Boolector at the SMT Competition 2011

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Abstract. This note serves as system description of our SMT solver
Boolector submitted to the SMT Competition 2011.

The version of Boolector [3, 2] submitted to the competition in 2011 did not
change much in the core SMT part. It is almost identical to the one entering the
SMT competition in 2009.

Beside preliminary support for SMTLIB version 2, it also incorporates various
bug fixes, including one which disables unconstrained input optimization. The
major change was to use an internal version of our SAT solver Lingeling [1] as single back-end SAT solver for all supported theories (QF_BV and QF_A(UF)BV).

The original version of Boolector was co-developed by Robert Brummayer
and Armin Biere at our Institute of Formal Models and Verification and is now
extended and maintained by Armin Biere.

References

1. Armin Biere. Lingeling, Plingeling, PicoSAT and PrecoSAT at SAT Race 2010.
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2. Robert Brummayer. *Efficient SMT Solving for Bit-Vectors and the Extensional
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3. Robert Brummayer and Armin Biere. Boolector: An efficient SMT solver for bit-vectors and arrays. In Stefan Kowalewski and Anna Philippou, editors, *Proceedings
   of the 15th International Conference on Tools and Algorithms for the Construction
   and Analysis of Systems (TACAS 2009)*, volume 5505 of *Lecture Notes in Computer
   Science*, pages 174–177. Springer, 2009.