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A429-BAST
ARINC 429 Bus Analyzer and Simulator

- Overall functional concurrency (recording, monitoring, transmission)
- Definition of LRU databases
- Custom word format definitions
- Sub-labeling permitting multiple use of same label number
- Transmit functions (sine, step, ramp, list) assignable to any parameter
- Data replay of recorded or imported data
- Realtime re-transmission of manipulated receive data (offset, factor, mask)
- Realtime graphical monitoring through virtual instruments (meter, bar graph, single LED, and multi LEDs)
- DataView – versatile utility for analyzing recorded data

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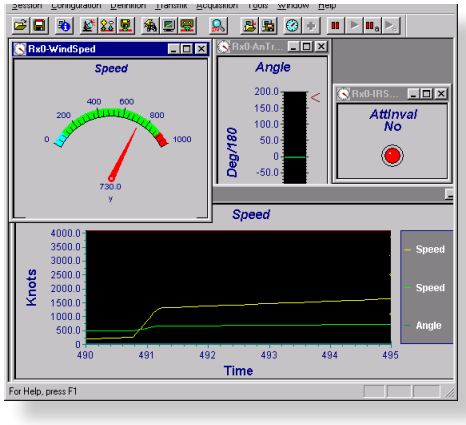
A429-BAST
ARINC 429 Bus Analyzer and Simulation Tool

Application Scope

TechSAT's PC-based ARINC 429 Bus Analyzer and Simulation Tool, called **A429-BAST**, is a Windows application program that provides an all-in-one solution to companies engaged in the development, testing, and maintenance of ARINC 429 avionics systems.

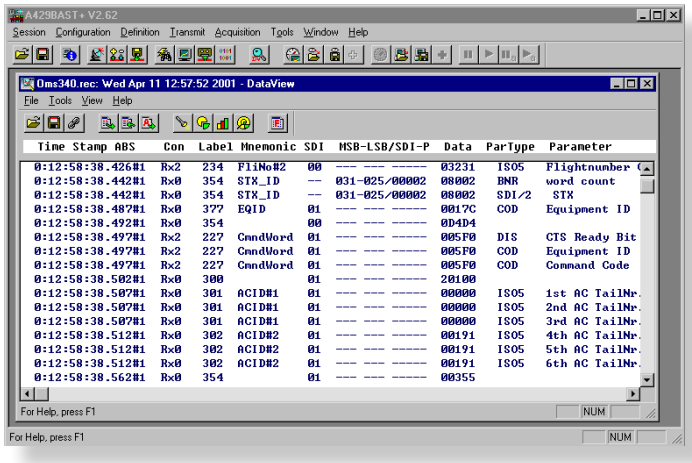
A429-BAST allows for free word format definition, concurrent usage of transmit, monitor/recording, and view functions. Additionally, it provides comprehensive data stimulation and analysis tools - all integrated in the intuitive graphical user interface of Microsoft Windows.

A429-BAST can be used in combination with various ARINC 429 interfaces and devices from TechSAT (see »Hardware Requirements« in the box to the right).



GraphMon instruments displaying the values of various A429 parameters

BAST Main Window with DataView tool



Technical Data

BAST Main Features

- Simultaneous multiple channel acquisition and transmission capabilities with configurable speed, parity, and Tx mode (burst vs. optimized)
- Unrestrained definition of word formats beyond ARINC 429 DITS standard
- Definition of UUT LRU database (pre-defined database on demand)
- Sub-labeling permitting multiple use of same label number
- Enhanced session and setup file concept allowing loading and saving of entire session scenario, including all windows and loaded files
- Transmission definition with automatic schedule check and optimization
- Quick Look of overall bus activity
- Raw and interpreted data monitoring
- Real-time graphical monitoring through mapping of parameters to virtual instruments (single/multiple scroll graphs, meter, single/multiple LEDs, vertical/horizontal bar)
- Data recording with optionally preset maximum label number, file size, and recording time
- Label acquisition filters and triggers on data
- Status Window providing overall system states information
- DataView offline tool: powerful stand-alone data browser and analyze utility providing data selections, multiple sort and search functions, ASCII export and import, and free configuration of the DataView displays down to parameter level
- Libraries available as DLL
- Comprehensive online help
- Transmit functions (sine, step, ramp, list) for dynamic data transmissions
- Data replay of previously recorded data
- Real-time re-transmission of manipulated (offset/factor/mask) receive data (logical error injection and label substitution)

Hardware Requirements

- 1 or more A429 interfaces
- Options available from TechSAT:
  - A429-USB-NT-2Tx/4Rx (PN 403557)
  - A429-USB-NT-4Tx/8Rx (PN 403568)

Operating System Options

- Windows 10

Part Number

- 202001

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