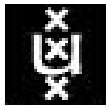


# Quick Intro: EASY Meta-Programming with Rascal

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Arnold Lankamp, Bert Lisser, Atze van der Ploeg,  
**Tijs van der Storm, Jurgen Vinju, Vadim Zaytsev***



# Romanian Intro ...



# Some Questions

- How can we bridge the gap between formal specification frameworks and practical tools?
- How can we attract programmers working in practice to using more formal techniques?
- Can we make formal descriptions more readable for programmers?
- How can we integrate all this with state-of-the-art software development technologies?





# What You Will Learn

- Why is meta-programming important
- Who needs it?
- Why Rascal?
- What is Rascal about?
- How can you apply Rascal?
- What are the latest developments?

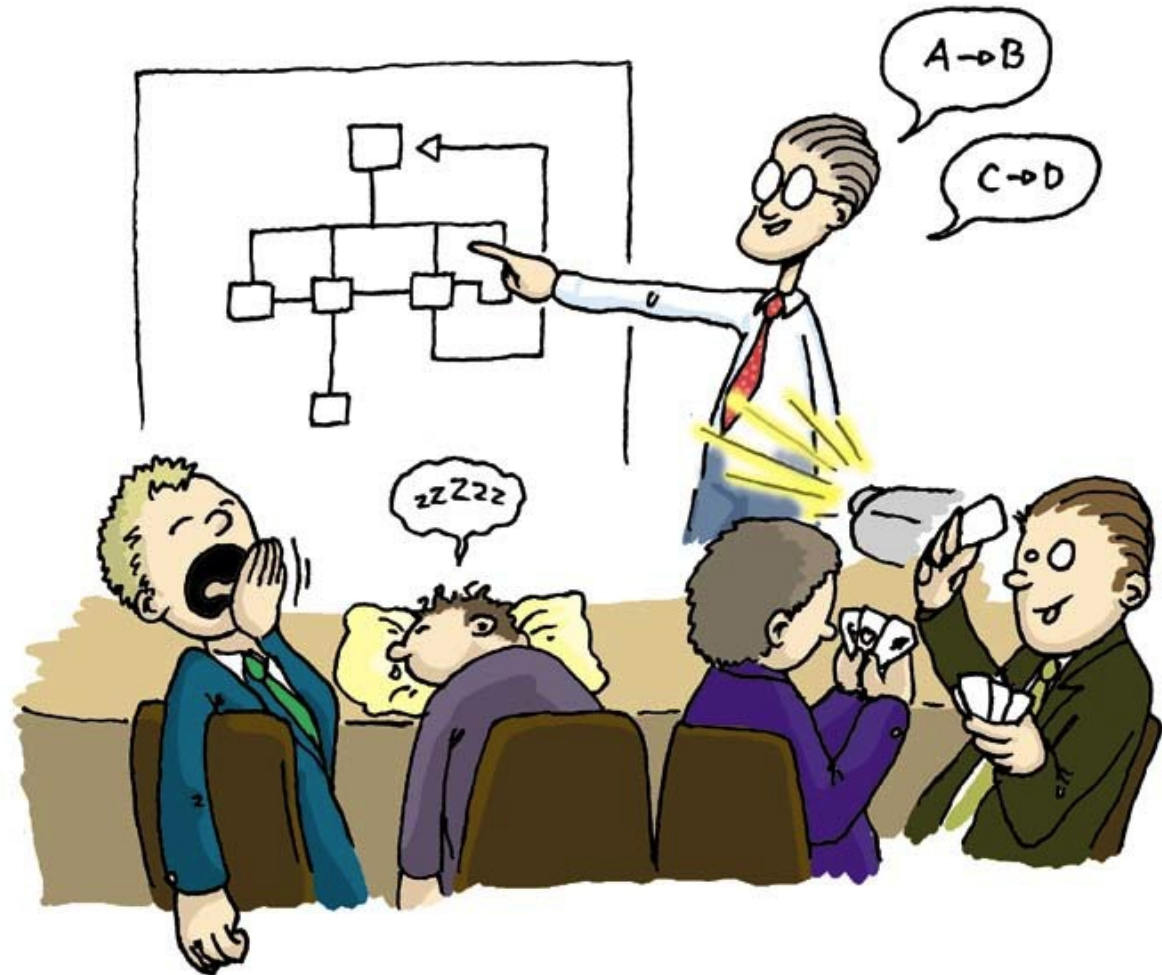
Rascal is a Domain-Specific Language for:

- Analysis and Transformation of source code
- Creating new DSLs
- Creating Integrated Development Environments



# How you will learn

- Presentations



# How you will learn

- Hands-on exercises on your laptop



# The Plan

- Cast of heroes
- What are their challenges
- Ideas behind Rascal
- Some classical examples
- Overview of language features
- A bit larger examples
- Language processors
  - Pico
  - Scaling to Java
- Current Research
  - Quickcheck
  - Typed external data sources
  - Visualisation



# What you need

- You can read *now* the online Rascal courses at:
  - <http://tutor.rascal-mpl.org/>
  - Recommended:
    - Rascalopedia (basic concepts explained)
    - Recipes (many small examples)
    - Rascal: Language and Libraries
- Install Rascal on your laptop:  
<http://www.rascal-mpl.org/Rascal/Download>
  - Contains courses *with* interactive exercises





# Rascal Competition

- Write a *non-trivial* Rascal program that
  - solves a real problem and is *new, well-structured, well-commented, well-tested, ...*
  - Need inspiration: see [www.rosettacode.org](http://www.rosettacode.org)
- Submit  $\leq$  friday evening to [Paul.Klint@cwi.nl](mailto:Paul.Klint@cwi.nl):
  - Your code + a one page explanation what it does and how well Rascal could be used for it
- Deadline: friday evening
- The best submission will be awarded ...



# A Rascal Watch!



# When

- Wednesday, whole day
- Don't hesitate to ask questions before/after:
  -  Paul.Klint@cwi.nl
  -  PaulKlint
  - <http://ask.rascal-mpl.org>
  - Or ... face-to-face



Meet



RASCAL

On Wednesday