In this graph, I imported 181 nodes, forming 242 weighted edges. The edge color has been set ranging from red to green, corresponding to low and high weight. The vertices sizes are associate with the degree of each vertex, the higher, the larger. Those with solid diamonds shapes are the ones with a high out-degree, which means they are the people sent more emails.

1. What natural subgroups exist?
Ans: We can clearly distinguish some clusters from the graph, even don’t use the “Find Cluster” function. From the graph we can tell there’re Badminton Club, Church, some groups like an email lists.

2. Who are the important individuals in this network?
   Ans: The individuals displayed in solid diamonds are relatively important ones, based on their contribution of the numbers of sent emails. These people may be the sponsor of activity, or informer of event, they usually play the roles of gathering other people.

3. What is likely to happen in the future by analyzing the network graph?
   Ans: As I’m the only bridge between badminton cluster and CS department, so more likely it’s me that will bring people from the department to join in the club. And if I set the filter that we only display the edges when its weight is greater than 5. Thus the nodes displayed here are the ones that with a relatively strong ties. For example we may find out the high frequency use of students mail lists (grad and undergrad).
4. Briefly discuss the use of SNA for analyzing legal investigation of fraud and criminal activity. Also discuss how this relates to privacy: is there really any such thing as truly private email?

Ans: Create a graph based on graph metrics data mapping, so that we can find out the important individuals among the network, simply like the example in textbook, we can map messages send or receive with colors. The next step is to focus on these individuals for the reason they hold more information of the company thus more powerful to do “things”.

Private email: It’s possible if we use a certain encryption for emails, then even emails could get interrupted in their transmissions, as long as they’re encrypted, they are not readable. Only the person holds the right key can decipher it.