

Petri Net Research @ DMCC

Dr. Rubén Carvajal Schiaffino

Departamento de Matemática y Ciencia de la Computación - Universidad de Santiago de Chile

e-mail: ruben.carvajal@usach.cl - <http://rcarvajal.usach.cl>

4th ReSeCo Workshop
Córdoba, Argentina
December 17, 2009

Outline

- ▶ About DMCC
- ▶ Academic Programs
- ▶ Petri Nets Research
- ▶ Conclusions

About DMCC

The Departamento de Matemática y Ciencia de la Computación (DMCC) was founded in 1975 and perform didactics and research in mathematics (dynamical systems), statistics (bayesian inference), didactic in mathematics, and computer science (cryptography and formal methods)

Academic Programs

Actually DMCC has four undergraduate programs:

- ▶ Licenciatura en Educación Matemática y Computación (1976)
- ▶ Licenciatura en Ciencia de la Computación (1988)
- ▶ Ingeniería Estadística (1994)
- ▶ Ingeniería Matemática (2002)

and two graduate programs:

- ▶ Magister en Ciencia, mención Matemáticas (1982)
- ▶ Doctorado en Ciencia, mención Matemáticas (2002)

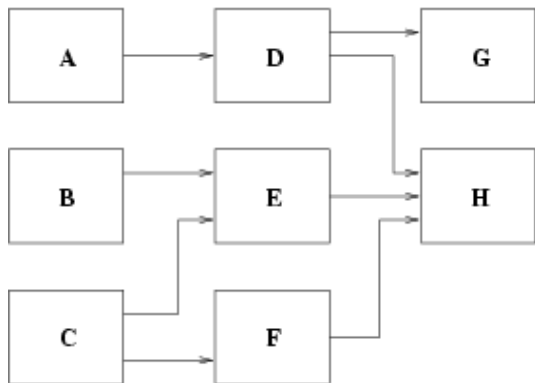
Petri Nets Research

- ▶ Verification of Syllabus
- ▶ Distributed Environment for the Analysis of Complex Systems

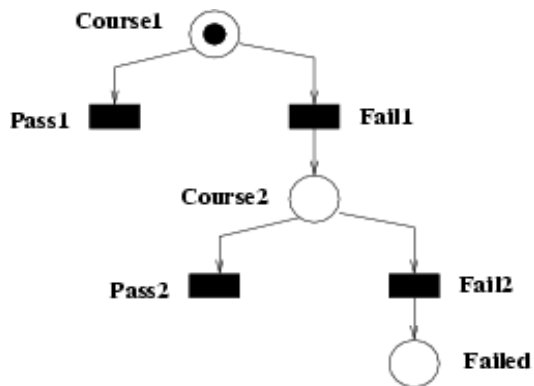
Verification of Syllabus

A syllabus is a set of courses, their prerequisites and a set of rules defining the continuance of a student in an academic program. Manual verification of the possible contradictions between rules and prerequisites is a difficult task (large number of states)

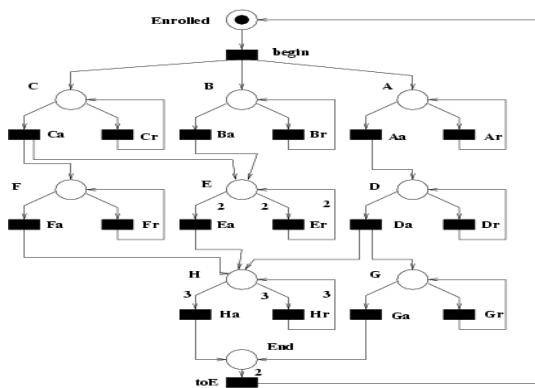
Verification of Syllabus



Verification of Syllabus



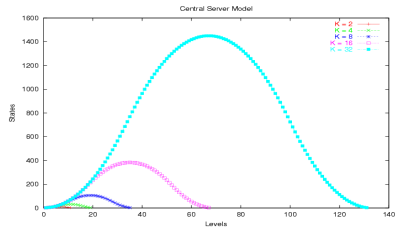
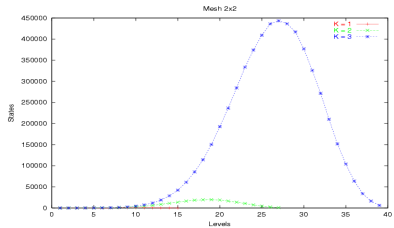
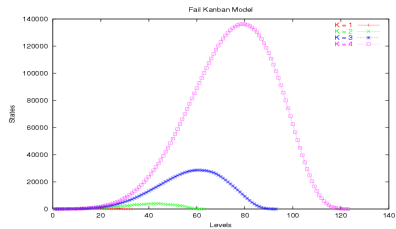
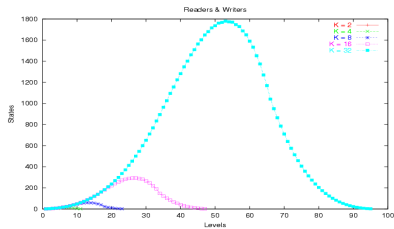
Verification of Syllabus



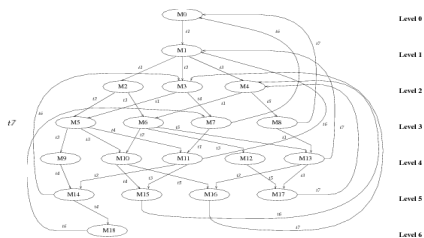
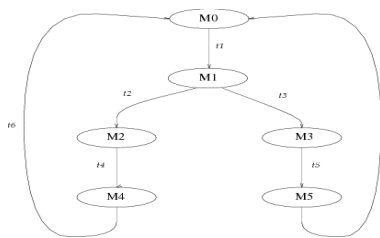
Distributed Environment for the Analysis of Complex Systems

Encode the Reachability Set using its properties

Distributed Environment for the Analysis of Complex Systems



Distributed Environment for the Analysis of Complex Systems



Conclusions

Thanks for your Attention