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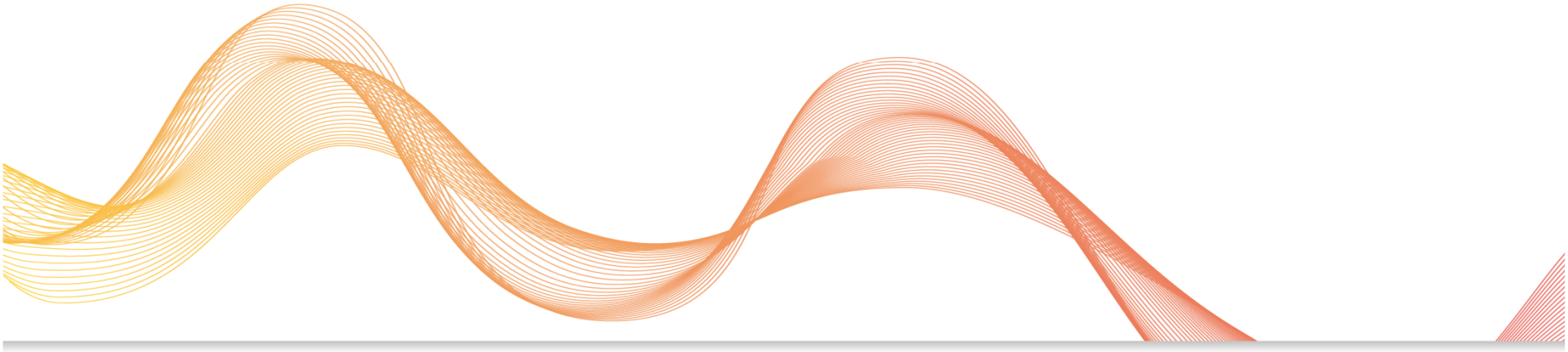

Release Presentation

P2015-01_AE_MDX_BS_V1-3-0_FVD

ASAM AE MDX V1.3.0

Release Date: 2015 / 06 / 15

Introduction

- The focus of the standard is still the Metadata Exchange for Software Module Sharing
- The future development was based on compatibility to earlier versions
- Main Features

  - Supports the definition of data element groups to achieve coherency, consistency and stability in multi core systems .
  - Improvements of the description of the scheduling sequences by the definition of process list parts and their relations and constraints to other parts.
  - Extended description of scheduling dependencies on signal level by the possibility to add data age constraints and read/write access counts .
  - The data objects introduced with ASAP2 V1.7 are supported

Content

- Deliverables
- Marketing
- Main Features
- Compatibility

Content

- **Deliverables**
- Marketing
- Main Features
- Compatibility

Deliverables

- Specification document
  - MDX User's Guide
  - Change History
- MDX XML Schema & DTD
  - MDX XML Schema
  - MDX XML DTD
  - Change Documentation

Content

- Deliverables
- **Marketing**
- Main Features
- Compatibility

Marketing

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- **Main Features**
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What's New?

New SW-COLLECTIONs improve support of multi core systems

- The <SW-COLLECTION> categories **COM_ATOMIC_SND_GROUP** and **COM_ATOMIC_RCV_GROUP** represent an extension of communication patterns for software module sharing to achieve coherency of data.

- The <SW-COLLECTION> categories **COM_SYNC_COND_SND** represents the extension of communication patterns within the ECU by global elements to achieve consistency of data. This collection expresses the conditional sending of the contained data.

What's New?

New SW-COLLECTIONs improve support of multi core systems

- The <SW-COLLECTION> category **COM_STAB_RCV_GROUP** represents the extension of communication patterns within the ECU by global elements to achieve stability of data receive. This collection offers the possibility to define a group of elements, e.g. variables, which require the need to be kept stable during the execution of processes or tasks receiving the data.

- The <SW-COLLECTION> category **VARIABLE_STRUCTURE_MAPPING** offers the possibility to represent the mapping of a structure variable to single messages used in a service. The new collections are described in the chapter 2.6.6 Variable Structure Mapping

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What's New?

Improvement of the description of scheduling

- It is now possible to specify several parts of a process list with addititional integration hints. Therefore the new element <SW-SERVICE-SEQS> inside of <SW-PROCESS-LIST> was introduced.

  This feature enables a more precise specification of the timing behaviour of software services.

What's New?

Improve description of scheduling dependencies on signal level

- The new element <SW-DATA-AGE> was introduced at <SW-ACCESSED-VARIABLE> and <SW-ACCESSED-CLASS-INSTANCE>. This element describes the maximal age of the values of a variable which is accessed by a SW-SERVICE.

- In order to optimize locating possibilities in e.g. MultiCore concepts, the new elements <SW-VARIABLE-READ-COUNT> and <SW-VARIABLE-WRITE-COUNT> were added to the element <SW-ACCESSED-VARIABLE> of a SW-SERVICE.

What's New?

Include Changes coming from ASAM MCD2-MC

- <REFRESH-TIMING> was enabled for the definition of COM_AXIS calibration parameters.
  This allow the specification of the refresh timing when the values of the axis are changed by the control unit (adaptive characteristics).

- MSB_FIRST_MSW_LAST and MSB_LAST_MSW_FIRST
  New value for has been introduced <BYTE-ORDER>.

- NOT_IN_ECU
  New Value has been introduced for <SW-MEM-TYPE>.

- STATIC-ADDRESS-OFFSETS
  Has been added as an attribute to the <SW-RECORD-LAYOUT>.

What's New?

Include Changes coming from ASAM MCD2-MC

- <SW-MODEL-LINK> Link to the related object in the software model was introduced at the elements <SW-FEATURE>, <SW-VARIABLES>, <SW-CALPRMS>, <SW-SYSTEMCONST>, <SW-CLASS-INSTANCE>, <SW-SERVICE> and <SW-CLASS>.
  This allows to transfer the values of the parameters back to the model world

- <SW-SYMBOL-LINK> Link to the related symbol in a locator file. This was introduced at the elements <SW-VARIABLES>, <SW-CALPRMS>, <SW-CLASS-INSTANCE>,<SW-SERVICE>.
  This allows to transfer of the symbol links in the software module sharing process.

What's New?
Other changes

- New predefined <BASE-TYPE> A_UINT64. See BugIDs :3209
- Improved support of wellformed XML processing by forcing "xml:space" attributes and removal of the fixed attributes at the document root. See BugIDs: 3430 , 3458
- Clarifications of the description. See BugIDs: 3199, 3203, 3204, 3205, 3207
- Fixes for typos: See BugIDs: 2973, 3197, 3198, 3208

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- Main Features
- **Compatibility**

Compatibility

- Downward compatible to earlier MDX versions
  - Fully compatible to the predecessor MDX V1.2.0
  - All former tags are supported
  - Only extension by new tags or new categories
- Compatible to ASAM Harmonized Data Object
- Compatible to W3C Extensible Markup Language (XML)
- Fits to ASAM AE CDF V2.1 and ASAM AE FSX