CANoe/CANalyzer Diagnostics Add-on Workshop

Agenda VectorAcademy

Delivery Format:	This Course is offered in Classroom **or** Remote Format
Duration:	Classroom: 1 day
	Remote: 6.5 hours
Target Group:	CANoe/CANalyzer users developing, testing and/or applying diagnostics
Prerequisites:	Experience in using CANoe/CANalyzer and basic understanding of vehicle diagnostics
Goal:	Increased understanding of and skills in using the diagnostic support in CANoe/CANalyzer

1. Brief Introduction to Vehicle Diagnostics

> Motivation and need for vehicle diagnostics
> Diagnostic protocols, transport protocols
> Diagnostics on different bus systems

2. Diagnostic Descriptions

> Contents and Target Groups of Diagnostic descriptions
> CANdelaStudio diagnostic descriptions (CDD files)
> Open Diagnostic eXchange descriptions (ODX/PDX files)
> Basic Diagnostics descriptions
> Diagnostic description viewers in CANoe/CANalyzer

3. Diagnostic Feature Set (DFS)

> Diagnostic Console / Diagnostic Session Control / Fault Memory windows
> Trace / Graphics / State Tracker (CANoe) windows
> Seed & Key handling
> OBD II support
> Support on different bus systems

4. Working with Diagnostic Descriptions in CANoe/CANalyzer

> Integrating diagnostic description files (CDD, ODX/PDX, …)
> Using a Seed & Key DLL
> Interpretation and filtering of diagnostic data in the Trace window
> Monitoring diagnostic parameters in the Graphics and State Tracker windows
> Creating Diagnostic sequences: Macro recorder / .NET snippets (CANoe)
> Exercises

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5. Diagnostics with CAPL

> Diagnostic CAPL functions and event procedures
> Sending diagnostic requests / Receiving diagnostic responses
> Parameterizing diagnostic requests / Analyzing diagnostic responses
> Exercises

6. Diagnostic Support in a Simulated ECU in CANoe

> Creating a simulated ECU and adding diagnostic functionality to it
> Exercise

7. Diagnostic Testing with CANoe

> Diagnostic testing in CANoe: Combining the diagnostic feature set (DFS) and test feature set (TFS)
> Test Modules / Test Units
> Using the CANoe option DiVa (Diagnostic integration and Validation assistant) for test case generation
> Exercise