Conditional Planning

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incomplete or incorrect data

- Conditional (contingency) planning deals with incomplete information
- A conditional plan is created to account for each possible situation
- Sensing actions are embedded in the plan
- Essentially adds an if-then-else statement
Sometimes there’s a “safe” course of action for any possible contingency
Sometimes there’s no possible course of action (the agent fails)
If the condition is not known to be true or false, then the agent must have some way to acquire this information – sensing action
A sensing action can have side-effects

CPOP – Conditional Partial-Order Planner

- Context – union of prerequisite conditions
- Add links between steps in a plan
- Conditional link to add conditional steps
Parameterized plans

- The exact action to be carried out is not known at planning time
- Runtime variable – a value obtained after planning is complete
- Maintenance goal - forces the agent to **not** change a particular fact.
- Very similar to automatic programming