DSL Milestone 2 Report

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1 Grammar

This grammar enables writing boolean formulas with many operators. These are tied to the following primacy rule :

1. Negations
2. Conjunctions
3. Disjunctions
4. Implications
5. Exclusions
6. Biimplications

This means that the formula

(Variable : "a" et Variable : "b" < − > non Variable : "c")
is read
((Variable : "a" et Variable : "b") < − > (non (Variable : "c"))).

This allows lighter notations.

Moreover, in order to further lighten notations, it was decided to allow consecutive notations for associative operators. As such, one can write :

(Variable : "a" et Variable : "b" et Variable : "c").

2 Model Comparison

There are differences between the generated meta-model MM2 and the original MM1.

The main difference is that our construction in Xtext tried to avoid left recursivity, and thus disturbed the inheritance pattern of MM1 on *OperatorExpression*. A *BasicExpression* rule was further introduced for this.

Furthermore, the allowance for multiple iterations of operators on associative ones led to modifying the composition for *rightMember*, which changed its cardinality to [1..*].