Minutes of Second CCPI Management Meeting July 19 2012 at STFC

Attendees

Phil Withers (CCPI Chair), University of Manchester (PW)
David Worth, STFC (DW)
Mark Basham, DLS (MB)
Rob Atwood, DLS (RA)
Daniil Kazantsev, UCL (DK) - EPSRC Fellow in Iterative Reconstruction
Cathryn Mitchell, University of Bath (CM)
Ian Sinclair, University of Southampton (IS)
Richard Boardman, University of Southampton (RB)
Martin Turner, University of Manchester (MT)
Graham Davis, Queen Mary University London, (GD)
Barry Searle, STFC (BS)

Apologies

Mark Williams, University of Warwick
Manuchehr Soleimani, University of Bath
Alison Davenport, University of Birmingham

Introductions

Attendees introduced themselves and PW gave an introduction to the CCP project. Items to note: STFC support is 1.5 FTE on reconstruction (BS) and 3D analysis (DW); the membership of this management committee is not fixed (others can be invited); the networking activity includes 2 workshops – one tomography based and the other addressing algorithm development.

Review of minutes from 19/11/11 meeting

PW and BS are putting together a list of people with potential interest in the CCP (the "network list").
Action All: Nominations to BS
Action All: Decide on sub-groups for different interest areas, e.g. reconstruction, software development, public engagement...
Action BS, PW, DW: Date for the "code-athon" developer workshop to be arranged

Core STFC Support (BS)

The general admin for the CCP will be carried out by BS with help from DW – e-mail ccpi@stfc.ac.uk

The CCPI web page is http://www.ccpi.ac.uk . E-mail (see above) if you have extra information to go on that page.

BS has been working on analysis of CG iterative image reconstruction (code from University of Manchester) in terms of algorithm performance on modern

architectures. He wondered whether there was a suitable small dataset that could be made available on the web?
Action: BS to visit other members of CCP to look at their code to see what is useful and can be included in CCP software collection. Work with DK on knowledge acquisition.

Core STFC Support (DW)

Survey of visualisation software that could be used to wrap CCPI image analysis algorithms. VolView has been chosen and general 3D quantification algorithm implemented. Currently working on accessible volume, and image registration. Surface roughness and intensity normalisation are next – other suggestions welcome.
Actions DW: Develop workshops on analysis with Avizo and VolView software.
Talk with RA, MB about file formats – reading and writing.
Visit GD to assess his image registration algorithm.
Action MT: Send his workshop material using Avizo to DW.

Research Fellowship in Compressed Sensing @ Southampton

PW gave details on the fellowship which is to last for 4 months from 1 Jan 2013. He distributed the proposal and CV of post holder.

Comments:

CW – Needs to be focussed on real data and engineering aspects
PW – Fellow to agree with Management Committee on data sets he should investigate.
Action IS: Add "Presentation by Fellow to CCP Management Committee when work is complete" to the list of outputs.

EPSRC Fellow in Iterative Reconstruction

PW gave introduction and DK have resumé of his background. He is based at Research Complex at Harwell and will be linking with Bath, DL and Manchester.
Action DK: Arrange visit to Bath to see their toolkit ideas.

Industrial Case Studies

PW gave overview of work by Nicola Wadeson on high quality reconstructions using small number of projections showing the benefits of iterative reconstruction. This was for a baggage scanning applications.

Visitor Program

PW requested ideas on how and where to allocate funding.

Promotional Material

PW there were to be 3 videos but it was decided to divert some of the money into CM's teaching material (see below).

Videos should be max 2 minutes and we need ideas. IS showed some of his videos.

Action All: Suggestions for videos welcome

Action PW: Talk to Phil Manning as someone working on public understanding of science.

Teaching Material

During discussions CM suggested simple examples as introduction to scanning and image reconstruction would be excellent outreach for the CCP. All agreed

IS had the idea of a flow chart for novice users to be able to choose a reconstruction algorithm based on their machine, data, level of expertise.

Also illustrate the type of artefacts that can arise from reconstruction – how they are produced and how to recognise and remove.

Action CM: Produce budget and plan for this educational material.

Action BS: Investigate what extra needs to be provided on server hosting CCPI web pages to enable this material to be on-line.

Review of Mid-term success factors

PW lead review. Conclusion – we are doing OK but need to continue to reach criteria by deadline (March 2013).

AOB

MB talked about the EPSRC Future Software meeting. EPSRC seeking views from community on what to do with money in area of computing and software development.

MB asked if it would be good to invite someone from CB24 beamline to meeting of management committee.

Action MB: Make the invitation

Date of next meeting 20 Nov 2012 at STFC, RAL.