

Release Presentation

ASAM AE MDX V1.2.0 (Metadata Exchange Format for Software Module Sharing)

2012-12-19 (ASAM TSC Meeting)

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Deliverables

Deliverable	Acceptance Criteria	Responsible
XML DTD and XML Schema	Formal Acceptance by Project Team	Supplier
MDX User's Guide	Formal Acceptance by Project Team	Supplier

Introduction MDX

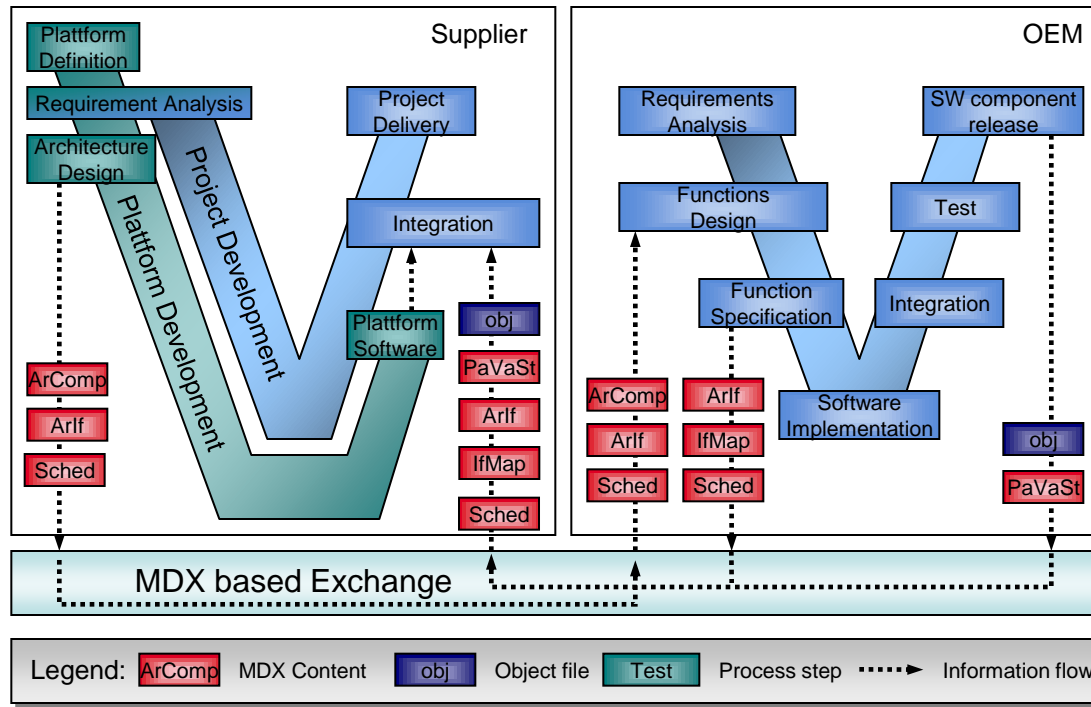
MDX = Meta Data Exchange Format for Software Module Sharing

MDX is a standardized xml based exchange format, which allows the exchange of data used in software module sharing processes.

This data consists of software system descriptions which contain the following things:

- Basic structures for Base Types, Units, Computation Methods, Data Constraints
- Parameters
- Variables
- Classes and Class Instances
- Software Components
- Software Component Interfaces
- Software Component Structure
- Software Services
- Tasks
- CPU Memory Segments, Record Layouts, Addressing Methods
- Interface Mapping for Integration of foreign Software Components.

Introduction – MDX based Exchange Process Example



- ArComp – Software Components & Component Structure
- Arlf – Software Component Interfaces
- PaVaSt – Software Parameters, Variables and Structures
- IfMap – Interface Mapping
- Sched – Scheduling Information

What's new

- Extension of SW-CLASS to define types.
- Extension of SW-CLASS to define pure classes.
- Extension of SW-CLASS-INSTANCE to define instances of types.
- Extension of SW-CLASS-INSTANCE to define instances of pure classes.
- Most identifiable objects(objects which have a SHORT-NAME) received optional structures for administrative data(ADMIN-DATA) to enable documentation of revision information.
- Enable the description of software component structures(same as in FSX).
- Introduction of additional variation points(...-SYSCOND elements) across the xml structure. This extends the support of conditional compilation.
- Introduction of references to variables in an Array(SW-VARIABLE-AEREF).
- Extension of the SW-INTERFACE-MAPPING to define mappings of SW-SERVICES including source and target variables. Introduction of documentation in which SW-TASKs a mapping shall be performed.
- Introduction of MDX XML Namespace for XML Schema based MDX documents.

Compatibility

MDX 1.2.0 fits to FSX 1.1.0

MDX reuses patterns and xml structures defined by the following standards:

- ASAM Harmonized Data Objects (ASAM-HDO)
- ASAM AE Functional Specification Exchange Format (ASAM AE-FSX)
- AUTOSAR V4.0.3 and MDX share the Contents for <SW-DATA-DEF-PROPS>

MDX V1.1.0 instances are mostly compatible to MDX V1.2.0. Only some technical issues have to be changed (Public Identifiers, Namespaces, fixed attributes ...).

Relation to ISO

No direct relation to ISO Standards.