ITEA2-ModelWriter-13028 Project



Date	Subject	Location	Version	
2015.06.23	3rd. International Workshop Face to face in Toulouse 1.0			
Conf. Link	https://plus.google.com/hangouts/_/modelwriter.eu/project			
Published	https://github.com/ModelWriter/WP5/tree/master/Meeting%20Minutes https://github.com/ModelWriter/Workshops/tree/master/2015-06-23			

Attendees:

Name	Function	Company	Attendance
Ferhat Erata [FE]	Project Leader	UNIT	Yes
Moharram Challenger [MC]	Secondary Contact	UNIT	Yes
Etienne Juliot [EJ]	French Consortium Coordinator	OBEO	No
Marwa Rostren [MRO]	Technical Contact	OBEO	No
Yvan Lussaud [YLU]	Technical Contact	OBEO	Yes
Prof. Erhan Mengüsoğlu [EM]	Turkish Consortium Coordinator	MANTIS	No
Anne Monceaux [AM]	Technical Contact	AIRBUS	Yes
Samuel Cruz Lara [SL]	Secondary Contact	LORIA	Yes
Prof. Claire Gardent [SC]	Primary Contact	LORIA	Yes
Prof. Geylani Kardaş [GK]	Technical Contact and Consultant	KOCSISTEM	No
Mehmet Önat [MO]	Primary Contact Point	KOCSISTEM	No
Hale Gezgen [HG]	Secondary Contact Point	KOCSISTEM	No
Ersan Gürdoğan [EG]	Secondary Contact Point	HISBIM	Yes
Taşkın Kızıl [TK]	Primary Contact Point	HIBIM	No
Oğuz Yıldız [OY]	Technical Contact	HISBIM	No
Emil Khamitov [EK]	Technical Contact	UNIT	No
Prof. Hans Vangheluwe [HV]	Consultant	UNIT	No
Prof. Monique Snoeck [MS]	Belgian Consortium Leader	KUL2	No
Prof. Sien Moens [SM]	Secondary Contact	KUL1	No

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Yagup Macit [YM]	Technical Contact	Havelsan	No
Eray Tüzün [ET]	Technical Contact	Havelsan	No
Nuran Göksu [NG]	Primary Contact	Havelsan	No
Dr. Mariem Mahfoudh [MM]	Technical Contact	LORIA	Yes

Agenda:

	No	Topic	Comment
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The system should automatically transform every model instances into OWL statements.

User Story 1: Creating Initial Links between text and Knowledge Base (no directions)

- Feature 1: Consistency Check of the synchronization links on the KB
- Feature 2: Recommendation of the links between the RDF Store (KB) and the text.
- 1. User selects the whole or a part of the text and KB (Classes)
- 2. The system automatically generates some possible links between KB elements and text elements.
- 3. User selects some of the links.
- 4. Each link triggers the creation of:
 - a. Synchronization mapping between KB element and the location of the text element
 - b. RDF triple T encoding the corresponding synchronization information. If T is consistent with KB, the triple T is added to KB

User Story 2: User wants to synchronize semi-automatically text fragments with models.

- Precondition: User has already configured the user models, text documents and the knowledge base.
- 1. User selects text fragments
- 2. System suggests corresponding texts and model synchronizations.
- 3. User validates and selects one or more syncs.
- 4. System performs consistency checks.
- 5. If all the mappings are consistent, system transforms synchronizations to RDF triples.

User Story 3: User wants to synchronize manually text fragments with model.

- Precondition: User has already configured the user models, text documents and the knowledge base.
- 1. User selects text fragment.
- 2. System provides several ways for the user to select the model elements (Tree-based, search based)
- 3. User links to model element(s).
- 4. System performs consistency checks.
- 5. If the mapping is consistent, system transforms synchronizations to RDF triples.

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User Story 4: User deletes a word which is already synchronized.

- 1. User deletes a word.
- 2. System removes the corresponding synchronization triple from the KB.

User Story 5: User modifies a word which is already synchronized.

- 1. User modifies (renames) a word
- 2. System removes the corresponding synchronization triple from the KB
- 3. The system creates new synchronization triple in the KB for the new word.
- 4. System performs consistency checks.
- 5. If the mapping is consistent, system transforms the synchronization to a RDF triple.

User Story 6: User deletes a model element which is already synchronized.

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1. ModelWriter Text Editor

- 1.1. Document Metamodel Definition
- 1.2. User Interface for Text Connector (Text Import) of OOXML (.docx)
- 1.3. Document Parser (Apache POI)
- 1.4. FileDocumentProvider
- 1.5. RuleBasedPartitionScanner & RuleBasedScanner function: Syntax Coloring & highlighting rules
- 1.6. SourceViewerConfiguration
- 1.8. Text Marking and Highlighting (With disable/enable capability)
- 1.9. Context Menu
- 1.10. Damage-repair strategy (next iteration)
- 1.11. Folding (next iteration)
- 1.12. Content Assist (next iteration)
- 1.13. Outline (next iteration)
- 1.14. Error Markers (Next iteration)
- 1.15. Heading Styles (Next iteration)
- 1.16. Bold, Italics (Next iteration)
- 1.17. Content Assists (Next iteration)
- 1.18. Indentation

2. Model Transformation

- 2.1. ModelWriter Model Editor
- 2.2. Model Connector
 - 2.2.1. Model Import: User model to MW model transformation (e.g. from BPMN to model editor)
 - 2.2.2. Model Generation: MW model to User model transformation (e.g. from model editor to PMN)
- 2.3. Context Menu (for eObjects, eProperties, and so on)
- 2.3.1 Connecting the element with the text via the synchronization mechanism (Obeo MM and API) using the checking ability of KB

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- 2.4. M2KB (and v.s.) transformation/synchronization
 - 2.4.1. Transform Registered Metamodels to RDF Triples and push to knowledge base
 - 2.4.1. Transform Registered Models (Instances) to RDF Triples and push to knowledge base
- 2.5. Textual synchronization specification language

3. Integration with the Knowledge Base

1	Knowledge base structure	 - KB repository: OWL, TopicMap,? - Its meta model - Its functionality and services - Its input and output
2	Tooling architecture	 Big picture of the architecture Separation of Syntactic and semantic connections between terms and model elements Fully Eclipse base ModelWriter (connectors for import and export from/to other tools, e.g. MS-Word) The core ModelWriter supports simple text and model
3	Preparation for the Review Meeting in Brussels	 Providing the presentations before the meeting Organizing a workshop the day before the meeting with participation of all partners
4	Deliverables in the agenda	
5	Belgium status	
6	Software Requirement Review meeting	

Software Requirements related to Concrete Syntaxes:

- 1. Model Part shall connect one or more model instance to a term and section (a piece of text) a context menu and several wizards. The wizards can be considered as a part of the concrete syntax of model part.
- 2. Writer Part shall connect a term or section to several model instances by the help of a context menu and several wizards. The wizards can be considered as a part of the concrete syntax.
- 3. Model Part shall map an instance to one or more Knowledge Base concepts or relations by the help of a context menu and several wizards. The wizards can be considered as a part of the concrete syntax.
- 4. Writer Part shall map a term or section to one or more Knowledge Base concepts or relations by the help of a context menu and several wizards
- 5. If a user provides a transformation file conforms to WP3's transformation language, the component of WP3 automatically maps user selected instances to user selected KB concepts.

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6. Semantic parser of WP2 automatically locate terms in the text to be mapped to corresponding KB concepts or relations (suggests not maps)

7.

Software Requirements related to Behaviour (Semantics) of the ModelWriter Editors:

1. The transitivity of mappings:

If the a concept in KB is connected to a model instance in the model part and the same instance is connected to a term in the writer part, should we automatically connect the term to the same concept in the KB?

- 2. If a user modifies the text of a term which is already mapped to Knowledge Base concept/relation or connected a model element, what is the exact behaviour of the editor for each case?
 - a. Moharram could you comment the results here?
- 3. Should The synchronization mechanism support only EObjects or should it support EAttributes and EReferences as well? for instance, let's consider the case that user changes an attribute of a model instance. Should we propagate this change to the term in the writer part. (Lets discuss in Toulouse)

Software Requirements related to Abstract Syntaxes:

1. Synchronization Metamodel Proposal (as simple as possible)

Arbitrary EMF model instances can be connected.

A term shall be able to be connected with several model instances on the same synchronization element. The goal is to keep several entities connected together.

Definition of Synchronization Errors (static semantics)?

2. Document Metamodel Proposal

Maximum Performance shall be maintained to process the the text considering background operations.

3. Knowledge Representation Formalism (Knowledge Base Metamodel)

We assume that synchronization mechanism of the knowledge base supports one direction. Suggestions of concepts and relations from KB to user while writing related text or by a user triggered event.

The knowledge base should be integrated with Protege and/or Jena in order to enable to write a technical document by the help of a (existing) knowledge base:

- Protégé is a free, open-source platform that provides a growing user community with a suite of tools to construct domain models and knowledge-based applications with ontologies. (http://protege.stanford.edu/)
- A free and open source Java framework for building Semantic Web and Linked Data applications. (https://jena.apache.org/index.html)

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Action plan:

No	Item	Assigned to	Due Date	Status
1				
2				
3				
4				

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