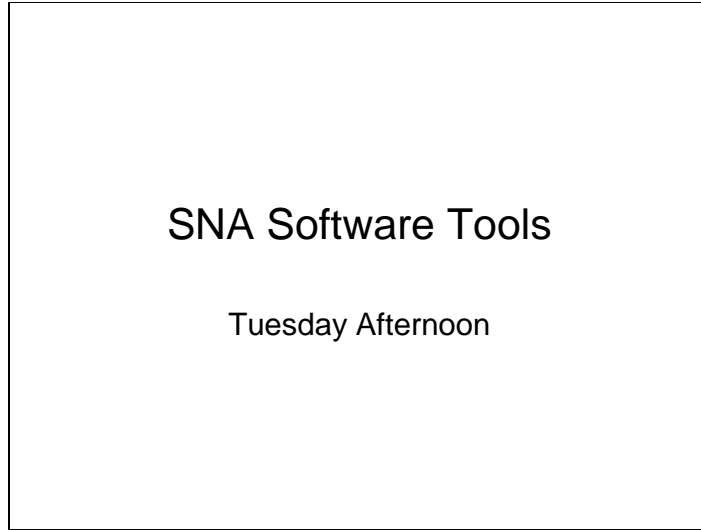


Slide 1

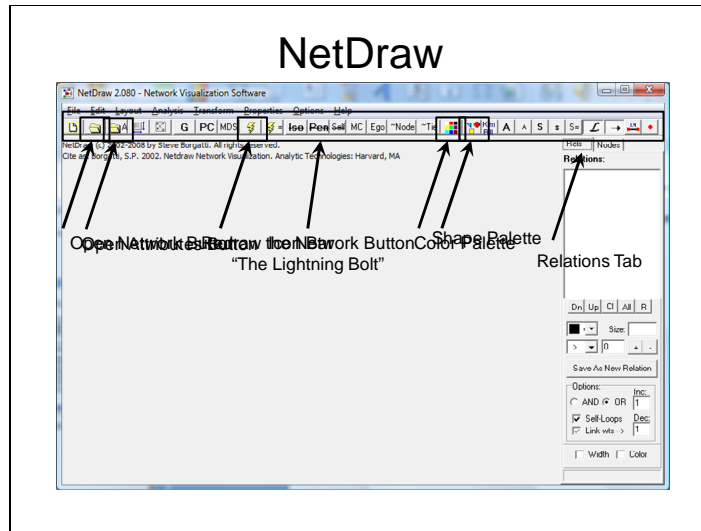


Software tools

- UCINET
 - This is social network analysis software
 - Allows for the computational aspects of analysis, including calculating various measures (e.g., centrality, cohesion, brokerage) among others, as well as hypothesis testing
- NetDraw
 - This is social network visualization software
 - Allows for graphic representation of networks including relations and attributes
 - Has some analytic capabilities that partially overlap with UCINET
- There are others, generally for particular niches
 - SIENA (time series analysis of networks)
 - Pajek (Better at computational analysis of really large networks)
 - E-Net (analyzing ego networks)
 - KeyPlayer (influencing or disrupting networks)
 - SoNIA (for making [quick-time](#) movies)

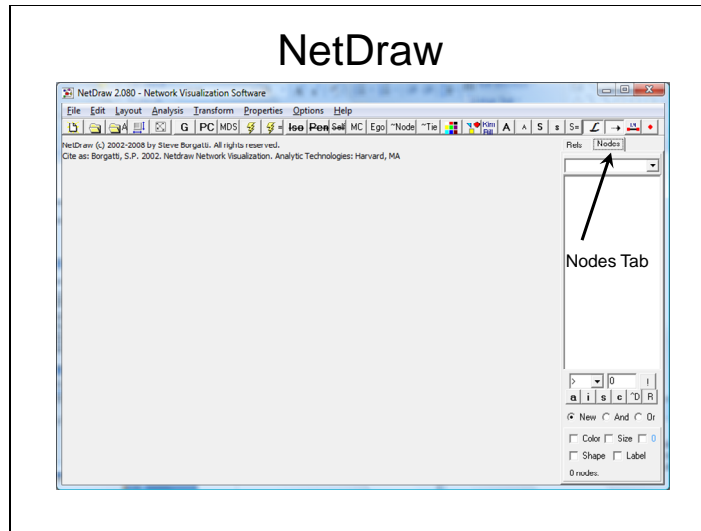
2009 LINKS Center Summer SNA Workshop

Slide 3



2009 LINKS Center Summer SNA Workshop

Slide 4



Getting the Data in UCINET

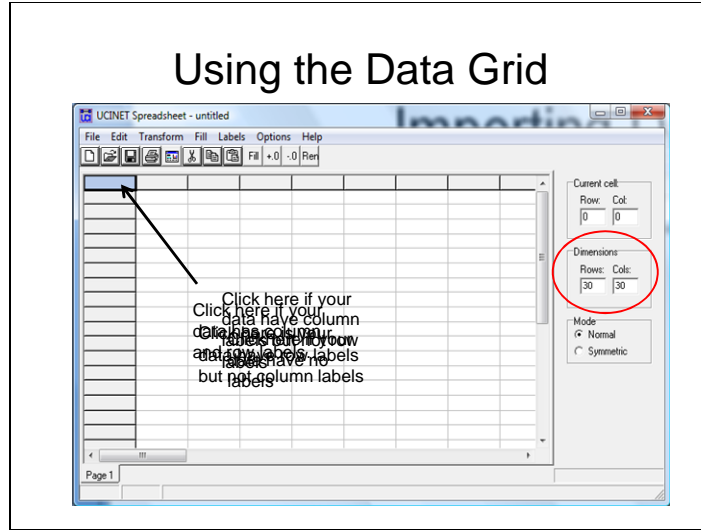
- Three options:
 - Excel Files/Grid format
 - UCINET has a spreadsheet tool that easily interacts with Excel or can allow manual entry if network is not too large
 - DL Files
 - Text files of various formats that can be created easily by geeks, nerds, and anyone with a text editor (e.g., Notepad)
 - VNA Files
 - Text files that allow for a single-file that contains both dyadic and nodal attribute data
 - Only imports into NetDraw, but can export from there to UCINET format

Excel/Data Grid

- Excel is the “Universal Translator”
- UCINET has a Data Grid tool that
 - Looks like excel
 - Can (usually) read excel files
 - Works really well with Excel Cut&Paste
 - As long as you click in the right place for pasting your data

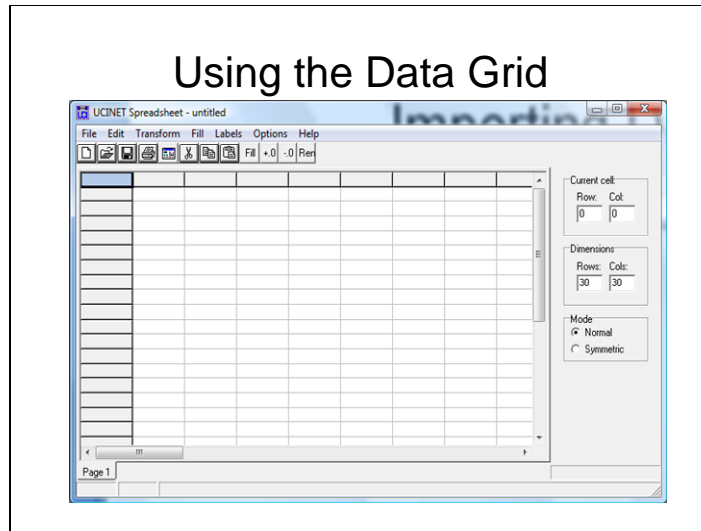
2009 LINKS Center Summer SNA Workshop

Slide 13



2009 LINKS Center Summer SNA Workshop

Slide 14



DL Files

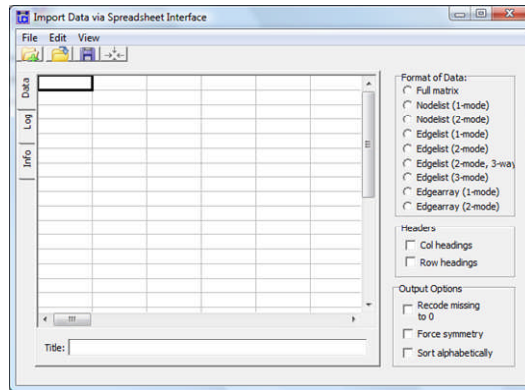
- These are the most versatile
- There are multiple formats:
 - Full Matrix
 - Nodelist
 - Edgelist
- Each has its advantages

DL Data Formats

<p>DI n = 5 Format = nodelist Labels embedded Data: Billy Jill John Jim Jane Jill Billy Bob Bertha Dick Jane Dick Jane Jim Bob Billy Brenda</p> <p style="color: cyan;">Most efficient if data are binary Can repeat pairs (will increment)</p> <p style="font-size: small;">(No values possible)</p>	<p>DI n = 5 Format = edgelist Labels embedded Data: Billy Jill Billy John 6.3 Dick Jane Jim Bob 2.5</p> <p style="color: cyan;">Best for data coming from a relational databases and if data have values</p> <p style="font-size: small;">(Values optional - assigned 1 if omitted)</p>
---	---

Slide 17

Excel DL Grid



VNA Files

- These **CAN** combine in one file both:
 - Nodal (attribute) data **and**
 - e.g., Age, gender, Education Level
 - Network/Relational/Dyadic data
 - E.g., Communicates with, Trusts
- Can have textual data
 - NetDraw will preserve the labels
 - UCINET will transform them to numbers

Sample VNA File

```
*Node data
"ID", "Gender", "Role"
"HOLLY" "FEMALE" "STUDENT"
"STEVE" "MALE" "TEACHER"
"CAROL" "FEMALE" "STUDENT"
...
*Tie data
FROM TO "campnet"
"HOLLY" "PAM" 1
"HOLLY" "PAT" 1
"BRAZEY" "STEVE" 1
"BRAZEY" "BERT" 1
"CAROL" "PAM" 1
"PAM" "ANN" 1
"PAT" "HOLLY" 1
```

Some tricks

- If the network is small (not too many people)
 - I use excel:
 - Either
 - Create a comma-separated full-matrix-style file and cut and paste into the data grid
 - Manually create attribute file in UCINET (#s only)
 - Or
 - Create Edge or Nodelist format & use Import via Spreadsheet
- If the network is larger
 - I create an edgelist DL file
 - And a VNA file just with node data (attributes)
 - Then:
 - Import the DL file into UCINET (creating ##h & ##d files)
 - I can then either import the attributes into UCINET or simply open the VNA file as an attribute file in NetDraw to color and shape nodes.

On-Line References

- www.analytictech.com
 - This is the company website with updates, release notes, and other useful information, including links to other relevant sites
- <http://faculty.ucr.edu/~hanneman/nettext/>
 - This is an on-line reference manual to UCINET
- <http://tech.groups.yahoo.com/group/ucinet>
 - An online community of practice for ucinet
- There is a “Docs” folder under UCINET and a “Documentation” folder under NetDraw that are installed with the software
- UCINET includes an on-line Help facility
