

K-Line

ASC Logging Format

Specification

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Document Management

Revision list

Version	Date	Editor	Section	Changes, comments
1.0	2011-02-02	Trs	All	Creation for CANoe/CANalyzer 7.5 SP2
1.1	2014-12-09	Mw	3.4	Correction: length in case of hexadecimal mode and Port syntax
1.1.1	2016-12-01	Mom	all	CI and Layout

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2 Overview

This document specifies the format of events in the CANoe/CANalyzer ASC logging used for K-Line byte events.

3 K-Line communication observer

3.1 Header

Events can either be recorded in hexadecimal ("base hex") or decimal mode ("base dec"). Timestamps are written absolute ("timestamps absolute") or relative to the preceding event ("timestamps relative").

3.2 Information as comment

In addition to the bytes sent and received on K-Line, CANoe/CANalyzer also displays the "messages" assembled from these bytes. These messages are documented in the log file only for the convenience of the reader, i.e. CANoe/CANalyzer does NOT process this information in any way when the log file is replayed. Example (lines have been wrapped):

```
date Wed Feb 2 03:15:29 pm 2011
base hex timestamps absolute
no internal events logged
// version 7.5.0
6.695000e COM2 Tx 5 1 97
8.901000e COM2 Rx 10400 1 55
8.907000e COM2 Rx 10400 1 6B
8.913000e COM2 Rx 10400 1 8F
8.939000e COM2 Tx 10400 1 70
8.970000e COM2 Rx 10400 1 68
9.026000e COM2 Tx 10400 6 82 61 11 10 86 8A
// K-Line: 9.026000 COM2 Tx 10400 11 61 6 82 61 11 10 86 8A
9.069000 COM2 Rx 10400 6 82 11 61 50 86 CA
// K-Line: 9.069000 COM2 Rx 10400 61 11 6 82 11 61 50 86 CA
12.257000 COM2 Tx 10400 6 82 61 11 1A 9B A9
// K-Line: 12.257000 COM2 Tx 10400 11 61 6 82 61 11 1A 9B A9
12.315000 COM2 Rx 10400 7 83 11 61 7F 1A 78 06
// K-Line: 12.315000 COM2 Rx 10400 61 11 7 83 11 61 7F 1A 78 06
12.365000 COM2 Rx 10400 6 83 11 61 7F 1A 78
12.366000 COM2 Rx 10400 1 06
// K-Line: 12.366000 COM2 Rx 10400 61 11 7 83 11 61 7F 1A 78 06
12.404000 COM2 Rx 10400 14 B0 11 61 5A 9B 37 4C 36 39 32 30 38 37 30
12.419000 COM2 Rx 10400 14 41 20 20 31 36 31 30 03 00 1B D1 00 00 00
12.433000 COM2 Rx 10400 14 00 00 00 4B 4F 4D 42 49 49 4E 53 54 52 55
12.448000 COM2 Rx 10400 10 4D 45 4E 54 20 52 42 34 20 D5
// K-Line: 12.448000 COM2 Rx 10400 61 11 52 B0 11 61 5A 9B 37 4C 36 39 32 30 38
37 30 41 20 20 31 36 31 30 03 00 1B D1 00 00 00 00 00 00 4B 4F 4D 42 49 49 4E 53 54 52 55 4D
45 4E 54 20 52 42 34 20 D5
```

3.3 Events

The section lists all K-Line observer events in CANoe/CANalyzer ASCII logging. See section 3.4 for an explanation of the symbols.

3.3.1 Byte event

The bytes received or sent on the serial port are listed in this format:

Format	<time> <port> <direction> <baudrate> <length> <data>
Example	12.315000 COM2 Rx 10400 7 83 11 61 7F 1A 78 06

3.3.2 Message event

Every K-Line message comment is prefixed with basic information:

Format	"// K-Line: " <time> <port> <direction> <baudrate> <source> <destination> <length> <data>
Example	// K-Line: 12.315000 COM2 Rx 10400 61 11 7 83 11 61 7F 1A 78 06

3.4 Symbols

Explanation of symbols used in descriptions above.

Symbol	Width in chars (hex)	Width in chars (dec)	Meaning	Range	Example (hex)
<time>	>=1	>=1	Time of reception of the bytes, i.e. the <i>end</i> of a byte sequence	-	12.315000
<port>	3-9	3-9	COM n for serial port n , or K-Linen for LINcab n	$1 < n < 100$	"COM2" "K-Line1"
<direction>	2	2	Were the bytes sent or received?	"Tx", "Rx"	"Tx"
<baudrate>	1-6	1-6	Rate the data was transferred on	>= 5	10400
<source>	>=1	>=1	Source address	Numeric or symbolic	"Any_ecu_example"
<destination>	>=1	>=1	Destination address	Numeric or symbolic	"<tester>"
<length>	-	1-4	Number of bytes transferred	1...1000	7
<data>	>=2	>=3	Bytes transported within this CAN message	...	83 11