

## Weekly Report

Week 14: 18/05/2015 - 22/05/2015

### Work Developed

This week, the algorithm core was corrected. After analyzing the output image, it was found that there was a cyclic problem with the processing, where the neighborhoods with an even position in the image were correct but the odd positions were being processed erroneously. This problem was due to a counter in the DCT modules that is responsible for the transposing of the image data. This counter wasn't being reset between neighborhood processing, which led to the described "on/off" behavior. With all the previous problems solved, testing with a clean image (no noise) was successful, and finally, testing with a noisy image was done, but the result was not as expected. In terms of denoising, the white noise in more constant image areas is being well removed, but in black areas of the image, some pixels are being switched to white, which is probably a problem of over/under flow.

### Challenges

The main challenge this week was figuring out where in the BM3D core the problem was, but the fact that the problem appeared to have a cyclic behavior, it was suspected that it was a reset problem.

### Next Tasks

Next week, work will be focused on solving the over/under flow problem, in order to produce denoising results.