

Programing Assignment for 3D Computer Vision Lecture (Prof. Navab, WT 2005)

January 10, 2006

1 General Stuff

Finally. Here comes what you have been waiting for all the time. Now you can use almost everything you have learned in the lecture in order to robustly match 2 uncalibrated images of the same scene. The assignment consists of three parts. In the first you should find candidate matches using a correlation technique. In the second part you disambiguate these matches using a relaxation process. In the third part you finally estimate the fundamental matrix for the image pair and recalculate the matching.

Detailed description is attached but first some general remarks.

- Teams: up to 3 people
- Points: up to 20, same points for every team member
- Deadline: February 11 2006

2 Implementation

- Programing Language: Matlab
- Matlab Functions wanted (no Macros please) for every part of the solution. This guarantees modularity so that multiple solution can be used together.
- Macro for testing that loads the images, calls all the functions, displays the results.
- Your own solution.

3 Documentation

We want to keep this short. Required are just the following two things:

- Matlab headers with detailed input and output parameter description required (so that we & the rest of the world know how to use it).
- Small webpage with Matlab code, results, and short comments on the results as well as on the decisions made.