MEETING MINUTES

ITEA2-ModelWriter-13028 Project

Date	Subject	Location
2014-12-17	French consortium Use Cases	Airbus Group, Toulouse, France

Attendees :

Name	Function	Company
Anne Monceaux [AM]	WP1 leader	AIRBUS GROUP
Etienne Juliot [EJ]	French Consortium Coordinator	OBEO
Marwa Rostren	Secondary Contact Point	OBEO
Claire Gardent [CG]	Primary Contact point	LORIA
Samuel Cruz-Lara [SC]	Secondary Contact point	LORIA
Louis Rouch	Industrial UC provider	AIRBUS

Agenda :

Topic	Comment
Airbus use cases 04 and 05 : SIDP	The use case is proposed by Louis Rouch (Airbus ESIR team). It is presented by Louis during the afternoon. SIDP = System Installation Design Principles Context: A SIDP document describes installation rules and requirements. There exists one SIDP per system (or rather per ATA); and for each new aircraft program a new set of documents is created. The object in the SIDP is to identify as accurately as possible the installation rule (~similar to installation requirement) applying to components, depending on business rules and on physical constraints (cables, radiation, angles, installation distances, etc…). The Airbus ESIR team is trying to transform the multiple SIPD documents into one DB where all rules will be represented, stored and managed for all programs. The ESIR team has manually created a SQL server DB: ● The current DB is not complete wrt the documents ● The document also contains other information such as rationale or contextual info that are not in the DB ● The authors of the document are currently experiencing the writing of the rules using a dedicated DB interface – they do this in addition to the writing of the document The rules inside SIDP documents are written in natural language but also include figures and tables (probably edited in Excel). A second tool is shown by Louis: it is a graphical interface in HTML to help the designers to search for rules and associated data. In this demo

	Rules are hard-coded; each term of a requirement is stored apart (combo box with predefined values, etc…) Rational: there are several interrelated issues (the last two ones in italic cannot be addressed in the frame of ModelWriter) - the usability of SIDP for the designers; the documents describe installation principles that need to be followed, applied and verified. The designers must retrieve the design principle to be applied in each particular installation case. Today this retrieval activity is cumbersome, error prone and time consuming… (There are multiple documents for a same system and cross-references between documents, etc.) - the creation of the SIDP documents for a new aircraft program. Today Airbus is paying high rate the transition from a project to another. - *The link with the DMU (digital mock-up, CAO). Teams need to import the modifications toward/from the DMU.* - *the management of all the rules in configuration* Needs to be addressed: The idea is to establish a model at Knowledge level and to enable its usage to retrieve/extract the rules attached to a given component, as well as all the interrelated rules. **OBEO** : a demonstration of SIRIUS and a quick introduction to SMARTEA are done by Etienne
Airbus Group use case : Operational cases requirement – design model	The UC is proposed by Anne Monceaux Context: Airbus Group developed an in house tool to support the high level description of aircraft operations and functions. ● A DB contains the architecture elements – (component, function, condition…) - it is modeled as SQL tables ● Some model elements are intended to describe operational cases. ● A first taxonomy is already defined, including configurations, conditions, failure cases, flight phases, etc... ● Yet these concepts are not explicit in the documents (e.g. needs for a semantic analysis) ● Various public or private existing documents describing certification requirements, operational performances, operational scenarios, etc. can be source document to complement and to instantiate the model. Rational : ● The team has difficulties in extracting / modeling operational case information Needs to be addressed: ● To express the operational requirements and associated performance targets – (natural language – model)

	● To instantiate the model based on several documents ● Detect inconsistencies between the instantiated model and existing model In order to improve the expression of the requirements and to perform the NLP analysis/generation, Anne propose that we also use the QUDT : Quantities, Units, Dimensions, Datatypes) http://qudt.org/ for extending her model e.g. **F length** is a **length** Every **length** is in {**cm**, **m**,…} **F length: Composant** **Length: attribute** **Cm: value** as well as other domain specific measurements such as DAL (Development Assurance Level : catastrophic, major, etc…) and order/comparison operators (equal, smaller than, greater than, etc…)
(potential) Airbus Group Use case : Function Flow model	The UC is proposed by Anne Monceaux - Its adoption in the project is still to be decided since Anne considers this case may be less important than the two previous ones. Anne will check if connection can be made with the previous ones. Context: eFFBD models (XML format) are used by Airbus to support functional analysis. The model describes the main architecture components, their function, their interrelation, function flows and operational scenario. eFFBD: Enhanced Functional Flow Block Diagrams are used to describe processes, scenarios or high level functional behavior of systems. The tool CORE (from Vitech) has been used for 6 or 7 years in several systems modeling projects in Airbus. The tool meta model allows describing a logical architecture (components, link interfaces…) and functional flows (input/output items for functions flowing through links, etc.). The tool is used to describe both functional flows and / or operational scenarios. It generates xml files. Idea: to synchronize models with requirement and definition documents. Anne presented examples of requirement document (FRD) and definition document (FDD) based on a CORE model and manage the links between doc and model. **NOTE OBEO:** ModelWriter challenge could be to manage the links with the models in case of modification of the documentation such as a sifting of sections in a document.
Obeo use case FR-01: SIRIUS documentation	The use case is proposed by Obeo Context: Obeo is developing the Sirius software and its documentation. Sirius is open source and uses code from other projects. Obeo has developed eCORE models and generates part of the Sirius code, which is later enriched to add functionalities to the software. The documentation of the last Sirius version is presented.

	Rational: In some part of the documentation, the terms used are linked in an explicit way to the eCORE concepts used in the model/code. But it is not the case for all parts of the documentation. Since the documentation is not completely aligned/linked with the code, the review of it in case of code changes is difficult. Especially the user guide is expressed in terms of usage scenarios. The linking to the model will require some work for natural language processing.
Demonstration of the Intent project	A demonstration of Intent is done by Marwa. The technology requires using a specific editor. To make the technology independent of this Textile Mylyn editor, OBEO will study how to transform documents (word, open office, others) to enable the creation of links /references with models or with code parts.

Task	
Writing of Airbus Use case deliverables	Anne Monceaux
Writing of Obeo Use case deliverables	Marwa Rostren
Presentation of Loria technologies and methods	Claire Gardent, Samuel Lara Cruz