



## Progress Report Submission for C. J. Taylor

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28th February 2004

### **A**greed Upon

- More experiments should be carried out, possibly at the expense of further development of the application.
- **<Run all>** option needs to include all functions currently supported by the application to generate *complete* overlaid plots.
- Evaluation needs to include specificity, generalisability and possible MSD-dependent measures.
- Improve and evaluate wavelet-based and PDF-based objective functions.

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Electronic version: <http://www.danielsorogon.com/Webmaster/Research/Progress>

# *P*rogress Made

- Figures will now be provided in a form similar to that of slides at:  
<http://www.danielsorogon.com/Webmaster/Research/Figures>
- Paper for MICCAI 2004 has been intensively worked on since Sunday February 22nd until Friday. Many experiments on 6 machines were carried out on Friday onwards.
- Carole received a copy of the paper above for review.
- Continued development of the code resumed on Friday, February 26th.
- All methods in AART can now work sequentially to produce very many different outputs. The whole process is autonomous too.
- An **<Advanced Options>** window in AART has been added to include various new functions.
- The layout of AART has changed and the user interface made neater.
- Invocation of MATLAB is eased by the `-r` command-line option and different simulations can be run across many computers<sup>1</sup> simultaneously.
- Surfaces and meshes have been added as an output-type to aid analysis. Few other features have been added to make this presentation-type powerful, including video capturing abilities (see Figures Page and the E-mail sent on Friday).
- Data generated at run-time can be saved as files and multiple different file types are supported. Furthermore, data can be imported to allow analysis of one invariant set of data (rather than the random generation or data with similar properties).
- Wavelet-based objective functions were implemented shortly before the previous meeting.
- Significant reorganisation of the code continued on Monday the 17th of February.

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<sup>1</sup>Machines in the engineering laboratory at the Department of Computer Science.

- M-file documentation package was obtained to visualise the structure of the application and automatically generate necessary documentation for the application. The results are not nearly as impressive as those of JavaDoc, but alternatives are soon to be found.
- New visualisation methods have been constructed for CPS warps (see Figures Page).
- A new method has been implemented to show model scores in various different ways and include mean MSD, generalisability and specificity.

## **N**ext Stage

- Ensure an E-mail was sent to Surrey to confirm my EPSRC status. This is crucial since an invoice that has already been issued needs to be balanced down.
- Depending on the occurrences of the next couple of days, a discussion about the MICCAI submission can be of use.
- Discussion of results and ways to proceed.