Choco solver 4
XCSP3 Competition 2017

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Choco solver is a Free Open-Source Java library dedicated to Constraint Programming. The source code is in Java 8 and is hosted on GitHub under a BSD 4-clause licence.

The following settings were used when submitting Choco solver-4.0.5 to XCSP3 Competition 2017:

- Trailing environment,
- Constraint-oriented propagation engine dealing with seven static priorities,
- Depth-first search algorithm with 2-way decisions,
- DomWDeg [1] as variable selector,
- *smallest value* as value selector for CSP and *BIVS* [2] for COP,
- Last-Conflict reasoning [3] with $k = 2$,
- Luby strategy for restart [4].

In parallel resolution, the problem is duplicated, each copy is set to a different search strategy. Only objective bounds and exit signal are shared.

The project is active mainly developed and maintained by Charles Prud'homme and Jean-Guillaume Fages but they can count on vigilant contributors.

References

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3. Christophe Lecoutre, Lakhdar Sais, Sébastien Tabary, and Vincent Vidal. Reasoning from last conflict(s) in constraint programming. *Artif. Intell.*, 173(18):1592–1614, 2009.
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