

Clark, Graham; Sanders, William H.

Implementing a stochastic process algebra within the Möbius modeling framework. (English)

[Zbl 1010.68526](#)

De Alfaro, Luca (ed.) et al., Process algebra and probabilistic methods. Performance modelling and verification. Joint international workshop, PAPM-PROBMIV 2001, Aachen, Germany, September 12-14, 2001. Proceedings. Berlin: Springer. Lect. Notes Comput. Sci. 2165, 200-215 (2001).

Summary: Many formalisms and solution methods exist for performance and dependability modeling. However, different formalisms have different advantages and strengths, and no one formalism is universally used. The Möbius tool was built to provide multi-formalism multi-solution modeling, and allows the modeler to develop models in any supported formalism. A formalism can be implemented in Möbius if a mapping can be provided to the Möbius abstract functional interface, which includes a notion of state and a notion of how state changes over time. We describe a way to map PEPA, a stochastic process algebra, to the abstract functional interface. This gives Möbius users the opportunity to make use of stochastic process algebra models in their performance and dependability models.

For the entire collection see [\[Zbl 0971.00028\]](#).

MSC:

[68Q85](#) Models and methods for concurrent and distributed computing (process algebras, bisimulation, transition nets, etc.) Cited in 1 Document

Software:

[PEPA](#); [Möbius](#)