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SC32 N 1806
SC32WG2 mmmm

Title: Report on the Study Period Meeting and Recommendations - Wuhan

Date: Sept. 22th, 2008
Type of Documents: Meeting Report
Source:

Keqing HE (Chair, China,),
Hajime HORIUCHI (Co-Chair, Japan),
Doo-Kwon BAIK (Co-Chair, Korea)

Attachment:

Meeting Minutes

References:

- Calling Notice: (SC32N1785, SC32WG2N1140)
- Agenda of the workshop: Attached,
- Meeting Minutes: Attached
- Document register:
  http://www.tiu.ac.jp/org/forum-01/index.files/Page2494.html

Background and Purpose of the meeting:

According to a resolution of SC32 Sydney plenary (Resolution-WG2-xxxx), A Study period meeting was held as a part of the workshop on ROR/ODMS/SMMP at the SKLSE (State Key Laboratory of Software Engineering) of the Wuhan University, Wuhan, China on Sept.4th – 6th, 2008.

The purpose of this meeting was to confirm and to investigate the viability of study topics that were proposed to the SC32 Sydney plenary meeting on May 2008.

The study topics that were approved at the SC32 Sydney plenary are;

- ROR: Registry Of Registries
- ODMS: On Demand Model Selection
- SMMP: Semantic Metadata Mapping Process

Results of the Meeting

Through the meeting, following decisions were made and recommendations to be

submitted to the next coming SC32WG2 meeting at Portugal (Nov. 2008) were adopted by attendees of the meeting. Decisions made at the meeting were described on the slides (WHU-ROS-014).

1. **ROR (Registry Of Registries)**

   The necessity and objectives of the ROR standardization were presented by **Hajime Horiuchi** (WHU-ROS-001).

   The scope and approach to the standardization were discussed (WHU-ROS-012). **Kevin Keck** proposed another different approach that implies the decentralized governance of the registries although the current proposal on the ROR is intending the centralization of registry information (WHU-ROS-002, WHU-ROS-013).

   Therefore, the study project should be in charge of the investigation on the decentralized self autonomic capability of the ROR that cope with the emerging needs on the service registries.

   Baba Piprani and **Bruce Bargmeyer** made significant suggestions to the study project on the metamodel for SOA (WHU-ROS-015) and the future MDR requirements to the Semantic Interoperations (WHU-ROS-004).

2. **ODMS**

   The current status of the ODMS project and visions were presented by **Wang Jian** (WHU-ROS-005), **Wang Chong, He Yangfan** and **He Keqing** (WHU-ROS-006).

   The basic structure of the ODMS metamodel standard was discussed and the decomposition in to several parts of standards was proposed.

   Especially, the metamodel for services which might enable the service registration in future, was proposed to be separated independently as a counter part of the MFI standard to the metamodel for process registration (MFI-5). Also, some of the study results were recommended to be a technical report of ISO/IEC JTC1.

3. **SMMP**

   This time, no particular presentation was made at the meeting on this topic. However, **JING Yixin** made presentations on the current status of topics, such as SQL MM MDR and the Extending MDR to Semantic Web (WHU-ROS-009 & WHU-ROS-010)

Recommendations;

As the result of the meeting, following recommendation were adopted by attendees to be submitted to the next coming SC32WG2 meeting at Portugal (WHU-ROS-014).

1) ROR

The study should be continued taking suggestions such as decentralized service definitions into account.

- The 2nd study report should be submitted to the SC32WG2 Portugal Meeting.
- The WD should be prepared by the SC32 Korea meeting on June 2009.

2) ODMS

The study should be continued. The result of research of ODMS should be decomposed into four parts:

- MFI-5: Registration of Process Model (current status: WD)
- MFI-7: Registration of Services (New part of MFI)
- MFI-8: Registration of Role and Goal (New part of MFI)
- ISO/IEC TR?: Using RGPS for on demand model selection (NWI type3 technical report)

Those proposals should be prepared by the next coming SC32WG2 Portugal meeting. New Standardization activities which develop new parts of MFI family of standards should be considered in the SC32WG2.

3) SMMP

No particular recommendation was made.

Suggestions by workshop presenters:

Harold Solbirg, distinguished speaker of the workshop made a presentation on the semantic federations of terminological resources and suggested the future requirements on the semantic interoperability.

Masaharu Obayashi made a presentation on the final revision of MFI-2 and MFI-4 that are expected to be submitted FDIS balloting by the end of this year.

4) An Agreement toward the integration common facilities of MDR + MFI

There was a discussion on the possibility of the integration of common facilities among MDR and MFI, such as Administered Item, Identification & Designation & Naming that are considered in the ISO/IEC11179 2nd Edition. The group agreed to further investigation on those integration in future activities (WUH-ROS-014) .

Appreciations:

All of project members and attendees would like to extend appreciations to Prof. He

Keqing and all of staffs of the SKLSE of the Wuhan University for sophisticated facilities and accommodations.

Minutes of ROS Workshop in Wuhan

(2008.09.04—09.06)

Attendees:

Bruce Bargmeyer (LBL, US)
Kevin Keck (LBL, US)
Harold Sorbilg (Maiyo Clininc, US)
Baba Piprani (CA)
Hajime Horiuchi (Tokyo International University, JP)
Masaharu Obayashi (KThree, JP)
Jing Yixin (KR)
Keqing He (Wuhan University, CN)
Yangfan He (Wuhan University, CN)
Wang Chong (Wuhan University, CN)
Wang Jian (Wuhan University, CN)

Presentations:

1. ISSEUS for ROR: Hajime Horiuchi

ROR (Registry of Registries) is the key objectives of the MFI standards to materialize the interoperability among industries business processes.

MFI: ISO/IEC 19763 (Metamodel Framework for Interoperability)

EC/EB related standards ----EDIFACT, ----ebXML

Cross Industries Information Sharing.

Emerging needs for the Model Sharing. Product life cycle mangerment.

Actual reification of Cross Industries Interoperation is needed.

Current status of the registry:

A lot of actual registries are enforced and working in various business domains.

They were developed mostly according to requirements in their specific domains.

Each registry has own structure, fashion and procedure.

Most of them did not pay attentions to other registries.

Even if, they could follow particular standards, most of those standards themselves might be domain specific.

What is the Registry:

Registry has several meanings, all of which generally relate to its original or historical meaning as a written, official or formal record of information, or the place where such records are kept.

Office where registrations are recorded; database for storing system configuration information.

Questions/Issues:

How to support different Registry standards describing their metamodels by MFI2

How to Discover and Cast registriesies Web Service

Should we register metamodels at the Level2

Should we ask the target model to be described by MFI2 or MOF

Should we Integrate the Administrative ITEM

Should we provide the Model Mapping

Should we provide a Universal ID

Should we require Data Quality

Registration Procedure

How to Map:

MFI-2 (Core Model) is used for registration of metamodel

MFI-4 (Model Mapping) to be used for describe model mapping

The ebXML Core Component to be used for type matching

Questions:

1. Bruce: How to simplify the process?
2. Baba: How to map the concepts from one model to another in one domain. Since they are different.
3. Baba: How to search? Since the concepts are in different databases?

2. Where Are We Going?: Kevin Keck

XMDR and 11179-3 Ed 3

Historically Distinct Disciplines:

Data Management: ISO SQL, OMG UML, CWM, W3C XML

Vocabulary Management: ISO TC37, OMG TQS, W3C SKOS

Ontology Management: ISO Common Logic, OMG ODM, W3C OWL/RDF

Aligning different realms of metadata standards:

Information Artifacts: OMG Standards: MOF, UML, CWM, schemas, models, …

Conceptual Models:

Ontology/Concept Mismatch: Multiple ontologies may describe the same concept, in different ways, using different names and identifiers

Synonymy of terms is not the same as equivalence of ontology entries (synonymy ≠ sameAs)

see Cyc microtheories

Concept maintenance is a lot of work!

Metathesauri:

Integrate multiple thesauri into a common knowledge base

First UMLS Metathesaurus of Medicine published 1990, by US National Library of Medicine

NCI Metathesaurus released in 1999, by US National Cancer Institute

Not (currently) a standard, but formats and many tools are in the public domain

Substantial published literature

Ontologies As Representations:

Multiple identifiers for same concept

Multiple assertions of same relationship

Multiple notations

Divergent formal (logical) semantics

Always partial description

Web 1.0: Content Is King

Web 2.0: Interaction Is King

Web 3.0: Data Is King

Web 4.0: Automation Is King? Collaboration Is King?

Web 5.0: Automation Is King?

Discussion

Timeline:

Study period: 2008.05-2009.06

Report should be submitted to SC32 plenary

Standard: new standard -> NWI Proposal

Project subdividing -> MFI part-X

Questions/Issues:

How to support different registry standards -> registered their metamodels by MFI-2.

How to discover and cast registries -> web service

Should we register metamodels at the level 2?

Should we ask the target model to be described by MFI 2 or MOF?

Should we integrate the administrative ITEM

Should we provide the Model Mapping?

Should we require Data Quality?

3. Federating terminological resources from the BiomedGT perspective:

Harold Solbrig

How do you establish semantic equivalence?

A standard criteria set, but it could be different for different domains.

In aircraft, tolerances are strict, on ground, different rule sets apply.

Three domains but the same object – to establish mappings, business rules are different, aiming are different.

Thesis: Interoperable ontology models, interoperable ontology is only part of the task.

Quality in ontology content is equally important – this can't just left as an "exercise for the users". Ontology construction process, purpose, etc. must be a controlled and regulation discipline in its own right.

This talk focuses on Level 3 – the Ontology instance level.

Ontology: "A specification of the kinds of entities that exist or may exist in some domain or subject area."

Information models describe data that identify, document and characterize entities in some domain of subject area.

Ontology, if done right, provides the foundation for information (model) interoperability.

This talk is about some steps that the National Cancer Institute is taking to try to do ontology right (or at least better).

NCI Thesaurus:

Started in 1999

A major effort to integrate molecular and clinical cancer-related information within a unified biomedical informatics framework, with controlled terminology as its foundational layer.

"Designed to meet the growing need for accurate, comprehensive, and shared terminology, covering topics including: cancers, findings, drugs, therapies, anatomy, genes, pathways, cellular and subcellular processes, proteins, and experimental organisms."

Ceuster's Critique:

We have measured the NCIT's qualities along three lines:

1. Conformity with relevant terminological standards put forward by ISO
2. Ontological principles
3. Appropriateness of OWL as a knowledge exchange format.

Evaluation Recommendations:

1. Traceability and reproducibility
2. Rules and techniques for consistent and precise definitions, designations and annotations
3. Semi-automated methodologies to validate and align definitions with corresponding formal relationship structures
4. Adopt a meta-model for the ontological resources
5. Differentiate thesaurus and ontology
6. Subdivide the thesaurus by subject field / discipline
7. Organize the ontology horizontally by subject field and vertically by ontological "meta-type"
8. Adopt faceted / dimensional classification schemes

What a Thesaurus Won't Do: Provide an exhaustive perspective on a given scientific field; Represent pure "reality"

What Ontology won't (or shouldn't) do:

1. Provide a useful (high precision and recall) set of indices for a document corpus
2. Navigational aids - "drug organized by function", "see also", etc.
3. Provide translations, sense specific usages, near synonyms, etc.
4. Define the terminology of a domain or specialty
5. Provide reference terms for nonsense

Ontology should be

1. Reality based - classes not concepts
2. Designed for integration
3. Centralized – "ontologies" is a result of perspective – not reality.

4. Next Generation of Metadata Registries and Open Ontology

Registries:

Bruce Bargmeyer

Metadata Services:

Cancer Data Standards Repository (caDSR)

1. caBIG projects register their data models as Common Data Elements (CDEs) which are semantically harmonized and then centrally stored and managed the caDSR
2. The caDSR grid service provides:

2.1 Model discovery and traversal

2.2 caGrid standard metadata generation capabilities

Enterprise Vocabulary Services (EVS)

1. EVS is set of services and resources that address the need for controlled vocabulary
2. The EVS grid service provides:

2.1 Query access to the data semantics and controlled vocabulary managed by the EVS

Global Model Exchange (GME)

1. GME is a DNS-like data definition registry and exchange service that is responsible for storing and linking together structural data models in the form of XML schema.
2. The GME grid service provides:

2.1 Access to the authoritative structural representation of data types on the grid

Globus Information Services: Index Service

1. The Globus Information Services infrastructure provides a generic framework for aggregation of service metadata, a registry of running Grid services, and a dynamic data-generating and indexing node, suitable for use in a hierarchy or federation of services
2. The Index grid service provides:

2.1 Yellow and white pages for the grid

What XMDR Brings to the Table

1. Use cases - semantics challenges - and Requirements
2. Proposed specifications for ISO/IEC 11179 Edition 3 – Model, definitions, ontology
3. Modular software architecture and open source software modules
4. Open Source XMDR software
5. Test content

An Approach:

1. Use BioPortal
2. Use LexGrid
3. Extend with XMDR

Another Application: GEO/GEOSS/GMES

The work addresses information challenges identified by major initiatives including the Intergovernmental Group on Earth Observations (GEO), Global Earth Observation System of Systems (GEOSS), and Global Monitoring for Environment and Security (GMES). The techniques and technologies developed will be useful for GEO/GEOSS/GMES. In particular, this work addresses priority challenges identified by the GEOSS Architecture & Data Management (ADM) committee to "enable increased interoperability across existing data management systems:

1. Identify & address integration gaps in data management systems
2. Utilize community standards for data & metadata
3. Enable integrated measurements, data, products & predictive models
4. Examine the need for future data management requirements."
5. Architecture & Data Management (ADM) Working Group Report February 22, 2007.

5. Metamodel and Toolkit for On Demand Model Selection: Wang Jian

Motivation:

Custom-centric

Requirements: Shorter time-to-market, Lower cost, Higher quality of experience (QoE)

Supporting Technologies: Software as a Service (SaaS), Mass Customization (MC), On Demand Model Selection (ODMS)

Change Matrix in MC

From Change Matrix to MFI-SCIS

Model Selection based on Domain Model

Difficulty of Model Selection.

Why On Demand Model Selection will be useful?

1. Personalized and diverse requirements
2. Abundant and heterogeneous model resources

Related Work

1. OMG Business Modeling Specification
2. BMM (Business Motivation Model)
3. SOA Techniques
4. ISO/IEC 19763 (Metamodel Framework for Interoperability)

Scope and Content

Scope:

1. Specify the metamodels for an RGPS registry of domain models and/or services that enable users to select appropriate combinations of models and/or services to meet users' goals.
2. Specify an infrastructure to support operational harmonization and interoperability within and between industries.

A Closer Look at RGPS

1. Based on the characteristics of customers' intention and implementation form

1.1 Customers' intention is proposed from the perspective of the roles they play.

1.2 Customers' goals are aptly variable and diverse.

1.3 Business processes to fulfill the goals are usually complex.

1.4 Services are the representative form of software system.

2. With RGPS, we can model customers' intention from different aspects.

2.1 Customers' intent can be expressed from different level and different granularity

2.2 RGPS: From disorder to order --□ To help users select appropriate models

Research Schedule

2008.11 Circulate 1st WD in WG2 as MFI-7

2009.6 Submit 1st WD to ISO SC32 and request project initiation

To Be Discussed ……

1. How about the version setting?

1.1 1st edition: RGPS metamodel

1.2 2nd edition: mapping mechanism between user's intention and RGPS models

2. What is the scope of ODMS?

2.1 What should be included?

2.2 What should not be included?

3. What about the contents?

3.1 Just provide a rough Sketch or provide the details of metaclasses in the metamodel

3.2 Besides the Metamodel, will the model selection process be consisted in ODMS? Should we list all the possible cases during the model selection process?

6. Model Selection Using ODMS for Process: Wang Chong

Background

1. The Trend of SaaS

Changes in software development: Process model becomes an active topic in IT industry.

A process model can be realized by composition of services.

ODMS-based process model selection

1. Metamodel for On-Demand Model Selection: Modeling customer's real intention with Role Metamodel, Goal Metamodel, Process Metamodel and Service Metamodel.
2. Help users:

   Organize domain models from disorder to order

   Select appropriate models to satisfy intentions expressed from different levels and different granularity.

Case Study

To Be Discussed…

1 How about the version setting?

1.1 1st edition: RGPS metamodel

1.2 2nd edition: mapping mechanism between user's intention and RGPS models

2 What is the scope of ODMS?

2.1 What should be included?

2.2 What should not be included?

3 What about the contents?

3.1 Just provide a rough sketch or provide the details of metaclasses in the metamodel

3.2 Besides the Metamodel, will the model selection process be consisted in ODMS? Should we list all the possible cases during the model selection process?

Q&A

Bruce: The distinction between FG and NFG

WANG Jian: NFG is something like security…, which constraints FG. For example, short response time is a NFG.

Kevin: One of the questions is the scope. So we can talk about the scope of NFG.

Baba: Do you have some features to help model selection, How to select?

WANG Jian: inputs, outputs, precondition, postcondition. We compare the users' quest against model.

Baba: How to assist the users' selection? What's the business rules?

WANG Jian: Business rules can be found in Role-Layer. Business rules relate to organization.

Baba: How to describe?

WANG Jian: By SWRL, rule is part of mapping.

Baba: The process may not need, directly to select services. The service is different and the process is the same, sometime service is the same but process is different.

Horiuchi: To the end users, you want service. To engineer, they are interested in Process.

Kevin: Service is high level Service, not concrete service, such as web service, low level service is invisible.

Baba: Maybe you can change the terminology. That confuses. The terminology service confuses. That sounds missing a layer.

Kevin: I have studied it.

Kevin: From end user's perspective, service is at the bottom.

Horiuchi: The service is decomposed into processes in SOA. Do you have the metamodel?

Baba: Have showed the metamodel.

Kevin: The process model is part 5.

WANG Jian: modified a little.

Horiuchi: Is the process the same in P-Layer and S-Layer?

WANG Jian: Yes.

Baba: Go back to the P_layer.

Kevin: Service describes the function.

Baba: The service is a mechanism. The goal to the service may be better.

Kevin: I think one step to one step is necessary.

Baba: Illegal requirements maps to P1, then S1; normal requirements maps to P2, then S2.

Kevin: Illegal requirements change the mechanism.

6. SBVR in a Nutshell...:Baba Piprani

What is SBVR...

SBVR : Semantics of Business requirements Vocabulary and Business Rules

SBVR is an OMG Specification (Dec 2007)

1. for expressing business models for business requirements

2. in the language that is understandable to the business domain users

SBVR:

1. defines a structured sub-set of English vocabulary for defining business vocabularies and business rules
2. defined with the aim that business people can understand "models" without needing IT skills
3. Based on fact-orientation models like ORM/NIAM
4. Builds strongly on the foundation of ISO terminology science standards ISO 704: 2000 and ISO 1087-1: 2000 and Linguistics
5. Underpinned with formal (first-order) logic

The Building Blocks of SBVR Models:

1. Applied within the general notion of OMG's model-driven architecture (MDA)
2. Targeted at business rules, business concepts and business vocabularies that describe businesses rather than the possible IT system that might support the business.

5 most important aspects of SBVR:

1. Formal (first-order predicate) logic
2. recognition of the existences of user sub-communities having their own languages and specialized vocabularies
3. A body of shared meanings, represented in concepts, fact types,and business rules for these sub-communities underpinned by formal logic,
4. logical formulation, for capturing the semantics of a body of shared meanings, that supports multiple forms of representation and is underpinned by formal logic.
5. A business representation for the logical formulation of semantics using vocabularies acceptable to the (speech) sub-community

The main building blocks for semantics in SBVR are the following:

1. Vocabularies and terminology dictionaries,
2. Noun- and verb concepts, and,
3. Definitional and operational business rules.

SBVR: gives us the modeling concepts to define most, if not all business rules that can be encountered within organizations
a major step forward in the process of making business domain knowledge explicit and transferable

does not, however, give a procedure or methodology on how to arrive at complete and correct SBVR models

Discussion about ODMS

Baba: The difference between FG and OP.G
WANG Jian: Op.G can be achieved by processes.
Baba: Formal principles to decide whether a goal is OP.G or other goal?
WANG Jian: decided by domain engineers.
Baba: That's my problem. I think a formal rule may be needed. It seems difficult to compare.
Kevin: We can do match by inputs, outputs, preconditions, and postconditions.
Baba: Does each process has inputs, outputs, precondition, postconditions.
Kevin: Yes. There're operation ontology, object ontology, context ontology.
Horiuchi: We need UDDI, and the metamodel. UDDI, WSDI can do service selection and RGPS is doing service model selection.
Baba: What's the definition of service. A mechanism to achieve something.
WANG Jian: Something like web service, which can do computing job. But process is more abstract.
Kevin: Yes. Service is how. Goal is why
Horiuchi: Baba-San, would you give me an example of atomic process.
Baba: Yes. Atomic process is the simplest process with one step execution.
Horiuchi Is writing a ticket an atomic process?
Baba: Yes.

7. Extending the Metadata Registry for Semantic Web - Enforcing the MDR for supporting ontology concept -:Yixin Jing,

Background:
MDR(ISO/IEC 11179): Is used whenever data must be used consistently within an organization or group of organizations.
Web Ontology:
1. For the web, ontology is about the exact description of web information and relationships between web information.
2. RDF, RDF-S, and OWL

3. Consists of classes, instances, properties

4. Triple set <S,P,O>

Motivation : Why a MDR needs to be extended to support OWL

1. Web Ontology is widely used

2. Web Ontology includes many metadata

3. These metadata needs to be registered

4. But, current MDR can not support these

Relationships in MDR

Mapping between MDR & OWL

Example of mapping: between OWL ObjectProperty & Concept_Relationship

mapping: between OWL DatatypeProerty & DataElement

Future Issues:

1. The MDR does not have the definition about the relation between Properties.

2. Anonymous Class needs to be considered

Summary

1. The current MDR does not support to register metadata of Web Ontology

2. Using mapping between MDR and Web Ontology, we can exchange data between MDR and Web Ontology

8. SQLMM MDR: Query Language for Sharing and Exchanging of Metadata between MDRs: Yixin Jing,

Background:

Key Points to Resolve the Issues

1. How to make valid metadata registries (following the standard, ISO/IEC 11179)

1.1 How to guarantee the validation of metadata registries

2. How to consistently share and exchange metadata between MDRs

2.1 A consistent and standardized access method

Possible Solutions

1. Interface Mapping between MDR Management Systems

1.1 Required for implementation of one-to-one adaptor

1.2 Do not guarantee metadata registries to be valid

2. Standardized Binding API-based Approach

2.1 Every system should implement the binding API

2.2 For example, ISO/IEC 20944

2.3 Do not guarantee metadata registries to be valid

3. Direct DB Access

3.1 Users should know the schema structures of the corresponding MDRs
3.2 Do not guarantee metadata registries to be valid
4. Standardized Query Language-based Approach
4.1 DBMSs should support this language (Require an extension)
4.2 No need to implement any functions such as binding interfaces
4.3 Guarantee metadata registries to be valid
4.4 Our Approach

Purpose of Our Proposal
1. Goal of the Proposal
1.1To develop a SQL-based query language for consistent access (share and exchange) to metadata registries
1.2 This query language is named SQLMM MDR
2. How to achieve the goal
2.1 Analyze metadata registry access patterns,
2.2 Define MDR operators, and
2.3 Integrate the operators into SQL (i.e., extend SQL)

Query Patterns of Metadata Registry
1. Key components of metadata registry
2. Data element vs. Group element
3. Lifecycle of a data element
4. A Data element has mandatory attributes and optional attributes

An Example of Search Operators

SQL MM MDR
1. SQL-based query language for consistent access to metadata registries (ISO/IEC 11179)
2. Advantages
2.1 Unified access method: One described, All returned (i.e., same query, same formatted results)
2.2 Strengthen standardization of registries

9. MFI Model Registration and Model mapping for Ontology

Evolution (rev):

Masaharu Obayashi

Update of MFI-2

Open issues and Discussion Points

CA17: component Type for componentSet and componet

CA18: check consistency between UML diagrams and statements

CA52: path between classifier and componentSet

CA66: constraint among concept, classifier and componentSet

JP08: ModelInstances and ModelComponentSet

JP14: constraint between path selection-sign-concept and selection-componentSet-concept

B287: CA17

B288: JP08

B289: JP09

B290: definition of Association and AssociationEnd

B291: ModelConstruct

B292: JP10: name of DomainProfile

B293: redundant data, modeltype, etc.

B294: various expression for instance xxx

BP01: Unable to fit Model Component examples into schema

BP02: Unable to reconstruct from inputted data

BP03: Unable to reuse – granularity at lowest level not reusable

BP04: Absence of model semantics rule check on inputted data

BP05: Incomplete solution

Status Report of MFI-4 ISO/IEC 19763-4

Open issues and Discussion Points

CA04: Definition of 'M1 Layer, M2 Layer

CA05: Abbreviations of 'MM-M', 'M-V'

CA06: Definition of 'MOF extent'

CA07: Definition of 'MM Level', 'M Level' and 'V-Level'

CA08-11: Explanation of arrow symbols

GB03: Definition of 'Computation'

GB05: usage of term 'model'

GB06: synonyms of term 'relation' and 'relationship'

GB09: Abbreviations (CA05)

GB10: Definition of 'Layer' (CA04)

GB11: "The MFI Model Mapping is shown as a series of UML Class diagrams , …"

GB12: Datatypes of Attribute definition withdrawn

GB14: Abbreviations of 'MM-M' (CA07) Metamodel-Model Pair, Model-Value Pair

GB15:

If this figure is an accurate depiction of the concepts in the standard, it would appear that the concepts are unlikely to support accurate and realistic mapping between models. There are at least two concerns.

(1) This implies that when mapping models there is always a one-to-one mapping between 'model instances', whereas in reality mapping is usually many-to-many.

(2) As shown in the Figure it would be possible to mismatch "Model Instances" and "Model Concepts".

These are serious errors that require the complete revision of the body of the document.

GB17: Notation of '(from MFI-Core) '

GB18: "The identifier of sets of transformations rules"

GB19: 'Code' in Table 1 should not specified in Conceptual Model

GB20: set of valid values in Table1, fixed or expand?

GB21: 'Code' in Table2 (GB19)

GB22: Table 2 cell contents are incorrectly justified.

GB24: term "ruleDefinition" does not match

GB30: 'Code' in Table4 (GB19)

GB31: set of valid values in Table4, fixed or expand? (GB20)

GB34: 'Code' in Table5 (GB19)

GB35: set of valid values in Table5, fixed or expand? (GB20)

GB36: Figure 3 is unclear

GB37: Figure 4 is unclear

GB38: "name" and "kind" are inherited from the superclass and should not be redefined here.

GB40: 'Code' in Table6 (GB19)

GB41: set of valid values in Table6, fixed or expand? (GB20)

GB42-43: Figure5 and Figure6 is unclear

GB46: It should be made clear how this requirement will be tested.

GB48: Annex A is very difficult to read and it is unclear

GB49: Annex A: the word "compiler"

"Simply stated, a model compiler is a program that reads a transformation

definition written in one formal language - the source model - and translates it into an equivalent model in another metamodel - the target model."

GB50: Annex B is very difficult to read and it is unclear

GB51: Annex C is very difficult to read and it is unclear

US02: Is the bold face the correct style for the expansion of the abbreviations?

US03: The words “conforming MOF standards” in the following sentence is ambiguous.

“The MFI Model Mapping registry model is specified using Administered Items as defined in the Metadata Registry (MDR), and conforming Meta Object Facility (MOF) standards.” Do you mean excluding standards that are not conforming to MOF? Or something else?

ISO01: Documents listed in Clause 2 shall be referenced "normatively" elsewhere in the document,

ISO03: Document incorrectly references itself as "this standard".

ISO04: Abbreviated terms are not numbered in International Standards. Caps not necessary and used inconsistently.

ISO05: Clause 2 is the conformance clause in International Standards.

10. Discussion on the Scope of the ROR (ISO/IEC 19763 part-x): Hajime Horiuchi

Scope

1. Specify a standard registry to enable users to discover descriptions of other registries and the services they provide.

2. This standard provides an infrastructure to enable the interoperability among registries that were constructed according to different registry standards or domain specific requirements.

3. This standard specifies metamodels that describe registries and their services

Basic structure of the ROR

1. The ROR (Registry of Registries) standard consists of multi level registries

The level-1: metamodel that describes how to discover the other registries

The level-2: metamodel that describes the metamodels of target registries

The level-3: existing actual target registries

2. The ROR standard should facilitate MFI standards

Level-1

1. Provides a metamodel that describes;

1.1 Location of registries

1.2 Services offered by the registries

2. Usage rules & access methods

3. Standardize common description format for collection by automated crawler.

Schedule

Study report 1: 2008.11

Study report2: 2009.06

WD: 2009.06 (Project split: MFF-9?)

CD: 2009.XX

11. Discussion on ODMS

Note: WJ=WANG Jian. WC=WANG Chong

WJ: Is the service too complex?

Baba: define a scope of the service. Then define the metamodel of the service, because you can't define the world.

WJ: Part 5 also have a process model. Shall our p-model based on part 5.

Baba: And again, I think it is important to decide the scope of the RGPS.

Baba: I give the RGPS, what's the benefit. Having defining the scope, processes and services, goals should be registered.

WC: RGPS extends the part 5. P uses some of the metaclasses from part 5. But some are not.

Baba: Why to produce two different metamodels, what is benefit should people conform part 5 or RGPS? If people conform RGPS, there is some trouble to the interconnect of part 5. Two process models in one set of standard isn't appropriate.

WC: There're some overlap.

Baba: Why not only use RGPS, Part 5 is not usable.

Kevin: RGPS depends on part 5. RGPS requires parts. It's OK. Part 5 is needed by RGPS.

H: Yes

WC: RGPS can call, can use part 5.

Baba: Part 2 is the foundation, Other parts needs to call Part 2, as Kevin said.

Baba: suggest 3 sections: service, goal, role.

Baba: P in RGPS don't have artifact to input, output, artifact is data or objects.

WC: We should specify which metaclasses are inherited from part 5.

Baba: We should agree on the service definition, give others some examples.

At last, some decisions about 19763 have been made.
11179 and 19763 should share some infrastructures, such as Administrated Item, Designation…

RGPS are divided into 3 parts excluding part 5, and a technical report is needed to illustrate how to use RGPS.

Draft Agenda

2008-09-04 (09:00-20:00) 1st Day

Hours	Contents	Notes
09:00-09:30	Welcome and Opening Remark	Organized by : Prof. He Keqing Prof. Bruce Bargmeyer Prof. Hajime Horiuchi Prof. Doo-Kwon Baik
09:30-09:50	Taking Photo	
09:50-10:40	Presentation by Hajime Horiuchi	Issues for ROR (Registry Of Registries) - A study on the viability of MFI standards (Tentatively)
10:40-11:30	Presentation by Kevin Keck	Data Is King: Why the Semantic Web Needs ISO/IEC 11179 Edition 3 (Tentatively)
11:30-12:20	Presentation by Harold Solbrig	Federating terminological resources from the BiomedGT perspective.
12:20-14:00	Lunch	
14:00-16:00	Group Discussion about ROR	Moderator: Hajime Horiuchi

16:00-16:20	Coffee Break	
16:20-18:00	Group Discussion for ROR	Moderator: Hajime Horiuchi
18:30-20:00	Dinner	

2008-09-05 (09:00-20:00) 2nd Day

Hours	Contents	Notes
09:00-09:50	Presentation by WANG Jian	Metamodel for On-Demand Model Selection
09:50-10:30	Presentation by WANG Chong	Using ODMS for Process Model Selection
10:30-10:40	Coffee Break	
10:40-11:30	Presentation by Baba Piprani	A Common Framework for SBVR, ISO 704, ISO 1087-1 and ISO 19763(Tentatively)
11:30-12:20	Presentation by Bruce Bargmeyer	Next Generation of Metadata Registries and Open Ontology Registries
12:20-14:00	Lunch	
14:00-16:00	Group Discussion for ODMS	Moderator: HE Yangfan
16:00-16:20	Coffee Break	
16:20-18:00	Group Discussion for ODMS	Moderator: HE Yangfan
18:30-20:00	Dinner	

2008-09-06 (09:00-20:00) 3rd Day

Hours	Contents	Notes

09:00-09:50	Presentation by Yixin Jing, Dongwon Jeong and Doo-Kwon Baik	A Hierarchical Model for Managing Metadata Registries (Tentatively)
09:50-10:30	Presentation by Masaharu Obayashi	Progress on ISO/IEC 19763 Part2 and Part 4 (Tentatively)
10:30-10:40	Coffee Break	
10:40-11:30	Presentaion by Keith Gordon	TBD
11:30-12:20	Group discussion for ODMS	Moderator: HE Yangfan
12:20-14:00	Lunch	
14:00-16:00	Group Discussion for ODMS	Moderator: HE Yangfan
16:00-16:20	Coffee Break	
16:20-17:30	Group Discussion for ROR	Moderator: Hajime Horiuchi
17:30-18:00	Closing remark	Organized by: Prof. He Keqing Prof. Bruce Bargmeyer Prof. Hajime Horiuchi Prof. Doo-Kwon Baik
18:30-20:00	Dinner	