What is CANoe .A429?
CANoe .A429 is ideal for the test and analysis of ARINC 429 buses and of individual devices on up to 32 channels. Regardless of whether raw data or physical quantities are required – CANoe .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
- Reliable testing of data communication – from simple interactive tests to systematic automated tests
- Automatically create test protocols
- Easy monitoring of the data traffic and comprehensive network analysis
- Just a single tool for accessing CAN, AFDX® and the Vector VT System, a modular test environment
- Detect and correct error situations early in the development process

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. 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/canoe.a429](http://www.vector.com/canoe.a429)