

KinOath Kinship Archiver

Version 1.1

The kinship archiving software under development by Peter Withers at the Language Archive, MPI, Nijmegen

Introduction

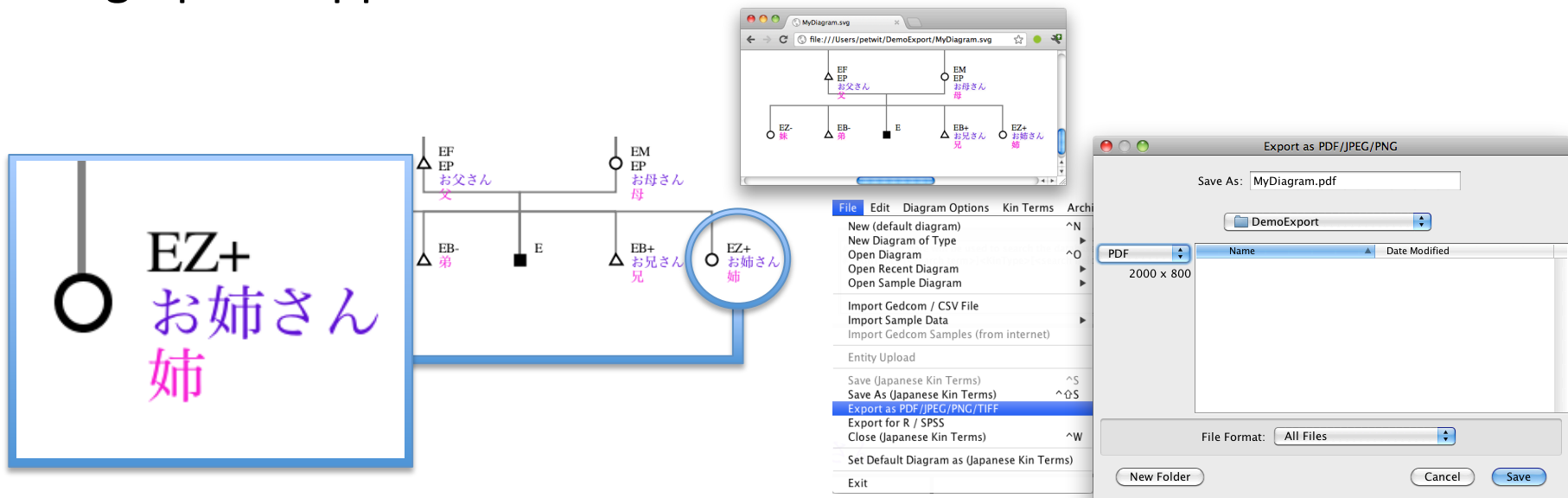
- KinOath Kinship Archiver is a kinship application under development by Peter Withers at the TLA language archive.
- Its primary goal is to connect kinship data with archived data, such as audio, video or written resources while also being closely integrated with the archive software such as Arbil.
- Beyond this goal it is designed to be flexible and culturally nonspecific, such that culturally different social structures can equally be represented.
- This talk will show examples of how the current version of the desktop application can be used and also discuss features that are in development.

Current Release

- The second stable version 1.1 is available.
- The next release 1.2 is in the process of being tested.
- Some features that were previously held back will be available in 1.2 release.
- A short manual is available in the application and on the website.
- The testing version is also available, if you want to experiment with the untested features.
- The changes list is available on the download page.
- The todo list is also available on the download page.
- <http://www.lat-mpi.eu/tools/tools/kinoath>

Publishable Diagrams

- All the diagrams produced are in a scalable vector format of publishing quality
- All diagrams can be exported into PDF format
- The working files are in SVG format that can be opened in graphics applications or viewed in a web browser



28th Feb, 2013

Peter.Withers@mpi.nl The Language
Archive, Max Planck Institute for
Psycholinguistics, Nijmegen

Kin Type String Definitions

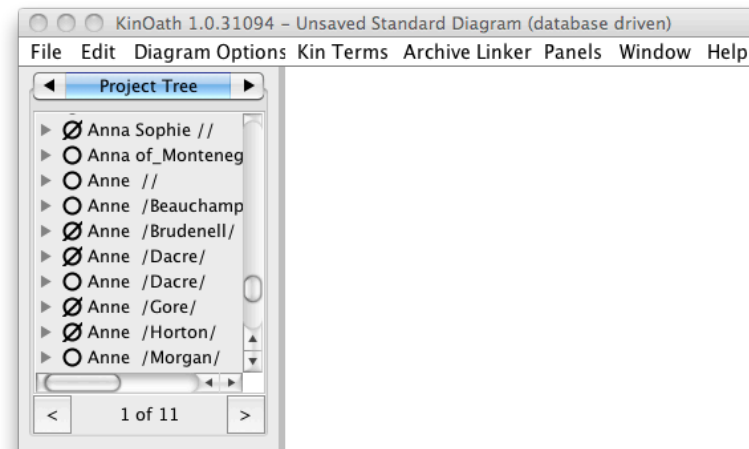
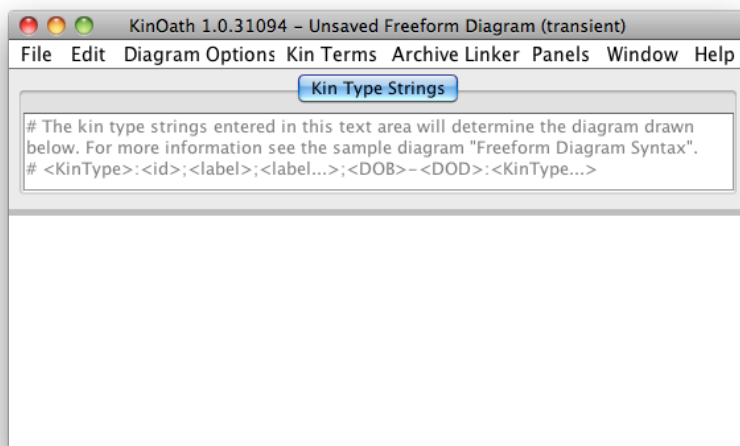
- Kin type strings are used throughout the application
- They are used to search kinship data and to generate diagrams
- These kin type strings can be customized if required
- Each kin type can use any string, any relation type and any symbol
- These kin types are defined and stored in each diagram file
- They can also be stored in the default diagram of the application

| Kin Type String | Relation Type | Symbol Type | Display Name | |
|-----------------|---------------|-------------|--------------|--------------------------|
| Em | none | circle | Ego Female | <input type="checkbox"/> |
| Em | none | triangle | Ego Male | <input type="checkbox"/> |
| Fa | ancestor | triangle | Father | <input type="checkbox"/> |
| Mo | ancestor | circle | Mother | <input type="checkbox"/> |
| Br | sibling | triangle | Brother | <input type="checkbox"/> |
| Si | sibling | circle | Sister | <input type="checkbox"/> |
| So | descendant | triangle | Son | <input type="checkbox"/> |
| Da | descendant | circle | Daughter | <input type="checkbox"/> |
| Hu | union | triangle | Husband | <input type="checkbox"/> |
| Wi | union | circle | Wife | <input type="checkbox"/> |
| Pa | ancestor | square | Parent | <input type="checkbox"/> |
| Sb | sibling | square | Sibling | <input type="checkbox"/> |
| Sp | union | square | Spouse | <input type="checkbox"/> |
| Ch | descendant | square | Child | <input type="checkbox"/> |
| F | ancestor | triangle | Father | <input type="checkbox"/> |
| M | ancestor | circle | Mother | <input type="checkbox"/> |
| B | sibling | triangle | Brother | <input type="checkbox"/> |
| Z | sibling | circle | Sister | <input type="checkbox"/> |
| S | descendant | triangle | Son | <input type="checkbox"/> |
| D | descendant | circle | Daughter | <input type="checkbox"/> |
| H | union | triangle | Husband | <input type="checkbox"/> |
| W | union | circle | Wife | <input type="checkbox"/> |
| P | ancestor | square | Parent | <input type="checkbox"/> |
| G | sibling | square | Sibling | <input type="checkbox"/> |
| E | none | square | Ego | <input type="checkbox"/> |
| C | descendant | square | Child | <input type="checkbox"/> |
| m | none | triangle | Male | <input type="checkbox"/> |
| f | none | circle | Female | <input type="checkbox"/> |
| x | none | square | Undefined | <input type="checkbox"/> |
| * | | | Any Relation | <input type="checkbox"/> |

| | | | |
|---|------------|----------|----------|
| F | ancestor | triangle | Father |
| M | ancestor | circle | Mother |
| B | sibling | triangle | Brother |
| Z | sibling | circle | Sister |
| S | descendant | triangle | Son |
| D | descendant | circle | Daughter |
| H | union | triangle | Husband |
| W | union | circle | Wife |
| P | ancestor | square | Parent |
| G | sibling | square | Sibling |
| E | none | square | Ego |
| C | descendant | square | Child |

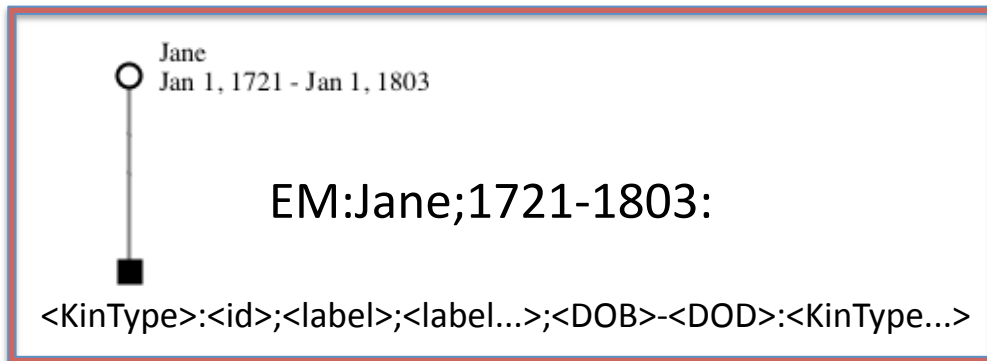
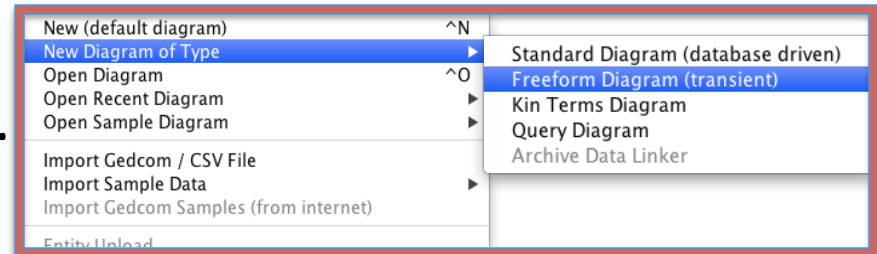
Freeform vs Project Data

- Freeform diagrams have no kinship data records.
- The data only exists on the diagram.
- The kin type strings or kin term definitions are the source data for the diagram.
- Project based diagrams display and query data from the local database.
- There are kin data files for each entity.
- Changes to kin data is reflected on all diagrams using that project data.
- Data can be imported from GEDCOM or CSV.

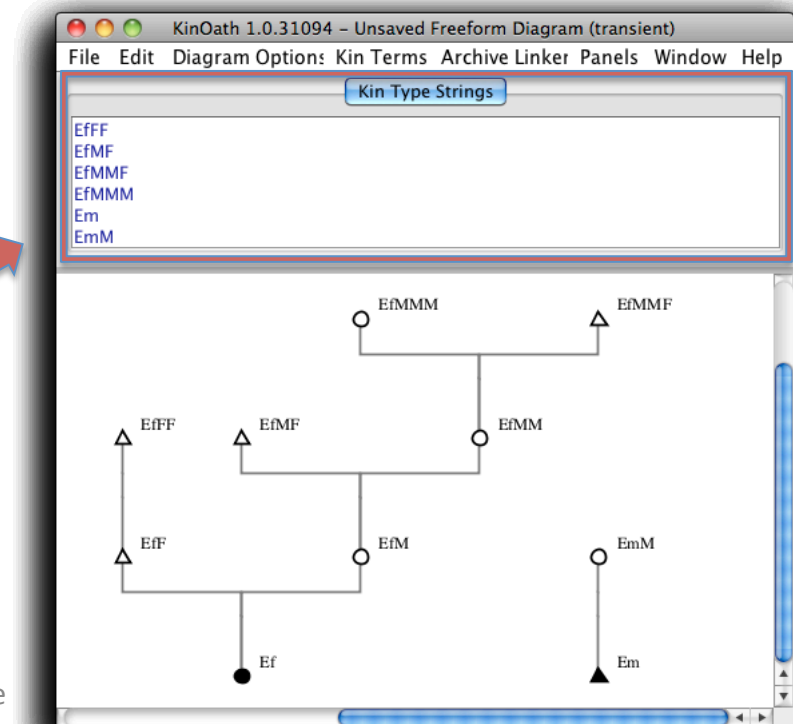


Freeform Diagram

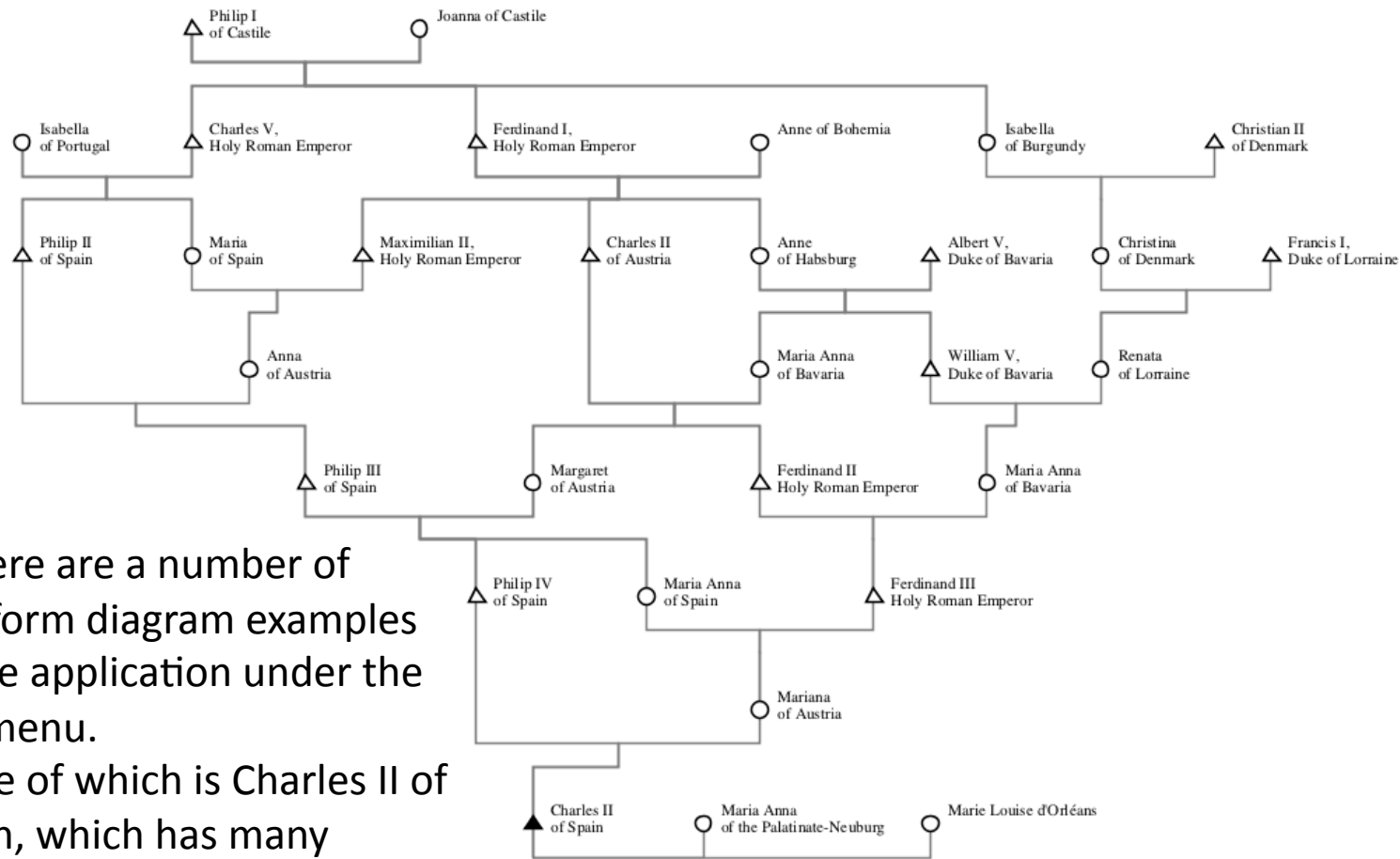
- A “Freeform Diagram” can be started from the file menu.
- Kin Type Strings are entered.
- Names and dates can also be added.



E ego, Em male ego, Ef female ego
 M mother, F father, P parent
 H husband, W wife
 D daughter, S son, C child
 Z sister, B brother



Freeform Example: Charles II of Spain

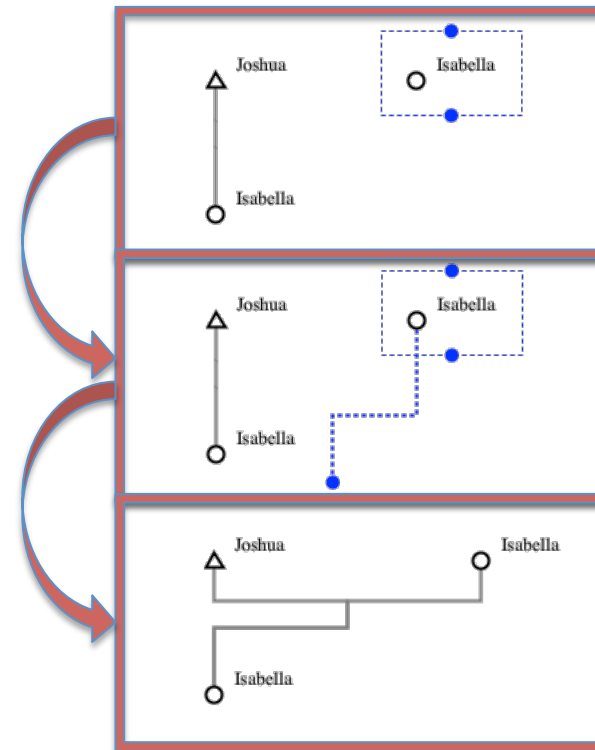
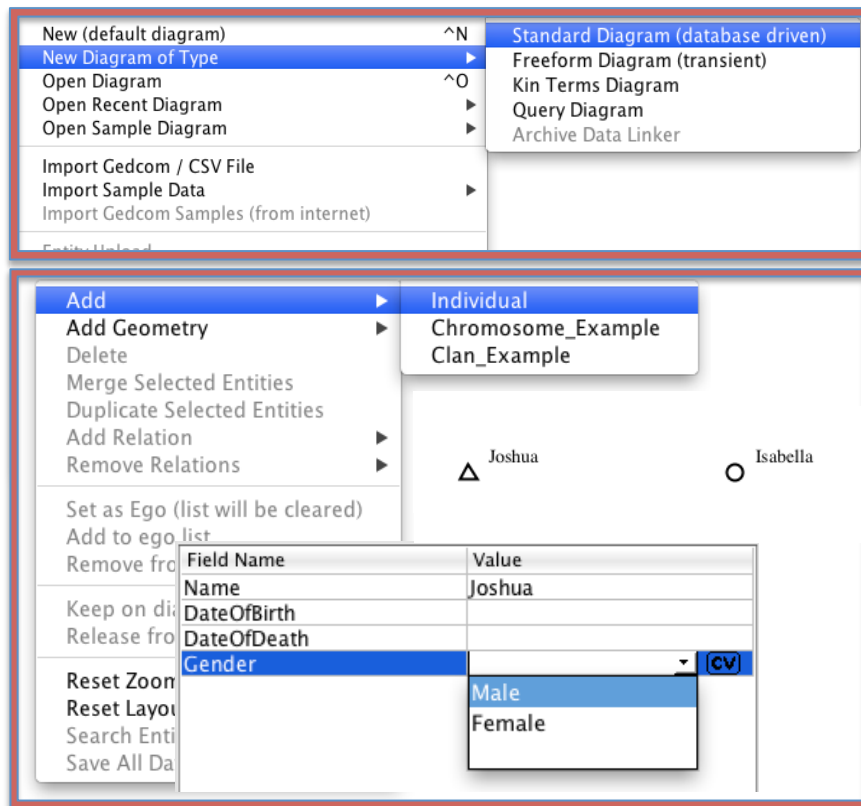


- There are a number of freeform diagram examples in the application under the file menu.
- One of which is Charles II of Spain, which has many matrimonial rings.

28th Feb, 2013

Project Diagrams

- A “Standard Diagram” can be started via the file menu.
- New individuals can be added to the project via the context menu.
- Relations can be added by dragging the blue dots on the selection.

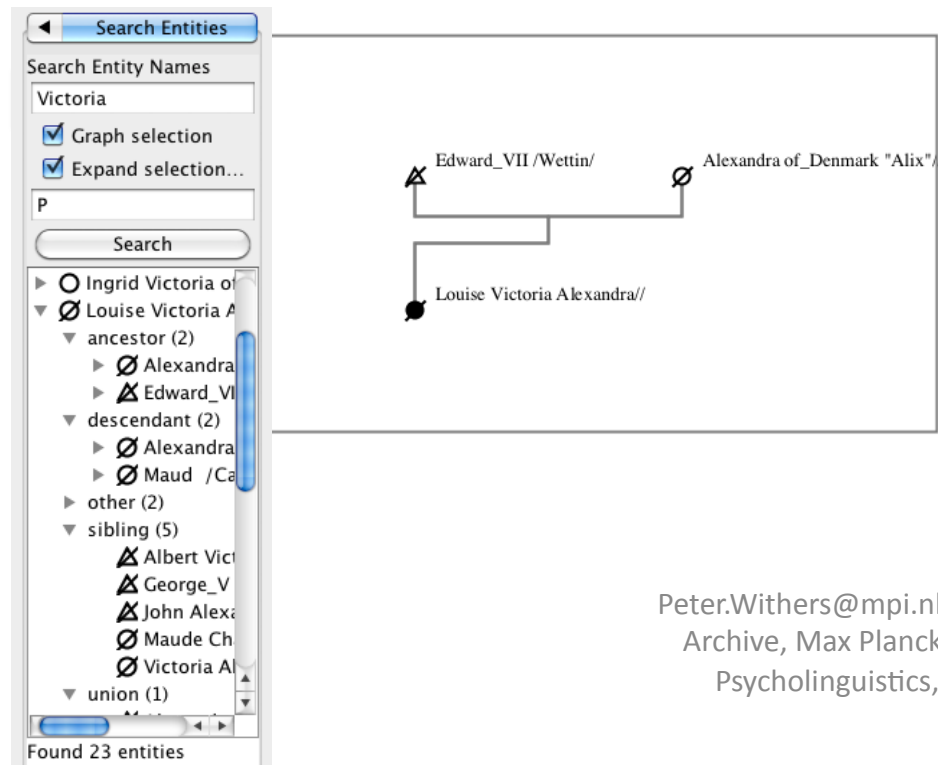


28th Feb, 2013

Peter.Withers@mpi.nl The Language
Archive, Max Planck Institute for
Psycholinguistics, Nijmegen

Project Diagram: Search Tree

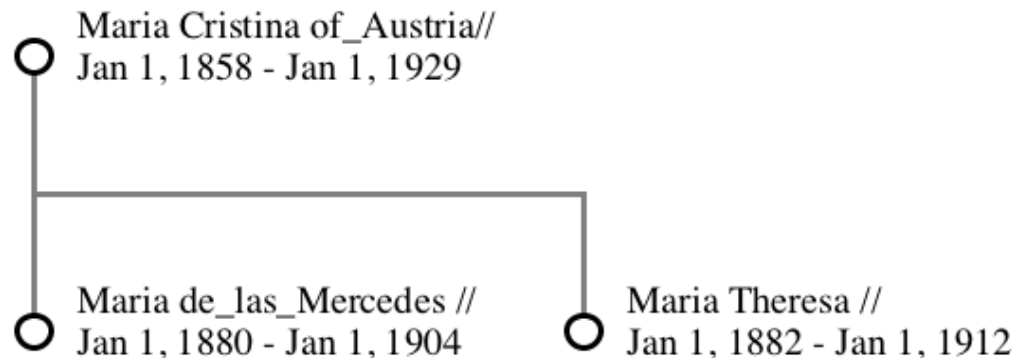
- Free text can be searched with fuzzy matching.
- The selected results can be inspected on the graph.
- The selection can be expanded on the graph by kin type string.
- As the selection changes the graph updated and expanded.
- The tree can also be browsed for immediate relations.



Project Diagram: Kin Type Queries

- Kin type queries are used to retrieve individuals and their relations from the database.
- The kin types following a query will add any matching kin.
- For example the following query returns Maria and her daughters.

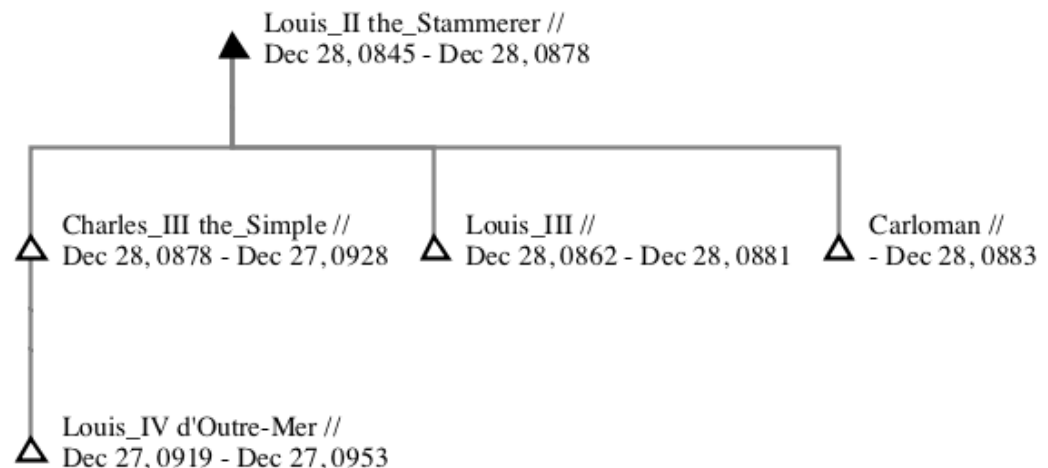
x[Maria Cristina of_Austria]D



Multiple Query Parameters

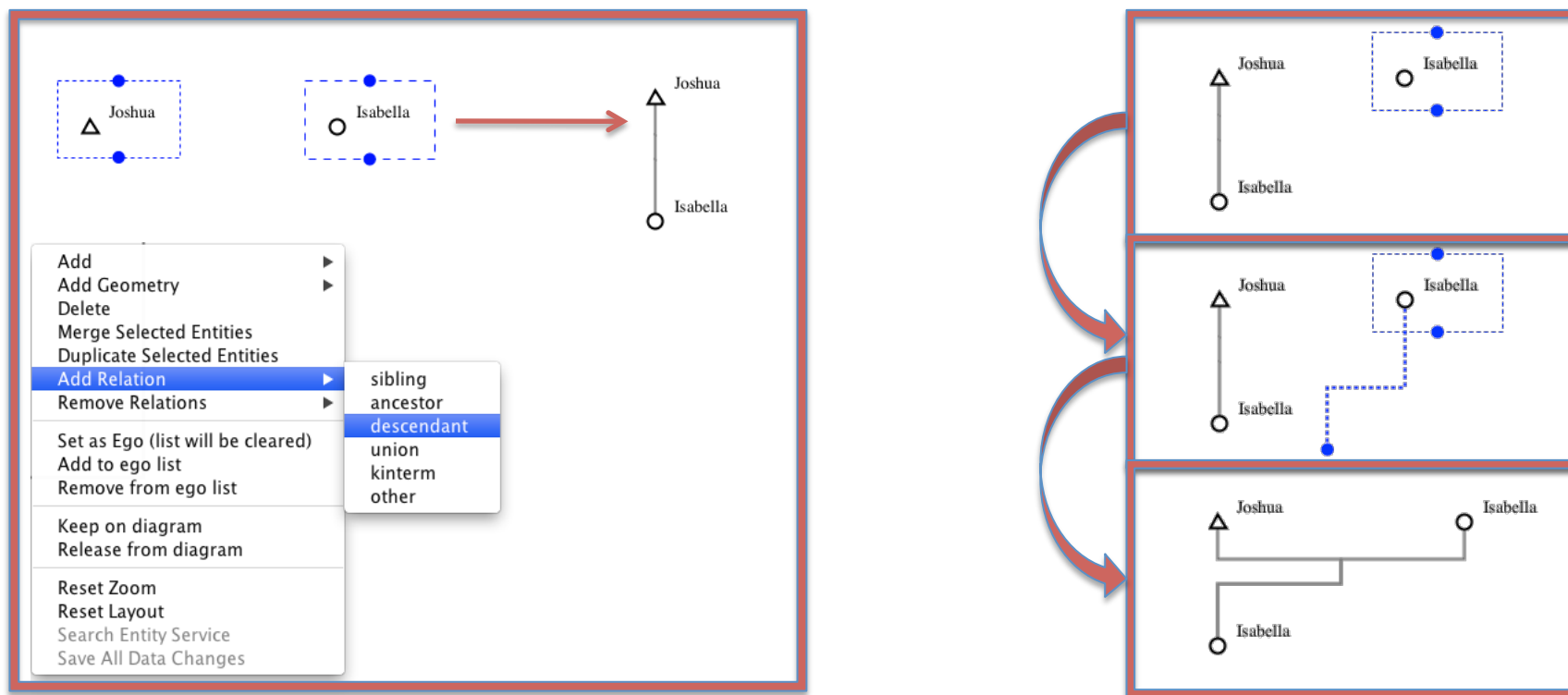
- Multiple queries can be used per kin type.
- Each condition can use:
 - = contains
 - == exact match
 - > greater than
 - < less than

`E[DateOfBirth<0850][INDI.TITL=King of France]CC`



Project Diagram: Creating Relations

- Relations can be added via the context menu.
- Or via the drag handles of the selection.

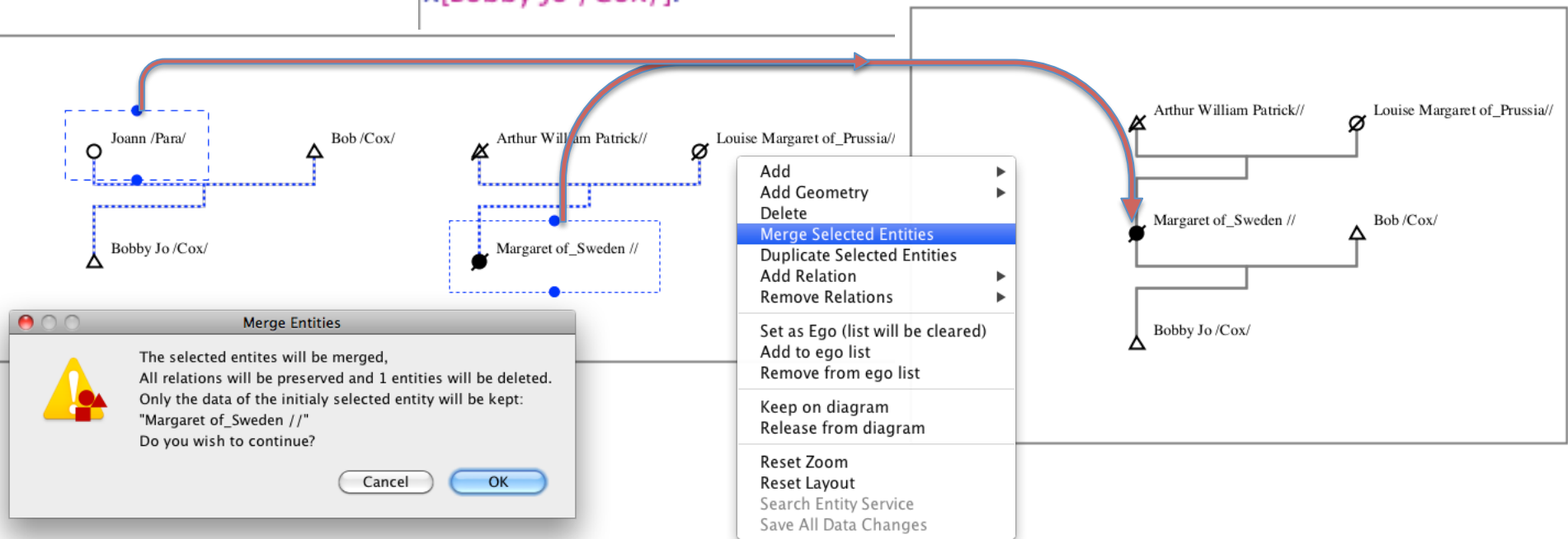


28th Feb, 2013

Project Diagram: Merge Individuals

- When duplicate entries are found individuals can be merged, keeping the relations of both originals.

E[Margaret of_Sweden]P
x[Bobby Jo /Cox/]P

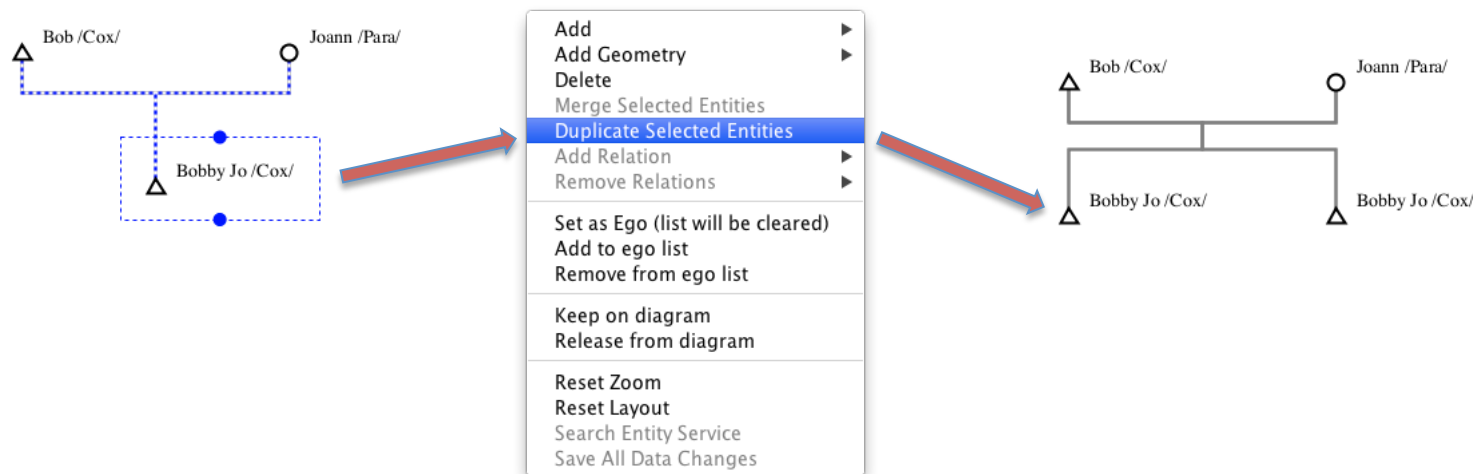


28th Feb, 2013

Peter.Withers@mpi.nl The Language
Archive, Max Planck Institute for
Psycholinguistics, Nijmegen

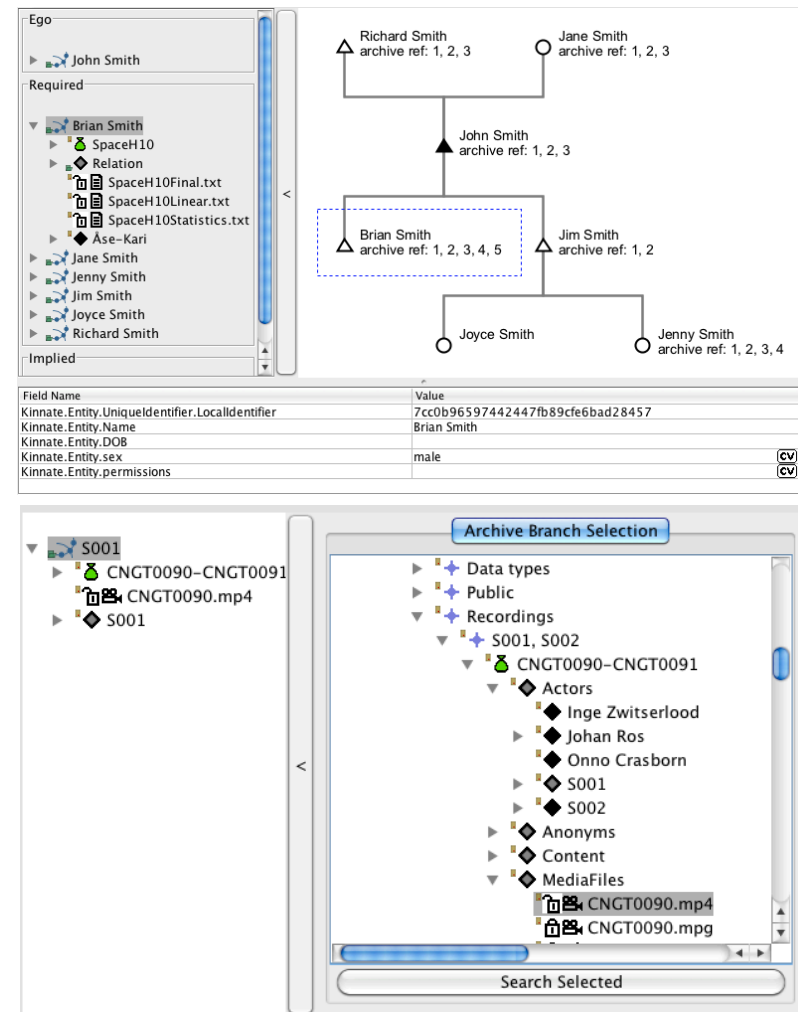
Project Diagram: Duplicating Individuals

- An individual can be duplicated.
- This will duplicate all relations.
- All kin data is also duplicated.



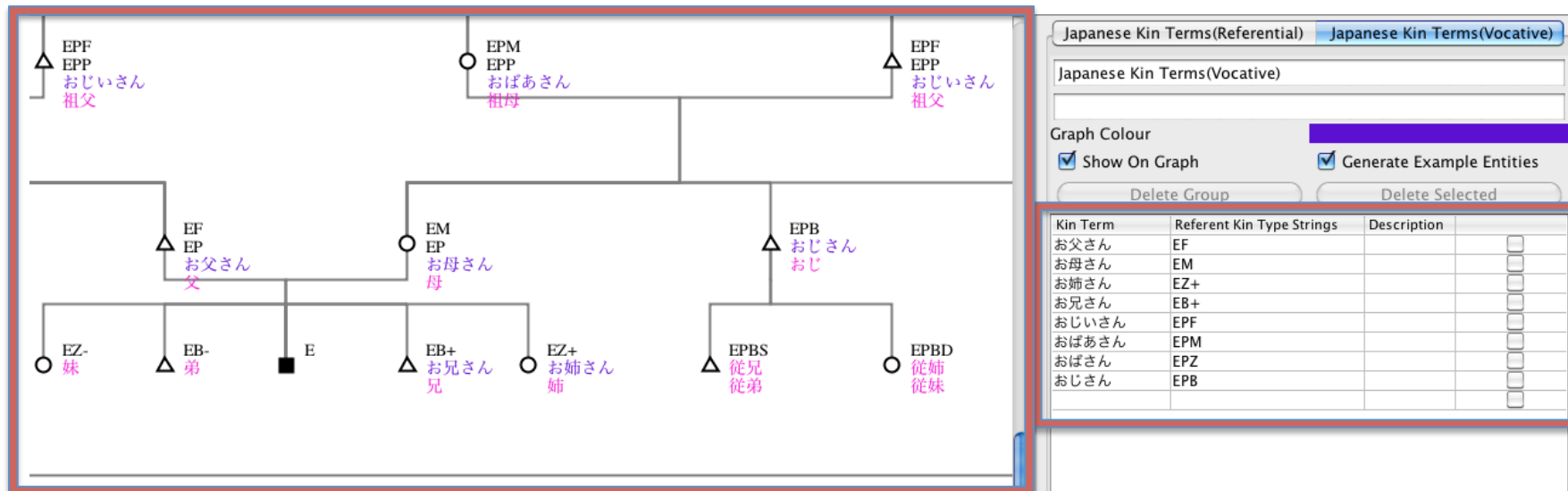
Project Diagram: Archive Linking

- Archive linking features will be extended in the next release.
- The current stable version has many of the linking features held back. This was because a technical agreement needed to be reached on how to persistently link kinship individuals to the archive metadata and data.
- It is also hoped that we will be allocated time to produce a light weight kinship panel for use in other applications, such as Arbil and ELAN.



Kin Term Diagrams

- Kin terms can be entered into a diagram.
- They are defined with kin type strings
- A freeform diagram can be generated from these kin terms.
- They can be imported and exported.
- In the future it will be possible to overlay these kin terms onto a database driven diagram.
- There are a number of example kin term diagrams in the application.



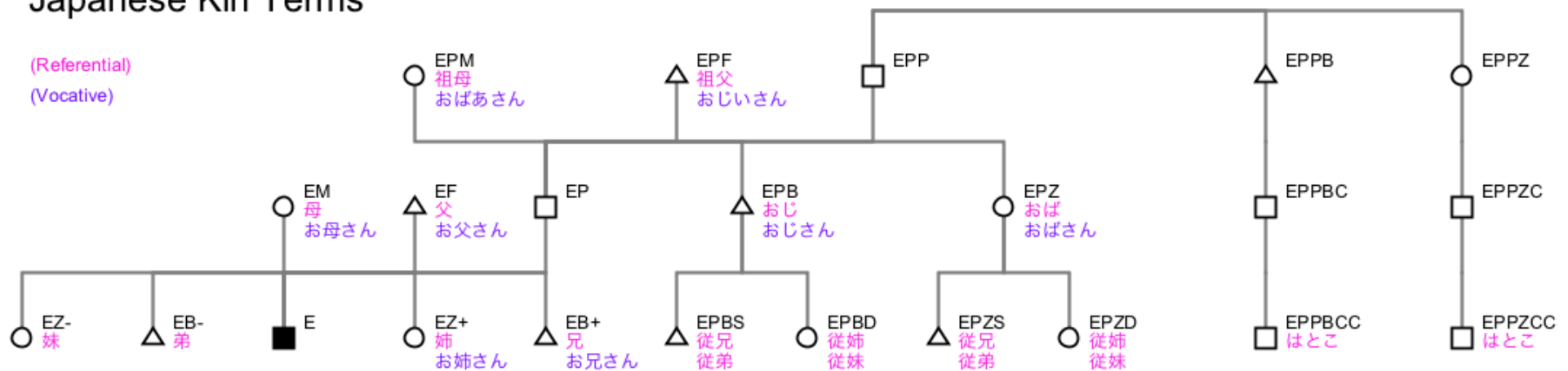
28th Feb, 2013

Peter.Withers@mpi.nl The Language
Archive, Max Planck Institute for
Psycholinguistics, Nijmegen

Comparative Kin Term Diagrams

- Multiple groups of kin terms can be shown on one diagram
- In this case some of the Japanese vocative and referential kin terms are shown on the diagram

Japanese Kin Terms



Data sourced from <http://ja.wikipedia.org/wiki/親族> and subsequent links

Custom Relation Types

- Custom relation types can be defined.
- This can be done in the diagram settings under relation type definitions.
- The custom name, type and display style can to be entered.
- The new relation type will then be available on the selected entities.
- These relations can be created by dragging the relation handles (dots).

The screenshot shows a software interface with a menu bar at the top containing 'Kin Terms', 'Archive Linker', 'Panels', 'Window', and 'Help'. The 'Panels' menu is open, showing options: 'Archive Linker', 'Diagram Settings', '✓ Diagram Tree', 'Export Data', 'Kin Terms', 'Kin Type Strings', and '✓ Search Entities'. Below the menu is a table titled 'Relation Type Definitions' with columns: 'Custom Name', 'Data Category', 'Relation Type', 'Line Colour', 'Line Width', 'Line/Dash', and 'Line Orient...'. The table contains one entry: 'SuclingRelation', 'other', a purple color swatch, '2', and 'horizontal'. To the right of the table is a color palette and a 'Scan Fo' button. Below the table is a kinship diagram with nodes: Isabella (circle), Sophie (circle), Lucas (triangle), Charlotte (circle), William (triangle), and Jack (triangle). A purple curved line connects Sophie and Charlotte. A dashed blue line is above Charlotte.

| Custom Name | Data Category | Relation Type | Line Colour | Line Width | Line/Dash | Line Orient... |
|-----------------|---------------|---------------|-------------|------------|-----------|----------------|
| SuclingRelation | | other | | 2 | | horizontal |

Custom Kin Data

- The kin data fields can be defined as a profile in the Clarin component registry.
- The **meaning** of each data field can be defined in the ISOcat data category registry.
- <http://catalog.clarin.eu/ds/ComponentRegistry>
- <http://www.isocat.org/>
- This means that you can specify the data fields that you need for your project.

The image displays a collage of screenshots related to the ISOcat Data Category Registry and the Clarin Component Browser. On the left, the ISOcat website is shown with the 'Data Category Registry' section. The main part of the collage shows the Clarin Component Browser interface. A red arrow points from the 'Gender' dropdown in the 'Kinship Data' table to the 'Gender' dropdown in the 'Clarin Component Browser' window. Another red arrow points from the 'Gender' dropdown in the 'Clarin Component Browser' window to the 'Edit and choose a type' dialog box. The 'Edit and choose a type' dialog box shows 'anyURI' selected as the type.

data from http://en.wikipedia.org/wiki/Third_gender#Israel

28th Feb, 2013

Peter.Withers@mpi.nl The Language
Archive, Max Planck Institute for
Psycholinguistics, Nijmegen

Custom Symbols

- A symbol can be any SVG definition.
- Custom symbols can only be manually inserted at this stage.
- A number of symbols are already included in the default diagram.
- These symbols can be associated with any kin data.
- The parameters for this can be entered manually or a data field can simply be dragged to the symbol definition list.
- Then a symbol can be selected from the diagram definitions.

The screenshot shows a software interface with three tabs: 'Label Fields', 'Relation Type Definitions', and 'Symbol Fields'. The 'Symbol Fields' tab is active, displaying a list of custom symbols and their associated gender values. Below this is a 'Diagram Tree' showing a kinship diagram with various symbols. At the bottom is a 'Kinship Data' table.

| Field Name | Value |
|-------------|-------------|
| Name | |
| DateOfBirth | |
| DateOfDeath | |
| Gender | Zachar (CV) |

Gender data from http://en.wikipedia.org/wiki/Third_gender#Israel

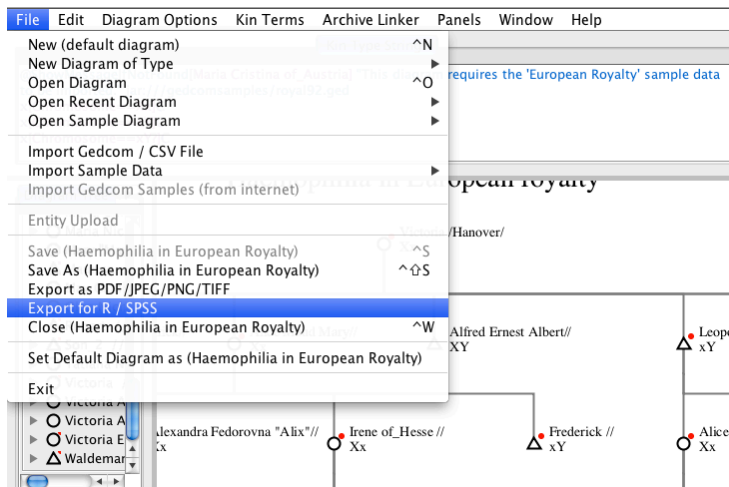
R and SPSS

- The kinship data displayed on a standard diagram can be exported to a text file for use in R or SPSS etc.

```
dataFrame <- read.table("/home/peter/Desktop/KinOathDemoR/exportedData.tab",header=T)

# get all affected parent ids
affectedIds = dataFrame$did[dataFrame$symbol_redmarker == 1]
# get all children of affected
childrenOfAffected = dataFrame[dataFrame$momid %in% affectedIds || dataFrame$dadid %in% affectedIds]
# print names of affecteds' children
childrenOfAffected$label_0
```

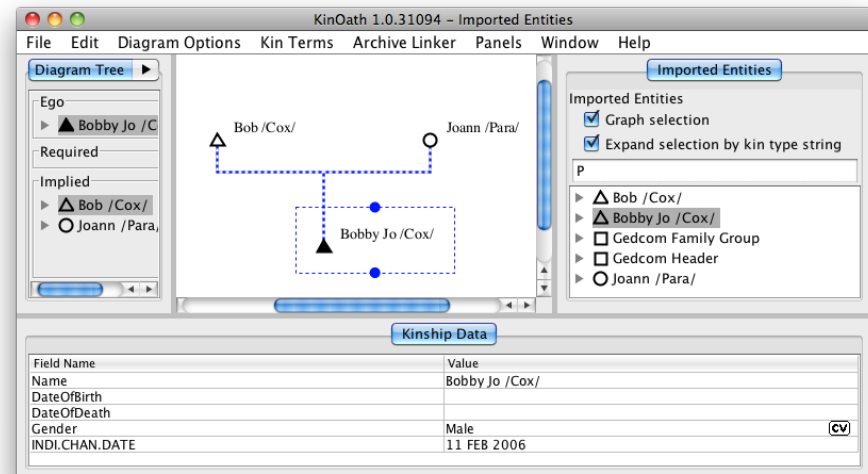
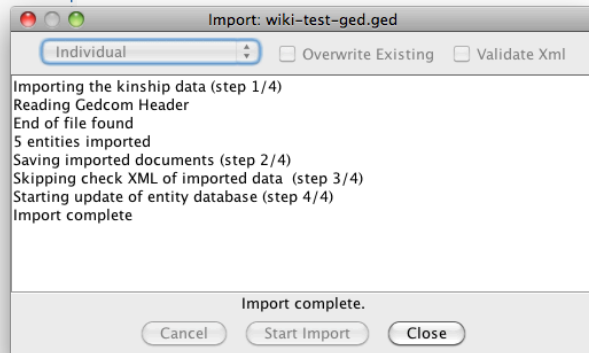
| [id | momid | dadid | sex | ego | dob | dod | label_0 | symbol_triangle | symbol_blackstriketrough | symbol_redmarker | symbol_circle | UniqueIdentifier |
|-----|-------|-------|-----|-----|------------|------------|--------------------------------|-----------------|--------------------------|------------------|---------------|---------------------------------------|
| 1 | 21 | 42 | 1 | 0 | 1900 | 1904 | Henry // | 1 | 1 | 1 | 0 | iid_1abe7dabdc170628f07963e95f9eb0f3 |
| 2 | 37 | 43 | 2 | 0 | 1846/05/25 | 1923/06/09 | Helena Augusta Victoria// | 0 | 1 | 0 | 1 | iid_e0611b28b31a0ec4c49801a0b67955c5 |
| 3 | 17 | 44 | 1 | 0 | | | Son_2 // | 1 | 0 | 1 | 0 | iid_f165b998134ee9c87fc7f770fcdcb30 |
| 4 | 21 | 42 | 1 | 0 | 1889 | 1945 | Waldemar // | 1 | 1 | 1 | 0 | iid_01aF3ba990cdf7c5fb99c99663310fb5 |
| 5 | 37 | 43 | 2 | 0 | 1857/04/14 | 1944/10/26 | Beatrice Mary Victoria// | 0 | 1 | 1 | 1 | iid_d573d6fde6bc99b0dee7584a73f1c4c |
| 6 | 29 | 45 | 2 | 0 | 1897/06 | 1918/07/18 | Tatiana Nicholovna // | 0 | 1 | 0 | 1 | iid_61f27021a0f82a30e385fa0490e578ad |
| 7 | 14 | 46 | 1 | 0 | 1870 | 1873 | Frederick // | 1 | 1 | 1 | 0 | iid_o8a378106e81dad190358709ed2140d9a |
| 8 | 32 | 47 | 1 | 0 | 1907 | 1938 | Alphonso of Cavdonga // | 1 | 1 | 1 | 0 | iid_b79466e3fd68b430682c3f359d3e989f |
| 9 | 37 | 43 | 1 | 0 | 1841/11/09 | 1910/05/06 | Edward VII /Wettin/ | 1 | 1 | 0 | 0 | iid_15cfe4ec699ef4384eb3892d68164b64 |
| 10 | 37 | 43 | 1 | 0 | 1850/05/01 | 1942/01/16 | Arthur William Patrick// | 1 | 1 | 0 | 0 | iid_55158f7e1e49f9b5e083dccc7e97e856b |
| 11 | 37 | 43 | 2 | 0 | 1848/03/18 | 1939/12/03 | Louise Caroline Alberts// | 0 | 1 | 0 | 1 | iid_04c5146f709f5602148fe498a2719272 |
| 12 | 32 | 47 | 2 | 0 | 1911 | | Maria Christina // | 0 | 0 | 0 | 1 | iid_38fe23e9e9198f80e2bea370315527d |
| 13 | 29 | 45 | 1 | 0 | 1904/08/12 | 1918/07/18 | Alexis Nicolaievich /Romanov/ | 1 | 1 | 0 | 0 | iid_980067ddf26ec47693a733a733c02694 |
| 14 | 37 | 43 | 2 | 0 | 1843/04/25 | 1878/12/14 | Alice Maud Mary// | 0 | 1 | 1 | 1 | iid_6753019306b8b2c0a1033446c23b55fe |
| 15 | 14 | 46 | 2 | 0 | 1874 | 1878 | Mary "May" // | 0 | 1 | 0 | 1 | iid_7b6fba6d2514f5ea6a2c0133f6481faf |
| 16 | 5 | 48 | 1 | 0 | 1889 | 1922 | Leopold // | 1 | 1 | 1 | 0 | iid_076ea3ded22a12f1dddf4bee9d9f5cd2 |
| 17 | 49 | 41 | 2 | 0 | 1883 | 1981/01 | Alice of Athlone // | 0 | 1 | 1 | 1 | iid_49c88d7722646a613021a2326e884 |
| 18 | 5 | 48 | 1 | 0 | 1886 | 1960/02/23 | Alexander of Carisbrooke // | 1 | 1 | 0 | 0 | iid_7b59019be9dc376171a1ebaf6080225a |
| 19 | 14 | 46 | 1 | 0 | 1868 | 1937 | Ernest Louis of Hesse// | 1 | 1 | 0 | 0 | iid_42b0e40a5d3ed02b29c62a3df8d29482 |
| 20 | 32 | 47 | 1 | 0 | 1914 | 1934 | Gonzalo // | 1 | 1 | 1 | 0 | iid_d5699b66887d30b18939c592c88d62 |
| 21 | 14 | 46 | 2 | 0 | 1866 | 1953 | Irene of Hesse // | 0 | 1 | 1 | 1 | iid_c7be01fab14a0b39a944c7b1af370 |
| 22 | 21 | 42 | 1 | 0 | | | Child_#3 // | 1 | 0 | 0 | 0 | iid_2297e359f40a11761ca0a82b44d9f5a0 |
| 23 | 37 | 43 | 2 | 0 | 1840/11/21 | 1901/08/05 | Victoria Adelade Mary// | 0 | 1 | 0 | 1 | iid_cf6b46cc3dff46971e79f0c3b0a853f |
| 24 | 32 | 47 | 1 | 0 | 1913/05 | | Don Juan of Spain// | 1 | 0 | 0 | 0 | iid_00e1f42101710cd326e087940f3169e |
| 25 | 29 | 45 | 2 | 0 | 1901/06 | 1918/07/18 | Anastasia Nicholovna /Romanov/ | 0 | 0 | 0 | 1 | iid_7e6b10d50c99d531a226f479ca8c3d0 |
| 26 | 37 | 43 | 1 | 0 | 1844/08/06 | 1900/07/30 | Alfred Ernest Albert// | 1 | 1 | 0 | 0 | iid_cfe73a0656f0e2c994ac13ec32e453 |
| 27 | 14 | 46 | 2 | 0 | 1864 | 1918/07/17 | Elizabeth "Ella" // | 0 | 1 | 0 | 1 | iid_439671a086d8cf7fe7f66403d17c045c6 |
| 28 | 29 | 45 | 2 | 0 | 1899/05 | 1918/07/18 | Maria Nicholovna /Romanov/ | 0 | 1 | 0 | 1 | iid_ac0255ad17cb3b3f7ceef79a562c98fa |
| 29 | 14 | 46 | 2 | 0 | 1872/06/06 | 1918/07/16 | Alexandra Fedorovna "Alix"// | 0 | 1 | 1 | 1 | iid_2c3f36745e277a718028035c9547243d8 |
| 30 | 5 | 48 | 1 | 0 | 1891 | 1914 | Maurice // | 1 | 1 | 0 | 0 | iid_8719d4e8c7f5f3430a17007ee4a04c59 |
| 31 | 14 | 46 | 2 | 0 | 1863 | 1950 | Victoria Alberta of Hesse// | 0 | 1 | 0 | 1 | iid_7000f979e251465c17088bf0d19a06aa |
| 32 | 5 | 48 | 2 | 0 | 1887 | 1969 | Victoria Eugenie "Ena"// | 0 | 1 | 1 | 1 | iid_6ef08317358f7605b050ba974c5fa1 |
| 33 | 32 | 47 | 1 | 0 | 1908 | 1975 | James // | 1 | 1 | 0 | 0 | iid_f270191b00089852dc52275123190fb |
| 34 | 32 | 47 | 2 | 0 | 1909 | | Beatrice // | 0 | 0 | 0 | 1 | iid_92724995a7618cec9c9ff98d177b0b5a |
| 35 | 29 | 45 | 2 | 0 | 1895/11 | 1918/07/18 | Olga Nicholovna /Romanov/ | 0 | 1 | 0 | 1 | iid_f236828d50909413df16564a9c44ba10 |
| 36 | 17 | 44 | 2 | 0 | 1906 | | May Cambridge // | 0 | 0 | 0 | 1 | iid_5e6b6b2baa03b7454a255deec6c9a |
| 37 | 50 | 51 | 2 | 0 | 1819/05/24 | 1901/01/22 | Victoria /Hanover/ | 0 | 1 | 1 | 1 | iid_87b050d6336994f9f24654fdb214c71 |
| 38 | 49 | 41 | 0 | 0 | 1884 | 1954 | Charles Edward // | 1 | 1 | 0 | 0 | iid_7efe2ede20bf48846ebf1d6f8b11779 |
| 39 | 32 | 47 | 1 | 0 | | | Don Jamie // | 1 | 0 | 0 | 0 | iid_3dced17c53710a08d74b0a04badf972 |
| 40 | 17 | 44 | 1 | 0 | 1928 | | Rupert // | 1 | 1 | 1 | 0 | iid_8b561f64886573a2b5164f687d02a24 |
| 41 | 37 | 43 | 1 | 0 | 1853/04/07 | 1884/03/28 | Leopold George Duncan// | 1 | 1 | 1 | 0 | iid_72fd2eb4dded4353125894161fcfc8dc |



Gedcom Import

```
sample.ged
0 HEAD
1 SOUR Reunion
2 VERS V8.0
2 CORP Leister Productions
1 DEST Reunion
1 DATE 11 FEB 2006
1 FILE test
1 GEDC
2 VERS 5.5
1 CHAR MACINTOSH
0 @I1@ INDI
1 NAME Bob /Cox/
1 SEX M
1 FAMS @F1@
1 CHAN
2 DATE 11 FEB 2006
0 @I2@ INDI
1 NAME Joann /Para/
1 SEX F
1 FAMS @F1@
1 CHAN
2 DATE 11 FEB 2006
0 @I3@ INDI
1 NAME Bobby Jo /Cox/
1 SEX M
1 FAMS @F1@
1 CHAN
2 DATE 11 FEB 2006
0 @F1@ FAM
1 HUSB @I1@
1 WIFE @I2@
1 MARR
1 CHIL @I3@
0 TRLR
```

- GEDCOM is the most common kinship data format.
- These files can be imported via the file menu.
- All GEDCOM fields are imported.
- Resource links are preserved.
- For testing the “GEDCOM 5.5 Torture Test Files” are used: <http://www.geditcom.com/gedcom.html>



Example from: <http://en.wikipedia.org/wiki/Gedcom>

Plugin Structure

- A plugin framework has been developed and is already available in KinOath and in Arbil
- This allows the stable versions to be more of a thin application, which is easier to test and maintain.
- New features can added as plugins.
- Plugins can be developed by third parties.
- This will allow for example:
 - External projects to create components, such as PUCK developed at EHES.
 - Alternative data sources could also be supported as plugins.
 - A greater variety of graph sorting algorithms could be created, such as sort by clan vs descendancy etc.
 - Specialised export plugins will be possible.
- Another benefit of this structure is that new features do not need to have such an impact on the core applications stability.

Starting KinOath Kinship Archiver

- Open the MPI TLA tools page:
<http://tla.mpi.nl/tools/tla-tools/kinoath>
- The webstart version is usually easiest
- Alternatively choose the installer for your operating system



- Note that Java is required for all versions

Conclusion

- KinOath desktop is available for download and a new version is already in testing that addresses user feedback.
- The current version has many features, such as:
 - Create publishable-quality kinship diagrams;
 - Create kin term diagrams with multiple kin term groups or language groups on the diagram;
 - Create, view, import, export kinship data.
 - Create, view, import, export kin terms data
 - Query large datasets based on free text and kin type strings.
 - Quickly create complex or simple diagrams.
 - Customise the kin data, kin terms, kin types, relation types and symbols to suit your needs.
- This application is financially accessible to everyone (free) .