Planning P28 汉诺塔

move动作的公理 move(disc, from, to)

$\forall disc\ \forall from\ \forall to$ clear(disc, s) ∧ clear(to, s) ∧ ¬clear(from, s) ∧
smaller(disc, from, s) ∧ smaller(disc, to, s) ∧
on(disc, from, s) ∧ ¬on(disc, to, s)

-> clear(from, do(move(disc, from, to), s))

∧ ¬clear(to, do(move(disc, from, to), s))

∧ on(disc, to, do(move(disc, from, to), s))

∧ ¬on(disc, from, do(move(disc, from, to), s))

初始知识库:

clear($d_1$, $S_0$), clear(Peg2, $S_0$), clear(Peg3, $S_0$),
on($d_1$, $d_2$, $S_0$), on($d_2$, $d_3$, $S_0$), on($d_3$, Peg1, $S_0$),
smaller($d_1$, $d_2$), smaller($d_2$, $d_3$), smaller($d_1$, $d_3$),
smaller($d_1$, Peg1), smaller($d_2$, Peg1), smaller($d_3$, Peg1)
smaller($d_1$, Peg2), smaller($d_2$, Peg2), smaller($d_3$, Peg2)
smaller($d_1$, Peg3), smaller($d_2$, Peg3), smaller($d_3$, Peg3)

目标:

$\exists s$ clear(Peg1, s) ∧ clear(Peg3, s) ∧ clear(d1, s) ∧
on($d_1$, $d_2$, s) ∧ on($d_2$, $d_3$, s) ∧ on($d_3$, Peg2, s)

Planning P54 机器人房间

move动作的STRIPS表示：move(from, to)

Pre { at(from), visited(from), connected(from, to), connected(to, from) }

Add { at(to), visited(to) }

Del { at(from) }

初始知识库：

令 $a=(x_0,y_1)$, $b=(x_1,y_1)$, $c=(x_0,y_0)$, $d=(x_1,y_0)$

connected(a, b), connected(b, a)

connected(a, c), connected(c, a)

connected(c, d), connected(d, c)

connected(b, d), connected(d, b)

at(b), visited(b)

目标：

visited(a), visited(b), visited(c), visited(d)