

J1939 Fundamentals

Duration:	1 Day
Target group:	Users and developers
Prerequisites:	CAN fundamental knowledge

1 SAE Documents, Topologies, Baud Rates und Terms (1,0 h)

Goal:	Convey of fundamental comprehension and terms of the J1939 protocol
Content:	Document structure of the SEA J1939 specifications, baud rates, topology

2 J1939 Network Management, Boot-Up and Error Handling (1,0 h)

Goal:	Convey the J1939 Network Management and special terms
Content:	Behavior of J1939 ECUs at Boot-Up sequence, Network „Name“, „Address“ and „AddressClaiming“ as fixed terms, Error Management

3 “Parameter Group” as standardized data interface (1,0 h)

Goal:	Get to know about the J1939 Parameter Group as standardized data interface
Content:	Principle and properties of a J1939 Parameter Group (global/specific) Difference between Parameter Group and CAN-Identifier

4 Signal description and SLOT information (1,0 h)

Goal:	Principles of J1939 Signal Definition
Content:	SLOT-Definitions, Signal interpretation, resolution and timing

5 Communication Principles and addressing in J1939 (1,0 h)

Goal:	Convey of 2 fundamental Communication Principles with J1939
Content:	Interpretation of the J1939 29bit-CAN identifier, mechanisms to realize Peer-to-Peer and global communication of CAN based J1939 ECUs

6 Several Transport Protocols (1,0 h)

Goal:	Two usual J1939 Transport Protocols
Content:	Broadcast Announce Message (BAM) and Connection Mode Data Transfer (CMDT)

7 Overview of the J1939 Diagnostic Interface (1,0 h)

Goal:	Fundamentals and Philosophy of the J1939 Diagnostic Interface
Content:	On Board Diagnostics OBD II, Diagnostic Trouble Code (DTC), Overview about standardized J1939 Diagnostic Parameter Groups

8 Questions, Feedback, Suggestions

Goal:	Clarification of open issues and open discussion as feedback for Vector
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