Plan Validation Report

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1 Domain and Problem

Domain: blocksworld
Problem: blocksworldprob

2 Plan: solution

2.1 Plan

Plan size: 10

Time	Action
0:	(pickup_block_on_block arm0 block1 block0 magnetic) [1]
1.001:	(place_block_on_table arm0 block1) [2]
3.002:	(pickup_block_on_table arm0 block0 magnetic) [1]
4.003:	(place_block_on_block arm0 block0 block1) [1]
4.004:	(pickup_block_on_block arm1 block4 block3 encompass) [1]
5.005:	(place_block_on_table arm1 block4) [2]
7.006:	(pickup_block_on_block arm1 block3 block2 encompass) [1]
8.007:	(place_block_on_block arm1 block3 block4) [1]
9.008:	(pickup_block_on_table arm1 block2 encompass) [1]
10.009:	(place_block_on_block arm1 block2 block3) [1]

2.2 Plan To Validate

Time	Happening
0:	(pickup_block_on_block arm0 block1 block0 magnetic) - *start*

1: (pickup_block_on_block arm0 block1 block0 magnetic) - *end*

1.001: (place_block_on_table arm0 block1) - *start*

3.001: (place_block_on_table arm0 block1) - *end*

3.002: (pickup_block_on_table arm0 block0 magnetic) - *start*

4.002: (pickup_block_on_table arm0 block0 magnetic) - *end*

4.003: (place_block_on_block arm0 block0 block1) - *start*

4.004: (pickup_block_on_block arm1 block4 block3 encompass) - *start*

5.003: (place_block_on_block arm0 block0 block1) - *end*

5.004: (pickup_block_on_block arm1 block4 block3 encompass) - *end*

5.005: (place_block_on_table arm1 block4) - *start*

7.005: (place_block_on_table arm1 block4) - *end*

7.006: (pickup_block_on_block arm1 block3 block2 encompass) - *start*

8.006: (pickup_block_on_block arm1 block3 block2 encompass) - *end*

8.007: (place_block_on_block arm1 block3 block4) - *start*

9.007: (place_block_on_block arm1 block3 block4) - *end*

9.008: (pickup_block_on_table arm1 block2 encompass) - *start*

10.008: (pickup_block_on_table arm1 block2 encompass) - *end*

10.009: (place_block_on_block arm1 block2 block3) - *start*

11.009: (place_block_on_block arm1 block2 block3) - *end*

2.3   Plan Validation

Time	Details

0:   Checking Happening... ...OK!
Deleting (empty arm0)
Deleting (on_block block1 block0)
Deleting (clear block1)

1:   Checking Happening... ...OK!
Adding (clear block0)
Adding (holding arm0 block1)

1.001:   Checking Happening... ...OK!
Deleting (holding arm0 block1)

3.001:   Checking Happening... ...OK!
Adding (on_table block1)
Adding (clear block1)
Adding (empty arm0)

3.002:   Checking Happening... ...OK!
Deleting (empty arm0)
Deleting (clear block0)
Deleting (on_table block0)

4.002:   Checking Happening... ...OK!
Adding (holding arm0 block0)

4.003:   Checking Happening... ...OK!
Deleting (clear block1)
Deleting (holding arm0 block0)

4.004:   Checking Happening... ...OK!
Deleting (empty arm1)
Deleting (on_block block4 block3)
Deleting (clear block4)

5.003:   Checking Happening... ...OK!
Adding (on_block block0 block1)
Adding (clear block0)

Adding (empty arm0)

5.004:   Checking Happening... ...OK!
Adding (clear block3)
Adding (holding arm1 block4)

5.005:   Checking Happening... ...OK!
Deleting (holding arm1 block4)

7.005:   Checking Happening... ...OK!
Adding (on_table block4)
Adding (clear block4)
Adding (empty arm1)

7.006:   Checking Happening... ...OK!
Deleting (empty arm1)
Deleting (on_block block3 block2)
Deleting (clear block3)

8.006:   Checking Happening... ...OK!
Adding (clear block2)
Adding (holding arm1 block3)

8.007:   Checking Happening... ...OK!
Deleting (clear block4)
Deleting (holding arm1 block3)

9.007:   Checking Happening... ...OK!
Adding (on_block block3 block4)
Adding (clear block3)
Adding (empty arm1)

9.008:   Checking Happening... ...OK!
Deleting (empty arm1)
Deleting (clear block2)
Deleting (on_table block2)

10.008:   Checking Happening... ...OK!
Adding (holding arm1 block2)

10.009:   Checking Happening... ...OK!

Deleting (clear block3)
Deleting (holding arm1 block2)

11.009: Checking Happening... ...OK!
Adding (on_block block2 block3)
Adding (clear block2)
Adding (empty arm1)

Plan executed successfully - checking goal

(clear block0) (has_connector_type block0 magnetic) (empty arm1) (has_gripper_type arm1 encompass) (has_connector_type block4 encompass) (empty arm0) (has_gripper_type arm0 magnetic) (has_connector_type block1 magnetic) (has_connector_type block3 encompass) (clear block2) (has_connector_type block2 encompass) (empty arm2) (has_gripper_type arm2 encompass) (on_block block2 block3) (on_block block0 block1) (on_table block1) (on_table block4) (on_block block3 block4)

2.4 Gantt Chart

Gantt Chart Key
Row 1

No	Time	Action
1	0	(pickup_block_on_block arm0 block1 block0 magnetic) [1]
2	1.001	(place_block_on_table arm0 block1) [2]
3	3.002	(pickup_block_on_table arm0 block0 magnetic) [1]
4	4.003	(place_block_on_block arm0 block0 block1) [1]

Row 2

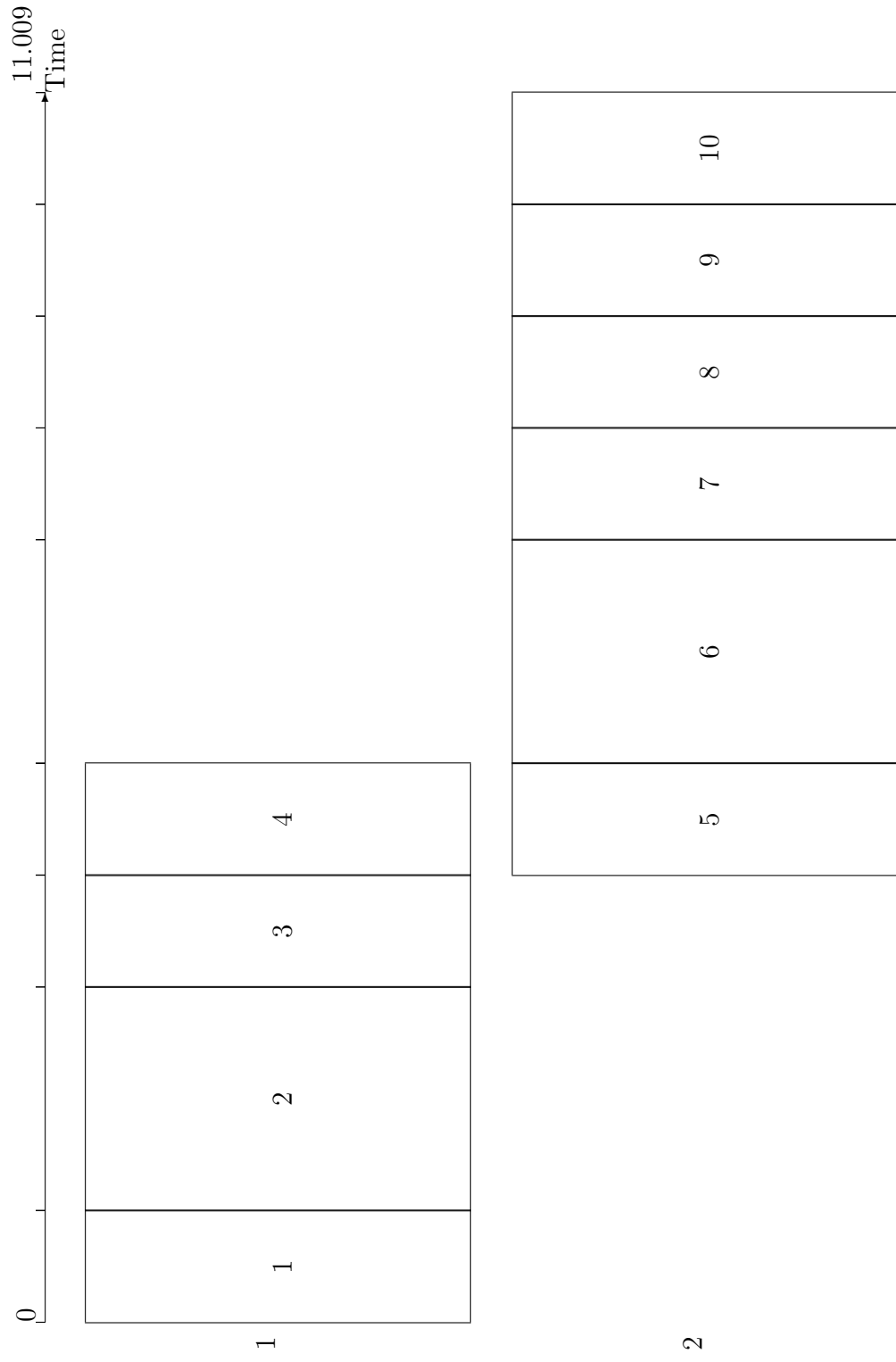| No	Time	Action
5	4.004	(pickup_block_on_block arm1 block4 block3 encompass) [1]
6	5.005	(place_block_on_table arm1 block4) [2]
7	7.006	(pickup_block_on_block arm1 block3 block2 encompass) [1]
8	8.007	(place_block_on_block arm1 block3 block4) [1]
9	9.008	(pickup_block_on_table arm1 block2 encompass) [1]
10	10.009	(place_block_on_block arm1 block2 block3) [1]

Figure 2.1: Gantt Chart

3 Successful Plans

Value   Plan