

Instruction Manual

Synchro in the Wild

1 Installation

Pre-requisites nodejs and g++ for c++11 must be installed.

To install the software, first download and extract the archive available on <https://github.com/nhannoyer/VideoSync.git>.

Open a terminal in the directory of the software and install the next package with the command 'npm install + <package name>':

- express
- formidable
- fs
- path

2 How to run the software

To run the software, first execute the script *startServer.sh* at the root with the command *'./startServer.sh'*. An firefox browser must have opened. Could be run separately with the commande *'nodejs app.js'* to run the server and open a navigator and connect to the localhost with the port 8080.

On the first page, you will need to upload three videos (1: glasses, 2: left camera and 3: right camera). You can move next by clicking on the "start videos".

On the second page, please select the synchronization points for each video by clicking on "Get frame" when you are on the right frame. Once it is done for both videos, you can save the data in an XML file by clicking on "Save".

Do not hesitate to refresh a page if there are any display problems.

3 Functionalities

These are the different functionalities given by the tool. On the second page you are able to move into the videos with :

- *play, pause, stop buttons*
- *left and right arrows which go to the previous or next frames*

- a slide bar
- "Go to sync frame" button which goes directly to the synchronization frame you selected with the "Get frame" button

"Get frame" allows you to select a specific frame. The three last buttons are "Home" to move back to the upload page, "Save" to download the data file and "Preview" to have a rapid preview of the synchronization.

On the third page, which is the page opened after clicking on "Preview", you are able to read the videos using the synchronization points you selected before. You are also able to save data on this page. To go back press the "Cancel" button.

You never need to synchronize all three videos, left and right videos have been automatically synchronized by a script.

4 XML data file

Here is an example of XML file you obtain by clicking on "Save", it has the frame rates, synchronization frames, starting frames and ending frames of each video.

```
<?xml version="1.0"?>
-<informations>
    <videoID>videotest </videoID>
    <frame_rate_G>25</frame_rate_G>
    <synch_frame_G>141</synch_frame_G>
    <start_frame_G>52</start_frame_G>
    <end_frame_G>262</end_frame_G>
    <frame_rate_L>60</frame_rate_L>
    <synch_frame_L>242</synch_frame_L>
    <start_frame_L>0</start_frame_L>
    <end_frame_L>210</end_frame_L>
    <frame_rate_R>60</frame_rate_R>
    <synch_frame_R>242</synch_frame_R>
    <start_frame_R>0</start_frame_R>
    <end_frame_G>210</end_frame_G>
</informations>
```