Research Review

The STRIPS was the first major planning system and its primary interest was in problems faced by a robot called Shakey [Source 1], such as re-arranging objects and navigating in a room. Those problems required general world models compared to puzzles and games. [Source 2].
The representation language used by STRIPS is close to what is called "Classical" language and is used in AI projects until the present time.

NOAH (Nets of Action Hierarchies) introduced nonlinear planning and uses critics to fix/improve plans because the linear planning cannot resolve problems like Sussman anomaly [source 3].
Partial-order planning dominated research from 70's to 90's decades.
NOAH uses procedural nets to represent procedural domain knowledge.
The NOAH's planning algorithm is as follows:
1. Simulate the most detailed plan in the procedural net. This will have the effect of producing a new, more detailed plan
2. Criticize the new plan, performing any necessary reordering or elimination of redundant operations
3. Go to Step 1

GRAPHPLAN introduced a faster planner than partial-order planner of time using a planning graph. GRAPHPLAN always return a shortest possible partial-order plans, or states that no valid plans exists [source 4]
Planning graphs can be constructed quickly and they have polynomial size and can be built in polynomial time.

Sources
1. https://www.youtube.com/watch?v=mQ7M-zhiu7U
2. http://ai.stanford.edu/~nilsson/OnlinePubs-Nils/PublishedPapers/strips.pdf
3. https://www.ijcai.org/Proceedings/75/Papers/028.pdf
4. https://www.sciencedirect.com/science/article/pii/S0004370296000471