CANoe Device Installation

CruEther 100M USB

Application Note

Classification: Public

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Terms and Acronyms

Term/Acronym	Definition
AEC	Automotive Ethernet Converter
ECU	Electronic Control Unit
H-MTD	High-Speed Modular Twisted-Pair Data
HiL	Hardware in the loop
USB	Universal Serial Bus

Introduction

Abstract

It is common practice to test and analyze the data traffic of automotive Ethernet Control Units (ECUs). Several useful tools have become established on the market for this purpose, including CANoe from Vector. This document deals with the installation of the device within CANoe. The device has been tested together with Vector CANoe for most of the main applications, but …

⚠ … we do not guarantee full compatibility and do not accept any liability for incorrect use.

Scope

This document describes how to install the device within Vector CANoe development tool.

Audience

Engineers who are analyzing and testing automotive ethernet control units and have experience with CANoe.

Document References

All references based on AED internal confluence documentation.

System Setup

The following figure shows a simplified measurement and testing setup. The Laptop or PC runs Vector CANoe tool and is connected to an automotive ethernet control unit (DUT1) through the Network Adapter (e.g. CruEther 100M USB).

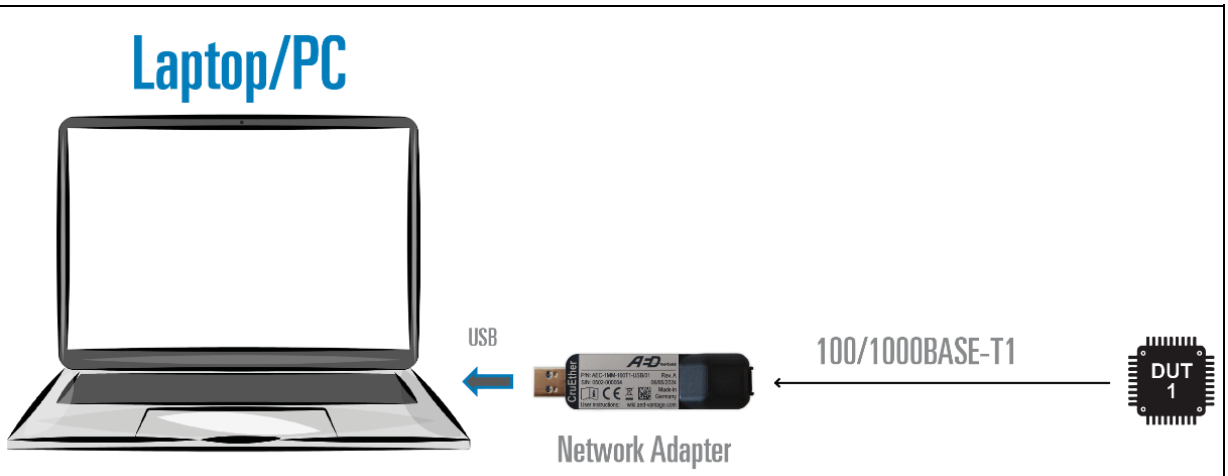

FIGURE 1 SIMPLIFIED INSTALLATION SETUP

Connecting the device

The device has an USB port (USB3.1 Gen1) to connect to a laptop or PC. Once the device is powered up, the red LED is ON.

Configuring CANoe to use a CruEther 100M USB

To use the CruEther 100M USB Network Adapter in your CANoe configuration, apply the following steps:

1. Add an ethernet device to your configuration
2. Select the *Hardware* tab and click the *Network Hardware* button

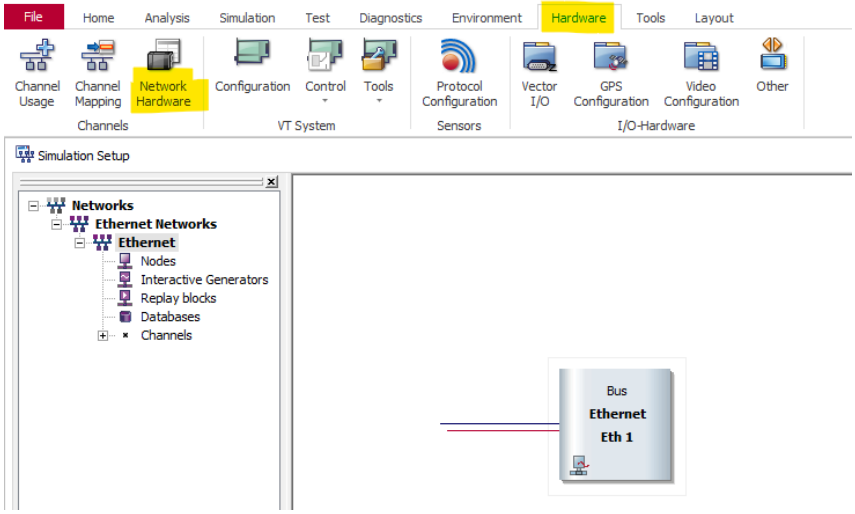

FIGURE 2 ACCESSING NETWORK HARDWARE CONFIGURATION DIALOG

3. In the opening *Network Hardware Configuration* dialog, use the *Hardware Type* dropdown to select the Network Adapter from the list. The CruEther 100M USB will identify itself as "*LAN7801 USB 3.0 to Ethernet 10/100/1000 Adapter*".

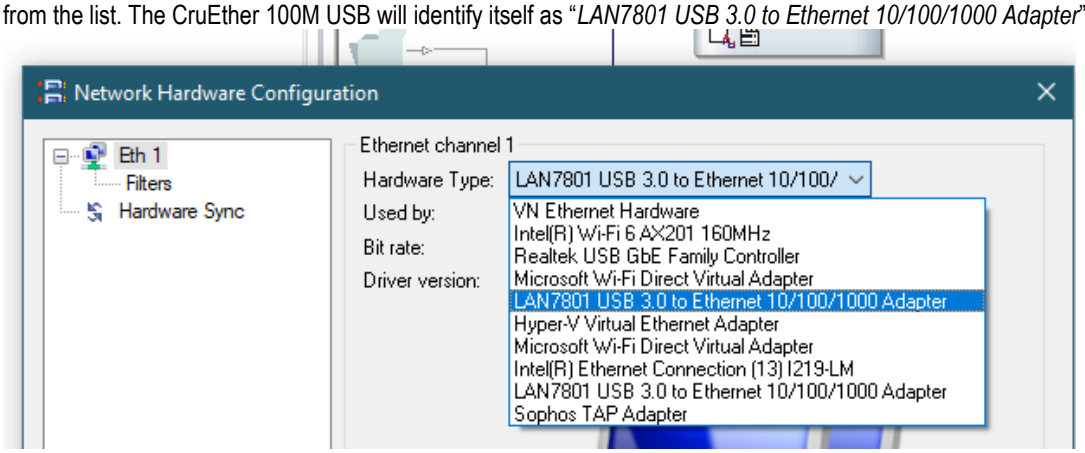

FIGURE 3 NETWORK HARDWARE CONFIGURATION DIALOG

If the dropdown shows only the options "*VN Ethernet Hardware*" and "*Windows Network Adapter (unavailable)*", please see the instructions in the next section.

4. Click OK to apply the selection

Ethernet Vector Network Driver installation

⚠ The following instructions are of interest if the CruEther is not recognized as a valid *Hardware Type* in CANoe.

To operate the CruEther 100M USB in CANoe, the *Ethernet Vector Network Driver* needs to be installed.
The driver can be installed directly within CANoe using the following steps:

1. Add at least one Ethernet device to your configuration
2. Select the *Hardware* tab
3. Click the *Network Hardware* button
4. In the opening *Network Hardware Configuration* dialog, change the *Hardware Type* to "*Windows Network Adapter (unavailable)*"

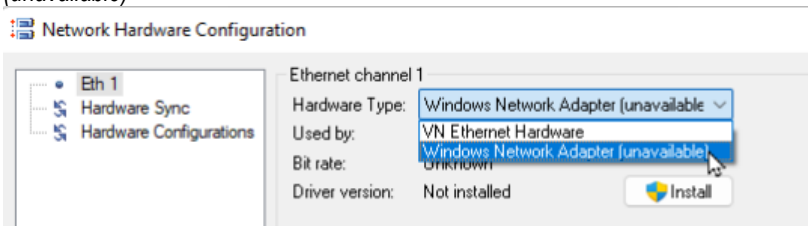

FIGURE 4 ETHERNET VECTOR DRIVER NOT INSTALLED

5. Click the *Install* button and follow the instructions

For more information, please also visit https://support.vector.com/kb?id=kb_article_view&sysparm_article=KB0011802.

Disclaimer

Appendices

None