Research Review

STRIPS
STRIPS was the first major planning system, created in the late 60s at the Stanford Research institute. STRIPS attempts to find a sequence of operators in a state space to transform a given initial state into a goal state that can be prove true. It uses "means-ends analysis to guide it to the desired goal-satisfying state" [1]. STRIPS is mostly relevant today because it defined a language to represent planning problems that is still in use today.

GRAPHPLAN
Graphplan is a propositional planner, which defines a planning graph data structure used to solve planning problems. Graphplan takes an input planning problem represented using STRIPS-Like notation and produces a plan to reach a given goal. For a while after its development graphplan was the leading method for solving classical planning problems. Derivatives of the graphplan algorithm have been used in a variety of fields, such as logistics[3].

A* Search
A* describes an algorithm to obtain the minimum cost past to a goal using heuristics. A* search is probably one of the best known heuristic search methods. It was developed around the same time and context as the STRIPS notation [2], to control a mobile robot at SRI AI Laboratory in the late 60s. It has since then been applied to a variety of domains, such as Natural Language processing.

[1] STRIPS: A New Approach to the Application of .Theorem Proving to Problem Solving' , Richard E. Fikes Nils J. NHsson (1971)

[2] STRIPS, a retrospective, Richard E. Fikes Nils J. NHsson (1993)

[3] Application of planning-graph with weight in logistics vehicles dispatching system, Qianjin Tanand Qiancheng Zhao

[4] Fast Planning Through Planning Graph Analysis, Avrim L Blum, Merrick L Furst (1997)

[5] A Formal Basis for the Heuristic Determination of Minimum Cost Paths, Peter E. Hart, Nils J. Nilsson , Bertram Raphael (1968)