

Comments on 32N1791 WD 19763-5 (expert contribution)

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Overview

- There are several general issues we need to have consensus on before going into technical details, based on the objectives of MFI Part5.
 1. What is a process from the point of MFI Part5?
 2. What is a difference between a process and a service?
 3. How deep should MFI Part5 register semantics of a process?

1. What is a process from the point of MFI Part5?

- Whether a process on physical things is within the scope or not? And Why?
 - Example: Butter-making process input: milk, output: butter
- Whether a process by human (i.e. non-computerized process) is within the scope or not? And why?
 - Or MFI Part5 intends to have only implementation-free abstract semantics of a process, ignoring by human or computerized?
- Why a state-transition and event-driven process is out of the scope, although they are important to model a computerized process.
 - e.g. UML sequence diagram, Petri net, Hoar CSP model etc.

Note: Table 1, Annex C of WD MFI Part5 says “UML Activity Diagram is the focus of this part”, rather than UML Sequence Diagram.



2. What is a difference between a process and a service? (1 of 2)

- At Wuhan Ad-hoc meeting last September, we(?) agreed that MFI Part7 would be “Metamodel for **service model** registration”.
- Do we really need both? What is a difference?
 - The Chinese presentation says “A service realizes a process”.
 - But, if we see the RGPS paper, both metamodels look similar.
- In the service layer of RGPS, “some concepts are referred from OWL-S”, the RGPS paper says.
- In OWL-S, **specification of a service is modeled as a process model**, which is represented as **a metamodel in the in the service layer of RGPS**.
- Therefore, the metamodel in the service layer of RGPS is a metamodel for **process model** if we take the OWL-S terms.



2. What is a difference between a process and a service? (2 of 2)

- MFI Part7 does not intend to register a service itself, but intends to register **a model that specifies a service**, that is, **a process model** in the OWL-S terminology.
- On the other hand, Annex A of WD MFI Part5 shows an example based on the “BravoAir reservation **service**” example of OWL-S.
- So, MFI Part5 and Part7 might be pretty much duplicated.

Note:

- OWL-S is not a recommendation of W3C, but is just one of member submissions in the Semantic Web Service Interest Group of W3C, as well as Web Service Modeling Ontology (WSMO), Semantic Web Services Framework (SWSF), Web Service Semantics - WSDL-S.

3. How deep should MFI Part5 register semantics of a process? (1 of 3)

- For example, since 4.3.14 Postcondition only has a reference “constraints” to Output, what we can know is only what outputs a postcondition constraints and we cannot know how the postcondition constraints the outputs. It does not seem enough for the objectives of MFI Part5.
- Another example is 4.3.19 Sequence. I guess this metaclass specifies a sequence that processes are executed. But, there seem to be no such information. It does not seem enough for the objectives of MFI Part5.



3. How deep should MFI Part5 register semantics of a process? (2 of 3)

- Like MFI Part3, does MFI Part5 require repositories that store full semantics (or specifications) of processes (or services) ?

- If so,
 - for example, how can 4.3.14 Postcondition and 4.3.19 Sequence get necessary specifications from the repositories? They are not related.
 - We are afraid that MFI Part3 is enough and MFI Part 5 is not necessary since if there is a process model with full semantics which can be identified by a URI, it can be registered in MFI Part3 registry as a kind of ontology.

3. How deep should MFI Part5 register semantics of a process? (3 of 3)

■ Does MFI Part7 intends to specify this repository specific to OWL-S?

■ If so,

MFI Part7 specific to OWL-S is out of the scope of MFI.

MFI should be more generic.

We do not want to develop

- MFI Part7.1 specific to OWL-S,
- MFI Part7.2 specific to WSMO,
- MFI Part7.3 specific to SWSF,
- MFI Part7.4 specific to PSL,
- MFI Part7.5 specific to Petri Net
etc.etc.