

# iProver-QBF and iProver-QBF-Bloqer

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iProver is a general purpose theorem prover for first-order logic based on an instantiation calculus Inst-Gen [3]. iProver combines first-order reasoning with ground reasoning for which it uses MiniSat [2]. The proof search is implemented using a saturation process based on the given clause algorithm. iProver uses non-perfect discrimination trees for the unification indexes, priority queues for passive clauses, and a compressed vector index for subsumption and subsumption resolution (both forward and backward). iProver incorporates a QBF solving mode which is based on a translation of QBF into the effectively propositional fragment of first-order logic (EPR). The basic translation follows [4], we also implemented a dedicated Skolemization procedure with several optimisations. iProver-QBF-Bloqer uses Bloqer [1] for preprocessing QBF before submitting it to iProver.

## References

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