

Introduction

This Model form is a short description of the Global Allocation Resource Management model that comes, for the Model Checking Contest @ Petri Nets, 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.

Global Allocation Resource Management

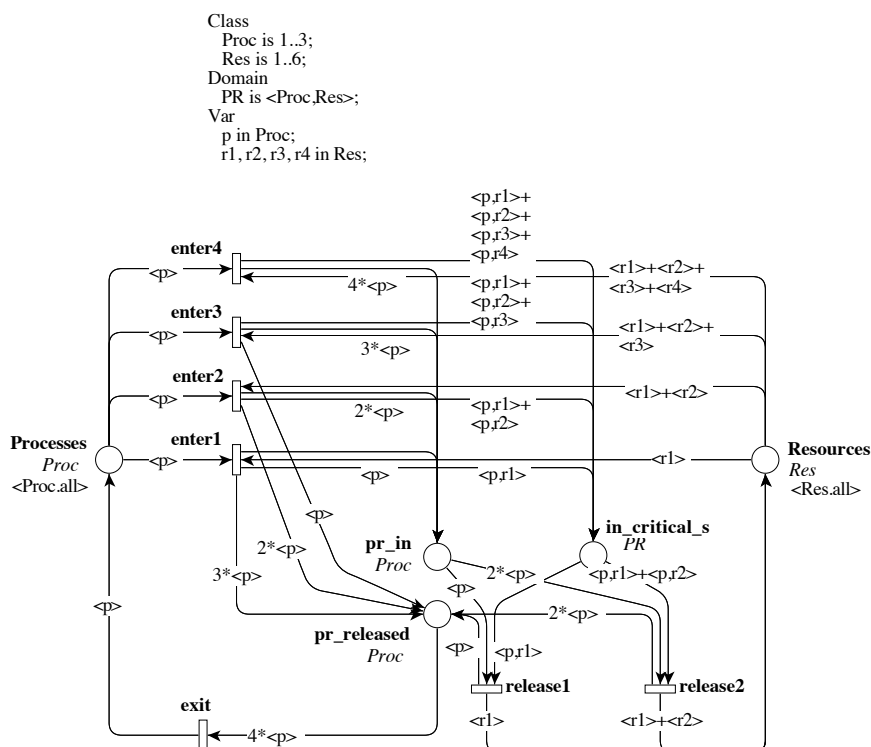


Figure 1: Presentation of the model for instance (generic algebraic description)

Presentation

Description: Management of resources with the declaration of all resources to be used in a critical section. when process *p* enters a critical section (transition *enter*) it locks all the resources needed to be used in the critical section (4 max). Then, it can release a subset of these resources, max 2 at a time (and then stay in the critical section) or exit the critical section, thus releasing all the remaining resources it locks.

Origin: from a Sacha Krakoviak book

Scaling parameter

Name	Description	Values
(Cardinality of Proc and Res classes)	see description	$(n, 2 \times n)$ with $n \in \{3, 5, 6, 7, 9, 10, 11\}$

Information about the Model

Stated Properties

Data on the Model

Number of places	Number of transitions	Number of arcs	Scaling parameter value
5	8	29	all (colored version)

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

Other Properties (not mandatory)