (analog/digital/pulse) and outputs the data via CAN.

The device provides a 3.3V excitation signal to supply low-power sensors. However, many sensors require 12V or 24V - which can result in very complex wiring harnesses.

This DB25-DB25/DB9 adapter lets you easily power such sensors by re-routing the power supply you use for your CANmod/CANedge.

The cable can be combined with our [DB9-DB9/DB9](#) and [DB25-input](#) adapters for flexible installations. Get your adapter today!

[Learn more](#)



J1939 DBC 2024-04 released!

We have now released the J1939 DBC 2024-04 revision. The update adds 100+ new SPNs - get your copy today!

[Learn more](#)



"The CANedge1 is an **easy and powerful solution** for logging CAN FD data for offline evaluation in Vector tools"

SCHAEFFLER
ENGINEERING

Schaeffler case study

In this case study Schaeffler Engineering uses the CANedge1 to record 2 x CAN FD from a battery electric vehicle during daily use. The team evaluates the data via Vector tools incl. CANape.

[Learn more](#)

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