Yices2 in SMT-COMP 2023 (SMT-comp 2023)

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https://yices.csl.sri.com/

Two solvers: CDCL(T) & MCSAT

Support:

- Quantifier-free: non-linear arithmetic (MCSAT only), linear arithmetic, bitvectors, uninterpreted functions, and arrays.
- With quantifiers: uninterpreted functions only, via E-graph matching and model-based instantiation.

Bitvectors: Yices 2/CDCL(T) uses bitblasting.
For QF_BV, it can optionally use third-party backend SAT solvers: CaDiCaL, CryptoMiniSat, and Kissat (the SMT-comp version uses Kissat for single-query and model validation tracks).

Functionalities: incremental and push/pop modes, unsat cores, model minimization and implicants, Model-Based Over-approximations, Model-Based Under-approximations, Craig Interpolants.

2023 

:

- arrays in MCSAT
- new variable decision and clause scoring heuristics in MCSAT.