

After completing the coding and analysis portion of the project, I went through the chapter 10 references and I came across STRIPS which is the foundation of PDDL. STRIPS planning is the foundation of all A.I related Planning. It forms the basis of, and is applied in the two other papers I decided to summarise. The Paper on Reactive reasoning and planning makes clear the limitation of the STRIP approach to navigation and execution of low-level actions making it unsuitable for reasoning systems. STRIP planning can also be applied in the form of Graphplan and SATPlan to solve web services composition problem.

STRIPS: A new approach to the application of Theorem proving to problem solving

In a paper by Richard e. Fikes and Nils J. Nilsson, they describe a problem solving program called Strips which is the foundation of Planning. In STRIPS, a model is represented by a set of well-formed formulas (wff). Here operators are the basic elements from which a solution is built. STRIPS separate problem solving from searching through a state space model hence allowing separate strategies in the two activities which improves overall system performance. STRIPS uses GPS-like means-end analysis strategy [2].

Reactive reasoning and planning

This paper describes the design of a reasoning system that controls a robot so that it exhibits psychological attitudes such as belief, desire and intention. The idea is to elicit complex goal-directed and reflective behaviours. The behaviour expected from a rational agent. The paper highlights the limitation of STRIPS planning. A Reactive planning systems called Procedural reasoning system was applied (3,4).

A Comparative Illustration of AI Planning-based Web services Composition

There is an increasing number of web services available for use. This means that a multiple number of services are available to fulfil a certain goal. There is often a need to combine multiple web services to solve a particular task. This is referred to as the web services composition problem. The paper is a comparative study of approaches such as Graphplan, SATPlan which are based on STRIPS and Integral linear programming(ILP) use for solving this problem.

References

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