Distributed Operating Systems Principle: Project - 2

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PROBLEM DEFINITION:
Gossip-type algorithms can be used both for group communication and for aggregate computation. The objective of this project is to use a simulator based on F# actors to determine the convergence of such algorithms. Because F# actors are entirely asynchronous, the type of Gossip implemented is known as Asynchronous Gossip.

WHAT IS WORKING:
We can run any combination of line, full, 3D, and Imp3D with gossip or push-sum protocol. When all of the nodes in the Gossip protocol have converged, the protocol is said to be converged. When a node listens to the message for the tenth time, it is considered converged. The node stops sending the message to its neighbor after convergence. The total time for convergence is reported once the network has converged, i.e. all nodes have converged.

WHAT IS THE LARGEST NETWORK YOU MANAGED TO DEAL WITH FOR EACH TYPE OF TOPOLOGY AND ALGORITHM?
For each topology and algorithm, we've managed to solve a network with a maximum of 20k nodes.
Convergence is not achieved for some topologies for more than 20k nodes.