



Progress Report Submission for C. J. Taylor

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26th June 2004

Agreed Upon

Previous Meeting

- Send adaptive precision code to Tom.
- Employ a faster optimisation scheme in shapes to get results that are superior in duration.
- Try smaller stochastic sets for model construction.
- Application form will need to be sent for the MIUA summer school at Imperial College.
- MDL needs to be extended (with the help of Carole) to account for model discrepancies.

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[also see appendix]

Progress Made

- Poster for the summer school in Surrey prepared.
- The aforementioned form was sent and reservation of a place confirmed for the MIUA summer school.
- Shape experiments performed. Persistent attempts to improve the optimisation using adaptive precision failed.
- Form 5,6 and their supplement prepared.
- Smaller sets for creation of models were tested in AART (see Experiments page).
- Options were added for a custom model-based objective function.
- Summer school attended June 21-25th.
- ISBE internal extension which allows quicker navigation was put in place.
- Slight changes were made to the continuation report.

[also see appendix]

Next Stage

- Discuss the pseudo-code document.
- Discuss the objective function for image registration.
- For the shape correspondence problem, discuss MDL encoding of the model residuals.
- Structure of continuation report to be looked at briefly.
- Meeting to discuss Form 5 is yet to be arranged. There was some miscommunication due to vacations being taken.

The following chart describes activities that will occupy next month.

Task/Week Starts	Jn. 21st	Jn. 28th	Jl. 5th	Jl. 12th	Jl. 19th	Jl. 26th
Continuation Report	Surrey	◇	◇	◇	◇	◇
Literature Survey	Surrey			◇	◇	
Theory	Surrey	◇				
Implementation	Surrey	◇	◇			

Gantt chart for the early summer

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Agreed on IRC Meeting

- Try subsets for both shapes and images and produce comparative graphs.
- Speed up shapes optimisation using precision adaptation.

Other On-going Work

- Speak to Tomos and work with him on shape models.
- Learn the code, get the MDL objective function to work and ensure that it breaks for varying width and height of the bump.
- Work towards an MDL approach that accounts for the model residuals. Consult Carole on this issue.
- Get a skeleton of the continuation report available.
- Prepare a Gantt chart for the literature survey, the entire report, the work on code and the theory behind it.

Previously Mentioned Progress

These were never discussed

- Journals were read and bibliography modified.
- Some papers were re-read (including Rhodri's shape models optimisation).

- MATLAB's *Models* library was learned.
- Discussions with Carole and Tom on shape models.
- Research pages maintenance.
- Small GUI was built for automatic landmarking to speed-up and simplify experimentation.
- In AART: Finally fixed objective function increase (inspired by 'shape' code); Added 3 missing log entries.
- 'Shape' experiments were performed to verify that the MDL approach works.
- Varying height and width of the bump results in improper results, just as anticipated.