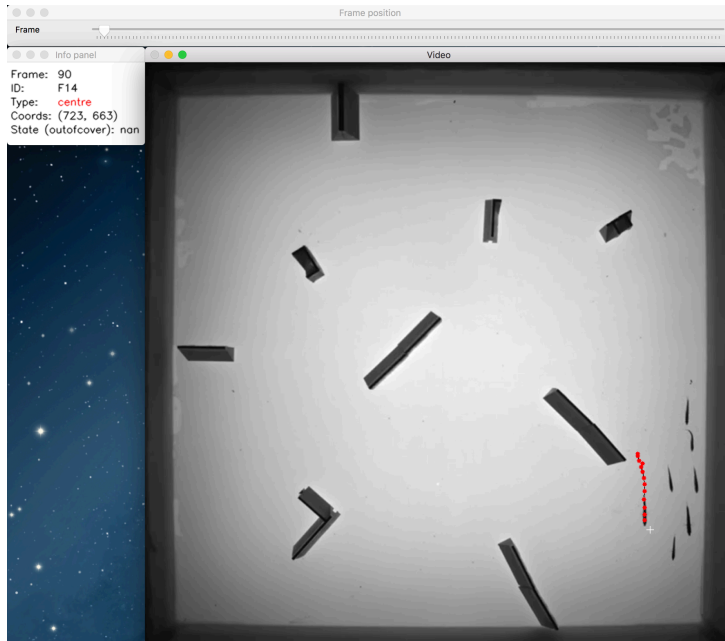


Setting-up mantrack



Install python

To use mantrack, first you will need to install python on your system if it does not exist already. On mac this is easiest with Homebrew.

1) First we will need to install Apple's Xcode. Open a terminal window and enter:

```
xcode-select --install
```

Make sure to click through all the confirmation commands.

2) Next, install Homebrew by entering in terminal:

```
/usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
```

To confirm Homebrew installed correctly, run this command:

```
brew doctor
```

3) Now install python 3 very easily:

```
brew install python3
```

Install python dependencies

Mantrack makes use of four dependencies that need to be installed.

1) First of all, pip is the main package manager for python that we will also use to install opencv. Pip should already be installed on your system (see here), but if it's not, we can install it with wget. Open a Terminal window and enter:

```
wget https://bootstrap.pypa.io/get-pip.py
```

Now to install pip for Python 3 enter:

```
sudo python3 get-pip.py
```

2) Next we are going to install the pandas and numpy packages. Open a terminal window and enter:

```
pip install pandas numpy
```

3) Installing opencv used to be a huge pain. However, it became a lot simpler only last month and opencv is now easily installable with pip:

```
sudo pip install opencv-contrib-python
```

Now let's just make sure that OpenCV is working. Open a terminal window and enter python3 to start Python. Now to make sure you have installed OpenCV correctly enter:

```
import cv2
cv2.__version__
```

Your terminal window should look like (or similar like):

```
$ python3
Python 3.5.3 (default, Sep 27 2018, 17:25:39)
[GCC 6.3.0 20170516] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> import cv2
>>> cv2.__version__
'3.4.4'
```

4) Finally, Mantrack makes use of my [animlab](https://github.com/JolleJolles/animlab) package that consists of a large range of helper functions. To install this package, run:

```
pip install git+https://github.com/JolleJolles/animlab.git
```

Using mantrack

Mantrack can be easily used with a custom python file. However, it works best when using jupyter, an interactive python interpreter. To install jupyter, open a terminal window and enter:

```
pip install jupyter
```

Now to start jupyter simply enter:

```
jupyter notebook
```

Move to the mantrack folder and open the mantrack_notebook file. This file shows a quick tutorial of how to use mantrack.