Kinship Systems, Sanguine Lines and Archiving

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

Introduction

- KinOath is a kinship application under development by Peter Withers at the Language Archive of the Max Planck Institute for Psycholinguistics Nijmegen in conjunction with the Max Planck Institute for Social Anthropology Halle (Saale).
- 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.

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Core Aspects

- Kin type strings are used through out the application for constructing and searching data sets.
- The representation of kin terms is also integrated into the application allowing comparative diagrams of kin terminology.
- Graphical representation of the data is an important part of the application and the diagrams produced are intended to very flexible and of publishable quality.

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Prototype Means

- Not all features are available or visible and some are not easy to demonstrate at this stage
- There are however many facets of the application which are ready for demonstration
- This talk will show examples of how the current prototype of this application can be used and also discuss the areas that are under development

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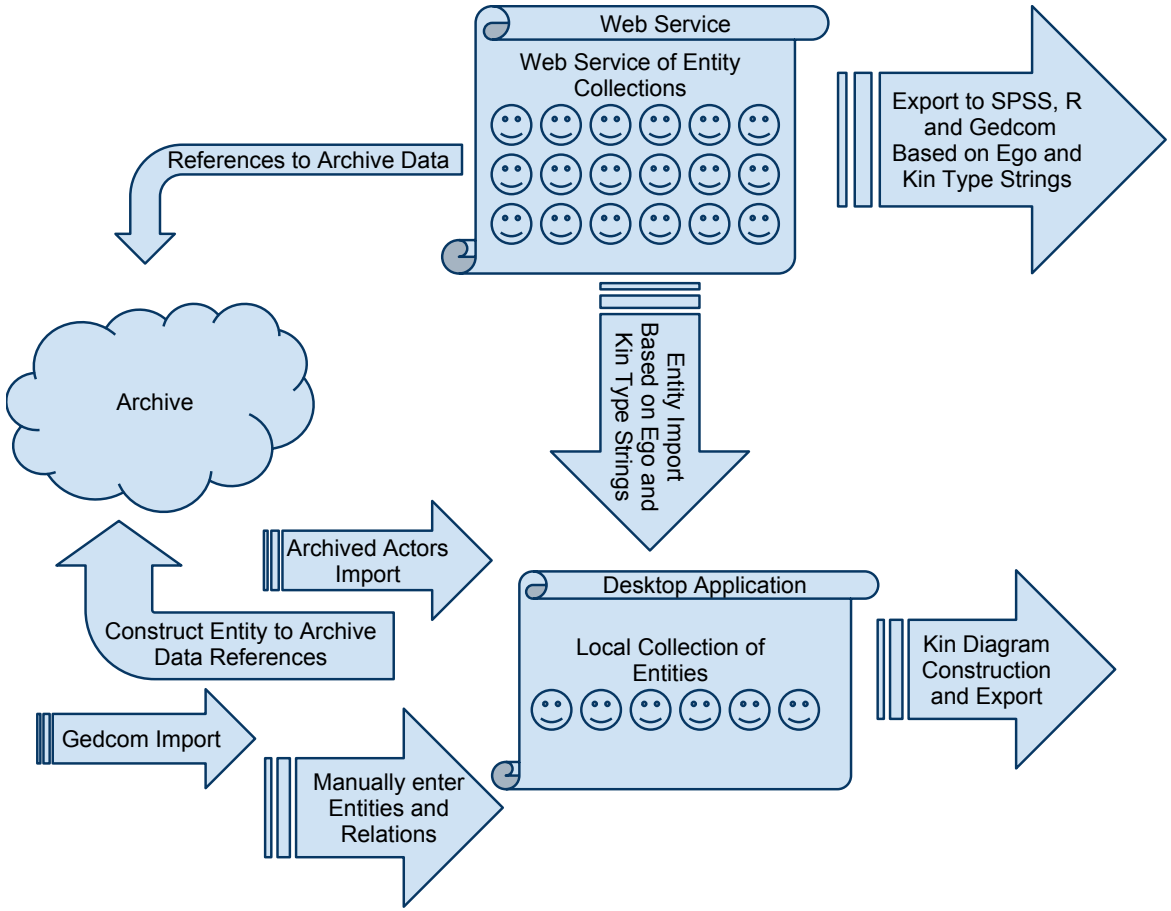
Overview



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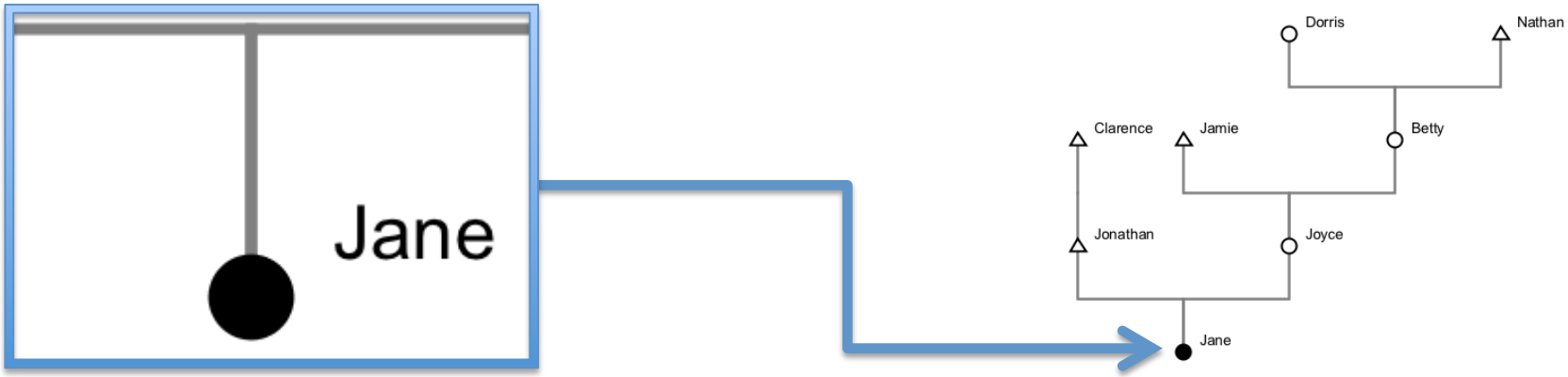
Publishable Diagrams

- All the diagrams produced are in a vector format of publishing quality
- Export into PDF format will also be possible
- The working files are also graphics files that can be viewed in any web browser



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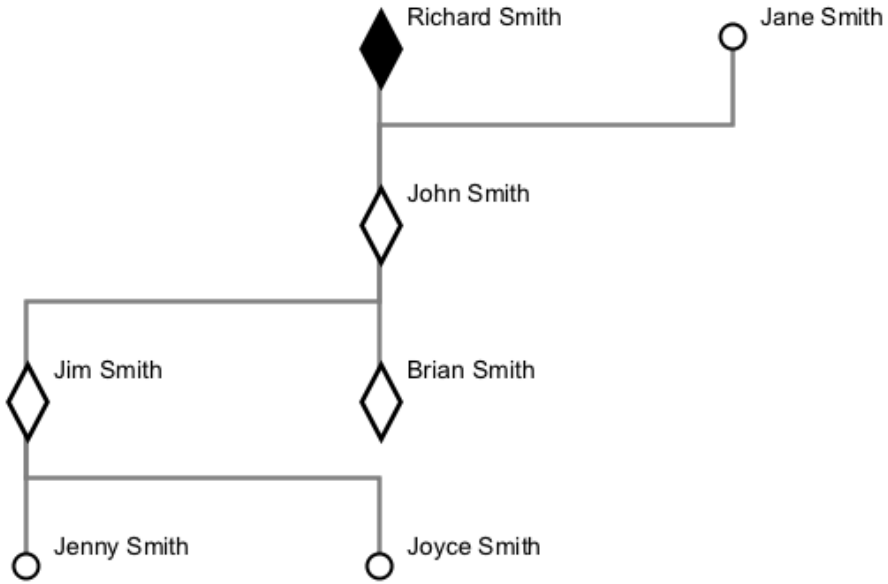
Creating Custom Symbols

- Custom symbols can be inserted into a kin diagram and used like any existing symbol
- Currently there is no simple way to add them via the user interface
- In the interim time this can be achieved by using an external editor such as Inkscape and adding the new symbol manually.



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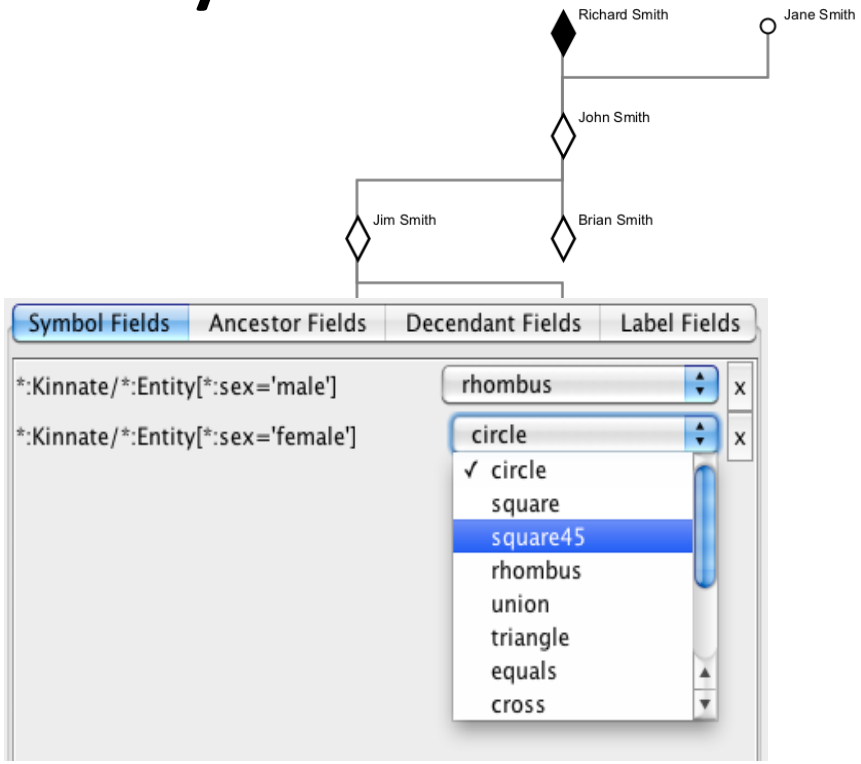
Selecting Custom Symbols

- The symbols are placed on the diagram based on the individual metadata
- Any number of symbols can be associated with specific metadata
- For instance "*:Kinnate/*:Entity[*:sex='male']" can be associated with the symbol "rhombus”
- Note that the table data is extremely flexible and could equally be "*:Kinnate/*:Entity[*:caste=’Y']"



Field Name	Value
Kinnate.Entity.UniqueIdentif...	a5c52746580656cac7e7b...
Kinnate.Entity.Name	Richard Smith
Kinnate.Entity.DOB	
Kinnate.Entity.sex	male CV
Kinnate.Entity.permissions	CV

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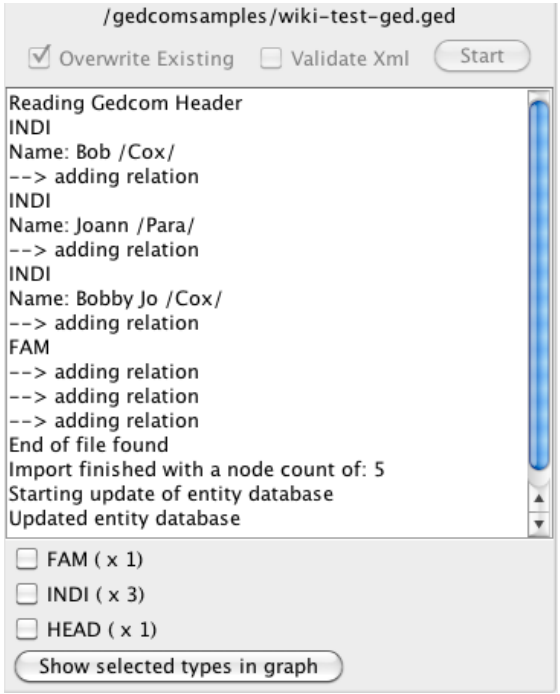
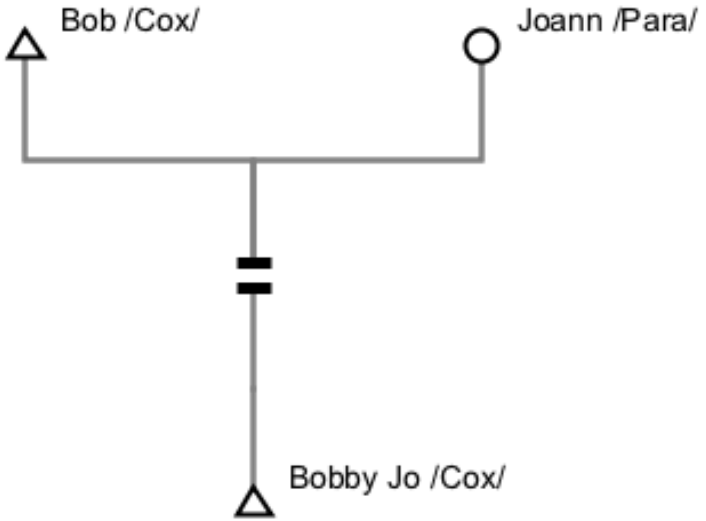
Gedcom Import

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 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
```





- All Gedcom fields are imported
- This simple example is from the Wikipedia Gedcom page
- http://en.wikipedia.org/wiki/Gedcom
- For testing the “GEDCOM 5.5 Torture Test Files” are used
- http://www.geditcom.com/gedcom.html

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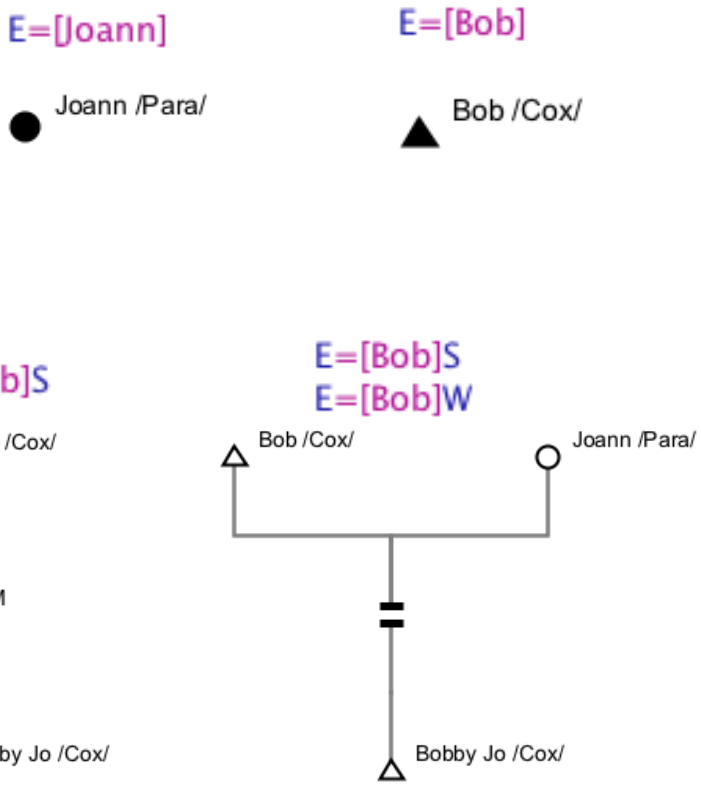
Query Strings

- Entities can be selected by a query on any field, for example name, age or unique identifier etc.
- Relations can then be selected by kin type strings



Note that this can only be minimally demonstrated at this stage

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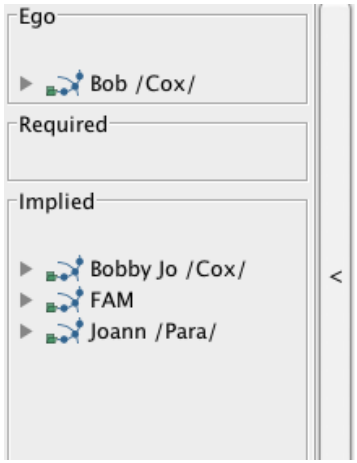
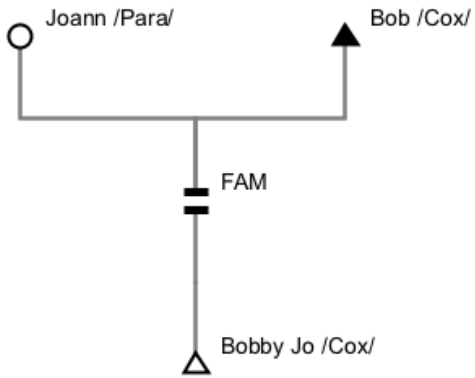
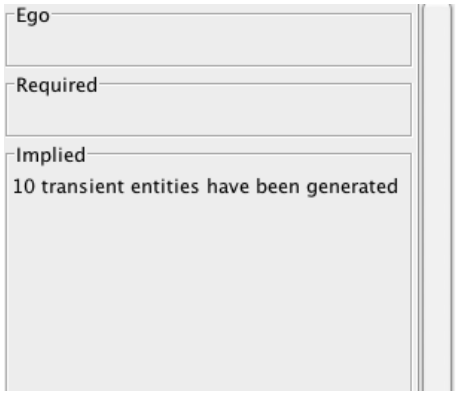
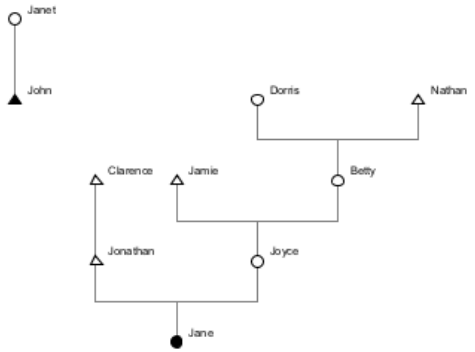
Transient vs Permanent

- There are two main types of entities shown on the graph, transient and permanent.
- Transient entities are not stored in the database and are created on the fly
- Whereas permanent entities are stored in xml files on disk and in the database









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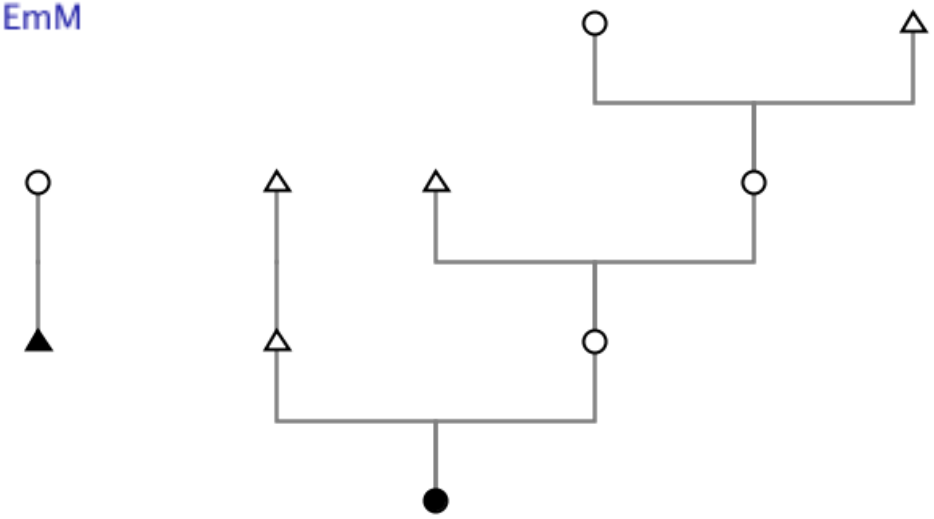
Transient Entities

- Transient entities can be generated quickly by entering the require kin type strings

EfFF
EfMF
EfMMF
EfMMM
Em
EmM



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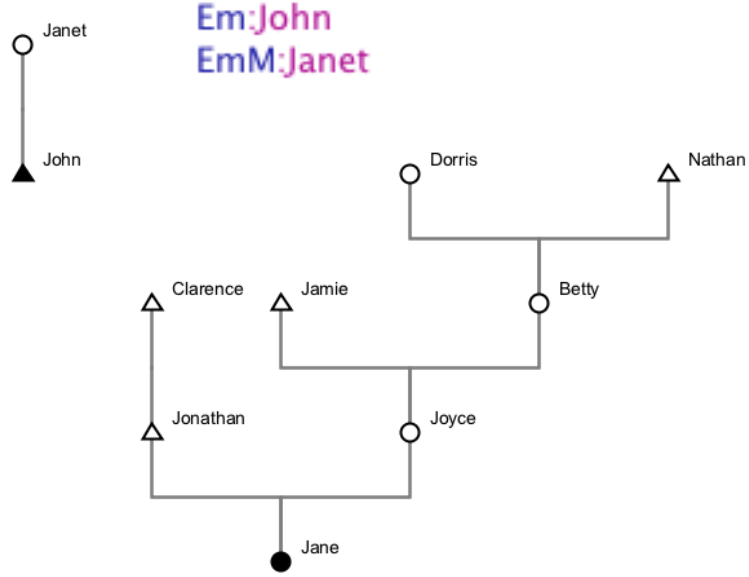
Named Transient Entities

- Transient entities can be named
- Making these transient entities permanent will be completed shortly
- It is expected that this will provide a fast method for use when eliciting data

Ef:Jane
EfM:Joyce
EfMF:Jamie
EfFF:Clarence
EfF:Jonathan
EfMMF:Nathan
EfMM:Betty
EfMMM:Dorris
Em:John
EmM:Janet



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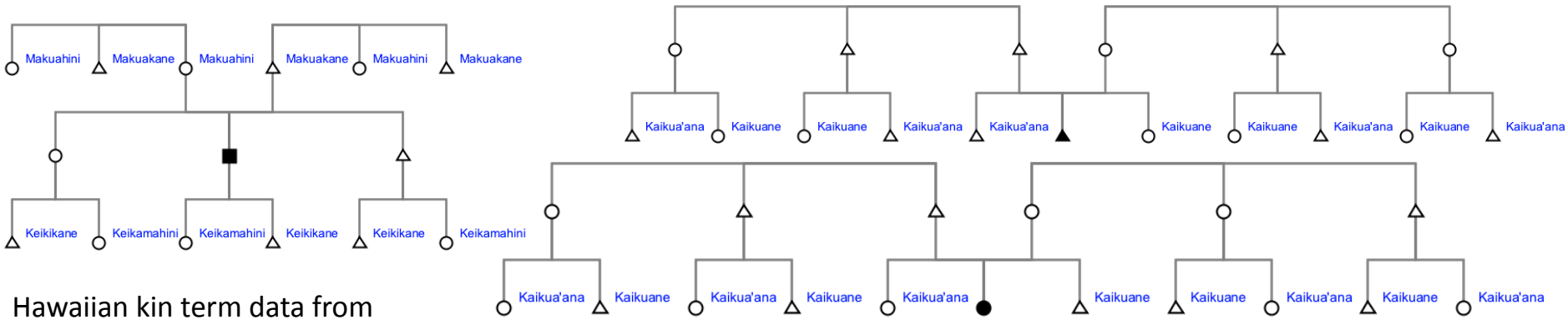
Kin Terms

- Kin terms can be entered and overlaid onto the diagram
- When entering a new kin term the user can select the ego, the alter, then enter the term



Hawaiian kin term data from
http://umanitoba.ca/faculties/arts/anthropology/tutor/kinterms/hawaiian.html

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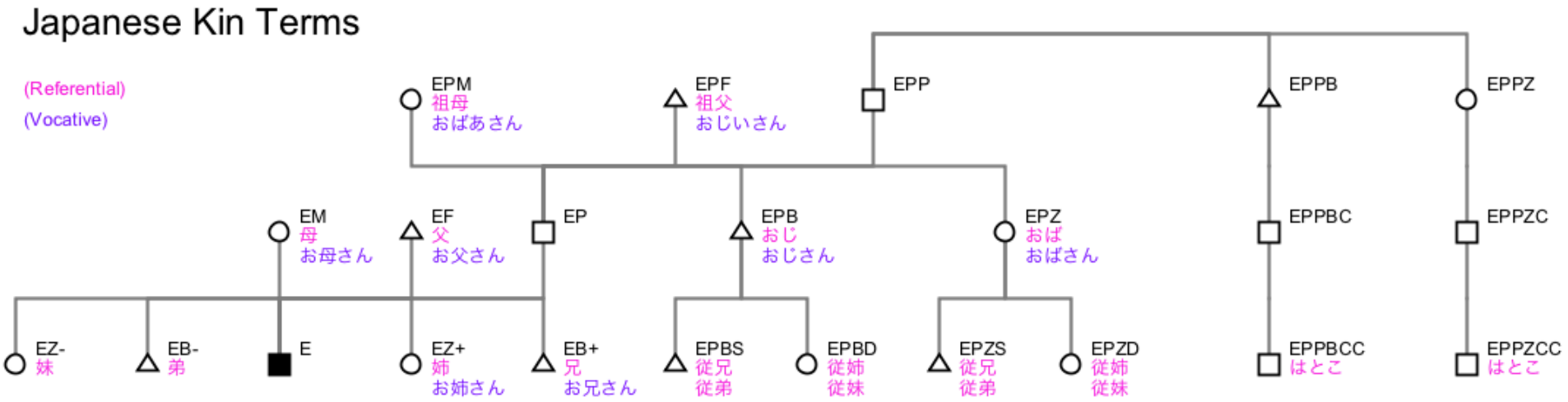
Comparative Kin Terms

- 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



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

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R and SPSS

Future functionality:

- The data shown on a diagram will be available for export for use in R and SPSS
- Additionally much of the demonstrated query functionality is hoped to be made available via an entity web service
- The web service is expected to function as follows:
  <webservice-url><kintype-query>
  where the kintype-query for example would be E=[Bob]MMZ

- Expected usage in R could be as follows:

```
dataFrame <- read.table("http://mpi.nl/tls/kinship/E=[Bob]MMZ",header=T)
library(kinship)
attach(dataFrame)
pedigreeObj <- pedigree(id, dadid, momid, sex, affected, status, relations)
plot(pedigreeObj)
```


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Linking Archive Data

- Because this kinship application shares a lot of code with Arbil (explained in next side), there is great flexibility in the metadata that can be consumed by it
- Many of the advantages of the Clarin metadata structures are available including the Data Category Register
- In order to link archive data many of the archive search tools found in Arbil are used
- Not all of these are ready for demonstration but they operate in a similar way as used in Arbil

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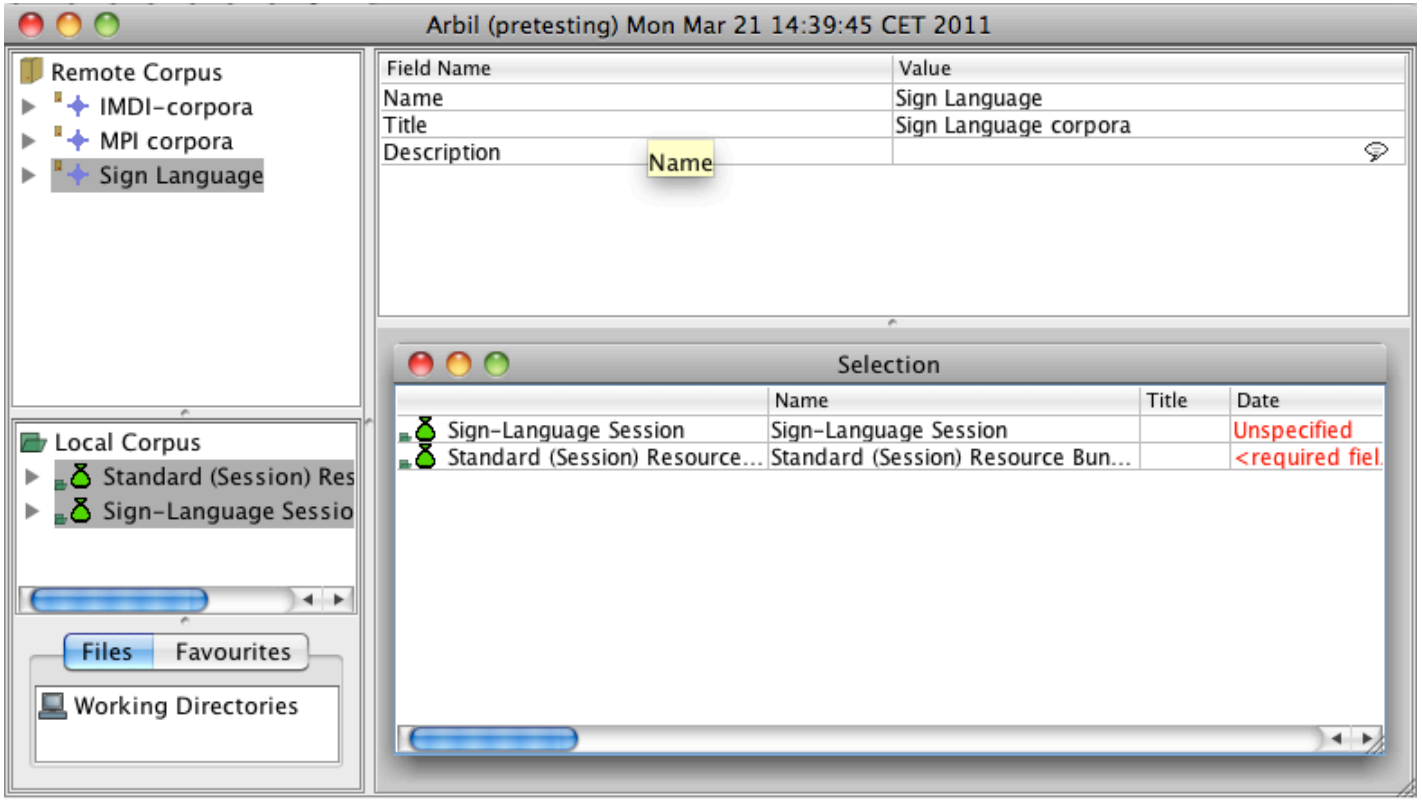
Archive Intro

- Arbil demo…



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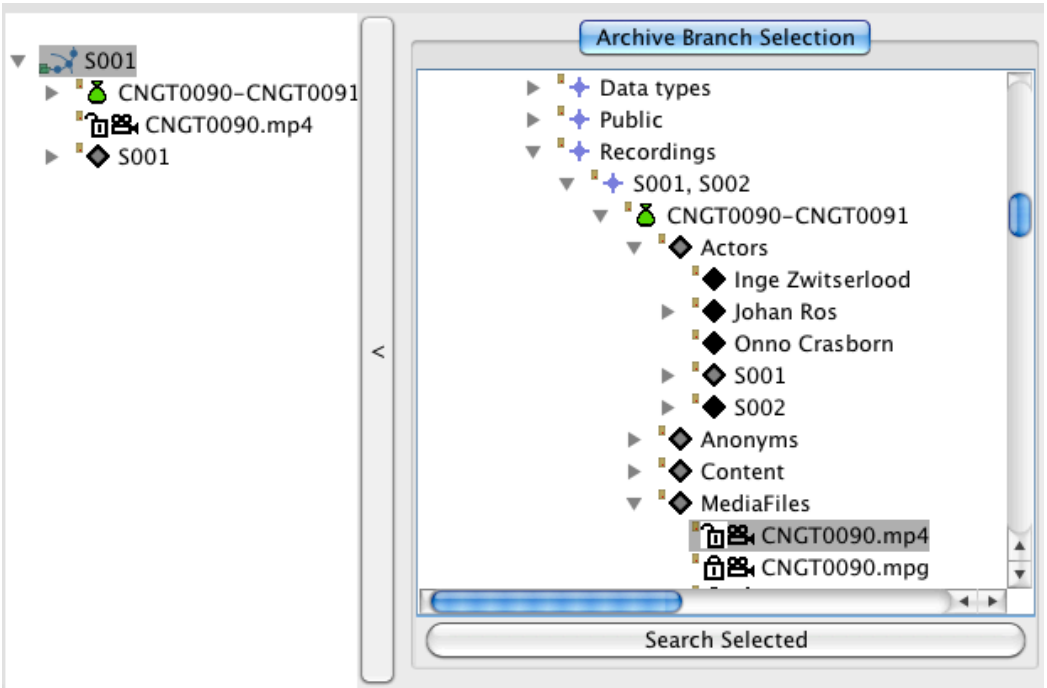
Creating Archive Links

- By using the archive metadata to create kin entities the manual data entry is reduced



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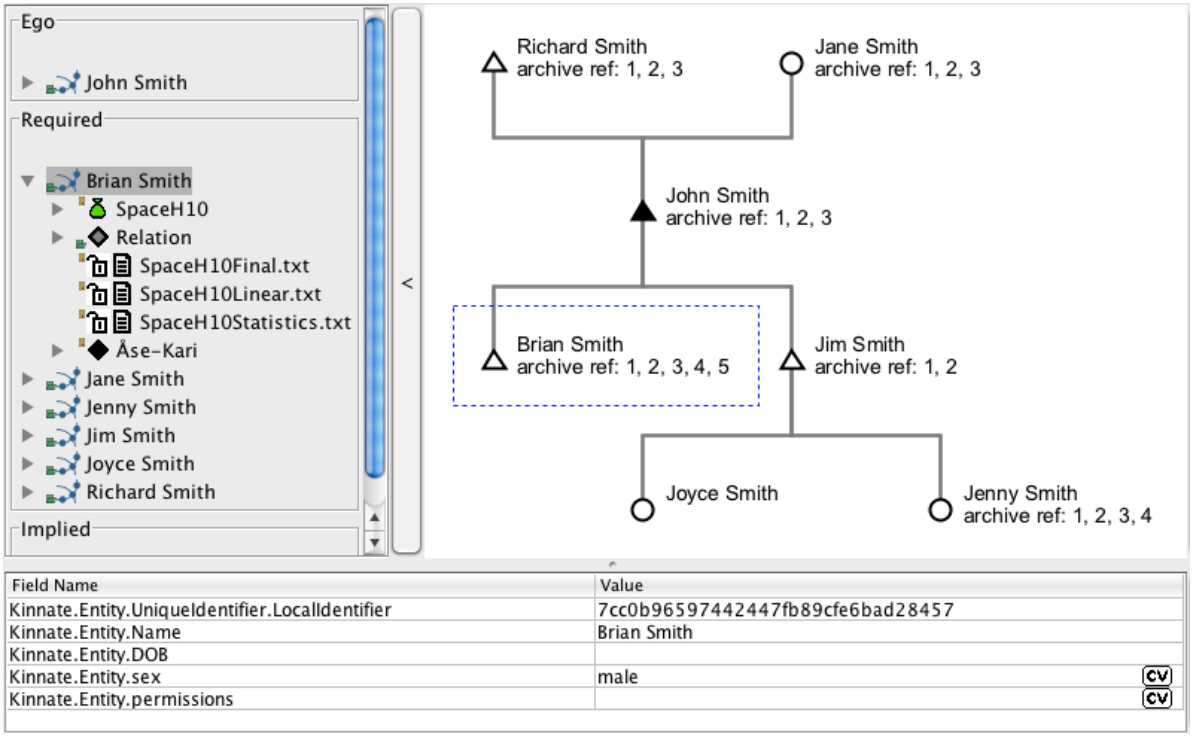
Archive Links on the Diagram

- When added to a kin diagram the archive links are accessible within the kinship application



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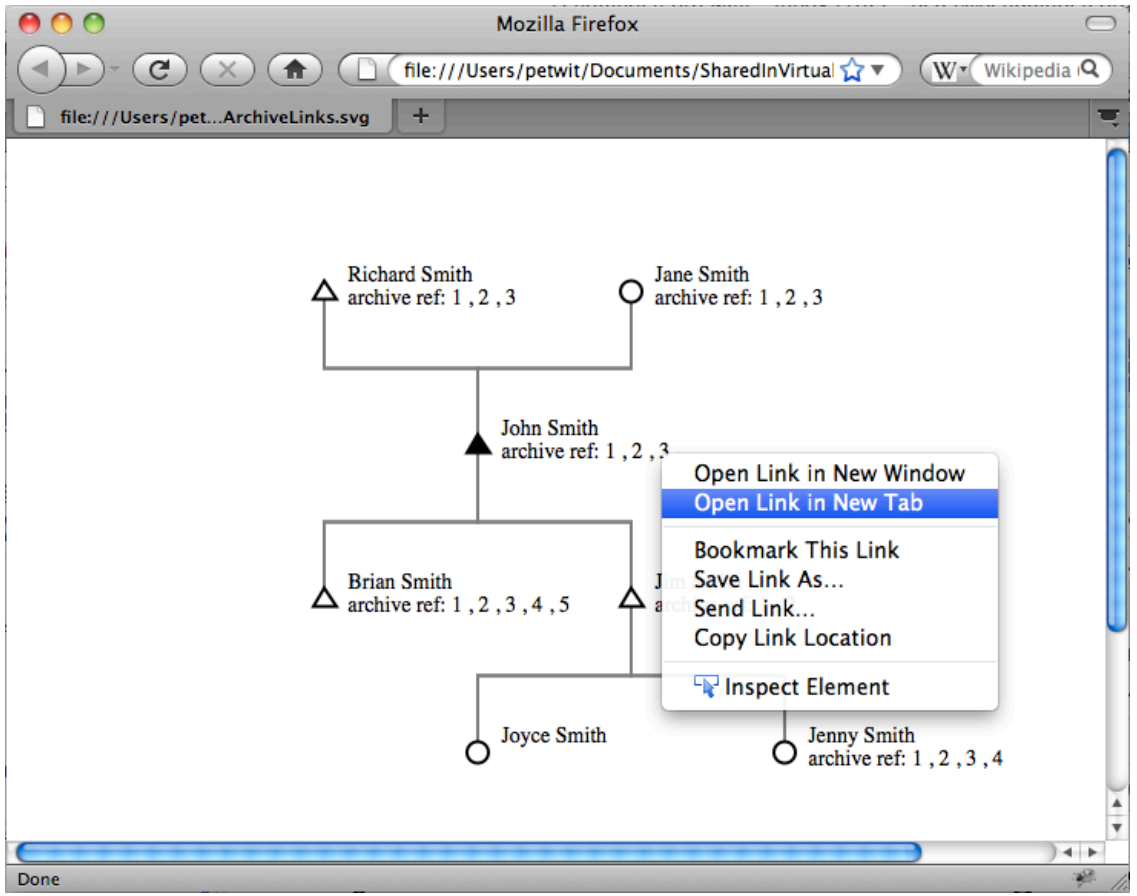
Archive Links in the Web Browser

- When viewed in a web browser the archive links are accessible as normal links



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Conclusion

KinOath is a prototype application which when fully developed will:

- Connect the kinship data to the archive data and metadata;
- Provide a way to efficiently construct kinship diagrams;
- Create publishable-quality kinship diagrams;
- Provide a link from a published diagram back to the source data in the archive;
- Be financially accessible to everyone (free) .

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