

ASAM OpenXOntology Proposal Workshop

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(Virtual)



Goals of Today's Workshop

- Gain an understanding of the motivation and expected outcome of an OpenXOntology Project at ASAM by:
 - Individual Member presentations on usages of ontology in the domain
 - Review of the current draft of the OpenXOntology Proposal
- Detail out the requirements for an OpenXOntology standard
- Define Work Packages to structure the proposed project

Agenda

Time	Title	Who
09:00 - 09:15	Welcome & Setting the Scene for the Day	Ben Engel (ASAM)
09:15 - 09:30	Introduction to ASAM	Klaus Estenfeld (ASAM)
09:30 - 11:00	Company Presentations	
11:00 - 11:40	Review Use cases & user perspectives	All
11:40 - 12:00	What is a user story?	Ulrike Parson
12:00 - 12:45	<i>Break</i>	<i>All</i>
12:45 - 13:45	Workshop Session: Definition of User Stories (based on Users Defined in Proposal)	All
13:45 - 14:30	Presentation & Summary of workshop sessions	All
14:30 - 15:15	Workshop Session: Definition of work packages	All
15:15 - 15:45	Presentation & Summary of discussion groups	All
15:45 - 16:00	Wrap Up and Next Steps	Ben Engel (ASAM)

Agenda – Company Presentations

Title	Who
Overview: What is an ontology	Ulrike Parson (Parson)
Knowledge-Based Scenario Generation Using Ontologies	Till Menzel (TU Braunschweig)
Integrating an Ontology with an ODD Definition Language	Iain Whiteside (FiveAI)
Leveraging Graph Databases (Neo4J) to design Ontologies	Marcos Nieto (Vicomtech)
Demo of an ontology for Scenario Design	Florian Bock (Audi)

User Perspectives

Model creator (e.g. sensors or other actors)

People who create sensor models / sensor fusion models in accordance to the Open Simulation Interface (OSI) standard

Test engineer

People who select scenarios from standard catalogs in order to create test cases and execute these test cases on different platforms (driving simulator, XIL rigs, track testing etc.) supplied by different vendors

Developer of an ASAM standard

Engineers with experience in the automotive and/or software sector participating in ASAM projects for implementing or extending ASAM OpenX standards.

Ontology maintainer

Ontology experts with a background in (software) engineering, linguistics, technical communication or similar.

Label annotator

Persons working for labeling companies, who create or edit labels about scenes (typically object and scene classes and attributes).

User Perspectives

Public domain user

People outside of ASAM who might be interested in accessing the data content of the OpenX projects

Tool developer (e.g. simulation interface developer)

People developing tools for data recording and for the design, measurement, simulation, testing and verification of components, driving systems, driving dynamics, environments, etc. (XiL). The tools are often part of a tool suite provided by a larger company.

Scenario creator

People who want to create scenario descriptions by writing them textually (either in natural language or in a technical format such as XML) or by drawing them graphically

Specification engineer

People who aim to create specification documents for systems- or functions-to-develop, often as textual artifacts

Workshop Session: Definition of User Stories

Length: 1 hour

- *Automatic room assignment*
- *Reconvene automatically in main room on end*

Group 1 [Moderator: Oihana Otegui, Vicomtech]:

- Label annotator
- Model creator (e.g. sensors or other actors)
- Tool developer (e.g. simulation interface developer)

Group 2 [Moderator: Siddartha Khastgir, WMG]:

- Scenario creator
- Test engineer
- Specification engineer
- ODD designer

Group 3 [Moderator: Ulrike Parson, Parson]:

- Developer of an ASAM standard
- Ontology maintainer
- Public domain user

Workshop Session: Definition of Work Packages

- For each Work Package (WP), please define a **title**, provide a short **description** and the expected **outcome**(deliverables) of such a WP - e.g. Guidelines, documentation, recommendation to another WP, etc.
- If possible, identify one or more **Persons** to coordinate this WP - at a minimum this person will ensure the WP is detailed in the project proposal, at best they will coordinate the WP work during the project.

Workshop Session: Definition of Work Packages

Length: 45 min.

- *Automatic room assignment*
- *Reconvene automatically in main room on end*
- *If you want to switch rooms, contact Ben Engel in Zoom*

1) Generic design of an Ontology (core ontology) [Moderator: Steven Kraines, Symphony]

- Modeling language for an ontology
- Use of an upper ontology
- Leveraging other standardization initiatives

2) Domain model for the OpenX standards (domain ontology) [Moderator: Florian Bock, Audi]

- Defining the overlapping or shared concepts across the OpenX domain
- Possible further breakdown (road, traffic infrastructure, dynamic)

3) Interfacing with other Standards and Activities (application ontology) [Moderator: Marcos Nieto, Vicomtech]

- How to integrate an ontology into applications

Open Points

- Tighten and consolidate existing user stories & create stories for the users from Group 2 – what level of granularity do the users need from an ontology?
- Work Package definition – need a coordinator for each to detail them out further or to setup further discussions.
 - Estimated effort to complete WP?
 - Ontology extendibility (breadth & depth)
- Service provider tasks (leads to budget to be provided by ASAM)
- Project deliverables
 - Integration into existing standards?
 - Core ontology
 - Extension guidelines
- Timeline / milestones
- Resource commitments (*man-days you/your companies are willing to invest into the project*)
- Project lead?

Next Steps

- Offline review and creation of user stories (deadline: 06.05)
 - Review the stories in the proposal document on the repository
 - **Create an issue if you want to start a discussion on any of them**
- Need a responsible(s) for each of the still missing users:
 1. Scenario creator – Steven Kraines
 2. Test engineer - Ed Schwalb
 3. Specification engineer – Florian Bock
 4. ODD designer – Maybe Siddartha
 5. Systems engineer – Alexandros
 6. Data Scientist – Ed Schwalb
- **Create an issue on the repository and submit the stories there**

Next Steps

- Discussion and feedback via Gitlab
- Proposal status review & next steps – 08.05 (2hrs)
- Final submission to ASAM TSC on 21.05
- Meeting to finalize proposal (2hrs): 19.05
 - By then, the open points need to be completed