Introduction to AI

-Tutorial Planning-

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STRIPS: rocket domain

1. Formulate the rocket domain below in STRIPS. There are three possible actions:

   • to load a piece of cargo into a rocket
   • to unload a piece of cargo from a rocket
   • to move a rocket from a location to another

   where

   • for a rocket to be moved, it must have fuel, and moving uses up fuel
   • for a piece of cargo to be loaded/unloaded into/from a rocket, cargo and rocket must be at the same location

2. Modify your formulation of the *rocket domain* to accommodate fuel as a resource that can be consumed and produced

Graph-plan

Apply GRAPHPLAN to the shopping domain with

actions:

Go(x)   *preconditions: At(y),* ~~Assignment Project Exam Help~~ *effects: At(x),¬ At(y)*

Buy(x)   *preconditions: At(s),Sells(s,x)*   *effects: Have(x)*

start state: *At(H),Sells(BS,B),Sells(SM,A),Sells(SM,M)*

goal: *At(H), Have(M),Have(A),Have(B)*

Show explicitly the graph (including mutex) for S0, A0, S1

Return the computed plan explicitly, and indicate the level at which the plan can be extracted.