

PEAK LIN LTRC File Format

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Version 1.0 (PLIN-View Pro 1.0)

Example

```

; $FILEVERSION=1.0
; $STARTTIME=8708618495
;
; C:\TraceFile.ltrc
;
; Start time: 26.03.2010 11:06:08
; PLIN-Net:
;
; Direction description:
; ~~~~~
; Pub = Publisher Frame
; Sub = Subscriber Frame
; SubAL = Subscriber Auto Length Frame
;
; Checksum Type description:
; ~~~~~
; CL = Classic
; EH = Enhanced
; AU = Auto
;
; Error Code description:
; ~~~~~
; CK = Checksum Error
; GS = GroundShort Error
; P0 = IdParityBit0 Error
; P1 = IdParityBit1 Error
; IS = InconsistentSynch Error
; SR = SlaveNOTResponding Error
; SD = SlotDelay Error
; TO = Timeout Error
; VS = VBatShort Error
;
; Columns description:
; ~~~~~
; +Frame Number
; |          +Timestamp (microseconds)
; |          |          +Direction
; |          |          +Frame-ID (hex)
; |          |          |          +Frame Length
; |          |          |          |          +Data bytes (hex)
; |          |          |          |          |          +Checksum
; |          |          |          |          |          |          +Checksum Type
; |          |          |          |          |          |          |          +Error Code
; |          |          |          |          |          |          |          |
; +---+---+-----+---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+
1)          11307    Pub  05  2  00  00          7A  EH
2)          36305    Sub  02  2  --  --          00  EH  SR/TO
3)          61305    Sub  07  8  --  --          00  EH  SR/TO
4)          86305    Pub  05  2  00  00          7A  EH
5)         111304    Sub  02  2  --  --          00  EH  SR/TO
6)         136303    Sub  07  8  C1 38  FE FF 3F F0 3E 6D  FC  EH  Ck
7)         161304    Pub  05  2  00  00          7A  EH
8)         186302    Sub  02  2  FC  7F          41  EH

```

General

Comment lines prefixed with a semicolon, except \$-keywords.

\$STARTTIME keyword stores the start timestamp of the trace file.

Columns are separated with blanks.

One frame with or without error codes per line.

Columns

- 1) Index of recorded frame.
- 2) Time offset since start of the trace (\$STARTTIME). Resolution: 1 microsecond.

- 3) Frame direction:
 - “Pub”: Publisher Frame
 - “Sub”: Subscriber Frame
 - “SubAL”: Subscriber Auto Length Frame
- 4) Frame-ID (Hex):
 - 2 digits for Frame-IDs (00 – 3F).
- 5) Data Length of frame (1-8).
- 6) Data Bytes (1-8):
 - For any error codes: All data bytes filled with “--”.
- 7) Checksum:
 - Checksum of the frame’s data bytes.
- 8) Checksum Type:
 - “CL”: Classic Checksum
 - “EH”: Enhanced Checksum
 - “AU”: Auto Checksum
- 9) Error Code:
 - “CK”: Checksum invalid
 - “GS”: Bus shorted to ground
 - “P0”: Wrong parity bit 0
 - “P1”: Wrong parity bit 1
 - “IS”: Error regarding synchronization field
 - “SR”: Slave doesn’t answer in time
 - “SD”: A slot time (delay) was too small
 - “TO”: A message timeout was reached
 - “VS”: Bus shorted to Vbat

Version 1.1 (PLIN-View Pro 1.1.4)

Example

```

; $FILEVERSION=1.1
; $STARTTIME=40694.6971444676
;
; C:\TraceFile.ltrc
;
; Start time: 2011-05-31 16:43:53.282
;
; Direction description:
; ~~~~~
; Pub = Publisher Frame
; Sub = Subscriber Frame
; SubAL = Subscriber Auto Length Frame
;
; Checksum Type description:
; ~~~~~
; CL = Classic
; EH = Enhanced
; AU = Auto
;
; Error Code description:
; ~~~~~
; CK = Checksum Error
; GS = GroundShort Error
; P0 = IdParityBit0 Error
; P1 = IdParityBit1 Error
; IS = InconsistentSynch Error
; SR = SlaveNotResponding Error
; SD = SlotDelay Error
; TO = Timeout Error
; VS = VBatShort Error
;
; Columns description:
; ~~~~~
; +Frame Number
; |          +Timestamp (microseconds)
; |          |          +Direction
; |          |          |          +Frame-ID (hex)
; |          |          |          |          +Frame Length
; |          |          |          |          |          +Data bytes (hex)
; |          |          |          |          |          |          +Checksum (hex)
; |          |          |          |          |          |          |          +Checksum Type
; |          |          |          |          |          |          |          |          +Error Code
; |          |          |          |          |          |          |          |          |
; +---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+
1)          756186   Sub   02  2  --  --          00  EH  SR/TO
2)          781185   Sub   01  8  --  --          00  EH  SR/TO
3)          806186   Pub   05  2  00  00          7A  EH
4)          831184   Sub   02  2  --  --          00  EH  SR/TO
5)          856183   Sub   01  8  C1  38  FE  FF  3F  F0  3E  6D  FC  EH  CK
6)          881183   Pub   05  2  00  00          7A  EH
7)          906182   Sub   02  2  FC  7F          41  EH
8)          931181   Sub   01  8  C1  38  FE  FF  3F  F0  E6  6A  C3  EH

```

General

Comment lines prefixed with a semicolon, except \$-keywords.

Columns are separated with blanks.

One frame with or without error codes per line.

Changes compared to Version 1.0

1) \$STARTTIME keyword now stores the absolute start time of the trace:

Format: Floating point, decimal separator is a point.

Value: Integral part = Number of days that have passed since 12/30/1899.

Fractional Part = Fraction of a 24-hour day that has elapsed, resolution is 1 millisecond.

- 2) Comment "Start time" now stored in ISO 8601:2004 format.
- 3) Comment "PLIN-Net:" removed.
- 4) Wrong error code label "Ck" in recorded frames replaced with "CK".

Columns

- 1) Index of recorded frame.
- 2) Time offset since start of the trace (\$STARTTIME). Resolution: 1 microsecond.
- 3) Frame direction:
 - "Pub": Publisher Frame
 - "Sub": Subscriber Frame
 - "SubAL": Subscriber Auto Length Frame
- 4) Frame-ID (Hex):
 - 2 digits for Frame-IDs (00 – 3F).
- 5) Data Length of frame (1-8).
- 6) Data Bytes (1-8):
 - For any error codes: All data bytes filled with "--".
- 7) Checksum:
 - Checksum of the frame's data bytes.
- 8) Checksum Type:
 - "CL": Classic Checksum
 - "EH": Enhanced Checksum
 - "AU": Auto Checksum
- 9) Error Code:
 - "CK": Checksum invalid
 - "GS": Bus shorted to ground
 - "P0": Wrong parity bit 0
 - "P1": Wrong parity bit 1
 - "IS": Error regarding synchronization field
 - "SR": Slave doesn't answer in time
 - "SD": A slot time (delay) was too small
 - "TO": A message timeout was reached
 - "VS": Bus shorted to Vbat

Version 1.2 (PLIN-View Pro 3.0)

Example

```

; $FILEVERSION=1.2
; $STARTTIME=44824.3776155093
;
; C:\TraceFile.ltrc
;
; Start time: 2022-09-20 09:03:45.980
;
; Direction description:
; ~~~~~
; Pub   = Publisher Frame
; Sub   = Subscriber Frame
; SubAL = Subscriber Auto Length Frame
;
; Checksum Type description:
; ~~~~~
; CL = Classic
; EH = Enhanced
; AU = Auto
;
; Error Code description:
; ~~~~~
; CK = Checksum Error
; GS = GroundShort Error
; P0 = IdParityBit0 Error
; P1 = IdParityBit1 Error
; IS = InconsistentSynch Error
; SR = SlaveNotResponding Error
; SD = SlotDelay Error
; TO = Timeout Error
; VS = VBatShort Error
;
; Columns decription:
; ~~~~~
; +Frame Number
; |           +Timestamp (microseconds)
; |           |           +Direction
; |           |           |           +Frame-ID (hex)
; |           |           |           +Frame Length
; |           |           |           |           +Data bytes (hex) or Bus event
; |           |           |           |           |           +Checksum (hex)
; |           |           |           |           |           |           +Checksum Type
; |           |           |           |           |           |           |           +Error Code
; |           |           |           |           |           |           |           |
+---+-----+-----+---+--+---+-----+-----+---+-----+-----+---+-----+-----+
1)           1841968   --- -- - Bus Wake Up           -- --
2)           2576094   Sub 02 2 -- --           00 EH SR/TO
3)           3078112   Pub 01 4 00 00 00 00           3E EH
4)           3580228   Sub 02 2 00 00           BD EH
5)           4082246   Pub 01 4 01 FF 00 00           3D EH
6)           4583361   Sub 02 2 11 22           8A EH
7)           5087379   Pub 01 4 02 00 00 00           3C EH
8)           9091922   --- -- - Bus Sleep           -- --

```

General

Comment lines prefixed with a semicolon, except \$-keywords.

Columns are separated with blanks.

One frame with or without error codes per line.

Changes compared to Version 1.1

- 1) Column “Data bytes (hex)” renamed to “Data bytes (hex) or Bus event”

Columns

- 1) Index of recorded frame.
- 2) Time offset since start of the trace (\$STARTTIME). Resolution: 1 microsecond.
- 3) Frame direction:
 - “Pub”: Publisher Frame
 - “Sub”: Subscriber Frame
 - “SubAL”: Subscriber Auto Length Frame
- 4) Frame-ID (Hex):
 - 2 digits for Frame-IDs (00 – 3F).
- 5) Data Length of frame (1-8).
- 6) Data Bytes (1-8) or Bus Event:
 - For any error codes: All data bytes filled with “--”.
 - For events: Contains the name of the event.
 - “Bus Sleep”
 - “Bus Wake Up”
 - “Client Queue Overrun”
 - “Overrun”
 - If recorded frame is a bus event, the columns “Direction”, “Frame-ID”, “Frame Length”, “Checksum” and “Checksum Type” contain no data values.
- 7) Checksum:
 - Checksum of the frame’s data bytes.
- 8) Checksum Type:
 - “CL”: Classic Checksum
 - “EH”: Enhanced Checksum
 - “AU”: Auto Checksum
- 9) Error Code:
 - “CK”: Checksum invalid
 - “GS”: Bus shorted to ground
 - “P0”: Wrong parity bit 0
 - “P1”: Wrong parity bit 1
 - “IS”: Error regarding synchronization field
 - “SR”: Slave doesn’t answer in time
 - “SD”: A slot time (delay) was too small
 - “TO”: A message timeout was reached
 - “VS”: Bus shorted to Vbat