Levels of Software Modeling

Meta-metamodel (M3)
Metamodel (M2)
Model (M1)
Instance (M0)

Software Modeling Activities

- Change Propagation
- Quality Analysis
- Impact Analysis
- Refactoring

Model Repository

Collaborative Modelling
- Metamodel Evolution
- Inconsistency Management

Process Model

Detection Rules
Resolution Rules

Model
Detect Quality Problems
Select Problems to be Resolved
Choose Resolution Rule
Apply Resolution Rules

modify model by selected resolution rules

(may give rise to new problems)

Model Refactoring

Goals
- Detect model smells
- Improve model structure
- Preserve model behaviour

Supporting techniques
- Graph transformation
- Eclipse EMF technology
- EMF Transform
- EMF Refactor

Model Inconsistency Management

Goals
- Analyse and improve model quality
- Detect and repair model inconsistencies

Supporting techniques
- Graph transformation
- Logic-based approaches
- Automated planning

Collaborations

UA, UG, VUB, ULB, KUL, UCL, FUNDP
Open U.
Lille
Nantes
Paris
UA, UG, VUB, ULB, KUL, UCL, FUNDP

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Publications

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