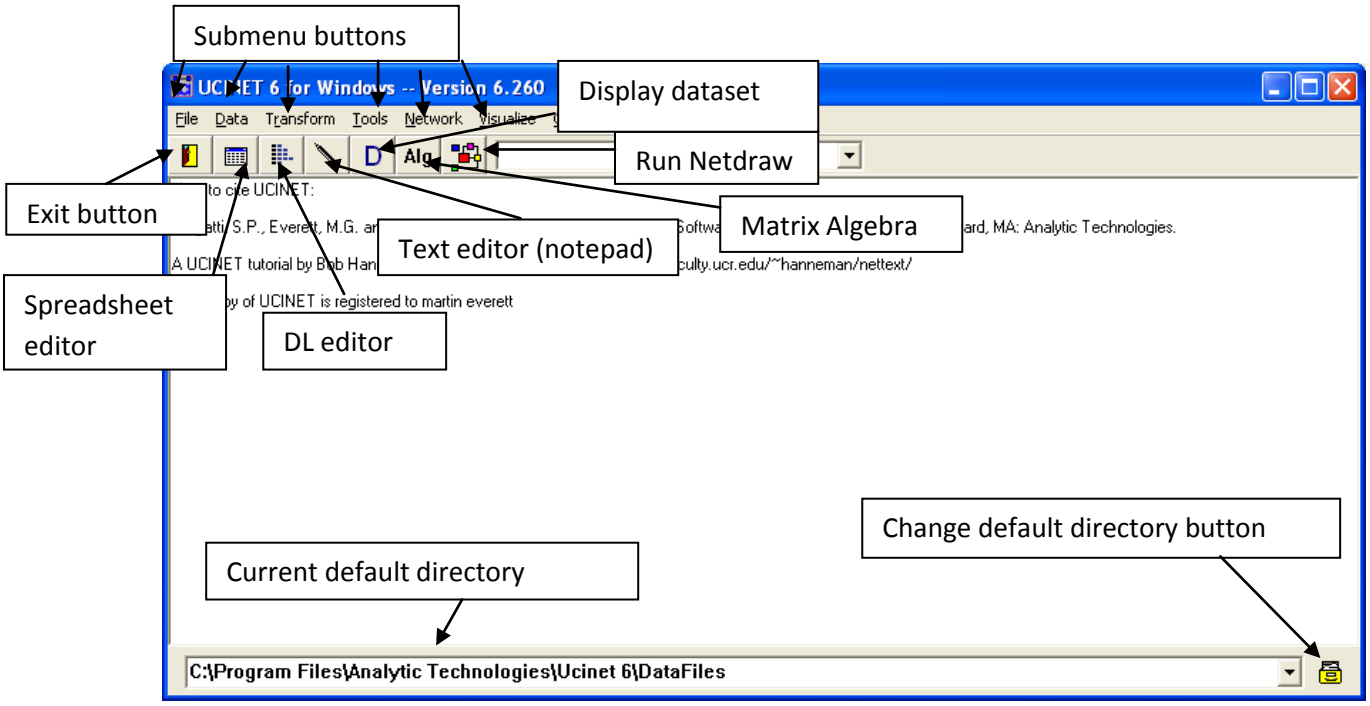
This guide provides a quick introduction to UCINET. It assumes that the software has been installed with the data in the folder C:\Program Files\Analytic Technologies\Ucinet 6\DataFiles and this has been left as the default directory.

When UCINET is started the following window appears.

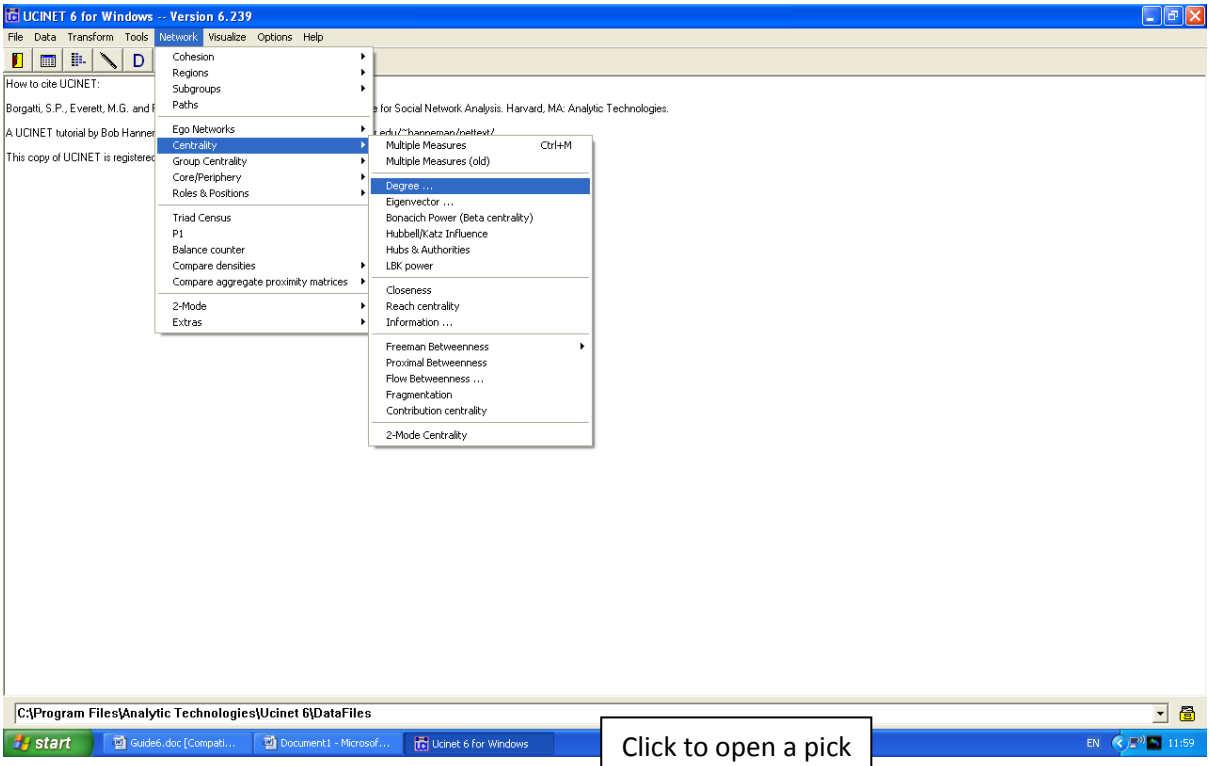


The submenu buttons give access to all of the routines in UCINET and these are grouped into **File, Data, Transform, Tools, Network, Visualize, Options and Help.** Note that the buttons located below these are simply fast ways of calling routines in the submenus. The default directory given at the bottom is where UCINET picks up any data and stores any files (unless otherwise specified) this directory can be changed by clicking on the button to the right.

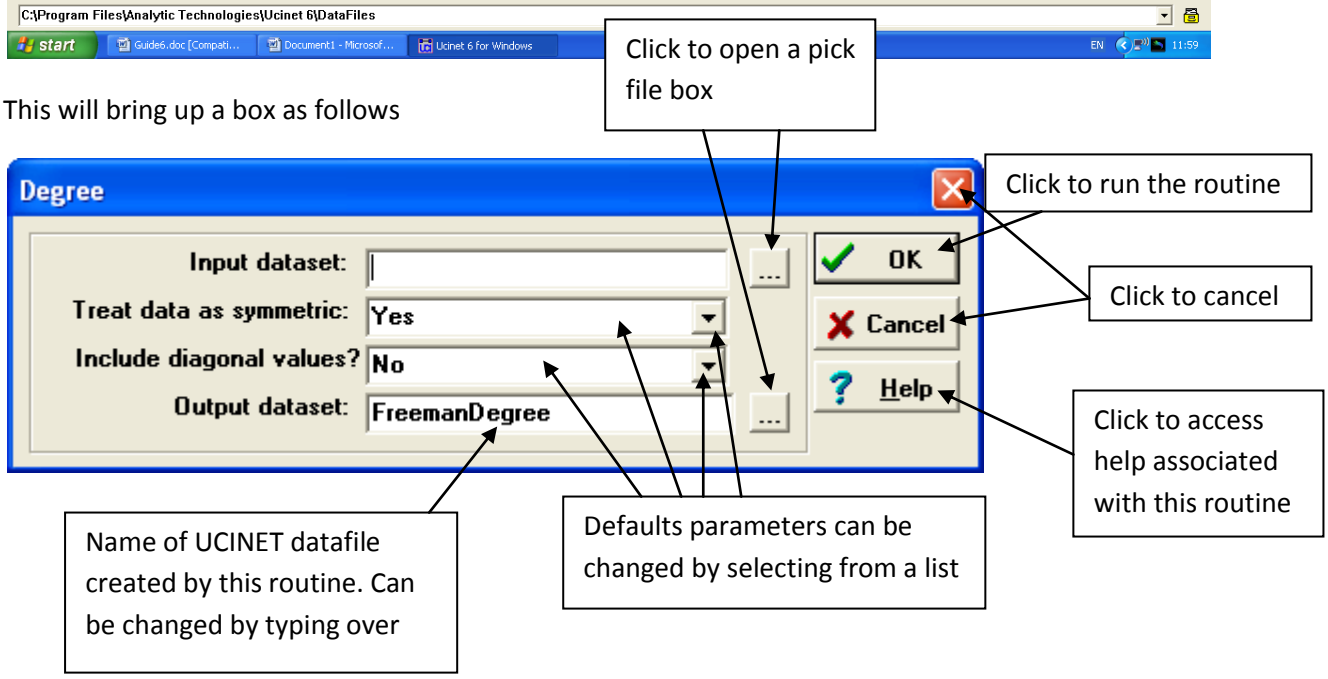
Running a routine

To run a UCINET routine we usually need to specify a UCINET dataset and give some parameters. Where possible UCINET selects some default parameters which the user can change if required. Note that UCINET comes with a number of standard datasets and these will be located in the default directory. When a routine has been run there is some textual output which appears on the screen and usually a UCINET datafile contain the results that again will be stored in the default directory.

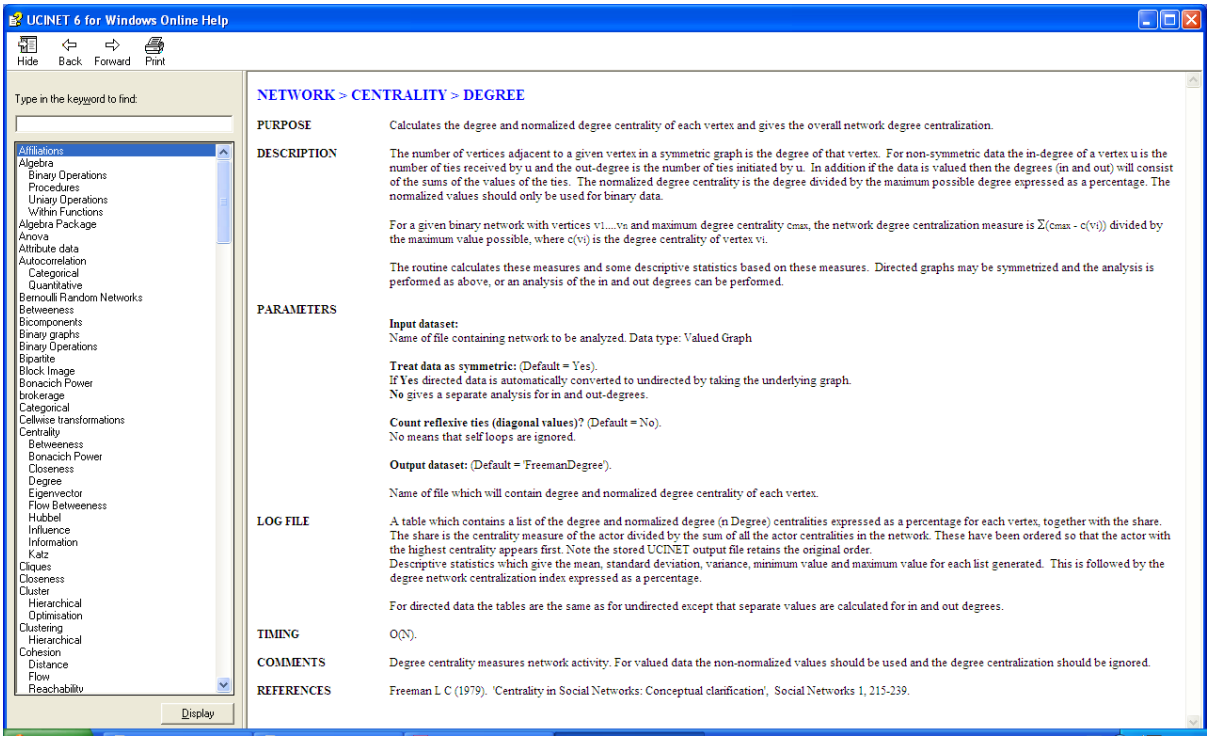
We shall run the degree centrality routine to calculate the centralities of all the actors in a standard UCINET dataset called TARO. First we highlight Network>Centrality>Degree and then click



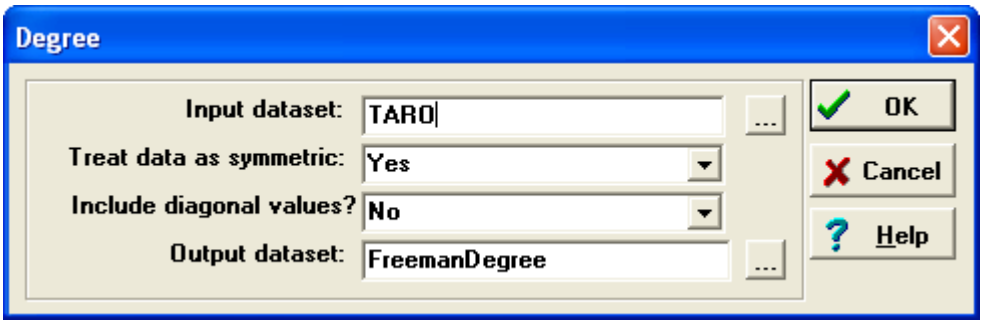
This will bring up a box as follows



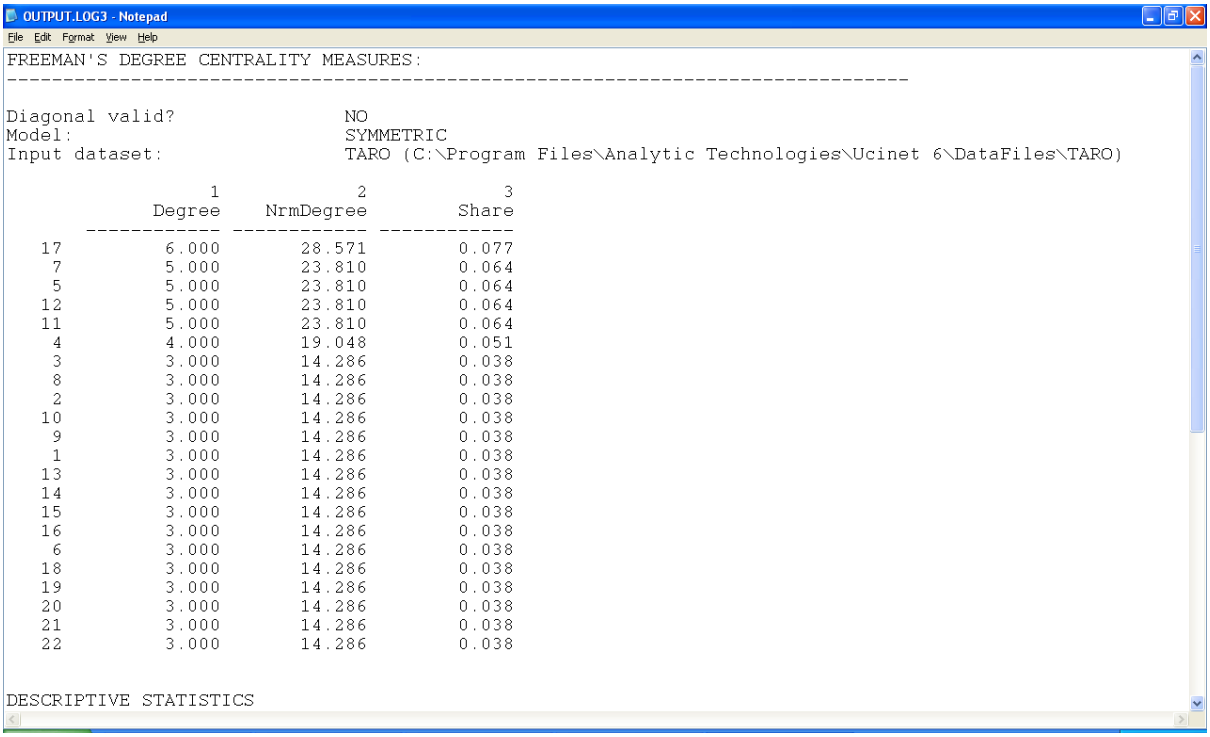
If you click on the help button then a help screen will open which looks like this. The help file gives a detailed description of the routine, explains the parameters and describes the output that will appear in the log file and on the screen.



Close the help file and either by clicking on the pickfile button or by typing the name select the TARO data for analysis as follows.

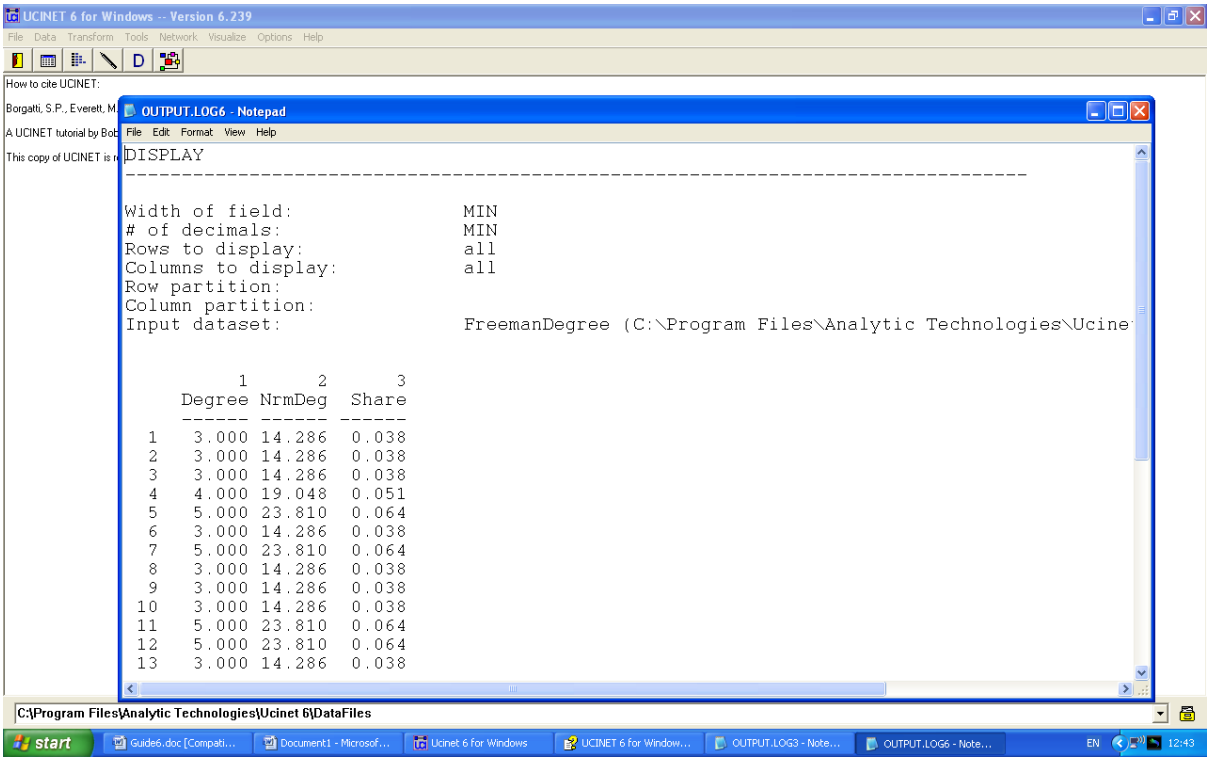


Now click OK to run the routine to obtain the following.



This is a text file giving the results of the routine. Note you can scroll down to see more of the file. This file can be saved or copied and pasted into a word processing package. When UCINET is closed this file will be deleted. Close this file.

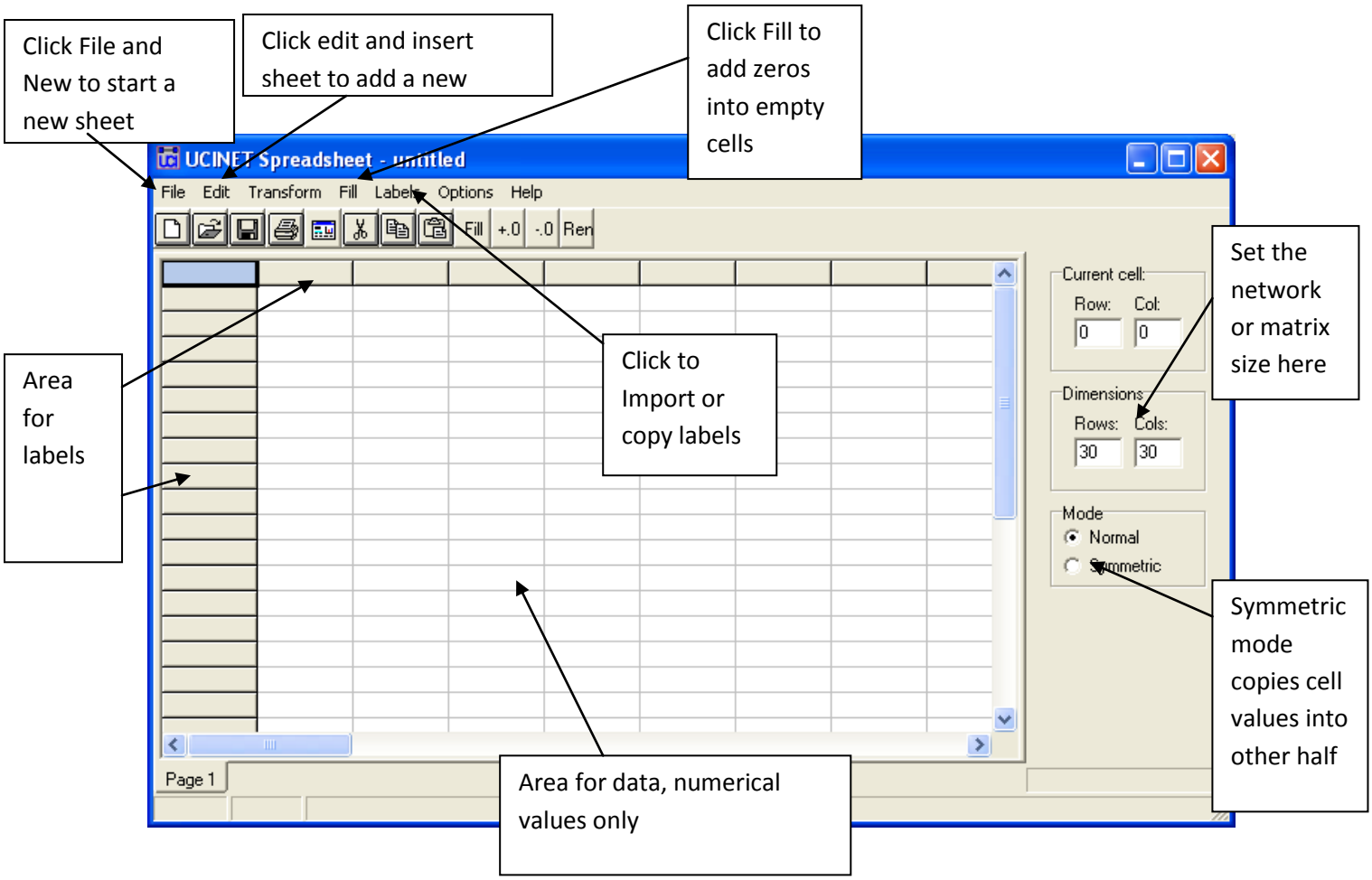
Note when the program was run we also created a new UCINET file called FreemanDegree. We can look at the new UCINET file using the Display dataset button. This is the D button that appears just below the Tools submenu (see the first diagram). Clicking on the D goes straight to the open file menu and bypasses some of the display options that are available if you used Data>Display. Click on display and select FreemanDegree. You should get the following



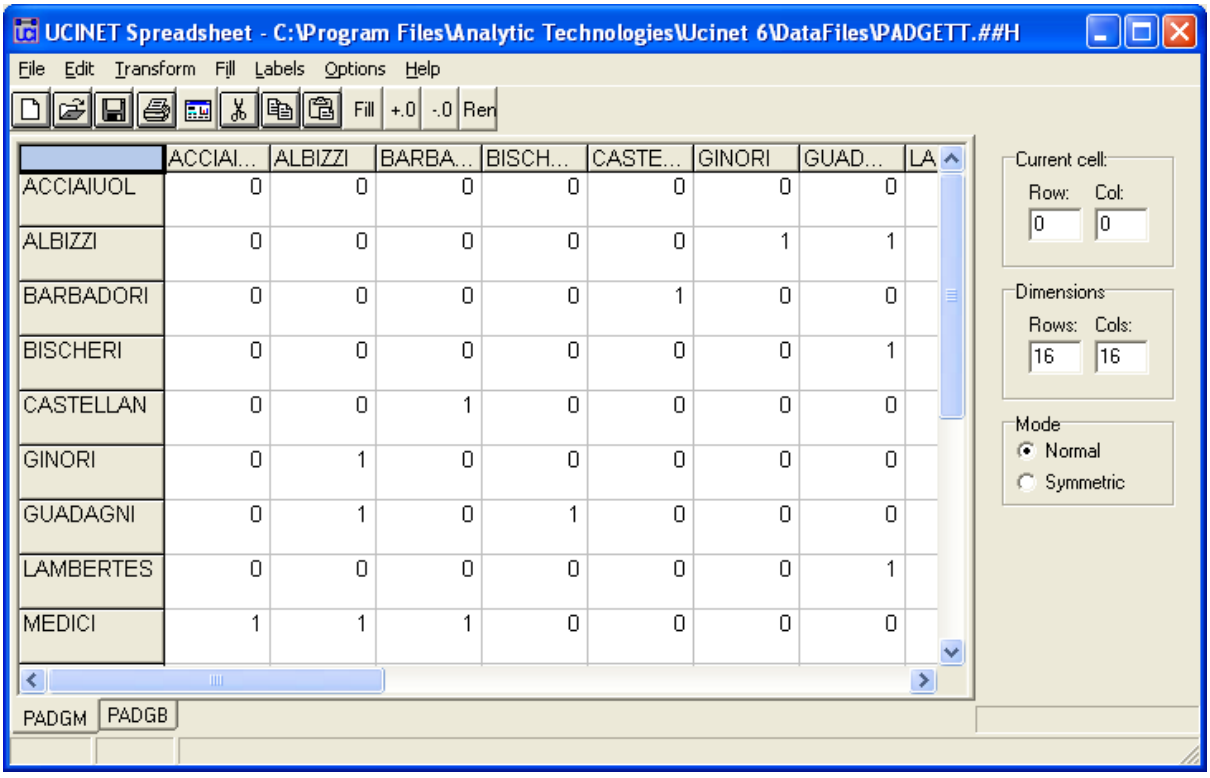
Note that this file has all the measures of centrality (but not sorted as in the text output) but does not have the descriptive statistics produced in the log file.

Using the spreadsheet editor

The spreadsheet editor can be used to amend any data or enter new data. It is also very useful for transferring UCINET data (such as centrality scores) to Microsoft Excel or SPSS. Note that the dl format provides a more sophisticated and flexible way of entering data and this is not covered in this introductory guide. If you click the spreadsheet button or under data run the data editors and click on matrix editor you will open up the spreadsheet editor and obtain the following. Note we have annotated the important buttons and areas of the editor below.



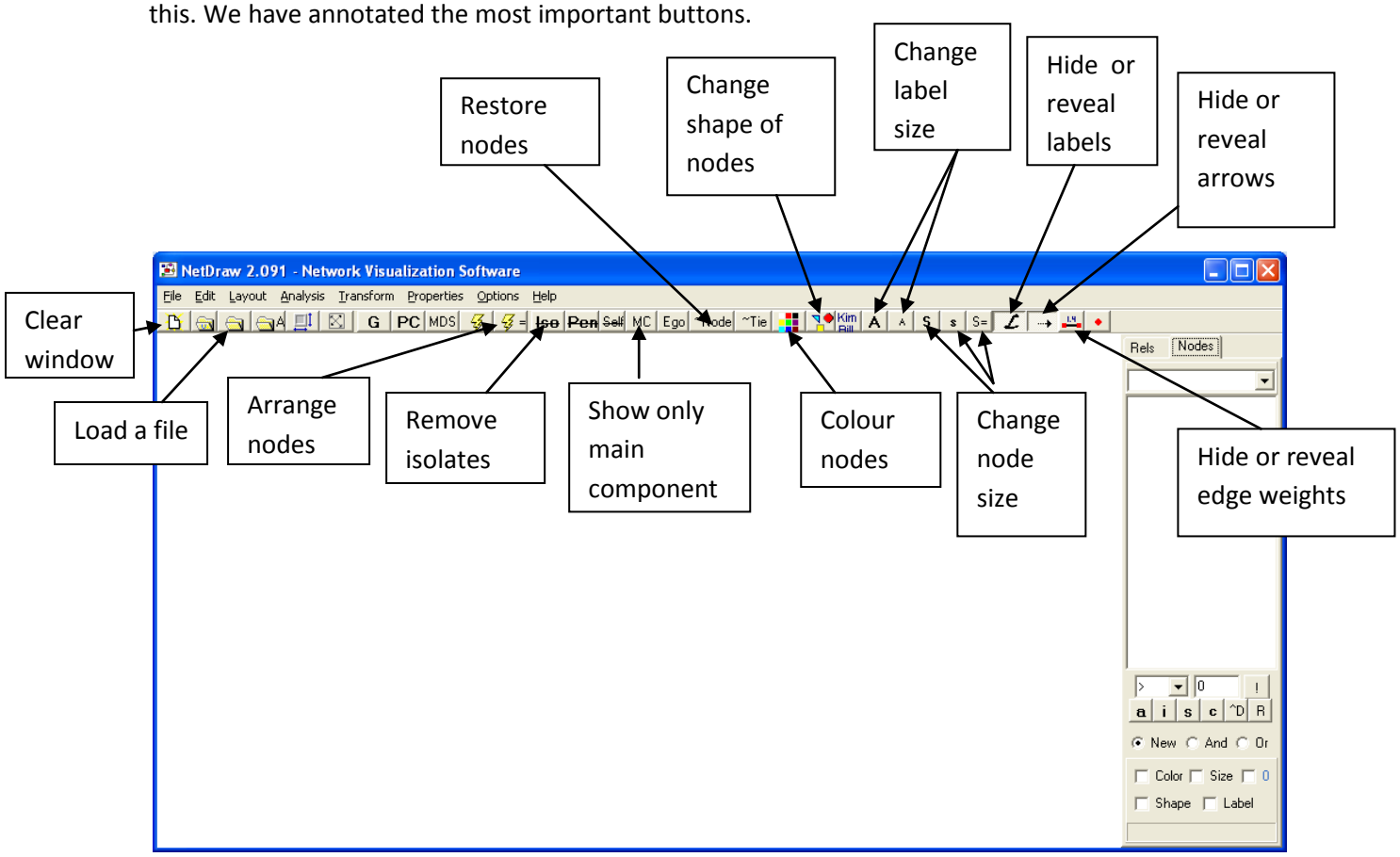
To see what a dataset looks like in the editor click file then open and select PADGETT. This is a non-symmetric binary data set with two relations and labels. Once open it will look like this.



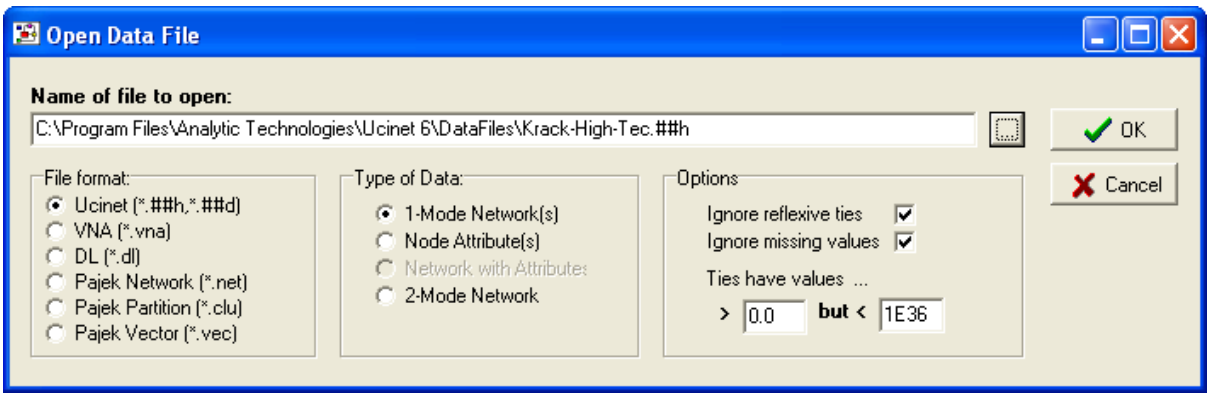
We see the two relations PADGM and PADGB in the bottom left, clicking on the tabs changes sheet and we are viewing different relations. The labels are repeated along the rows and columns and are in the shaded area. We see the data has 16 actors as shown by the dimensions box on the right. This data can be edited and saved from the spreadsheet.

Running Netdraw

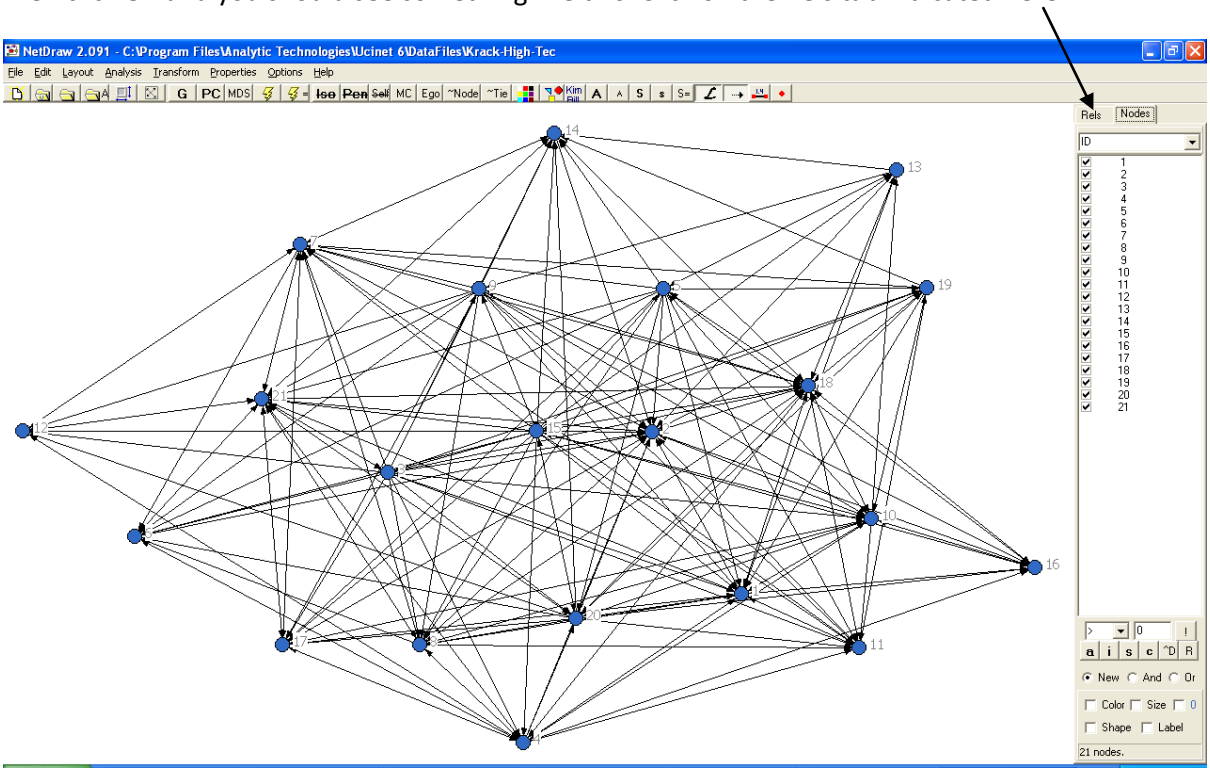
Click on the Netdraw button  to launch Netdraw. This results in a new window which looks like this. We have annotated the most important buttons.



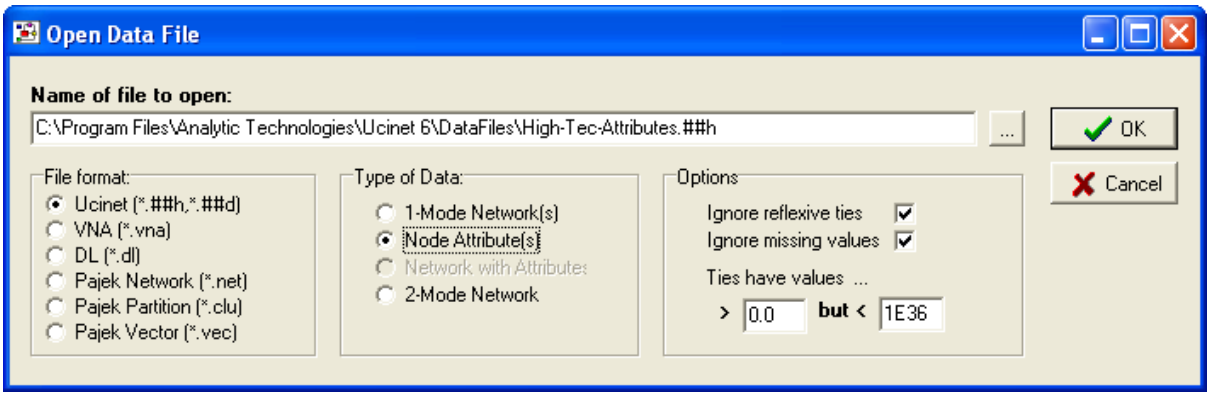
To use Netdraw it is important to load in a network first. We shall load in a standard UCINET dataset collected by Dave Krackhardt. Click on the load a file button and type or select the file Krack-High-Tec



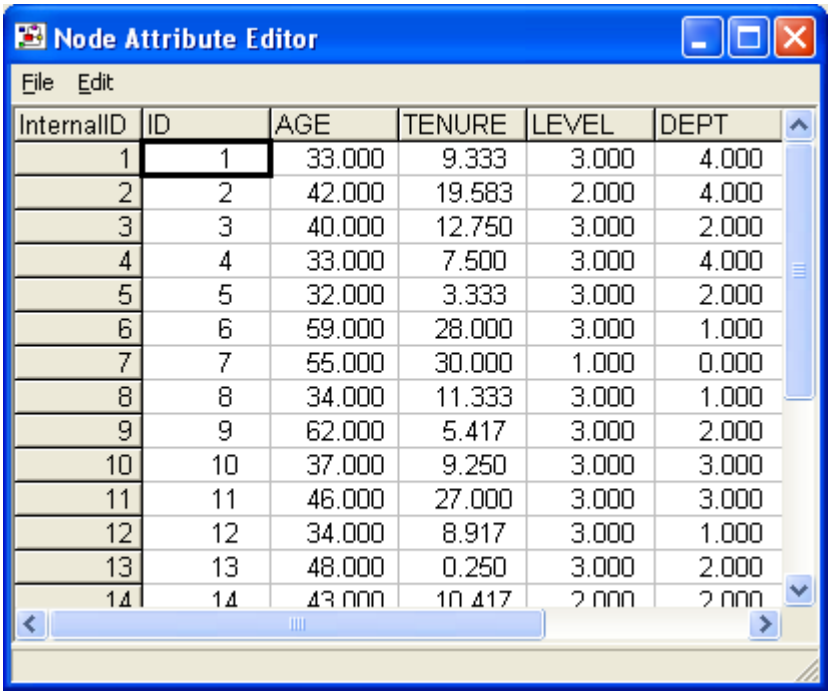
Then click OK and you should see something like this. Click on the Rels tab indicated here.



You will now see this data has three relations Advice, Friendship and Reports to. If a relation is ticked then the edges relating to it are displayed. We shall now bring in an attribute file associated with this data called High-Tec-Attributes. Click on the load a file button again load the file but also click the radio button for node attributes under Type of Data so you have



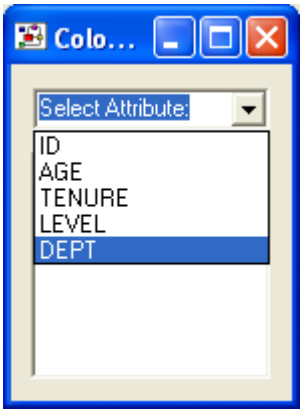
Note you can also click the button just to the right of the load button (with an A) and this will open up the same box but with the attribute button selected. Click on Transform> Node attribute editor and you will see the node attribute editor open up as follows.



InternalID	ID	AGE	TENURE	LEVEL	DEPT
1	1	33.000	9.333	3.000	4.000
2	2	42.000	19.583	2.000	4.000
3	3	40.000	12.750	3.000	2.000
4	4	33.000	7.500	3.000	4.000
5	5	32.000	3.333	3.000	2.000
6	6	59.000	28.000	3.000	1.000
7	7	55.000	30.000	1.000	0.000
8	8	34.000	11.333	3.000	1.000
9	9	62.000	5.417	3.000	2.000
10	10	37.000	9.250	3.000	3.000
11	11	46.000	27.000	3.000	3.000
12	12	34.000	8.917	3.000	1.000
13	13	48.000	0.250	3.000	2.000
14	14	43.000	10.417	2.000	2.000

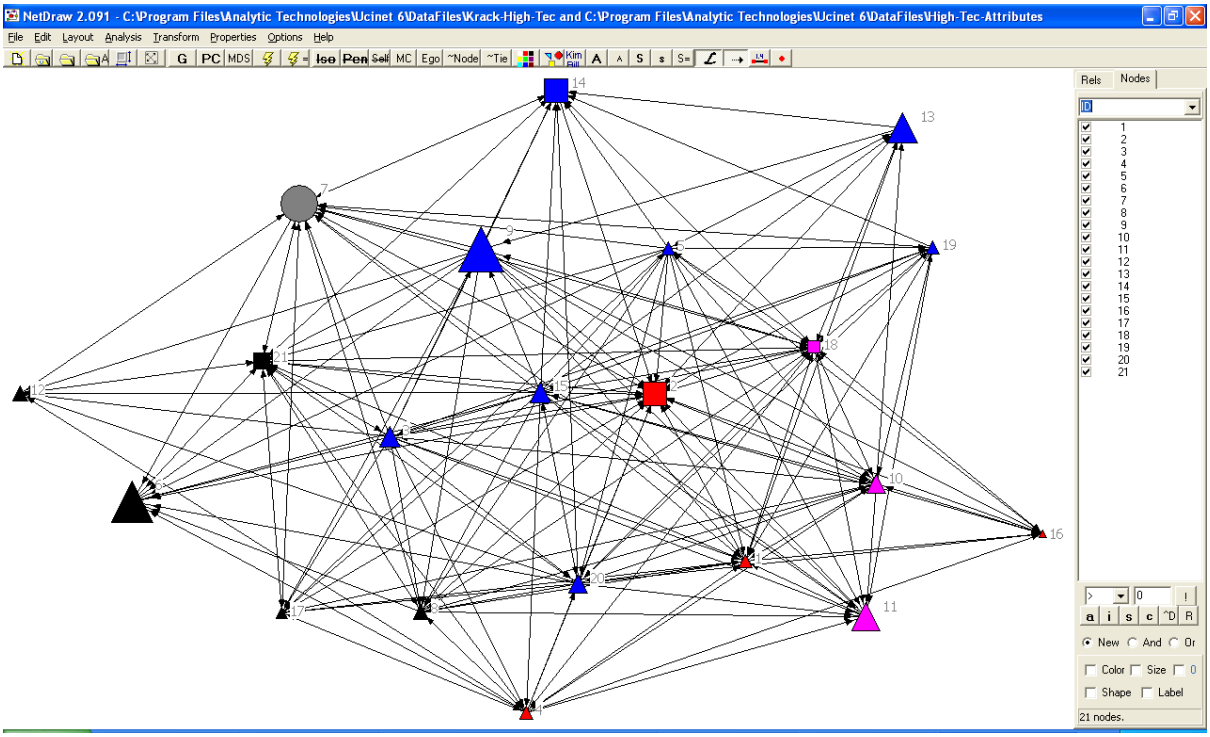
You can use this editor to change or add in new attributes.

We are going to size the nodes by age, colour them by department and shape them according to level. Close the attribute editor and click on the colour node button. This will open the color box click the select attribute button and select department as follows



This will give 5 colours for the five departments. Now click on the change shape of nodes button and go through the same process but selecting level and clicking on the tick at the bottom of the box. This will produce three shapes. To size the nodes according to age you need to select

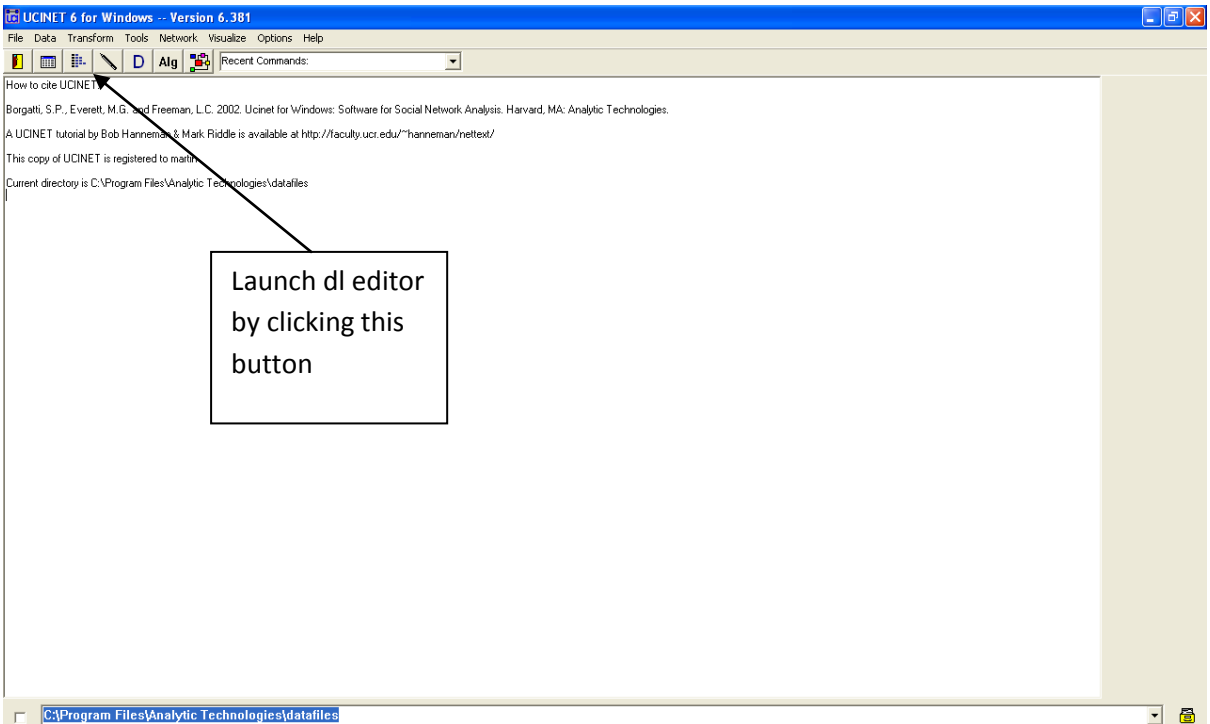
Properties>Nodes>Symbols>Size>Attribute-Based and then select Age leaving the other values as defaults. This should result in the following.



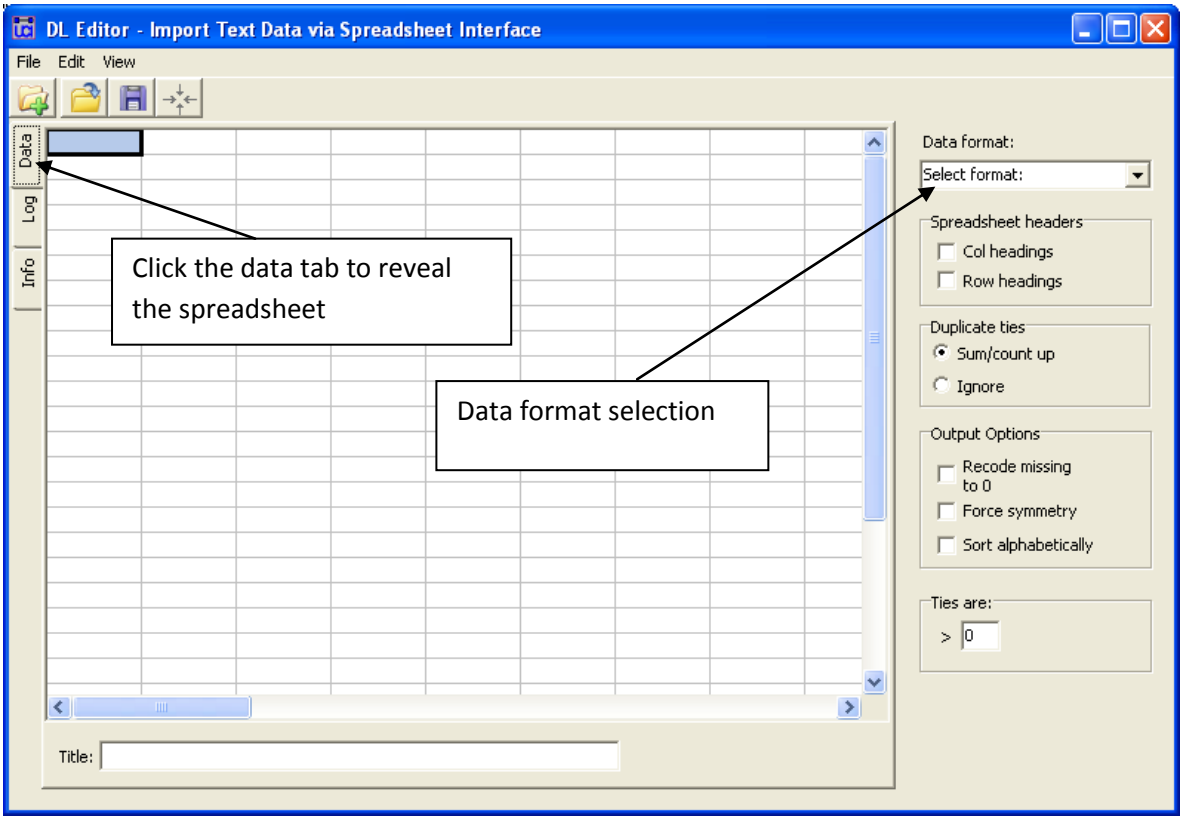
To export the diagram for use in a publication or to read into a word processing package use File>Save Diagram As>Metafile. To save the diagram as a file you can see again in Netdraw you need to use File>Save Data As>Vna.

Using the dl editor in UCINET

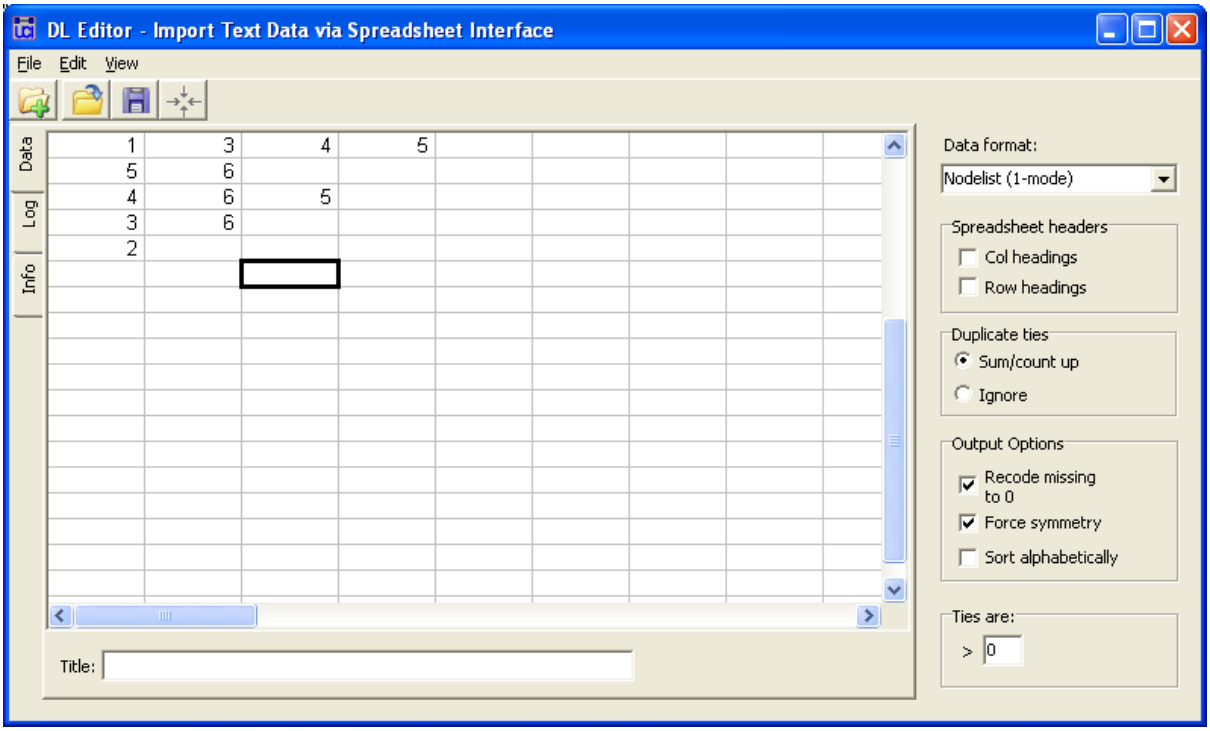
The UCINET spreadsheet editor is useful for making changes or for constructing small networks but is not well suited for importing larger datasets in which the data is not typically arranged in an adjacency matrix format. UCINET supports a variety of data formats that are accessed through an editor called the dl editor which is launched by pressing the button to the right of the spreadsheet editor in UCINET which looks like this



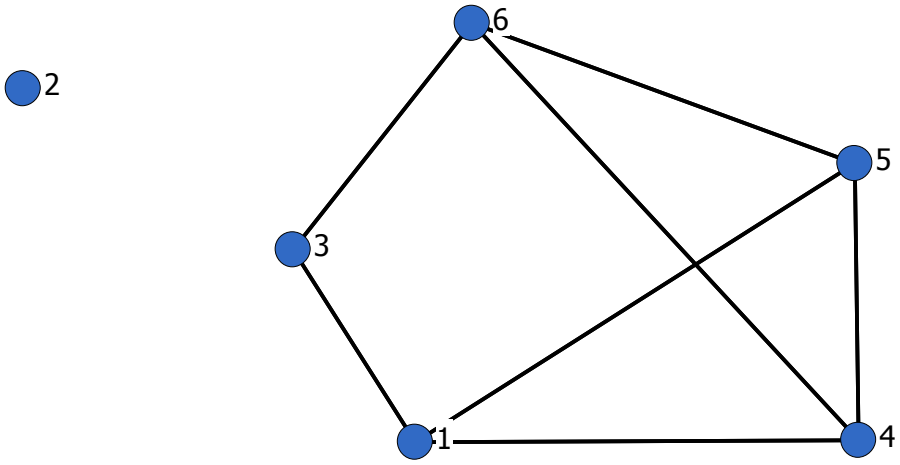
When the editor is launched it will contain a small help screen this relates to the info tab. You should click the data tab to obtain the following.



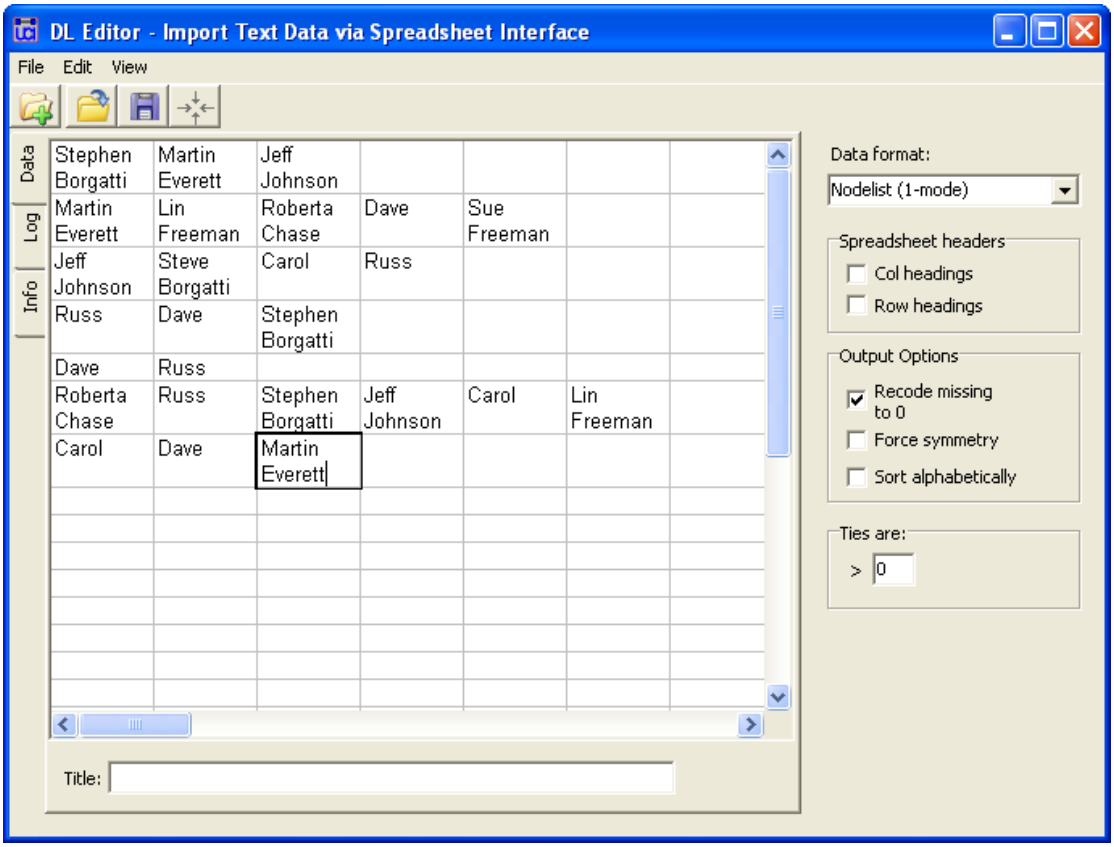
There are a number of data formats supported but we will just look at two. The data formats can be selected from a pull down list by clicking the arrow to the right of the data format selection box. The full matrix is the same as using the normal spreadsheet editor. Our first format is called nodelist (1mode), this format lists each node followed by the nodes it is adjacent to. The following is an example note we have clicked the force symmetry box in the output options.



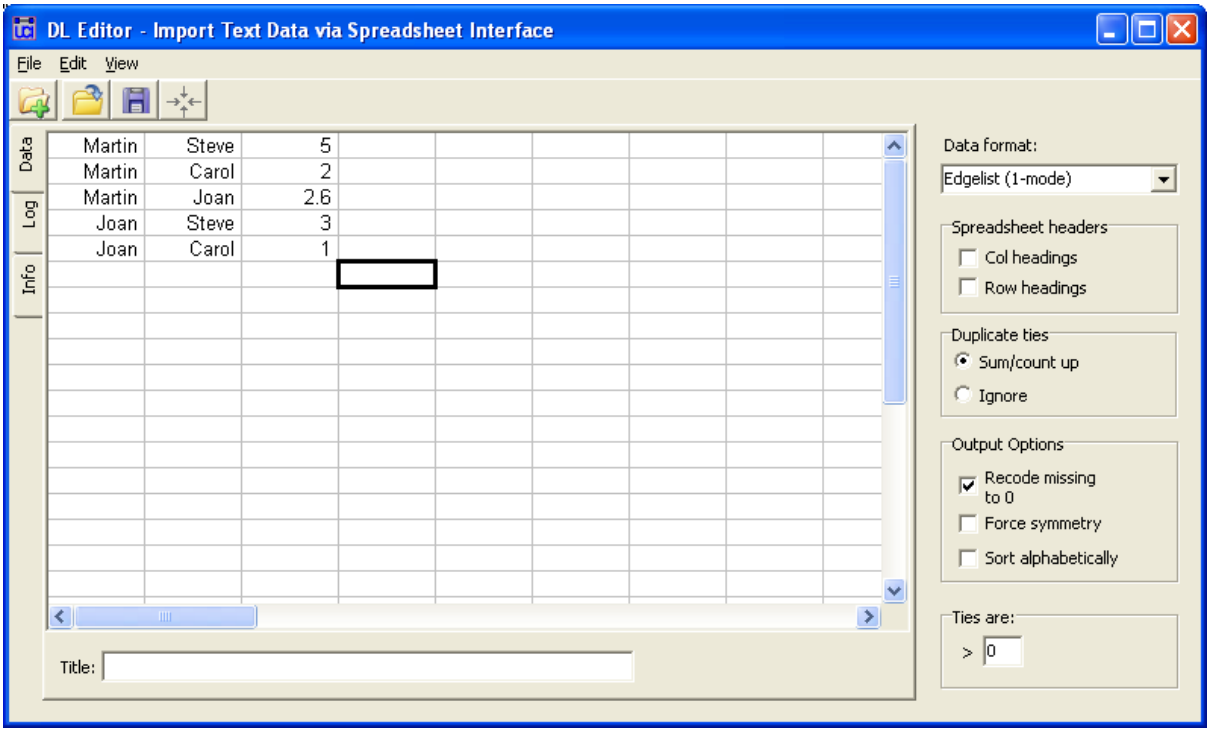
The first number in each row gives the starting node of an edge the numbers that follow in the same row are a list of end nodes. Hence the first row 1 3 4 5 states that actor 1 is connected to actors 3, 4 and 5. The second row states that actor 5 is connected to actor 6 and so on. Note that there is no order amongst the rows nor within the rows. Actor 2 has no end nodes listed and hence is an isolate. The network corresponding to this linked list is given below.



Note that the entries in the spreadsheet are labels and so we can use names rather than numbers. If the data is directed then the arc goes from the start node to the end node. The following is an example showing a directed network with labels.



If the data is valued then we cannot use the nodelist (1 mode) format; an alternative is the edgelist (1-mode) format. This format has three entries per line and is of the form start node, end node , value. The following is an example.



In this example we see that Martin has a connection to Steve with a value of 5. It should be noted that the data in the spreadsheet cannot be saved except as a UCINET file and hence it is a good idea

to construct these in an excel spreadsheet and copy and paste or import them. Once the entry is complete the file can be saved in UCINET by clicking the File button and selecting Save UCINET dataset. To clear the spreadsheet click the  on the top left hand side.

There are many features of UCINET and Netdraw that we have not mentioned but hopefully this guide will get you started.