Processing Vehicle CAN Bus Data using nCode GlyphWorks

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**CAN Bus Data**

- **What is CAN Bus?**
  - Controller Area Network communication protocol
  - Good for sending lots of information over a single cable
  - Data is broken into packets, sent, then reassembled into a data stream at the receiver
  - Presents the engineer with lots of “free” data...
  - ...of potentially poor quality.
CAN Bus Data

- Can contain lots of useful and “free” information
  - Speed, temperature, flow rates, user inputs, etc.

![Graph showing CAN Bus data](Transport_0314_0320.tif)
CAN Bus Data

- CAN bus can be of poor quality
  - Low sample rate, discontinuous, interrupted by other messages...
Processing CAN Bus Data

- **GlyphWorks now reads the MDF4 file format (new in 12.1)**
  - MDF4 is an ASAM standard defining “a binary file format which stores recorded or calculated data for post-measurement, off-line evaluation, or long-term storage” [1]

- **GlyphWorks can associate a DBC file with a raw CAN data file in the available data window**
  - Allows human-readable metadata

Processing CAN Bus Data

- You can plot time-stamped data directly in the XYDisplay
Processing CAN Bus Data

- Some glyphs can work with time-stamped data directly
  - AmplitudeDistribution glyph
  - JointDistribution
  - XYDisplay
Processing CAN Bus Data

- Live Demo