Petri Nets Tutorial, from Symmetric Nets to Symmetric Nets with Bags (session 2)

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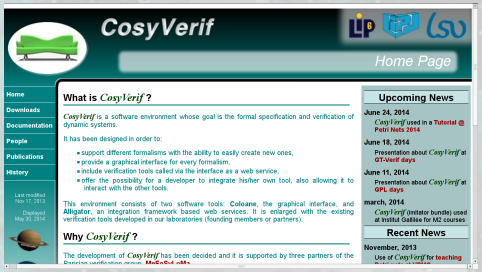
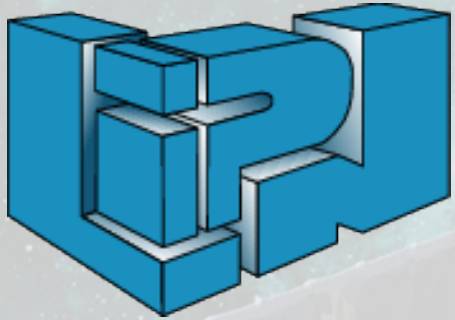
What is CosyVerif ?



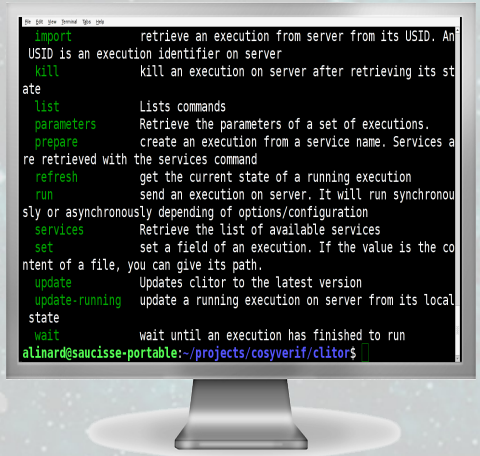
cosyverif.org

“ CosyVerif is a software environment, the goal of which is the formal specification and verification of dynamic systems. ”

A project with active partners !



A client server architecture



Webservice

Clients

Webservice

Server

Principles of the CosyVerif platform

- Distributed and Open
  - ✓ Developed at ENS Cachan, Paris 13, UPMC, etc.
- Supports different families of formalisms
  - ✓ Petri nets
  - ✓ automata
- 12 concrete formalisms
- 2-layered XML-based description language
  - ✓ FML, Formalism Markup Language (modelling language description)
  - ✓ GrML, Graph Markup Language (actual model description)
- Reuse of existing formalisms
- Open to new tool contributions
- Tools invoked through web services transparent to the user
- Graphical user interface: Coloane
- Repository of models

Current Formalisms and Tools

Formalisms		Tools
Petri Nets	P/T	Structural bounds (LIP6) Various exports (LIP6) Cunf (LSV & LIPN) GreatSPN invariants (U. Torino)
	Stochastic	Cosmos (LSV)
	Symmetric	PROD (U. Helsinki) PNXDD (LIP6) GreatSPN (symbolic) (U. Torino & LIP6) Unfold into P/T nets (LIP6)
	SNB	Crocodile (LIP6)
	HL	Helena (LIPN) ModGraph (LIPN) ObsGraph (LIPN)
Automata	Timed	IMITATOR (LIPN)
	Synchronised	Modgraph (LIPN)

Key content

- VirtualBox
- Java Virtual Machine
- CosyVerif as a Bundle
  "Clic and Go"

- Handout

Outline of the practical session

Modelling a shared bicycle service

have a look on the differences between P/T and SN

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Modelling a shared bicycle service
have a look on the differences between P/T and SN

Modelling and analysing a swimming pool
Use SNs and parametrise the model