

Final Report of the Study Period on Harmonization of MDR & MFI

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Source: Hajime HORIUCHI (JP), Frank FARANCE(US)

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SC32WG2 N1533R1

Background:

- This document is the final report of the study project for investigating the possibility of harmonization of MDR(ISO/IEC11179) and MFI(ISO/IEC19763).
- The project was initiated at the SC32 Jeju meeting (2009.06) and extended one more year at the SC32 Kunming meeting(2010.06)
- The result of the study was reported at the SC32WG2 meeting and the Open forum in Hawaii (2011.05).
- This is the official report to be circulated among all bodies of SC32.

1. History of development of MDR & MFI

The project started with summing up historical iconography of both two standard families (Figure-1).

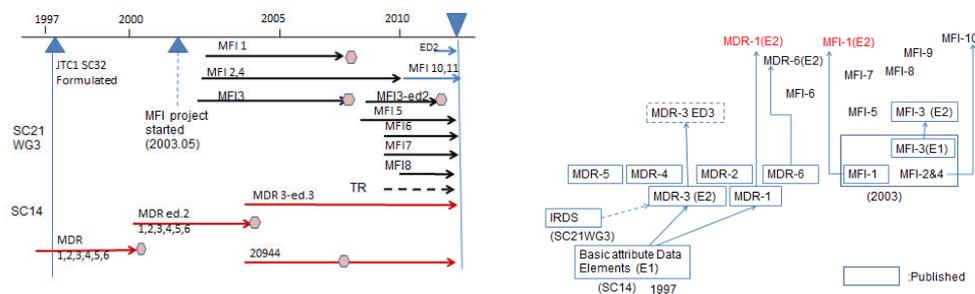


Figure -1: History of development and Current status of MDR & MFI

2. The targets of the registrations and common facilities

Due to the nature of both standards, the project investigated what kinds of artifacts need to be registered to both MDR & MFI registries in coming new decade, where

not only for “software productions”, but also “services” through the web and more conceptual artifacts, such as “concept” , “ontology” or “various types of models” could be shared effectively through the registries. (see Fig-2)

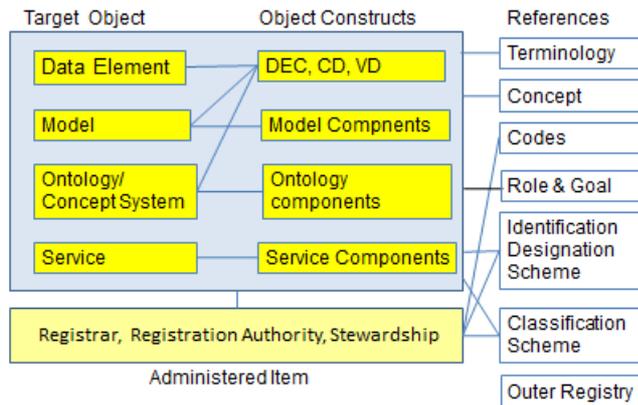


Figure-2: Possible targets of the registry contents

3. Possibility of the integration of MDR & MFI

The MFI families of standards were developed following basic core facilities that were already defined in the MDR, such as “AdministeredItem”. However, after initiating developments of MFI family of standards, there are still some other duplicated facilities to be shared between both MDR and MFI. The project identified those facilities as shown on the Figure-3.

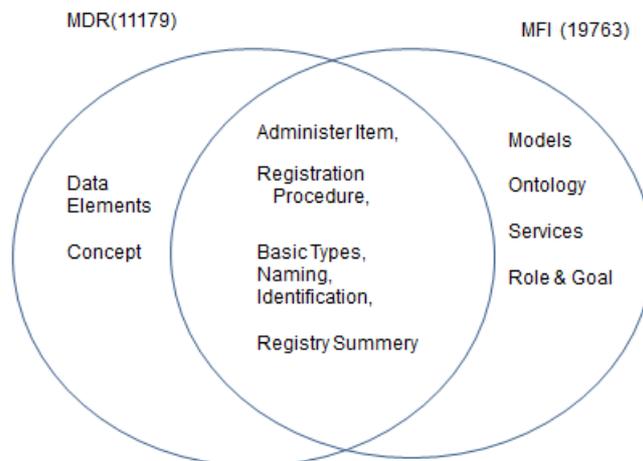


Figure-3: Duplicated facilities among MDR & MFI

4. Recommendations

The study project concluded some recommendations to SC32WG2 as followed.

- (1) The Repackaging of the whole MFI and MDR needs to be considered.
- (2) Common facilities, such as the Registration Package of MDR Part3 Ed3 and MDR Part5, should be common for both MDR and MFI. (see Figure-4)
- (3) UML should be used to define the metamodel (or model) in all parts of MFI and MDR.
- (4) Some of MFI (Old MFI-2,4) used MOF. However, Using UML 2.x , there is no needs to use MOF.
- (5) Whether a reference or an association should be used to define a relation. MFI uses a reference, but MDR uses an association. There is no essential problem..., but WG2 standards should conform to an uniform way.
- (6) Currently, description styles of defining an attribute are different in MFI and MDR. They should be consistent.
- (7) Numbering policy in MDR numbers much smaller sub clauses than MFI does.

Architecture Issues:

- (8) Establish an architectural framework to be referred in the future standardization activities in the ISO/IEC SC32WG2.
- (9) The architectural framework should provide structural view to related standards, such as MDR, MFI and other related standards.
- (10) To enable the registry interoperation among heterogeneous registries environment, regardless type of registries, some sort of standardization should be investigated. It should be the main role of MFI-6 (Registry summery).

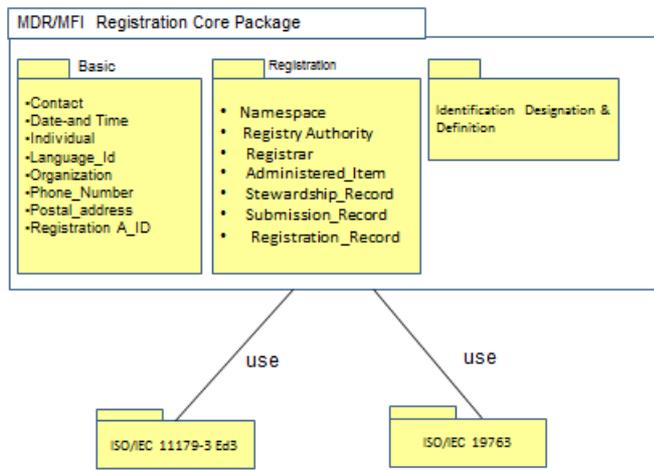
5. Final disposition

The project depicted an expected consolidated overview of standards as a framework. It was presented at the WG2 meeting and the Open forum at Hawaii, May 2011.

Through the discussions, the project arrived at the final disposition of framework.

Figure-5 shows the final disposition that was agreed at the Hawaii meeting.

This architecture should be taken into account of developments of both MDR-1(Framework) and MFI-1(Reference model).



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Figure-4: Recommended common facility package

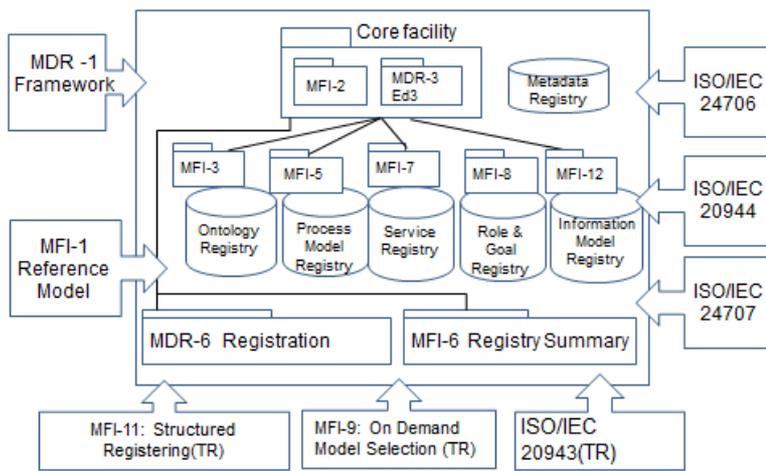


Figure-5: Final agreed architecture on both MDR & MFI

This architecture should be referenced at the expected developments of both MFI-1 (Reference model) and MDR-1(Framework) that were already initiated.