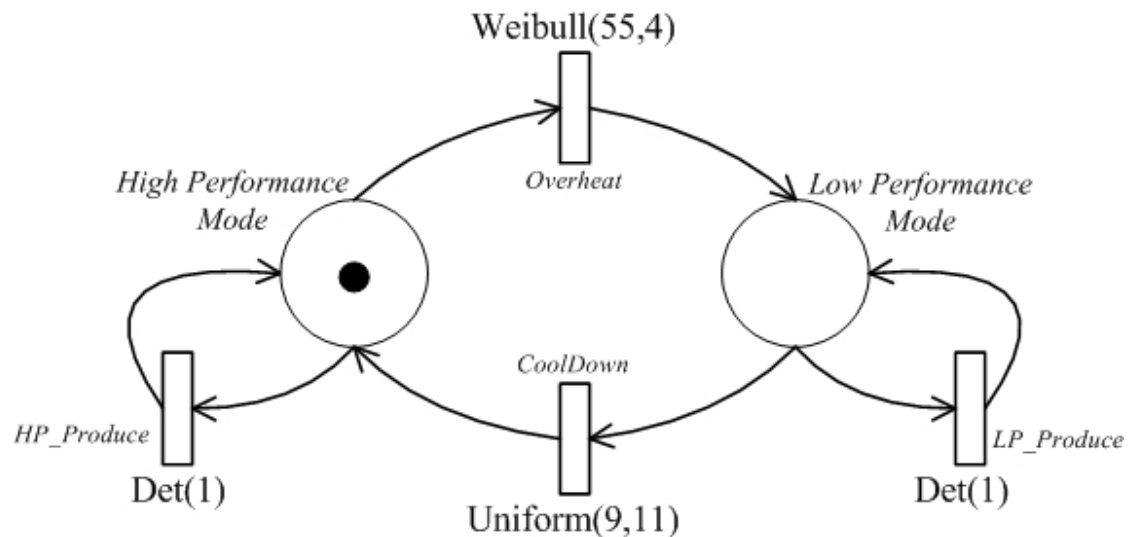


Applied Discrete Modelling

Assignment 4 “Machine Temperature”: Proxel-based Simulation



System Specification

A machine's behaviour is described by the above SPN.

Assume that the probability to produce a working part in HPM is 0.95 in LPM only 0.8.

Implementation

Modify the given hard-coded Proxel-program to simulate the above Petri net.

Tasks and Questions

Construct the state space and RG of the above model.

Use your program to answer the following questions:

- What is the transient and steady state probability that place LPM is empty for different time steps (e.g. 4, 2, 1, 0.5)?
- What is the transient and steady state throughput of transition *HP_Produce* for different time steps (e.g. 4, 2, 1, 0.5)?
- What is the transient and steady state throughput of working parts?