Welcome to graphplan. 'graphplan -h' gives help on command-line args.

give file name for operators: newtower

puton

give file name for initial facts: facts loaded.

X animation? (<CR> for no): number of time steps, or <CR> for automatic: Info type: (2 = max, 0 or <CR> = min): Other: 'I' = look for irrelevants

'L' = Lower bound time needed by counting steps

'B' = Build up to goals

'E' = Don't do mutual exclusions (for testing)

'S' = examine subsets: discarding puton\_blockB\_blockB\_table.

discarding puton\_blockC\_blockC\_blockA.

time: 1, 10 facts and 11 exclusive pairs.

discarding puton\_blockC\_blockC\_table.

discarding puton\_blockC\_table\_table.

discarding puton\_blockB\_blockB\_table.

discarding puton\_blockB\_table\_table.

discarding puton\_blockA\_blockA\_table.

discarding puton\_blockA\_table\_table.

discarding puton\_blockB\_blockC\_blockC.

discarding puton\_blockB\_blockB\_blockC.

Avoiding puton\_blockB\_blockA\_blockC, time 1

discarding puton\_blockC\_blockC\_blockB.

discarding puton\_blockC\_blockB\_blockB.

Avoiding puton\_blockC\_table\_blockB, time 1

discarding puton\_blockC\_blockC\_blockA.

discarding puton\_blockC\_blockA\_blockA.

time: 2, 13 facts and 25 exclusive pairs.

discarding puton\_blockC\_blockC\_table.

discarding puton\_blockC\_table\_table.

discarding puton\_blockB\_blockB\_table.

discarding puton\_blockB\_table\_table.

discarding puton\_blockA\_blockA\_table.

discarding puton\_blockA\_table\_table.

discarding puton\_blockB\_blockC\_blockC.

discarding puton\_blockB\_blockB\_blockC.

discarding puton\_blockB\_blockB\_blockA.

discarding puton\_blockB\_blockA\_blockA.

discarding puton\_blockC\_blockC\_blockB.

discarding puton\_blockC\_blockB\_blockB.

discarding puton\_blockC\_blockC\_blockA.

discarding puton\_blockC\_blockA\_blockA.

discarding puton\_blockA\_blockC\_blockC.

discarding puton\_blockA\_blockA\_blockC.

discarding puton\_blockA\_blockB\_blockB.

discarding puton\_blockA\_blockA\_blockB.

time: 3, 13 facts and 21 exclusive pairs.

Goals first reachable in 3 steps.

118 nodes created.

Printing graph. For clarity, ignoring parts unreachable by planner

Time: 1

newtower\_blockB\_table

exclusive: puton\_blockC\_blockB\_blockA puton\_blockB\_blockC\_table noop\_on\_blockB\_table

puton\_blockC\_blockB\_blockA

exclusive: newtower\_blockC\_blockA noop\_on\_blockC\_blockA newtower\_blockB\_table puton\_blockB\_blockC\_table noop\_clear\_blockB

newtower\_blockC\_blockA

exclusive: puton\_blockB\_blockC\_table noop\_on\_blockC\_blockA puton\_blockC\_blockB\_blockA

puton\_blockB\_blockC\_table

exclusive: noop\_on\_blockB\_table newtower\_blockC\_blockA noop\_clear\_blockC puton\_blockC\_blockB\_blockA newtower\_blockB\_table

Facts:

on\_blockC\_blockA

exclusive: clear\_blockA on\_blockC\_blockB

on\_blockC\_blockB

exclusive: clear\_blockB on\_blockB\_blockC clear\_table on\_blockC\_blockA

clear\_table

exclusive: on\_blockC\_blockB

on\_blockB\_blockC

exclusive: clear\_blockC clear\_blockA on\_blockB\_table on\_blockC\_blockB

on\_blockA\_table

on\_blockB\_table

exclusive: on\_blockB\_blockC

clear\_blockA

exclusive: on\_blockC\_blockA on\_blockB\_blockC

clear\_blockB

exclusive: on\_blockC\_blockB

clear\_blockC

exclusive: on\_blockB\_blockC

Time: 2

newtower\_blockB\_table

exclusive: puton\_blockC\_table\_blockA puton\_blockA\_blockB\_table puton\_blockC\_blockB\_blockA puton\_blockB\_blockC\_table puton\_blockB\_blockA\_table noop\_on\_blockB\_table newtower\_blockB\_blockC puton\_blockB\_table\_blockC noop\_on\_blockB\_blockC newtower\_blockC\_blockB puton\_blockC\_blockA\_blockB

puton\_blockC\_blockB\_blockA

exclusive: newtower\_blockA\_table puton\_blockA\_blockC\_table newtower\_blockC\_blockA puton\_blockC\_table\_blockA newtower\_blockC\_blockB puton\_blockC\_blockA\_blockB newtower\_blockB\_table newtower\_blockB\_blockC puton\_blockB\_blockC\_table puton\_blockB\_blockA\_table puton\_blockA\_blockB\_table puton\_blockB\_table\_blockC noop\_clear\_blockB noop\_clear\_blockA noop\_on\_blockB\_blockC

newtower\_blockC\_blockA

exclusive: newtower\_blockA\_table puton\_blockB\_blockC\_table newtower\_blockB\_blockC newtower\_blockC\_blockB puton\_blockC\_table\_blockA puton\_blockB\_blockA\_table puton\_blockA\_blockC\_table puton\_blockA\_blockB\_table puton\_blockC\_blockA\_blockB noop\_clear\_blockA puton\_blockB\_table\_blockC noop\_on\_blockB\_blockC puton\_blockC\_blockB\_blockA

newtower\_blockC\_blockB

exclusive: puton\_blockA\_blockC\_table newtower\_blockB\_blockC puton\_blockC\_blockA\_blockB newtower\_blockC\_blockA puton\_blockC\_table\_blockA puton\_blockB\_blockC\_table puton\_blockB\_blockA\_table puton\_blockA\_blockB\_table noop\_clear\_blockB puton\_blockB\_table\_blockC noop\_on\_blockB\_blockC puton\_blockC\_blockB\_blockA newtower\_blockB\_table

puton\_blockB\_blockA\_table

exclusive: newtower\_blockB\_blockC puton\_blockB\_blockC\_table noop\_on\_blockB\_table newtower\_blockA\_table puton\_blockA\_blockC\_table puton\_blockA\_blockB\_table noop\_clear\_blockA puton\_blockC\_blockA\_blockB puton\_blockB\_table\_blockC noop\_on\_blockB\_blockC

puton\_blockC\_table\_blockA newtower\_blockC\_blockB newtower\_blockC\_blockA puton\_blockC\_blockB\_blockA newtower\_blockB\_table

puton\_blockC\_blockA\_blockB

exclusive: puton\_blockB\_table\_blockC puton\_blockB\_blockC\_table newtower\_blockB\_blockC newtower\_blockA\_table puton\_blockA\_blockC\_table puton\_blockA\_blockB\_table noop\_clear\_blockA noop\_clear\_blockB noop\_on\_blockB\_blockC puton\_blockC\_table\_blockA puton\_blockB\_blockA\_table newtower\_blockC\_blockB newtower\_blockC\_blockA puton\_blockC\_blockB\_blockA newtower\_blockB\_table

newtower\_blockB\_blockC

exclusive: newtower\_blockA\_table puton\_blockB\_table\_blockC noop\_on\_blockB\_blockC noop\_on\_blockB\_table puton\_blockA\_blockB\_table noop\_clear\_blockA newtower\_blockC\_blockA puton\_blockB\_blockC\_table puton\_blockA\_blockC\_table puton\_blockC\_table\_blockA noop\_clear\_blockC newtower\_blockC\_blockB puton\_blockC\_blockA\_blockB puton\_blockB\_blockA\_table puton\_blockC\_blockB\_blockA newtower\_blockB\_table

puton\_blockB\_blockC\_table

exclusive: puton\_blockA\_blockB\_table noop\_on\_blockB\_table newtower\_blockC\_blockA puton\_blockA\_blockC\_table puton\_blockC\_table\_blockA noop\_clear\_blockC puton\_blockC\_blockA\_blockB puton\_blockB\_table\_blockC noop\_on\_blockB\_blockC newtower\_blockB\_blockC puton\_blockB\_blockA\_table newtower\_blockC\_blockB puton\_blockC\_blockB\_blockA newtower\_blockB\_table

puton\_blockA\_blockB\_table

exclusive: newtower\_blockA\_table puton\_blockA\_blockC\_table noop\_on\_blockA\_table newtower\_blockB\_table puton\_blockB\_blockC\_table noop\_clear\_blockB puton\_blockB\_table\_blockC noop\_on\_blockB\_blockC puton\_blockC\_table\_blockA newtower\_blockB\_blockC puton\_blockC\_blockA\_blockB puton\_blockB\_blockA\_table newtower\_blockC\_blockB newtower\_blockC\_blockA puton\_blockC\_blockB\_blockA

puton\_blockC\_table\_blockA

exclusive: newtower\_blockB\_table newtower\_blockA\_table puton\_blockA\_blockC\_table puton\_blockB\_table\_blockC noop\_clear\_blockA noop\_on\_blockB\_blockC puton\_blockA\_blockB\_table puton\_blockB\_blockC\_table newtower\_blockB\_blockC puton\_blockC\_blockA\_blockB puton\_blockB\_blockA\_table newtower\_blockC\_blockB newtower\_blockC\_blockA puton\_blockC\_blockB\_blockA

puton\_blockB\_table\_blockC

exclusive: noop\_on\_blockB\_blockC newtower\_blockA\_table puton\_blockA\_blockC\_table noop\_on\_blockB\_table noop\_clear\_blockA noop\_clear\_blockC puton\_blockC\_blockA\_blockB puton\_blockC\_table\_blockA puton\_blockA\_blockB\_table puton\_blockB\_blockC\_table newtower\_blockB\_blockC puton\_blockB\_blockA\_table newtower\_blockC\_blockB newtower\_blockC\_blockA puton\_blockC\_blockB\_blockA newtower\_blockB\_table

puton\_blockA\_blockC\_table

exclusive: newtower\_blockA\_table noop\_on\_blockA\_table newtower\_blockC\_blockB noop\_clear\_blockC puton\_blockC\_blockB\_blockA noop\_on\_blockB\_blockC puton\_blockB\_table\_blockC puton\_blockC\_table\_blockA puton\_blockA\_blockB\_table puton\_blockB\_blockC\_table newtower\_blockB\_blockC puton\_blockC\_blockA\_blockB puton\_blockB\_blockA\_table newtower\_blockC\_blockA

newtower\_blockA\_table

exclusive: newtower\_blockB\_blockC noop\_on\_blockB\_blockC newtower\_blockC\_blockA puton\_blockC\_blockB\_blockA puton\_blockA\_blockC\_table noop\_on\_blockA\_table puton\_blockB\_table\_blockC puton\_blockC\_table\_blockA puton\_blockA\_blockB\_table puton\_blockC\_blockA\_blockB puton\_blockB\_blockA\_table

Facts:

on\_blockA\_blockB

exclusive: clear\_blockB on\_blockA\_table on\_blockB\_blockC on\_blockB\_blockA on\_blockA\_blockC

on\_blockA\_blockC

exclusive: clear\_blockC on\_blockA\_table on\_blockB\_blockC on\_blockB\_blockA on\_blockA\_blockB

on\_blockB\_blockA

exclusive: clear\_blockA on\_blockB\_table on\_blockB\_blockC on\_blockA\_blockC on\_blockA\_blockB

on\_blockB\_blockC

exclusive: on\_blockB\_table clear\_blockC on\_blockB\_blockA on\_blockA\_blockC on\_blockA\_blockB

on\_blockA\_table

exclusive: on\_blockA\_blockC on\_blockA\_blockB

on\_blockB\_table

exclusive: on\_blockB\_blockC on\_blockB\_blockA

clear\_blockA

exclusive: on\_blockB\_blockA

clear\_blockB

exclusive: on\_blockA\_blockB

clear\_blockC

exclusive: on\_blockB\_blockC on\_blockA\_blockC

Time: 3

puton\_blockB\_blockC\_table

exclusive: noop\_on\_blockA\_blockB puton\_blockA\_blockB\_table puton\_blockB\_blockC\_blockA puton\_blockA\_blockB\_blockC noop\_on\_blockB\_blockC

puton\_blockA\_blockB\_table

exclusive: noop\_on\_blockA\_blockB puton\_blockB\_blockC\_table puton\_blockA\_blockB\_blockC puton\_blockB\_blockC\_blockA

puton\_blockB\_blockC\_blockA

exclusive: puton\_blockA\_blockB\_blockC noop\_on\_blockA\_blockB puton\_blockA\_blockB\_table puton\_blockB\_blockC\_table noop\_on\_blockB\_blockC

puton\_blockA\_blockB\_blockC

exclusive: noop\_on\_blockB\_blockC puton\_blockB\_blockC\_blockA noop\_on\_blockA\_blockB puton\_blockA\_blockB\_table puton\_blockB\_blockC\_table

Facts:

on\_blockA\_blockB

exclusive:

on\_blockB\_blockC

exclusive:

goals at time 4:

on\_blockA\_blockB on\_blockB\_blockC

trying on\_blockB\_blockC from prev time step.

Trying 3 puton\_blockA\_blockB\_table to achieve on\_blockA\_blockB.

goals at time 3:

on\_blockB\_blockC clear\_blockB clear\_blockA on\_blockA\_table

trying on\_blockA\_table from prev time step.

trying clear\_blockA from prev time step.

trying clear\_blockB from prev time step.

Trying 2 puton\_blockB\_blockC\_table to achieve on\_blockB\_blockC.

goals at time 2:

on\_blockA\_table clear\_blockA clear\_blockB clear\_blockC on\_blockB\_table

trying on\_blockB\_table from prev time step.

trying clear\_blockC from prev time step.

trying clear\_blockB from prev time step.

Trying 1 newtower\_blockC\_blockA to achieve clear\_blockA.

trying on\_blockA\_table from prev time step.

goals at time 1:

on\_blockB\_table clear\_blockC clear\_blockB on\_blockC\_blockA on\_blockA\_table

1 newtower\_blockC\_blockA

2 puton\_blockB\_blockC\_table

3 puton\_blockA\_blockB\_table

0 entries in hash table,

2 total set-creation steps (entries + hits + plan length - 1).

3 actions tried

0.09 secs