FROM RESEARCH TO INDUSTRY

cea tech

list

[PSSM] – WEBEX JANUARY 15TH

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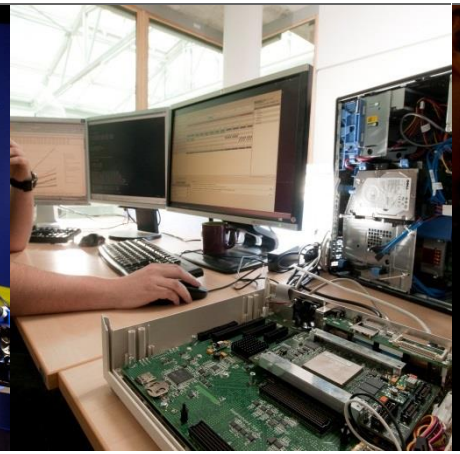

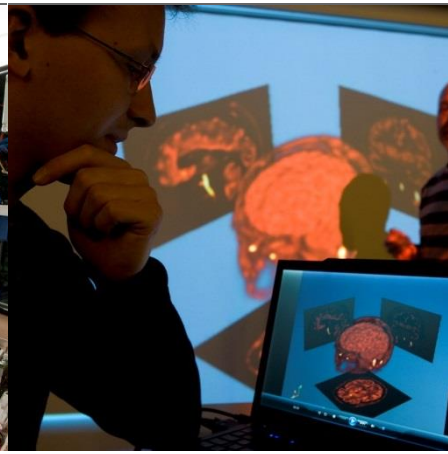

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SUMMARY

Contributions from last meeting

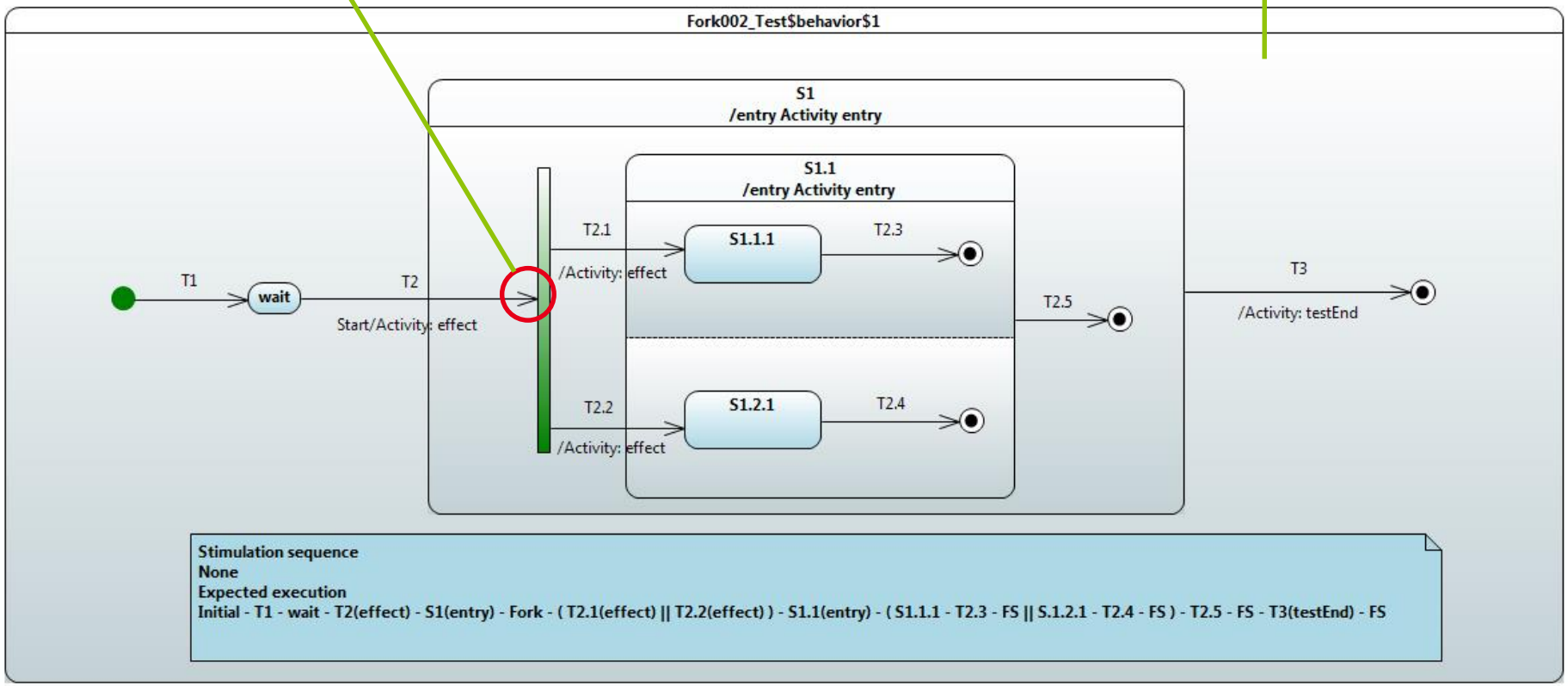
- New parts of the semantics
  - Fork (robustification)
  - Join
  - Terminate
- New tests
  - Join
  - Terminate
  - Fork
- Ongoing
  - Refactoring on transition semantics implementation

Questions

- Local transitions

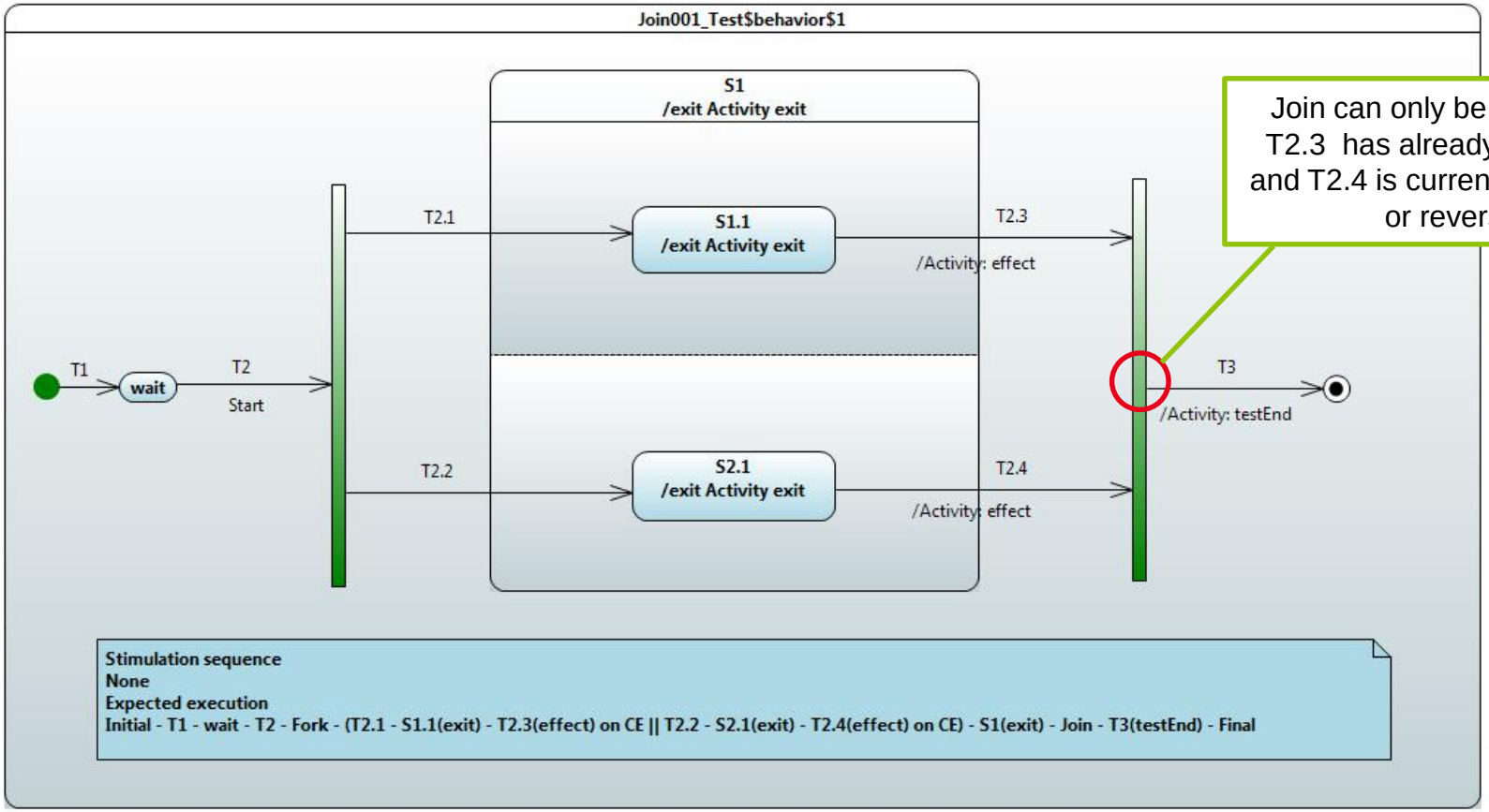
When the Fork is reached, first the state S1 is entered

Make sure the Fork behaves correctly when placed in a nested context



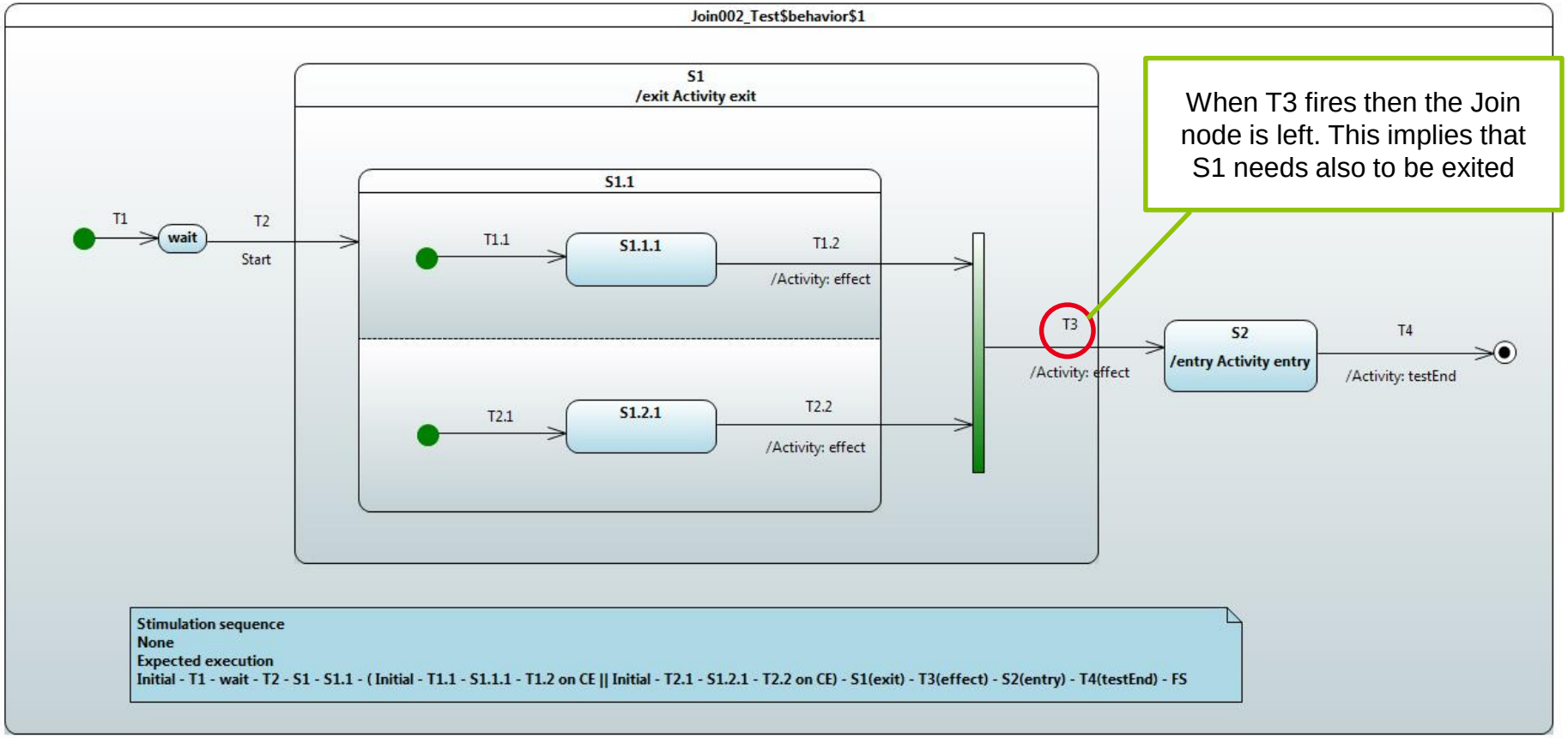
- Notes
  - The first transition that enters explicitly one region of S1.1 makes S1.1 being entered (i.e., S1.1 entry is executed)

JOIN (1)



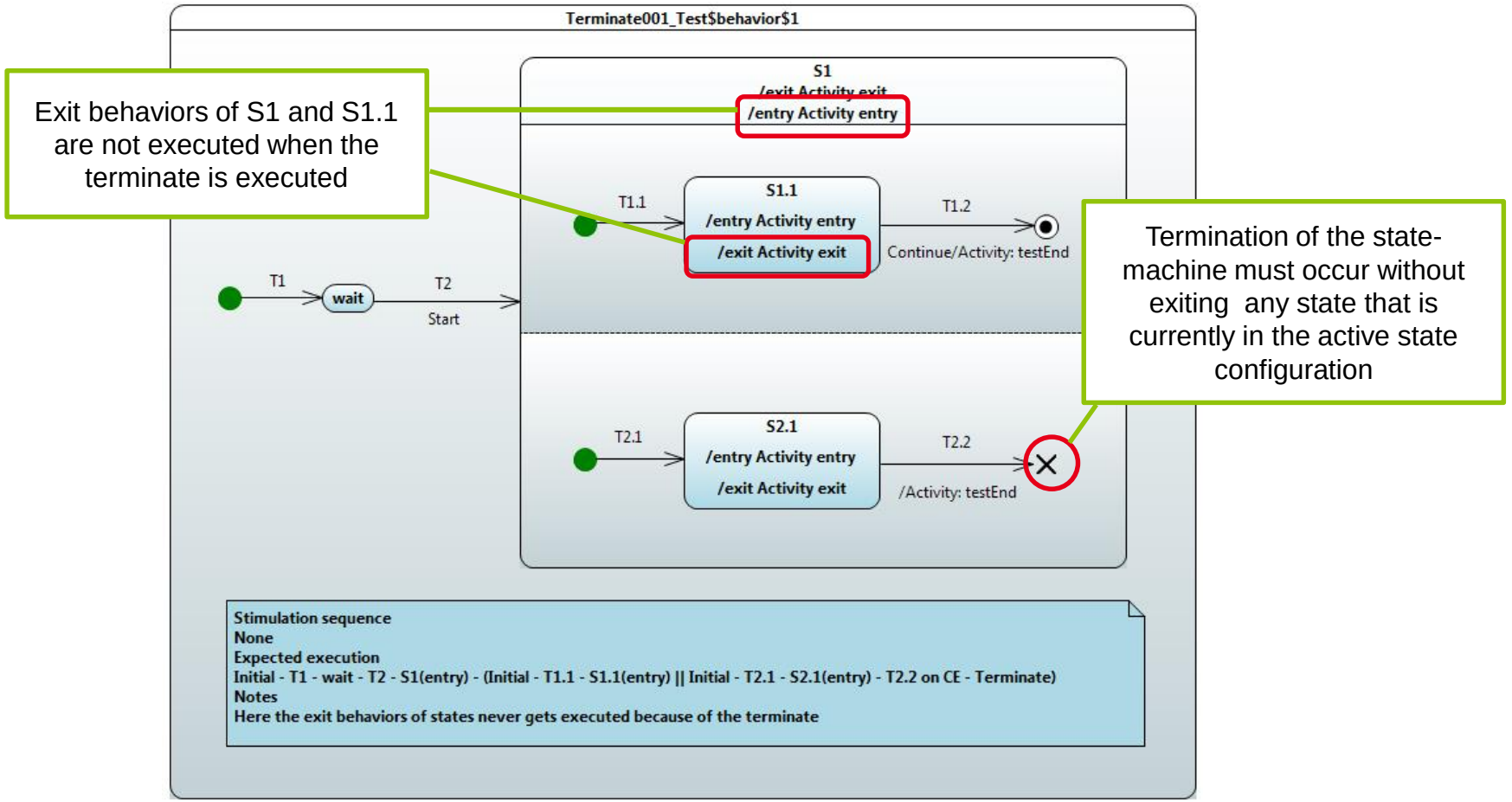
- Notes
  - Completion event of S1.1 gets dispatched => T2.3 fires
  - Completion event of S2.1 gets dispatched => T2.4 fires
  - Only when the second completion event gets dispatched then we are in a situation where the Join node can be entered

JOIN (2)



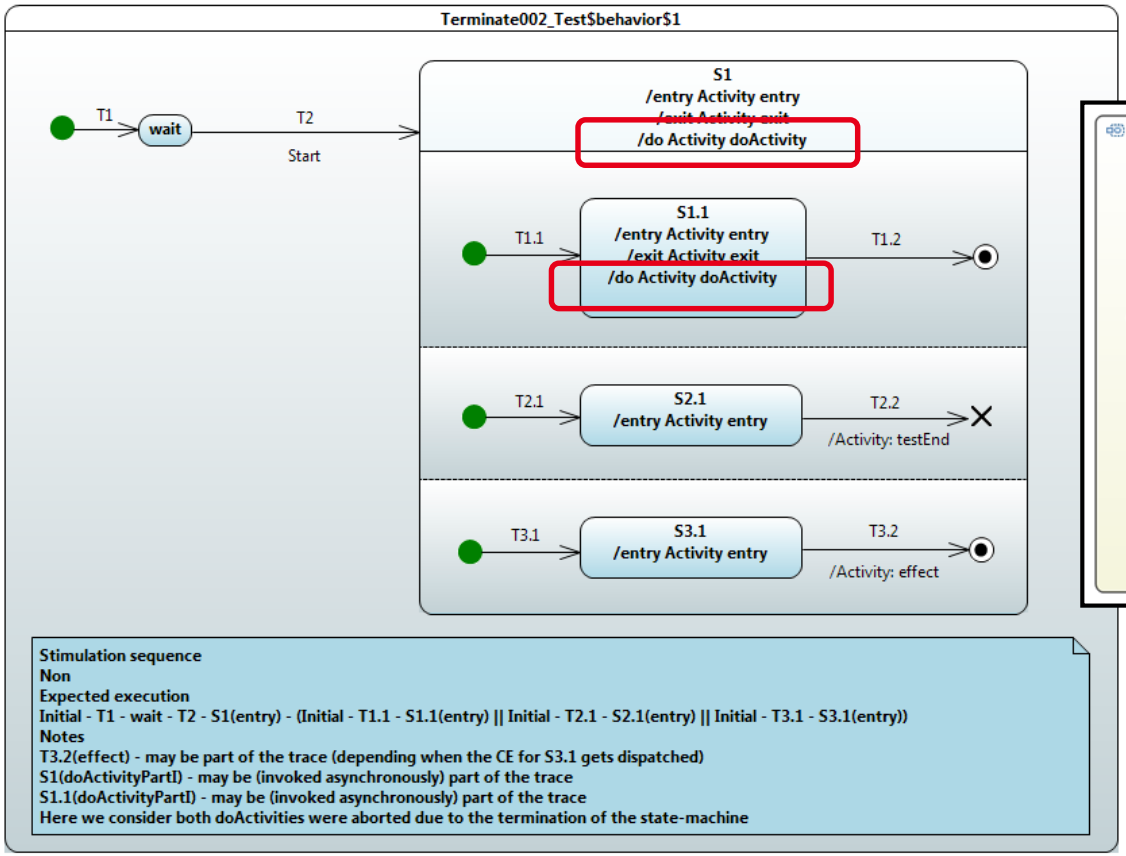
- Objective
  - Make sure that in case where the Join node is left while its is used in a nested context that exit rule is correctly applied.

TERMINATE (1)

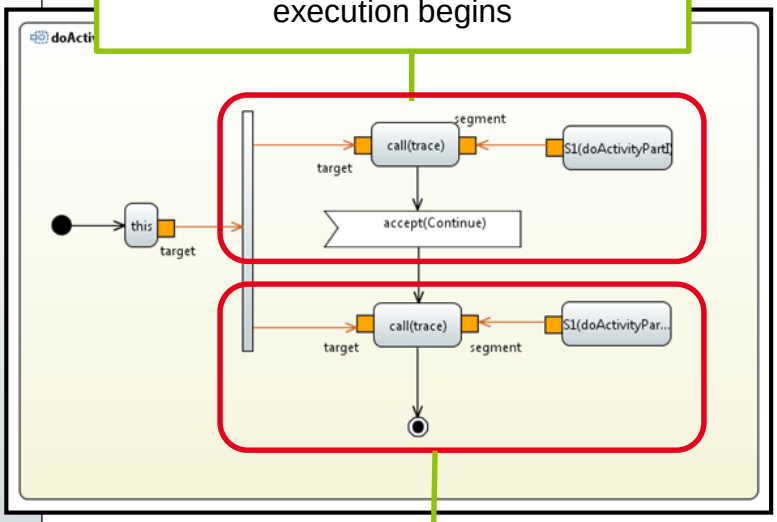


- Semantic model
  - "StateMachineExecution", "RegionActivation" and any kind of vertex have a "terminate" operation.
  - "TerminatePseudostateActivation" calls "terminate" and "destroy" on the state-machine execution

TERMINATE (2)



This part of the do activity might or might not be depending on when is execution begins



This part of do activity will never gets executed since the state-machine gets terminated before any Continue signal is received

- Objective
  - Make sure that when a state-machine gets terminated then ongoing do activities are aborted.
  - This typically occurs when the state that initiated this do activity gets itself terminated.

LOCAL TRANSITIONS

A. Information from the specification UML 2.5

- Constraints
  - A local transition must have a composite state or an entry point as its source
  - A local transition can only exists within a composite state
  - For local transitions the target vertex must be different from its source vertex

- Rules
  - “Implies that the Transition, if triggered, will not exit the composite (source) State, but it will exit and re-enter any state within the composite State that is in the current state configuration.”
  - “local is the opposite of external, meaning that the Transition does not exit its containing State (and, hence, the exit Behavior of the containing State will not be executed).”
  - “In case of local Transitions, the exit Behaviors of the source State and the entry Behaviors of the target State will be executed, but not those of the containing State”