

Candy for SAT Race 2019

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Abstract—We use Candy as a platform to systematically analyse the properties of competing strategies in systems of a CDCL solver.

I. SUMMARY

Candy [?] is a fork of **Glucose 3** [?], [?].

II. ARCHITECTURE AND IMPLEMENTATION

Candy orchestrates a set of loosely coupled systems, which mainly provide an interface for competing strategies. For example, Candy provides a variety of strategies in the branching-system.

Among others, the branching system can resort to implementations of gate-analysis and random-simulation based *implicit learning* (RSIL) which uses algorithms presented in [?] and [?].

There exists also a parallel mode with selected combinations and configurations of strategies and efficient memory sharing among threads.

Candy provides an IPASIR interface [?] and a HordeSAT interface via CandyHorde [?]. The sonification interface makes solver runs even audible [?].

III. CANDY IN SAT RACE 2019

We submitted Candy in its default setting which is a configuration of strategies that is roughly similar to that inherited from Glucose 3. This is the public evaluation of our baseline performance for reference.

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