Research review of developments in AI planning and search

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highlighting the relationships between the developments and their impact on the field of AI as a whole.

Stanford Research Institute Problem Solver (STRIPS)

STRIPS is the first major planning system which combines techniques from state-space search, theorem proving and control theory [1, 2]. It represents states as a collection of first-order predicate formulas, and finds a sequence of operators which transform the initial state to the goal state. While the algorithm behind STRIPS is a milestone, the action representation of STRIPS was far more influential – Most planning systems following it have used a variant of the STRIPS language.

Graphplan

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POMDP solvers

References

1. Russell and Norvig, 2009. Artificial Intelligence: A Modern Approach. Prentice Hall.
2. Fikes and Nilsson, 1971. STRIPS: A New Approach to the Application of Theorem Proving to Problem Solving