LIG-Aikuma

User guide

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1. Introduction

Lig-Aikuma is an application for Android for the easy collection of spoken data. It can be used for recording, respeaking, translation and elicitation in a simple manner. This document explains how to use it.
If you do not already have it on your Android device there are two ways to get it:

- Directly from your Android device:
    Go to *https://forge.imag.fr/frs/?group_id=805* in any web browser and download "LigAikuma.apk". You can either open it directly from your browser after the download has finished or find it in your Download folder (Device Storage → Download). Installing from other sources than the Play Store must be allowed. If it is not already to to Settings → General → Security and check the box next to „Unknown Sources".
Open "LigAikuma.apk" to install Lig-Aikuma.
- From a computer:
    Go to *https://forge.imag.fr/frs/?group_id=805* in any web browser and download "LigAikuma.apk". Email the file to an account synced to your Android device and open it there. Installing from other sources than the Play Store must be allowed. If it is not already to to Settings → General → Security and check the box next to "Unknown Sources".
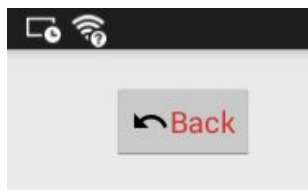
When you open Lig-Aikuma, you will be able to select a mode.

Recording 🎤 lets you simply record speech. **Respeaking** is a repetition of an original recording. If a recording is noisy or the speaker have mispronounced for instance, you can redo it in a different place (more quiet) or another speaker. **Translating** 🌐 is a translation of an original recording. In **Elicitation** 🖼 mode, you can load a text, an image or a video from your device. You can then record read speech or comment on images/videos. In **Check** ✅ mode, you can perform text checks of any kind, such as validating transcripts obtained from an automatic speech recognition system or validating spelling variants.

Finally, **Share** mode allows you to share your recordings with other devices via Bluetooth, Mail, NFC (subject to availability of these features on your device).

No matter where you are in the application, you can always return to the home screen with the **return** button in the top left corner.
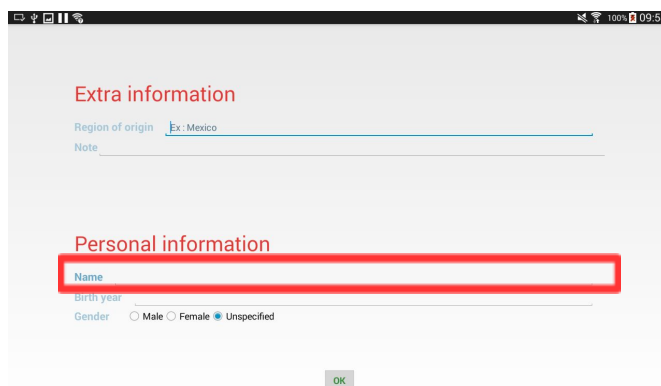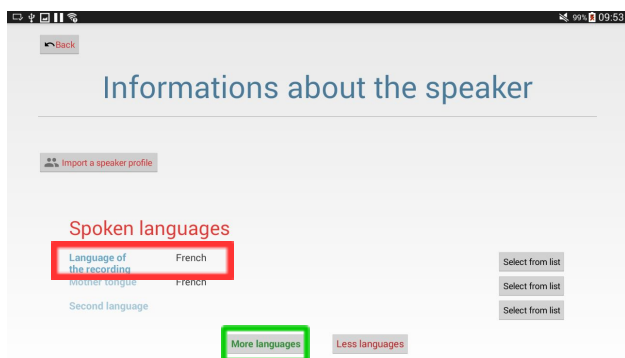
When a recording session is already started and you want to stop the current session, you can also press the return button. Then a popup will ask you if you want to save the current session. If you select "yes", the progression will be saved and the app will shut down. If you select "no", the progression will not be saved.

Samples are delivered with Lig-Aikuma app. As well you can use them to familiarize with the app. Find samples in the repertory named "resources".
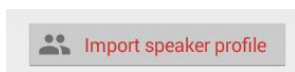
2. Recording

The most basic mode is **Recording**. Lig-Aikuma makes you enter some information about the speaker before starting, so you will not forget later. You **must** at least enter the language of the recording and the name of the speaker before continuing. Mother tongue, second language (you can also add more by pressing More languages), region of origin, gender and birth year are **optional**.

2.1 Speaker profile

When a user profile is fill in, it is saved and can be retrieved with the "Import Speaker Profile" button. It is then possible to select a saved profile from a list to import it or delete it.
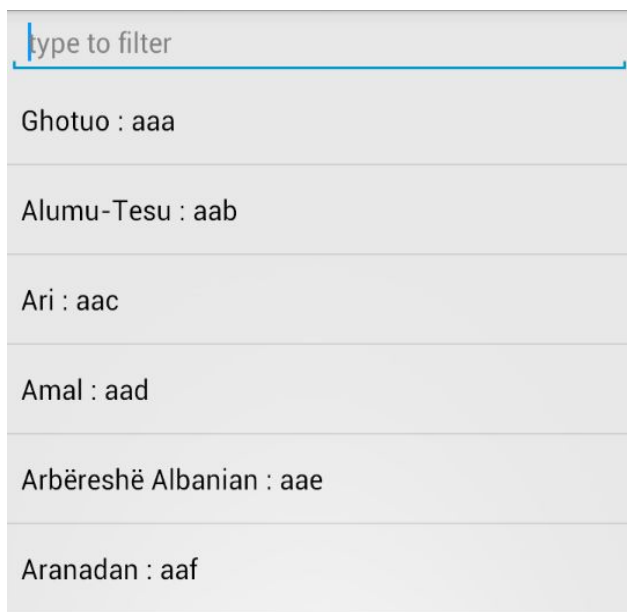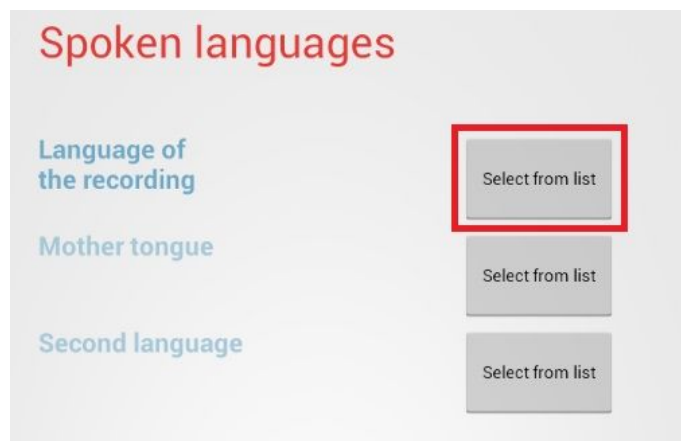
2.2 Language Management

(1.)

Spoken languages

Language of the recording — Select from list

Mother tongue — Select from list

Second language — Select from list

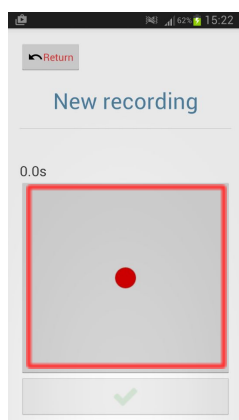To set the language(s) do the following:
1. Click "Select from list"
2. A list of languages appears. You can scroll to find the language or
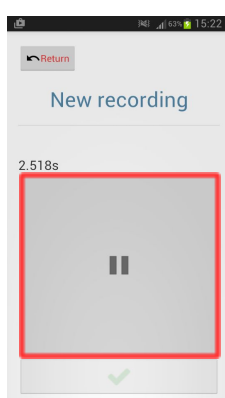3. Use the search box at the top to **filter** the languages

type to filter
Ghotuo : aaa
Alumu-Tesu : aab
Ari : aac
Amal : aad
Arbëreshë Albanian : aae
Aranadan : aaf

fra
French : fra
Frankish : frk
San Francisco Del Mar Huave : hue
Lingua Franca Nova : lfn
San Francisco Matlatzinca : mat
Lingua Franca : pml

(2.)   (3.)

After entering all the information, click **OK** and you can start recording.

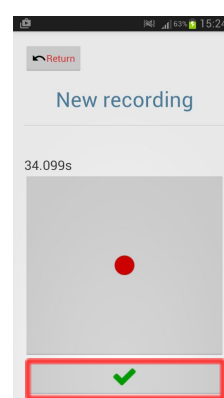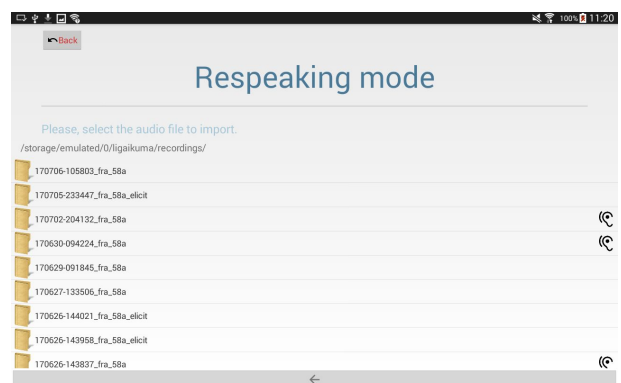|		
Return	Return	Return
New recording	New recording	New recording
0.0s	2.518s	34.099s
●	‖	●
✓	✓	✓
Start recording	Recording. You can pause.	Paused. Continue recording or

finish.

Once you are finished, you will return to the Welcome-Screen. LIG-Aikuma organizes your recordings in a very useful way:

Date of Recording-Time of Recording_Language

3. Respeaking

Before you resize a file we have to select it, Lig-Aikuma has a simple file explorer. It is possible to see our position (path) above the list and the bottom button allows to go back.
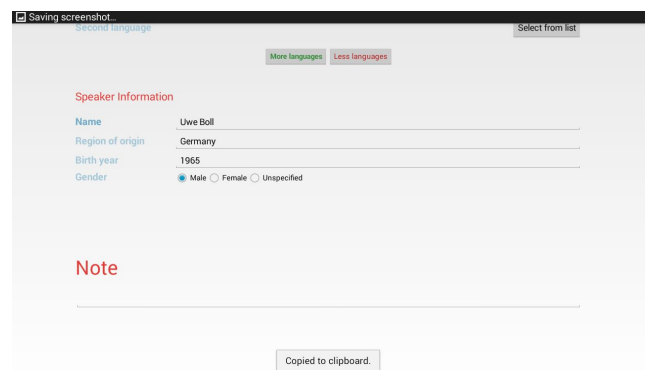
Folders having a respoken file will be illustrated with an **icon** next to their name, in the file explorer of Lig-Aikuma (see opposite).
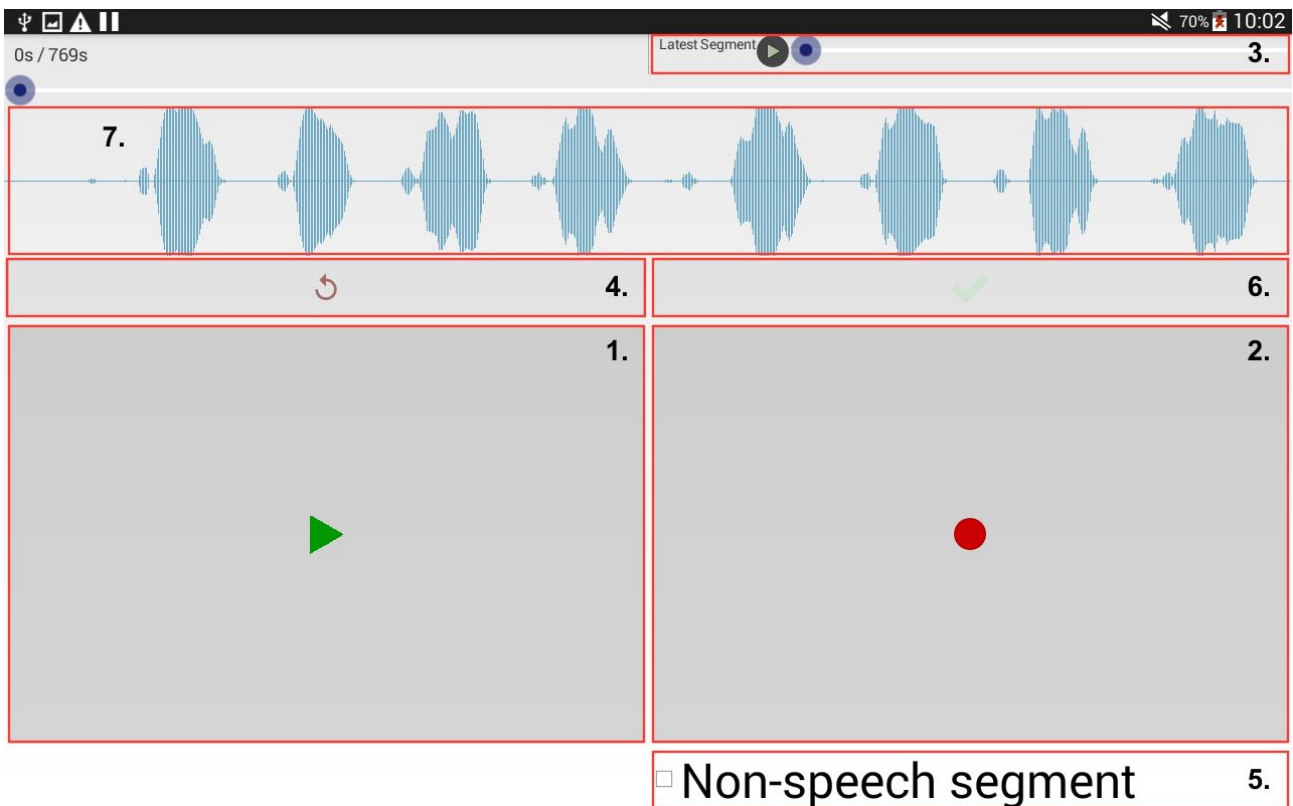
Once you have selected a file, you will see the language and speaker information of the original recording (if available). Below you can enter information about the respeaking.
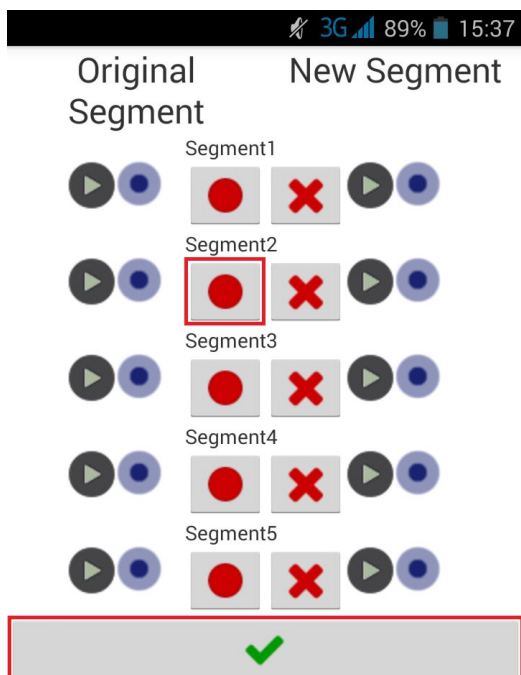
Original Recording   Respeaking

You need to **hold** the play button to play the recording (1). Releasing pauses playback. **Holding** the recording button lets you record (2). You can play the latest recorded segment in the top right corner. (3) If you are not satisfied by the record, you can erase it by press (4) and record it again by holding (2). It is possible to mark non-speech segments for future treatments by checking the box at the bottom right (5) before or after having recorded a new segment. Finally, validate once you are done by pressing (6).

It is possible to zoom in/out the waveform (7) on 4 levels and slide left/right the signal.

The segments are then stored in a file named *nameWavFile_no_speech.map* placed in the same folder as the record.

Following the validation, you will see the pairs of original and respoken segments. You can check if everything is correct. If not, you can re-record single parts.

The file will be saved in the same folder as the original recording and follows the same format. Date-Time_ Language_**rspk**. The last part of the name ("rspk") tells you that the file is a **respeaking**.

Once you are done, validate and a popup informs you about the success or failure of the respeaking.
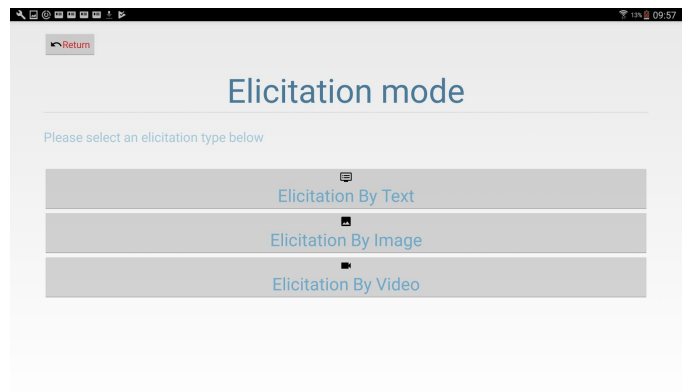
4. Translating 🌐

Translating mode works **exactly** the same way as **respeaking**. The only difference is, that the newly created file will end with **_trsl**. Folders which have a **translation file** will be illustrated with an **icon** 🌐 next to their name in the file explorer of Lig-Aikuma.

5. Elicitation 🖼

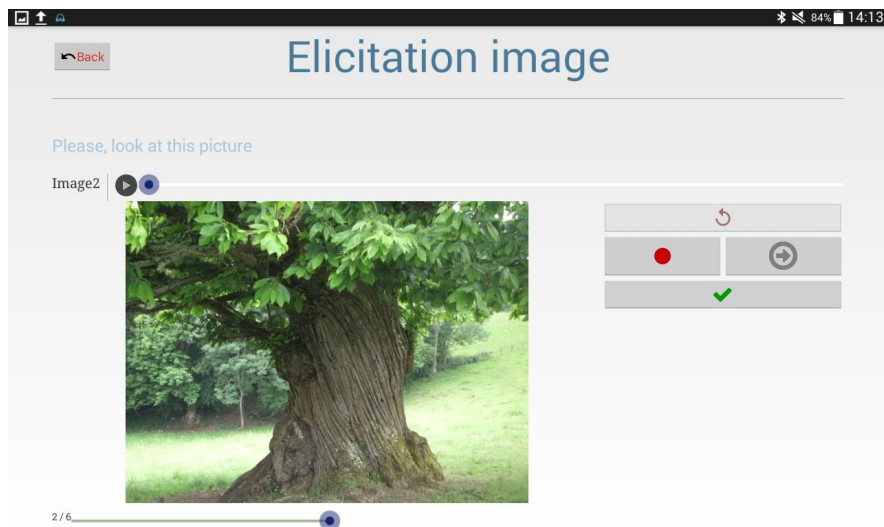You can load text, pictures or videos and record responses in elicitation mode.

If you load a text, every line will be an item. To create two items from one line, as in the french translation of the sentence in the example below, both must be **in one line but seperated by "## "**.
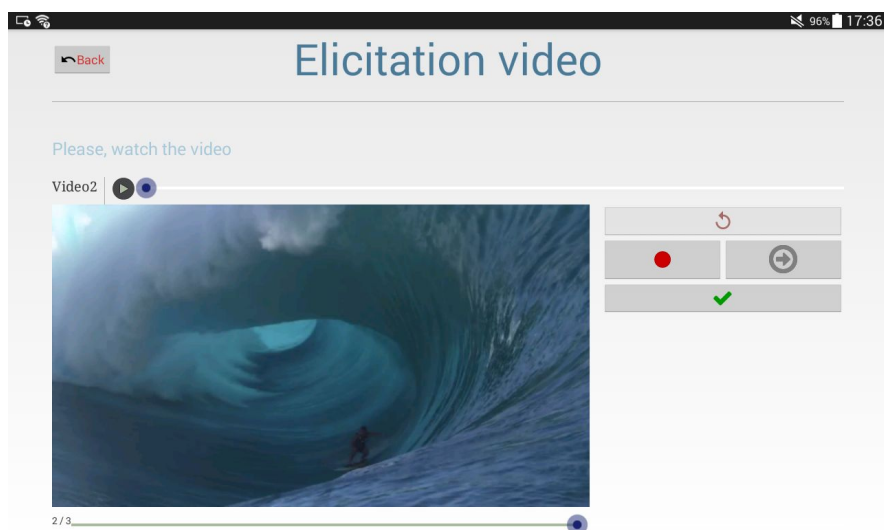

Now you can record by clicking the red button pause recording by clicking again.(1) You can replay your recording at the top arrow (2) and go to the next item by clicking the bottom arrow (3). Once you are done with all the items, click check (4).

You can undo the last recording by clicking on the undo button (5) and your progress is displayed here (6).

Elicitation from images or videos works the same way. You have to put the images (jpg, bpm, gif, png, webp) or videos (mp4, avi, 3gp, webm, mkv) into a folder and select it.

Elicitation from picture(s)

Elicitation from video(s)

Any elicitated recording will be saved in the format Date_Time_Language_**elicit**

A text file named *"linker.txt"* links the absolute path of the WAV file with the absolute path of the associated image is generated in the same place as the recordings. This file lets you know which recording matches which image or video.

6. Check ✔✔

The *Check* mode provides two sub-modes named *Check Word Variants* and *Check Transcriptions*. These modes have been implemented to produce simple text checks.

6.1 Check word variants

Select a text file to import, in CSV format with comma and semicolon separators.
The mode displays a main word (the first word of the file), in bold, followed by a list of other words preceded by a check box.
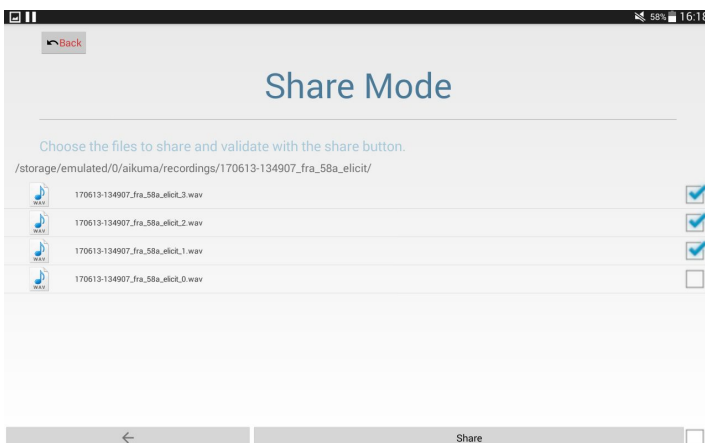
6.2 Check transcriptions

This mode takes as input 2 media: a sound file and a text file. The activity is simply importing an audio file and displaying the corresponded textual content (typically, the automatic transcriptions generated by an ASR from an audio file). The association between the audio file and the textual content is done through the text file that contains the name of the audio file. The principle is the following: the user listens to the audio file and indicates whether the text displayed corresponds to what he has just heard, by means of a check box.
At the end of the session, all the pairs of text/audio are saved into a file indicating the matching pairs.
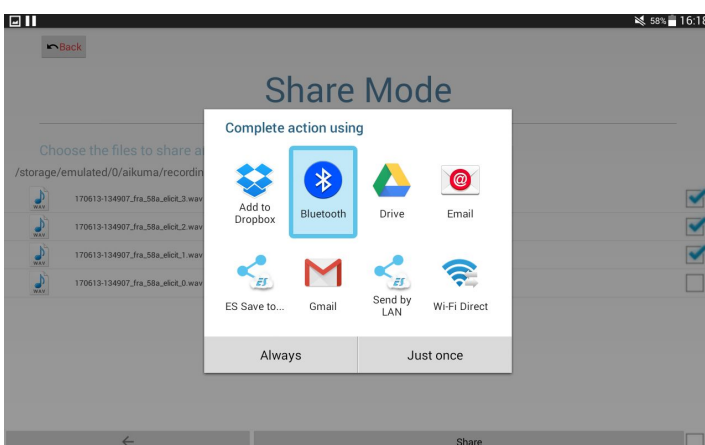
7. Share

Share mode allows you to share audio files with other devices by using all possibility of communication offered by the tablet or smartphone.

First, select files to share with the file explorer and check boxes.
To select all audio files in the folder, simply check the box at the bottom right of the screen. If you want to share only a selection of files, check the corresponding boxes for each of the files you want.

Finally, press "Share" to send the files.

Then, Lig-Aikuma proposes different transfer mode. Choose the convenient one and validate to share the files.

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