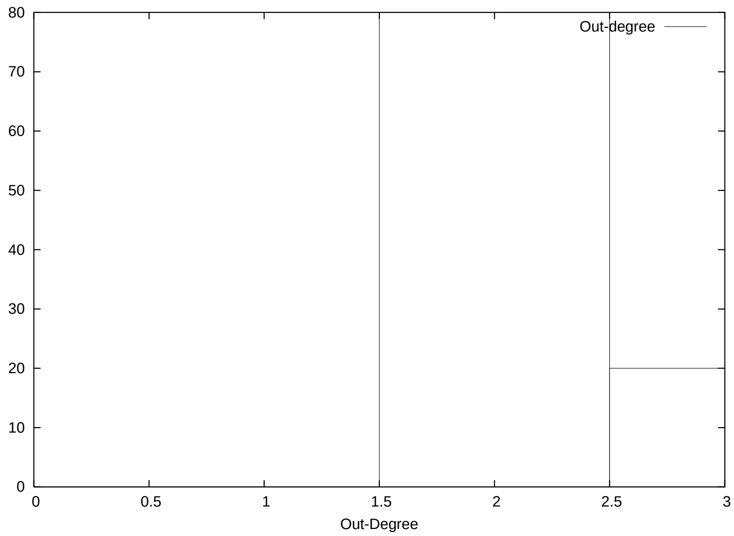
Graph: murphi/sort5

General Info

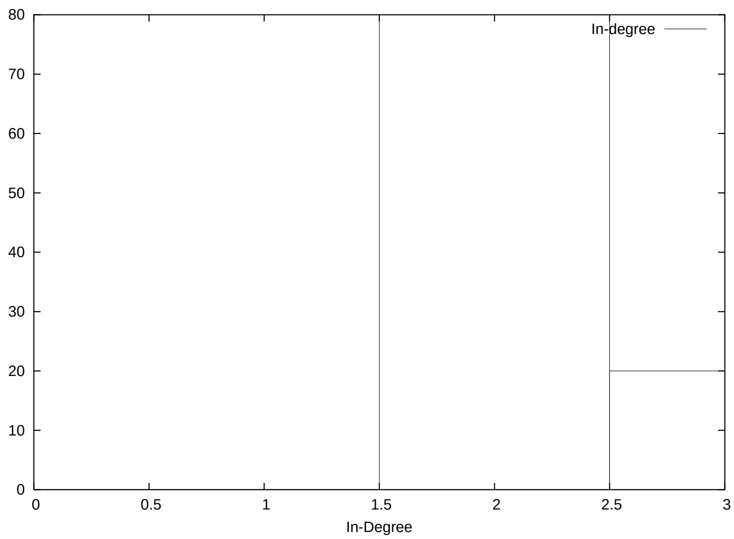
Example title	Parallel sorting
Parameter	5
Reduction	
Modification	

States	3,000
Edges	6,600
Average degree	2.2

Out-Degrees distribution:



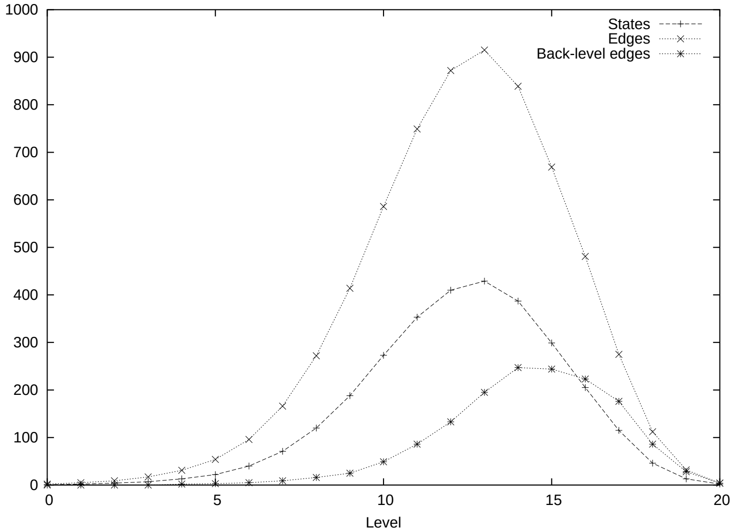
In-Degrees distribution:



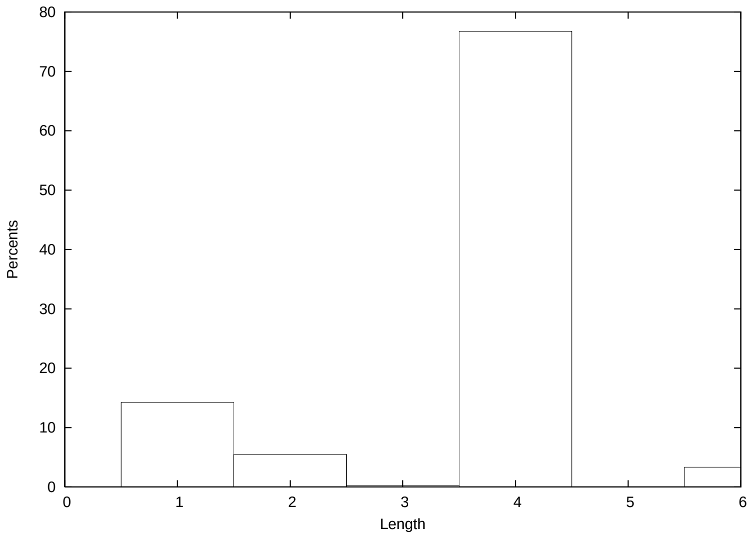
BFS Info

BFS height	20
BFS width	429 (14.3%)
Back level edges	1,531 (23.1%)

BFS level info:



Back level edges lengths:



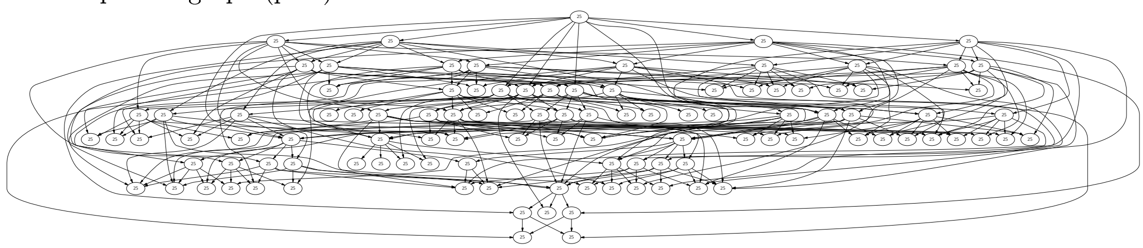
SCC Info

SCC components	120
SCC quetient height	10
SCC quetient nontrivial height	10
Number of terminal components	1
The largest component is	the only terminal

Statistics according to **sizes**:

Size	Number of components	Number of states here
25	120	100%

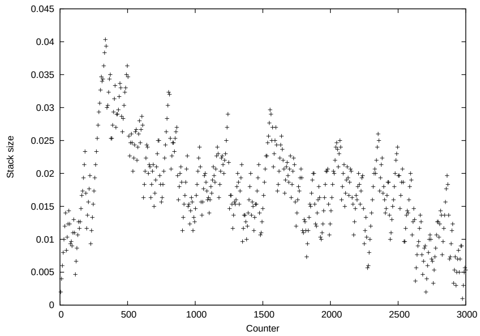
SCC component graph (part):



DFS Info

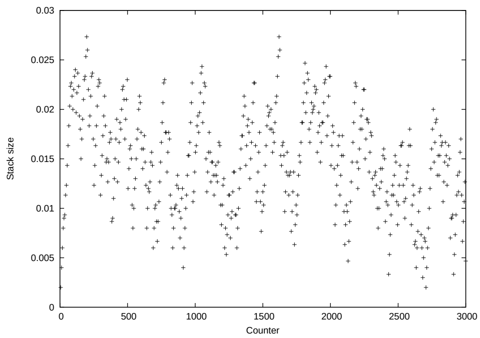
Run 0

front-edges : back-edges : cross-edges = 2,999 : 1,349 : 2,252 = 45.4%:20.4%:34.1%
Max. stack size: 122 (4%)
Shortest cycle detected: 5
Most often detected lengths of cycles: 10 (649), 15 (402), 5 (290), 20 (8), ()
Stack graph:



Run 1

front-edges : back-edges : cross-edges = 2,999 : 1,326 : 2,275 = 45.4%:20%:34.4%
Max. stack size: 82 (2.7%)
Shortest cycle detected: 5
Most often detected lengths of cycles: 10 (627), 15 (357), 5 (340), 20 (2), ()
Stack graph:



Local Structure

Short cycles(up to 6)

2	0	(0%)
3	0	(0%)
4	0	(0%)
5	3,000	(100%)

Diamonds

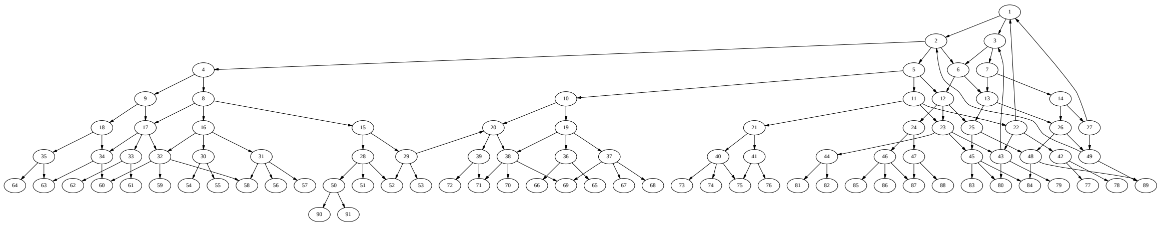
3,000 (100%)

Neighborhoods

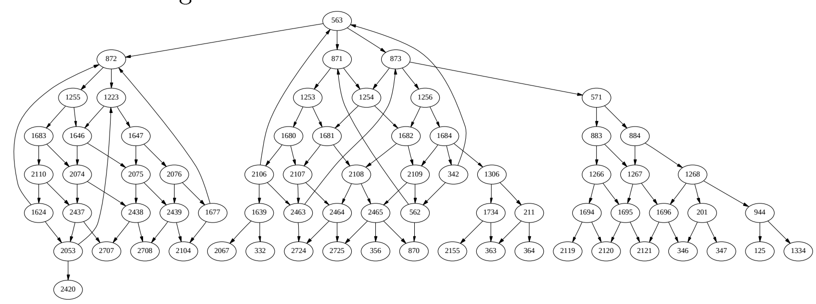
k	avg size	avg clustering
1	3.2	1
2	7	1.1
3	13	1.2
4	22.5	1.3

Visualization of some parts of the state state space:

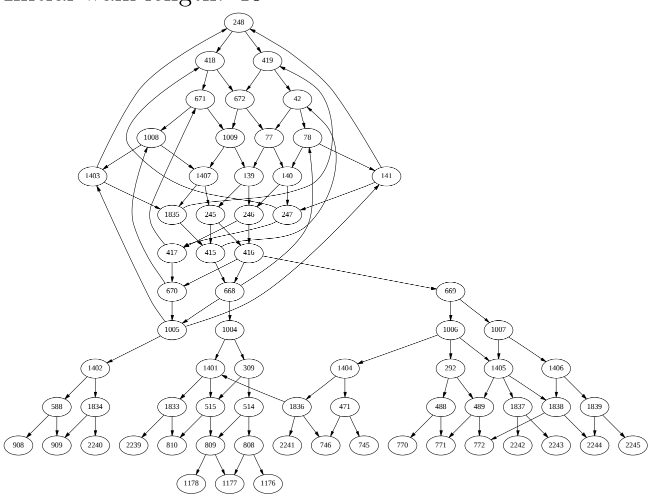
Initial walk length: 0



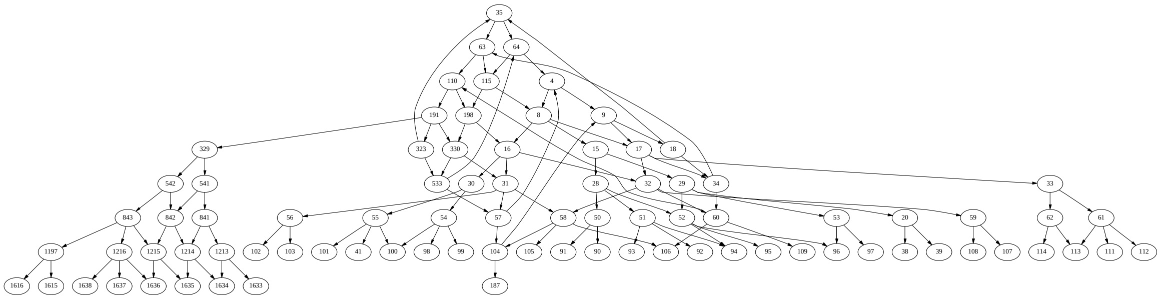
Initial walk length: 20



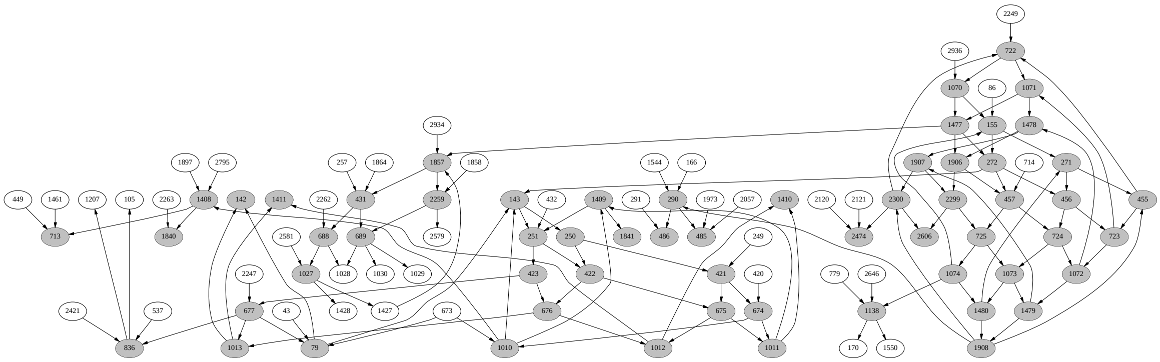
Initial walk length: 40



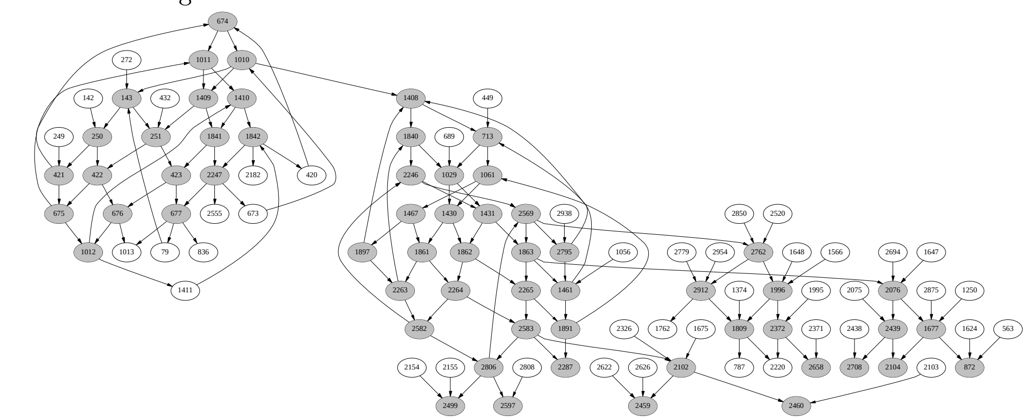
Initial walk length: 60



Initial walk length: 20



Initial walk length: 40



Initial walk length: 60