Using Data

Dependency

The BDD100K toolkit depends on Python 3.7+. To install the python dependencies:

```
pip3 install -r requirements.txt
```

Understanding the Data

You can start the Visualization by running:

`python3 -m scalabel.vis.controller <args>`

Available arguments:

```
--image-dir IMAGE_DIR, -i IMAGE_DIR
                        path to the image directory
--labels LABEL_PATH, -l LABEL_PATH
                        path to the json file
--color-dir COLORMAP_DIR, -c COLORMAP_DIR
                        path to the colormap directory
--scale SCALE, -s SCALE
                        visualization size scale
--height HEIGHT
                        height of the image(px)
--width WIDTH
                        width of the image(px)
--no-attr
                        do not show attributes
--no-box3d
                        do not show 3D bouding boxes
--no-tags
                        do not show tags on boxes or polygons
--no-vertices
                        do not show vertices
--output_dir OUTPUT_DIR, -o OUTPUT_DIR
                        output image directory with label visualization. If
                        it is set, the images will be written to the output
                        folder instead of being displayed interactively.
--nproc NUM_PROCESS
                        number of processes for json loading and parsing
```

In the visualization window, you may use these keys for controlling:

```
- n / p: Show next or previous image
- Space: Start / stop animation
- t: Toggle 2D / 3D bounding box (if avaliable)
- a: Toggle the display of the attribute tags on boxes or polygons.
- c: Toggle the display of polygon vertices.
- Up: Increase the size of polygon vertices.
- Down: Decrease the size of polygon vertices.
```

Trajectories

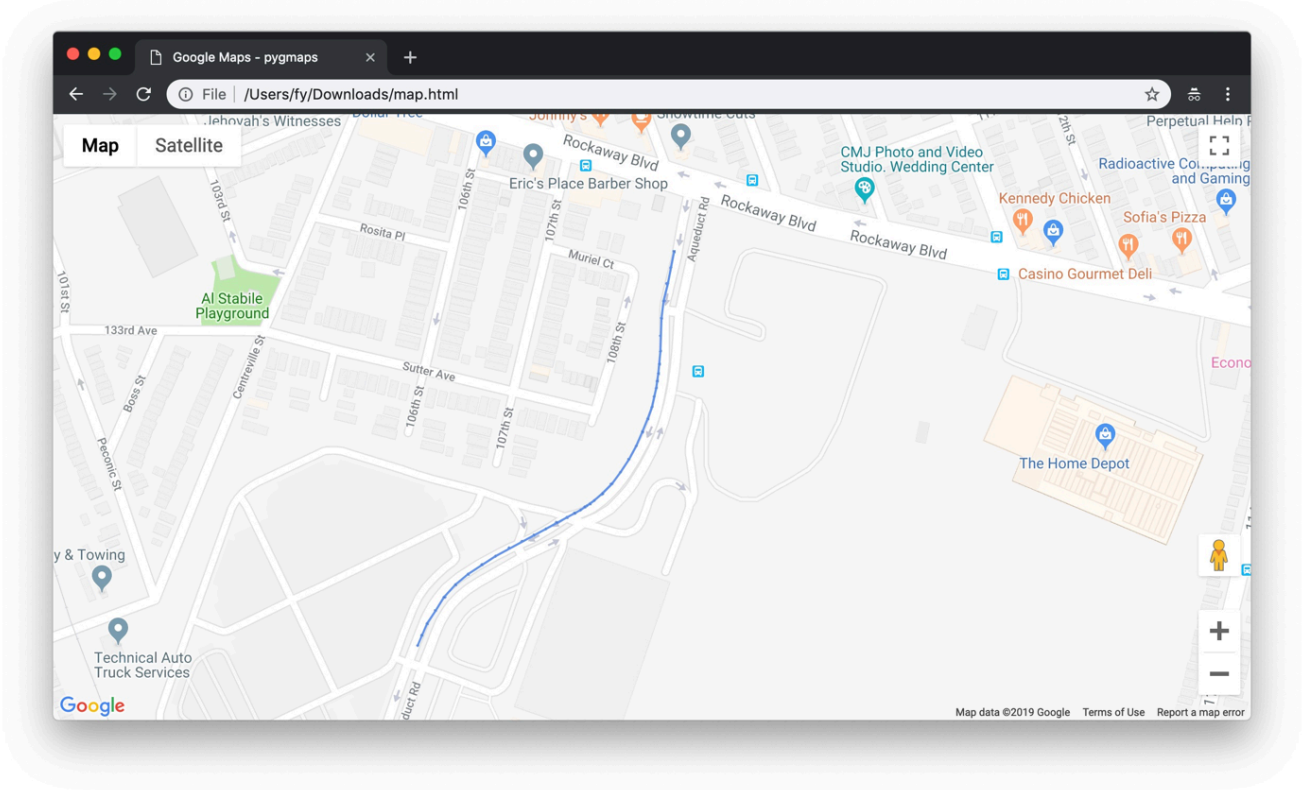
To visualize the GPS trajectories provided in `bdd100k/info`, you can run the command below to produce an html file that displays a single trajectory and output the results in folder `out/`:

```
python3 -m bdd100k.vis.trajectory \
    -i bdd100k/info/train/0000f77c-6257be58.json -o out/ -k {YOUR_API_KEY}
```

Or create html file for each GPS trajectory in a directory, for example:

```
python3 -m bdd100k.vis.trajectory \
    -i bdd100k/info/train -o out/ -k {YOUR_API_KEY}
```

To create a Google Map API key, please follow the instruction here. The generated maps will look like



Semantic Segmentation

At present time, instance segmentation is provided as semantic segmentation maps and polygons in json will be provided in the future. The encoding of labels should still be `train_id` defined in `bdd100k.label.label`, thus car should be 13.