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Title: Etableau Backtracking

Abstract: I will briefly reintroduce the clausal tableaux calculus for first order automated theorem proving and introduce the principle of backtracking. Backtracking allows automated reasoning tools to undo previous steps that have been determined to be useless according to some criterion. I will discuss the implementation and how this affects the proof search algorithm in Etableau and provide a completed example proof. Finally, I will describe the addition of satisfiability detection to Etableau and provide the experimental results of the addition of these features, showing an improvement over vanilla Eprover.