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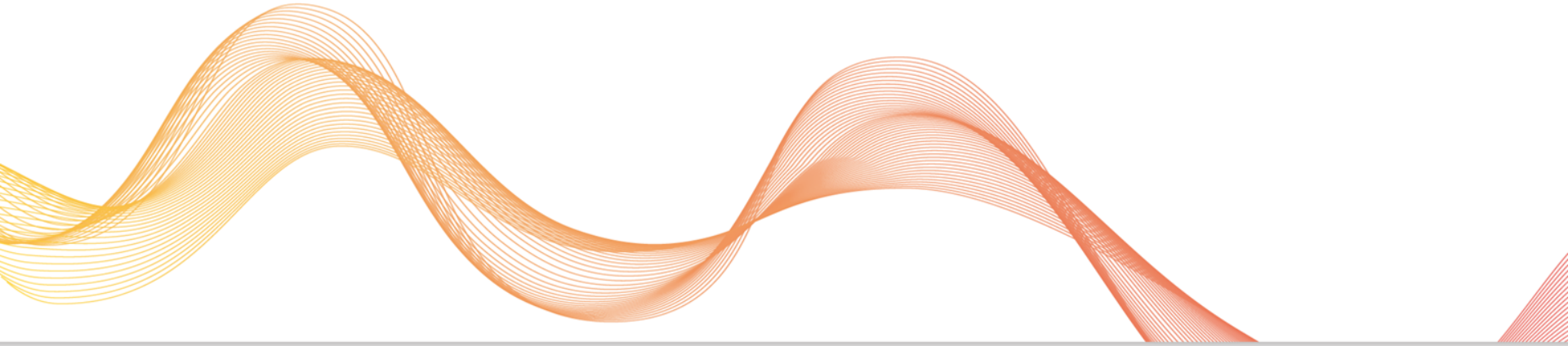

Release Presentation

ASAM AE MCD-2 NET FIBEX 4.1.0

Data Model for ECU Network Systems

Field Bus Data Exchange Format

2013 / 06 / 20

Deliverables

- New Base Standard FIBEX_V4_1_0.pdf
- XML schema and example files
- HTML documentation
- Baseline
- Release notes

Introduction

- Support for future automotive bus systems: Ethernet and protocols of the internet technologies (e.g. TCP/IP, IEEE 1722, AVB).
- Support for service description as an IDL (Interface Description Language).
- Support for variant management enables manufacturer to distinguish different subsets in a single FIBEX instance.
- Support for external references enhances extensibility.

Marketing

- One format for all major automotive communication systems.
- The first standard that supports Ethernet, internet technologies and services.
- Also in use for non AUTOSAR system descriptions, but completely harmonized with AUTOSAR.
- Supports efficient tailored structures to describe complex automotive communication requirements.

What's New?

Changes from FIBEX 3.1.0 to 4.0.0

- New features
  - Support for new communication technologies:
    - Ethernet (fibex4ethernet.xsd),
    - Internet Technologies (fibex4it.xsd) and
    - Services (fibex4services.xsd)
  - Many base type definitions were added to fibex.xsd
  - Support for external references added to fibex.xsd
  - Support for variant management added to fibex.xsd
- The FIBEX 4.0.0 standard was rejected because of incompatible changes that were necessary.

What's New?

Changes from FIBEX 4.0.0 to 4.1.0

- New features and bug fixes
- Support for more Manufacturer-Extensions
- Extension of fibex.xsd
  - Additional Datatype definitions
- Extension of fibex4ethernet.xsd
  - Extended support for VLAN memberships
- Extension of fibex4it.xsd
  - Service-Discovery
  - New addressing features, more detailed support for streaming applications and time synchronization
- Extension of fibex4services.xsd
  - More detailed support for service interfaces and fields, methods and events

Compatibility

- Compatibility to FIBEX 3.1.0
  - The additional changes are supplementary. Therefore all FIBEX extensions are compatible except the following mentioned.
  - In order to transform FIBEX 3.1.0 files to 4.1.0 the following modifications must be done:
    An ID attribute has to be added to all elements of the type INCLUDED-PDU-TYPE and INCLUDED-SIGNAL-TYPE because they are now extensions of IDENTIFIABLE-ELEMENT-TYPE. This is needed for the variant management extension, where a variant need to refer to these elements.

Compatibility

- AUTOSAR
  - Fully compatible with AUTOSAR 4.1
  - Bidirectional mapping between FIBEX 4.1 and AUTOSAR System Template 4.1 possible
- HDO (Harmonized Data Objects)
  - Fully compatible to HDO 1.1
  - Minor optional extensions to support UTF-16 encoding and ordering of <V> elements (Bugzilla entry exists for this extensions)