By: Rey Reza Wiyatno

Topic: Where is the vehicle in subsequent frames of the video given the location in the first frame?

Template/Patch Matching Algorithm was used in order to detect the location of the vehicle in every frame. Since the location of the vehicle in the first frame is given in coordinates, the first patch will be the pixels bounded inside these coordinates. The patch was then updated for every frame, if occlusion does not occur. The size of the patch will also be resized if there is a change in size. This algorithm works because the location and orientation of the vehicle does not differ significantly between subsequent frames.

Note: All images were read as grayscale images.

To better visualize how the algorithm works, the block diagram is available in the next page.

Language used: Python

Library used: OpenCV

Inside Folder VOT:

- Python script
- Images of the vehicle detected in every frame
- Text file containing the top left and bottom right coordinate of the vehicle

Block Diagram: