

H1_Ortiz

Exercise 2

To enhance `coro.bmp` the histogram was shifted. Since the gamma value is 1, the transformation was linear. Having a look on the first histogram of Figure 1 and the output histogram, we see that the value of `high_in` was 255, `low_out` was 0 and `high_out` was 230;

Then with the Data Cursor tool we can check the corresponding point for `low_in`. This value was 64.

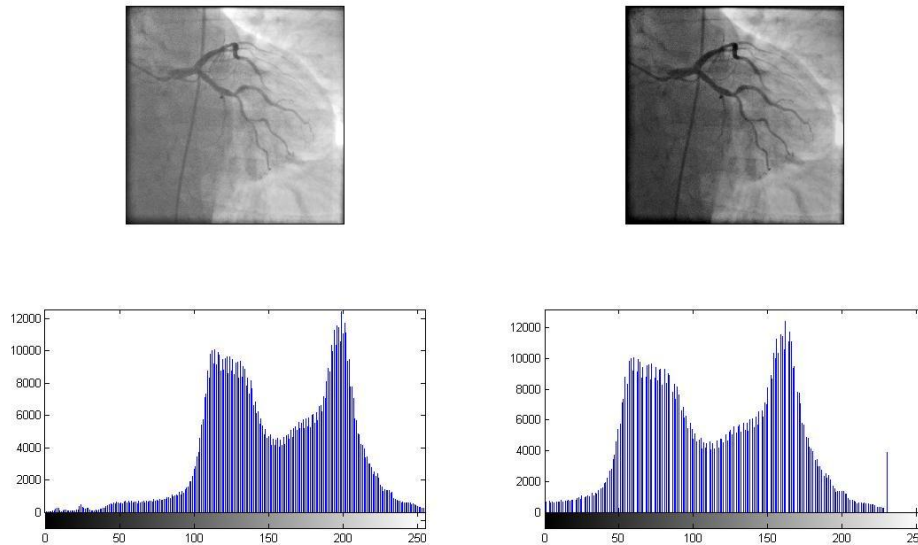


Figure 1.

We can obtain the original image by applying the inverse of the transformation:

$$f = @(pto) pto.* (high_out-low_out)/(high_in-low_in) - low_in*k$$

The standard deviation of the difference between corresponding points was calculated and the error was 1 pixel.

Exercise 3

With RGB normalization we get free of distortions caused by lights and shadows in an image by means of taking the intensity of each component of color (R, G and B) to be compare with the others intensities at the same pixel.