

Data management with Toolbox

All kind of **structured data** can be encoded in Toolbox. A database in Toolbox is like a table where the lines represent the **records** and the columns the **fields**. Unlike a table, each record may contain different number of fields (columns). Interview transcriptions, bibliographic notes, directory of interviewed persons, fieldwork notes... can be managed with different types of database in Toolbox.

The screenshot displays the Toolbox software interface with four databases open:

- Ent Comp. db:** Shows an interview record for 'ENT_2004/11/19' dated '19 novembre 2004'. The transcription date is '22 novembre 2004'. The interlocutors are 'Simon Quispe et sa soeur'. The theme is 'pukyo, susto, animu'. The text describes a conversation about irrigation and water management in the mountains.
- Garnet. db:** Shows a record for 'CARNET03' dated 'Août 2004- Octobre 2004'. The text discusses 'canal derrumbe' (dam collapse) and 'irrigation_reference légale' (legal irrigation reference).
- Ref bib th. db:** Shows a bibliographic record for 'REFTH041' by 'Pinedo, Donaldo y Churata, Tonicer' (2002). The title is '"Sostenibilidad social de los sistemas de riego por aspersión"'.
- wordlist TH. db:** Shows a word list with columns for 'Mot' (word), 'nb Oc' (number of occurrences), and 'Références' (references). The word 'pukyo' is highlighted with 1 occurrence in ENT_2004/11/19.

Four databases : interviews, notebooks, bibliography, word list

Download Toolbox

<http://www-01.sil.org/computing/toolbox/downloads.htm>

- ◆ InstallToolbox 159.exe
- ◆ InstallToolboxNewProject158.exe

Install Toolbox

- ◆ Double-click on *InstallToolbox159.exe*. By default the installation takes place in the *Program Files/Toolbox* folder
- ◆ Copy the file *InstallToolboxNewProject158.exe* in the same *Program Files/Toolbox* folder
- ◆ Make a shortcut for this file and drag it to the desktop

Main concepts

Three main concepts

- ◆ Concept 1: Project
- ◆ Concept 2: Encoding language
- ◆ Concept 3: Database type
- * Install a Unicode font
- * Install an IPA keyboard : MSKLC (Windows), Ukelele (Mac)

Starting a new project

- ◆ Double-Click on the shortcut of *InstallToolboxNewProject*
 - Give the path to the folder where to install the new project (you may have created it before)
 - Setting files will be copied in this folder. A shortcut *Toolbox Project* appeared on the desktop
 - Rename the shortcut
- ◆ Double-click on the shortcut of the new Project

By default, the project contains an *MDF* type database named **Dictionary.txt** and a *Text* type database named **Texts.txt**.

Database type

The database type is a setting file which define the structure, i.e mainly a set of fields, one of them being the main one (*record marker*).

Let's take the example of a **bibliographic database** that could help to maintain a set of **articles and books** in relation to the current research project :

The screenshot shows the Toolbox application window with a menu bar (Fichier, Edition, Base de Données, Projet, Outils, Vérification, Affichage, Fenêtre, Aide) and a toolbar. The main area displays a record with the following fields:

| | |
|-------------------|--|
| \num | REFTH021 |
| \dt date fiche | |
| \au auteur | Escalante, Carmen et Valderrama, Ricardo |
| \an année de pub | 1988 |
| \tr titre | Del Tata Mallku a la pacha mama. Riego, sociedad y ritos en los Andes peruanos |
| \ouv ouvrage ou p | DESCO, Lima, 243p. |
| \th thèmes abordé | rituels_tiés_à_l'irrigation, ethnoclassification_(sols,_ chaîne_opératoire...), Yanque, valle_del_Colca, gestion_de_l'eau |
| \res rsum | Dans ce livre, après une courte mise en perspective de la situation géographique, économique et sociale de Yanque, ainsi qu'une description des activités agricoles menées sous irrigation, les deux auteurs parviennent à ce qui fait l'objet de leur recherche, à savoir le cycle rituel lié à l'eau d'irrigation. Avec une précision infinie, chaque rituel est décrit sans qu'aucune analyse symbolique ne soit tentée qui aille au delà de la très générale "réciprocité entre humains et non-humains..." |
| \t texte | Introduction de Nelson Manrique qui fait un point sur l'ethnologie andine. |
| \t texte | L'eau est l'un des éléments avec la terrele travaille bétailqui participe de la structurartion sociale de Yanque En el caso de Yanque existian grupos de parentelas nucleados en torno al mantenimientoconservacion y uso de manataiales pequeños o estanques que almacenaban el agua sobrate de la mitacion o riego de un sector(Escalante et Valderrama1988 43)Dans ce cas un cabecilla est élu par les usagers de façon rotative pour répartir l'eau (Escalante et Valderrama1988 43) |
| \t texte | Estructura de poder y autoridad en Yanque 2 systèmes coexistentl'un dépendant de la ley de aguas et qui consiste en une comision de regantes avec un bureau complet qui inclus un regodpr de aguas ou yaku alcalde (finalement le plus importantet de l'autre un système de costumbre qui compte un Yana ou Kama Chikusqa Yanaun Rikuqun rondador o malkero et un pajes "(Escalante et Valderrama1988 56 |
| \t texte | Les comuneros qui accomplissent leur devoirs rituels envers la communauté sont des runales autres des runa con colac'est-à-dire pas des êtres humains(Escalante et Valderrama1988 57 |
| \t texte | Obligations du yaku alcalde (Escalante et Valderrama1988 58-59)assister aux assembléesrépartir l'eau (mitacion)diriger les faena et rituels (specialiste kamachikuq yana)trouver un rondadorservir la communauté 3 ans a trois postes différentsPour pouvoir réaliser ce cargo il faut au préalable avoir passer un certain nbr de rituels religieuxTous les présidents de communautés ont auparavant ete yaku alcalde entre autre Riego umareo (Escalante et Valderrama1988 70 |
| \mc Mots-cléf | irrigation-terminologie |
| \t texte | Ethnoterminologie Qarpay riego para barbecho y siembraokme o umareo riego antes del qoreo o deshierbey antes del aporque o amontonoquellwa o Yachachi riego posterior al primero aporque Surco |

The main marker is **\num**. It will contain an identifier that reference the document in the current record (here REFTH021)

The other visible fields here are :

- **\dt** date of creation of the record,
- **\au** author of the document,
- **\an** year of publication,
- **\ttr** title,
- **\ouv** title of a book or a serie the document is originated from,
- **\pp** pagination,
- **\ref** citation of the document in a bibliography,
- **\lieu** where the document can be found,

Then come the fields describing the content of the document

- **\res** summary,
- **\com** comments,
- **\nt** notes,
- **\th** thesaurus,
- **\mc** keywords,
- **\t** sentences from the document

Creating a *bibliographical* database

File, New

- Give the database a name, and choose the folder where to save it (preferably in the Toolbox folder of the present project) : e.g. *ref bib th.db*.

We have to create a new **type** of document for this new database

- **Add New type, Add**
 - **Nom**: give the new type a name : e.g. *Ref Biblio*.
 - **Field marker** : `\num`
 - **OK, OK**

The database is created. It contains an empty record with a field `\num`.

The first reference can be entered, e.g.: REFTH001

Adding a field to a record

To add a field to a record

- Type `\` at the beginning of the line at the point where you want to insert the field.
- Enter the name of the desired field (e.g. : `dt`). If it doesn't exist yet :
- **Marker not in marker list, Add it ?** Yes
- **Field name** : enter the name of the new field (e.g. : `date`)
- **OK**

The fields can be added one after the other and filled in the same time.

Giving a field an encoding language

By default, Toolbox knows a set of predefined encoding languages. **default** contains the latin alphabet (without any accent), **phonetic** and **vernacular** contain most of the IPA characters.

Date is used for the fields containing dates (like 30/Jun/2001 or Jun/2001 or 2001)

To give a field an encoding language :

- Right-click on the field label
- **Langage Encoding** : choose the desired encoding language (e.g. *Date* for the fields `\dt` and `\an`)

Creating a template for the database

Once a record has been created with the desired fields, it can be used to define a template for the new records.

- **Database, Template**
- **Include fiels contents**: don't check this box
- **OK**

Filling in the fields

Put the cursor in front of the field to be filled, and enter the data.

For the *text* fields, carriage returns are not taken into account. Create a new *text* field for each new paragraph (**t at the beginning of a line**). It's possible to do a copy/paste from a Word or PDF document directly into the `\t` field.

For the `\dt` or `\an` fields, enter the date in the form 30/Jun/2001 or Jun/2001 or 2001.

Specifying the field display (color, style)

To provide easier identification of the various contents of a record, it's possible to give a color or a different style (font, bold, italic...) to some fields.

By default, the setting display of a field is the one defined in the language encoding parameters associated to it. But it's possible to change the font, the character style and the color of the font, the rest of the encoding parameters (sort order, variables...) being the same.

- Right-click on the field label to set
- Uncheck **Use Language** font
- Click on **Choose Font**
- Select the font, style or color

Displaying a database as a table (Browse)

To browse the database in a convenient way, you can display it as if it was a table

- Click on the **Browse** button 

Choosing the fields to display in Browse mode

The fields to be displayed in Browse mode can be specified

- **View, Browse fields**
- Select the fields one by one from the left window and move them to the right window with the **First**, **Last** or **Insert** button, in the order you want
- **OK**

Creating an *interview* database

The process is the same as before

- **File, New**
- Give the database a name and choose the folder where to save it (preferably in the Toolbox folder of the current project) : e.g. : *Ent Comp.db*.
- **Add New type, Add**
 - **Name**: give the new type a name : e.g. : *entretien*.
 - **Field marker** : \Id
 - **OK, OK**

The database is created. It contains an empty record with the field \Id.

The first reference can be entered, e.g. *ENT_2004/08/10*

Notice that the date in the reference allows the chronological order for the record.

The set of fields in the example about the interviews (*Ent comp.db*) are :

- **\Id** the record marker (main field) given when creating the database
- **\de** date of the interview
- **\dt** date of transcription
- **\int** participants
- **\th** thema of the interview
- **\etat** level of the transcription
- **\ia** transcription of the speaker *a* speech
- **\ib** transcription of the speaker *b* speech
- **\hi** transcription of the interviewer speech (initials of the researcher)
- **\pp** other participants
- **\lieu** location of the interview
- **\circ** circonstances
- **\com** personal comments on the interview
- **\rq** remarks
- **\mc** keywords

Creating a word list

It's possible to create a list of the words used in one or more fields of one or more database(s). This list will be a new database (of type *WordList*).

First, we have to create a *Corpus*.

- **Project, Text Corpora, Add**
- **Corpus Name** : give the corpus a name (e.g. : *wordlistTH*)
- **Language Encoding** : Language encoding of the field(s) being treated
- **Edit Files List** : Move the wanted file(s) in the right window with the **Last** button (here *Ent Comp.db*)
- **Marker for Words** : list the fields you want to do the list (e.g. : \th)
- **Reference Markers** : *Primary* : give the name of the field to be the reference for the words (where they have been found. e.g. : \Id)

- o OK

To create the word list :

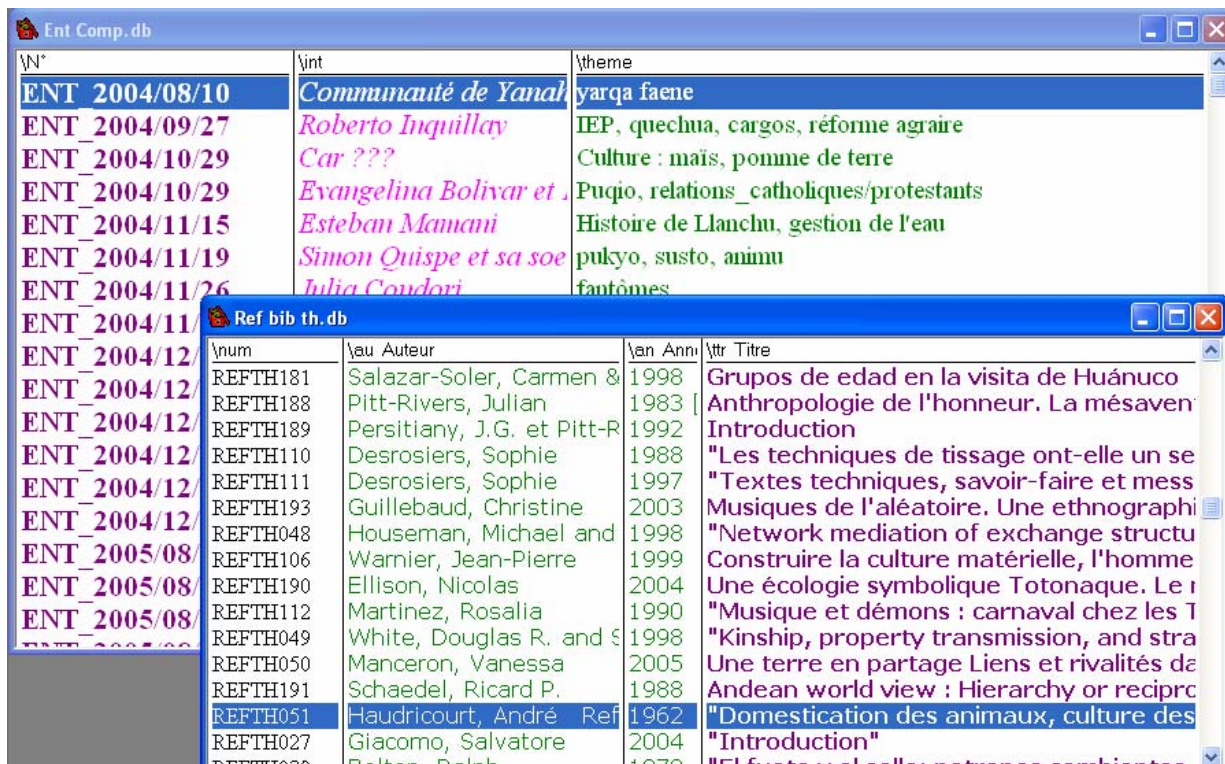
- o **Tools, Word List**
- o **Text corpus** : choose the corpus (e.g. : *wordlistTH*)
- o **Output File** : give a name to the database that will be created (by default *wordlist.db*)
- o **Create**

Creating a link between 2 databases

It's possible to create a link between 2 databases in a way that will allow to jump from a word of the word list to the entry of the database with the same word ; for example to jump from a specific thema in the word list (*wordlistTH*) to one record where the word appears in the interview. To do this we will create a link between the reference field (\r) of the *wordlistTH.db* database to the identifier field (\Id) of the *entretien.db* database

- o Select the database from where to jump (*wordlistTH.db*) by clicking inside
- o **Project, Database Types, Modify, Jump path, Add**
- o **Jump Path Name** : Give a name to the destination database where to jump (e.g.: *thema > entretien*)
- o **Available Fields** : Select the source field (\r) and add it to the right window (**Fields to jump to**) with the **Add** button
- o **Destination** : Select the destination database (here *Ent Comp.db*) and the corresponding field (here \Id)
- o OK

From now, a **right-click on a reference** in the thema database (*wordlistTH.db*) will automatically open the matching record.



Browse display

Ordering from another field

It can be interesting to sort a database by another field than the record one. For example in this **fieldwork notes** database where

- **\Id** the number of the notebook
- **\mc** keyword
- **\pg** page in the notebook
- **\dt** the date of the note
- **\sce** the source of the note

The screenshot shows two windows from a database application. The left window, titled "Carnet.db:1", displays a list of records with the following fields: \Id, \Per, \Com, \mc, \pg, \res, \dt, and \sce. The records are sorted by the \mc field. The right window, titled "Carnet.db:2", shows a table with columns \mc, \Id, and \pg, listing various irrigation-related keywords and their corresponding notebook IDs and page numbers.

| \mc | \Id | \pg |
|-----------------------------------|----------|---------|
| Irrigation_haciendas | CARNET01 | 57 |
| Irrigation_homme | CARNET07 | 25 |
| Irrigation_négociations | CARNET02 | 98, 99 |
| irrigation_ordre | CARNET07 | 12 |
| Irrigation_petits_canaux | CARNET01 | 89 |
| irrigation_reference_légale | CARNET03 | 2, 3 |
| Irrigation_techinique | CARNET04 | 20 |
| irrigation_techinique | CARNET04 | 44 |
| irrigation_temps_haciendas, histo | CARNET01 | 5 |
| irrigation_textile | CARNET07 | 101 |
| Irrigation_tubes | CARNET03 | 42 |
| irrigation_vocabulaire | CARNET04 | 20 |
| irrigation_vocabulaire | CARNET05 | 85 à 87 |
| Irrigation, calendrier agricole | CARNET01 | 58 |

It is convenient to have the database sorted by keywords as shown above to be able to quickly find the location in the notebooks where a given keyword has been mentioned.

To sort the database from another field

- Click on the head title corresponding to the desired field in the *Browse* display (here \mc)
- Or, go to the menu **Database, Sorting**
- From the left window, Select the sort field you want and move it to the right window with the **Last** button.
- You can choose other secondary fields if the principal one may contain several occurrences of a word

Filtering a database

We may want to work just on a part of a database. For example the publications subsequent to a certain date, or the interviews relative to a certain thema.

◆ Filtering on a date

- Select the database to be filtered by clicking inside it
- **Database, Filtering, Add**
- **Filter Name** : Give an explicit name for the filter (par ex: >1999)
- **Marker Date, First**
 - **Marker** : choose the date marker (e.g. : \dt)
 - Check **Before**, **Equal** or **After** depending of your need (e.g. : After)
 - **Date** : enter the date (e.g.: 1999)
 - **OK, OK**
- In the button bar, drop the window displaying '*No filter*' down and choose your filter (here >1999).

The database will be reduced to the records matching the filter criteria.

◆ Filtering on a field content

- Select the database to filter by clicking inside
- **Database, Filtering, Add**
- **Filter Name** : Give an explicit name for the filter (e.g. : thema = réforme)
- **Marker Text, First**
 - **Marker** : choose the marker on which to be filtered the data (e.g. the keywords \mc)
 - **Text** : edit the criterion of filtering (e.g. : réforme)
 - **OK, OK**
- In the button bar, drop the window displaying '*No filter*' down and choose your filter (here >1999).

The database is reduced to the only records matching the filtering criteria (records containing the keyword 'réforme')

◆ To remove the filter

- In the button bar, drop the filter window down and select '*No filter*'

Searching

To search a record by its identifier (record marker)

- **Database, Search**
- Type the identifier you are looking for

To search in all the text of the database or the current record

- **Edit, Find**
- Type the text you are looking for
- Select either
 - the language encoding of the text : the search will be made in all the fields with this encoding
 - or the field in which you want to search

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