

Weekly Report

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This document is daily reports of my paper on model registration. It records my work on the project day by day. And it will be updated every day.

1 2016-10-8

1.1 ICP algorithm test

I found and tested a source code of the ICP algorithm on a point cloud. I firstly transformed the initial point cloud (white in Fig 1.2) to get a transformed point cloud (green in Fig 1.2) with a randomly selected Rotation Matrix \mathbf{R} and a Translation Matrix \mathbf{T} . And then I used the ICP algorithm to compute \mathbf{R} and \mathbf{T} . The red point cloud shows the aligned point cloud after transforming using the resultant rotation and translation matrix.

Fig 1.2 also shows both the input and the resultant parameters.

1.2 Plan of tomorrow

I will try to test it with my data. But before that I have to find a proper corner detection algorithm and to find a proper definition of 3D feature points.

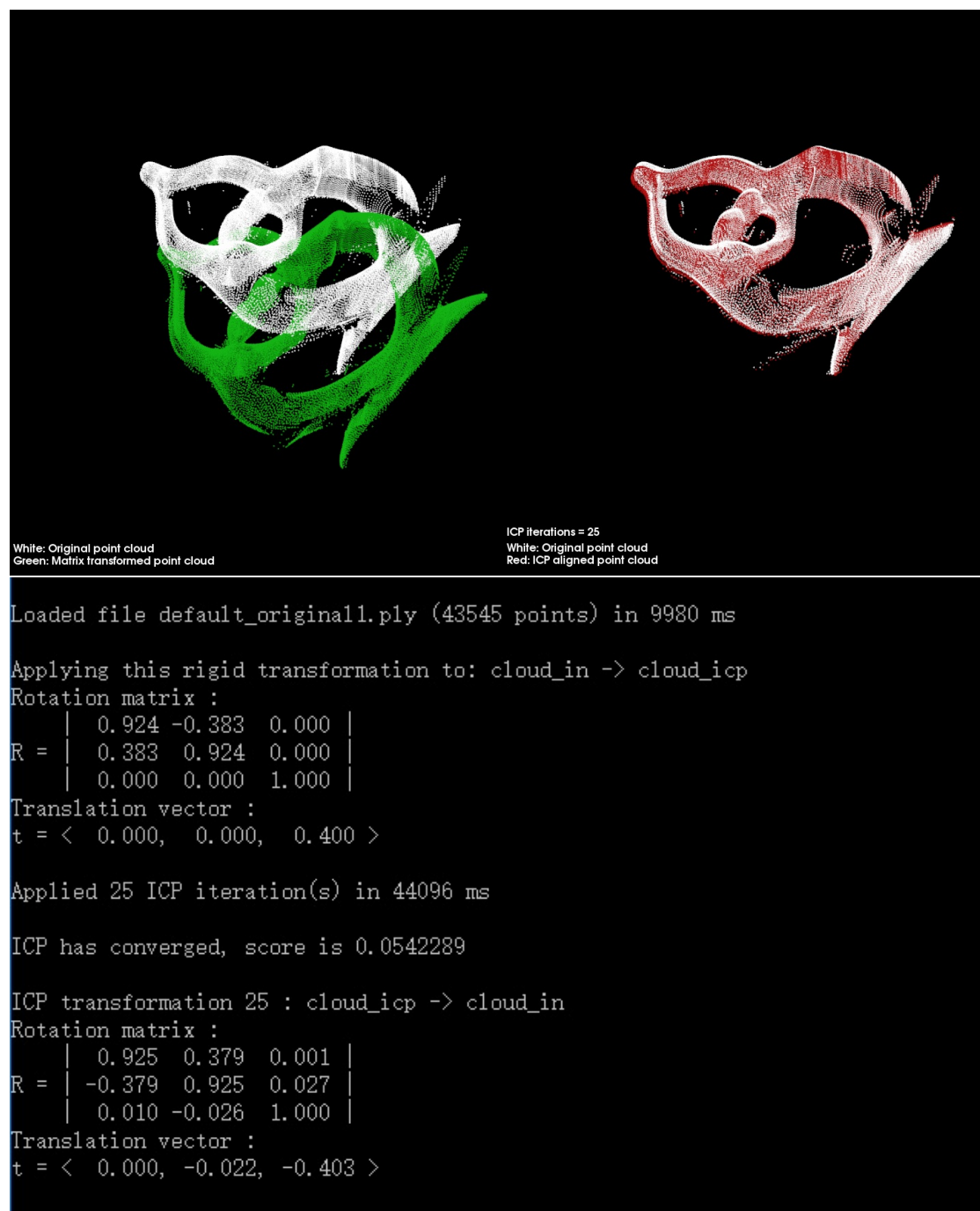


Figure 1.1: The results of registration using ICP algorithm.