

Home

Documentation

Download

Support

**Publications** 

People

**Related Links** 

Acknowledgments

CVC3 is an automatic theorem prover for *Satisfiability Modulo Theories (SMT)* problems. It can be used to prove the validity (or, dually, the satisfiability) of first-order formulas in a large number of built-in logical theories and their combination.

CVC3 is the last offspring of a series of popular SMT provers, which originated at Stanford University with the SVC system. In particular, it builds on the code base of CVC Lite, its most recent predecessor. Its high level design follows that of the Sammy prover.

CVC3 works with a version of first-order logic with polymorphic types and has a wide variety of features including:

- several built-in base theories: rational and integer linear arithmetic, arrays, tuples, records, inductive data types, bit vectors, and equality over uninterpreted function symbols;
- support for quantifiers;
- an interactive text-based interface:
- a rich C and C++ API for embedding in other systems;
- proof and model generation abilities;
- predicate subtyping;
- essentially no limit on its use for research or commercial purposes (see license).

1 of 1 11/26/2014 05:51 PM