Joystick 16CH Software Manual

Release 6.12

Embention

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Before reading this document, it is recommended to read the Hardware Manual , in order to understand the product and connect it to a computer.

	version before reading any user manual for software. The following image shows where to by Embention user manual.
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٩	Docs » Veronte Link
Veronte Link Software installation How to use Veronte Link	Veronte Link
Sessions	Veronte Link interconnects multiple control stations and autopilot units, so they can operate simultaneously.
Troubleshooting Integration examples COM port configuration	Veronte Link supports the main Operating Systems (Windows, Linux and MacOS X). Contact Embention and we will provide you with the software that better fits your requirements. Also, you must have updated the latest version of java.
	Software installation
	Once a Veronte device is delivered, a shared folder between the Customer and Embention is automatically created. The user will receive an email from the Support Team containing the information needed to access. If the email is not received within 72h, please contact with support@embention.com and our Support Team will be happy to help you.
	Sign in
	http://supportembention.com Your connection to this site is not private
	Username Username
	Password

CHAPTER

ONE

SOFTWARE APPLICATIONS

1.1 Veronte Link

Veronte Link establishes communication between a computer and Veronte products (such as **Autopilot 1x**) by creating a VCP bridge. It allows to use multiple control stations and devices to be interconnected, operating simultaneously. **Veronte Link** also includes a post-flight viewer, to reproduce all recorded data from previous flights and generate plots and reports.

Read the user manual for Veronte Link to know more.

1.2 1x PDI Builder

1x PDI Builder is the main configuration tool to adapt a **Veronte Autopilot 1x** to a specific vehicle, including commnication protocols defined by the user.

1x PDI Builder includes different configurations for Joystick 16CH:

- CAN tunnel: To communicate MEX with a computer, 1x can be employed as a CAN tunnel by reading CEX/MEX Integration examples section.
- Receive signal from Joystick 16CH: To configure the 1x in the PCS, read Joystick 16CH Integration examples section.

Read the user manual for 1x PDI Builder to know more.

1.3 Veronte Ops

Veronte Ops is the application employed to operate and monitor the Autopilot 1x during missions. It is also used to operate Joystick 16CH through Autopilot 1x, by configuring the Virtual Stick according to Stick widget - Integration examples section.

Read the user manual for Veronte Ops to know more.

1.4 MEX PDI Builder

Important: The internal **MEX** of **Joystick 16CH** is already configured for operation. Therefore, it may be changed only by advanced users for specific scenarios.

MEX PDI Builder is the main configuration tool to adapt a **MEX** to a specific vehicle, including user-defined commnication protocols. It includes:

- Telemetry: real-time onboard UAV metrics, such as sensors, actuators and control states.
- Communications: through general purpose inputs and outputs, PWMs and CAN channels.
- Stick control signal management: compatible with **Stick Expander**, Futaba, Jeti, FrSky and TBS. It includes custom configuration for other sticks.
- Arbitration: MEX is able to send PWM signals using arbitration in the same way Veronte Autopilot 4x does.

Read the user manual for MEX PDI Builder for more details.

1.5 MEX PDI Calibration

MEX PDI Calibration is a straightforward application employed to calibrate the magnetometer embedded in **MEX**. It is recommended to use the **MEX PDI Calibration** the first time and every time **MEX** is employed at a different region, since the magnetic field of the Earth may change.

For more details, read the user manual for MEX PDI Calibration.

CHAPTER

TWO

LISTS OF VARIABLES

Joystick 16CH includes an internal MEX to manage the CAN bus. **MEX** variables are defined in the Lists of variables - Lists of interest section of the **MEX Software Manual**.

CHAPTER

THREE

CAN BUS PROTOCOL

The CAN bus protocol of the **MEX** is explained in detail in the CAN Bus protocol section of the **MEX Software** Manual.