RDP - Reference Data Project

This mind map serves as the project documentation.
The data file is stored in the OASIS PLCS TC document repository. It will be continuously updated. Updates will be sent to the RDP members closely after meeting or workshops as 'PDF'- and 'mm'-files.

1 RDP mindmap revision

This mindmap was last updated 2008-10-22.
The mindmap is created using the FreeMind open source tool. The version 0.9.0 beta 16 is used. There are problems displaying the mindmap properly with other versions of the tool, except for those in the '0.9.0 beta x' range.

2 Project description

The over-all objective is to develop the infrastructure (or framework) needed for the development and storage of PLCS Reference Data, i.e. the rules, principles, process descriptions, tools etc. that support RD development and storage. This infrastructure/framework is referred to as the 'Reference Data Infrastructure' (RDI).
The primary objective of the Reference Data Project (RDP) is to address comments from the 'DEXs Revision V1' review that are related to the OASIS PLCS Reference Data, in order to move the ballot resolution forward, allowing the first two DEXs to become technical specifications. This includes updating or creating the actual Reference Data needed for these DEXs.
The secondary objective is to address the tasks set up by the Core Team at the Painswick meeting spring 2008, reflected in the "Phase II" Excel sheet. This objective overlaps to some extent with the primary objective when it comes to the actual tasks needed to complete.
The project should of course also identify other required tasks that needs to be addressed in order to create a functional RDI.

3 Action list

This list contains actions that shall or has been completed. Actions written in '**bold**' are not completed an actions in '*italic*' are on hold. The list is reviewed during each meeting.
- (Adrian) - Compose a document (draft) describing business benefits.
- **(Nigel) - Compose an initial document describing the Requirements on RD and the RDI.**
- **(Mats) - Identify RD related ballot comments and inform RDP members**
- **(All) - Review list of RD related ballot comments**
- **(Mats) - Distribute documentation on previous RD-work to the RDP members**

4 Participants and resources

The following persons are, or have been active within the RDP, and have committed the specified amount of resources.

4.1 Mats Nilsson

- Company: FMV - Swedish Defence Materiel Administration
- E-mail: mats.nilsson@fmv.se
- Planned contribution/participation: 75h (2008), 100h (2009)

4.2 Leif Gyllström

- Company: SAAB Aerotech
- E-mail: leif.gyllstrom@saabgroup.com
- Planned contribution/participation: 150 (2008), 150 (2009)

4.3 Jim Colson

- Company: US Army LOGSA
- E-mail: james.colson@us.army.mil
- Planned contribution/participation: 100h (2008), 200h (2009)

4.4 Adrian Blenkiron

- Company: Rolls Royce Defence
- E-mail: adrian.blenkiron@rolls-royce.com
- Planned contribution/participation: 50h (2008), 150h (2009)

4.5 Audun Bentsen

- Company: Jotne EPM Technology
- E-mail: audun.bentsen@jotne.com
- Planned contribution/participation: 40h (2008), 160h (2009)

4.6 Rob Bodington, Nigel Shaw

- Company: Eurostep Group
- E-mail: rob.bodington@eurostep.com
- E-mail: nigel.shaw@eurostep.com
- Planned contribution/participation: 100h (2008), 100h (2009)

4.7 Veronica Haderlein, Fredrik Lied Larsen, Trine Hansen

- Company: Det Norske Veritas
- E-mail: fredrik.lied.larsen@dnv.com

- E-mail: veronika.haderlein@dnv.com
- E-mail: trine.hansen@dnv.se
- Planned contribution/participation: ? (2008), ? (2009)

4.8 (name template)

- Company:
- E-mail:
- Planned contribution/participation:

5 Meetings

This section collects the schedules for planned meetings, as well as agendas and notes for each individual meeting.

5.1 Meetings plan

- Face-to-face start up meeting, Gothenburg 2008-09-29
- WebEx and Telecon, 2008-10-20
- WebEx and Telecon, TBD
- WebEx and Telecon, TBD
- Face-to-face meeting (Florida? 2008-12 -- 2009-01)

5.2 Start-up meeting in Gothenburg

Time: 2008-09-29T15:30--18:00 (local time)

5.2.1 Participants

Mats, Leif, Veronica, Jim, Adrian, Nigel participated in the meeting.
No participants on the telecon.

5.2.2 Agenda and Notes

Presentation
Everyone gave a short presentation of themselves.
Resources
The estimated amount of resources from the Phase II resources (bullet 8) is 300h, not included bullet 8-1.
A summary of the currently available resources (see the 'Participants and resources' section) gives the estimate of 475h available for 2008, and 700h for 2009. The summary is exclusive of resources foreseen from NDLO to DNV and Eurostep. This means the willingness to support this activity is high and resources is not an issue. The possibility to find time to do work will most likely reduce the time that actually will be used.
Project activities
The suggested tasks were looked through ('Activities' section of mind map),

new tasks added (create business benefits and requirements document) and to some extent detailed.

It was decided that Adrian should begin the creation of a document to describe Reference Data business benefits.

Nigel was given the task to start looking at the definition of requirements on a Reference Data solution (see the 'Activities' branch for further information).

Project methods and future meetings

Project milestones needed. Also a first description of business benefits and requirements for RD.

Web-ex and telecons. First meeting 2008-10-20, hosted by Eurostep.

Weeklong work face-to-face meetings move work forward. First meeting early december - mid January.

5.3 Webex and Telecon 2008-10-20

Time: 2008-10-20T15:00--16:00 (GMT)

5.3.1 Participants

Mats, Rob, Trine, Auden and Fredrik participated in the meeting.

5.3.2 Agenda and Notes

Resources update

The participation from EPM (Auden Bentsen) set the total available resource estimate to 515h available for 2008, and 860h for 2009.

The FMV funds have been slightly delayed but are expected to be in place quite soon. This affects the participation from Eurostep and Saab.

DNV has not yet been able to specify their future commitment.

Project purpose

Except for Mats, none of the participants in this meeting had attended the Gothenburg start-up meeting. Therefore, much of the discussion was about the purpose of the project and the way (method) of work. The description of the purpose of the project ('Project description section) has been updated to reflect this discussion.

Activities

As reflected in the slightly modified project description, the DEX ballot comments related to Reference Data are considered to be one the stakeholders of the RDI with the highest priority. Mats accepted the task to look through the ballot comment spreadsheet sent out by Bryant Allen (LOGSA), identify the RD related comments, and then send it to the RDP group for review.

RD history

Mats was also given task to forward documents to the members of the RDP, describing previous RD-work included in the final report by Trine describing the DEX phase I development activity. And also to forward the document describing RD business benefits created by Adrian

Future meetings

It was agreed that the schedule for future meetings was to be discussed using e-mail.

5.4 (next meeting)

Time:

5.4.1 Participants

5.4.2 Agenda and Notes

Resources review
Review action list
Discussion on RD nomenclature
TBD
Future meetings
Update action list

5.5 (meeting template)

- (next meeting)
  Time:
  - Participants
  - Agenda and Notes
    - Resources review
    - Review action list
    - TBD
    - TBD
    - Future meetings
    - Update action list

6 Activities

6.1 Stakeholder identification

The purpose of the 'Stakeholder identification' activity is to identify those stakeholders of the RDI whose requirements will govern its architecture. Possible stakeholders are;

- Marketing (person) - Motivate the existence of the system in order to fund resources for further development and maintenance

- Reviewing (person) - Check if RD is syntactically correct and complete

- User (person/system) - Use system to classify data and extend existing RD

- RD developer - Need support and guidelines for development of RD

- Exchange solutions (person/system) - Guidelines for implementation to support DEX data exchanges

Specifications and standards

- ISO PLCS XML schema (specification) - The RD shall use the PLCS schema as the upper ontology

- OWL (recommendation) - The RD shall be expressed using the XML/RDF/OWL notation

6.2 Describe business benefits

- **Task responsible**: Adrian Blenkiron

Description: Create a description of the business benefits of the use of Reference Data.

6.3 Identify requirements for RD

- **Task responsible**: Nigel Shaw

Description: Identify the requirements for RD and the RDI.

6.4 Identify and Address ballot comments

6.4.1 Identify RD related comments

- **Task responsible**: Mats Nilsson

Description: A number of ballot comments to the first DEXs Committee Specification ballot are relevant to the Reference Data Project. These needs to be identified, agreed upon within the RDP and officially assigned to the RDP to solve.

6.5 Possible tasks

These tasks were identified based on 'gut feel' in prior to the more structured SE (15288) approach.

6.5.1 Create concept model

A concept model describes the relationships between concepts related to Reference Data and the terms used for communicating these concepts. An agreed and commonly understood concept model or terminology for Reference Data is essential both for internal development activities, as well as for clearly communicating the output of these activities.
A first draft exists in the 'ppt' file; - "Concept model for OASIS PLCS Reference Data".

6.5.2 RD guidelines and rules

- **Task responsible**: (not assigned)

Description: Develop guidelines and rules for the content of RD ontologies and classes. This includes creating the 'Reference Data Checklist'. It also includes to establish guidelines regarding the interactions/interoperability with RD from other sources in possibly other formats. Also to decide on how 'intelligent' the RDL should be
Relationship with other 'RD'
Investigate the relationship to other existing taxonomies/ontologies which OASIS PLCS RD could be influenced by
Examples of such are;
- ISO 15926-4 - Oil and Gas
- ISO 13584 - PLIB
- DoDAF, MODAF, NAF, etc.

- ISO 12006-3
- Other high level ontologies/taxonomies

ISO 15926 part 4 is the ISO-standardized part of the Reference Data Library (RDL). ISO 15926 part 4 is also called the "Core Library". An RDL is like a class library which also contains reference individuals. A class in the RDL is the definition of a type, a kind. Individuals are not classes, they are unique. But an individual is member of one or more classes. To be a member of a class in ISO 15926 is called "to be classified as". The RDL contains classes and a few reference individuals. A reference individuals is an individual that is referenced so often that it makes sense to store it in the RDL. Examples of reference individuals are: London (city), Germany (country), Shell (company) (more on http://www.fiatech.org/projects/idim/dsciso15926.htm).
ISO 13584 (PLIB) is a series of International Standards for the computer-sensible representation and exchange of part library data. The objective is to provide a mechanism capable of transferring parts library data, independent of any application which is using a parts library data system. The nature of this description makes it suitable not only for the exchange of files containing parts, but also as a basis for implementing and sharing databases of parts library data.
ISO 12006-3:2007 specifies a language-independent information model which can be used for the development of dictionaries used to store or provide information about construction works. It enables classification systems, information models, object models and process models to be referenced from within a common framework.
Address multilingual aspects

6.5.3 RD normalized form

- **Task responsible**: (not assigned)

Description: Develop a 'normalized form' or/and XML schema and/or XSL in DEXlib that reflects the decisions taken in the 'RD guidelines and rules' task, and that points out inconsistencies to the developer/user.

6.5.4 Update and complete RD

- **Task responsible**: (not assigned)

Description: Update and complete the existing RDL according to the results of the 'RD guidelines and rules' task and the 'RD normalized form' task. This must be done in parallel to addressing the ballot issues for the D003 and D011.

6.5.5 RD development process

- **Task responsible**: (not assigned)

Description: Examine, and if needed, modify the RD development process description based on experience from the 'Update and complete RD' task.

6.5.6 RDL server description

- **Task responsible:** (not assigned)

Description: Describe the RDL server concept from an implementer point of view.

6.5.7 Update Info pages

- **Task responsible**: Mats Nilsson (together with the 'task responsible' for each listed task)

Description: Update the PLCS Help and Information Pages according to the results of the other tasks. This activity should be executed in parallel with the other tasks.

6.5.8 Tool support for development

Investigate and suggest software tools for development of OASIS PLCS Reference Data

- Protege
- Model Features
- Development of new application
- Others

7 Project deliverables and Systems Engineering documentation

The ISO 15288 framework for SE is being used to guide the steps in the development of the 'Reference Data Infrastructure' (RDI). This section collects the output from project activities

7.1 (RDP-001) - RDP project report

The 'RDP project report' is an export of the project documentation mindmap in PDF format.

7.2 (RDP-002) - Stakeholder description

The result of the stakeholder identification activity is described in the 'Stakeholder description' document (RDP-002).

7.3 (RDP-003) - Concept Model for OASIS PLCS Reference Data

The 'Concept Model for OASIS PLCS Reference Data' describes and defines RD related terms and concepts. An agreed an commonly understood nomenclature is essential bot to internal work, as well as for exteral communication.

7.4 (RDP-004) - PLCS Reference Data - Business Benefits

This document describes the reason for PLCS Reference Data. The purpose of

the document is...