



blue PiraT 2

TraceFile Format

Overview

Version: 1.2.0

Modification date: 29 January 2014

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Revision history

Version	Date	Modification (s)	Author
0.0.1	02.12.2011	Erste Version	TOb
1.0.0	04.09.2012	FW Release v1.7.2	TOb
1.1.0	06.06.2013	FW Release v1.8.1	Mvp
1.2.0	29.01.2014	FW Release v1.9.1	StBu

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1 Introduction

1.1 Object of the document

This document describes the utilisation of the blue PiraT 2 TraceFile format

1.2 Scope

This document is essential for the EN (development), QS (quality) and PM (Project management) departments.

1.3 Definitions and abbreviations

TraceFile Binary data with traces

1.4 References

This specification makes references to the following documents :

[1]	bP2_specification_reference_database 1.1.0.pdf	v1.1.0
[2]	Telemotive Trace (TMT) File Format 3.6.0.pdf	v3.6.0
[3]	Extended Telemotive Trace (XTMT) File Format 1.1.2.pdf	v1.1.2
[4]	Telemotive ASCII Format_v1.4.1.pdf	v1.4.1

2 Overview

The blue PiraT 2 data logger writes the recorded data to files with the binary, proprietary Telemotive Trace File Format.

Meta information regarding the created trace files and the logger events occurred while capturing trace data, is written to a SQLITE database file, called "reference database".

The blue PiraT 2 client and its library have the ability of downloading the trace files and to use the information contained in the reference database for further processing.

These documents describe the Telemotive AG Trace File Format:

1. tmt (Telemotive AG TraceFile)
2. xtmt (Extended Telemotive AG TraceFile)

3 Details

3.1 Telemotive TraceFile / .tmt

The blue PiraT 2 writes the recorded data into a .tmt file. Since the logger firmware executes different processes for different data sources. Each logging process is associated to one data source and writes this data to a data stream that is saved as .tmt file on the logger's hard disk. A .tmt file therefore does not contain all trace data but only the trace data associated with a particular data source.

The following data sources are supported:

- ethernet (Ethernet data)
- fpgaa (Analogue, LIN, UART)
- fpgab (CAN)
- fpgac (CAN)
- remote (Audio)
- oem0 (MOST150, FlexRay, Analogue)
- oem1 (MOST25, CAN, FlexRay)
- CCP/XCP
- GPS

The storing of trace data in different files is referred to as 'unsorted' trace data.

In addition to the trace data the logger creates a database [1] containing detailed information about the trace files as well as events.

3.2 Extended Telemotive TraceFile / .xtmt

Extended Telemotive Trace Files are stored with the .xtmt extension. They differ from the logger's .tmt files by additional meta information (configuration...) about the file and its content.

3.3 TraceFile feature overview

Feature	tmt	xtmt
Metadata (Configuration...)	Yes	Yes
Extended Metadata (Configuration, interface summary, event overview...)	No	Yes
Generated by	Logger	Client
Client requires the reference database for further processing	Yes	Yes
TraceFile Viewer	Yes	Yes

Table 1: feature overview tmt / xtmt