

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

A429-BAST

ARINC 429 Bus Analyzer and Simulation Tool

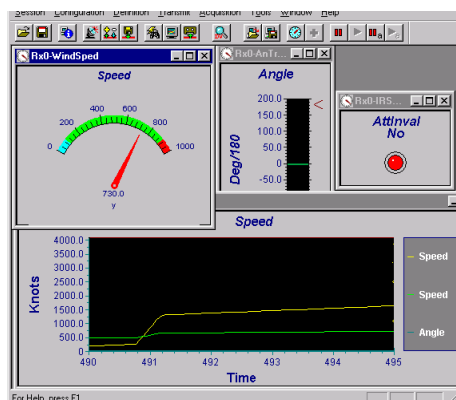
Application Scope

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.

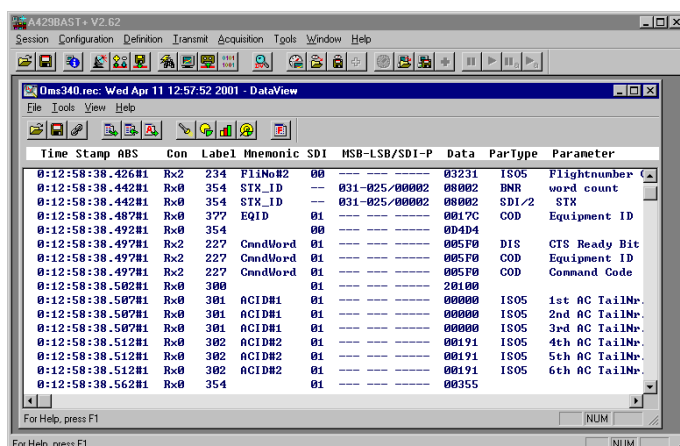
A429-BAST can be used in combination with various ARINC 429 interfaces and devices from TechSAT (see »Hardware Requirements« in box to the right).

The application runs on Windows XP, Windows 7 32 bit, and Windows 7 64 bit platforms.



GraphMon instruments displaying the values of various A429 parameters

BAST Main Window with DataView tool



Time	Stamp	ABS	Con	Label	Mnemonic	SDI	MSB-LSB/SDI-P	Data	ParType	Parameter
0:12:58:38.426#1	Rx2	234	F11No#2	00	---	---	---	03231	1S05	Flightnumber
0:12:58:38.442#1	Rx0	354	STR_ID	--	031-025/00002	08002	BNR	word count		
0:12:58:38.442#1	Rx0	354	STR_ID	--	031-025/00002	08002	SDI/2	STR		
0:12:58:38.487#1	Rx0	377	EQID	01	---	---	---	0017C	COD	Equipment ID
0:12:58:38.492#1	Rx0	354						004D4		
0:12:58:38.497#1	Rx2	227	CnddWord	01	---	---	---	005F0	DIS	CTS Ready Bit
0:12:58:38.497#1	Rx2	227	CnddWord	01	---	---	---	005F0	COD	Equipment ID
0:12:58:38.497#1	Rx2	227	CnddWord	01	---	---	---	005F0	COD	Command Code
0:12:58:38.502#1	Rx0	300						20100		
0:12:58:38.507#1	Rx0	301	ACID#1	01	---	---	---	00000	1S05	1st AC TailNr.
0:12:58:38.507#1	Rx0	301	ACID#1	01	---	---	---	00000	1S05	2nd AC TailNr.
0:12:58:38.507#1	Rx0	301	ACID#1	01	---	---	---	00000	1S05	3rd AC TailNr.
0:12:58:38.512#1	Rx0	302	ACID#2	01	---	---	---	00191	1S05	4th AC TailNr.
0:12:58:38.512#1	Rx0	302	ACID#2	01	---	---	---	00191	1S05	5th AC TailNr.
0:12:58:38.512#1	Rx0	302	ACID#2	01	---	---	---	00191	1S05	6th AC TailNr.
0:12:58:38.562#1	Rx0	354						00355		

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 XP
- Windows 7 32 bit or 64 bit

Part Number

- 202001