MAGNA

BLUEPIRAT
:BY MAGNA

Table of contents

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2 PRODUCT LIABILITY

2.1   Terms and Conditions of Sale and Delivery

The General Terms and Conditions of Sale and Delivery of MAGNA Telemotive GmbH can be found on our website (https://telemotive.magna.com) under imprint.

2.2   Important operating instructions

Please note these important instructions about the handling of devices of MAGNA Telemotive GmbH!

There's a linux system running on the devices and sometimes when the device has a dirty shutdown due to a power break down or unplugging the power supply, the system is corrupt from this time. You know this situation from a PC, when you switch it off some times it maybe will not work any more or show you some mistakes.

In most cases this issue is catched up and repaired by the linux system we use, but sometimes it can happen that the system on the logger is damaged and there's no access to the device any more.

We are optimizing the handling of corrupted systems permanently and are integrating some new enhancements regarding this kind of issues with every new release to save the system. But we can't make the system for 100% save against these influences.

So please use always the provided mechanism for shutting down the device or the implemented standby function in which the device shutting down when no traffic is detected any more in an adjustable time.

3 Overview

This user guide describes the feature of the license **MOST150 Streaming** for the data loggers

- BLUEPIRAT Rapid
- BLUEPIRAT Mini
- BLUEPIRAT2 5E
- BLUEPIRAT2

of MAGNA Telemotive GmbH. This license enables the logging of:

- MOST150 synchronous/isochronous data
- MOST150 allocation messages without streaming data

This user guide describes the configuration and usage of this feature. The general configuration is described in the user guides of the used data logger as well as the System Client, which is valid together.

This document refers to **firmware version 05.00.01** and the **System Client** from **version 5.0.1**. Some features depending on model and feature license or may not be available in older versions.

Software updates and user guides for other, optional, licensed enhancements are available in our Service Center. (Please find the address under Contact at the last page.)

To ensure the most reliable operation of your system as possible, please make sure to use always current firmware and software versions.

4 System requirements

The communication between bus systems and control units is monitored, and relevant data can be recorded very precisely with the data logger. The collected data are stored to the logger and can be downloaded via Ethernet to a PC.

Control Unit
You need a Windows based Laptop or PC to configure the devices by the **System Client**. It also allows to save the recorded data and to use them offline later.

System Client
Update, configure and read out your data loggers with System Client. Save time with central administration of your software products. System Client is your key to success for using all our products!

BLUEPIRAT Rapid
High-performance multi-bus data logger for modern vehicle architectures based on Automotive Ethernet. With up to 3 TB internal memory and supreme recording performance. Robust and compact for in-vehicle use.

Due to the increasing complexity of driver assistance systems and the growing number of infotainment applications, the data traffic between ECUs in the most recent vehicle models has grown significantly. Consequently, besides the various classic bus systems, modern vehicle architectures are based on Automotive Ethernet according to BroadR-Reach / IEEE 802.3 100(0)Base-T1, which can keep up with the growing bandwidth demand.

Power Backup
The **Power Backup** is a special component, which is designed to bridge short voltage interruptions. It is connected upstream of the data loggers on the voltage side, and must be connected to them via a dedicated LS CAN port for controlling.

BLUEPIRAT Mini
The **BLUEPIRAT Mini** is smallest data logger in the world with an outstanding functional scope. It offers a wide range of interfaces, stable temperature behavior, very low energy consumption, four GBit Ethernet ports, and much more. Different blue PiraT Mini can be expanded flexibly to one cluster and therefore handled very easily by using System Link.

BLUEPIRAT2
The **BLUEPIRAT2** is our top-class all-in-one data logger. Seven models cover a wide range of interfaces. (Device is EOL)

BLUEPIRAT2 5E
Additionally, the **BLUEPIRAT2 5E** offers improved power management and power backup, five integrated Ethernet ports and super-fast start-up behavior. The BLUEPIRAT2 can be expanded flexibly via System Link. (Device is EOL)

Remote Control Touch (optional)
Operate your BLUEPIRAT data loggers safely and comfortably from the driver's or passenger seat. Via System Link our new remote control becomes part of your logger network. One remote control can handle all connected loggers.

BLUEPIRAT Remote (optional)
While Remote Control Touch is just a control unit for handling unique devices or a TSL network, the blue PiraT Remote additional has logger functionality by offering internal storage and some interfaces. (Device is EOL)

License

For the additional feature **MOST150 Streaming** an installed license is required. Settings for licensed features can be performed with a valid license only.

If you need a license for your logger, please contact our sales department (please find the address under contact at the last page).

4.1 Further manuals

Beside this user Manual, we offer the main manuals for our System Client as well as for the different data logger generations in our Service Center at

https://sc.telemotive.de/bluepirat.

Our licensed enhancements have own manuals which are stored in the Service Center too. You will find a list of these enhancements in the user manuals in the chapter **Additional features by optional licenses**.

Under the following links, you always will find the latest versions:

User manual for the System Client
https://sc.telemotive.de/4/uploads/media/SystemClient_UserManual.pdf

User manual for BLUEPIRAT Rapid
https://sc.telemotive.de/4/uploads/media/BLUEPIRAT_Rapid_UserManual.pdf

User manual for BLUEPIRAT Mini
https://sc.telemotive.de/4/uploads/media/BLUEPIRAT_Mini_UserManual.pdf

User manual for Remote Control Touch
https://sc.telemotive.de/4/uploads/media/RCTouch_UserGuide.pdf

User manual for BLUEPIRAT Power Backup
https://sc.telemotive.de/4/uploads/media/BLUEPIRAT_Power_Backup_UserManual.pdf

User manual for BLUEPIRAT2 / BLUEPIRAT2 5E
https://sc.telemotive.de/4/uploads/media/BLUEPIRAT2_UserManual.pdf

User manual for BLUEPIRAT Remote
https://sc.telemotive.de/4/uploads/media/BLUEPIRAT_Remote_UserGuide.pdf

For having an easy access if necessary, the most important manuals are linked in the client under the menu item [Help] and are reachable easily from there.
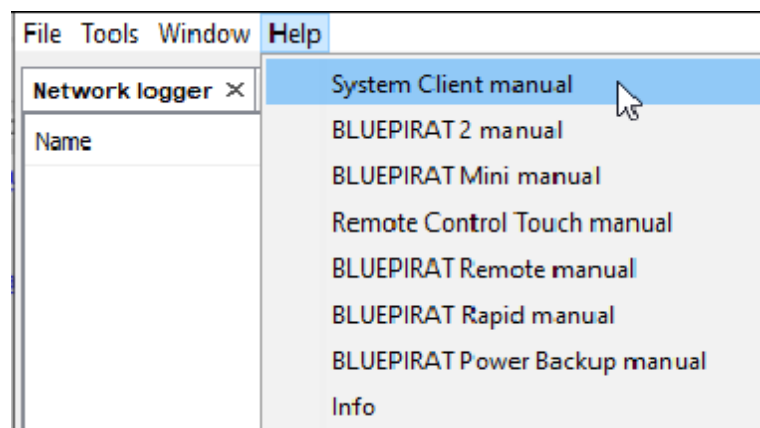

Figure 4.1: links to the manuals in the System Client

4.2 Additional features by optional licenses

Additional features can be activated by purchasing and installing licenses. Licenses can be ordered at our sales team. You find the user guides for these additional features in our Service Center. Currently the following licensed features are available.

Feature	Description
Camera Link	video recording via video server or network cameras Till now, only some cameras from AXIS were supported
WLAN	supporting wireless LAN / WiFi (802.11, 802.11a, 802.11n), *(802.11ac from FW 02.04.01)*
GPS logging	tracking of GPS data
Measurements with CCP	CAN Calibration Protocol
Measurements with XCP	Universal Measurement and Calibration Protocol Currently the functionality for Ethernet (XCP on Ethernet) and the CAN-bus (XCP on CAN) are available.
MOST150 Streaming	logging MOST150 synchronous/isochronous data
MLBevo / QXDM	The license Connected-Gateway MLBevo enables the recording of data of the ATOP control unit MLBevo via USB to the Magna Telemotive data logger and convert these data with the System Client. *(from FW 02.03.01)* Additional this license allows to log Qualcomm QXDM logs via USB *(from FW 03.06.XX)*
Download Terminal	The in the System Client integrated Download Terminal allows an automatization of configured tasks for a defined group of devices. *(from FW 02.03.01)*
Test automation	Interface for connecting to test automation tools. At the moment, the sending of CAN messages is supported. *(from FW 02.04.01)*
Cellular network	Allows the logger to send status messages over cellular network. *(from FW 03.01.01)*
Firmware Care	As part of the " Service Product Firmware Care ", new software and firmware versions are made available for download for a limited period of time. This service is available for 12 months from the date of purchasing the **BLUEPIRAT**. This period can be extended by licenses.

Table 4.1: Additional features by optional licenses

4.3 Firmware Care

MAGNA Telemotive GmbH invests a great amount in the further development of its products.

For this we regularly provide new functions and enhancements via firmware and client releases.

Basic conditions

As part of the " Service Product Firmware Care ", new software and firmware versions are made available for download for a limited period of time. This service is available for 12 months from the date of purchasing the **BLUEPIRAT**. This period can be extended.

For details, please contact your sales partner (see contact at the end of the manual for addresses).

Affected products

- **BLUEPIRAT Rapid**
- **BLUEPIRAT Mini**
- **Remote Control Touch**
- **BLUEPIRAT2 5E**
- **BLUEPIRAT2**
- **BLUEPIRAT Remote**

Note:
Enhancements are only possible in current firmware releases.

Attention:
Please note that updates to main firmware versions (05.00.01 / 06.00.01) need a special update license and can't be flashed to a device without this license.

To buy these licenses please contact our sales department under TMO.Sales@magna.com
(please find the complete address under Contact on the last page).

5 Configuring

To activate the recording of MOST150 synchronous/isochronous data, the feature has to be active in the configuration. This activation is done by selecting the checkbox **Streaming channel active** in the configuration menu at **[MOST]** → **[MOST150]**.

It is also possible to log only the allocation messages without the streaming data with the checkbox underneath.

Figure 2: activating the streaming

6 Converting the data

The conversion of MOST150 streaming data can be performed either directly from the logger or offline with an offline data set. If the logger or the offline data set contains MOST150 streaming data, a submenu "STREAM" will appear in the channel selection tree within the entry **[MOST150]**.
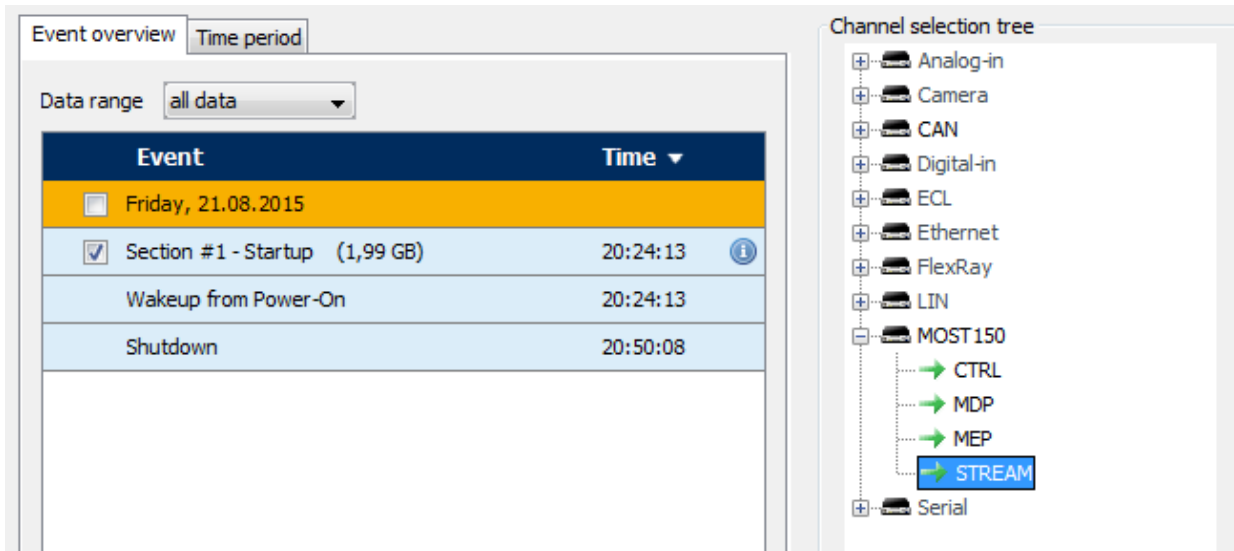

Figure 3: conversion

6.1   Format selection

If you select the "STREAM" channel, the standard target format for the conversion will be displayed. You can select the following target formats:

- Binary Logging Format (*.blf)
- MOST Data Analyser Format (*.img)
- Isochronous raw format (*.ts)
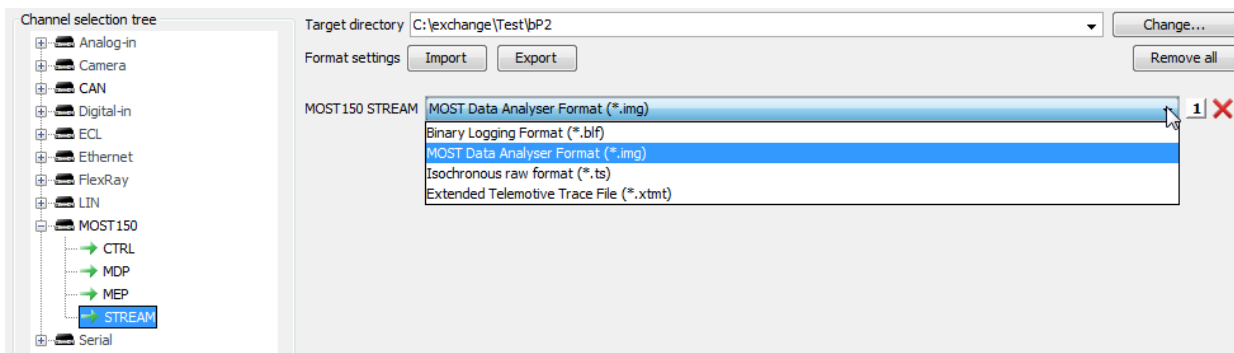- Extended Telemotive Trace File (*.xtmt)

Figure 4: format selection

The distinction between synchronous and isochronous data is done only during the conversion by the analysis of the streaming data. The Isochronous raw format (*.ts) can only save isochronous data. Therefore, this format should be selected only if it is ensured that such data has been sent through the streaming channel. If there are no data available, no output file is written.

6.2 Setting the channel width

The identification of the isochronous channels is performed by the channel width. The channel width can be appointed in **[Tools]** → **[Settings]** → **[Conversion]** → **[Specific Format Settings]** by using the buttons **[Add]** or **[Remove]**.
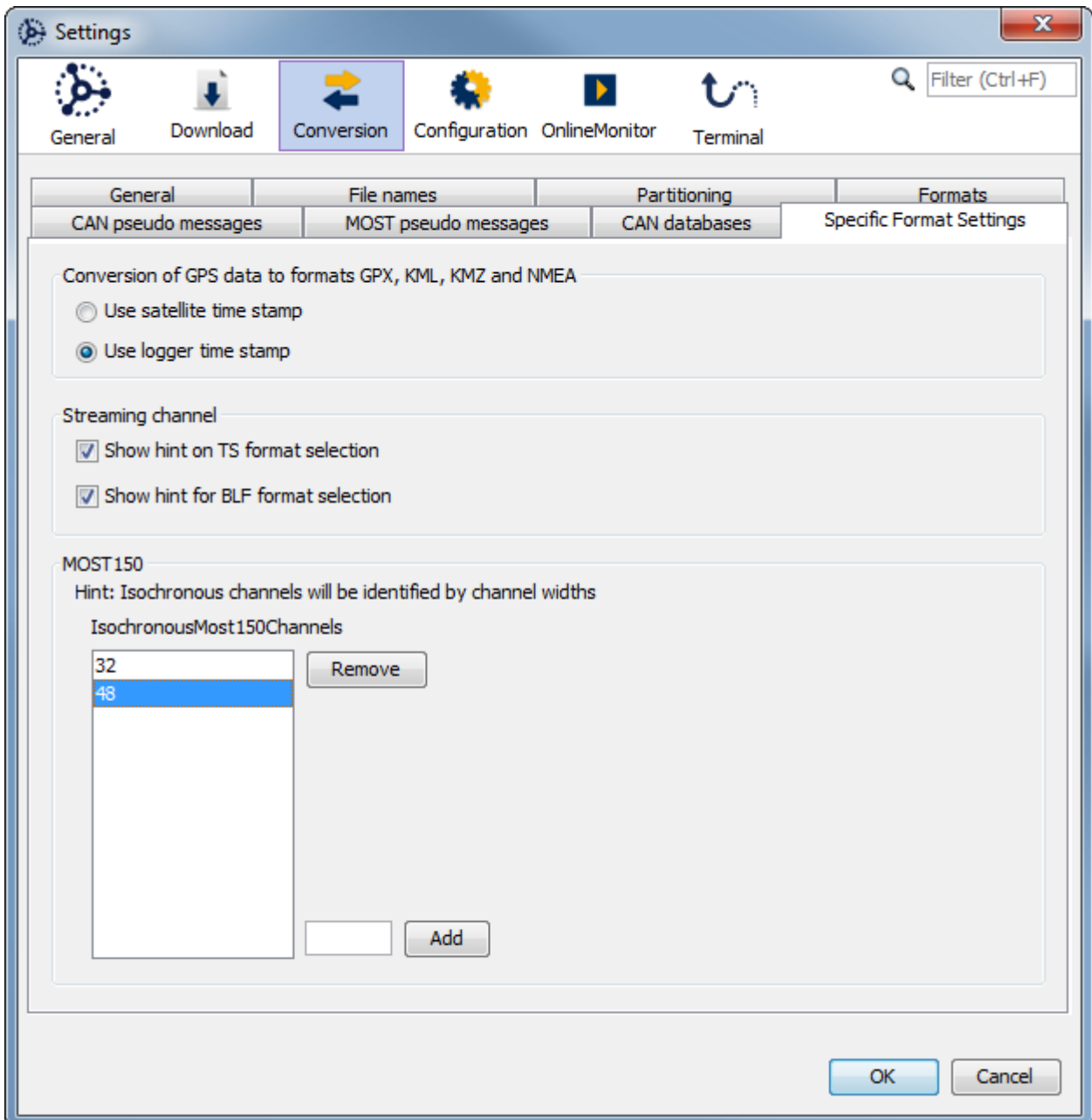

Figure 5: Setting the channel width

7 Abbreviations

Kürzel / abbreviation	Bedeutung / meaning
BLUEPIRAT	**P**rocessing **I**nformation **R**ecording **A**nalyzing **T**ool
bP	**BLUEPIRAT**
bP2	**BLUEPIRAT2**
bP2 5E	**BLUEPIRAT2** 5E
bPMini	**BLUEPIRAT** Mini
RC Touch	**R**emote **C**ontrol **T**ouch
bP Remote	**BLUEPIRAT** **R**emote
A2L	**A**SAM MCD-**2** MC **L**anguage
AE	**A**utomotive **E**lectronics
ACK	**ACK**nowledged
CAN	**C**ontroller **A**rea **N**etwork
CCP	**C**AN **C**alibration **P**rotocol
CF	**C**ompact **F**lash
CRO	**C**ommand **R**eceive **O**bject
DAQ	**D**ata **A**cquisition
DTO	**D**ata **T**ransmission **O**bject
ECL	**E**lectrical **C**ontrol **L**ine
ECU	**E**lectronic **C**ontrol **U**nit
FIBEX	**FI**eld **B**us **EX**change Format
FW	**F**irm**w**are
GMT	**G**reenwich **M**ean **T**ime
INCA	**IN**tegrated **C**alibration and **A**pplication Tool
LAN	**L**ocal **A**rea **N**etwork = Netzwerk
LIN	**L**ocal **I**nterconnect **N**etwork
MAC	**M**edia **A**ccess **C**ontrol
MCD	**M**easure **C**alibrate **D**iagnose
MDX	**M**eta **D**ata **EX**change Format
MEP	**M**OST **E**thernet **P**acket
MOST	**M**edia **O**riented **S**ystems **T**ransport (www.mostnet.de)
ODT	**O**bject **D**escriptor **T**able
ODX	**O**pen **D**ata **EX**change
OEM	**O**riginal **E**quipment **M**anufacturer
PHY	**PHY**sical Bus Connect
PW	**P**ass**w**ort
RX	**R**eceiver Data
SD	**S**ecure **D**igital
SFTP	**S**ecure **F**ile **T**ransfer **P**rotocol
SHA	**S**ecure **Ha**sh
SSL	**S**ecure **S**ockets **L**ayer
TCP/IP	**T**ransmission **C**ontrol **P**rotocol/**I**nternet **P**rotocol
TLS	**T**ransport **L**ayer **S**ecurity
TMP	**T**ele**m**otive **P**acketformat
TSL	**T**elemotive **S**ystem **L**ink
UDP	**U**ser **D**atagram **P**rotocol
USB	**U**niversal **S**erial **B**us

UTC	**U**niversal **T**ime, **C**oordinated
Wi-Fi	**Wi**reless **Fi**delity
WLAN	**W**ireless **L**ocal **A**rea **N**etwork
XCP	Universal Measurement and **C**alibration **P**rotocol

Table 7.1: Abbreviations

8   List of figures

9 List of tables

10 Contact

DRIVING **EXCELLENCE.**
INSPIRING **INNOVATION.**

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