Boolector 1.2

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SMT-COMP’09, Tool Presentation
Montreal, Canada

August 4th, 2009
Boole + Vector = Boolector

- SMT solver

- Theories
  - QF_BV
  - QF_AUFBV

- Model Checker for safety properties
  - Sequential and synchronous circuits with registers and memories
  - BTOR
• Optimization techniques
  – Bounded rewriting
  – Global term substitution techniques
  – Arithmetic normalization on demand
  – Local two level rewriting
  – Linear equation solver
  – Domain abstraction
  – …
• And-Inverter Graph Synthesis
  – Each expression is synthesized into AIG
  – Local two level AIG rewriting [BrummayerBiere06]
  – AIG is encoded into CNF
  – SAT solvers
    * PrecoSAT is used for $QF_{BV}$
    * PicoSAT is used for $QF_{AUFBV}$

• Lemmas on demand for $QF_{AUFBV}$ [BrummayerBiere09]
  – Decision procedure for extensional theory of arrays