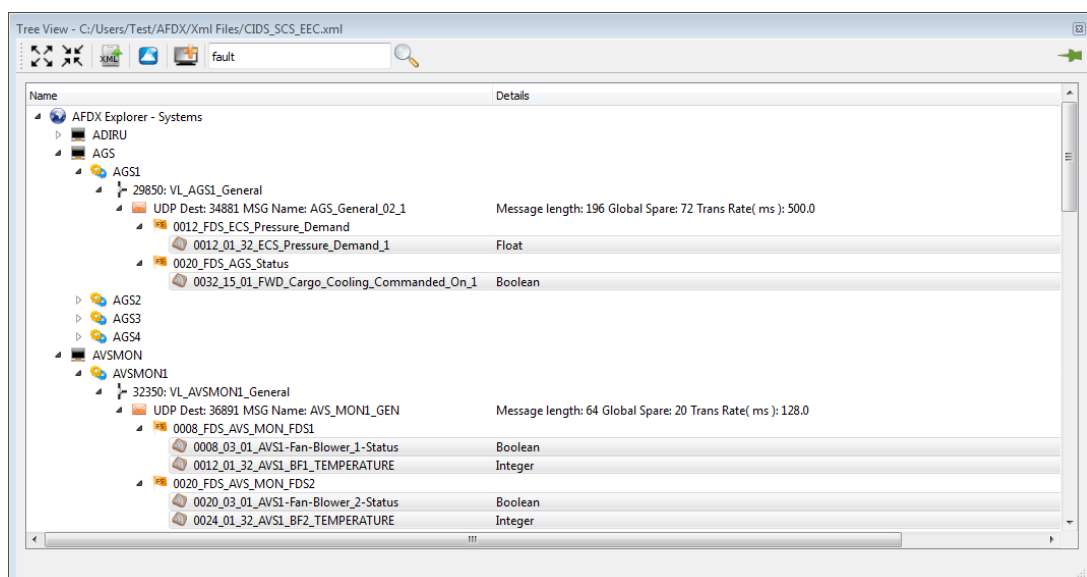




# AFDX Explorer

An AFDX® test tool for sending, monitoring, recording and triggering of AFDX data



Reach your target within minutes

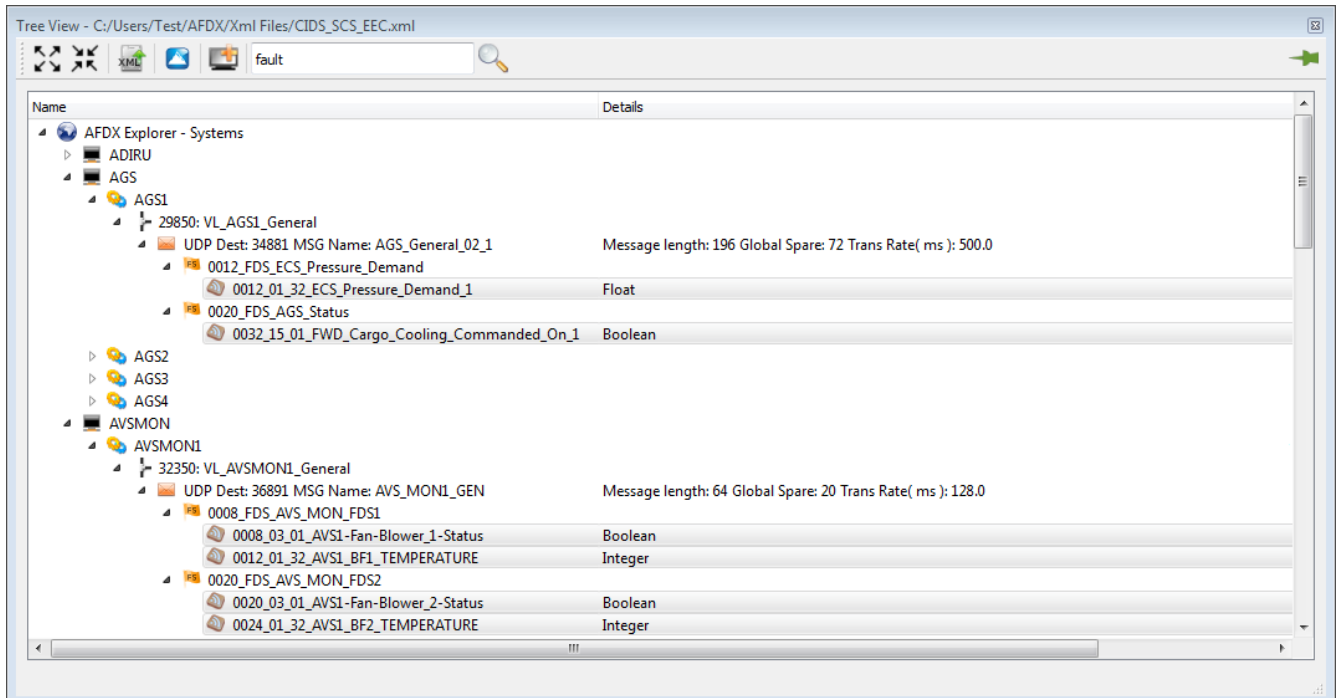
**Fast, easy and efficient**

**Tested and recommended by Airbus**



## Reach your target within minutes!

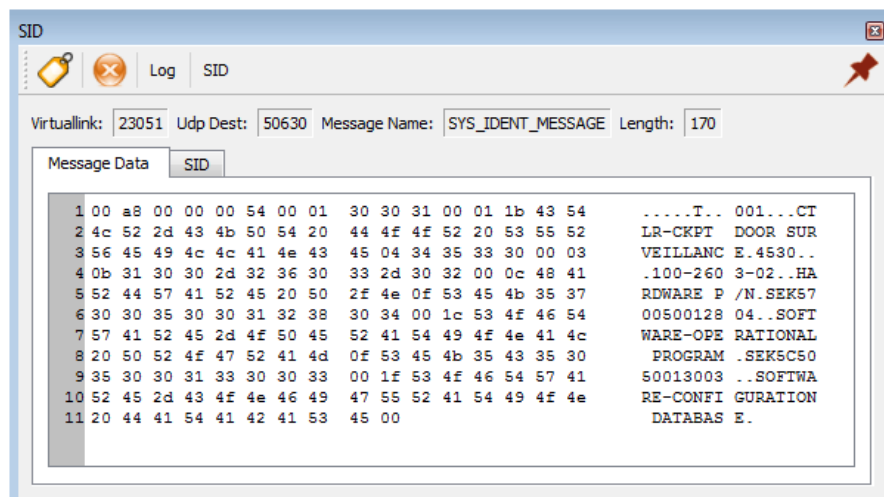
Load and convert original ICD files from Airbus.  
Explore the AFDX systems and their VLs, messages and signals.



Select the requested AFDX signals and display them in a ...

No.	MODULE	VL ID	UDP Port	Signal	Type	Unit	Rx Val	Rx FS	Timestamp	Tx Val	Tx FS	Value Range
1	10	AGS1	29850	ECS_Pressure_Demand_1	Float	%	54.7779998779	NO	15:12:42.037000	54.778		0.0 ... 100.0
2	20	AGS1	29850	FWD_Cargo_Cooling_Commanded_On_1	Boolean		1   Commanded_On	NO	15:12:42.037000	1	3	FALSE = 0 = Not_Commanded_On, TRUE = 1 = Commanded_On
3	30	AVSMON1	32350	AVS1-Fan-Blower_1-Status	Boolean		0   Blower_Fan_1_RUNNING	NO	15:13:36.029000	0	3	FALSE = 0 = Blower_Fan_1_RUNNING, TRUE = 1 = Blower_Fan_1_NOT_RUNNING
4	40	AVSMON1	32350	AVS1_BF1_TEMPERATURE	Integer	deg C	-48	NO	15:13:22.457000	-48	3	-55 ... 85
5	50	AVSMON1	32350	AVS1-Fan-Blower_2-Status	Boolean		1   Blower_Fan_2_NOT_RUNNING	NO	15:12:40.836000	1	3	FALSE = 0 = Blower_Fan_2_RUNNING, TRUE = 1 = Blower_Fan_2_NOT_RUNNING
6	60	AVSMON1	32350	AVS1_BF2_TEMPERATURE	Integer	deg C	1	NO	15:12:40.836000	1	3	-55 ... 85

... signal window incl. the value range and meaning of the value



... or in a raw format



SID

Log SID

Virtuallink: 23051 Udp Dest: 50630 Message Name: SYS\_IDENT\_MESSAGE Length: 170

Message Data SID

Message Length: 168  
Table Length: 84  
Version: 1  
BITE: 001  
LRUs: 1

-----

LRU: CTLR-CKPT DOOR SURVEILLANCE  
SN: 4530  
LRU Id count: 3

-----

Name: 100-2603-02  
PN: HARDWARE P/N

-----

Name: SEK570050012804  
PN: SOFTWARE-OPERATIONAL PROGRAM

-----

Name: SEK5C5050013003  
PN: SOFTWARE-CONFIGURATION DATABASE

-----

... or decoded clear view for **SID** or

BITE

Log BITE

Virtuallink: 23051 Udp Dest: 50200 Message Name: FAILURE\_MESSAGES Length: 22

Message Data BITE

Length: 20  
Side: 0  
BITE\_ID: 209  
CD: No complementary data  
Status: Detected Failure  
Mode: Transmission of failure messages in normal mode

FDE Event: 0  
FDCE Type: FWS  
FDCE Code: 0  
Failure Class: Class 6

Priority: Low  
I/O: No Input/Output reported  
3rd Probability: Probability not applicable  
Link 2-3: AND  
2nd Probability: 50%..60%  
Link 1-2: OR  
1st Probability: 50%..60%

LRU	LRU 1	LRU 2	LRU 3	LRU4
Decoding key:	1	2	4	0
Status:	Failed	Failed	Healthy	Healthy
Key:	0x0092	0x0065	0x6d61	0x0000

Number of occurrences: 1  
IMA: 0  
Fault Message Code: 1220  
Time: 5:40:36

... decoded clear view for **BITE**



## Simulations

CDLS\_General - activate TX function (traffic light)

☒ Tx enabled ☒ Active ☐ Csv Log Inactive

No.	MODULE	VL ID	UDP Port	Signal	Type	Unit	Rx Val	Rx FS	Timestamp	Tx Val	Tx FS	Value Range
1	10 CDLS	13651	43040	CDLCU_AFDX_CIDS_DOOR_STATUS_1	Boolean	1   Door CLOSED		NO	15:28:26.962000	1	3	FALSE = 0 = Door OPEN, TRUE = 1 = Door CLOSED
2	20 CDLS	13651	43040	CDLCU_AFDX_CDSS_ENTRY_REQUEST_1	Boolean	1   Routine or emergency access code entered		NO	15:28:26.962000	1	3	FALSE = 0 = Entry request not active, TRUE = 1 = Routine or emergency access code entered
3	30 CDLS	13651	43040	CDLCU_AFDX_FWS_ROUTIN_ACS_1	Boolean	1   ALERT active		NO	15:28:26.962000	1	3	FALSE = 0 = ALERT not active, TRUE = 1 = ALERT active
4	40 CDLS	13651	43040	CDLCU_AFDX_FWS_EMER_ACS_1	Boolean	1   ALERT active		NO	15:28:26.962000	1	3	FALSE = 0 = ALERT not active, TRUE = 1 = ALERT active
5	50 CDLS	13651	43040	CDLCU_AFDX_FWS_DOUBLE_STRIKE_FAILURE_1	Boolean	1   ALERT active		NO	15:28:26.962000	1	3	FALSE = 0 = ALERT not active, TRUE = 1 = ALERT active
6	60 CDLS	13651	43040	CDLCU_AFDX_FWS_PR_SNSR_REDUND_LOSS_1	Boolean	1   ALERT active		NO	15:28:26.962000	1	3	FALSE = 0 = ALERT not active, TRUE = 1 = ALERT active
7	70 CDLS	13651	43040	CDLCU_AFDX_FWS_PR_SNSR_FAULT_1	Boolean	1   ALERT active		NO	15:28:26.962000	1	3	FALSE = 0 = ALERT not active, TRUE = 1 = ALERT active
8	80 CDLS	13651	43040	CDLCU_AFDX_FWS_PR_SNSR_REDUND_LOSS_RESET_1	Boolean	1   Reset		NO	15:28:26.962000	1	3	FALSE = 0 = No Reset, TRUE = 1 = Reset

The AFDX Explorer is also able to send AFDX messages.

Event monitor

	Status	Module	VL ID	UDP Port	Signal	Type	Operator	Value
1	Stopped	EEC1A	6850	10161	Flex_Temperature_Signal_1A	Float	=	50
2	Stopped	EEC1A	6854	10171	Total_Air_Temperature_Signal_1A	Float	<	-30
3	Stopped	EEC1A	6854	10171	Total_Pressure_Signal_1A	Float	>	225
4	Stopped	EEC1A	6854	10171	HPC_Exit_Temperature_Signal_1A	Float	>=	287
5	Stopped	EEC1A	6854	10171	N2_Actual_Measured_Signal_1A	Float	<=	64
6	Stopped	EEC1A	6854	10171	N2_Actual_Selected_Signal_1A	Float	!=	65
7	Stopped	EEC1A	6854	10171	N3_Actual_Measured_Signal_1A	Float	in	78,85
8	Stopped	EEC1A	6854	10171	N3_Actual_Selected_Signal_1A	Float	out	78,85

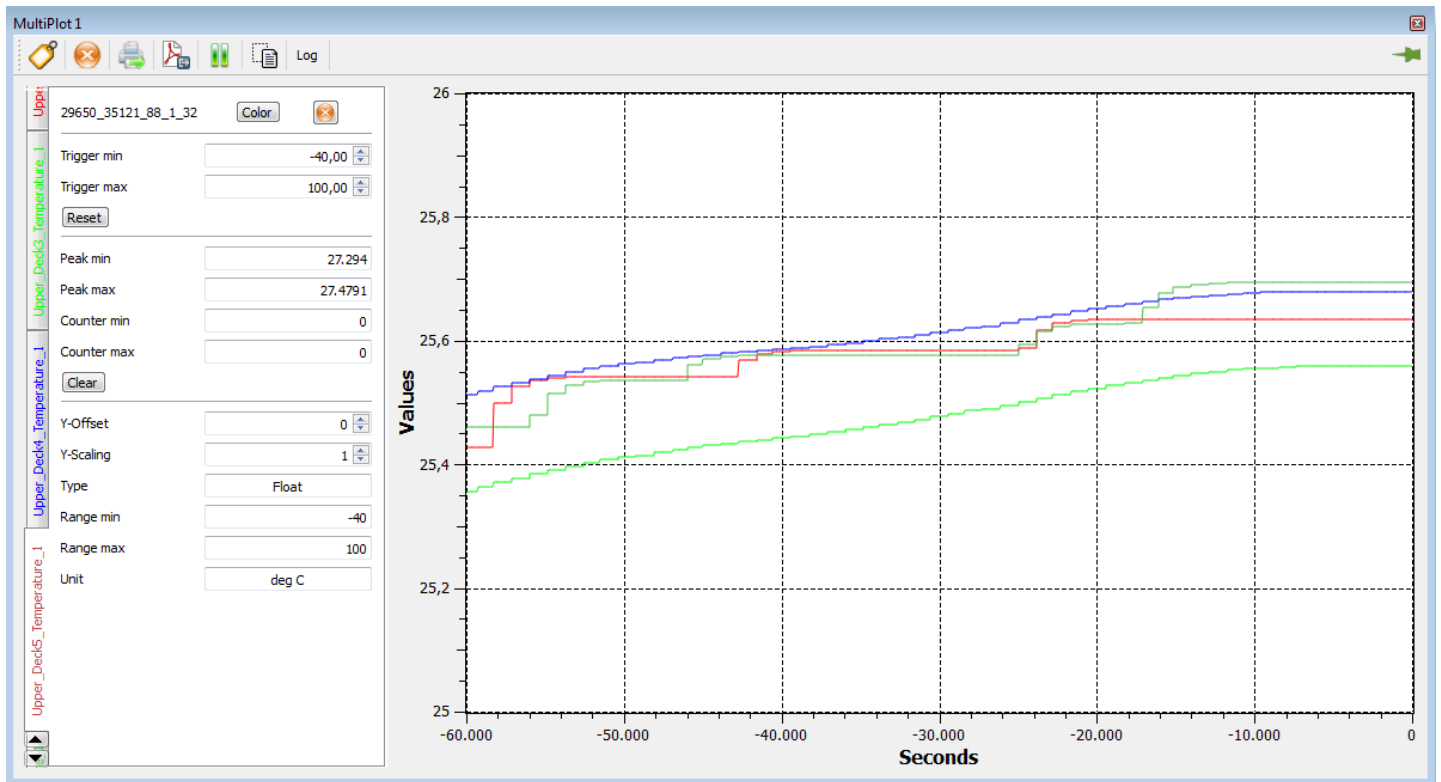
Use the event monitoring to detect and log sporadic signals.  
Different operators are available

Recorder

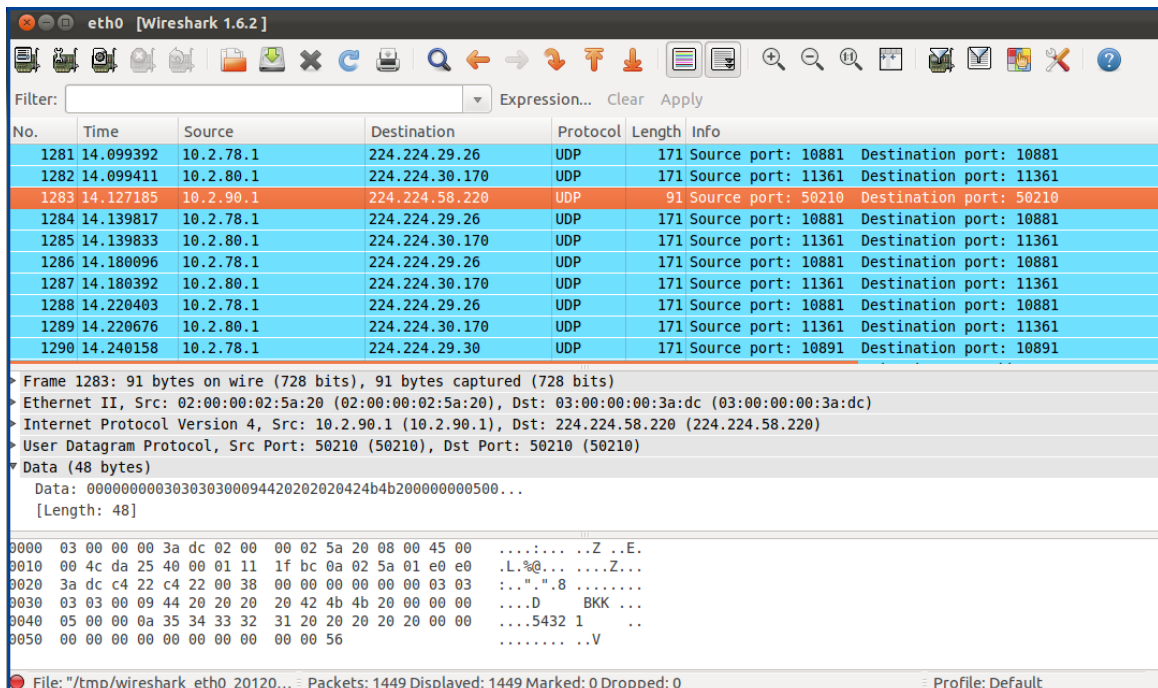
	Time elapsed	Virtual Link ID	UDP Port	Timestamp
1	0.0	23051	50200	2014/03/18 16:01:22
2	0.1	23051	50630	2014/03/18 16:01:22
3	0.2	15068	20015	2014/03/18 16:01:22
4	1.1	23051	50200	2014/03/18 16:01:23
5	1.2	15068	20015	2014/03/18 16:01:23
6	2.15	23051	50200	2014/03/18 16:01:24
7	2.35	15068	20015	2014/03/18 16:01:25
8	3.05	23051	50630	2014/03/18 16:01:25

AFDX Recorder is Idle

Record the AFDX data for a later replay and analyze  
incl. backstep and rebuild function of the previous data.



Visualize your data



Record the AFDX data with Wireshark for a later replay and analyze.  
The AFDX tools are able to replay the capture file from Wireshark.

