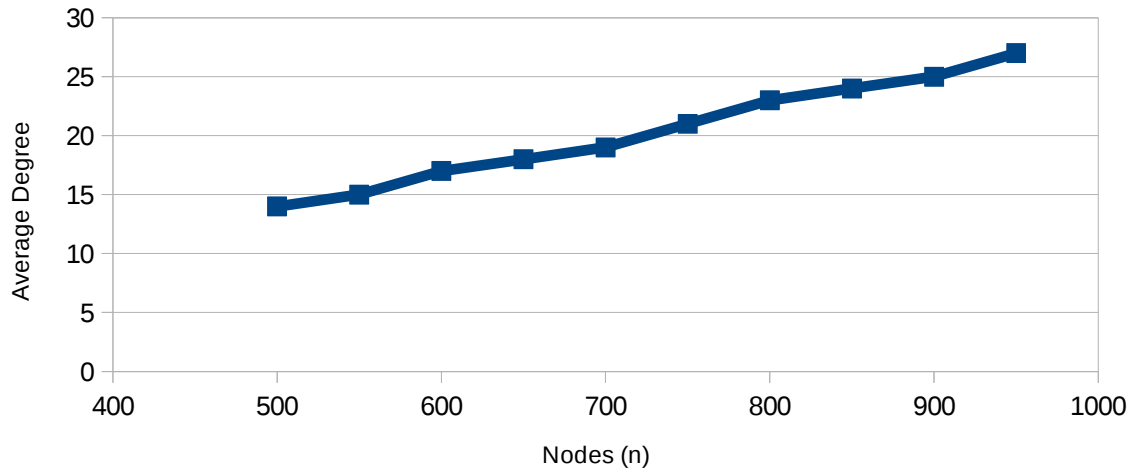


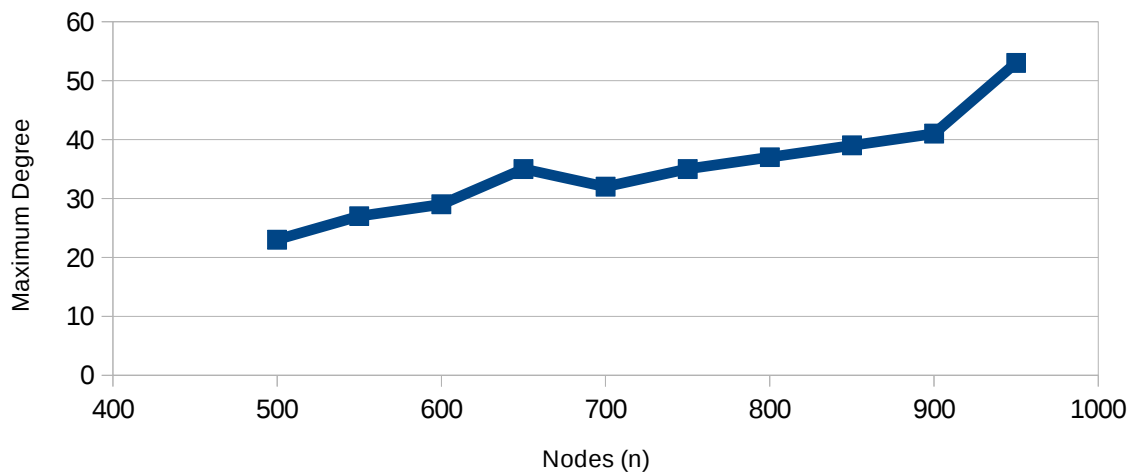
Average Degree with respect to (n) Nodes

before Topology Control



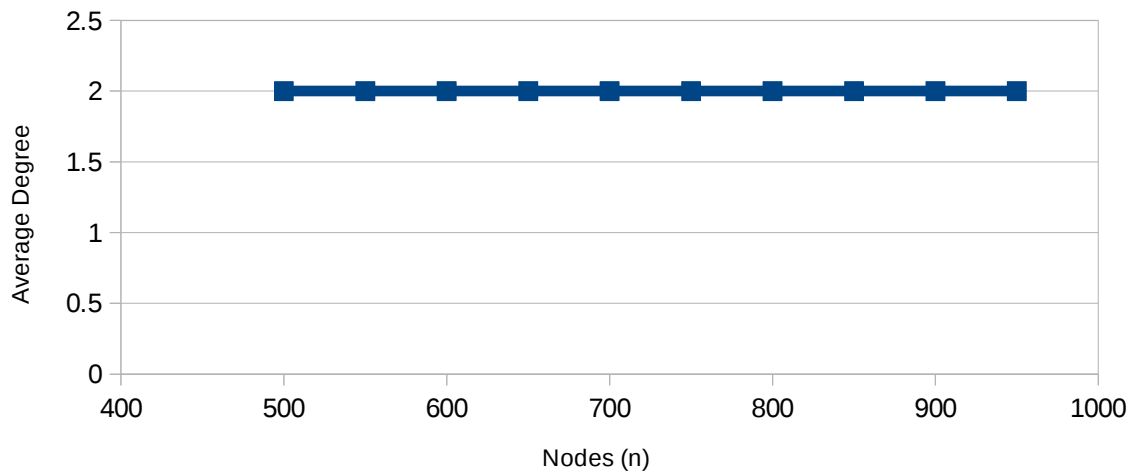
Maximum Degree with respect to the (n) Nodes

before Topology Control



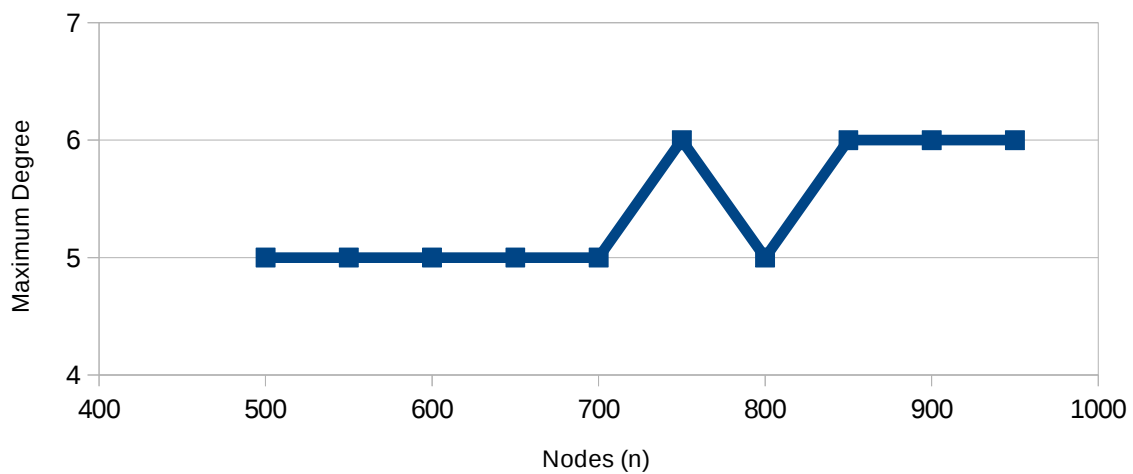
Average Degree with respect to the (n) Nodes

after Topology Control



Maximum Degree with respect to the (n) Nodes

after Topology Control



After performing Topology Control the graph has resulted in a much sparser graph. It contains the same nodes but with fewer edges. That is because the XTC algorithm that we did, checks the neighbors in common between two nodes and remove the edges that have greater distance, and as a result, return a graph with fewer edges, but it's still connected.

Experiment 2 and 3: Length of the network's path. If doesn't found, returns 0.

Networks	Length before Topology	Length after Topology
Network 1	0	3
Network 2	0	1
Network 3	0	0
Network 4	0	0
Network 5	0	2
Network 6	0	0
Network 7	0	0
Network 8	0	1
Network 9	0	1
Network 10	0	0

The results that the program gave so far shows that, before the Topology Control, the path are shorter than after because the graph have more edges . The path should be longer after the Topology Control, since the edges are significantly reduced. In this algorithm, the path prints out -1 when finished or when it doesn't find any path. Although, similarly, in a graph after or before the Control, you may not find a path.