OCL2Java

An overview to the
status of the EMA project
OCL2Java

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Language/Tool at a Glance

- Name: OCL2Java
- Developed by: Ferdinand Mehlan

- Purpose of the language / tool:
  - Generate executable Java code from ocl models

Technical Briefing

- Can be found in: github:

  - https://github.com/EmbeddedMontiArc/OCL2Java

- Open accessible: Yes
- MC version: 4.5.3
- Uses: OCL, SIUnit

- Current state:
  - Rather stable
  - Old project, contains legacy code and discarded concepts
  - Uses old OCL version, pre-grammar rework

Algorithms and Functionallity

- OCL2Java

  - Entry point to functionality
  1. Rewrite model with C-like define rules
  2. Load Model
  3. Pretransformations on AST
  4. Generate Java-Code with visitors

- OCLInvariantTest
  - Tests generator and compares generated code to desired

Generation

- Uses Visitor-pattern on model AST
  - InplaceVisitor and DeclarationVisitor call each other to build code string
  - realThis pattern to differentiate
  - Split into multiple classes to organize

OCL2JavaInplaceInfixVisitor	OCLVisitor	OCL2JavaDeclarationComprehensionsVisitor
OCL2JavaInplacePrimaryVisitor		OCL2JavaDeclarationQuantifiersVisitor
OCL2JavaInplaceExpressionVisitor		OCL2JavaDeclarationVisitor
OCL2JavaInplaceVisitor		

entry point, called by OCL2Java