

Constraint hierarchies belong to techniques for solving over-constrained problems, that is, constraint satisfaction problems where it is not possible to satisfy all the constraints. The idea of constraint hierarchy is to label each constraint by a preference level describing how much the constraint should be satisfied. Currently, there exist two classes of constraint hierarchy solvers: local propagation solvers that can handle more or less equality constraints only and refining solvers that are a bit cumbersome and non-incremental. The theoretical framework of constraint hierarchy solvers combines advantages of both above mentioned classes but no algorithm exploiting the power of this framework has been proposed so far. The thesis describes a new algorithm for solving constraint hierarchies based on this framework.