

CANbedded - Theory and Exercises

Duration:	2 Days
Target group:	Certified suppliers of the vehicle manufacturer industry. A corresponding certificate has to be sent together with the final announcement
Prerequisites:	Basic knowledge of CAN and programming in C

1 Overview (1,5 h)

Goal:	Overall view of CANbedded Software Components and their interaction
Content:	Short Introduction, Tool Chain, Network Database (dbc), Generation Tool, Exercise (code examples)

2 CAN-Driver (3,0 h)

Goal:	Understanding of the CAN Driver and the cooperation with the application
Content:	Initialization, Transmission and Reception, Notification, Overrun and Error Handling, Sleep Mode and Wake Up

3 Interaction-Layer (2,5 h)

Goal:	Understanding of the Interaction Layers advantage for transmission and reception of messages (signals), deepen your signal oriented sight
Content:	Transmission Types, Monitoring of Receive Messages, Signal Interface, Notification

4 OSEK Network-Management (2,5 h)

Goal:	Basic Understanding of the control of the bus via the network management
Content:	Algorithm, Bus Sleep and Wake Up, Error Handling, Hardware Selection, Simulation via CANoe

5 Transport-Protocol (1,5 h)

Goal:	Understanding of function and advantage of the transport protocol
Content:	Algorithm, Parameters, Addressing, Message Layout, Error Handling, Simulation via CANoe

6 Diagnostics Layer (2,0 h)

Goal:	Usage of diagnostics layer and integration in the application
Content:	Services, Exceptions, CAN Specifics, Timings, Addressing, Data Exchange with the Application

7 Additional Aspects (1,0 h)

Goal: Better understanding in connection with the specific feature of the vehicle manufacturers

Content: Node Layer DLLs, OEM Specific Infrastructure

Common for all Software Components:

- Configuration, API, OEM Specifics