

Introduction to CANoe.Ethernet

Agenda VectorAcademy

Duration:	3 Day
Target Group:	Ethernet Users in the Automotive Industry
Prerequisites:	An understanding of the terminology and basic operation of electronic control modules is helpful, but not required. General understanding of the C programming language.

1. Ethernet Protocol Fundamentals

- > Overview of OSI Model and general description of protocols
- > Physical connection types – Standard Ethernet PHYs and Automotive Ethernet PHYs
- > Fundamental protocols – Ethernet II and TCP/IP (IPv4/6, UDP, TCP, ICMP, ARP, DHCP)
- > Automotive specific protocols (AVB, SOME/IP, DoIP, AUTOSAR Socket Adapter)

2. Hardware Setup.

- > Introduction to new network-based hardware setup approach

3. CANoe/CANalyzer Overview

- > Application areas of CANoe and CANalyzer
- > Components and configuration of a CANoe and CANalyzer measurement system

4. Measurement and Analysis

- > Analysis window overview
- > Function block overview
- > Data logging
- > Offline Analysis

5. Transmission Options

- > Ethernet Packet Generator
- > Ethernet Interactive Generator
- > Ethernet Replay

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6. Diagnostics

- > Use of diagnostic files in CANoe
- > Setup of DoIP

7. Simulation and Modeling with CANoe for Ethernet

- > CAPL Introduction
- > CAPL Ethernet Functions
- > CANoe TCP/IP Stack Setup
- > CAPL Socket Functions
- > AUTOSAR Interaction Layer
- > SOME/IP Interaction Layer
- > Model Generation Wizard
- > AVB Interaction Layer
- > DoIP Interaction Layer