

The ASAP Platform: Next Generation Tool Support for State Space Analysis of CPN Models

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Abstract

State space exploration is one of the main approaches to model-based verification of concurrent systems and it has been one of the most successfully applied analysis methods for Coloured Petri Nets (CPNs). The basic idea of state space exploration and analysis is to compute all reachable states and state changes of the concurrent system under consideration and represent these as a directed graph. Based on state space exploration it is possible to automatically reason about a wide range of properties concerning the behaviour of concurrent systems.

In this talk we present the ASCoVeCo State Space Analysis Platform (ASAP) which is currently being developed in the context of the ASCoVeCo research project. ASAP represents the next generation of computer tool support for state space exploration of CPN models. The vision of the ASAP platform is to provide an open platform suited for research, education, and industrial use of state space exploration and model checking. We present the ASAP platform architecture, the support for state space exploration methods, and give a demonstration of the graphical user interface of ASAP which is based on the Eclipse Rich Client Platform. Finally, we end with an outlook on the future development of ASAP. Version 1.0 of the ASAP platform has recently been released, and we will release an updated version 1.1 after the workshop.

For further information on the ASCoVeCo project, see

<http://www.daimi.au.dk/~ascoveco>

To download ASAP, see

<http://www.daimi.au.dk/~ascoveco/download.html>