Step-by-step tutorial to run TrackEval script

- Download the TrackEval (zip file) from https://github.com/JonathonLuiten/TrackEval
- Extract this zip into the repository root folder
- Directories : data/gt and data/trackers

We need to do a bit of engineering here and specify the directories and data. This can be done by hand, but the easiest way is to download the example data directory:

https://omnomnom.vision.rwth-aachen.de/data/TrackEval/data.zip

This contains all the ground-truth, example tracker and meta-data that you will need.

Extract this zip into the repository root folder such that the file paths look like: TrackEval/data/gt/...

TrackEval/data/trackers/...

- Data

To test the tracker, you have used the mot challenge benchmark namely ADL-Rundle-6.avi sequance from MOT-15 train dataset. Normally your output file from the tracker is also named ADL-Rundle-6.txt. The tracker file format should be the same as the ground truth file, which is a CSV text-file containing one object instance per line. Each line must contain 10 values!

Go to: TrackEval/data/trackers/mot_challenge/MOT15-train

and copy the MPNTrack folder (the example tracker) containg its results files. Rename this folder with the name specific to your tracker, e.g. MyTracker. Inside, in data folder, you will find the results for all the MOT-15 train sequences. Replace the ADL-Rundle-6.txt file with your own results file.

EVALUATION:

- To run the evaluation for your method run the script at : TrackEval/scripts/run_mot_challenge.py
- Some of the basics arguments must be precised:

BENCHMARK: MOT15 (default : MOT17)

SPLIT_TO_EVAL: Data split on which to evalute e.g. train, test (default : train). Leave the default value

TRACKERS_TO_EVAL: List of tracker names for which you wish to run evaluation (default: all trackers in tracker folder). e.g. MyTracker

METRICS: List of metric families, which you wish to compute. e.g. HOTA CLEAR Identity VACE (default: HOTA CLEAR Identity). Leave the default value

USE_PARALLEL: Whether to run evaluation in parallel on multiple cores. (default: False) Leave the default value

NUM_PARALLEL_CORES: Number of cores to use when running in parallel. (default: 8) Leave the default value

- Evaluating on your own Data:

python scripts/run_mot_challenge.py --BENCHMARK MOT15 --SPLIT_TO_EVAL train --TRACKERS_TO_EVAL MyTracker --METRICS HOTA CLEAR Identity --USE_PARALLEL False --NUM_PARALLEL_CORES 1

You will receive a table that expresses tracker quality in different metrics and this for all sequences. However, what you need to include in your final report are the quantitative results for the ADL-Rundle-6 sequence only. Unless you wanted to test your tracker with other sequences of this benchmark :)