

May 9, 2019

Video Insights – Automated traffic data collection & analysis



USABILITY TESTING

Version 12 – Upload, describe, analyze (UDA) approach

Background

You are a traffic engineer. Your job is to do a regular traffic counting on several locations to collect data about the traffic volumes including the vehicle classification in the inspected area. With such a data you are able to identify peak hours, locate the most frequent places and much more.

Because you have access to cameras in the inspected areas, you want to use the tool Video Insights for fast traffic data extraction and analysis.

You already **UPLOADED** a footage of the **Toomer's corner intersection** in the Alabama, US and the footage of **Rotonde roundabout** in the Denmark. Video Insights already extracted the traffic data for you and now you just need to analyze the data in the app to obtain the counting summaries you are asked for.

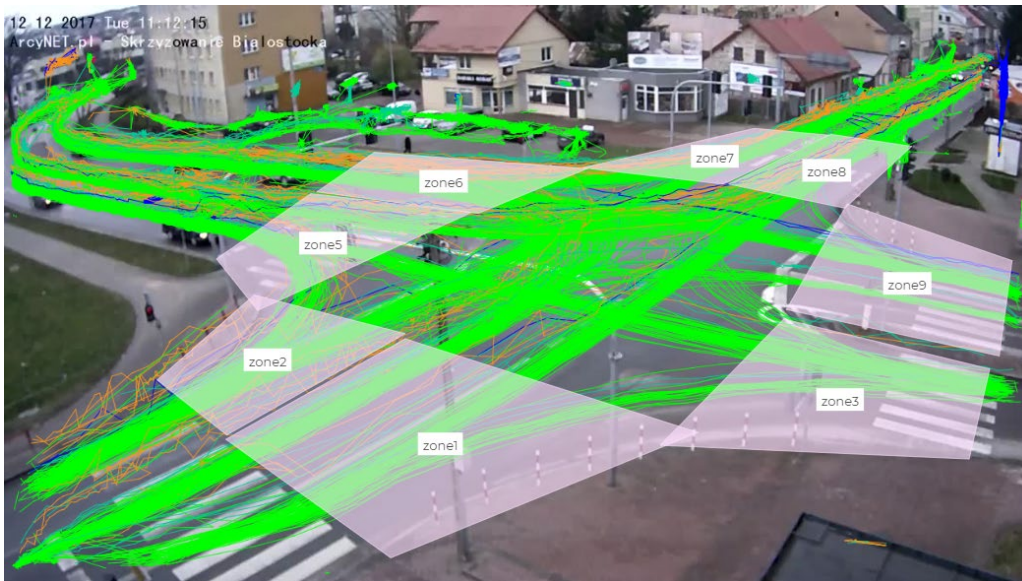
Let's open the Video Insights and follow the tasks below

TASKS

Camera - **Toomer's corner intersection** (04/30/2019 - 12:45:43 - 04/30/2019 - 12:55:48)

DESCRIBE

- 1) Create zones on your **entry** and **exit** zones in the scene **as** on the picture below. Use drawing tools below



- 2) **Filter the trajectories** on the scene to **not show pedestrians and animals**
- 3) After you defined all important entry and exit zones, **create movements** for **traffic flows** where you want to perform the traffic counting. On the traffic movements
 - **from west to north**
 - **from north to west**
- 4) Besides the traffic counting, you want to know if the **vehicles stayed in the middle of intersection for more than 3 seconds** (as a traffic engineer you know it means a light congestion in a given area). Define a new **stay event with appropriate zone** (draw it if needed)
- 5) Lastly, you heard about the new feature of **traffic scenarios** Video Insights provides and you want to try it. Create a **traffic scenario** that will filter vehicles going from west to north OR from north to west AND stayed in the congestion in the middle of the intersection

? What other scenarios can you imagine

You completed the **DESCRIBE** phase, you make this step only once, when you start to analyze a new area (new cameras). For future traffic counting of the same location you don't need to 'draw zones' again because static camera has the same view.

Now let's analyze our data from videos we uploaded

ANALYZE

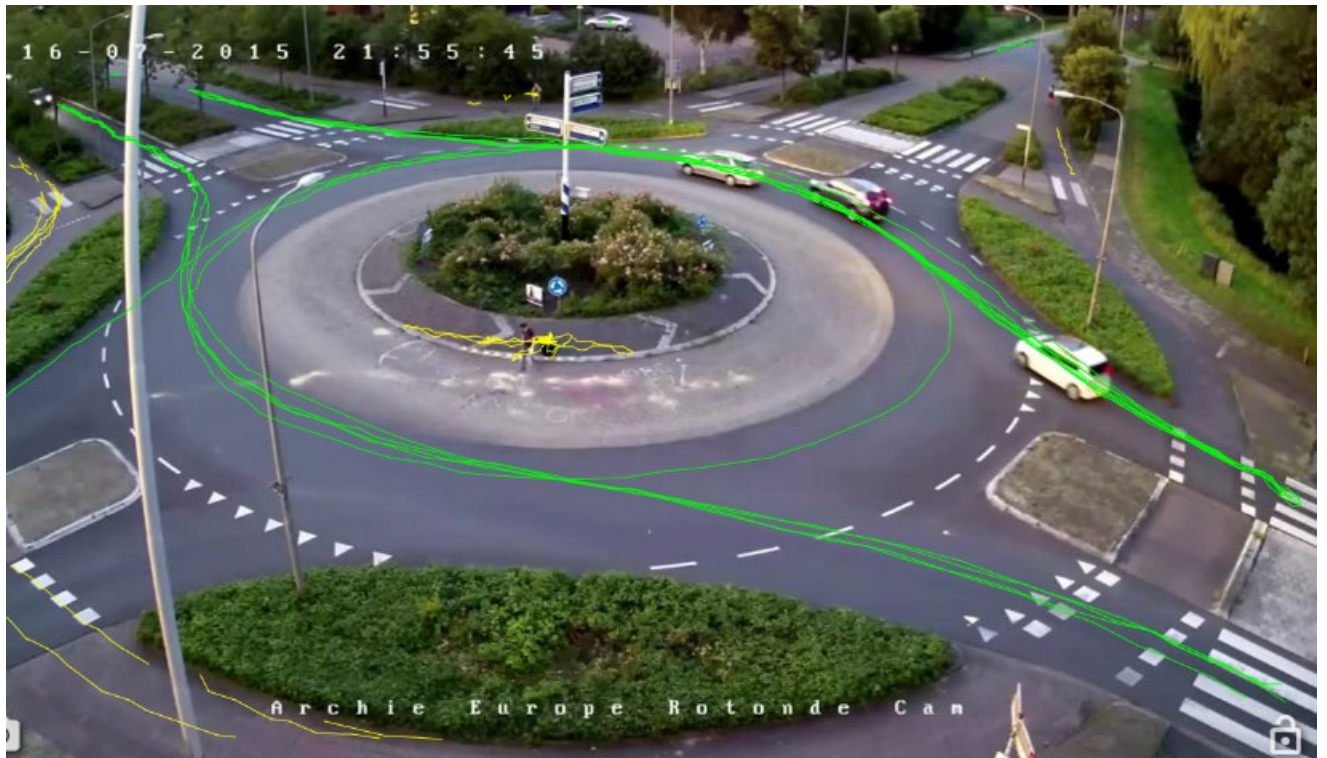
- 6) Visual data gives you nice overview about the traffic situation. However, you need to know the exact numbers about the counts of both movements. **Create 2 widgets** that will display the **TOTAL COUNT** of vehicles (classified as **CAR, BUS or TRUCK**) that followed the **west to north movement** and **north to west movement**.
- 7) Export the **detailed traffic report** as a whole

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Camera - Rotonde roundabout (04/30/2019 - 12:44:35 - 04/30/2019 - 12:45:36)

DESCRIBE

- 1) Proceed in the same way with your second camera. This time you want have **counts separately per each entry and exit** to and from roundabout.
- 2) **Create a scenario** that will filter **all vehicles that entry via one of the two roundabout entries and left via one of the two roundabout exits.**



ANALYZE

- 3) **Create widgets** for the scenario that will give you TOTAL COUNT, AVERAGE and PEAK number of vehicles fulfilling your scenario