

Who framed the movies?

Getting your subject sets

So, we have uploaded our metadata to our bucket storage

Now we want to populate our workflow on Zooniverse.com with subject sets so we can start getting data

Depending on what type of subject set we want. Choose the appropriate notebook:

Notebook 3: Upload movie clips to Zooniverse

Notebook 4: Upload frames to Zooniverse

Step 1: Getting started with 3 or 4

After running the initial code cells, installing the necessary requirements and python packages, we continue with choosing GPU availability, the most common is to use “Other GPU”, which means we are running on our server GPU.

We then continue to choose our project as well as initiate the project database.

The Zooniverse data

The next cell of code allows us to specify if we want to download the latest annotation data from Zooniverse or not.

Typically, we don't unless we have done updates recently.

Regardless, we will need to connect to our Zooniverse project in order to do things, so running the next cell of code will yield two fields where you can input your zooniverse username and zooniverse password respectively

Step 2: preparing the zooniverse data

Here we can go with two ways depending on what sort of subject set is needed for your project:

2.1 Video clip subject sets: [Use Notebook 3](#)

2.2 Frame subject sets: [Use Notebook 4](#)

2.1.1 Select your movie of interest to upload

We begin with selecting what movie of interest we want to upload

We also get a preview of said movie

(As of right now, we can't do several movies at the same time, so have to be done one by one)

By running the next code cell, we check if we have already uploaded the movie to Zooniverse.

2.1.2 Create clips and how to modify them

By running the code cell, we can first and foremost create some sample clips (usually 3, because 3 is a good number)

During the sample clip creation, you can also test out modifications of said clips, these modifications include compression of different level (in order for them to meet the Zooniverse storage requirements) and colour correction as well as blurring of sensitive information (Such as compass heading and depth data).

After creating the sample clips, you can check if they meet the size requirements of Zooniverse by running the cell underneath. If they meet the requirements, keep on going to the next part

By running the next series of code cells, we will be able to create the clips we use for our subject sets in a similar manner to how we created the sample clips

Check size of the extracted clips and if they are within the Zooniverse limit,

Continue to step 3

Step 2.2 Extracting frames

There are two main ways to create the frame subject sets in tutorial 4

2.2.1: Extract the frames from video clips classified in Zooniverse

2.2.2: Extract the frames Manually

2.2.1: From video clips classified in Zooniverse

1. Running the first cell lets you specify the movie workflow you want to extract your frames from
2. Choose your workflow and continue with the next cell, which allows you to sample and process the annotations made in said workflow.
3. Continue with defining the Threshold for agreement within those annotations, default is set to 0,8 of 3 users agree on a annotation.
4. Run the next cell to aggregate the annotations in accordance to your chosen parameters of agreement.
5. Continue with choosing the species you want frames of and extract them using the code cell provided in the Notebook. This code cell will also allow you to modify your frames, these modifications are compressions of different degree, colour correction and blurring of sensitive data
6. Check the size of the extracted frames via the next code cell, if within the Zooniverse limits.

Continue to step 3

Step 2.2.2 Manual extraction

If you feel like not wanting to bother with having to annotate a set of movie clips, we got just the deal for you!

1. Begin with running the two immediate code cells, these will allow you to choose your movies of interest and choose, or create, a folder where your extracted frames will end up.
2. Continue with the next cell of code, which allows you to choose the number of frames from each movie, as well as the start and end of the interval via how many seconds from the start/end it skips
 - a. You also choose which species of interest you want, though this is more for naming and keeping track of the subject set, the frames are picked at random within the intervals
 - b. This is also where you modify the frames with the same modifications as before
3. Preview the frames check their size, and modify as needed if they do not meet the Zooniverse size limits.

Continue to step 3

Step 3: Upload your media

After checking that your media is “A good size” it is time to upload to zooniverse

By running the last cell of code, we will upload our media subject sets to zooniverse, the process is the same in both Notebook 3 and Notebook 4

Do be aware that when doing multiple subject sets, that it can be a good idea to go to [Zooniverse.com](https://www.zooniverse.com) and change the name of the subject sets to something unique, as to not create a clash, which will result in a error code and problems.

If you haven't encountered any issues and errors now, Congratulations! your subject set is uploaded and ready for use in your Zooniverse project :D