

Weekly Report (25-01 November 2007)

Meeting Report

Evaluation of the week

- A literature survey about image registration has been performed. Possible methods for registration have been discussed. We decided that feature-based methods are the most suitable ones for our case, and also found an extensive, open source registration and segmentation library, ITK (available on <http://www.itk.org>). Even though the main purpose of ITK is gathering the experience on medical image registration, it is general purpose. The current idea is combining ITK and OpenCV to form a solid background.
- Yunus suggested using the Adapter pattern in the design. His argument was that the expectation of the client was firm so wrapping the functionality could be an achievement since changing or manipulating the layer (which contains code using external libraries) could be an easy job.
- Gökrem noted that the website became out of date and lacked the weekly reports. Also the wiki topics were discussed.
- LPS was analyzed, it is the main source of inspiration for the design and also for the requirements report. Also requirement reports from the previous years were analyzed. Even though IEEE practices do not cover our scope, we decided that it has its own merits.

Plans for the following week:

- Since the requirements report was postponed, the schedule is based on after Sunday.
- We decided to create wiki topics on calibration parameters and image registration.
- The diversity of registration methods prompted us to ask for the details about input aerial images whether they will be multimodal, multitemporal etc.
- Finishing the assignment, without further delays.

Personal Performance Report

Okan AKALIN

I discovered a good survey on image registration*. The paper covers the classical and current approaches and methods. Our needs have been also covered quite well, many methods for aerial imagery are discussed but still it is a survey. I also found out that there is a good open source library on registration (ITK). I also went on the computer vision book but the progress has been stalled by the ceng 351 exam and homeworks.

As for the next week, my plan is skimming over another survey** on image registration, which covers more classical methods.

*(Barbara Zitová, Jan Flusser: Image registration methods: a survey. Image Vision Comput. 21(11): 977-1000 (2003)

**L.G. Brown, A survey of image registration techniques, ACM Computing Surveys 24 (1992) 326–376.

Yunus Olgun

This week, generally I worked on requirement analysis report. Besides it, I analyzed a simple demo which was created by using wxWidgets and OpenCV. Because we plan the same thing for the project as this demo.

Görkem Kurt

I tried to work through the LPS documentation and tried to merge the experience with the requirement analysis report. Also as the website manager, I compiled some graphical sources for the visual enhancement of the site. Another design that we are also working on is the gui.

Kazım Işık

I concentrated on the requirements analysis report and also worked on wxWidgets. Besides the report load, I'm working with Görkem to come up with a graphical user interface design. I plan to perform a literature survey.