Implementation of "Wumpus World " Game using Propositional Logic

Thazin Oo, Tin Myat Htwe
University of Computer Studied, Yangon
Thazinoo1988@gmail.com

Abstract

Solving problems by translating them to propositional logic has been found recently as a very successful approach in many application domains. Highly optimized satisfiability solvers have been used to find solutions of difficult problems. There are many games all over the world and most of the people play games for relaxation. This paper presents the wumpus world game to illustrate the operation of knowledge-based. It gives a propositional statement of situation in the Wumpus world and apply inference rules. To express and reason about such logical implications, Propositional Logic is implemented. The places where wumpus and pit located can be computed by using resolution algorithm. In this paper, the computation is solved by using the propositional logic. Knowing the relationship between pits, Wumpus, breeze and stench, the objective of this system is to build a program that logically infers whether the square surrounding the agent is safe to visit or not.