

# CANopen Logxaminer

## Automated trace analysis

### CANopen Logxaminer is a sophisticated log file analysis tool for CANopen networks

When it comes to long-time system monitoring or testing, a typical approach is to generate long-term logs containing CANopen traffic data covering multiple hours or sometimes even days. However, the often unsolved question is: how do I efficiently examine a log file with possibly 100s of thousands of CANopen messages? A typical approach is to load the log file into a spread sheet program and do manual searches, color highlighting and sometimes run custom scripts or macros to help locating issues.

EmSA's Logxaminer helps with the post analysis of such recordings. It creates statistics and event lists on a configurable level of detail. This drastically shortens the time to get "real results" out of a CANopen log recording made. Statistics are not only produced globally, there are dedicated statistic views for each node present on the network during the recording.

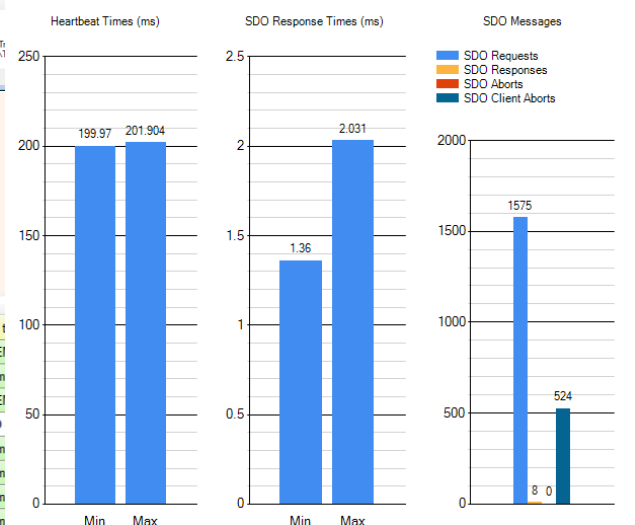
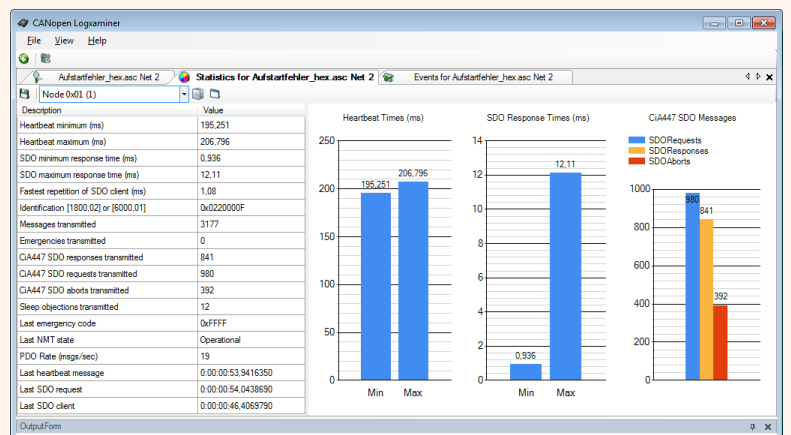
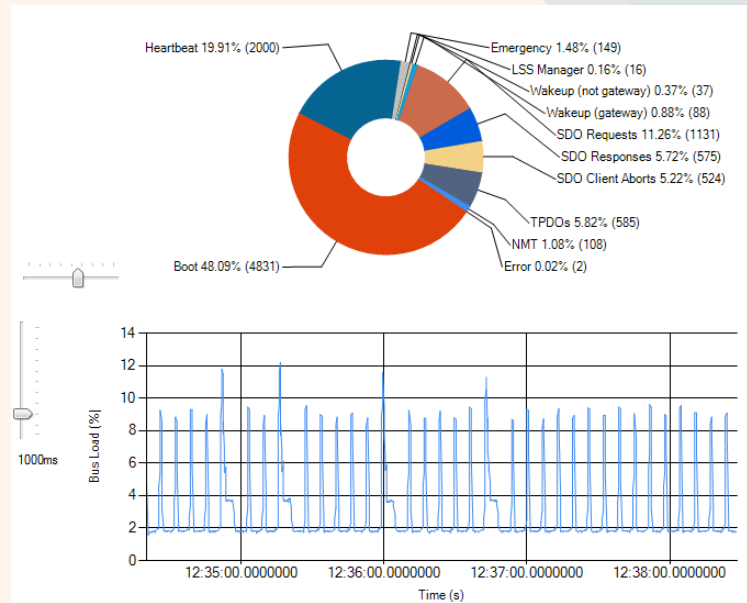
Per node statistics include:

- Minimum/maximum heartbeat time
- Minimum/maximum SDO response time
- Number of bootups
- Number of emergencies transmitted
- PDO message rate

The Logxaminer not only produces statistics, it also generates an event listing with all important system events. The event listing filters information from the log including:

- Node ID assignment (by LSS)
- Bootups (expected/unexpected)
- Emergencies
- SDO Aborts
- Unexpected messages
- Errors in LSS or SDO sequences

Time	Number	Type	Details
0:12:34:19.2547...	10	Unexpected	NMTmsg t
0:12:34:19.2557...	11	Important	Node 1 E
0:12:34:19.2564...	12	Important	Boot-up m
0:12:34:19.2578...	13	Important	Node 1 E
0:12:34:19.2588...	14	Standard	First SDO
0:12:34:19.2603...	15	Important	Boot-up m
0:12:34:19.2854...	16	Important	Boot-up m
0:12:34:19.3716...	17	Important	Boot-up m
0:12:34:19.3859...	18	Important	Boot-up m
0:12:34:19.4251...	19	Important	Boot-up msg node 2 : Time since reset: 170ms
0:12:34:19.4256...	20	Important	Boot-up msg node 8 : Time since reset: 171ms
0:12:34:19.4266...	21	Important	
0:12:34:19.4276...	22	Important	
0:12:34:19.4306...	23	Error	
0:12:34:19.4315...	24	Error	
0:12:34:19.4323...	25	Error	



Order code

ES-SFT-COXM: CANopen Logxaminer