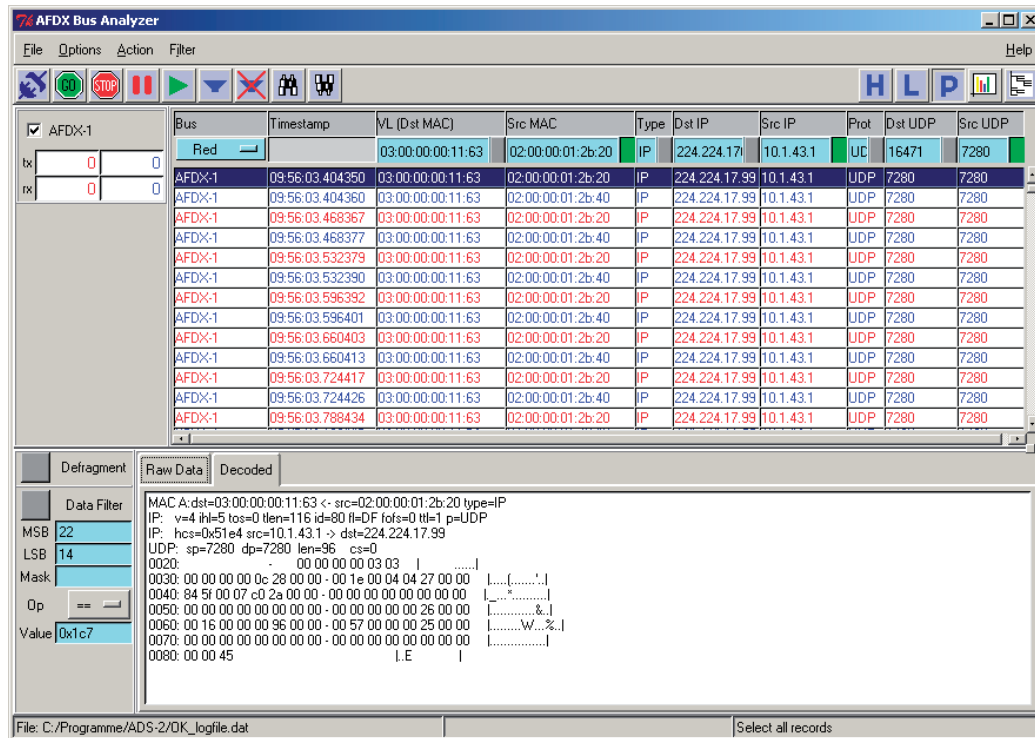


AFDX® BA AFDX® Bus Analyzer and Simulator



- Realtime and offline analysis of AFDX® message frames in Historic, Virtual Link, or Port mode
- Raw data visualization of protocol and payload data in hex format as well as decoded payload data interpretation according to ADS2 CVT points or Airbus ICD definitions
- Three frame timestamping options: absolute, relative and delta
- Powerful search and filter options, including a user-defined binary data mask
- Re-assembly of fragmented messages
- Compact, intuitive, point&click user interface





mastering
realtime
complexity

AFDX® BA AFDX® Bus Analyzer and Simulator

General

The AFDX® Bus Analyzer Tool named AFDX® BA is an add-on application to the ADS2 devSMARTbench GUI suite. It provides a powerful solution for companies engaged in the development, testing and maintenance of avionics end systems using the AFDX® (ARINC 664) bus protocol.

Bus Analyzer Functions

The AFDX® BA, which can be used both for realtime and offline analysis, comes with an ample collection of display and inspection functions, detailed in the adjacent column.

A special function allows for reassembling fragmented AFDX® messages. Through its well thought-out and intuitive design, the AFDX® BA single window GUI is absolutely user-friendly. All main functions can be invoked with one click on the appropriate icon. Filters can be selected via pop-up boxes, and activated or deactivated on the fly via check boxes. Embedded tabbed windows allow for instant alternation between raw data and interpreted data display.

Additional Value

manifold functions provided by that suite can also be used in combination with AFDX® BA – recording (with optional trigger), data transmission or replay with or without payload data manipulation and error insertion, and AFDX® end system simulation.

AFDX® BA Options box -

a one-stop configuration pop-up for setting the main display options. Many of these options can also be changed on the fly via the main window's icon buttons.

Technical Data

AFDX® BA Main Features

- Online as well as offline analysis
- Frame visualization in either historic mode (listing all received frames), VL mode (listing the most recent frame on each defined VL) or port mode (listing the most recent received frame on each defined port)
- Raw data visualization with protocol details (MAC, IP, UDP) and payload data in hex format
- Decoded data visualization with payload data decoded according to ADS2 CVT points or Airbus ICD definitions
- Data conversion of arbitrary data areas to either hex, dec or bin
- Powerful search and filter mechanisms with respect to MAC address (src/dst), IP address (src/dst), UDP (src/dst), protocol type, physical interface/network, integrity/redundancy errors, skew, BAG, etc.
- User-defined combination of filter/search options can be stored to file and re-loaded
- Binary data filter with MSB, LSB, data mask, comparison value and operator (equal, not equal, less/greater than) input controls
- Comprehensive online statistical data for lost/dropped frames, erroneous frames, frame latency and data rate (Mbit/s, frames/sec and msg/sec) either with respect to the entire network or for individual VLs
- Re-assembly of fragmented messages
- Absolute, relative or delta frame timestamps
- Recording tool with optional trigger control
- Transmission control (enable/disable, payload data modification and error insertion) of the individual Tx VL and messages
- Data replay with prior data manipulation (error insertion etc.) of pre-recorded data
- Complete integration in ADS2 with access to AFDX® data plotting, stimulation, etc., and optional combination with other I/O types (A429, MIL1553, discrete/analog, CAN, etc.)
- Intuitive, compact, point&click user interface

Hardware and Software Requirements

- At least 1 AFDX®-PM-2CTR interface • multiple interfaces supported
- Windows XP | Linux

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