Release Presentation

ASAM AE MCD-2 NET FIBEX 4.1.2
Data Model for ECU Network Systems
Field Bus Data Exchange Format

2017 / 06 / 28
Deliverables

- New Base Standard FIBEX_V4_1_2.pdf
- XML schema and example files
- HTML documentation
- Baseline
- Release notes
Introduction

- During the implementation of ECU software, the correct configuration of the operating system's network stack is a fundamental requirement in ensuring the interoperability of ECUs within automotive networks.
- The configuration includes the definition of
  - exchanged signals,
  - datatypes,
  - and their explicitly defined declarations for various automotive communication systems.
- This information is typically provided in interface descriptions created by OEMs and forwarded to their ECU suppliers.
- The ASAM MCD-2 NET standard (called FIBEX) provides a uniform, XML-based interface description for configuring the software of automotive networks.
Introduction cont.

- The standard allows the definition of network topologies, consisting of ECUs with network ports and gateways.
- The standard consists of a generic interface description and technology-specific extensions for FlexRay, MOST, CAN, TTCAN, LIN and Ethernet.
- Technology-specific properties are described for each network port. For example, addresses as well as transport protocols and the reserved ports are described for Ethernet and IP.
- Furthermore, the interface description contains a list of sent and received signals for each ECU. In the case of service-oriented communication, service provider instances and consumers are listed for each ECU.
What’s New?
Changes from FIBEX 4.1.1 to 4.1.2

- **Small Extensions**
  - Support for arrays with minimum length of 0
  - Allow to describe whether byte order mark is used for strings
  - Add name details for identifiable elements

- **New Features / AUTOSAR harmonization**
  - Specification of service discovery configuration
  - Allow to specify that eventgroups are transferred via multicast communication
  - Inheritance of serialization attributes / serialization attributes for methods
  - Allow data Ids for complex datatype members and parameters
  - Specification of timing parameters for events and methods
  - Configuration of SOME/IP transport protocol
  - Configuration of CAN-FD

- **Clarifications**
  - Usage of strings
Compatibility

- **FIBEX**
  - The changes are compatible with FIBEX 4.1.2.

- **AUTOSAR**
  - Compatible to Classic AUTOSAR 4.3 / Adaptive AUTOSAR R03-17 / AUTOSAR Foundation 1.1

- **HDO (Harmonized Data Objects)**
  - Compatible to HDO 1.1.