

## 1. Process&ProcessModel

### Problem List:

AU01; AU02; AU03; AU07; AU08;

CA10; CA14; CA15; CA17; CA20; CA22; CA24; CA25; CA27; CA34; CA36; CA37;

CA38; CA41; CA46;

DESCRIPTION	SOLUTION
Metamodel for process model registration	Done
<p>Process and Process_Model could be suggested (and would be “common use”?) that the two are distinct. In fact, “process” might be seen as an abstract object that can be represented in concrete terms by a process model and “realized” through a specific execution of that process (eg using specific services).</p>	<p>In 4.1 of CD2, process is defined as system of activities, which use resources to transform inputs into outputs.</p> <p>Process model is defined as a specification that is the result of modelling one or more processes, adopting a specific process modelling language to describe features of a process. It shows what the process does and how it is done.</p> <p>The relationship of Process and Process_Model are shown in 1.1 in the new metamodel.doc.</p>
<p>Process is constrained by Control_Constraint. According the complexity of registered process models, two types of strategies are implies in Process Control Model.</p>	Accepted
<p>Registration is a procedure. This clause does not describe the registration procedure, so the term ‘registration’ does not belong in the clause heading. Also, the clause describes both the metamodel for process models, and the metamodel for process control models. These would be better split into separate clauses</p>	Accepted
<p>Figure 2 does not actually include a Process Model as a class. Assuming we want to register more than one Process Model in a registry, we need to be able to specify which Processes belong to which model.</p>	<p>Accepted.</p> <p>“Process_Model” is defined to designate a 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.</p>

<p>Process_Modelling_Language is currently associated with a Process. Is that what we want? Once we add the Process_Model class, would it be better to associate Process_Modelling_Language with the Process Model (implying that the whole model is specified in the same language), or do we want to retain the existing association, implying that different processes in one process model may be specified in different languages.</p>	<p>CD2 adds a new metaclass named "Process_Model", connecting "Process" to "Process_Modeling_Language".</p> <p>Process_Model is a 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.</p> <p>Process_Modeling_Language specifies the modeling language that Process_Model uses to represent processes.</p> <p>Different processes in one process model can just be specified in one language</p>
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## 2. Resource&Process

### Problem List:

AU04; AU10; AU12; CA03; CA04; CA07;CA23; CA39; CA40; GB30

<p>Precondition is referred to Input from Base Model to specify the information state that should be satisfied before execution.</p> <p>Could such a Precondition refer to the event that triggers an atomic event driven process?</p>	<p>CD2 defines "Event" to record the event that triggers a process. It differs from Input of a process.</p> <p>And in CD2, "Input" and "Output" are also removed. Instead, we add two relationships named "resumes" and "creates" from Process to Resource.</p> <p>Besides, "Precondition" and "Postcondition" are removed. Instead, we add a relationship named "produces" from Process to Event and another relationship named "triggers" from Event to Process.</p> <p>The event that triggers a process means the condition that must always be true prior to the execution of a process in a formal specification.</p> <p>While the event produced by a process means the condition that must always be true just after the execution of a process in a formal specification.</p>
<p><i>Postcondition is restricted to <b>Output</b> to represent desirable outcomes when process is completed successfully.</i></p> <p>Is the word "desirable" required here? It is understandable that if the process does not complete successfully the specified Postcondition may not be achieved, but it is possible that the process completes "successfully" without the "desirable" postcondition outcome being achieved? Possibly one element of the definition of "success" could be whether the postcondition is achieved, in which case the word "desirable" is not required.</p>	<p>Accepted.</p>
<p>The term 'Artifact' has connotations of something that is man-made. A more general term would be 'Resource'</p>	<p>Accepted.</p>

	<p>"Artifact/artefact" is replaced by "Resource" throughout the document. The term "Resource" is defined in Clause 4 in CD2.</p>
<p>In the description of the "hasInput" and "hasOutput" references the input and output are described as 'messages'. But the Input and Output classes in turn reference the Artefact class, and not all artefacts will be messages</p>	<p>Accepted.</p> <p>In CD2, "input" and "output" are removed. The constraints that specifies bindings between Input/Output of a process is addressed by the association between "process" and "resource" to specify that The resource that one process creates can be resumed by another process.</p>

### 3. Event&Process

#### Problem List:

JPN001; JPN015; JPN016; JPN019; AU13; AU14; GB13

<p>MFI Part5 should be able to register process models that are described in a state-transition and event-driven language, including Petri net, Hoar CSP model, UML sequence diagram and UML state machine diagram.</p>	<p>In CD2, We add a metaclass "Event" to register event-driven process described by some kinds of event-driven languages. An event can trigger zero or more processes, and a process can produce zero to more events.</p>
<p>"conditional state" should be "information space" since this CD 19763-5 cannot handle the notion "state".</p>	<p>The metaclass"Condition", "Precondition" and "Postcondition" are removed in CD2.</p>
<p>"information space and state" should be "information space" since Precondition is only used for constraints of input, which does not seem to have states.</p>	<p>In CD2, We add a metaclass "Event" to define conditions. An event can trigger zero or more processes as a precondition, and a process can produces zero to more events as a postcondition.</p>
<p>It needs to be clarified how a postcondistion can be specified? Is it out of the scope of MFI Part5?</p>	<p>Besides, the metaclass resource has an attribute "state" to specify the current state of resource. Sometimes, the specific state of a resource can initiate an event to trigger processes.</p>

<p>The model shows that each process must have one or more inputs, with each input being a reference to an artefact.</p> <p>Not all process modelling notations mandate the concept of an input, but a common consideration when modelling processes is to recognise and record the event that triggers the process and these concepts are not included in the model.</p> <p>The event will often be an external event (such as 'customer places order') but internal events, which may be time based (such as 'time to pay staff') or conditional (such as 'stock level falls below reorder level'), may also be recognised and recorded.</p>	<p>The description provided for the type attribute is the type of an event. Events that trigger processes are normally classified as "external", "internal time-based" or "internal conditional" instead of "internal", "external" or "conditional"</p> <p>See the 1.6 of the new metamodel.doc.</p>
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#### 4. Construct

##### Problem List:

AU09; AU10; AU11; AU12; CA08; CA09; CA19; CA31; CA47; CA48; US09

<p>As each process must have one, and only one, control constraint it is assumed that this often an aggregation of multiple Conditions and possibly multiple Control_Constructs.</p> <p>The following doesn't seem clear from the UML or text Does an Atomic_Process only require one condition (either a Precondition or a Postcondition), are both required, or are the subtypes optional (eg there could be simply a non subtyped Condition)?</p> <p>While it is stated that As for Atomic_Process, Condition is the only mandatory constraint should it also be "taken as read" that they cannot have a Control_Construct, or is that optional?</p>	<p>In CD1, Base Model and Process Control Model were defined to record basic structural and constraints of processes. But in CD2, there is only one metamodel by merging key metaclasses from CD1.</p> <p>Figure 2 in CD2 provides the metamodel for process model registration, in which "Condition" is removed and the relevant relations are changed accordingly.</p>
<p>How are multiple Contol_Constructs to be combined into a single Control_Constraint?</p>	<p>We remove the contorl_Constructs. Atomic_Process and Composite_Process are two kinds of Process. Atomic_Process has no sub-process, while Composie_Process consists of sub-processes that can be either atomic or composite. In MFI PMR, Composite_Process has three sub-processes to perform different</p>

	<p>organizations of processes. They are Linear_Process, Split_Process and Join_Process.</p> <p>The constructType of Linear_Process may be "Sequence" or "anyOrder" and may be "XOR_Split" "OR_Split" or "AND_Split" in Split_Process.</p> <p>See the 1.4 in the new metamodel.doc.</p>
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## 5. Relationship of other parts

Problem List:

CA27; AU06

<p>The usage of the term 'Goal' is more commonly associated with high-level business objectives. It is suggested that the English language usage refer to 'purpose' of the process, i.e. more commonly understood as the objective of the process is to realize a purpose. Note that ISO 18269-1 uses the following definition of Process taken from ISO 15331-1:</p>	<p>Since MFI-8 focuses on Role&amp;Goal registration, CD2 of 19763-5 removes the definition and text of "Goal".</p> <p>The relationship between Process and Goal is addressed in 5.2.</p>
<p>With goals possibly getting a "life of their own" under RGPS and Part 8 (see Reference 2 cited earlier), is it still appropriate that a process realizes only one goal? Does it mean that sometimes it may be realizing a "composite goal"?</p>	<p>Since MFI-8 focuses on Role&amp;Goal registration, CD2 removes the definition and text of "Goal".</p> <p>But in 5.2, the relationship between Process and Goal is addressed. A process can achieve zero to one instance of Goal. Also see CA27, CA41 and GB14.</p>

## 6. Others

Problem List:

AU15; CA01; CA02; CA05; CA06; CA11; CA12; CA13; CA16; CA18; CA21; CA23; CA26; CA28; CA29; CA30; CA32; CA33; CA35; CA42; CA43; CA44; CA45;