2014 Main goals – OSLC4MBSE

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V0.7, April 2014

This document shall describe the way forward for our WG in 2014, an updated work plan and activities to engage the partners within the OSLC4MBSE working group.

The various themes describe topics which shall be addressed within the WG, their priority by order and the status of the work.

## Summary of Themes

Theme 1: Use Case to define interoperability scenarios

* Definition of an overall use case divided in multiple individual scenario
* Definition of models and engineering data based on scenario

Theme 2: OSLC Specifications for MBSE

* Define the OMG namespace URI and RDF for SysML 1.3 (other SysML versions and UML to follow)
* Definition of OSLC specifications to represent resources of the MBSE domain

Theme 3: Implementation and Demonstration

* In order to demonstrate our use case, a public demonstrator shall be developed. The developed adapters shall be open source, or at least openly available.

Theme 4: Dissemination and Exploitation

**Theme 1: Use Case to define interoperability scenarios**

* + **Define the challenges of “MBSE Interoperability”**

*This has been done sufficiently when defining the scope and purpose of the WG – see document on WG wiki.*

* + **Develop a use case based on public SUV example**

*The use case defined can be considered sufficient for a base line. The SUV example is the basic system we use.*

* *Both can later be extended with further scenarios and components. For example by defining capabilities/features which are envisioned for future/continuous effort of the WG. Define the challenges addressed right now and the ones for the future.*
  + **Models and engineering data used**

|  |  |  |
| --- | --- | --- |
| ***Model*** | ***Comment*** | ***OSLC Spec.*** |
| *SysML - Model of SUV* | *TBD – publically available from OMG, but needs to be checked and maybe even remodeled in the tools we want to use* | *OLSC-AM for SysML* |
| *MATLAB/Simulink* | *TBD – We could create our own little model (Option A).* | *TBD* |
| *CAD* | *We need a CAD model demonstration. Get in touch with DASSAULT Systems (Option A).*  *Get in touch with Siemens PLM (Option B).*  *Use partners capabilities to create a simple CAD model (Option C).* | *TBD* |
| *Requirements* | *Requirements in DOORS NG – Requirements are defined but we need to create the corresponding modules in a DOORS tool* | *OLSC-RM* |
| *Test Case* | *Test of the model, both CAD and MATLAB/Simulink.*  *IBM Quality Manager for test management and execution (Option A).*  *HPQC for test management (Option B)*  *Elvior for test execution (Option B)* | *OSLC-QM* |
| *[Optional] Safety Case* | *Safety Cases need to be developed – in FaultTree+ get in touch with Isograph (Option A). [BT]* | *TBD* |
| *[Optional] Cost Model* | *Life-cycle costs (e.g. COSYSMO and SEER for Software (SEER-SEM)). Integrate into the change request scenario.*  *Contact Russell Peak [Axel]* | *TBD* |

**Theme 2: OSLC Specifications for MBSE**

1. *Investigate how Systems Engineering concepts can be implemented using OSLC to achieve life-cycle integration (i.e. SysML as agreed starting point).*
2. *Investigate gaps in the existing OSLC specifications (e.g. are additional specifications needed to represent additional vocabulary?)*
3. *The following Interoperability levels shall be considered and realized incrementally:* 
   * *Implement Interoperability for LinkedData*
   * *Implement Interoperability running on LinkeData*

The specification shall contain:

* General requirements and needs for such a collaborative interoperability approach.
* Definition an OSLC specification for SysML
* Definition of multiple minimalistic OSLC-SysML specifications based on the various engineering domains concerned, for example:
  + SysML Requirements as OSLC-RM
    - Concept & Service
  + SysML Test as OSLC-QM
    - Concept & Service
  + SysML Structure as OSLC-AM
    - Concept & Service
  + SysML Behavior as TBD
    - Concept & Service

**Theme 3: Implementation and Demonstration**

* + **Create a public demonstrator – Tool Integration Scenario [TBD]**

*Notes: Ensure that solutions (adapters) are available open source for the wider public so that more people have access and conduct evaluations and experiment, also develop the solutions further.*

**Theme 4: Dissemination and Exploitation**

Disseminate the approach within the wider systems engineering community starting with:

1. OMG
2. INCOSE