Introduction

This Model form is a short description of the IBMB2S565S3960 model that comes, for the Model Checking Contest 2013 @ Petri Nets ("suprise model category"), with: a set of PNML files, a set of properties to be checked (possibly one file per model instance) and an optional set of properties concerning the model (invariants, etc. – possibly one file per model instance). For Coloured Nets, equivalent PNML P/T net files are proposed too.

IBMB2S565S3960

Presentation

Description: This model is the biggest one (in terms of places and transition) of a collection of 1386 Petri nets that were derived from industrial business process models that were provided by IBM. The Petri nets have workflow structure (unique source and sink place) and can be checked for soundness (marking the source place, does the CTL formula "AGEF sink" hold). More information on the models can be found in the referenced paper.

The soundness check is an ideal challenge for the model checking contest, because it can be performed by checking a CTL formula or by checking the short-circuited net for liveness and boundedness. This allows for generic as well as Petri net-specific approaches.

Origin: Dirk Fahland, Cédric Favre, Jana Koehler, Niels Lohmann, Hagen Völzer, and Karsten Wolf. **Instantaneous Soundness Checking of Industrial Business Process Models**. In Umeshwar Dayal, Johann Eder, Jana Koehler, and Hajo A. Reijers, editors, *Business Process Management, 7th International Conference, BPM 2009, Ulm, Germany, September 8-10, 2009, Proceedings*, volume 5701 of Lecture Notes in Computer Science, pages 278-293, September 2009. Springer-Verlag.

Scaling parameter

Name	Description	Values
none	–	–

Information about the Model

Data on the Model

Number of places	Number of transitions	Number of arcs	Scaling parameter value
273	179	572	all

Stated Properties

safe	?	free choice	?	event graph	?
deadlock	?	state machine	?	reversible	?

Other Properties (not mandatory)