



# Emu Workshop 2

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Workshop Files, Repository and Wiki

[https://github.com/PhonLab/Emu\\_Workshop\\_2](https://github.com/PhonLab/Emu_Workshop_2)

# Introduction

# Database Basics

# Opening Existing Databases

First we must load the database: \* This attaches the SQL database and makes querying fast:

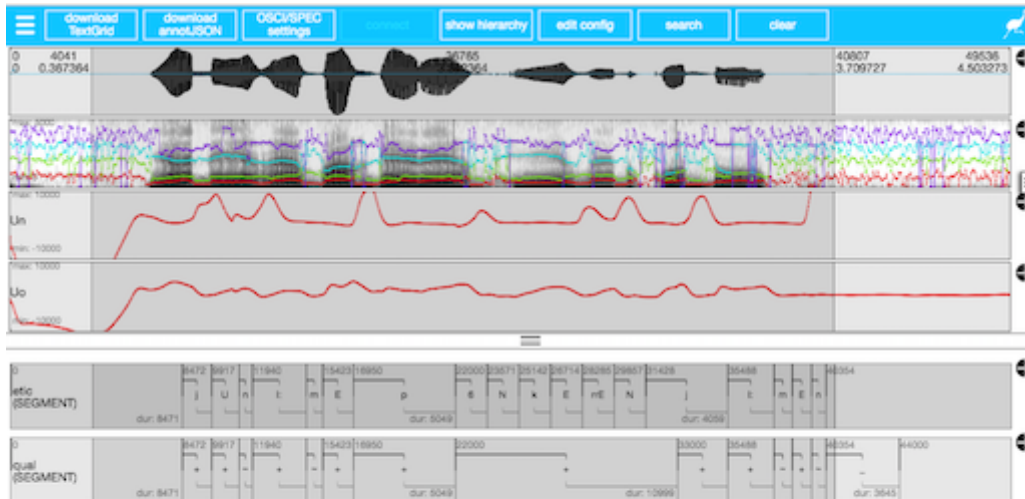
```
require(emuR)
# Change the path to point to the database
test_DB ← load_emuDB("~/Dropbox/Projects/Emu_Workshop_2/TestDB_emuDB")
```

```
## INFO: Checking if cache needs update for 1 sessions and 3 bundles ...
## INFO: Performing precheck and calculating checksums (= MD5 sums) for _annot.json files
## INFO: Nothing to update!
```

# Serving the Database

After we have loaded the database then we can serve it and view the files:

```
serve(test_DB, autoOpenURL = NULL)
```



Picture

# Adding Derived Signal files to the Database

Test\_DB has some derived signal files

- For example F0 and formants
- Could add rms or other signals

```
add_ssffTrackDefinition(emuDBhandle = test_DB,  
                        name = "FORMANTS",  
                        columnName = "fm",  
                        fileExtension = "fms")
```

# Perspectives

In order to view the correct data in the Emu WebApp we need to set the correct canvas order using perspectives

```
list_perspectives(test_DB)
```

| ##   | name           | signalCanvasesOrder    | levelCanvasesOrder |
|------|----------------|------------------------|--------------------|
| ## 1 | default        | OSCI; SPEC             | etic; qual         |
| ## 2 | Aerodynamic    | OSCI; SPEC; F0; Un; Uo | etic; qual         |
| ## 3 | AerodynamicMAX | OSCI; SPEC; Un; Uo     | etic; qual         |

# Adding tiers to a Database

Tiers are called `level` definitions in the Emu database:

```
list_levelDefinitions(test_DB)
```

| ##   | name  | type    | nrOfAttrDefs | attrDefNames |
|------|-------|---------|--------------|--------------|
| ## 1 | utt   | ITEM    | 1            | utt;         |
| ## 2 | word  | ITEM    | 1            | word;        |
| ## 3 | morph | ITEM    | 1            | morph;       |
| ## 4 | emic  | ITEM    | 1            | emic;        |
| ## 5 | broad | ITEM    | 1            | broad;       |
| ## 6 | etic  | SEGMENT | 1            | etic;        |
| ## 7 | qual  | SEGMENT | 1            | qual;        |



# Attribute definitions

Attribute definitions can hold arbitrary information that has is connected with the annotation at that level.

```
list_attributeDefinitions(test_DB, "utt")
```

```
##   name   type hasLabelGroups hasLegalLabels
## 1  utt STRING          FALSE          FALSE
```

# Converting existing databases

```
convert_TextGridCollection(  
    dir = "directory with pair of textgrid and wavfile",  
    dbName = "name for emudb",  
    targetDir = "path to dirctory"  
)
```

# Wishlist of Features

in the Labeller and within Emu R

# Workshopping Specific Questions with existing Data

- Are there any questions about your data?

# Some topics for future workshops:

An introduction to [tidy data](#) (Wickham )

- Why do things this way?
- For reproducible workflows
- To easily visualise and apply appropriate statistical methods

# Visulisation and Statistics

- Most of this will have to be for another workshop...