

KinOath Kinship Archiver

Version 1.0

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

Introduction

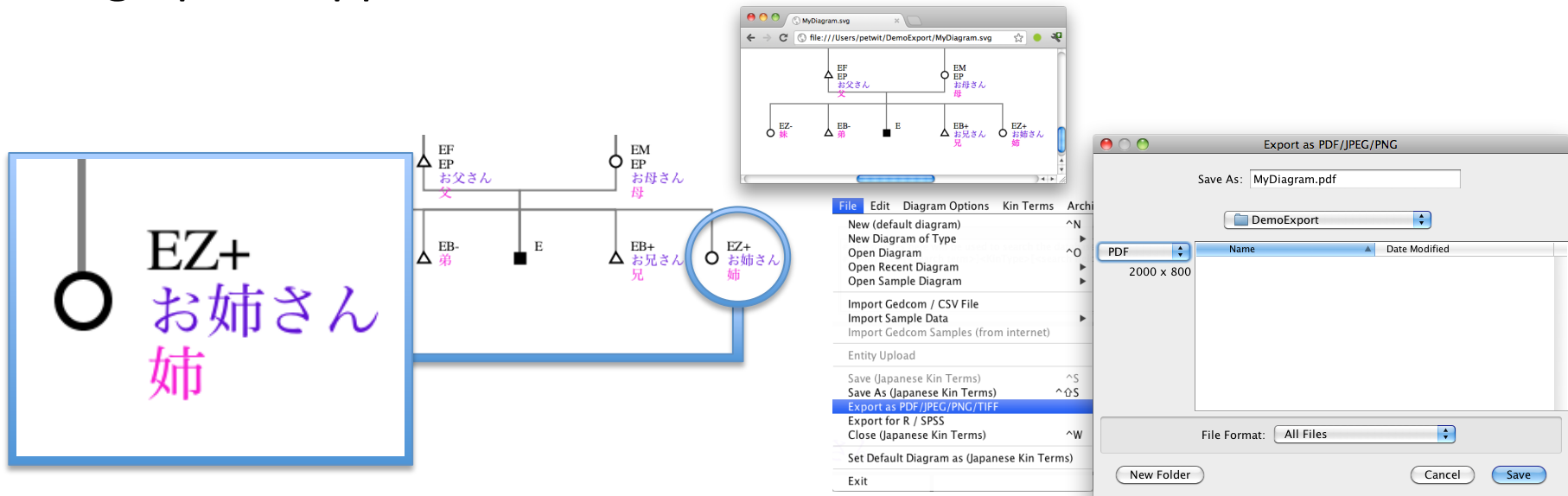
- KinOath Kinship Archiver is a kinship application under development by Peter Withers at the TLA language archive.
- Its primary goal is to connect kinship data with archived data, such as audio, video or written resources while also being closely integrated with the archive software such as Arbil.
- 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 planned, on hold or in development.

First Stable Release

- Formal testing is complete.
- Features that are not stable have been removed from this release into version 1.0.
- The manual is available on line via the website.
- An unstable version is also available, if you want to experiment with the new/unstable 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



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Customisable Kin Data

- The kin data is defined in the Clarin component registry.
- 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 is a collage of screenshots illustrating the process of defining kin data fields. It includes:

- ISOcat Data Category Registry:** A screenshot of the ISOcat website showing the 'Data Category Registry' section. It describes the ISO 12620 framework for defining linguistic concepts and provides links to the registry and documentation.
- Clarin Component Browser:** Two screenshots of the browser interface. The first shows the 'DateOfDeath' element configuration, and the second shows the 'Gender' element configuration. Both show fields for Name, ConceptLink, Documentation, DisplayPriority, Min Occurrences, Max Occurrences, and Type. The 'Gender' element is configured with a type of 'anyURI'.
- Kinship Data Table:** A table titled 'Kinship Data' showing fields for Name, DateOfBirth, DateOfDeath, and Gender. The 'Gender' field is highlighted with a dropdown menu showing 'Female' and 'Male' options. A red arrow points from the 'Gender' element configuration in the Clarin Component Browser to this table.
- Edit and choose a type dialog:** A dialog box showing the 'Edit and choose a type' interface. It allows selecting a type (e.g., 'anyURI') or entering a pattern. It also includes a section for creating controlled vocabularies with columns for 'item', 'appInfo', and 'conceptLink'.

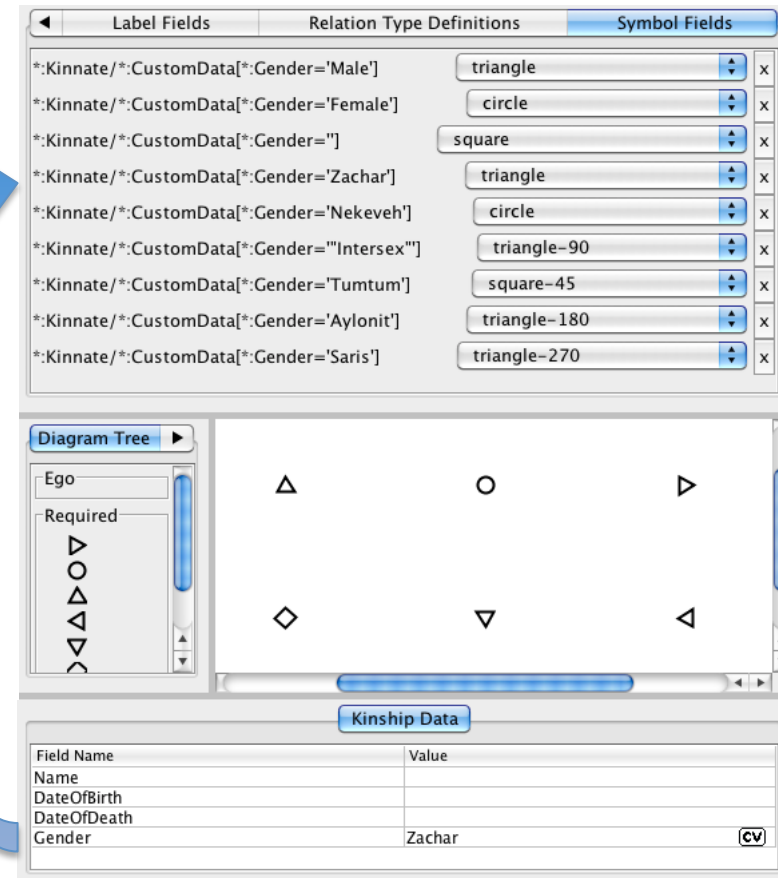
data from http://en.wikipedia.org/wiki/Third_gender#Israel

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Custom Symbols

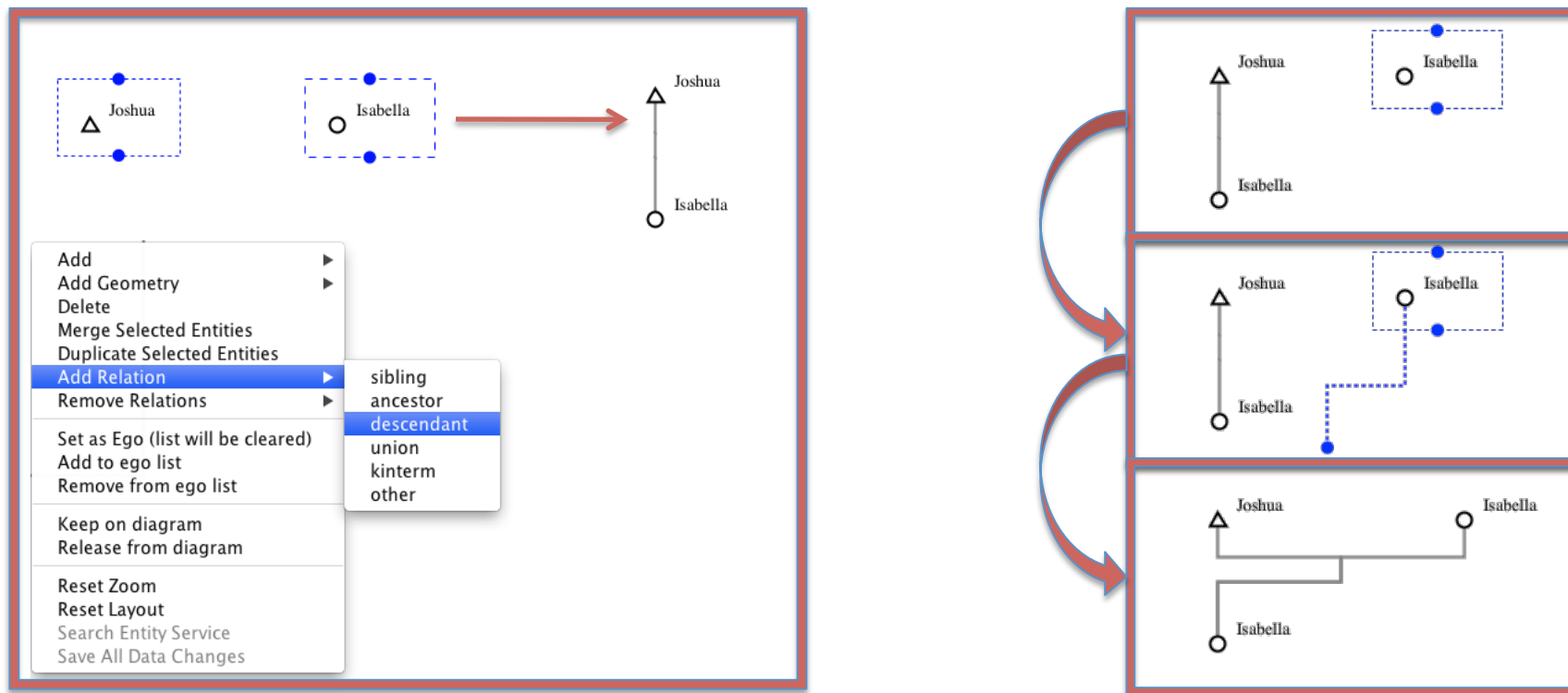
- A symbol can be any SVG definition.
- Custom symbols can only be manually inserted at this sage.
- A number of symbols are already included in the default diagram.
- These symbols can be associated with any kin data.
- The kin data field can be dragged to the symbol definition list.
- Then a symbol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



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

Creating Relations

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



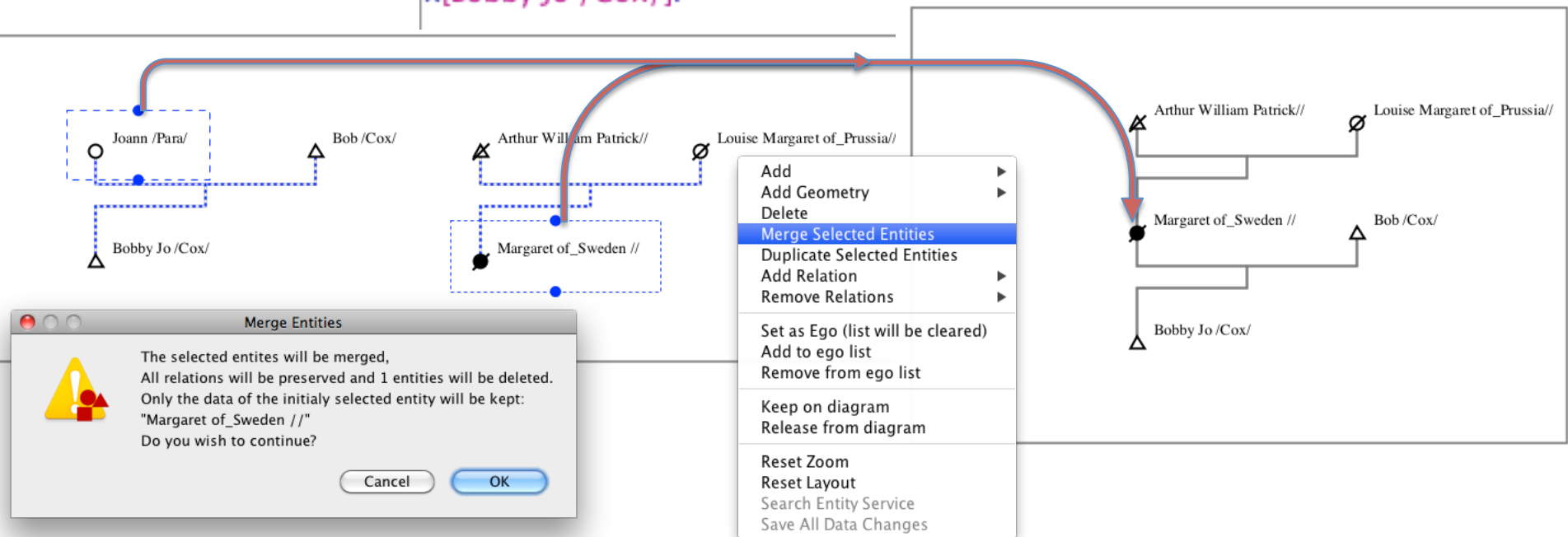
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Merge Individuals

- 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

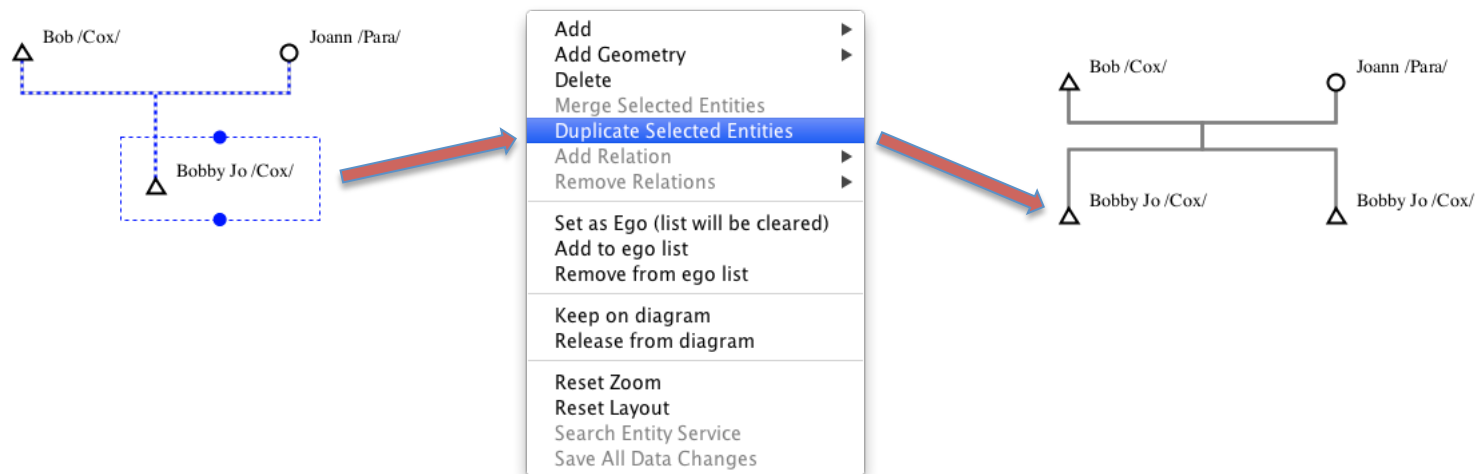


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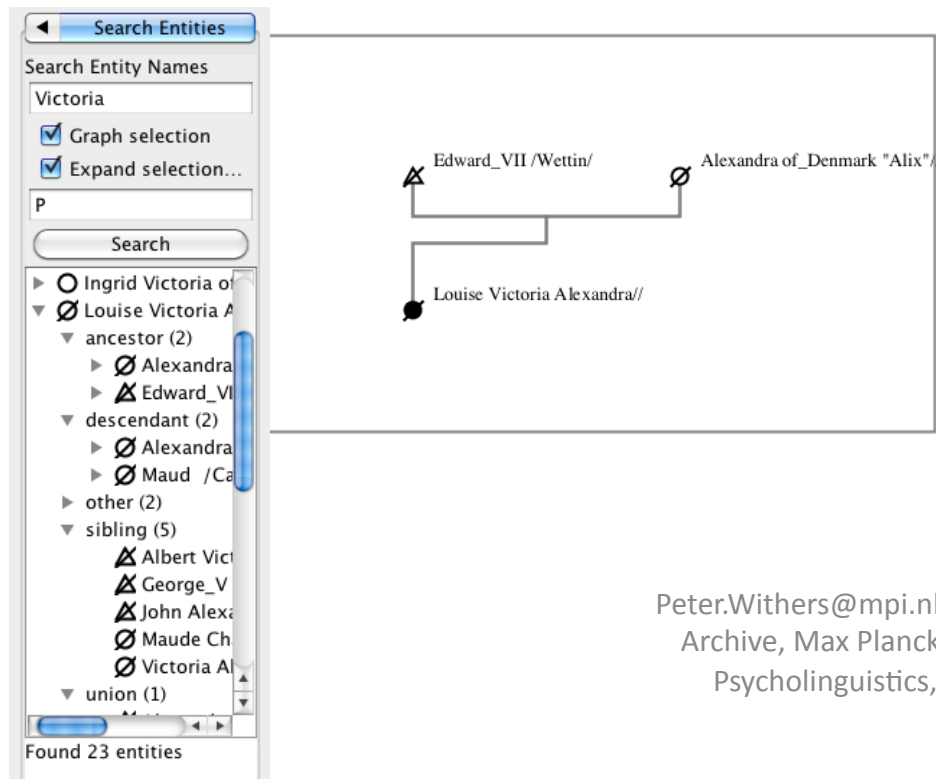
Duplicating Individuals

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



Search Tree

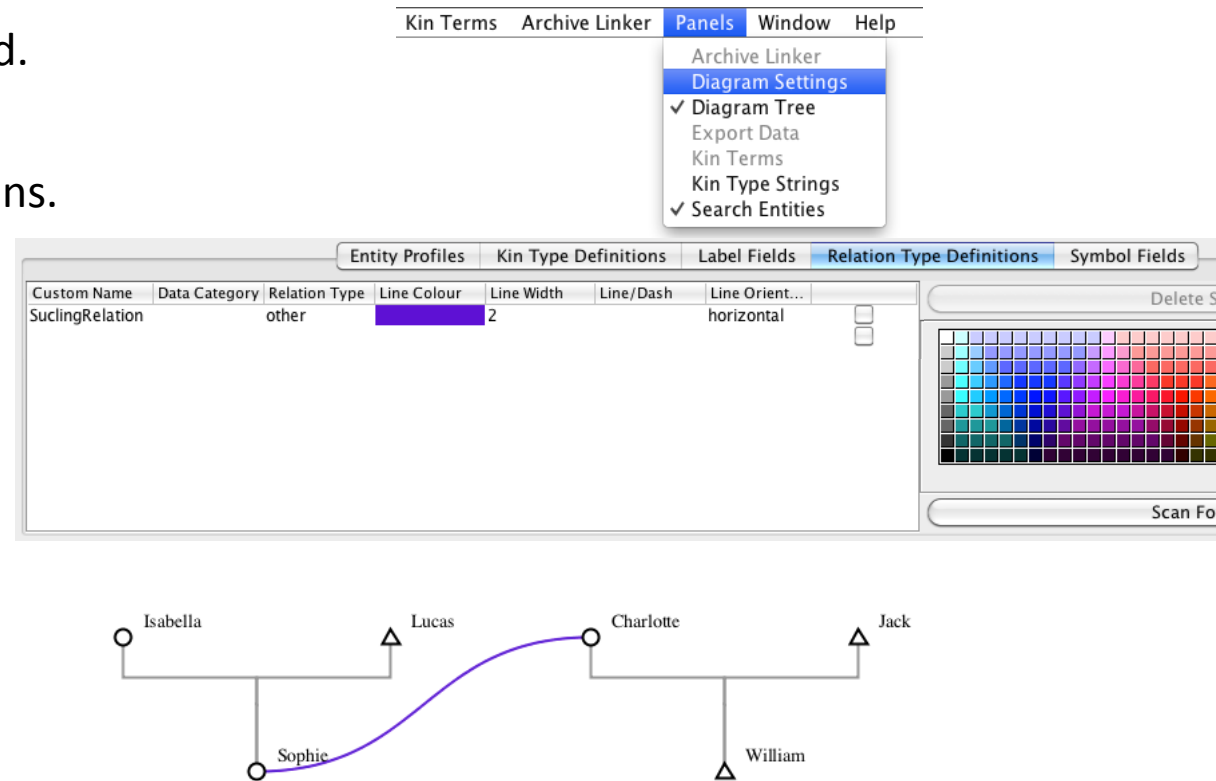
- Free text can be searched.
- The selected results can be inspected on the graph.
- The selection can be expanded on the graph by kintype string.
- As the selection changes the graph is updated by kintype string.
- The tree can also be browsed for relations.



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Relation Types

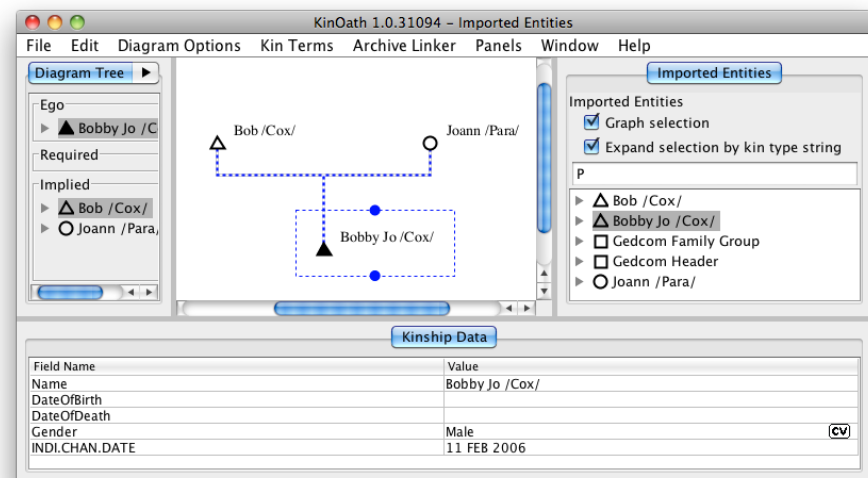
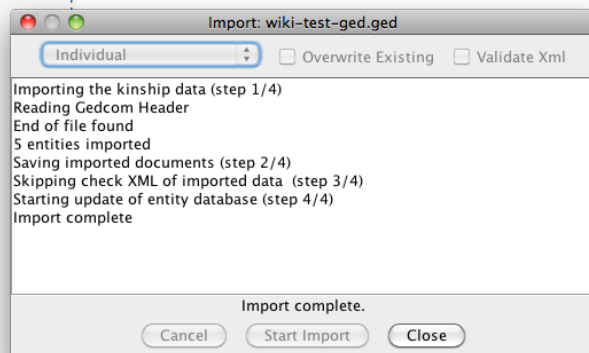
- Custom relation types can be defined.
- This can be done in the diagram settings under relation type definitions.
- The custom name, type and display style need to be entered.
- The new relation type will then be available on the selected entities.
- These relations can be created by dragging the relation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



Gedcom Import

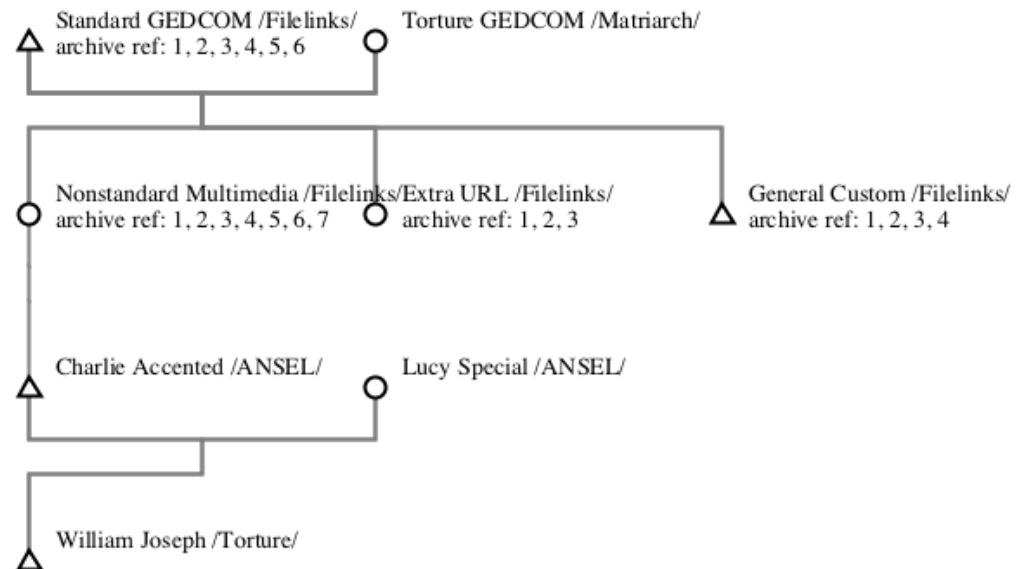
- GEDCOM is the most common kinship data format.
- These files can be imported via the file menu.
- All GEDCOM fields are imported.
- Resource links are preserved.
- For testing the “GEDCOM 5.5 Torture Test Files” are used:
<http://www.geditcom.com/gedcom.html>
- This simple example is from the Wikipedia Gedcom page:
<http://en.wikipedia.org/wiki/Gedcom>

```
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 FAMC @F1@
1 CHAN
2 DATE 11 FEB 2006
0 @F1@ FAM
1 HUSB @I1@
1 WIFE @I2@
1 MARR
1 CHIL @I3@
0 TRLR
```



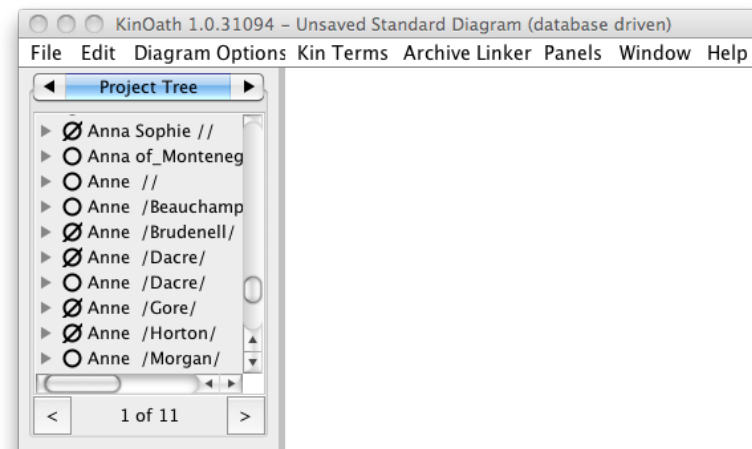
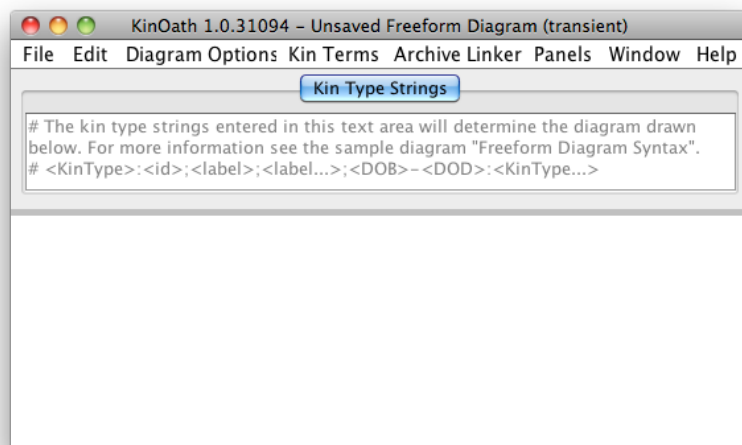
Imported Resource Files

- Like manually created resource links, imported GEDCOM resources files are available both on the diagram and via the diagram tree.



Freeform vs Database Diagrams

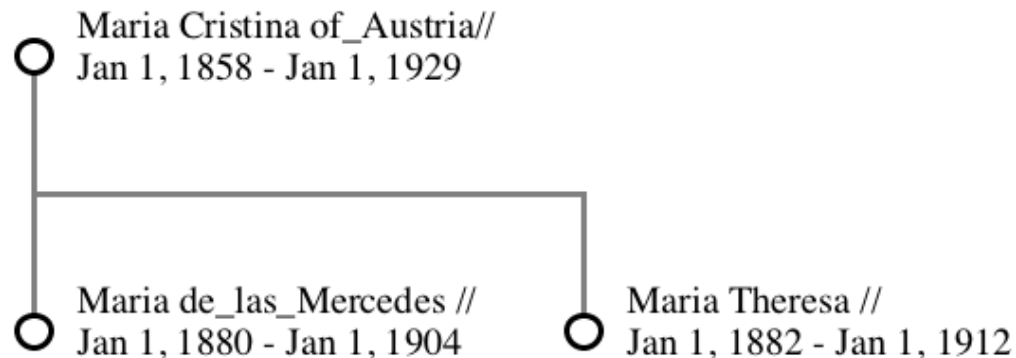
- Freeform diagrams have no kinship data records.
- The data only exists on the diagram.
- The kin type strings or kin terms definitions are the source data for the diagram.
- Database diagrams display data from the local project.
- There are kin data files for each entity.
- Changes to kin data is reflected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



Kin Type Query Syntax

- 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 to following query returns Maria and her daughters.

x[Maria Cristina of_Austria]D

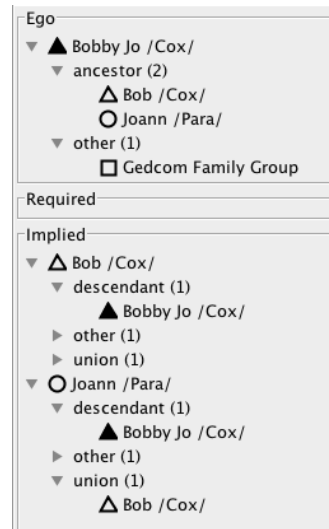


Dragging to the Query Text

- The table is visible when an entity is selected on the tree or diagram.
- Fields from this table can be dragged to the query area to construct queries.
- Entities in the tree can also be dragged into the query, in this case the entity ID is added to the query.

E[Entity.Identifier=70596686bd36929ace97868ec7f412a8]

E[INDI.NAME=Louis_II the_Stammerer //]

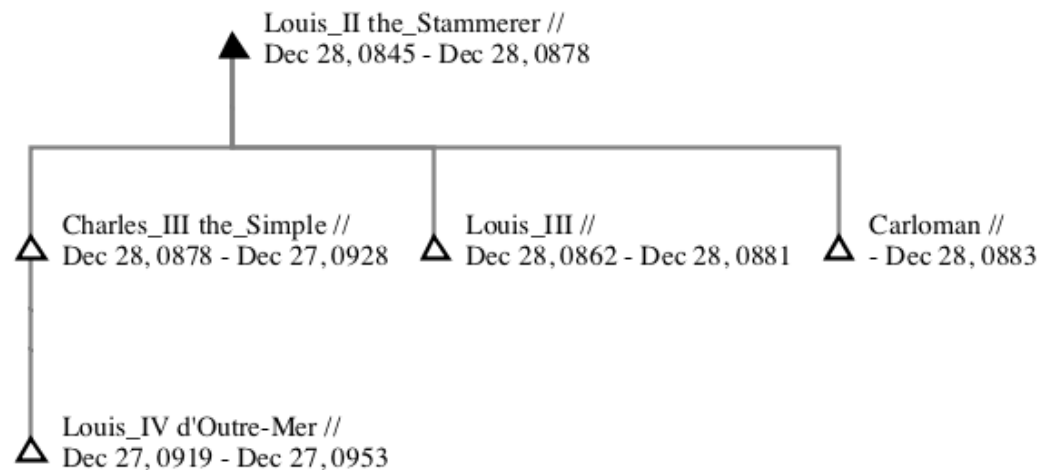


Field Name	Value
NAME	Louis_II the_Stammerer //
TITL	King of France
SEX	M
BIRT.DATE	846
DEAT.DATE	879

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



Kin Type Definitions

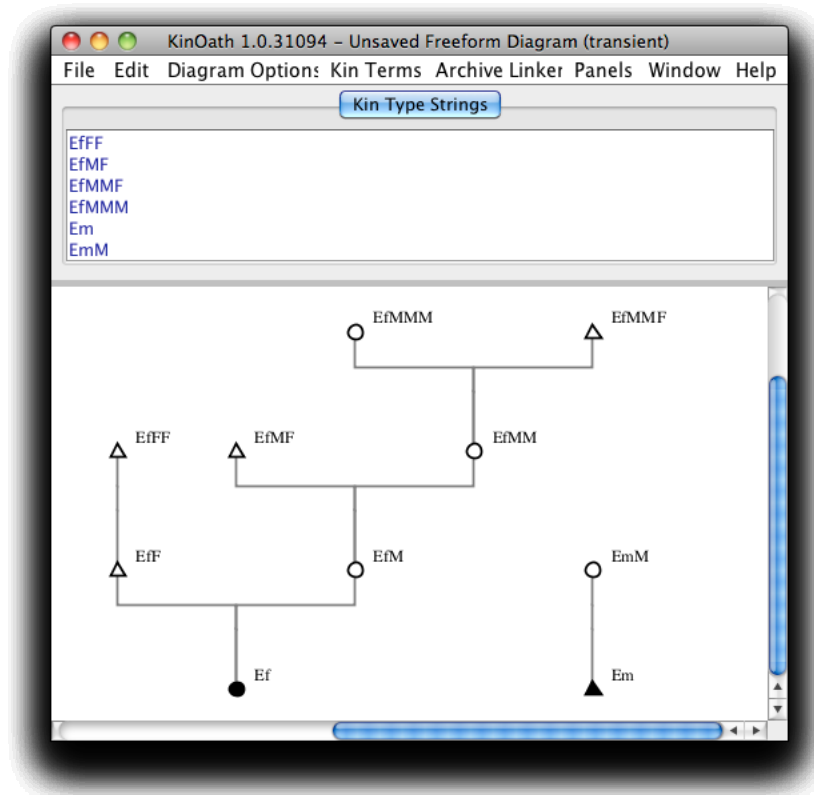
- The kin types used in the application can be customized.
- Each kin type can use any string and any symbol.
- These custom kin types are stored in the diagram file.
- They can also be stored in the default diagram of the application.

Kin Type String	Relation Type	Symbol Type	Display Name	
Ef	none	circle	Ego Female	☐
Em	none	triangle	Ego Male	☐
Fa	ancestor	triangle	Father	☐
Mo	ancestor	circle	Mother	☐
Br	sibling	triangle	Brother	☐
Si	sibling	circle	Sister	☐
So	descendant	triangle	Son	☐
Da	descendant	circle	Daughter	☐
Hu	union	triangle	Husband	☐
Wi	union	circle	Wife	☐
Pa	ancestor	square	Parent	☐
Sb	sibling	square	Sibling	☐
Sp	union	square	Spouse	☐
Ch	descendant	square	Child	☐
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	☐
m	none	triangle	Male	☐
f	none	circle	Female	☐
x	none	square	Undefined	☐
*			Any Relation	☐

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

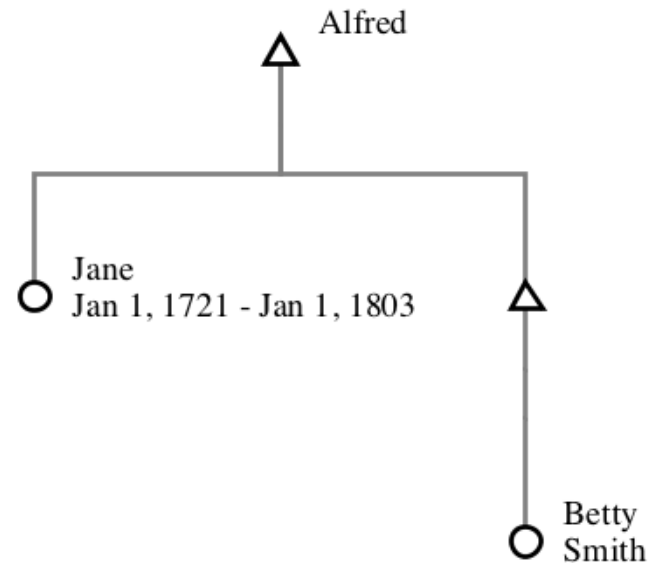
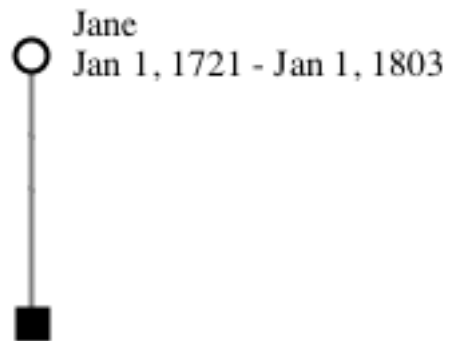
Freeform Diagrams

- Freeform diagrams are constructed simply by entering kin type strings.
- They have no database.
- The data only exists on the diagram.



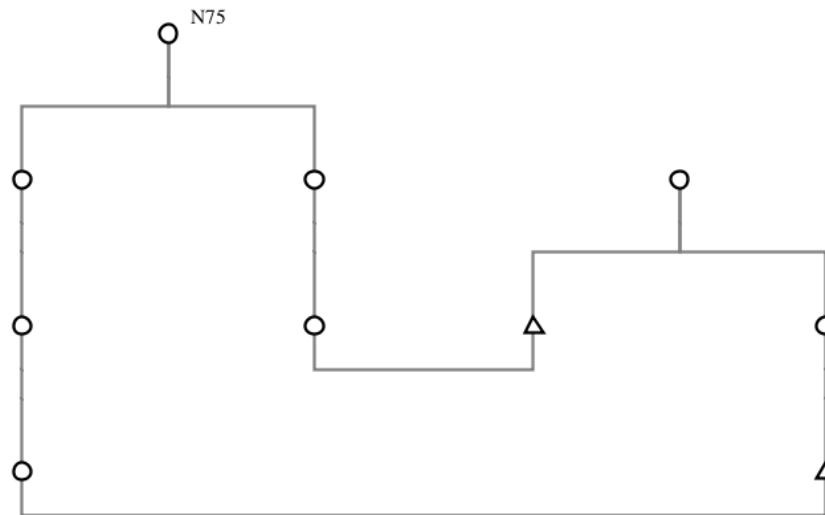
Freeform Diagram Syntax

- The syntax allows labels, dates and identifiers to be specified.
- <KinType>:<id>;<label>;<label...>;<DOB>-<DOD>:<KinType...>
- EM:Jane;1721-1803:
- f:#3;Jane;1721-1803:F:Alfred:SD:Betty;Smith:

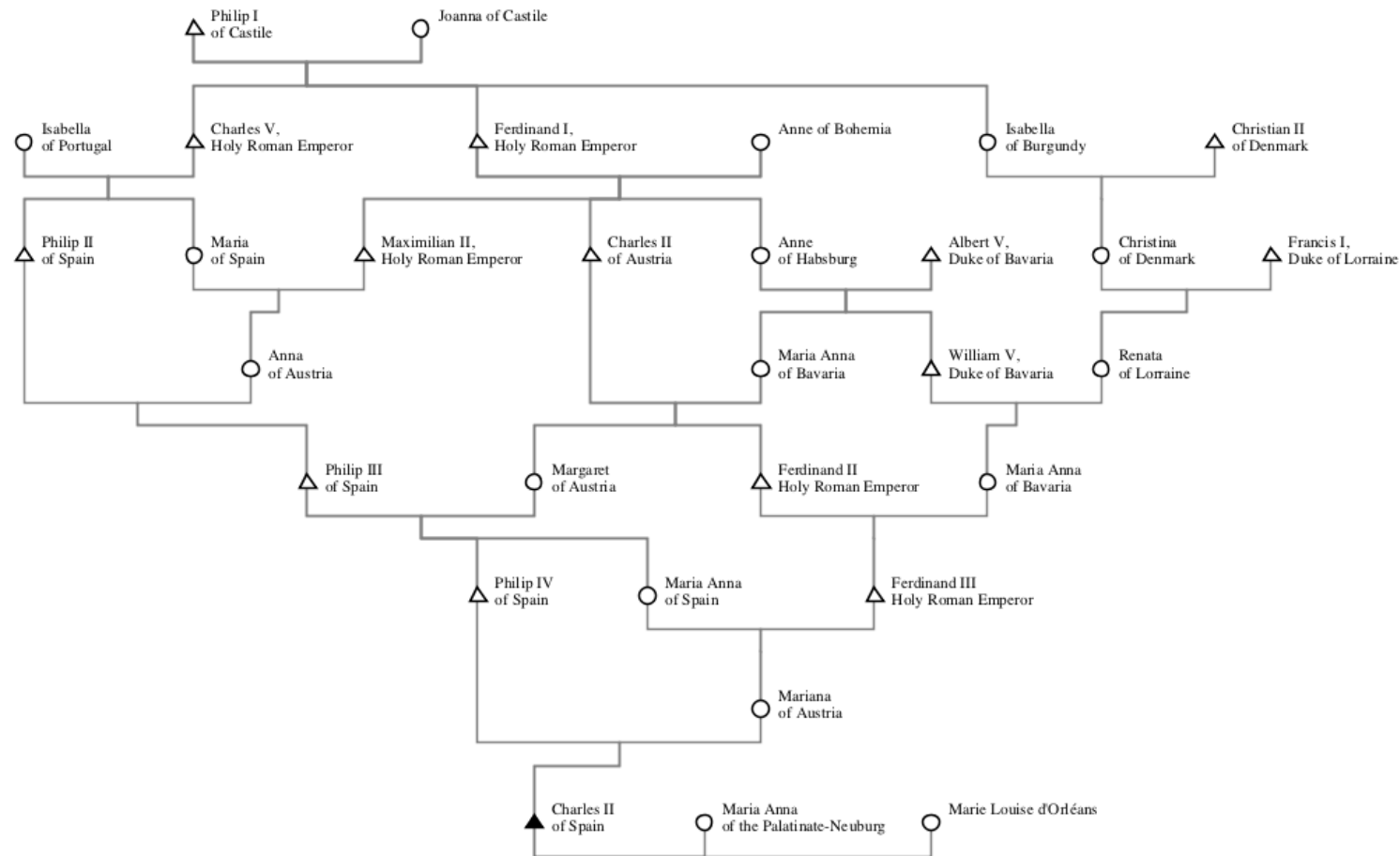


Freeform Diagram Syntax

- By using the <id> parameter, preceding individuals can be referred to later in the kin type string.
- Here id #75 is used as a back reference to the first individual, creating a matrimonial ring.
- f:#75;N75:DDHMDSWMMM:#75:



Freeform Example: Charles II of Spain

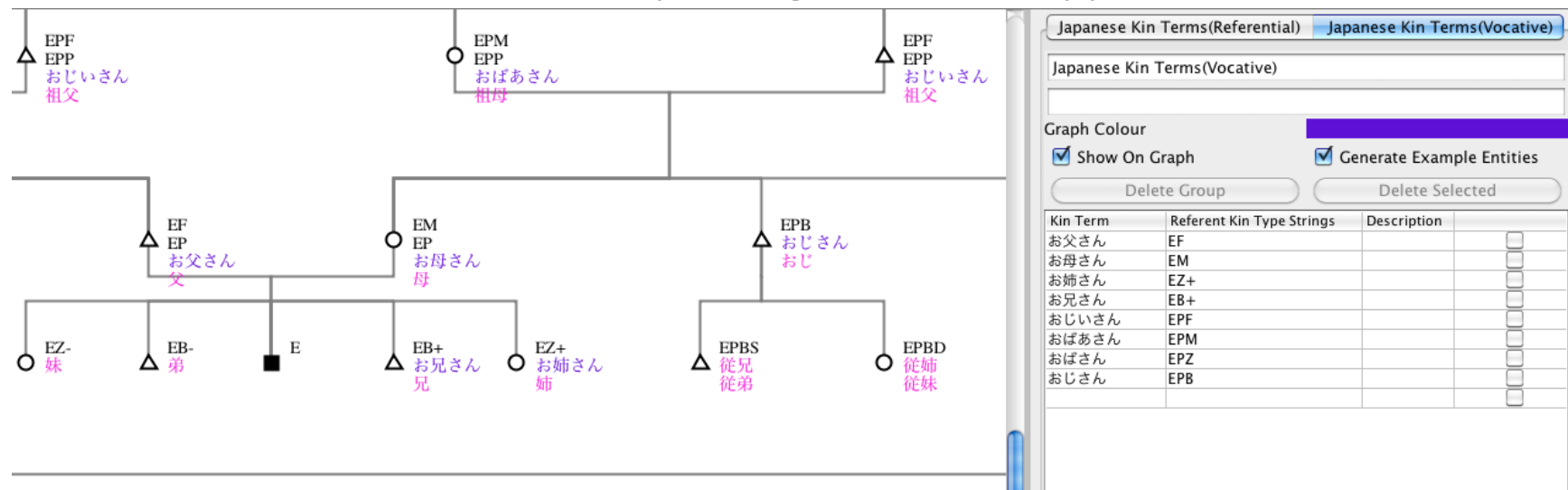


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Kin Terms

- 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 these kin terms can be overlaid onto a database driven diagram.
- There are a number of example diagrams in the application.



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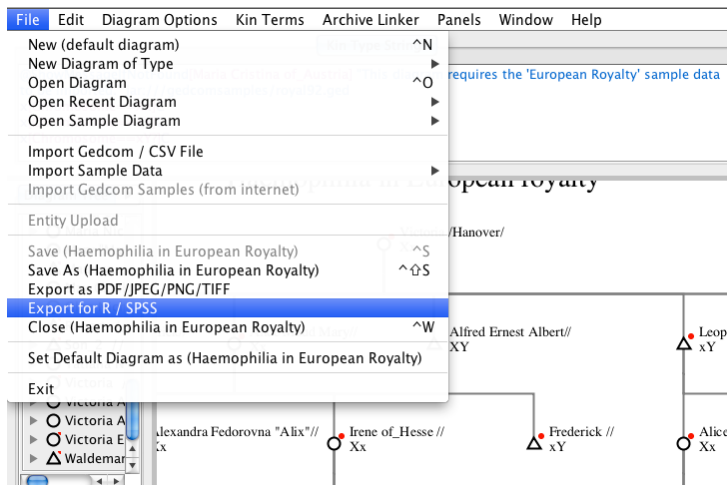
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R and SPSS

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

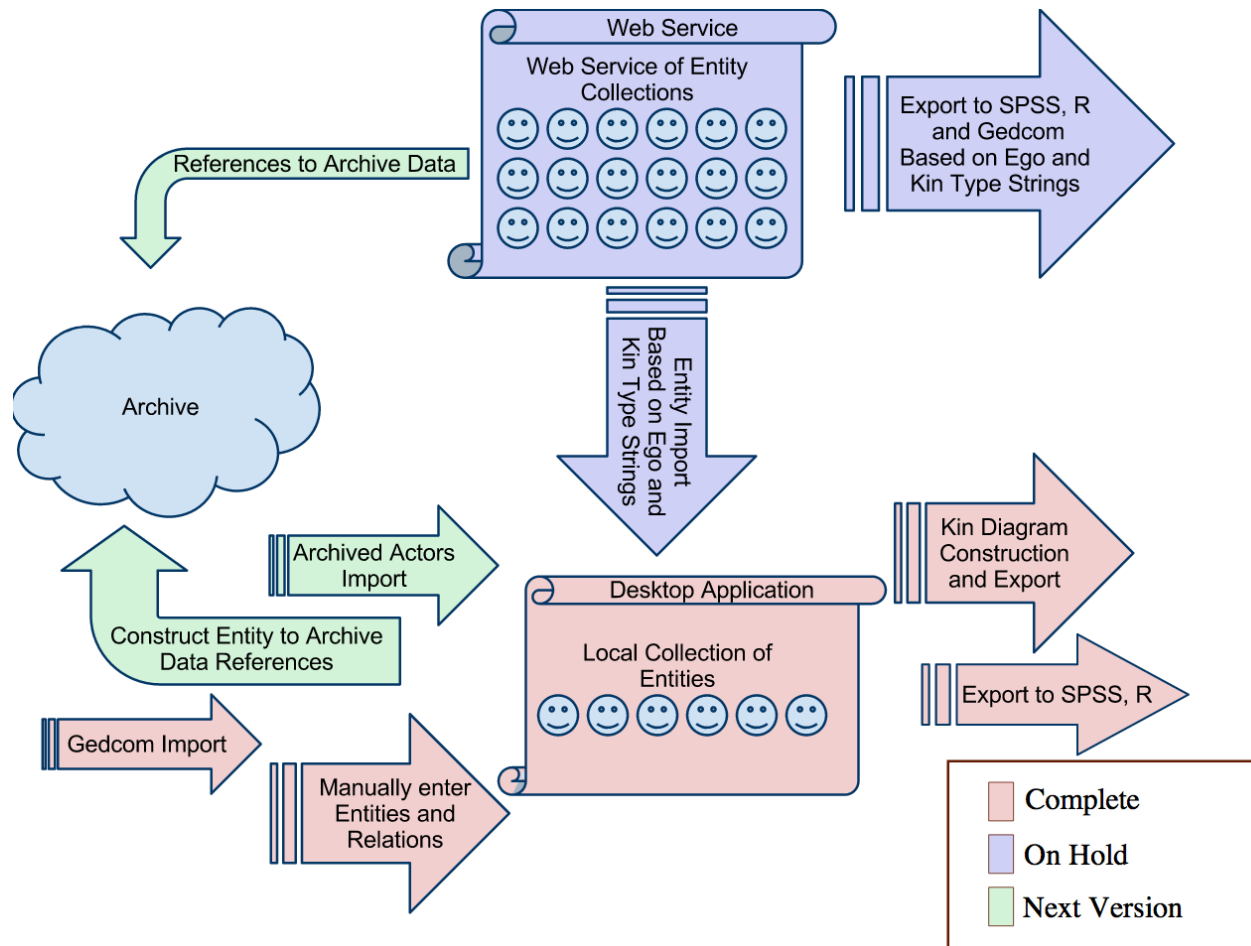
```
dataFrame <- read.table("/home/peter/Desktop/KinOathDemoR/exportedData.tab",header=T)
```

```
# get all affected parent ids
affectedIds = dataFrame$id[dataFrame$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
```



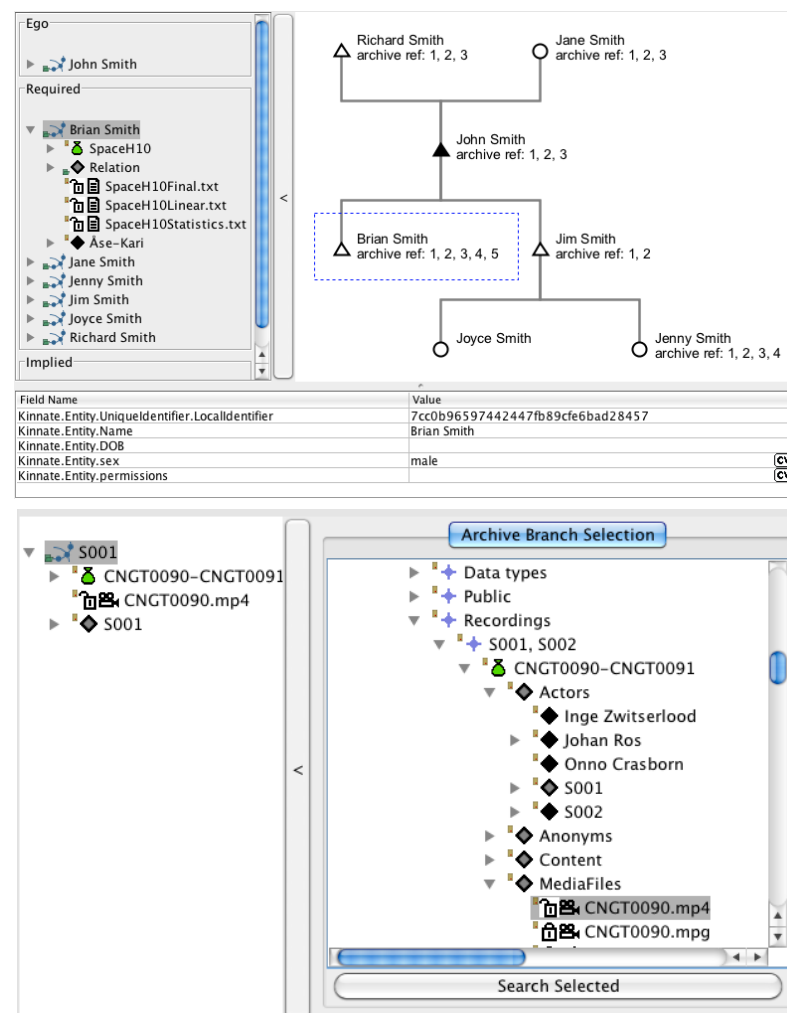
id	momid	dadid	sex	ego	dob	dad	label_0	symbol_triangle	symbol_blackstriketrough	symbol_redmarker	symbol_circle	UniqueIdentifier
1	21	42	1	0	1900	1904	Henry //	1	1	1	0	iid_1abe7dabdc170628f07963e95f9eb0f3
2	37	43	2	0	1846/05/25	1923/06/09	Helena Augusta Victoria//	0	1	0	1	iid_e0611b28b31aaec4c49801aab67955c5
3	17	44	1	0			Son_2 //	1	0	1	0	iid_f169b998134ee9c87fcf7770afcdcb30
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_61f27021a0f82a3ae385f0409ae578ad
7	14	46	1	0	1870	1873	Frederick //	1	1	1	0	iid_a0a378106e81dad1a9358709ed2140d9a
8	32	47	1	0	1907	1938	Alphonso of_Cavdonga //	1	1	1	0	iid_b79466e3fda68b430682c3f359d3e989f
9	37	43	1	0	1841/11/09	1910/05/06	Edward VII //Wettin//	1	1	0	0	iid_15cfe4ec699ef434eb3892d68164be4
10	37	43	1	0	1850/05/01	1942/01/16	Arthur William Patrick//	1	1	0	0	iid_55158f9f1ef49fb5083dccc7e97e856b
11	37	43	2	0	1848/03/18	1939/12/03	Louise Caroline Alberta//	0	1	0	1	iid_04c53146f709f5602148fe498a2719272
12	32	47	2	0	1911		Maria Christina //	0	0	0	1	iid_38fe23e9e9198f80ec2bea370315527d
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_67530193a6b8b2c0a1033446c23b55fe
15	14	46	2	0	1874	1878	Mary "May" //	0	1	0	1	iid_7b6fba6d2514f5e0a6a2c0133f6481faf
16	5	48	1	0	1889	1922	Leopold //	1	1	1	0	iid_076ea3ded22a12f1daddf4bee9d9f5cd2
17	49	41	2	0	1883	1981/01	Alice of_Athlone //	0	1	1	1	iid_49c88dd77a2264a6a0d13021a236eb84
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_d5699b66a887d30bb18939c592c88d62
21	14	46	2	0	1866	1953	Irene of_Hesse //	0	1	1	1	iid_c7be01fab14a0b39a944cfbc7b1af370
22	21	42	1	0			Child_#3 //	1	0	0	0	iid_2297e359f40a11761ca0482b4d49f5a0
23	43	2	0	0	1840/11/21	1901/08/05	Victoria Adelaide Mary//	0	1	0	1	iid_cf6b46cc3ddf46971e79f0c3b0a853f
24	32	47	1	0	1913/06		Don Juan of_Spain//	1	0	0	0	iid_d0e1f42101710ed326a0e07940f3169e
25	29	45	2	0	1901/06	1918/07/18	Anastasia Nicholovna /Romanov//	0	1	0	1	iid_76a8b10d50c99d531a226f479ca8c3d0
26	37	43	1	0	1844/08/06	1900/07/30	Alfred Ernest Albert//	1	1	0	0	iid_cfe73a0c656f7e02c994ac13ec32e453
27	14	46	2	0	1864	1918/07/17	Elizabeth "Ella" //	0	1	0	1	iid_439671a86dc8cf7fe7f7b64603d17c045c6
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_2c3f6745e277a718028035c9547243d8
30	5	48	1	0	1891	1914	Maurice //	1	1	0	0	iid_8719d4e8c7f5f343a0a17007ee4a04c59
31	46	2	0	0	1863	1950	Victoria Alberta of_Hesse//	0	1	0	1	iid_7b00f979e251465c17088bf0d19a06aa
32	5	48	2	0	1887	1969	Victoria Eugenie "Ena"//	0	1	1	1	iid_6ef08317358fc7605bb050ba947c3fa1
33	32	47	1	0	1908	1975	James //	1	1	0	0	iid_f270191b00089852a5c52275213190fb
34	32	47	2	0	1909		Beatrice //	0	0	0	1	iid_92724995a7618cc9c9cf9c8d177b0b5a
35	29	45	2	0	1895/11	1918/07/18	Olga Nicholovna /Romanov//	0	1	1	1	iid_f36828d50909413df16564a9c44ba10
36	17	44	2	0	1906		May Cambridge //	0	0	0	1	iid_5e6b6b2dbaa03b4544a255deec69a
37	50	51	2	0	1819/05/24	1901/01/22	Victoria /Hanover//	0	1	1	1	iid_87b0508d6369994f9f24654fdb214c71
38	40	41	0	0	1884		Charles Edward //	1	1	0	0	iid_7efe2ede2b0df488c46b7d6f8b11779
39	32	47	1	0			Don Jamie //	1	0	0	0	iid_3dcedel7c537c1aa8d74b0a04badf972
40	17	44	1	0	1928		Rupert //	1	1	1	1	iid_8b561f64886573a2b5164f687dd02a24
41	37	43	1	0	1853/04/07	1884/03/28	Leopold George Duncan//	1	1	1	0	iid_72fd2ebdded4353125894161fcfc8dc

Current Status



Archive Linking

- This is on hold until a technical agreement is reached on how to persistently link kinship individuals to the archive metadata and data.
- It is expected that these features will be available in the 1.1 version.
- 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.



Proposed Plugin Structure

- The current version will become a thin application.
- On top of this a plugin structure will be added.
- This will allow for example:
 - External projects to create components, such as PUCK developed at EHESS.
 - 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 descendency etc.
 - Specialized 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.

Conclusion

- KinOath Kinship Archiver has reached its first stable version, 1.0.
- Archive linking will be available in version 1.1
- In the current stable you can:
 - Create, view, import, export kinship data.
 - Create, view, import, export kinterms data
 - Query large datasets based on free text and kinterms.
 - Quickly create complex diagrams.
 - Customise the kin data, kinterms and kintypes to suit your needs.
- The application is financially accessible all.