

Using Gephi

Getting Started:

1) Create two spreadsheets, one for nodes and one for edges:

	A	B	C
1	Id	Label	Class
2		1 Gerd Wiesler	1
3		2 Anton Grubitz	1
4		3 Bruno Hempf	1
5		4 Udo	1

	A	B	C
1	Source	Target	Type
2		1	16 directed
3		1	10 directed
4		1	2 directed
5		1	9 directed

The **nodes spreadsheet** requires two columns: “**Id**” and “**Label**”. The first should be numbers, the second, the name (as you would like it to appear on your graph). An optional “**Class**” label allows you to group nodes according to characteristics.

The **edges spreadsheet** requires two columns: “**Source**” and “**Target**”, which are the node IDs of the two nodes to be connected. A “**Type**” column allows you to specify whether a connection is directed or undirected, a “**Weight**” column allows you to show how profound a connection is. A “**Label**” column allows you to label your edges.

Both spreadsheets should be **saved as CSVs (comma separated values)**. When you save your spreadsheet, this is an option in a drop-down under the name of the file. (Starting with Gephi 0.9.2 this is no longer strictly necessary, but it is a better choice for data longevity than whatever proprietary format Excel currently uses.)

2) Start Gephi and open a “new project”

3) Go to “File” and “Import Spreadsheet” to import both of your spreadsheets.

Three Modes:

Overview: This is where you can mess around with your network, change the layout, change sizes and colors, apply filters, etc. You will spend most of your time here.

Data Laboratory: You can theoretically add nodes and edges here (but it's easier to stick with your spreadsheets). Note that some helpful calculations have been done, like the “degree” for your nodes (the number of connections).

Preview: This is where you can see prettified versions of your graphs and export them. TAKE NOTE OF THE **REFRESH** AND **RESET ZOOM** BUTTONS!!

More on Overview:

First, a few idiosyncracies:

- Left click is only for selecting things
- right click (ctrl click) to move the view around
- scroll to change zoom

Layout Pane: this is where you need to go first.

Yifan Hu is a good first layout. Select it and then click on the **Run** button.

Appearance Pane: Lets you do lots of stuff to make your graph more readable.

Two good starting places:

Color Nodes according to class:

In the top bar, select “Nodes” and the paint pallet.

In the second bar, select “Attribute.”

Pick “Class” from the dropdown menu. (change colors if you like)

Click “Apply.”

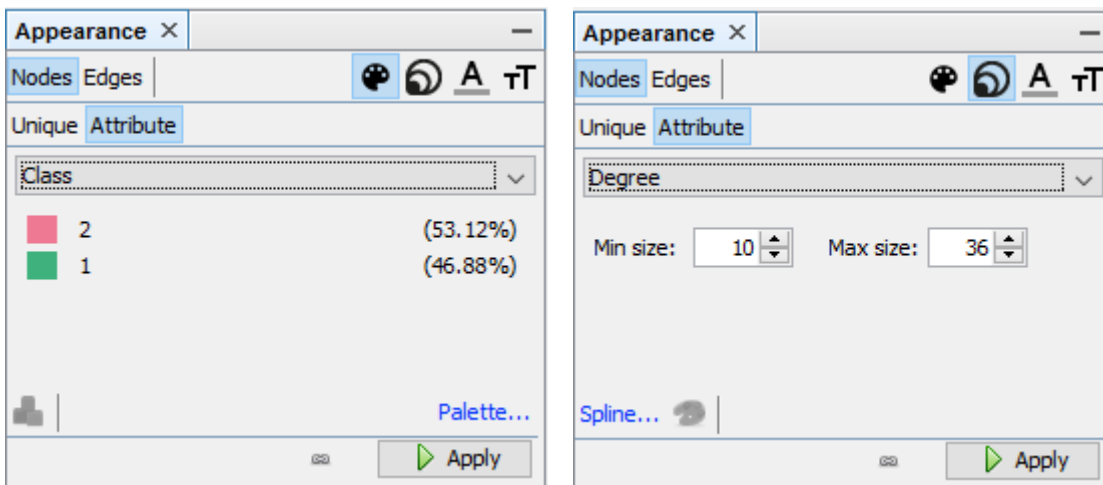
Size Nodes according to degree:

In the top bar, select “Nodes” and the interlocked circles.

In the second bar, select “Attribute.”

Pick “Degree” from the dropdown menu. (Adjust minimum and maximum size)

Click “Apply.”



Filters and Statistics Pane: This is where you can do bad ass math and generate lots of additional graphs, showing e.g. the distribution of degrees (how many people are connected a lot versus how many aren't connected much.) Click on “Statistics,” then, under “Network Overview” click “Run” next to “Average Degree.”

You can also filter things out. For instance, if we wanted to remove any nodes that aren't connected to any others, we'd click “Filters” then “Topology” then “Degree Range.”