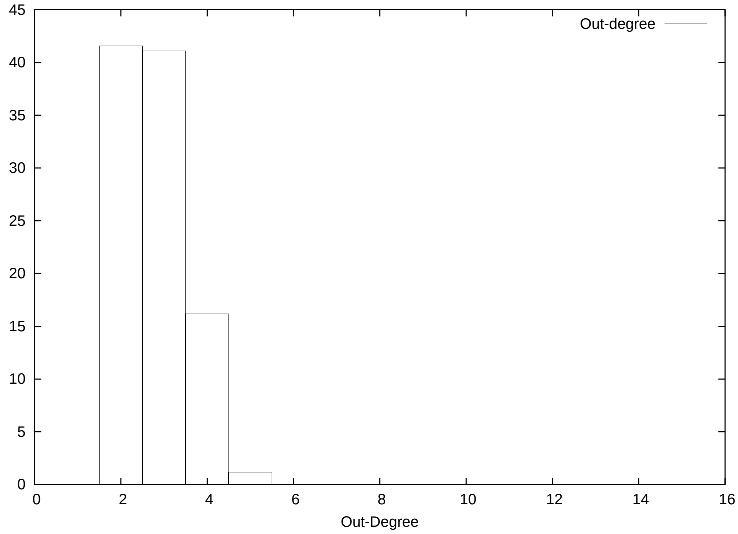
Graph: murphi/eadash

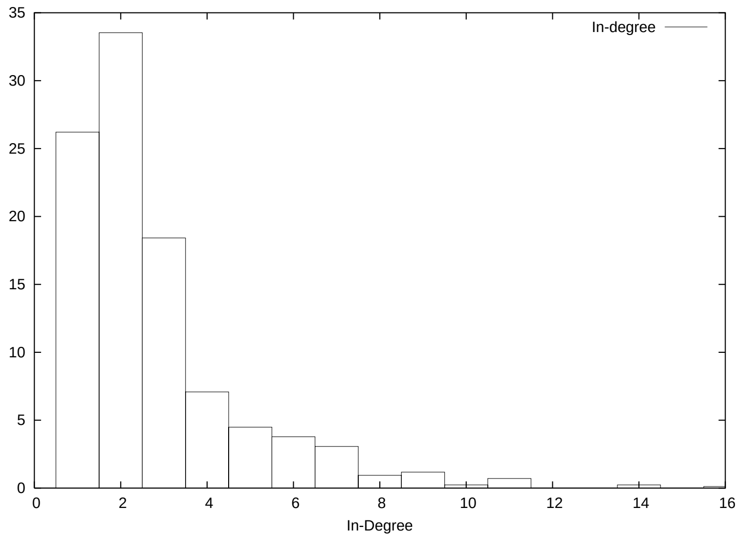
General Info

Example title	Dash protocol
Parameter	several variants, 1500 lines of code
Reduction	2,1
Modification	
States	1,694
Edges	4,692
Average degree	2.7

Out-Degrees distribution:



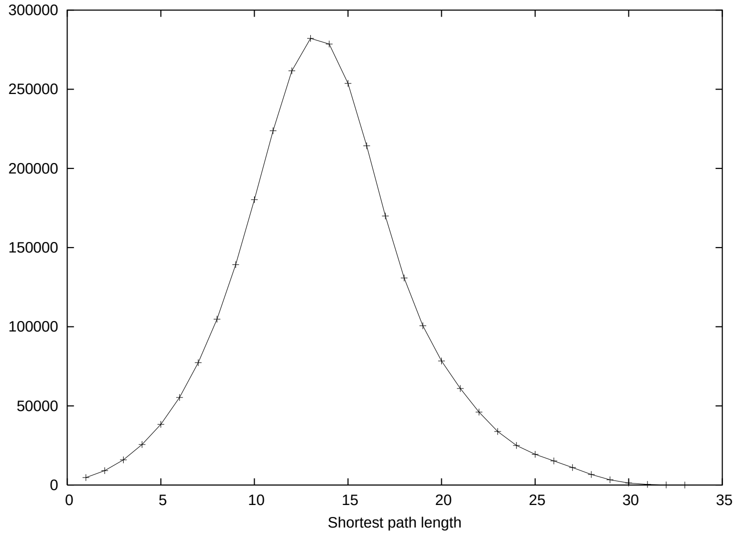
In-Degrees distribution:



Shortest Paths Info

Diameter: 33
Average shortest path length: 13.7557

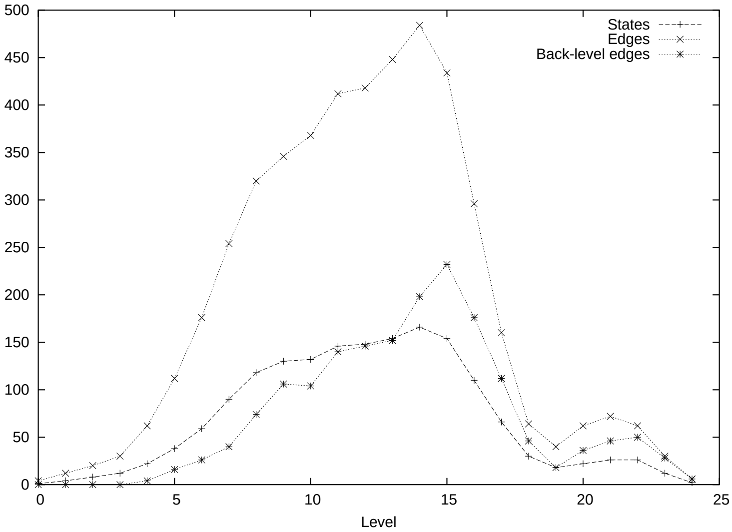
Shortest paths lengths frequencies:



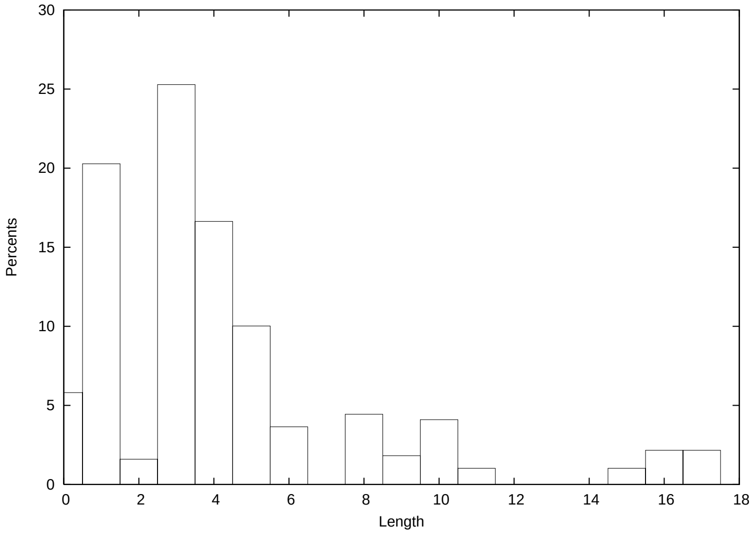
BFS Info

BFS height	24
BFS width	166 (9.7%)
Back level edges	1,756 (37.4%)

BFS level info:



Back level edges lengths:



SCC Info

SCC components	1
SCC quetient height	0
SCC quetient nontrivial height	0
Number of terminal components	1
The largest component is	initial the only terminal

Statistics according to **sizes**:

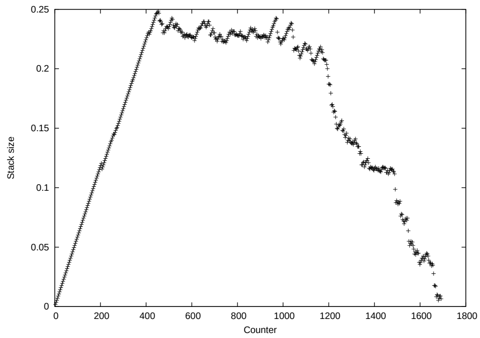
Size	Number of components	Number of states here
1,694	1	100%

SCC component graph (part):

DFS Info

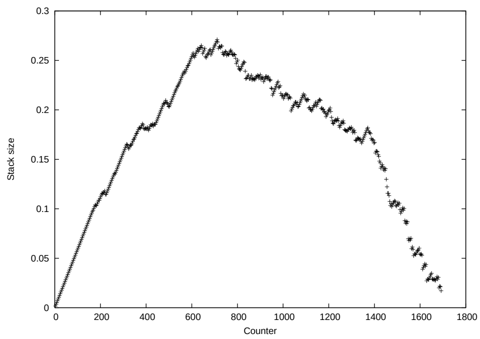
Run 0

front-edges : back-edges : cross-edges = 1,693 : 1,184 : 1,815 = 36%:25.2%:38.6%
Max. stack size: 421 (24.8%)
Shortest cycle detected: 2
Most often detected lengths of cycles: 2 (220), 4 (105), 9 (24), 5 (19), 6 (19)
Stack graph:



Run 1

front-edges : back-edges : cross-edges = 1,693 : 1,282 : 1,717 = 36%:27.3%:36.5%
Max. stack size: 460 (27.1%)
Shortest cycle detected: 2
Most often detected lengths of cycles: 2 (213), 4 (114), 9 (28), 6 (24), 5 (20)
Stack graph:



Local Structure

Short cycles(up to 6)

2	520	(30.6%)
3	0	(0%)
4	516	(30.4%)
5	128	(7.5%)

Diamonds

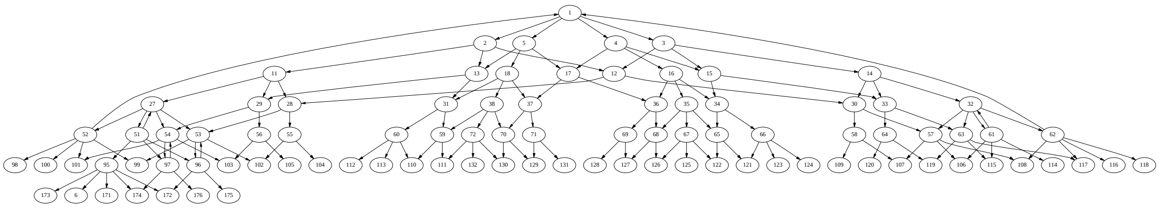
1,578 (93.1%)

Neighborhoods

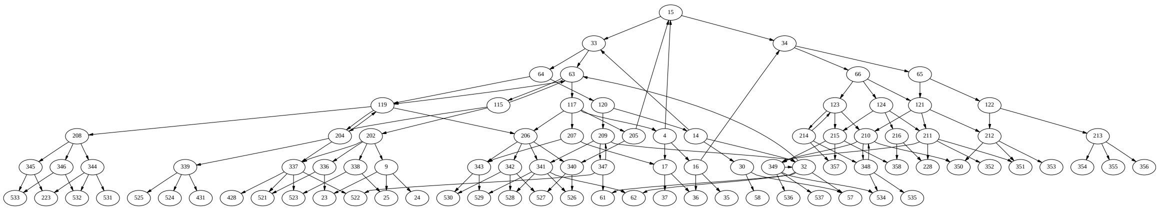
k	avg size	avg clustering
1	3.7	1
2	9.1	1.3
3	18.5	1.5
4	33.6	1.6

Visualization of some parts of the state state space:

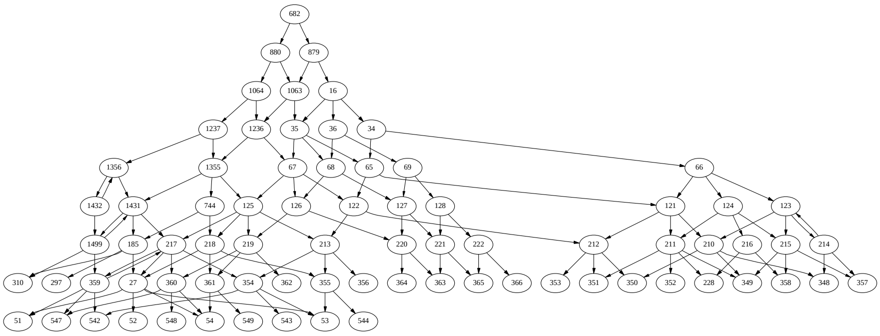
Initial walk length: 0



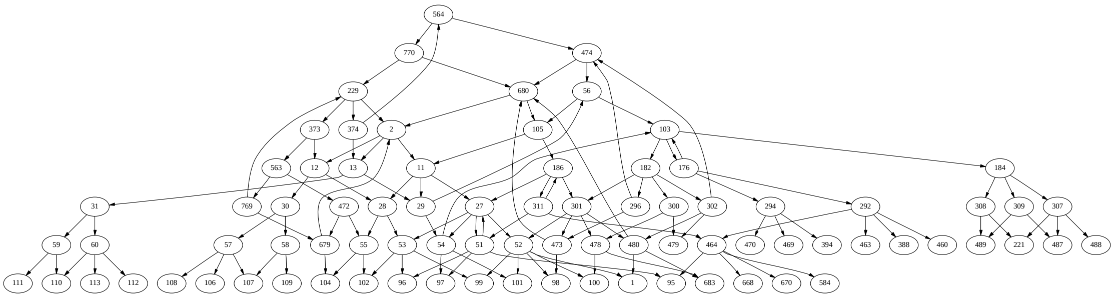
Initial walk length: 20



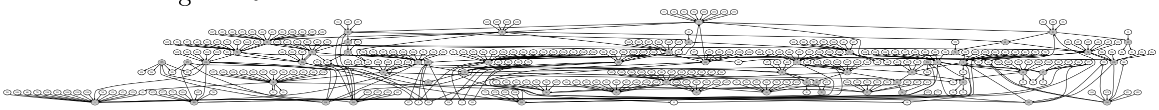
Initial walk length: 40



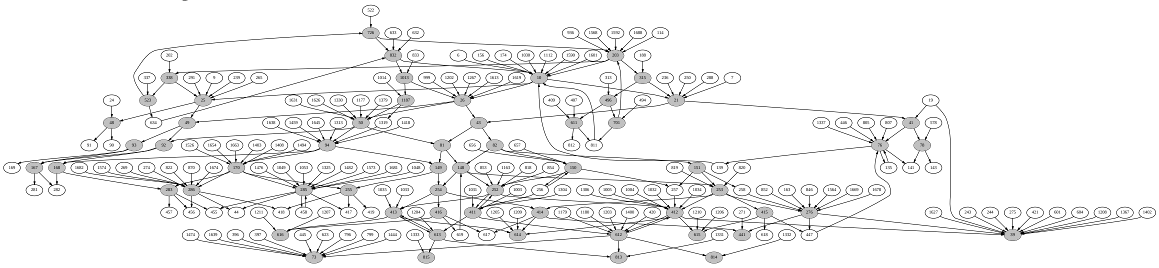
Initial walk length: 60



Initial walk length: 20



Initial walk length: 40



Initial walk length: 60