

A field linguist's guide to making long-lasting texts and databases

# Using Filemaker Pro to produce archivable language documentation

Naomi Fox  
Center for American Indian Languages  
University of Utah  
[naomi.fox@utah.edu](mailto:naomi.fox@utah.edu)

# Why Filemaker Pro

Special needs of our project

- Mac environment (but Windows compatible)
- Complex data (cognate relationships)
- Collaborative data entry
- Need for flexible structure
- Controlled data entry
- Low tolerance for complex technology
- Special characters
- Need for complex custom sort order

# Complex data

## Browse Comparative Entries

PrRefID  RootID   Flag  Spanish Sort Order

Guaz	Jum	Chiq	M	Gram	SpGloss
ʔambuki	ʔampuki	ʔampuki	ʔambuki	s1	culebra

ʔambuki seema	seema ʔampuki	ʔampuki seema			anguilla	S75
wunak ʔambuki		winak ʔampuki			brujo de culebra	S76
ɕ'iiriʔ ʔambuki	ɕ'iiril	ɕ'iiriʔ ʔampuki			cantil, bejuquillo	S77
k'oroor'o ʔambuki					culebra bejuquilla	S78
		k'oroor'o ʔampuki			tepolcúa- tiene 2 cabezas	S79
tuʔu ambuki		tuʔu ʔampuki	tuʔu ambuki		culebra chichicúa/ suchicúa	S80
ʔiʂtu ʔambuki		ʔiʂtu(?) ʔampuki			bejuquilla, culebra que va a mudar	S81
		ʔut'a ʔampuki			culebra grandota, coral(illo) madre de las culebras	S82
ʔutah ʔambuki					madre de las culebras	S83
ʂuyaku ʔambuki					mecazal (culebra)	S84

**Alt Roots** G: ʔambuki seema~ seema ʔambuki; G: ʔutah/ ʔut'a ʔambuki

**DataEntry** ehansen

**DataEdit** ehansen

**Date** 9/11/2006

**DateMod** 11/3/2006 1:18:29

**Notes** Ch: pl?; G,M: s(+pl); Sub 4: J: denied; J: s(+pl); G: (ʔ~k); Sub 7: G,M: s1; Sub 8: G,Ch squ. brackets; cf. G: (pr12-428) written as ʔampuki, not ʔambuki in root form and sub1

**Admin Notes**

# Why Filemaker Pro is good practice

- Supports interchangeable data formats
  - Excel
  - ODBC/JDBC
- Supports export of archivable formats
  - XML
- Accommodates structured data
- Unicode compliant

# Working in Filemaker Pro

- Automatic tracking of data entry and editing
- Controlled data entry
  - Dropdown menus from your data
  - Autocomplete
  - Multiple security/access settings

# Transcript Full Record

Title La Fortaleza del Maíz/La Naturaleza del Maiz (1979)

PR Reference Code MESO-XIN-TK-PR012-00343 thru  
 AU Reference Code MESO-XIN-TK-AU001-07

Speaker Cipriano Gómez Yermo

Language Guazcapán

Date Recorded 1979

Data Collector Terry Kaufman

Confirmed Yes- KH/ER

Typed Yes 07/29/20 ER

Digitized Yes 07/11/20 KH

TextType Myth (1)

Version Myth (1)

Bible Story (2)

History (3)

Present-day Supernatural (4)

Daily Life (5)

NI

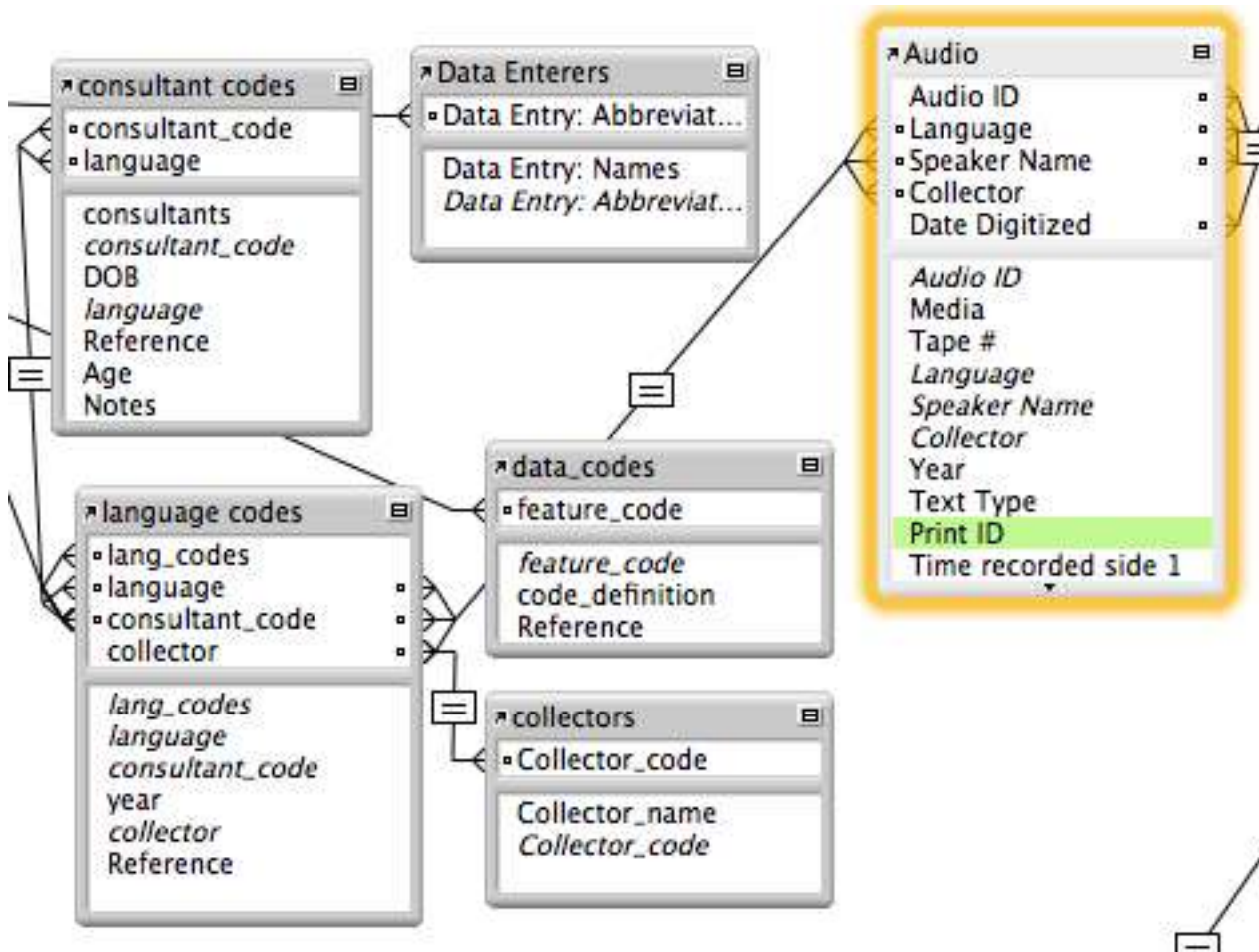
Xinca Spanish English

Transcript T2 Yes No No

<text>  
 pwes nah na řey monteksuumu, řuwiy kapitan+iifi,  
 i akufa tik ři neeřa na nuk'ey na muřikēsa  
 kāda lařtepet. entónses nah na Ć'aəmaafi  
 tēro? (1) nuk'ey na biskayno (2), i andalya (3), i  
 alforha, i  
 plāto. atero? nař nuk'ey nah k'ař {gayito/řu taata  
 miya} ooro.  
 i manda? kumu indyu o kapitan hin deřořa? haypuy.  
 imey ke "wa řik (4) mak'akin weena (5) ki? kuy  
 tahařa (6) řik.  
 teero? pař hooroy (7) han gi?. man gi? imey. (8) i  
 nah na  
 Ć'eheēte nah kumu andalya. (9) i plāto, i biskayno  
 (10), i  
 alforha nař uk'ey asegurar (11). handa řaři imey na  
 řey  
 ke nah na man hin, "porke hin kuy nuk'an naka  
 na man. pero [na nen] (12) nah na hə? atero? tuřun  
 nen?. (13)  
 hin, porke hin nuk'a naka k'an." pwes, {así/akani?}

# Working in Filemaker Pro

- Seamless link to metadata



# Working in Filemaker Pro

- Container fields
  - [Ex. forthcoming: ELAN files, .wav files]

# Collaboration

## Data interchange

- Export/import of Excel files.
  - Excel is often a familiar environment to native speaker collaborators, and data can be imported and exported with ease.
  - [Ex.: Shoshoni project FMPro dictionary]

# Collaboration

## Collaborative data entry

- Web publishing.
  - Low budget: Web publishing allows up to 5 people to enter data simultaneously in a Filemaker Pro web interface (without copies of FMPro software).
- Networking (more expensive)

# Web-based data entry

[Ex. forthcoming: Web interface: example sentence form]

# Presenting your data

## Presentation formats

- Excel
- Tab-delimited text
- Other database formats (ODBC)
- Web Publishing
- XML/XSLT
- Printing from Filemaker (self-designed layouts)

# Presenting your data

## Print layouts in Filemaker: Example

### Xinca Lexical Sets

RootID  
R298

PrRefID  
13-00078

Flag  
 Flag  Spanish

#### Root

Guaz	Jum	Chiq	M	Gram	SpGloss
ʔiʃka	ʔiʃka	ʔiʃka	ʔiʃka	vt + pass	beber, tomar líquido

#### Stems

Guaz	Jum	Chiq	M	Gram	SpGloss	SubID
ʔiʃak'a		ʔiʃak'a	ʔiʃak'a	sv	chilate, atol, bebida	S360
ter'o ʔiʃak'a	ter'o ʔiʃak'a	ter'o ʔiʃak'a			(tener) sequía, sed	S361
ʔiʃk'aafa		ʔiʃkaʔ	ʔiʃk'aafa	agt	un borracho, bebedor(a), un bolo	S362
ʔiʃk'ak		ʔiʃkak	ʔiʃk'ak	instr	vaso, morro (donde se toma), botella, jícara de beber, guacal,	S363
ʔiʃk'ak ʔuy	ʔiʃkak ʔuyyi				dónde tomar agua, pozo, bebedero, guacal, taza	S364
	ʃan ʔiʃkak			geog	cierto ojo de agua/pozo	S365

# Archiving your data

XML combined with XSLT allows for presentation options as well as being the archiving format of choice for digital data.

## XML Archiving Options

- Filemaker's native XML
- Filtered—previous templates
- Filtered—customized

# XML Export

Filemaker offers a built-in XML export (App.1).

- Better than proprietary format, such as the database itself, for archiving purposes
- Structure is not desirable for permanent storage
  - individual items not self-tagged
  - doesn't handle complex exports transparently
    - e.g., cognate root table with associated stem table (many-to-one)

# XML Export

## Filtered XML, Existing Templates

The Filemaker Pro website has a library of XSLT stylesheets which can be used to create different presentations (these can also function as 'backup backups', especially print backups).

For example: transformation to basic HTML, PDF, or text without technological expertise.

[http://www.filemaker.com/products/technologies/xslt\\_library.html](http://www.filemaker.com/products/technologies/xslt_library.html)

# XML Export

## Filtered XML, Customized

If you know or are willing to learn XSLT, you can write your own filter to export your data. This requires a higher level of knowledge, but can be extremely powerful and flexible.

[Ex. forthcoming]

# XML Export

Other options for creating archivable XML:

- Save in spreadsheet format and transform to XML from another program (note: 'Save As' **not** the same function as 'Export As' Excel)
  - NeoOffice and OpenOffice are open source XML-based word processing suites that provide support for XML/XSLT import/export functions
- Export to another database format (ODBC/JDBC, MySQL)

# Random follow-up notes (not your grandma's filemaker)

- Filemaker now provides a conversion tool to update legacy databases (prior to 7.0).

[http://filemaker.com/downloads/pdf/fm8\\_converting.pdf](http://filemaker.com/downloads/pdf/fm8_converting.pdf)

- Filemaker provides support for handheld devices.

- Up to 50 fields in a Filemaker database can be exported to a handheld and worked on with automatic user-defined updating.

<http://www.filemaker.com/products/fmm/>