# Analysis & Transformation Specifications

*SDF−based implementation*

Base Language
(Sets, Relations, Algebraic Data Types, Operators, FactBase access)

*Abstract data structures, primitive operators type system*

Language extension

Constraint Algorithm Language
(Constraint representation, solution update operators)

State Machine−based Algorithm Language
(FSM representation, state transition operators)

Relation−based Algorithm Language
(Fixed−point operators)

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AST Transformation Algorithm Language
(Matching, traversal operators)

Domain−specific specializations: specialized representations, operational semantics,

LPG−Language−Family Fact Extraction Language

Polyglot−Language−Family Fact Extraction Language

ANTLR−Language−Family Fact Extraction Language