

Lecture #2: Planning Problem Formalization

What is the role of events in the conceptual model for planning?

What does it mean that the system is fully observable? How is it reflected in planning models?

What is the difference between planning domain and planning problem?

When defining the planning domain using set representation, do we need to know all the objects in the modeled world?

How does the transition function for set representation handle the frame problem?

Is it possible to remove some actions from a redundant plan and still get a solution plan?

If a plan is not redundant, is the plan minimal?

What is the difference between goal and goal state?

Describe conditions for applicability of action (to state) and for relevance of action (to goal).

Describe a regression set.

What is the relation between planning operator and action?

Is it possible to remodel the planning operator such that it does not contain negative preconditions?

Is it possible to reformulate the goal such that it does not contain a negative condition?

Demonstrate the danger of using negative preconditions.

How can we recognize fluents and rigid atoms from operators?

When defining axioms, why do we need to distinguish between primal and secondary atoms?

What is the difference between secondary atoms and rigid atoms?

How can we get a set representation from the classical representation?

How can we model conditional operators in classical representation?

Propose a model for the blockworld problem with just three actions. What is the assumption about goals for such a model?