





BLUEPIRAT Series
MLBevo User Guide / 21.07.2020
Version 3.4.3

## Table of contents

1	LICENSE AGREEMENT	3
2	PRODUCT LIABILITY	4
3	Overview	5
4	System requirements	
	4.1 Further manuals	
	4.2 Additional features by optional licenses	8
	4.3 Firmware Care	9
5	Installing the license	10
6	Configuring	11
	Downloading and converting the data	
8	Abbreviations	13
9	List of figures	15
10	List of tables	16
11	Version history	17
12	Contact	18

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## **2 PRODUCT LIABILITY**

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

#### 3 Overview

This user guide describes the feature of the license **Connected-Gateway MLBevo** for the data loggers

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

of MAGNA Telemotive GmbH. These data loggers are supporting logging of data of the ATOP control unit MLBevo via USB.

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 03.04.03** and the **System Client** from **version 3.4.3**. 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 the 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.

# 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.

## 4 System requirements

#### **Control Unit**

A Windows based Laptop or PC is needed to configure the devices by **System Client**. It also allows to save the recorded data and to use them offline later.

#### **System Client**

The software client is used for configuring the data logger as well as downloading the recorded data or convert these into your needed file format. A firmware update can be performed by the **System Client** too to ensure that your devices are always up to date.

#### **BLUEPIRAT2 / BLUEPIRAT2 5E / BLUEPIRAT Mini**

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.

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

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 flexibly expanded via <a href="System Link">System Link</a>.

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 BLUEPIRAT Mini can be flexibly expanded to one cluster and therefore handled very easily by using <u>System Link</u>.

#### License

For the additional feature **Connected-Gateway MLBevo** 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 guide we offer the main manuals for our client as well as for the different data logger generations in our ServiceCenter at <a href="https://sc.telemotive.de/bluepirat">https://sc.telemotive.de/bluepirat</a>.

#### **User manual for the System Client**

https://sc.telemotive.de/4/uploads/media/TelemotiveSystemClient UserManual.pdf

#### User manual for BLUEPIRAT2 / BLUEPIRAT2 5E

https://www.telemotive.de/4/uploads/media/blue PiraT2 UserManual.pdf

#### **User manual for BLUEPIRAT Mini**

https://www.telemotive.de/4/uploads/media/blue\_PiraT\_Mini\_UserManual.pdf

#### **User manual for Remote Control Touch**

https://sc.telemotive.de/4/uploads/media/RCTouch\_UserGuide.pdf

#### **User manual for BLUEPIRAT Remote**

https://sc.telemotive.de/4/uploads/media/blue\_PiraT\_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.

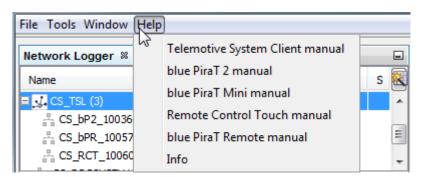


Figure 4.1: links to the manuals

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**.

## 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
WLAN	supporting wireless LAN (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	The license Connected-Gateway MLBevo enables the recording of data of the ATOP control unit MLBevo via USB to the Telemotive data logger and convert these data with the System Client. (from FW 02.03.01)
Download Terminal	Download Terminal allows an automatization of configured tasks for a defined group of devices. (from FW 02.03.01)
TPE	TPE = Telemotive Performance Extension Increasing the logging rate for Ethernet data up to 100Mbit/s (from FW 02.04.01)
Test automatisation	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)

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

#### Note:

Enhancements are only possible in current firmware releases.

#### Attention:

Please note that updates to main firmware versions (04.00.01 / 05.00.01) 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 <a href="mailto:TMO.Sales@magna.com">TMO.Sales@magna.com</a> (please find the complete address under Contact on the last page).

## 5 Installing the license

<b>±</b>	General	USB	
<b>⋣</b> … <b></b>	Password protection	Android Gateway	
<u> </u>	CAN	☐ Connected-	Sateway active
<u> </u>	LIN		•
<u> </u>	Serial	Name:	Android Gateway
<u> </u>	Ethernet	Encryption key:	
<u> </u>	Analog input		
<u> </u>	Digital input		
<u> </u>	Digital output		
֥	USB		
· •	Signal based filter		
<b>⊕</b> 📴	Trigger		
<b>⋣</b> … <b></b>	Online streaming		
<b>⋣</b> … <b>宣</b>	Live View		
<b>⊕</b> 🚞	Channel mapping		

Figure 5.1: License free USB feature

Name:	Connec	ed-Gateway I	MLBevo			
ndroid Ga	ateway					
Conn	nected-Ga	eway active				
Name:	A	droid Gatewa	ay			
Encryptio	n key:					
UALCOM	M eXtensi	le Diagnostic	: Monitor —			
	M eXtensi M active	le Diagnostic	Monitor —			

Figure 5.2: Features with installed license

## 6 Configuring

The license **Connected-Gateway MLBevo** enables the recording of data of the ATOP control unit MLBevo via USB to the Telemotive data logger and convert these data with the System Client.

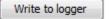
When the license is installed, the folder **[USB]** contains the subcategory **[Connected-Gateway MLBevo]**.

Here you can activate the feature and give the trace a specific name, which is inserted to the trace file name later.



Figure 6.1: Activating the Connected-Gateway MLBevo

By pressing [Write to logger] the configuration will be transferred to the logger and is immediately active. When the control unit is connected and active the logger starts up from this point recording the incoming data.



<u>Index</u>

## 7 Downloading and converting the data

This chapter describes the data download and conversion of the recorded data. For more information about download and converting data please have a look at the **User manual for the System Client**.

The System Client allows to save the recorded data as offline data set from the logger on the computers disk to use it later or to convert the data directly from the logger.

In the "Channel selection tree" you'll find these data in [USB] → [Connected-Gateway MLBevo].

Data, which were recorded from the **Connected-Gateway MLBevo** can be converted into these formats:

- Telemotive ASCII Format (\*.txt)
- Raw Serial Format (\*.\_RAW.txt)
- Serial Debug Format (\*.txt)
- Extended Telemotive Trace File (\*.xtmt)



Figure 7.1: Converting the data

<u>Index</u>

## 8 Abbreviations

Kürzel / abbreviation	Bedeutung / meaning
BLUEPIRAT	Processing Information Recording Analyzing Tool
bP	BLUEPIRAT
bP2	BLUEPIRAT2
bP2 5E	BLUEPIRAT2 5E
bPMini	BLUEPIRAT Mini
RC Touch	Remote Control Touch
bP Remote	BLUEPIRAT Remote
Di Romoto	DECEMBER 1100 TO THE PROPERTY OF THE PROPERTY
A2L	ASAM MCD-2 MC Language
AE	Automotive Electronics
ACK	ACKnowledged
CAN	Controller Area Network
CCP	CAN Calibration Protocol
CF	Compact Flash
CRO	Command Receive Object
OKO	Sommand Receive Object
DAQ	Data Acquisition
DTO	Data Transmission Object
D10	Data Transmission Object
ECL	Electrical Control Line
ECU	Electronic Control Unit
FIBEX	Fleld Bus Exchange Format
FW	Firmware
GMT	Greenwich Mean Time
INCA	INtegrated Calibration and Application Tool
INOA	integrated Cambration and Application 1001
LAN	Local Area Network = Netzwerk
LIN	Local Interconnect Network
	Local Interconnect Network
MAC	Media Access Control
MCD	Measure Calibrate Diagnose
MDX	Meta Data EXchange Format
MEP	MOST Ethernet Packet
MOST	Media Oriented Systems Transport ( <u>www.mostnet.de</u> )
111001	media Offented Systems Transport ( <u>www.mostnet.de</u> )
ODT	Object Descriptor Table
ODX	Open Data EXchange
OEM	Original Equipment Manufacturer
OLIVI	Original Equipment Manuacture
PHY	PHYsical Bus Connect
PW	Passwort
RX	Receiver Data
TOL	110001YOI Data
SD	Secure Digital
SFTP	Secure File Transfer Protocol
SHA	Secure Hash
SSL	Secure Sockets Layer
COL	Goodio Gookelo Layer
TCP/IP	Transmission Control Protocol/Internet Protocol
TLS	
TMP	Transport Layer Security Telemotive Packetformat
TSL	
UDP	Telemotive System Link
	User Datagram Protocol Universal Serial Bus
USB	Universal Jenai Dus

## BLUEPIRAT SERIES | MLBEVO USER GUIDE/ page 14 of 18

UTC	Universal Time, Coordinated
Wi-Fi	Wireless Fidelity
WLAN	Wireless Local Area Network
XCP	Universal Measurement and Calibration Protocol

**Table 8.1: Abbreviations** 

# 9 List of figures

Figure 4.1: links to the manuals	7
Figure 5.1: License free USB feature	10
Figure 5.2: Features with installed license	
Figure 6.1: Activating the Connected-Gateway MLBevo	
Figure 7.1: Converting the data	

<u>Index</u>

## 10 List of tables

Table 4.1: Additional features by optional licenses	8
Table 8.1: Abbreviations	
Table 11.1: Version history	17

Index

# 11 Version history

Version	Änderung	Datum

**Table 11.1: Version history** 

#### 12 Contact



# DRIVING EXCELLENCE. INSPIRING INNOVATION.

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