CANalyzer .A429

Comprehensive Network Analysis and Stimulation for ARINC 429

What is CANalyzer .A429?

CANalyzer .A429 is ideal for the analysis of ARINC 429 buses and of individual devices on up to 32 channels. Regardless of whether raw data or physical quantities are required – CANalyzer .A429 provides powerful analysis functions on all levels. Users reach their goals quickly and also get a clear overview in complex network constellations.

Overview of Advantages

> Easy monitoring, analysis and stimulation of the data traffic
> Just a single tool is needed to access ARINC 429, CAN and AFDX®
> Detect and correct fault situations during development, in integration and in maintenance

Time-Precise Playback of Log Files

The data traffic of a LRU (Line Replaceable Unit) can be logged on multiple channels simultaneously. The user can specify trigger conditions which define the range of logging very precisely. The logged message traffic can be played back with accurate timing. This lets you generate reproducible error scenarios. Log files may also be played back as an easy way to simulate missing LRUs.

Symbolic Representation

ARINC 429 words for a bus can be described in a database. This involves assigning readable names to the ARINC 429 labels, and the data contents of the ARINC 429 words are also defined in detail. This not only includes the bit position within the ARINC 429 word, but also the data type and display name.
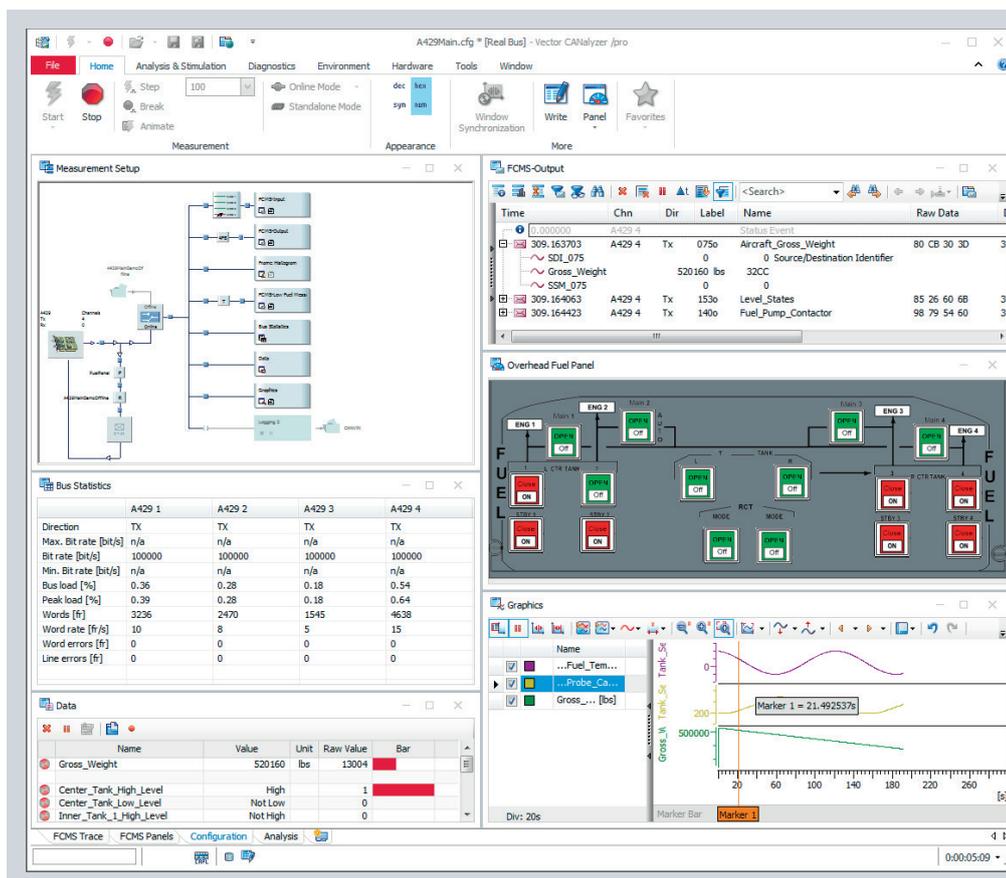
CANalyzer .A429 provides detailed access to the exchanged data down to the bit level

For an interpreted display of physical parameters, you can also enter the units and define a conversion formula. A Database Editor is included with the product.

Display of Messages

The Trace Window lists the momentary ARINC 429 bus traffic clearly. When databases are available, the representation is symbolic – conversion formulas are automatically used. The layout of columns is user configurable, and three preconfigurable column layouts are available for quick toggling of the display. Refined search functions ensure that the user can quickly find all relevant information, even in cases of intensive bus traffic.

Other Functions

> Display of signal information in the Data and Graphics Windows
> Logging with trigger conditions and replay
> Send and evaluate ARINC 429 words using the built-in programming language (CAPL)
> Time-precise periodic transmission via an interactive generator block

Supported ARINC 429 Interface

Access to ARINC 429 is made via the compact and powerful VN0601 hardware from Vector – an ARINC 429 interface that is connected via USB 2.0 and offers 8 channels (4 Tx, 4 Rx). The interface provides highly precise time stamps for message events. Multiple VN0601 devices can be synchronized via a separate connection.

It is supplied with voltage via USB, eliminating the need for a power supply. A periodic hardware scheduler for 255 ARINC 429 words is provided for each Tx channel scheduler. Automatic Rx bit rate detection simplifies the configuration process considerably. Beyond the standard range, the interface supports values up to 120 kbit/s. Extensive error detection mechanisms permit detailed analysis options.

More information: www.vector.com/canalyzer.a429

CANalyzer .A429 uses the compact and powerful interface VN0601 for analysis and production of complex communication.