# HELP FILE: LOOK AT NETWORKS

## A. Data on Non-Kinship Associations

### 1. Overview

Non-kinship associations come in many varieties and degrees of complexity. CBDB accordingly has developed data structures flexible enough to record the most important components of these associations.

(a) Simple Non-kinship Associations

These have a three-part structure: person + association + associate. The major challenge in recording the non-kinship **Associations** that individuals formed over their lives is to control the proliferation of categories.

Because associations are between pairs of people, there must be symmetrical types of associations. That is, if {**A** "is the student of" **B**} is in the database, then {**B** "is the teacher of" **A**} also should be so. In fact, the current version of the program automatically generates this second entry. Thus associations *as an entity* (in contrast to any particular *instance* of the association between people) have an internal structure:

> Association type
> Paired Association type
> Description of the Association (Chinese and English)
> Association Categories/subcategories (3 levels at present)
> Roles in association (agent/recipient or mutual)

When one creates a new category of **Association**, one must also create its converse. Mutual associations, of course, are their own converse: {**A** "is friend of" **B**} is the same as {**B** "is friend of" **A**}. In most associations, however, the two people play distinct roles, and CBDB needs the converse category to capture the roles of the two people from their different perspectives: to record for **A** that {**A** "followed" **B**} also means that for **B**, {**B** "*was* followed *by*" **A**}. In this example, **A** is playing the active part of *agent* in creating the association (**B**, as *recipient*, may not even be aware of **A**'s presence among his/her followers): CBDB records this distinction and, when pruning records during searches in **LookAtNetworks**, chooses the record where the first person is the agent. Some associations are not dyadic because the relation is not to a person but to a more abstract or general object. The most important type of association of this type is the faction. Thus we have {**A** "is member of the purged Yuanyou group" ∅} (∅ here is the *Null* (Empty) element.) A few rare relations are **triadic**: {**A** "ordered" **B** "to execute" **C**}. CBDB has added a third field to capture such situations but does not yet process such triadic relations in its analytic routines.

(b)  Mediated Associations

In some important cases, associations form through the mediation of institutions or people who can be either associates or kin.  CBDB captures these types of relations by adding additional data to associations concerning the mediating institution or person. For example, we might know of a relation between X and Y because X asked Y to write a biography for his mother's tomb.

## 2.  Structure of an Association Record

Because associations in pre-modern Chinese society often are complex, the table tracking associations in CBDB uses a correspondingly large number of fields:

BASIC INFORMATION

1.  Person
2.  Associated person
3.  The association
4.  The number of objects or events establishing the association

KINSHIP AND OTHER RELATIONS THAT PLAY A ROLE IN THE ASSOCIATION

5.  The kinship relation, if the association was established through a relative of the person
6.  The person whose kinship relation established the association
7.  The kinship relation, if the association was established through a relative of the *associated* person
8.  The kin of the associate through whom the association was established
9.  The name of the person who claimed the existence of the association: for example, a son claiming it for his father

TIME AND PLACE OF THE ASSOCIATION

10. The place of the association
11. The sequence of an association, if one does not know the actual date
12. The date of the association (year, month, and day, if known)

CONTEXTUAL INFORMATION

13. The social institution at or through which the association was established
14. The occasion on which the association was established
15. The genre of the writing that establishes the association, if relevant
16. The title of the work that established the association, if relevant
17. The scholarly topic around which the association was formed

SOURCE AND NOTES

18. Source
19. Note

# B. The Interface

**LookAtNetworks** is the most powerful querying interface developed for the Access version of CBDB.  It allows the user to explore social networks defined both by kinship ties and by other forms of social relations.  It allows the user to select a person or to import a list of people produced by other queries.  It similarly allows the user to start with a place or to import a list of places.  **LookAtNetworks** allows the user to select the particular forms of social association to investigate, and it allows one to set the range of years to consider.  The queries in **LookAtNetwork** are iterative:  the query produces an initial group of people and then looks at the relevant connections between these people and others in the database.  Each cycle adds more people, whose associations then produce yet more people.  **LookAtKinship** has five metrics to limit the search, but **LookAtNetworks** has just two:  a *maximum loop count* (how many times the query iterates through the list of people), and a *maximum node distance*.  This distance is the number of links between a person in the network and members of the group of people identified by the first step in the search process.  If the user selects a particular person, then all distances are measured from that person.  If one starts with a list of people, then all the people on that list serve as starting points.  If one starts with a place or list of places, then the people initially identified as associated with that place or those places serve as the starting points.
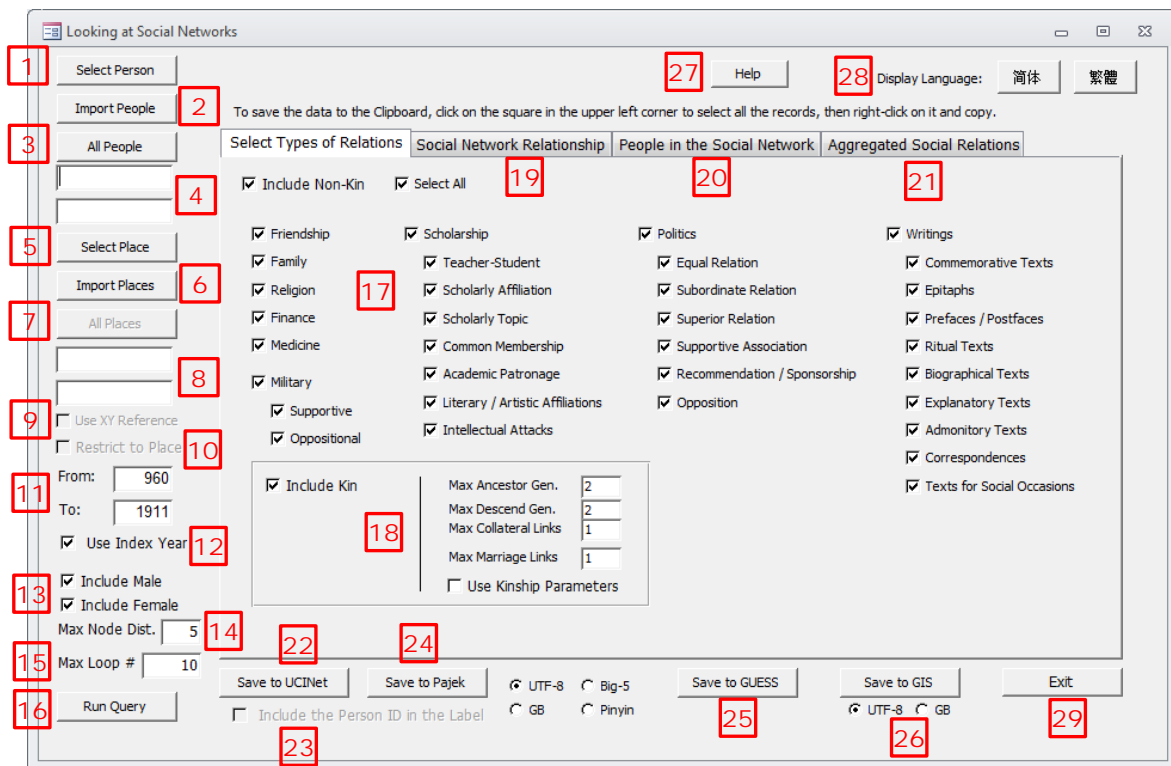


Running a query begins with selecting the elements to investigate.

## 1. *Select a Person Command Button*

If one wants to look at the social networks which link a particular person to others, one can click on the **Select Person** command button to open a list of people:



One can search for a person using either Chinese characters or *pinyin*. (Note that sometimes, for a search on a second use of the form, the form finds an unrelated person. It finds a correct person if one simply clicks **Search** again to reset the results.)

## 2. *Import People Command Button*

A second, very useful way to consider social networks is to import a group of people sharing common characteristics identified by other queries. For example, one could start with people from Putian in Fujian who became eligible for office through *jinshi* examination between 1050 and 1000. One copies the results of the **LookAtEntry** query to a **text** file (a .txt file can be created in Word or Excel) and edits the results:

Note that one can include a line with a label as well as other textual information: the program will simply ignore this line. One can use tabs or commas to delimit fields. The **one crucial datum** that CBDB extracts from each line is the Person ID which *must be the very first item of the line*. After on clicks on the **Import People** command button, selects the file, and **LookAtNetworks** successfully reads the file, the form will look like:



The two boxes that give the person's name in *pinyin* and Chinese will state "[Imported List]."

## 3. *All People* Command Box

If one initially selected a person or imported a group of people to explore but then wants to clear that person or list, one clicks on the **All People** command button.

## 4. *Selected Person* Text Boxes

The **LookAtNetwork** form displays the name of the selected person in Chinese and *pinyin* (or "Imported List") in these two text boxes. The user cannot directly type a person's name into these boxes.

## 5. *Select Place* Command Button

Sometimes you will want to look at social networks restricted to a particular region. There are two different ways to restrict the search by region. First is to click on the

**Select Place** command button, and the other is to import a list of addresses (see below). When you click on **Select Place**, a new form will open:

The form to select addresses allows you search by place name in either *pinyin* or Chinese, but it looks for matches only at the *beginning* of place names (not inside). If one wanted to look at networks of people from Quanzhou who entered service through the *jinshi* exam from 1050 to 1100, to provide an example, you might want to pick an address code for Quanzhou as a prefecture from 985 to 1279 (Address ID 13902).
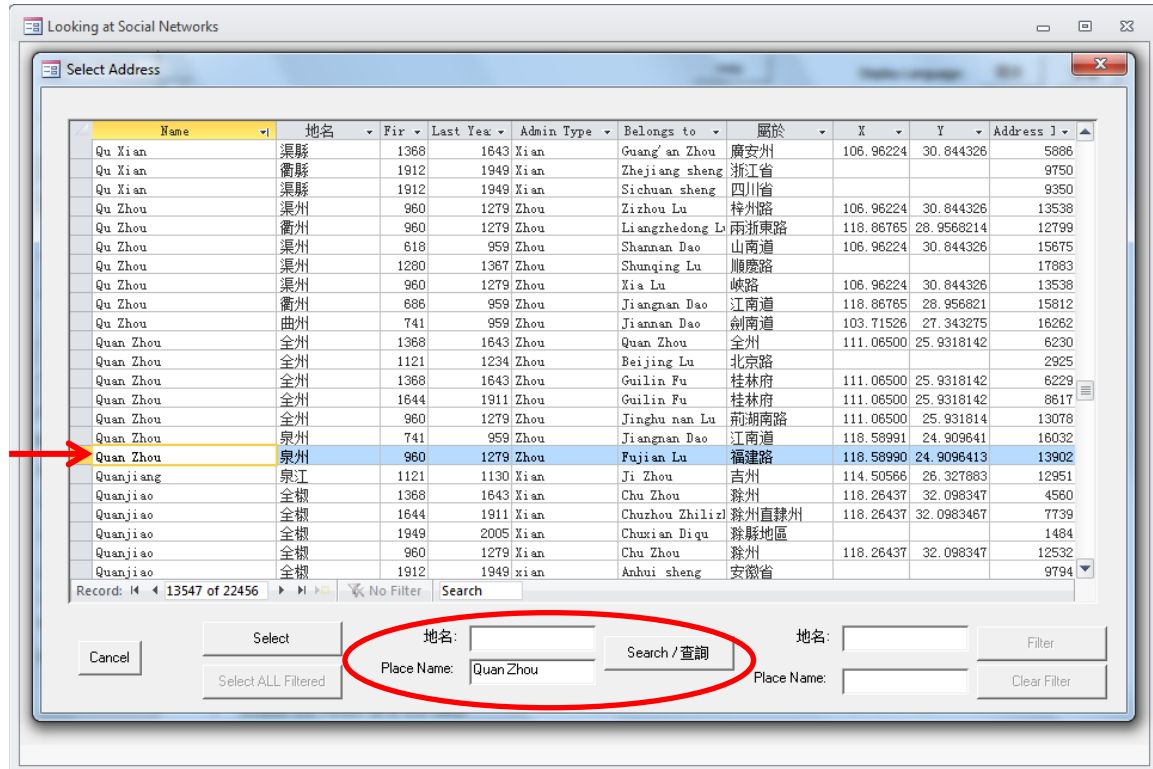


(a) Select

Note that when one selects an address, CBDB automatically includes all of the addresses that are *under the jurisdiction* of that place. For Quanzhou Prefecture (985-1279, address code 13902), for example, these places include

| ID | Name | 地名 | First year | Last year | x coord | y coord |
|---|---|---|---|---|---|---|
| 13902 | Quan Zhou | 泉州 | 985 | 1279 | 118.58990479 | 24.909641266 |
| 13906 | Nan'an | 南安 | 960 | 1279 | 118.537849 | 24.953764 |
| 13907 | Tong'an | 同安 | 960 | 1279 | 118.144119 | 24.736046 |
| 13908 | Hui'an | 惠安 | 981 | 1279 | 118.802818 | 25.022078 |
| 13909 | Yongchun | 永春 | 960 | 1279 | 118.28717 | 25.32579 |
| 13910 | Qingxi | 清溪 | 960 | 1130 | 118.181251 | 25.060591 |
| 13911 | Anxi | 安溪 | 1131 | 1279 | 118.181251 | 25.060591 |

| ID | Name | 地名 | First year | Last year | x coord | y coord |
|---|---|---|---|---|---|---|
| 13912 | Dehua | 德化 | 960 | 1279 | 118.229217 | 25.476953 |
| 30080 | Pinghai junjiedu | 平海軍節度 | 960 | 1279 | | |
| 100022 | Xianyou | 仙遊 | 960 | 978 | 118.68367004 | 25.364557266 |
| 100228 | Jinjiang | 晉江 | 960 | 1279 | 118.589905 | 24.909641 |
| 100531 | Putian | 莆田 | 960 | 978 | 119.011101 | 25.433954 |
| 100598 | Changtai | 長泰 | 960 | 979 | 117.750549 | 24.62048 |

(b) Filter

Also note the two addresses for Quanzhou in the **Select Address** form. One is for Quanzhou as a prefecture, while other is for Quanzhou as a *Dao*. If one wishes to look at Quanzhou more broadly, one enters "Quan zhou" into the Filter "Place Name" box (or 泉州 into 地名) and then click the **Filter** command button. This gives a list of all places that begin with the word "Quan zhou" or 'Quanzhou' (Using the Chinese, here 泉州, is better to avoid the possibility of homonyms and the problem of inconsistent use of spaces.) Then click the **Select ALL Filtered** command button:



This will return you to the main LookAtNetwork form, with all the Quanzhou codes selected. The form indicates the fact that the list of places comes from a filtered selection and gives the term used for the filtering:
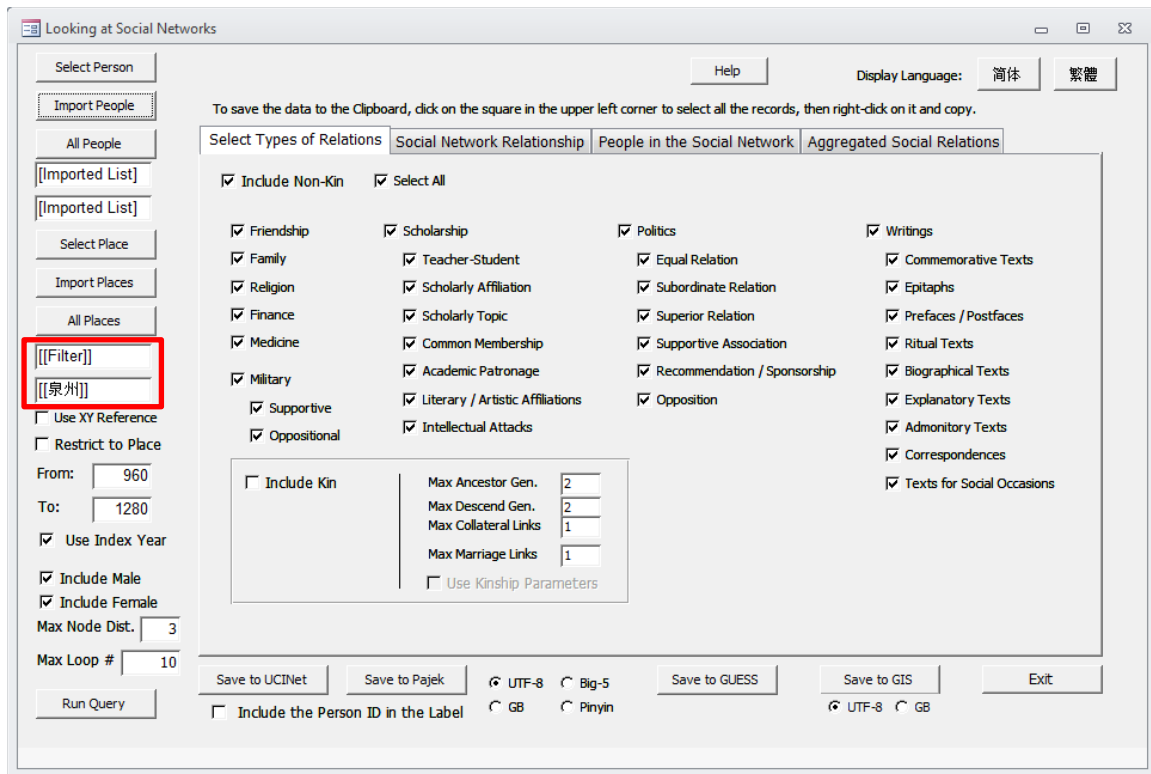
(c) People and Place

What it means to say that a person is "from" a place in CBDB is complex because the data on individuals may not provide the most direct connections. CBDB therefore uses whatever information is available. The linking of people to place that CBDB uses is a set of relationships in descending order of importance:

1. the person's index-place (籍貫)
2. Actual Residence
3. Last Known Address
4. Moved to
5. Eight Banner address (Qing dynasty)
6. Alternate basic affiliation

## 6. *Import Place Command Button*

If you wish to limit the number of codes for Quanzhou even further, you can select all the filtered records in the **Select Address** form, paste the records into a new **text file**, delete the records you do not want, and *move the Address IDs to the first item* on each remaining line. When CBDB reads the list, it looks for just those initial numbers and ignores everything else:

```
QuanzhouIDs.txt - Notepad
File  Edit  Format  View  Help
ID        Name      地名    First year  Last year  x coord      y coord
13902     Quan Zhou         泉州    985         1279      118.58990479    24.909641266
13906     Nan'an    南安    960         1279      118.537849      24.953764
13907     Tong'an   同安    960         1279      118.144119      24.736046
13908     Hui'an    惠安    981         1279      118.802818      25.022078
13909     Yongchun  永春    960         1279      118.28717 25.32579
13910     Qingxi    清溪    960         1130      118.181251      25.060591
13911     Anxi      安溪    1131        1279      118.181251      25.060591
13912     Dehua     德化    960         1279      118.229217      25.476953
100022    Xianyou   仙遊    960         978       118.68367004    25.364557266
100228    Jinjiang  晉江    960         1279      118.589905      24.909641
100531    Putian    莆田    960         978       119.011101      25.433954
100598    Changtai  長泰    960         979       117.750549      24.62048
```

Now click on the Import Places button in the **LookAtNetworks** form and select the file you created. (CBDB gives a warning when it reads the list of IDs and finds an invalid ID).

## 7.    *All Places* Command Button

If one wishes to remove the constraint of selecting by place, one simply clicks on the **All Places** command button.

## 8.  *Selected Place* Text Boxes

The **Selected Place** text boxes inform one of either the place selected or the filter used to create a list of places or the fact that one has successfully imported a list of address IDs. On cannot directly write the name of a place to use into these text boxes.

## 9.  *Use XY References* Checkbox

The history of administrative units in China is very complex. Units change names and sizes, and each time they do, CBDB assigns a new address ID. The user cannot be expected to be fully aware of the history of each administrative unit. Therefore CBDB provides one additional option in searching by place, called **Use XY References**.
    In CBDB, each administrative unit like a prefecture or a county is assigned a pair of longitude-latitude reference coordinates. In some cases at present, these coordinates are for the centroid of the polyhedron that defines the boundaries of the unit. But because CBDB is shifting away from relying on such polyhedrons (because in many instances we do not have accurate enough data), in many other cases, CBDB uses the reference coordinates of the city that is the administrative center for the unit.
    CBDB allows the user to search using the coordinates assigned for the selected units so that all units whose coordinates are within 0.03 degrees in longitude and latitude (which corresponds to a bit more than two kilometers) from the selected units also will be included in the search. Thus one can specify a code for Putian county in Quanzhou for the Tang and Five Dynasties, for example, and search for people throughout the rest of Chinese history:
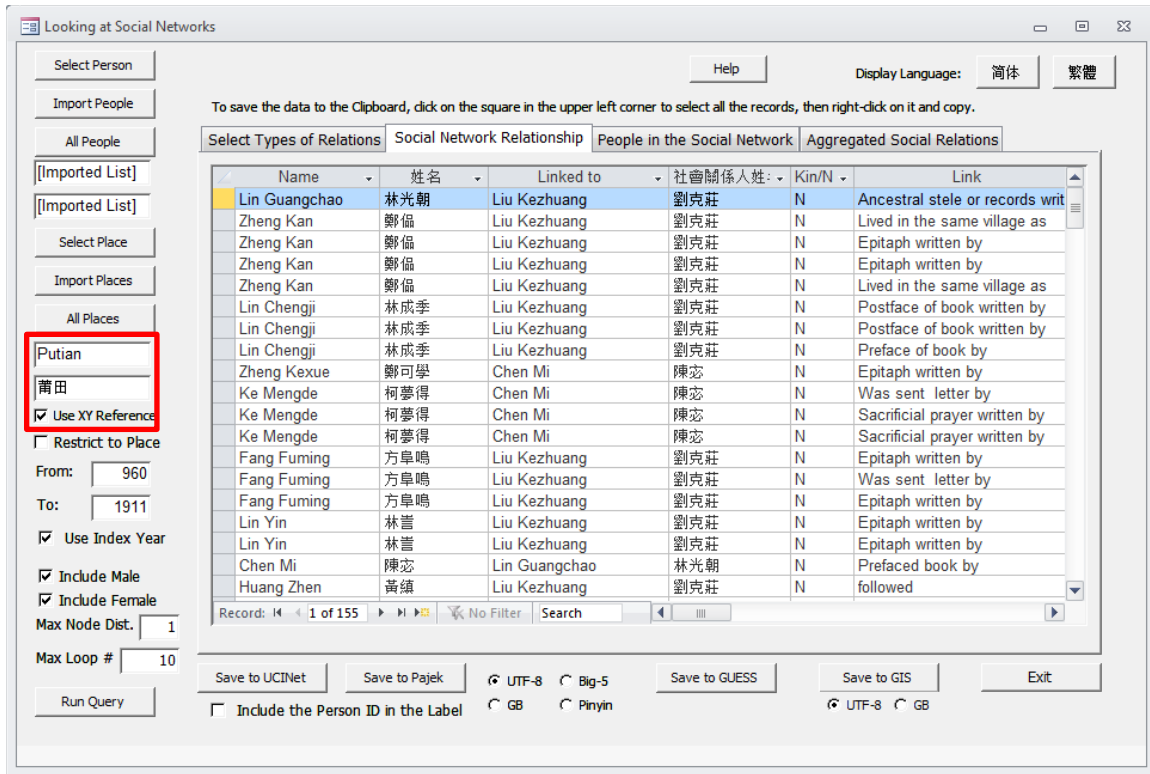
Using the Tang dynasty code for the county, with **Use XY References** enabled, produces 155 association. The earliest index year is 1173.

## 10. *Restrict to Place* Checkbox

Unless one clicks the **Restrict to Place** check box, the selection of a place or list of places *only influences the first step* of locating an initial group of people around whom to build a social network. After the first round of locating people with a connection to the specified place(s), CBDB lifts the restriction on place as it looks for the selected types of associations involving the people found in the first, place-restricted search.

If one uses both people and place as the starting point for a query, CBDB looks for people from the specified place who had connections to the selected person or group of people that matched the categories of association specified for the search.

To limit associations *strictly to people from the designated place(s)*, one check the **Restrict to Place** checkbox.

## 11. *From & To Years* Text Boxes

One uses these text boxes to fill in the beginning and ending years for the *index years* of people to be considered for the search. (See the discussion of index years below.)

## 12. *Use Index Years* Checkbox

A person's *index year* is when the person would have turned 60 (Western years) or when the person died, if it is known and less than 60. In many cases, CBDB does not have

information about birth year or death year and must generate estimated index years based on other criteria.  (Please see the discussion of these criteria in the User's Guide.)  However, it remains the case that there are many people to whom CBDB was not able to an index year.  *These people cannot be included in any search that uses index years to filter the results*.  Therefore it may prove useful to perform a search once with the specified target years active and another with **Use Index Years** disabled.

### 13.  *Select Male and Female* Check Boxes

There may be time when one wants to restrict associations (kinship or social) based on females, or one may want to examine networks strictly among women.  **LookAtNetworks** allows the user to select these options.

### 14.  *Maximum Node Distance* Text Box

The *node distance* is simple the number of associations one must traverse to get from an iteratively added person back to the initially selected person (people) or the group of people identified by the initial search when there was no initial list of people.

A node distance of *one* produces what is called an *ego net*, the list of all the people directly associated with the initially selected person or people and all the connection among those associate people.

The number of people found by the search procedure can grow exponentially with the increase in node distance.  It is a good practice to start conservatively.  CBDB sets a default value of 3.

### 15.  *Maximum Loop Number* Text Box

The search in this form works by using the results from one round of searches as the basis for a next round until there are no more associations within the specified node distance from the initial target(s).  When the search produces no additional results, it stops.  As a general rule, one needs to set the maximum number of time the search loops through the data to whichever is greater:  the *maximum node distance + 1*, or the *sum of the kinship distance constrains*. (See below for a discussion of the kinship parameters.)

### 16.  *Run Query* Command Button

When one has set all the desired constraints, one clicks on **Run Query** to perform the search.

### 17.  *Select Types of Non-Kinship Relations*

(a) **Include Non-kin** Checkbox

**LookAtNetworks** allows the use to mix kin and non-kin networks for people and places, and it allows the user to decide what networks to explore.  If one wants to look

simply at kinship networks, one can uncheck the **Include Non-kin** checkbox. In that case, the non-kin categories become disabled.

(b) **Non-kin Categories** Checkboxes

Because there are many, many categories of non-kinship relationship, most of which are of little importance in a particular query, one can limit the search to selected large groups of associations. These are:

> Friendship
> Family
> Religion
> Finance
> Medicine
> Military
> Scholarship
> Politics
> Writing

The last four types of non-kin associations have further selectable subdivisions. "Military" has two, "Scholarship" seven, "Politics" six, and "Writings" nine. One can mix the types of associations as one wishes. Once selected, these limits to the range of associations remain active through the entire search process.

## 18. Kinship Parameters

(a) **Include Kin** Checkbox

At times one wants to look at the aggregate of all social networks for a person or place, but at others, one wants to look just at kinship networks or just at particular types of networks of social associations. **LookAtNetworks** allows one to turn these two options on and off. To turn off including kinship relations, one unchecks the **Include Kin** checkbox.

(b) **Kinship Distance Parameters** Text boxes

Kinship distance in CBDB is measured by a set of parameters:

**Max. Ancestor Gen.** specifies how many generations of ancestors to include. One's father's generation is 1; the grandfather is 2, great-grandfather 3, and so on.

**Max. Descend. Gen.** specifies how many generations of descendants to include. One's children's generation is 1, grandchildren 2, great-grandchildren 3, and so on.

**Max. Collateral Kin** limits how many horizontal moves are allowed. For example, one's wife's sister has one unit of "marriage" distance and one unit of "collateral" distance. One's wife's sister's husband's brother has two units of "marriage" distance and two units of "collateral" distance.

**Max. Marriage Dist.** limits how many links defined by marriage are allowed in the search. One's wife's sister's husband has two units of "marriage" distance.

To visualize these distinctions, consider the partial kinship network:
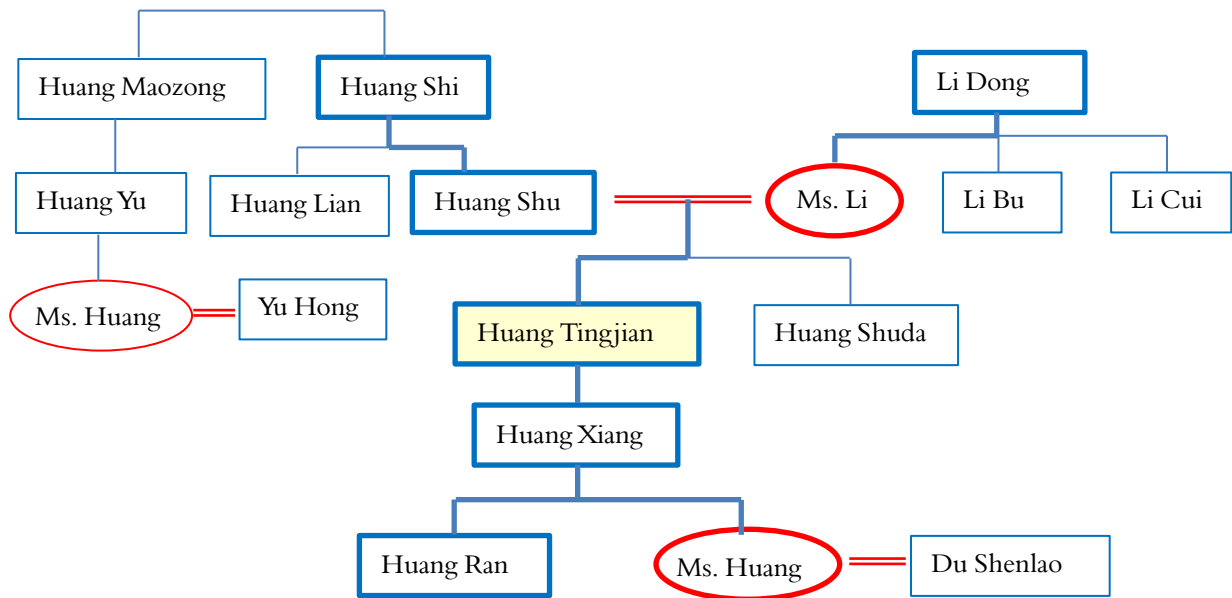


For Huang Tingjian, the squares and ovals with thick lines show direct lineal descent (fathers and mothers, sons and daughters).  The double lines are marriage links.  All other single lines mark collateral relations.  In the measurement system used in LookAtKinship:

| | | |
|---|---|---|
| Huang Yu 黃育 | is FFBS | (Up = 2, Down = 1, Collateral = 1) |
| Yu Hong 余宏 | is FFBSDH | (Up = 2, Down = 2, Collateral = 1, Marr. = 1) |
| Li Cui 李萃 | is MB | (Up = 1, Collateral = 1, Marr. = 1) |
| Du Shenlao 杜莘老 | is SDH | (Down = 2, Marr. = 1) |

One controls the range of relations one wants to include in a search by setting these kinship distance parameters.

(c) Kinship Terms

The building-block relations used to describe kinship are 9 basic categories:

| | | |
|---|---|---|
| *e* | Ego (the person whose kinship is being explored) |
| F | Father |
| M | Mother |
| B | Brother |
| Z | Sister |
| S | Son |
| D | Daughter |
| H | Husband |
| W | Wife |
| C | Concubine |

There are also variations on the nature of the relationship, as well as additional types of notation to represent types of kinship relations beyond the nuclear family:

| | |
|---|---|
| + | Older (e.g. older brother B+, 兄) |
| - | Younger (e.g. younger sister Z-， 妹) |
| ★ | Adopted heir ( as in S★, adopted son) |
| ° | Adopted |
| ! | Bastard |
| ^ | Step- (as in S^ step-son) |
| ½ | half- (as in Z½ , half-sister) |
| ~ | Nominal (as in M~ , legitimate wife as nominal mother to children of concubine) |
| % | Promised husband or wife (marriage not completed at time of record) |
| y | Youngest (e.g., Sy is the youngest known son) |
| 1, 2, 3… | Numbers distinguish sequence (e.g., S1, S2 for first and second sons; W1, W2 for the first and the successor wives) |
| n | precise generation unknown |
| G-#, G+# | lineal ancestor (–) or descendant (+) of # generation |
| G-n, G+n, Gn | lineal kin of an unknown earlier generation (G-n), or unknown later generation (G+n), or unknown generation (Gn) |
| G-#B, BG+# | a brother of a lineal ancestor of # generation; a brother's lineal descendant of # generation |
| K, K-#, K+#, Kn | Lineage kin, of the same, earlier (–), later (+) or unknown (n) generation. CBDB uses "lineage kin" for cases where kinship is attested but the exact relationship is not known. Lineage kin are presumably not *lineal* (direct descent) kin. |
| K–, K+ | Lineage kin of the same generation, younger (-) or elder (+). |
| P, P-#, P+#, Pn | Kin related via father's sisters or mother's siblings, of the same, earlier (–), later (+) or unknown (n) generation. Signified by the term *biao* (表) in Chinese. (CBDB uses these codes only when the exact relationship is not known). |
| P–, P+ | Kin related via father's sisters or mother's siblings, of the same generation, younger (-) or elder (+). |
| A | Affine/Affinal kin, kin by marriage |

(d) **Use Kinship Parameters** Checkbox

If one wants to treat distance for kinship just as one treats distance in non-kinship associations (i.e. as simply the number of steps need to reach a person), one can turn off the use of the CBDB kinship distance parameters by unchecking the **Use Kinship Parameters** checkbox.

## 19. *Social Network Relationship* Table

(a) Overview

The search routine produces three different tables. The first is the **Social Network Relationship** table. This table lists all the relevant association records as they appear in the data source tables. If two people are linked by a variety of different associations, this table lists all of these associations as separate records. The next is **People in Social Network**, a table listing all the people involved in the associations listed in the **Social Network Relationship** table. Finally, there is **Aggregated Social Relations** table that groups the all the associations between each pair of people into a single record. (See the separate entry below for details.)

(b) Structure of the **Social Network Relationship** Table

This table has thirty columns:

> *Basic Biographical Information:*
>> ID of Person
>> Name of Person (*pinyin* and Chinese)
>> Index Year of Person
>> Sex of Person
>> Address of Person (*pinyin* and Chinese)
>> Address Type (English and Chinese)
>> XY-Coordinates of Address
>>
>> Node ID:  ID of Associate
>> Node Name:  Name of Associate (*pinyin* and Chinese)
>> Node Index Year:  Index Year of Associate
>> Node Sex:  Sex of Associate
>> Node Address:  Address of Associate (*pinyin* and Chinese)
>> Node Address Type:  Address Type of Associate Address (English and Chinese)
>> Node XY:  XY-Coordinates of Associate Address
>
> *Information on the Association*
>> Kinship/Non-kinship Association (**K** or **N**)
>> Association (English and Chinese)
>> Association Count (e.g., if X wrote Y ten letters with the same title, Count =10)
>> Text Title (if an association is through a known text, CBDB gives the title)
>> Association Node Distance
>> Notes
>> Geographic Distance (great-circle arc distance in kilometers between the addresses)

(c) Sorting the Table

One can **sort** the table using any of these columns. "Index Year," for example, may be useful. *Left-Click* on the small triangle (▼) on the right in the column name of the desired column and then choose the sorting option (either smallest to largest or largest to smallest):
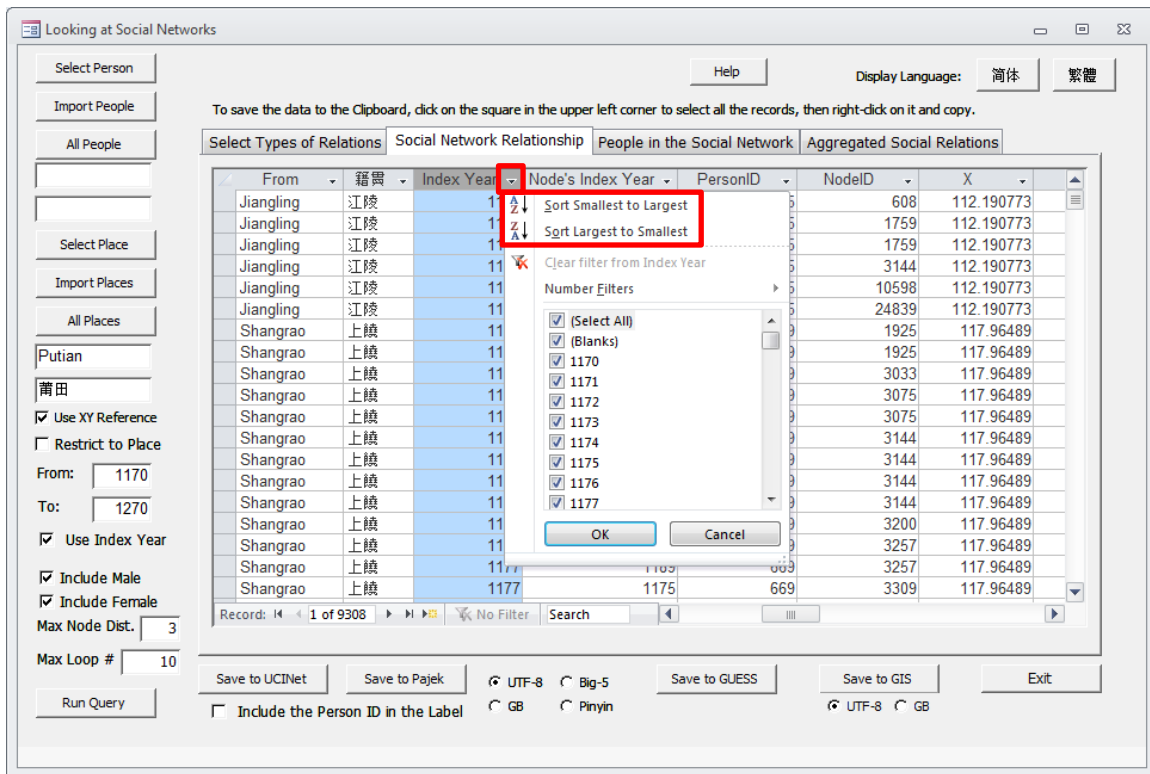
(d) Exporting the Search Results

If one wishes to export the results of a search, one can click on the square in the upper left-hand corner of the table to select all the records in the table:
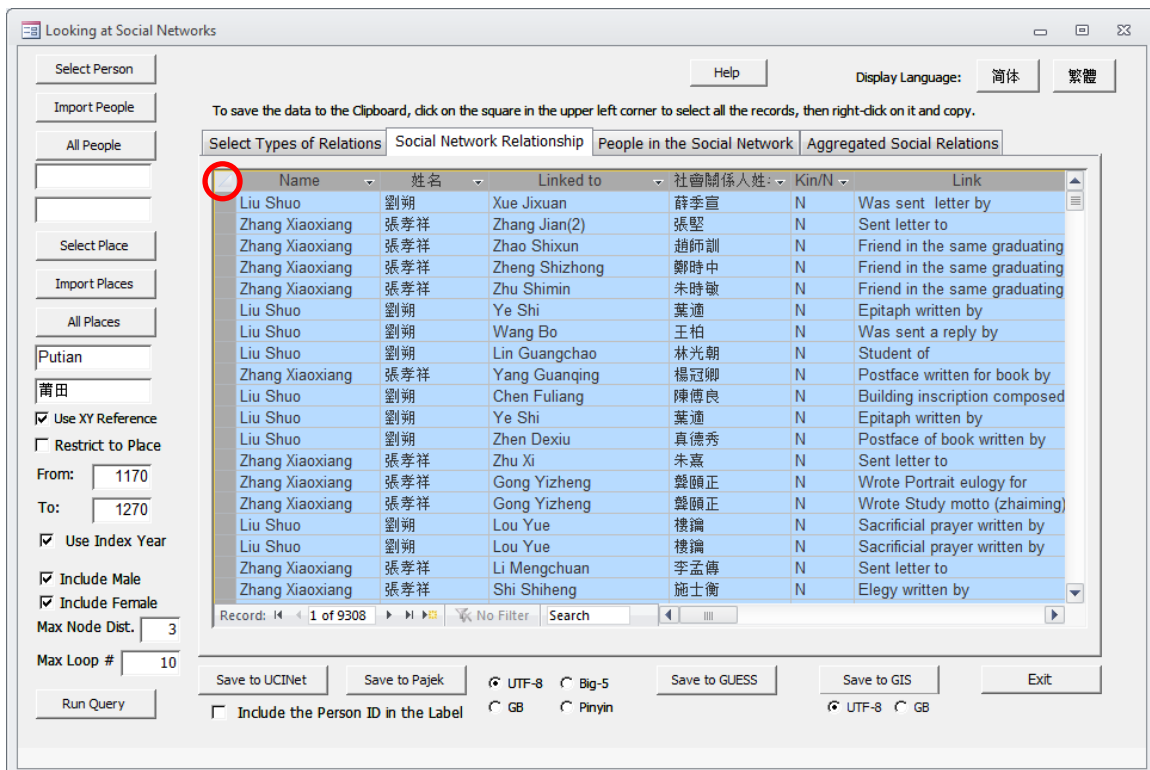
One can then copy the table in the usual manner (**Ctrl-c**), open **Excel** (or any other compatible *spreadsheet* software) or create a new *text* file and open it with **Notepad** (or any preferred software) and paste the results (**Ctrl-v**).

One also can select a specific block of records to copy by left-clicking on the left-hand column of the table, holding the mouse-button down and dragging to copy the block. Here all the records with Fang Xinru in the first column are selected:



Once one has selected the desired records, one use **Ctrl-c** to copy and **Ctrl-v** to paste into a text file, an Excel spreadsheet, or another compatible file.

## 20. *People in Social Network* Table

(a) Overview

The **Social Network Relations** table lists 9,308 non-kinship relations beginning with all people from Putian 莆田 with index years between 1170 and 1270, with a node distance of 3. The **People in Social Network** table then lists all the 2,601 people involved in these 9,308 associations:

(b) Structure of the Table

**People in the Social Network** has fourteen columns:

> Name (*pinyin* and Chinese)
> Female (a checkbox)
> Index Year
> Address ID
> Address (*pinyin* and Chinese)
> XY-Coordinates of Address
> ID
> Node distance (from the initially selected person or persons)
> XY Count:  the number of people sharing the same XY coordinates
> Address Type (English and Chinese)

## 21.  *Aggregated Social Relations* Table

(a) Overview

Many of the pairs of people in the list of associations in **Social Network Relationship** have more than one relationship between them.  When the number of records becomes large, it often is useful to aggregate the different relations between individuals into just one record, so CBDB also produces a table in the **Aggregated Social Relations** tab with just one record for each pair of people that gives the

number of relations between them. Note that the 9,308 record in **Social Network Relationship** reduce to 5,016 records in **Aggregated Social Relations**:
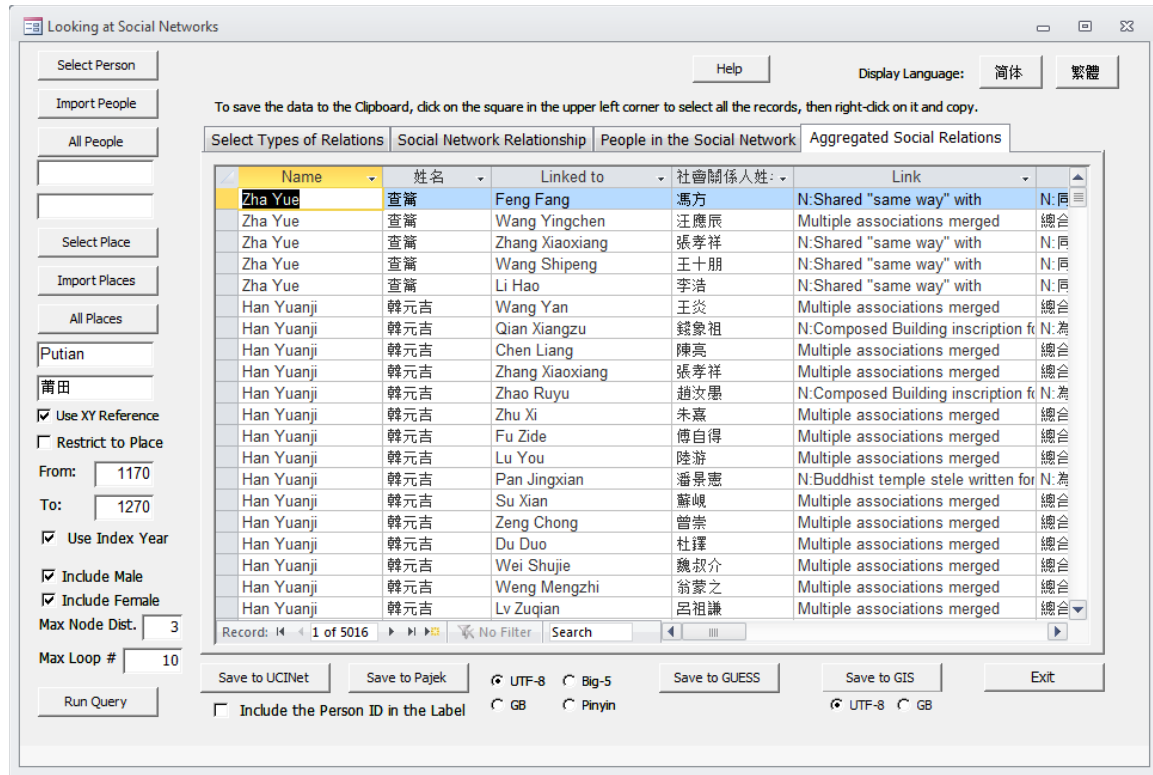


Note that the columns labelled "Link" and "聯繫" either have the initial association, if there was just one record for an association between a pair of people, or it notes "Multiple associations merged." These distinct associations are available in the **Social Network Relationship** table.

(b) Structure of the Table

This table has twenty-five columns:

*Basic Biographical Information:*
> ID of Person
> Name of Person (*pinyin* and Chinese)
> Index Year of Person
> Address of Person (*pinyin* and Chinese)
> Address Type (English and Chinese)
> XY-Coordinates of Address

> Node ID: ID of Associate
> Node Name: Name of Associate (*pinyin* and Chinese)
> Node Index Year: Index Year of Associate
> Node Address: Address of Associate (*pinyin* and Chinese)
> Node Address Type: Address Type of Associate Address (English and Chinese)
> Node XY: XY-Coordinates of Associate Address

*Information on the Association*
    Association (English and Chinese)
    Association Count (the sum of all the *Count* values for the aggregated records)
    Association Edge Distance (this is the *minimum* distance needed to be traversed)
    Geographic Distance (great-circle arc distance in kilometers between the addresses)

## 22. *Save to UCINet* Command Button

**LookAtNetworks** provides ways to output the results of a query to three different
SNA programs:  **UCINet**, **Pajek**, and **GUESS**.   UCINet is one of the most widely
used format for social network analysis (SNA) programs.  The procedure for saving the
network relations for a person in UCINet form is to click on the **Save to UCINet**
button opens a Windows "File Save" window:
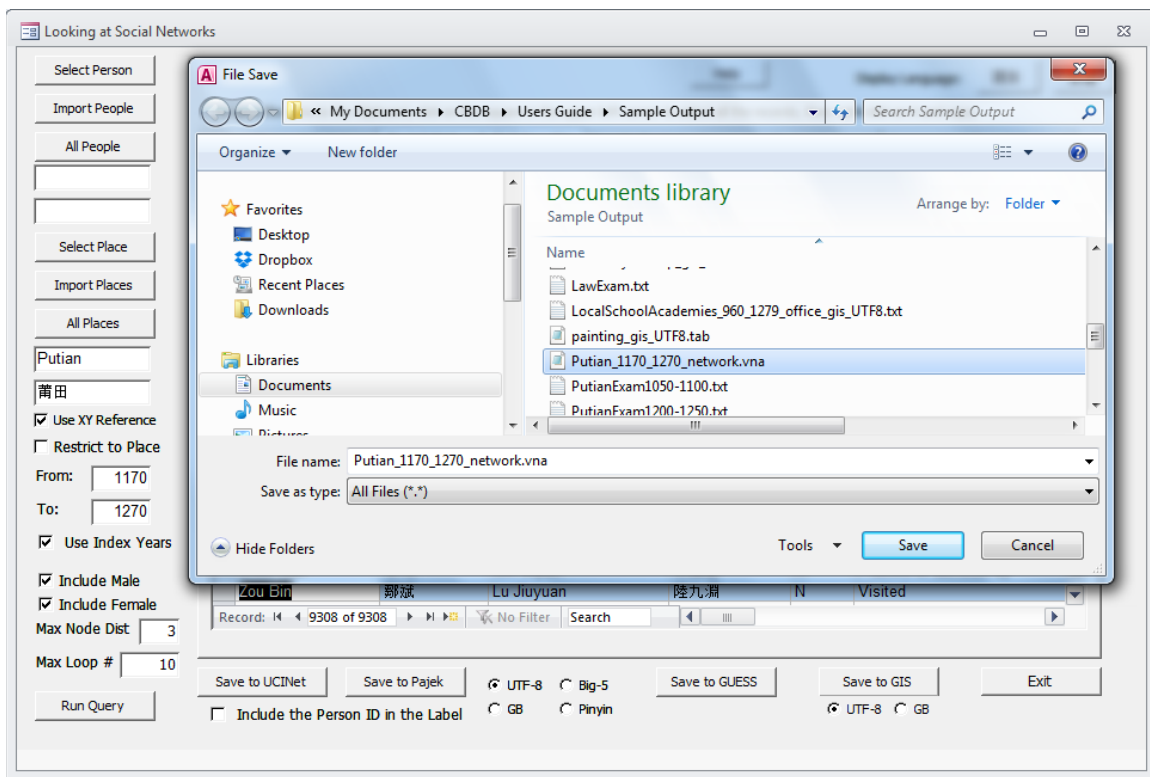


One selects the location and provides a file name (the default extension is **.vna**) and
clicks on the Save button.  For UCINet, CBDB provides the following information:

    For nodes (people)
        CBDB Person ID
        Name in *pinyin*
        Index year
        Sex
        Node distance from target person
        XY coordinates
        Node color (based onnode distance)
    For edges (the association relationship)
        Association code (K+code or N+code)

The default display for nodes in the SNA output files (and for edges in Pajek and Guess) uses color-coding to indicate degree of distance from the target person:

White = the target node (the UCINet files set these to Black)
Blue = nodes at a summed distance of 1
Green = nodes at a summed distance of 2
Orange = nodes at a summed distance of 3
Yellow = nodes at a summed distance of 4
Red = nodes at a summed distance of 5 or more

## 23. *Include Person ID in Label* Checkbox

Because a person's name may not be a unique identifier in the SNA output files, CBDB allows the user to include the CBDB person ID in the label of the nodes as well as the name. Checking the **Include Person ID in Label** Checkbox enables this function

## 23. *Save to Pajek* Command Button

Pajek (along with UCINet) is perhaps the most broadly used SNA file format. CBDB allows files for Pajek to be saved in different text encodings to enable the use of Chinese characters. Depending on whether the user is in a Chinese Windows environment or an English will determine whether to use GB18030 (Chinese) or UTF-8 (English) encoding for the Chinese characters. As noted above, there also is an option to include the *Person ID* with the node information in the Pajek files. Once the user has selected the appropriate options and clicks on **Save to Pajek**, a window will open for the user to choose the name and location of the Pajek file. The default extension is ".net:"
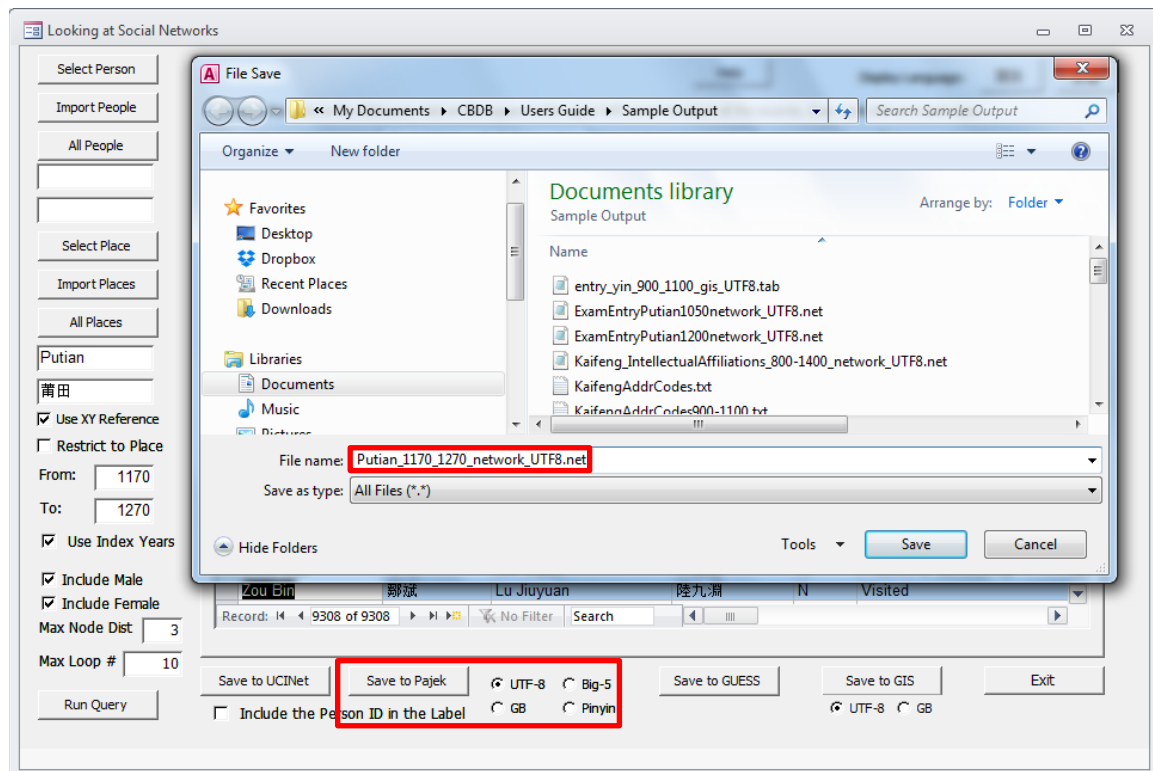
The information saved in a Pajek file is more limited than for either GUESS or UCINet:

> For the nodes (people)
> > Name in Chinese **or** *pinyin*, depending on one's selection
> > Node color based on node distance from target person
> > CBDB Person ID, if selected
> For the edges (relationships)
> > Association
> > Edge color based on edge distance from target person (or people)

## *24. **Save to Guess** Command Button*

Since association data provides a social network linking the groups of people connected by the category of association being examined, one can save the network for analysis in the Guess format by clicking on the **Save to Guess** button. The Guess format is another standard format for SNA programs, and other programs can read it and convert it into their formats.

Clicking on the **Save to Guess** button opens a standard Windows "File Save" window. When one has decided where to save the file and what to call it (note that the default file extension is **.gdf**) and clicked Save, CBDB writes the file.

The GUESS file includes the following fields:
> For the node (the person)
> > Name (*pinyin* and Chinese)
> > Index year
> > Sex
> > Node distance from selected person(s)
> > Node color (based on the node distance)
> For the edge (the relationship between people)
> > Association (Chinese and English)
> > Edge color (based on the edge distance from the target people)

## *25.    **Save to GIS** Command Button*

Data on association have a geographic component and may reveal significant geographic patterns of distribution that shift over time. In order to allow the user to explore this geographic component, CBDB exports the GIS (Geographic Information Systems) data to a commonly used file format (tab-delimited text) that can be imported into such programs as ArcGIS and QGIS.

Depending on whether the user is in a Chinese Windows environment or an English will determine whether to use GB18030 (Chinese) or UTF-8 (English) encoding for the Chinese characters. When **LookAtNetworks** saves the file, the record for each person includes the following fields:

Name (Pinyin and Chinese)
Sex
Index Year
Node distance
Place Name (Pinyin and Chinese)
XY coordinates
XY count (the number of people in the table who share the same coordinates)

To save the data to a GIS file, select the appropriate encoding and click on **Save to GIS**. This will open a standard Windows "Save-to" window. Note that the default extension is ".tab" and if the user gives the file a different extension, CBDB will automatically append ".tab" to the file name.
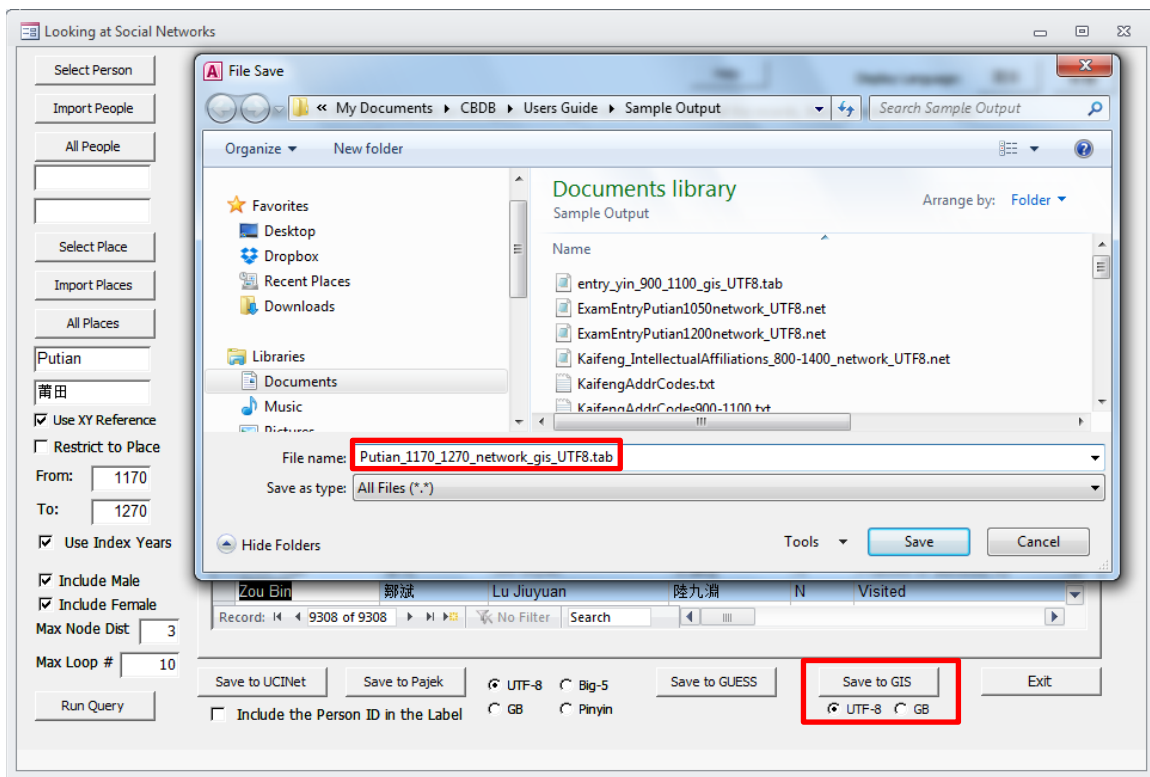


## 27. *Help* Command Button

The **Help** command button opens this file.

## 28.   *Display Language* **Command Buttons**

Note that all of the forms have the option to switch the display labels among English, traditional or simplified Chinese. When one click on the "繁體" command button, all the form labels switch to traditional Chinese text (except those that are parts of bilingual pair, like "Name" and "姓名" in the table of results), and the button gives one the option to return to English:

查看社會網絡

幫助　　　顯示語言：　简体　English

選擇人名
輸入人名
所有人物

希望將數據保存到剪貼板，請首先點擊左上角的小方塊以選中所有記錄，然後單擊鼠標右鍵，在彈出的快捷菜單欄中選擇「:

選擇社會關係類別 | 社會網絡 | 社會關係人 | 總合多種社會關係

選擇地名
輸入地名
所有地名

Putian
莆田

☑ Use XY Reference
☐ Restrict to Place

始年： 1170
終年： 1270

☑ 利用指數年

☑ 包括男性
☑ 包括女性

距離限制　3
循環數限制　10

查詢

| Name | 姓名 | Linked to | 社會關係人姓： | Kin/N | Link |
|---|---|---|---|---|---|
| Fang Ren(2) | 方壬 | Zhu Xi | 朱熹 | N | Was sent  letter by |
| Fang Ren(2) | 方壬 | Zhu Xi | 朱熹 | N | Was sent a reply by |
| Fang Ren(2) | 方壬 | Zhu Xi | 朱熹 | N | Menren of |
| Fang Ren(2) | 方壬 | Zhu Xi | 朱熹 | N | Directly recruited (bi, zoubi) by |
| Fang Ren(2) | 方壬 | Zhu Xi | 朱熹 | N | Directly recruited (bi, zoubi) by |
| Fang Shenquan | 方審權 | Wang Mai | 王邁 | N | Friend of |
| Fang Shenquan | 方審權 | Wang Mai | 王邁 | N | Building inscription composed |
| Fang Shenquan | 方審權 | Wang Mai | 王邁 | N | Friend of |
| Fang Shenquan | 方審權 | Wang Mai | 王邁 | N | Postface of book written by |
| Fang Xinru | 方信孺 | Fang Wuzi | 方武子 | N | Directly recruited (bi, zoubi, et |
| Fang Xinru | 方信孺 | Han Tuozhou | 韓侂冑 | N | superior was |
| Fang Xinru | 方信孺 | Cai Kan | 蔡戡 | N | Recommended by |
| Fang Xinru | 方信孺 | Qin Gang | 秦綱 | N | subordinate was |
| Fang Xinru | 方信孺 | Cai Kan | 蔡戡 | N | Recommended by |
| Fang Yongzhi | 方泳之 | Zhu Xi | 朱熹 | N | Was sent a reply by |
| Fang Yongzhi | 方泳之 | Zhu Xi | 朱熹 | N | followed |
| Fang Yue(3) | 方岳 | Yu Jie | 余玠 | N | Friend of |
| Fang Yue(3) | 方岳 | Zhao Fan | 趙范 | N | Sacrificial prayer written for |
| Fang Yue(3) | 方岳 | Ding Daquan | 丁大全 | N | Retainer (客) of |

Record: 14  ◄ 1144 of 9308  ► ►I ►⊞  No Filter  Search  ◄ ⁝ IIII

保存: UCINet　保存: Pajek　⦿ UTF-8 ○ Big-5　保存: GUESS　保存: GIS　退出
☐ 在標籤中加入 Person ID　○ GB ○ Pinyin　⦿ UTF-8 ○ GB

## 29. *Exit* Command Button

To close the form, one clicks on the **Exit** command button (or on the ☐ x in the upper right corner)