

ProgeSS Report 5

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Overview of the Progress

- ▶ Discussion with Liyong about the algorithm.
- ▶ Continue the development of the tool with Weizhi, implemented data structure and basic operations of Automaton.
- ▶ Integrate Z3 and SPOT to CMake.
- ▶ Refine the previous implementation to make it more abstract.
- ▶ Reading paper:
[CAV'16] Array Fold Logic.
The report will be given tomorrow.

Algorithm

- ▶ Currently focus on simple LTL properties:

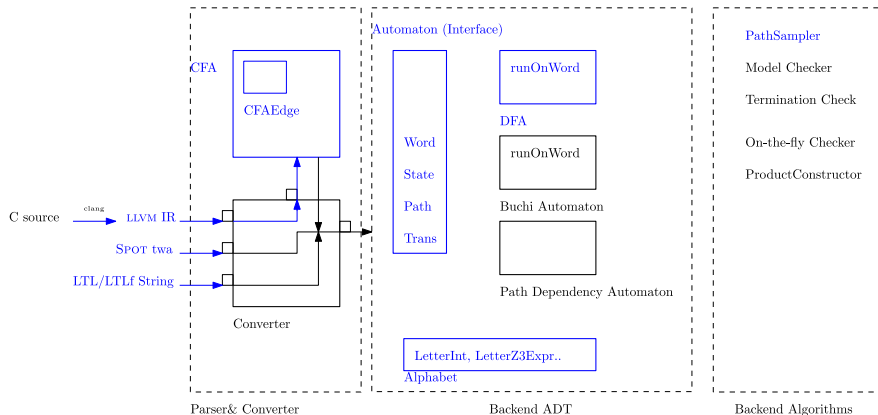
$$\mathbf{F}p, \mathbf{G}p, \mathbf{FG}p, \mathbf{GF}p$$

and their combinations.

- ▶ Currently implementing: verify these properties while generating the path conditions.

Progress of Developing

Current Framework of the Tool:



Z3

Future Work

- ▶ Implement algorithms.
- ▶ Continue to implement the converter for different data structure and data format.
- ▶ Survey on more algorithms and techniques. Read more papers and report.