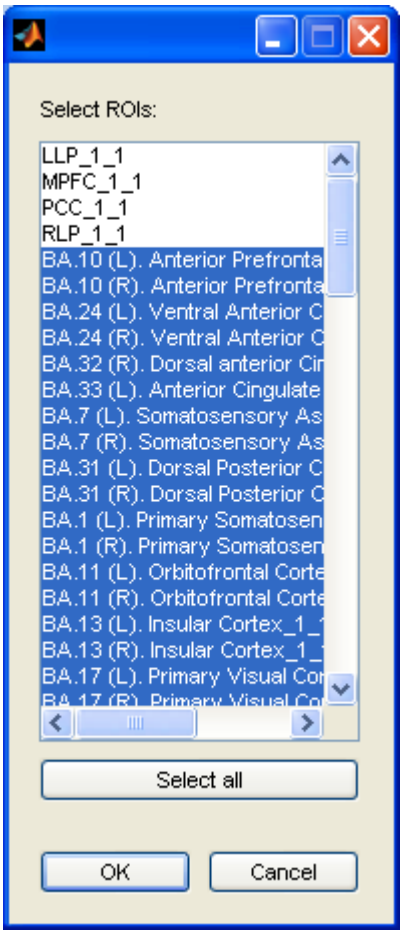
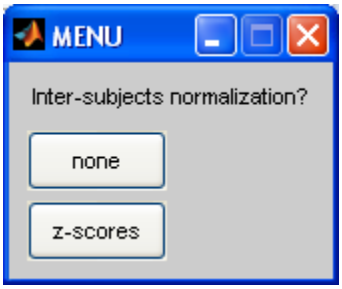
Conn To Graph Metrics

Single Subject Demo for connectivity class 3/16/10

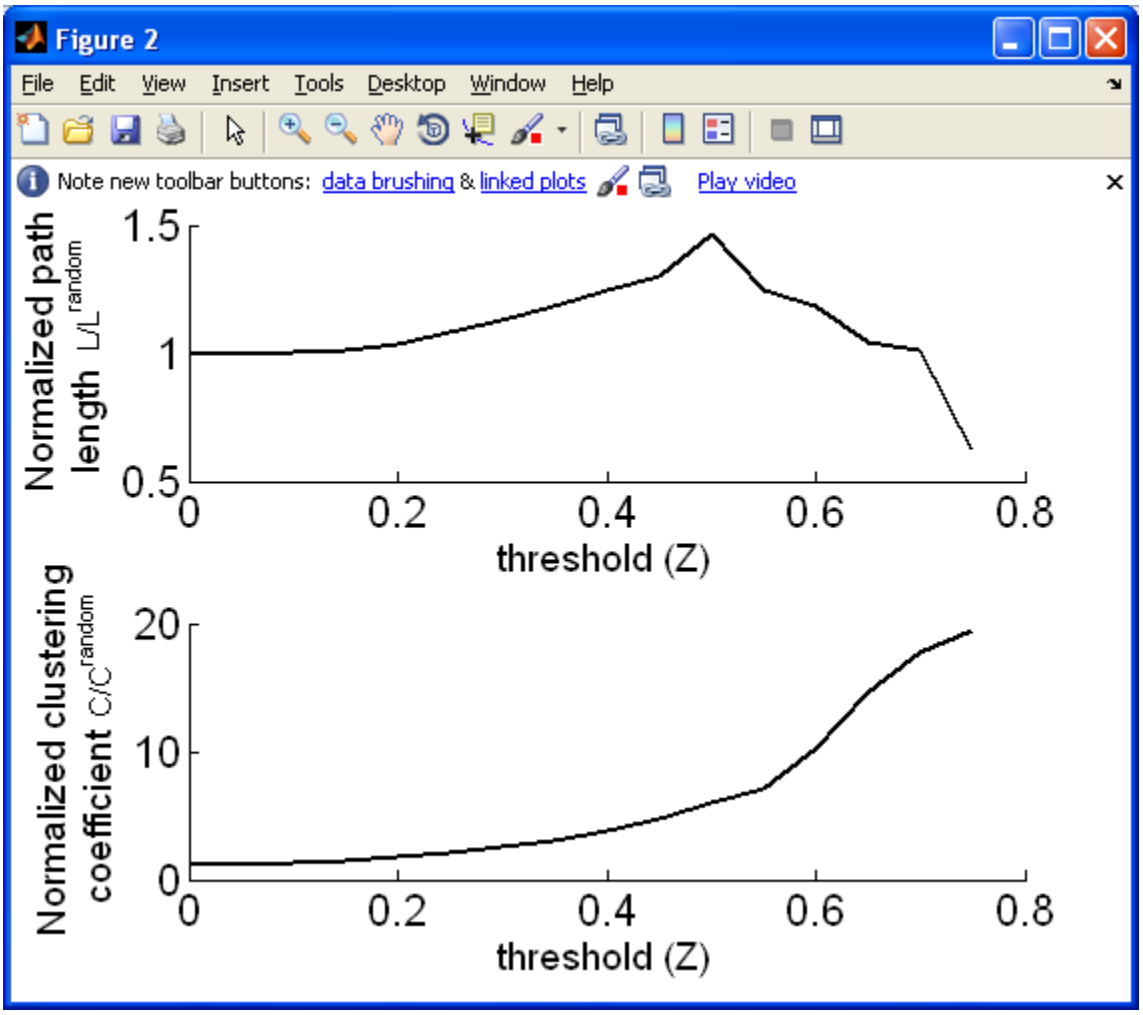
1. **>> conn_network**
2. **Select resultsROI_Condition001.mat (lives in ANALYSIS_01)**
3. **Select all but Fox ROIs to avoid redundancy**



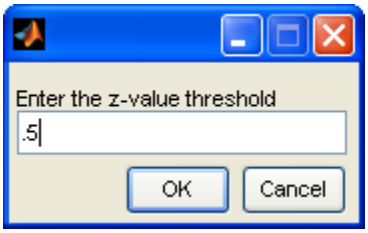
4. **Select "None" for inter-subject normalization**



5. **View path length and clustering coef**

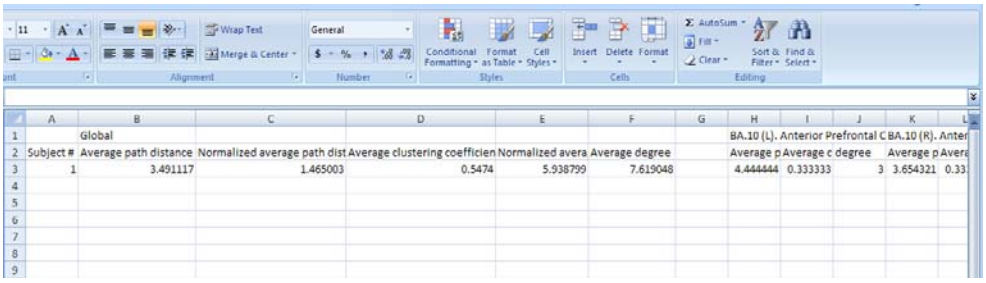


6. **Select Z threshold**



Note: Typically want path length around 1 and high clustering coefficients (indicative of small world properties) – for example here you can select Z = 0.5 for thresholding

7. **View Results File** (**resultsROI_Condition001.csv**, lives in ANALYSIS_01) describing normalized average path length, clustering coefficients, and degree centrality network-level topological properties, as well as the same measures computed separately for each node (ROI).



	A	B	C	D	E	F	G	H	I	J	K	L
1		Global						BA.10 (L). Anterior Prefrontal C			BA.10 (R). Anter	
2	Subject #	Average path distance	Normalized average path dist	Average clustering coefficien	Normalized avera	Average degree		Average p	Average c	degree	Average p	Avera
3	1	3.491117	1.465003	0.5474	5.938799	7.619048		4.444444	0.333333	3	3.654321	0.33
4												
5												
6												
7												
8												
9												

In addition a UCINET format file (resultsROI_Condition001_Subject001.dl) is created which can be used to display the pattern of network connectivity using external software (e.g. SONIA)