STRIPS[1], the first major planning system, which can find a sequence of operators in a space of world models to transform a given initial world model into a model in which a given goal formula can be proven to be true.
Planners in the early 1970s generally worked with totally ordered action sequences. Problem decomposition was achieved by computing a subplan for each subgoal and then stringing the subplans together in some order. This approach, called **linear planning**, cannot solve some very simple problems, such as the Sussman Anomaly. A complete planner must allow for interleaving of actions from different subplans within a single sequence, which means **nonlinear planning** or **partial-order planning**.

The ideas underlying partial-order planning include the detection of conflicts and the protection of achieved conditions from interference. The construction of partially ordered plans (then called **task networks**) was pioneered by the NOAH planner[2] and by Tate's NONLIN[3] system.
Partial-order planning dominated the next 20 years of research, yet for much of that time, the field was not widely understood.
In 1991, An implementation of McAllester and Rosenblitt's algorithm[4] called SNLP (Soderland and Weld, 1991) was widely distributed and allowed many researchers to understand and experiment with partial-order planning for the first time.

Avrim Blum and Merrick Furst (1995, 1997) 's GRAPHPLAN system which was orders of magnitude faster than the partial-order planners of the time. Planning as satisfiability and the SATPLAN[5] algorithm were proposed by Kautz and Selman (1992), who were inspired by the surprising success of greedy local search for satisfiability problems.The BLACKBOX planner, which combines ideas from GRAPHPLAN and SATPLAN, was developed by Kautz and Selman (1998).
The most successful state-space searcher to date is Hoffmann's (2000) FASTFORWARD[6] or FF[6], winner of the AIPS 2000 planning competition. FF uses a simplified planning graph heuristic with a very fast search algorithm that combines forward and local search in a novel way.

1. Fikes, R. E. & Nilsson, N. J. STRIPS: A New Approach to the Application of Theorem Proving to Problem Solving. Artif. Intell. 189, 189-208 (1971)
2. Sacerdoti, D. THE NONLINEAR NATURE OF PLANS
3. Tate, A. "Project Planning Using a Hierarchical Non-linear Planner", Dept. of Artificial Intelligence Report 25, Edinburgh University. [NONLIN] (1975b)
4. McAllester, D. & Rosenblitt, D. Systematic Nonlinear Planning. AAAI-91 Proceedings (1991)
5. Kautz, H & Selman, B. Planning Satisfiability.
6. Hoffmann，J. FF The Fast-Forward Planning System. AI Magazine Volume 22 Number 3 (2001)