Abstract

In the real world there are many problems can be modeling as constraint satisfaction problem (CSP) for example scheduling, tasking etc. to improve efficience for searching the solution then needed CSP's engine to solve this problem.

This final task is analyzing and implementating an engine of CSPs by Using depth-first search (DFS) algorithm with backtrack and heuristic most contrining variable to acquire the best performance of backtracking searching technic. Engine that produced from this technic only use in string variable, string or integer domain and constraint with unary and binary type.

Heuristic most contrining variable in helping to increase searching performance with backtracking very well applied in problem where every variable have same domain and support with constraint that has optimal boundary function.

Keywords: constraint, constraint satisfaction problem, backtrack, most contraining variable.