## **Documentation**

## Steps for 4 Disks:

Begin plan
1 (movetomiddle d1 d2 o)
2 (movefrommiddle d1 o c)
3 (movetomiddle d2 d3 o)
4 (movefrommiddle d2 o b)
5 (movetomiddle d1 c o)
6 (movefrommiddle d1 o d2)
7 (movetomiddle d3 d4 o)
8 (movefrommiddle d3 o c)
9 (movetomiddle d4 a o)
10 (movetomiddle d3 c d4)
11 (movefrommiddle d3 d4 a)
12 (movefrommiddle d4 o c)
13 (movetomiddle d3 a o)
14 (movetomiddle d1 d2 d3)
15 (movefrommiddle d1 d3 a)
16 (movefrommiddle d3 o d4)
17 (movetomiddle d2 b o)
18 (movefrommiddle d2 o d3)
19 (movetomiddle d1 a o)
20 (movefrommiddle d1 o d2)
End plan
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20 total actions in plan
0 entries in hash table,
19 total set-creation steps (entries + hits + plan length - 1)
0 actions tried
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#######################################
Total elapsed time: 0.46 seconds
Time in milliseconds: 461
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## Steps for 5 Disks:

Begin plan 1 (movetomiddle d1 d2 o) 2 (movefrommiddle d1 o b) 3 (movetomiddle d2 d3 o) 4 (movefrommiddle d2 o c) 5 (movetomiddle d3 d4 o) 6 (movetomiddle d1 b d3) 7 (movefrommiddle d1 d3 d4) 8 (movefrommiddle d3 o b) 9 (movetomiddle d2 c o) 10 (movefrommiddle d2 o d3) 11 (movetomiddle d1 d4 o) 12 (movefrommiddle d1 o d2) 13 (movetomiddle d4 d5 o) 14 (movefrommiddle d4 o c) 15 (movetomiddle d5 a o) 16 (movetomiddle d4 c d5) 17 (movefrommiddle d4 d5 a) 18 (movefrommiddle d5 o c) 19 (movetomiddle d4 a o) 20 (movefrommiddle d4 o d5) 21 (movetomiddle d1 d2 o) 22 (movefrommiddle d1 o d4) 23 (movetomiddle d2 d3 o) 24 (movefrommiddle d2 o a) 25 (movetomiddle d3 b o) 26 (movetomiddle d1 d4 d3) 27 (movefrommiddle d1 d3 b) 28 (movefrommiddle d3 o d4) 29 (movetomiddle d2 a o) 30 (movefrommiddle d2 o d3) 31 (movetomiddle d1 b o) 32 (movefrommiddle d1 o d2) End plan 32 total actions in plan 0 entries in hash table, 31 total set-creation steps (entries + hits + plan length - 1) 0 actions tried Total elapsed time: 1 minutes, 13 seconds Time in milliseconds: 73412 

For 6 disks the planner is not getting finished even after it runs for 4 hours. Maximum steps reached at the end of four hours is 44. Expected solution is 48 steps.