

Scenario-Driven Modelling

Gruppe 1

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Agenda

- Purpose of simulating scenarios
- Simulation of scenarios
- Degree of formalization
- Summary

Simulation for Requirements Models

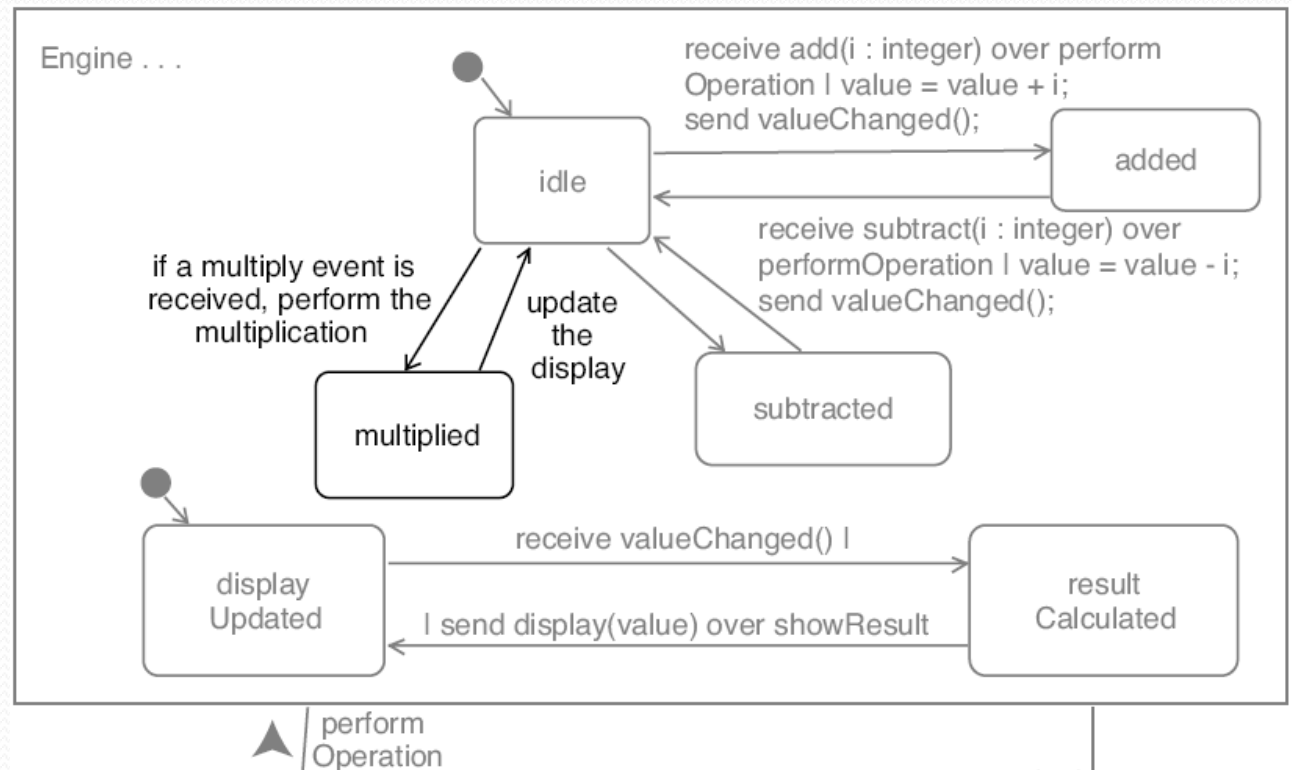
- used to examine the reaction of the modeled system to certain stimuli
- process:
 - define simulation cases
 - execute simulation cases -> simulation run
 - check if the scenario behaves as intended and yields the desired results
- incomplete and semi-formal models can be simulated by inquiring missing information from the person who runs the simulation

Purpose of Simulating Scenarios

- identify problems
- validate requirements
- continuously assure quality of a requirements model

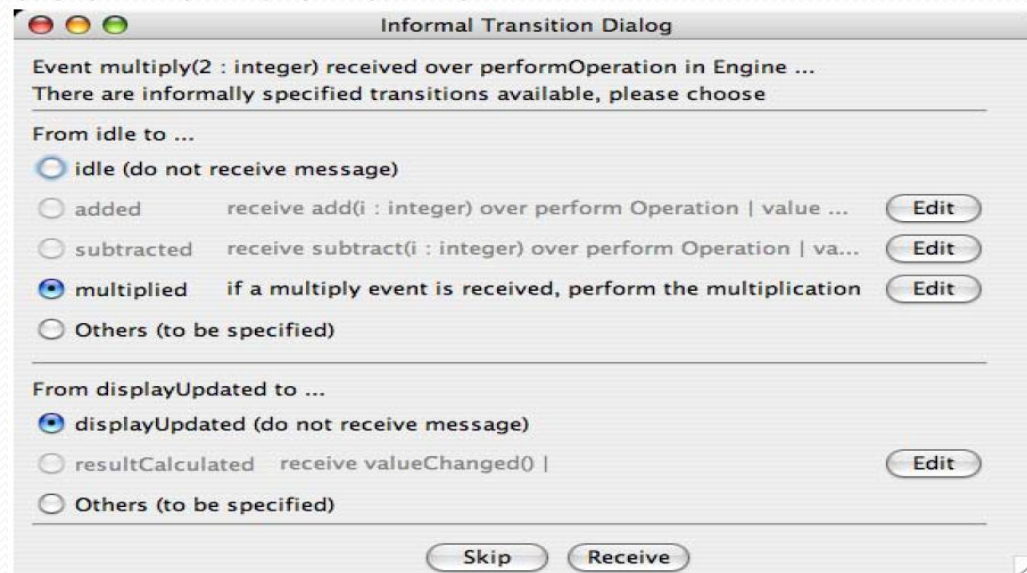
Simulating partial or semi-formal specifications

- ADORA models : execute type scenarios
- Partial informality : part of the scenario in human language



Simulating partial or semi-formal specifications

- Incompleteness : certain events are not handled
- In both cases, use interactivity during the scenario run: prompt user for behavior



- Regression simulation

Degree of formalization

- The more formalization the less interaction
- Simulation runs with semi-formality
- Semi-formality is not the absence of semantics

Degree of formalization

- Semi-formality is more incompleteness in formal modelling
- Means: informal parts, which are human understandable but not machine interpretable, are included
- Desired behaviour can be specified interactively

Summary

- Scenario-driven modelling helps to identify problems and validate requirements
- ADORA helps to show and simulate semi-formal models/scenarios
- Handling from semi-formal parts through user-interaction