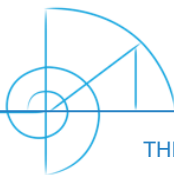
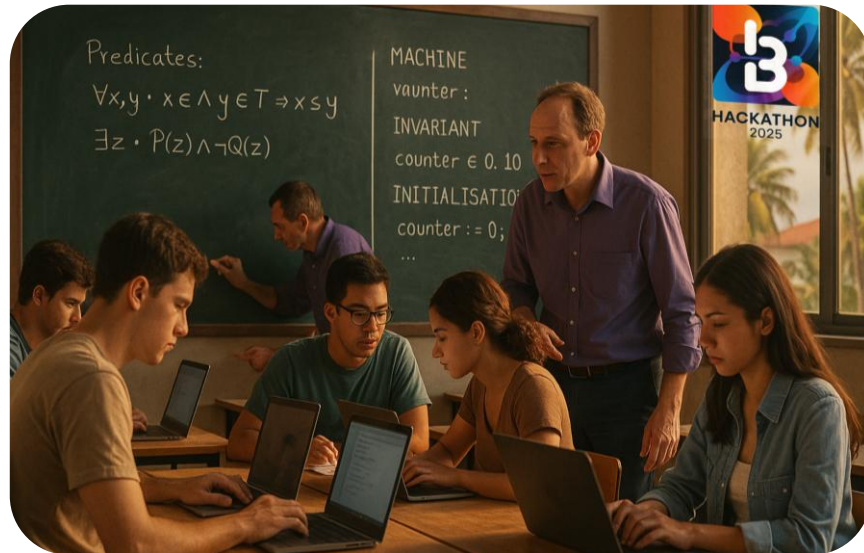


# Hackathon

## Introduction

Thierry Lecomte  
R&D Director



# Hackathon

- ▶ Spend one week together (5x 1.5h) on one subject
  - ▷ 2023: traffic lights
  - ▷ 2024: railways signalling
  - ▷ 2025: to be disclosed, mainly safety, a bit of security
- ▶ The goal is to show
  - ▷ your modelling skills and
  - ▷ the way you reason

# Hackathon

## ► Programme:

- ▷ Every day a new topic related to the subject (Part 1 to 5)

## ► What do you need

- ▷ A brain
- ▷ Modelling skills
- ▷ Atelier B Community edition 24.04  
<https://www.atelierb.eu/en/atelier-b-support-maintenance/download-atelier-b/>
- ▷ ProB2-UI (recent)  
[https://prob.hhu.de/w/index.php?title=Download#ProB2-UI\\_\(based\\_on\\_JavaFX\)](https://prob.hhu.de/w/index.php?title=Download#ProB2-UI_(based_on_JavaFX))
- ▷ ChatGPT is not going to help you much

# Hackathon

► Elements presented at <https://github.com/CLEARSY/hackathon-2025>

## ► Agenda

### ▷ Yesterday's subject (except day 1)

- Presentation of one solution (mine) (pushed on github just before the session)
- Feedback/discussion about the elements produced by the students
- Current status of the participants

### ▷ Today's subject

- Presentation of the topic: specification, technical details, elements of B modelling
- I am available to solve any problem with the tools, with the language (syntax)
- but **the modelling is your thing**
- Subject has some constraints, but you are absolutely free to model as you wish

# Evaluation

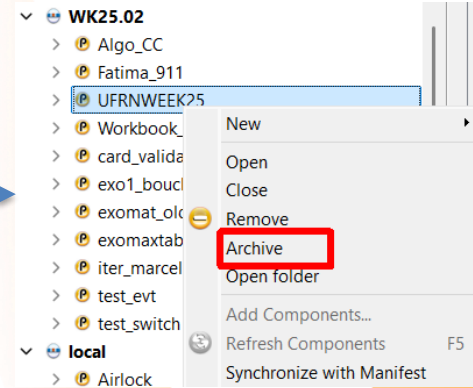
## ► Report (daily)

► Files (project archive (“whole project”) or zip file (.mch, .imp))

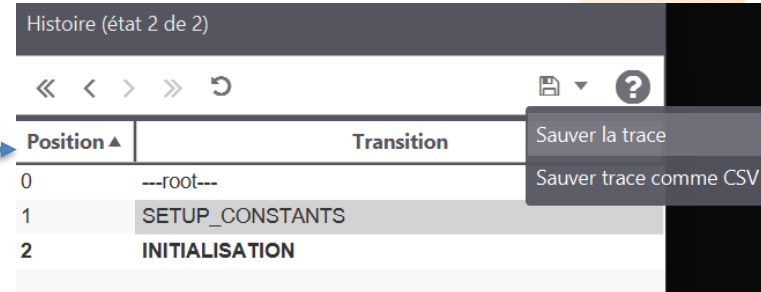
► Project status screenshot

► ProB trace file

► Answers to optional questions



Component /	TypeChecked	POs Generated	Proof Obligations	Proved	Unproved
Iter_base	OK	OK	2	2	0
Iter_main	OK	OK	1	0	1
Iter_main_i	OK	OK	24	12	12
Iter_services	OK	OK	8	7	1
Iter_services_i	OK	OK	8	7	1



# Evaluation

## ► Report (daily)

- ▷ Email: [thierry.lecomte@clearsy.com](mailto:thierry.lecomte@clearsy.com)
- ▷ Subject: HACKATHON – P<#> - <your name>
- ▷ Body: elements from the previous slide
- ▷ Answers to optional questions
  
- ▷ Sent before D+1 noon
- ▷ Except for the last day where it needs to be sent 30' before the end of the session, to correct, elect the best ones, and offers prizes

# Evaluation

## ► Report

### ▷ Valuation: 10 pts per part (maximum 50 pts)

- 8 pts for the technicalities (syntax, type, proof obligation, scenario played as expected)
- 2 pts for the “modelling style” (readable, elegant) **[Ctrl-A Ctrl-I to auto indent]**

### ▷ Optional questions: pts accumulated independently, to discriminate students with same valuation

### ▷ #1 gets a portable PC (15.6", Ryzen 7 5700U (8C/16T, 4,3GHz) 16Go RAM DDR4x2 + 512Go M.2 SSD)

### ▷ #2 gets a SSD (1 To)

### ▷ #3 gets a smaller SSD (0.5 To)

### ▷ #1 could be invited for a 6-month internship in France in case of excellence and if interested

# CLEARSY

Safety Solutions Designer

AIX  
LYON  
PARIS  
STRASBOURG

[WWW.CLEARSY.COM](http://WWW.CLEARSY.COM)

JUL 2025

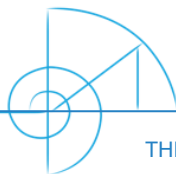
## Let's start !

<https://mooc.imd.ufrn.br/>



# MOOC

massive open  
online course



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