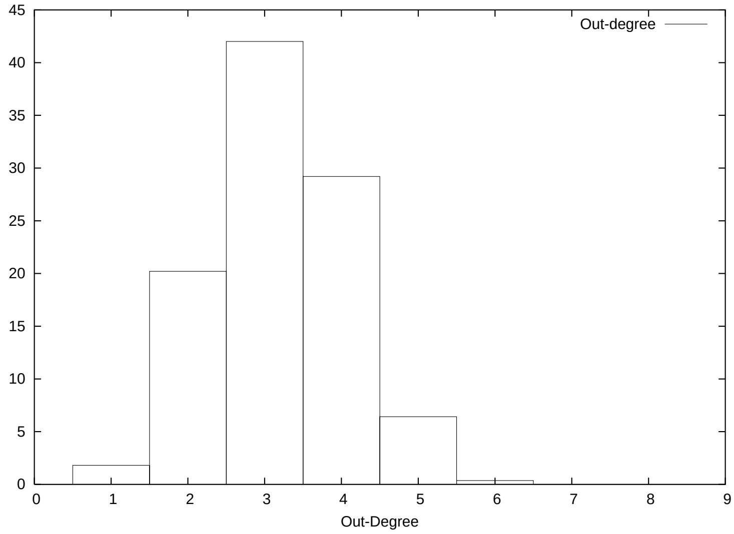
Graph: cadp/overtaking

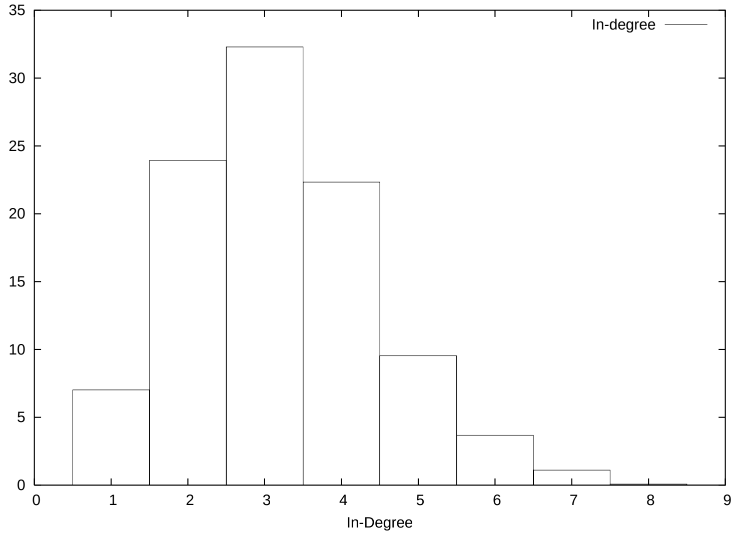
General Info

Example title	Car overtaking protocol
Parameter	
Reduction	
Modification	
States	56,482
Edges	180,354
Average degree	3.1

Out-Degrees distribution:



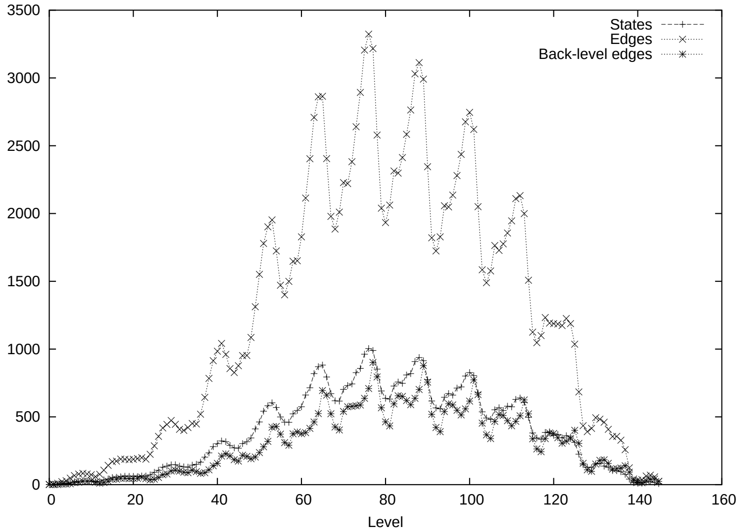
In-Degrees distribution:



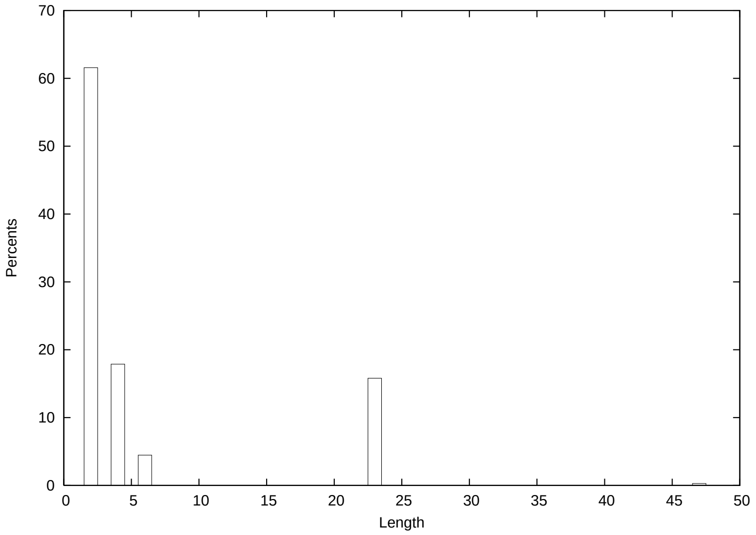
BFS Info

BFS height	145
BFS width	1,004 (1.7%)
Back level edges	43,915 (24.3%)

BFS level info:



Back level edges lengths:



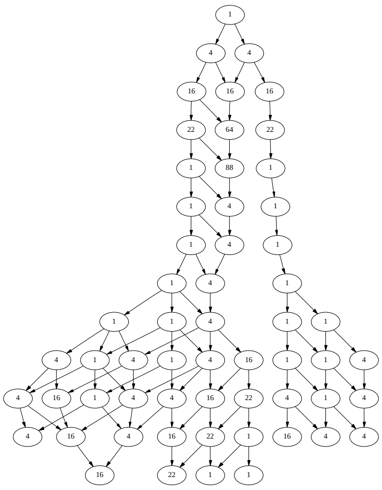
SCC Info

SCC components	893
SCC quetient height	63
SCC quetient nontrivial height	47
Number of terminal components	1
The largest component is	the only terminal

Statistics according to **sizes**:

Size	Number of components	Number of states here
47,136	1	83.4%
472	4	3.3%
118	11	2.2%
88	10	1.5%
64	10	1.1%
22	71	2.7%
16	108	3%
4	224	1.5%
1	454	0.8%

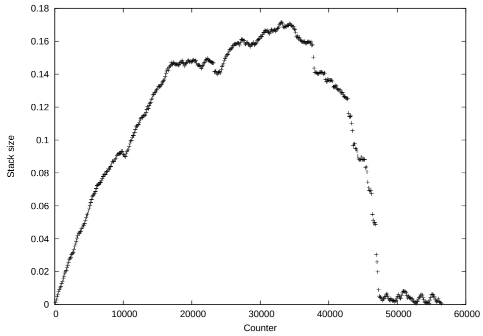
SCC component graph (part):



DFS Info

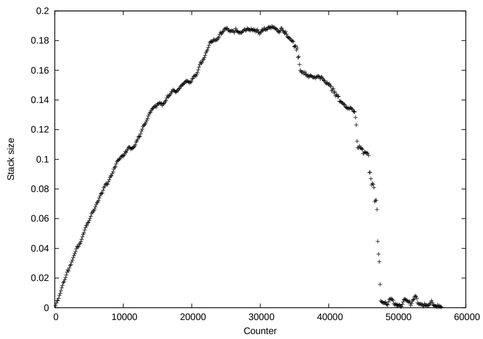
Run 0

front-edges : back-edges : cross-edges = 56,481 : 52,496 : 71,377 = 31.3%:29.1%:39.5%
Max. stack size: 9,709 (17.1%)
Shortest cycle detected: 3
Most often detected lengths of cycles: 3 (16829), 5 (4174), 6 (3035), 8 (2742), 11 (972)
Stack graph:



Run 1

front-edges : back-edges : cross-edges = 56,481 : 52,544 : 71,329 = 31.3%:29.1%:39.5%
Max. stack size: 10,726 (18.9%)
Shortest cycle detected: 3
Most often detected lengths of cycles: 3 (16761), 5 (4214), 6 (3235), 8 (2735), 9 (988)
Stack graph:



Local Structure

Short cycles(up to 6)

2	0	(0%)
3	51,180	(90.6%)

Diamonds

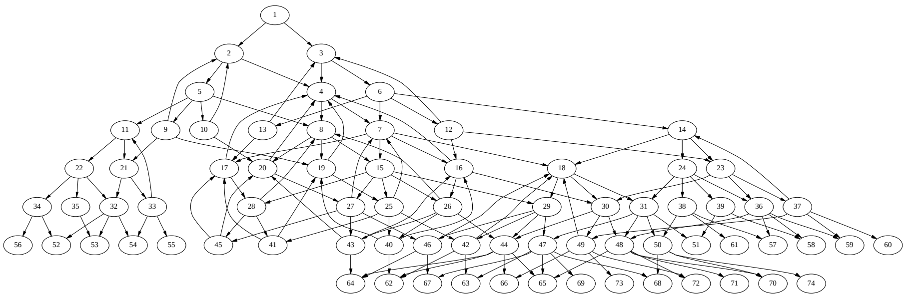
54,748 (96.9%)

Neighborhoods

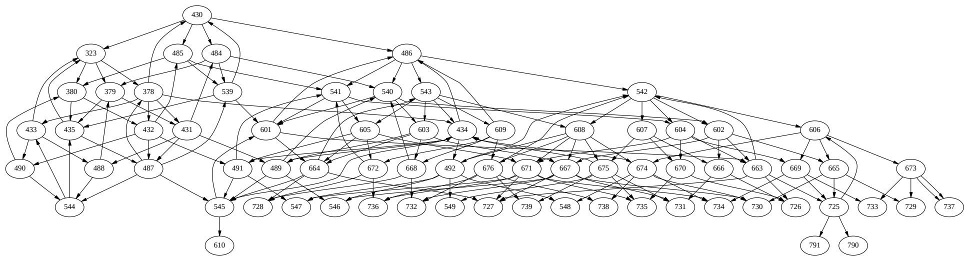
k	avg size	avg clustering
1	4.1	1
2	10.8	1.3
3	21.2	1.6
4	34.5	2

Visualization of some parts of the state state space:

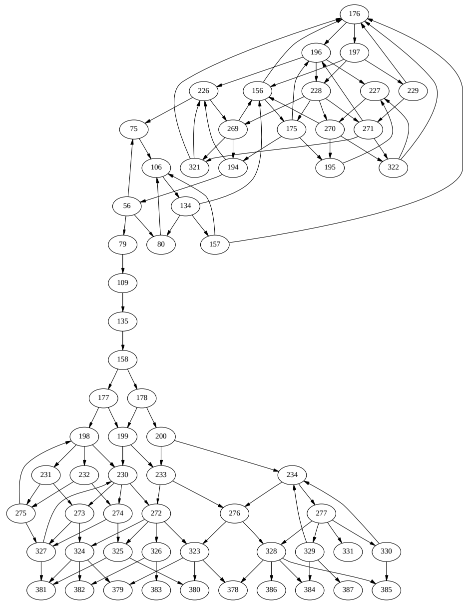
Initial walk length: 0



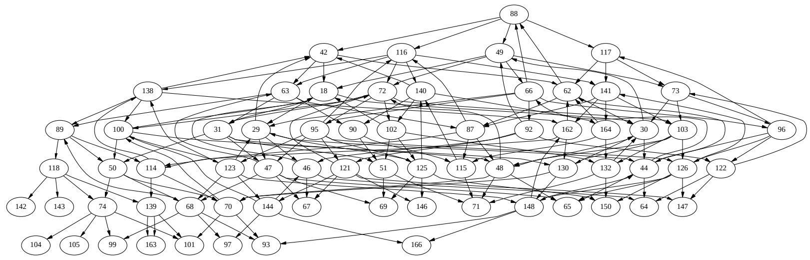
Initial walk length: 20



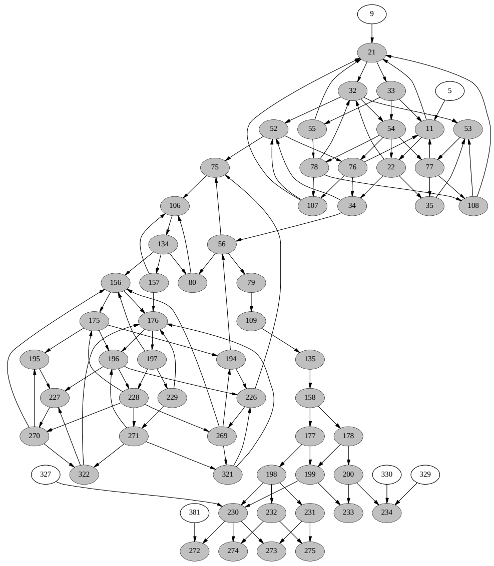
Initial walk length: 40



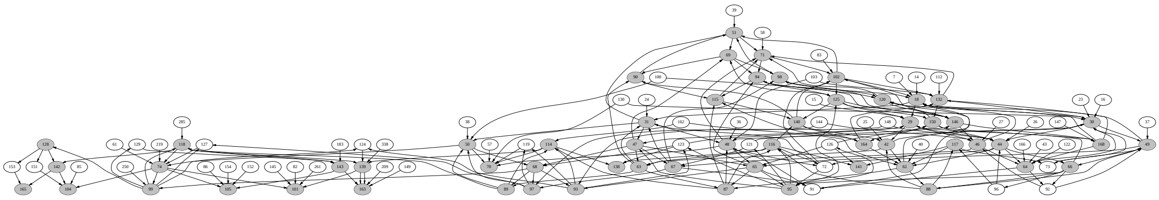
Initial walk length: 60



Initial walk length: 20



Initial walk length: 40



Initial walk length: 60