
Clarification on Process, Process model and Service

Expert contribution

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Process vs. Service

■ 4.1.1 Process

- a set of activities and resources, organized by a dependency construct, which all participate in fulfilling a given purpose.

■ 4.1.2 Process model

- specification that is the result of modeling zero or one process, adopting a specific process modeling language to describe features of a process. It shows what the process does and how it is done.

From WG2N1395 4th_SP_of_CD2_19763-5

■ 4.2.1 Service

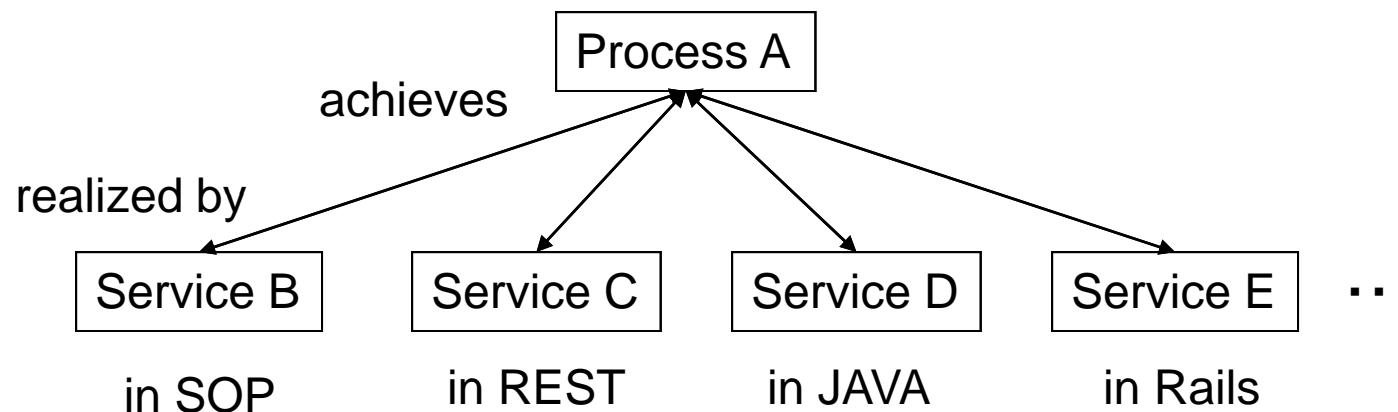
- a kind of Web based application, which encapsulates certain computing module and can be accessed by certain interface.

From WG2-N1201-WD_19763-7.pdf

??? A service is a process?

Process vs. Service

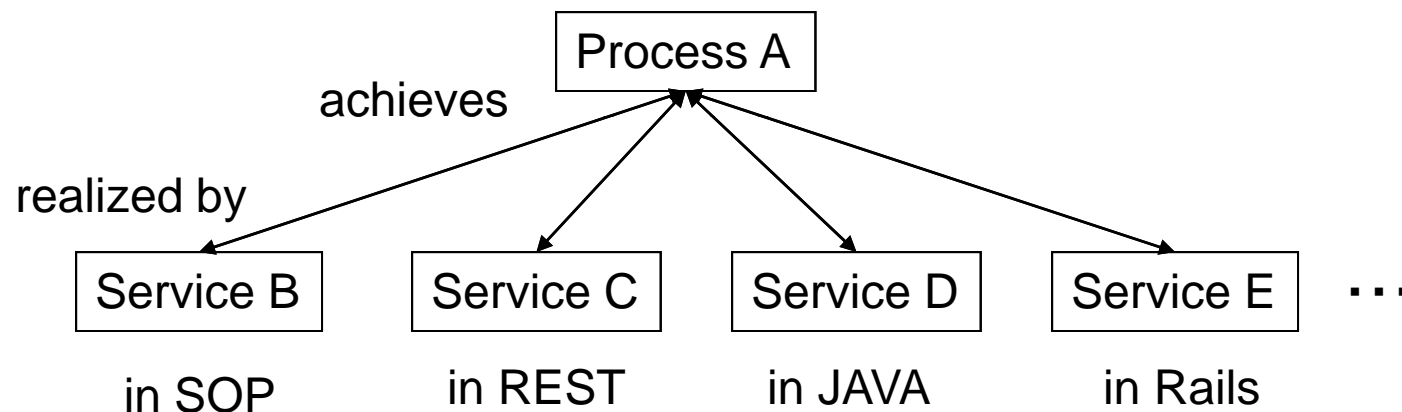
- A process can be realized by zero to many instances of Service and a service can achieve only one Process.
From WG2N1395 4th_SP_of_CD2_19763-5



- What does it mean that Service B, C, D and E can achieve the same process A?

Process vs. Service

- What does it mean that Service B, C, D and E can achieve the same process A?



- Service B, C, D and E can achieve the same process A iff Service B, C, D and E have the same (implementation-independent and (functional?)) semantics.

iff Service B, C, D and E have the same (implementation-independent and (functional?)) semantics of Process A

Objectives of Process (model?) in RGPS

- A process (model?) expresses the (inplementation-free (and functional ?)) semantics of a service (i.e. what a service achieves) to support semantic discovery of a service.

Comment on Slide 28 “MFI-7 vs. UDDI”

of “MFI-7: Metamodel for Service Registration”, OFMR2010

■ UDDI

- lacks description of service semantics
- mainly considers SOAP Web services

■ MFI-7

- Provides a mechanism to register service semantics based on MFI-3&-5&-8

Comment:

MFI 7 should not provide its own mechanism, but should rely on MFI-5.



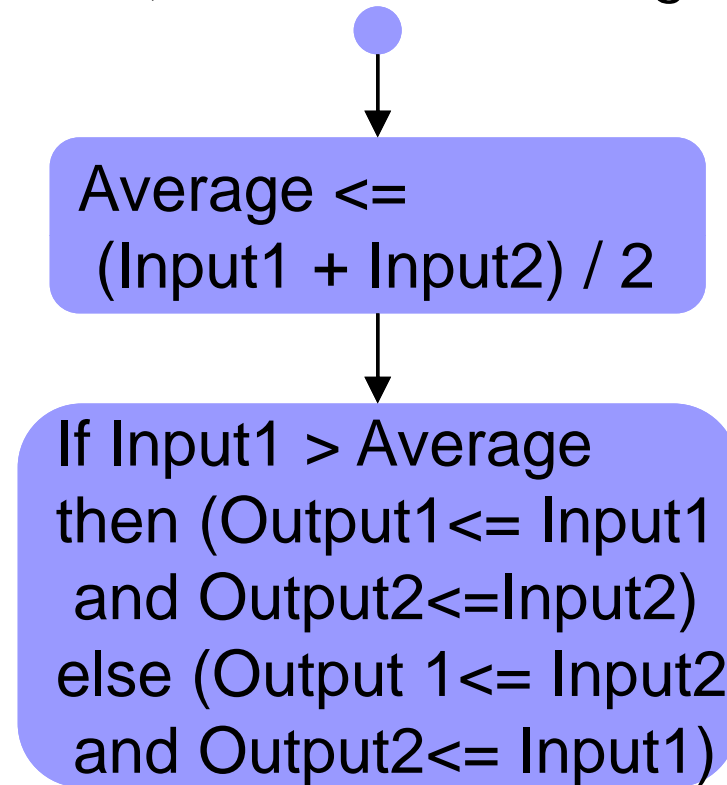
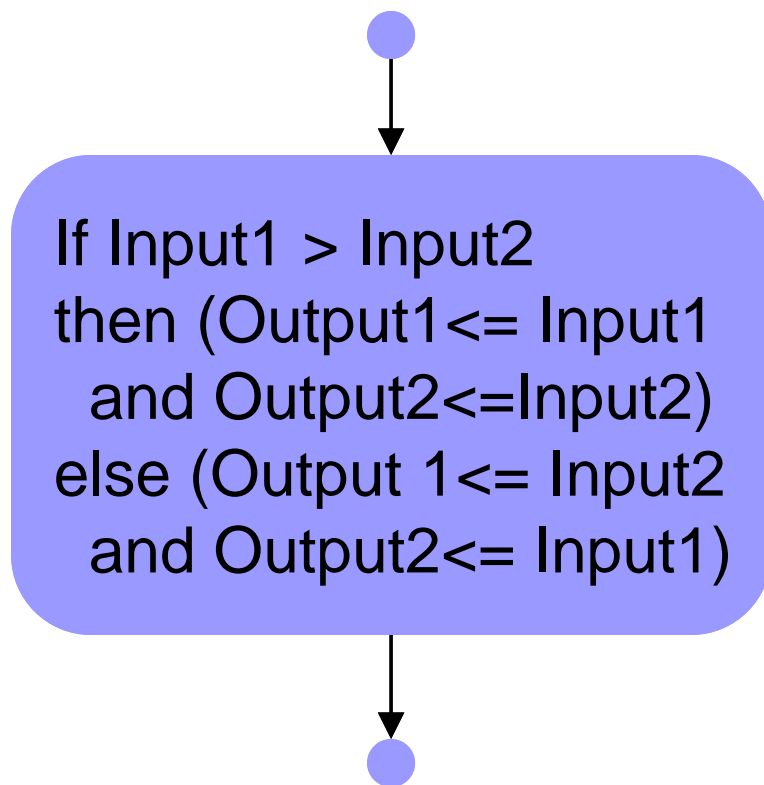
Let's think about a toy example

- Let's think about a service that achieves the following things.
- Precondition:
 - 2 different integers in Input1, Input2
- Postconditions:
 - $\text{Output1} \leq \text{Max}(\text{Input1}, \text{Input2})$
 - $\text{Output2} \leq \text{Min}(\text{Input1}, \text{Input2})$

(i.e. to sort two different integers)

Process models realized by this service (1 of 2)

- Two different process models (in some same language)



This is a very awkward algorithm, but just for discussion.

Process models realized by this service (2 of 2)

- The question is whether these two process models have the same one process or not.
- If yes, how the process can be decomposed to the current MFI Part5 metamodel.
- If no, at least, the multiplicity from Service to Process need to be relaxed to many, and Process many not be necessary, since Process model exists.

Specific Change Proposal

- Move Precondition, Postcondition from Part 7 to Part5.
 - Because of lack of Precondition and Postcondition, the latest MFI Part5 metamodel seems to express only flows and little semantics (except the ones of the flows).
- Remove Process and put a many to many association between Process model and Service in Part7.