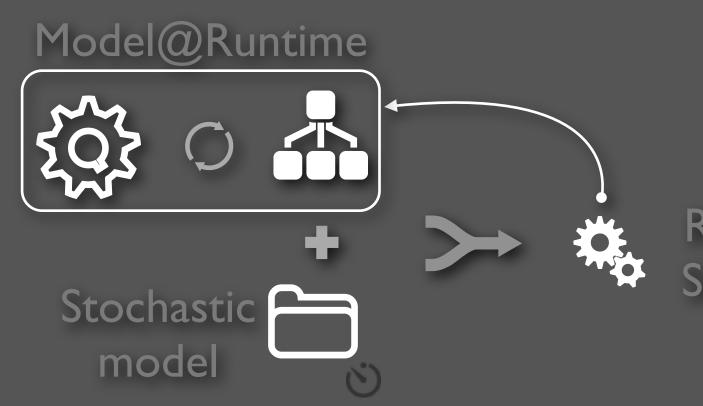
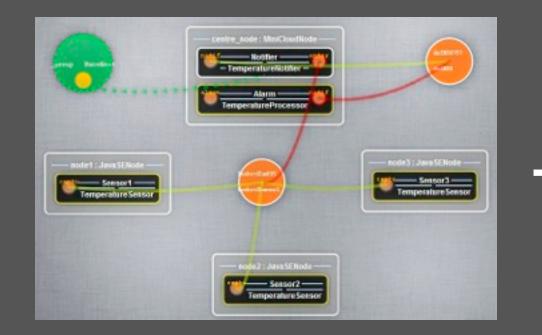
# A Process for Continuous Validation of Self-Adapting Component Based Systems



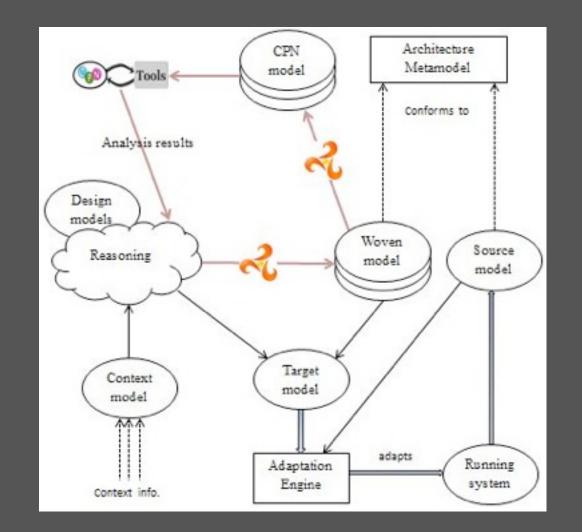
Viet-Hoa Nguyen, Noël Plouzeau, François Fouquet, Olivier Barais

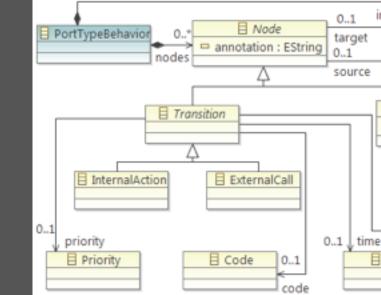
## Reasoning Simulation





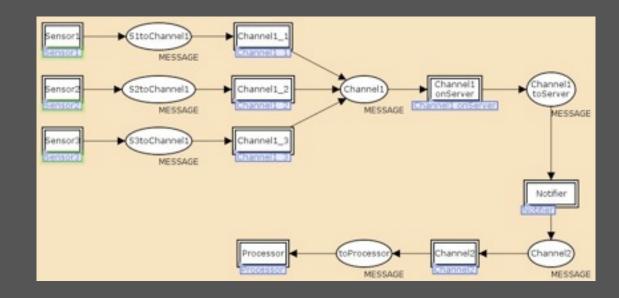






## Description of stochastic behaviors based on the MM above (CPNs)





### Hierarchical, colored, stochastic Petri net

input 0*	arcs 0*
	Arc
output	annotation : EString
0*	
	Place
= fusion(	Group : EIntegerObject
	01 marking
	Marking
2	condition 01
Time	E Condition

# Summary

• Hierarchical, stochastic colored Petri nets (CPN) fit well as a time-related behavioral decorator model for structural Model@Runtime

• Fast modern stochastic simulation results are injectable in a reasoning loop in a M@R engine