

CPA✓

(CPACHECKER)

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The Verification Tool CPACHECKER

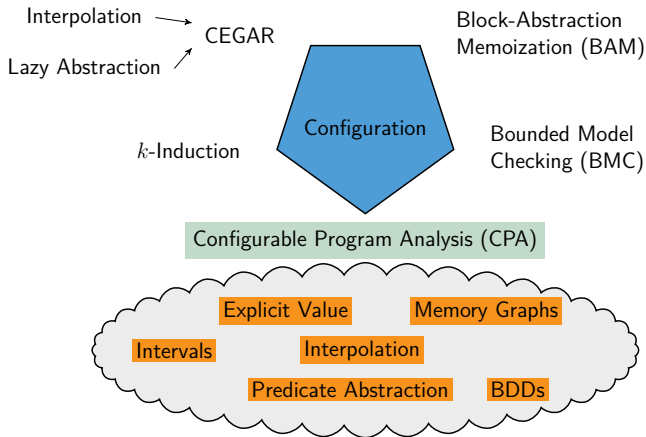
- ▶ Extensible framework for static software analysis
- ▶ Based on the CPA concept
- ▶ Used for C programs, but other front ends exist

- ▶ Written in Java (Java 17)
- ▶ Open source
- ▶ ≥ 104 contributors



<https://cpachecker.sosy-lab.org>

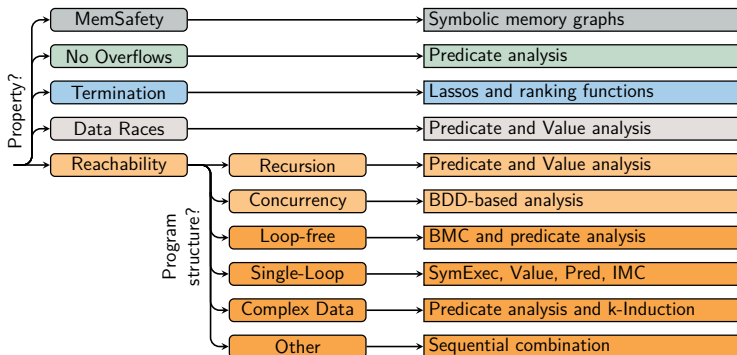
Overview of Approaches



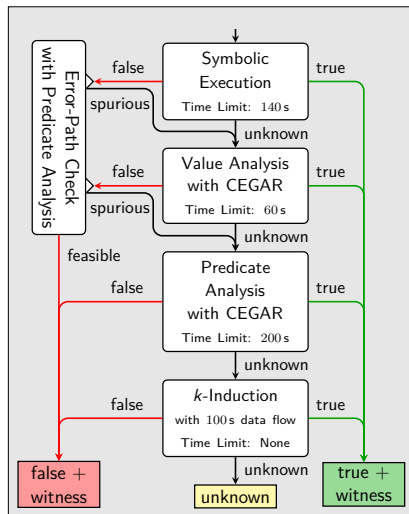
Configuration in SV-COMP'23

Strategy selection based on

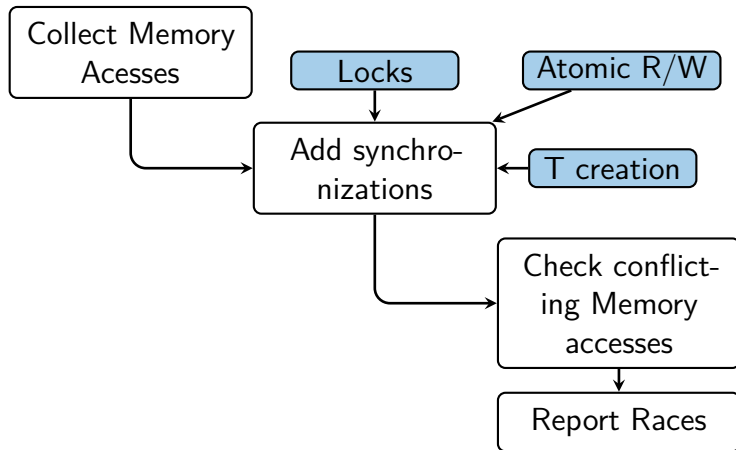
- ▶ properties
- ▶ program structure



Sequential Combination SV-COMP'23



New: Data Races CPA



Achievements in SV-COMP'23

- ▶ Verification:

Gold

0

Silver

1

Bronze

2

- ▶ MemSafety, Falsification, Overall

- ▶ Room for improvement

- ▶ scanf (Juliet)

- ▶ Symbolic Memory Graphs v2