MINUTES PSSM MEETING – DECEMBER 10TH, 2015

Change(s) required for the semantics model

1. The package structure that is currently proposed for the semantic model should be aligned on what is proposed by UML 2.5 (i.e., all "BehaviorStateMachines" sub packages shall be removed).

2. In the semantic model symbols appearing on elements need to be removed. Note this can be easily be done for all elements using the CSS stylesheet associated with the semantic model.

3. The abstract visitor "*SM_Semantic*" should be renamed.

4. The "state" attribute of both "*StateActivation*" and "*TransitionActivation*" shall be renamed to "status"

5. Visitor "*ConnectionPointReferenceActivation*" has an inappropriate name. Indeed when read one can think it refers to the syntactic element "*ConnectionPointReference*" (*a connection point reference represents a usage of an entry / exit point Pseudostate defined in the State Machine referenced by the submachine state – see p. 405 of UML 2.5*) but it does not. Therefore "*ConnectionPointReferenceActivation*" must be renamed "*ConnectionPointActivation*" to avoid misinterpretation.

6. The semantic model provides an extension of "*CS_Object_*" called "*SM_Object_*". This extension provide a "*sendCompletionEvent*" operation to make possible the registration of a completion event in the event pool. This extension might be done in another way. Simply by extending the "*ObjectActivation*" provided by fUML.

7. "*TransitionSelection*" is defined as being a "*SemanticStrategy*". This is not necessary, indeed we do not want to see the selection process as being a semantic variation point. The same remark can be done about "*TransitionChoice*".

8. "*TransitionChoice*" uses the fUML "*ChoiceStrategy*". However it does not use the one registered in the Locus which is incorrect. This strategy should be retrieved using the "*getStrategy(name)*" operation.

9. It make sense to merge "*TransitionSelection*" and "*TransitionChoice*" which should not be decoupled.

10. Operation "*isReactive*" of class "*TransitionSelection*" must be renamed "*isFireable*".

11. The "*doActivity*" shall be started before entering regions of a composite state.

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Change(s) required in the test suite

1. There is an error in in the expected trace shown for “Exit001” test. Indeed S1(Exit) should be integrated.
   - Initial - T1 - S1() - Initial - T1.1 - S.1.1 - Initial - T1.1.1 - S1.1.1(entry) - S1.1.1(exit) - S1.1(exit) - T1.2(effect) – ExitPoint - S1(Exit) - T2(effect) - S2 - T3

2. The current version of the test suite specifies one expected trace for each test case. This is a limitation because some test cases introduce parallelism and so different valid traces can be expected for the same test case if executed with a multithreaded implementation. To solve this problem one way is to specify for each test case a set of expected traces.
   - Note: this task is not planned for the initial submission

Addition(s) to the semantics model

1. Semantics of “*Fork*”, “*Join*” and “*Terminate*” pseudo-states

2. Semantics of “*doActivity*”

3. Possibility to pass data to behaviors (entry / doActivity / Exit) placed on a state as well as effect of transitions.

4. Semantics of history and junction pseudo states
   - Note: this requires a significant effort to be implemented (especially for the junction) and part of it may not be part of the initial submission (i.e., the remaining 10% that would be included during the revised submission).

5. Semantics of sub-machines
   - Note: this task is not planned for the initial submission

6. Semantics of state-machine redefinition
   - Note: this task is not planned for the initial submission

Addition(s) to the test suite

1. Tests must be added to validate the possibility to execute standalone state-machines.

2. Tests must be added to assess we are able to check the ports from which an event occurrence is received and take that into account during transition selection process.

3. Tests must be added to validate “doActivity” support.

4. Tests must be added for each pseudo state semantics included in the initial submission.