VISION - TME 1

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1 Result of the panorama with and without overlap averaging

In the explanations you ask to average the pixels if there is overlap. As the points are not perfectly in correspondence in the 2 images due to the lack of precision of the mouse, it results in a small shift of pixels which creates with the calculation of the averaging of the overlap a visible shift on the image giving an unwanted blur. I considered better not to average the overlap, here are my results with (a) and without (b) averaging (for 7points).

(a) Panorama with averaging overlap

(b) Panorama without averaging overlap

Figure 1: Panorama with and without overlap averaging

Rmq : small differences of projection are visible between these 2 images because of the points which are not chosen exactly at the same place due to the lacke of precision of the mouse (difference of some pixels).

Due to the better sharpness of the result without averaging the overlap I continued the experiments without this averaging.

2 Result of the panorama for different numbers of points

2.1 4 points
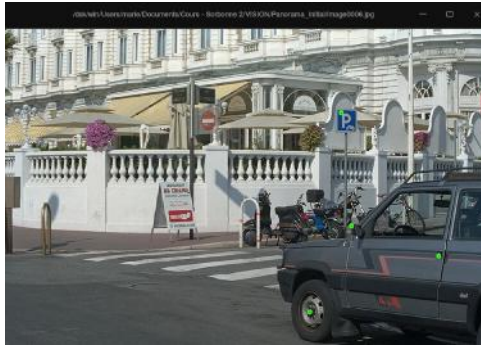
(a)   (b)
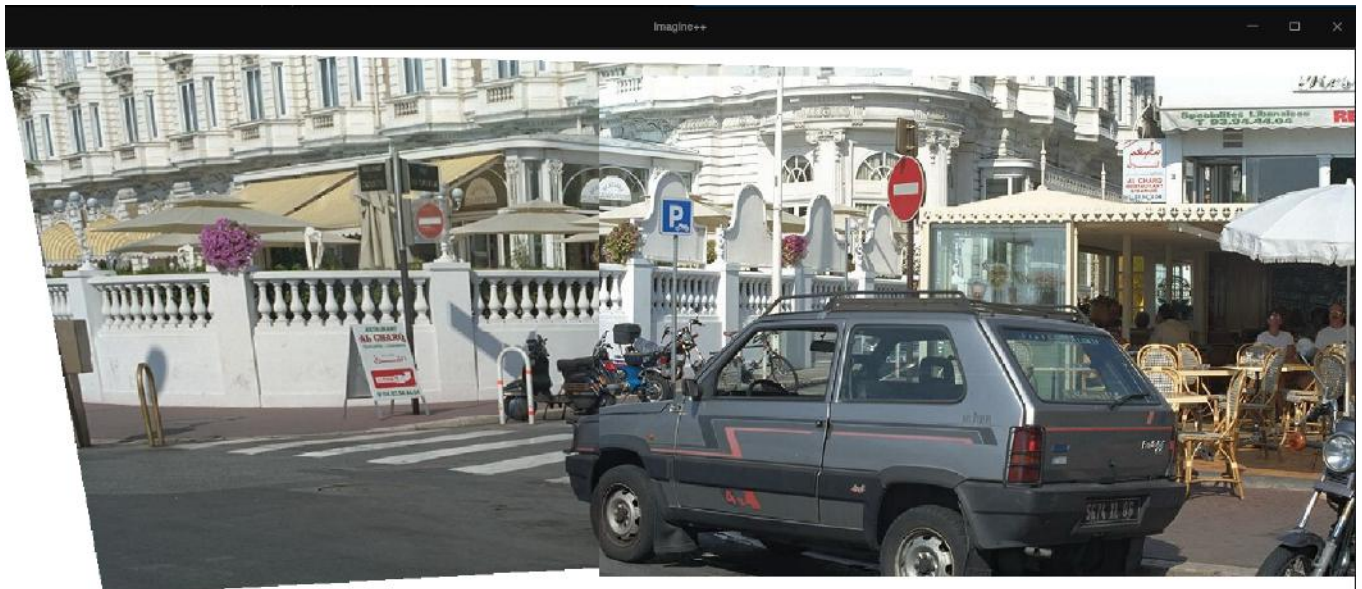
Figure 2: Points for panorama computation

Figure 3: Result

2.2 7 points

(a)   (b)

Figure 4: Points for panorama computation

Figure 5: Result

We can see that our results are much better with more points. Indeed the linear system can be more precise if there are more points, the negative impact of the lacke of presicion descrease when the number of point increase.

3 Result on other images

It is easier to choose similar points on images containing an object which provides better results as can be seen below.
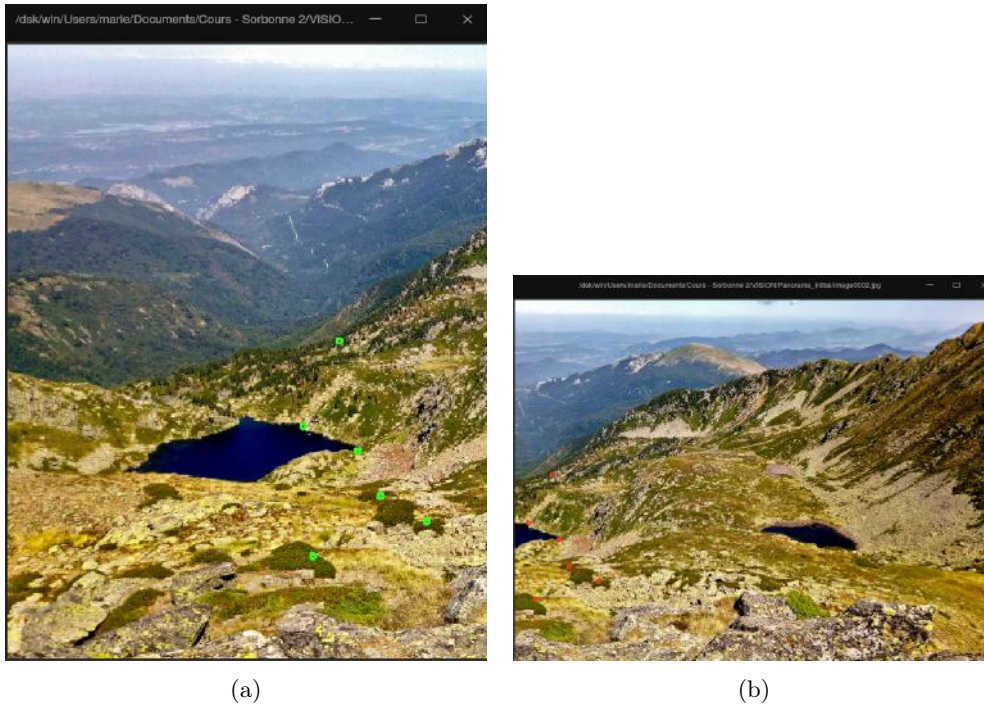

(a)   (b)

Figure 6: Points for panorama computation
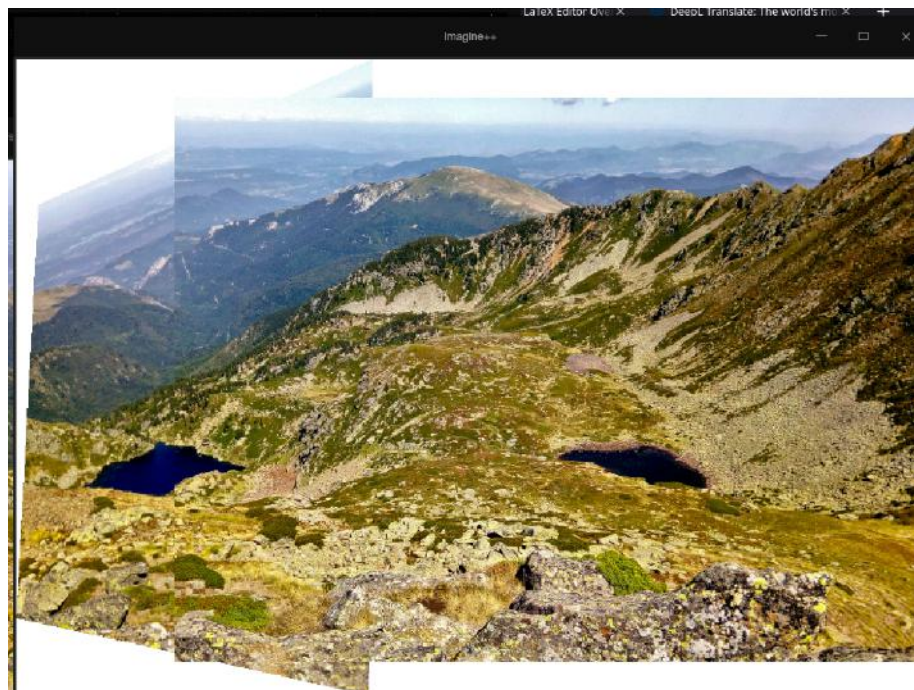

Figure 7: Result

(a)   (b)

Figure 8: Points for panorama computation

Figure 9: Result