

CANoe/CANalyzer Ethernet Add-on Workshop

Agenda VectorAcademy

Delivery Format:	This Course is offered in Classroom or Remote Format
Duration:	Classroom: 1.5 days Remote: 10 hours
Target Group:	CANoe and CANalyzer Users (Development & Test Engineers)
Prerequisites:	Introduction to CANoe or Introduction to CANalyzer
Goal:	Learning some basic characteristics of the Automotive Ethernet protocol(s). Learning the Ethernet specific configuration, analysis features in CANoe/CANalyzer. Learning Automotive Ethernet Application Layer protocols and working with them in CANoe.

1. Ethernet Introduction

- > Introduction to Automotive Ethernet

2. Layers of Ethernet Protocol

- > Physical Layers
- > Ethernet addressing (MAC, VLAN)
- > Ethernet Hardware and Configuration
- > Overview of Internet Protocol (IPv4/IPv6), TCP/UDP
- > Overview of DHCP, ICMP, ARP and NDP

3. Measurement, Analysis and Stimulation in CANoe/CANalyzer.Ethernet

- > Analysis windows with Ethernet configuration
- > Trace Window
- > IP Filter Block
- > Ethernet Packet Builder
- > Ethernet Interactive Generator

4. Application Protocol DoIP

- > Basics of DoIP
- > DoIP Session
- > Working with DoIP in CANoe

5. SOME/IP and SOME/IP-SD

- > Basics of SOME/IP and SOME/IP-SD
- > Creating a SOME/IP simulation in CANoe
- > CAPL based exercise for SOME/IP

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6. Security for Connected Vehicles

- > Overview of Security Protocols (SecOC, TLS)
- > Security Configuration and Vector Security Manager

7. Other Application Protocols

- > Basics of AVB, XCP and SCC