

# Classical Planning

Set of Logical Formulas

Block's World



Operators:

Puton( $\$x, \$y$ )

Constr:  $\$x \neq \$y$   
 $\$y \neq \$z$

Pre:  $CH(\$x)$

$ct(\$y)$

Delete:  $ct(\$y)$

$on(\$x, \$z)$

Add:  $on(\$x, \$y)$   
 $ct(\$z)$

State Space

$2 on(A, B), on(C, D)$

$on(E, F), ct(A)$

$ct(C), ct(E)$

$\downarrow$  Puton(C, A)

$i on(C, B), on(C, A)$

$on(E, F), ct(C), ct(E)$

$ct(E)$

close world assumption:

everything that is not in the state is false

Planning Space

① A(on CD, F)

A(ct CD) - A(ct F) -

② Puton(D, F)

Goal: on CD, F

Frame Problem

Goal Tree

on CD, F

ct(D)

ct(F)

- ③ Puton(C, A)
- ④ Puton(C, A) - Puton(E, C) - Puton(D, F)

