LCT Solver Interface

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Recap

- Currently LCT uses constraint solvers through API calls (support exists for only Yices and Boolector).

- Changing the solver in this approach is difficult, and software licences can be problematic.

- In the last steering group meeting we presented the design and prototype for a translator from Lime Constraint Format to SMTLIB that would fix these problems.

- Implementation of this translator, named `lcf2smt2`, is now finished.

Progress

- `lcf2smt2` takes a constraint in Lime Constraint Format as input and translates it into a set of SMTLIB 2.0 instance in bitvector logic.
- A backend for a SMTLIB 2.0 compatible solver z3 was also implemented.
- Not many solvers support SMTLIB 2.0 at the moment, so z3 was used for testing during the development of the translator.
- This will change when the next SMT competition comes around however, as SMTLIB 2.0 is their official constraint format from now on.