

## CCPi Working Group Meeting - Tuesday May 17<sup>th</sup> 12:30-15:00

Atlas Visualisation Facility, Rutherford Appleton Laboratory and ICAM, University of Manchester.

### Attendees – in person UoM:

- Martin Turner (MT)
- Philip Withers (PW)
- Bill Lionheart (BL)
- Jakob Sauer Jørgensen (JJ)
- Parmesh Gajjar (PG)
- Russell Garwood (PG)
- Hamid Dehghani (HD)

### Attendees – in person at RAL:

- Daniil Kazantsev (DK)
- Peter Lee (PL)
- Graham Davis (GD)
- Robert Atwood (RA)
- Winfried Kockelmann (WK)
- Ron Fowler (RF)
- Srikanth Nagella (SN)

### Attendees – Remote VC links

- Thomas Blumensath (TB)
- Kris Thielemans(KT)
- Manuchehr Soleimani (MS)

Minute	Item	Action
17.05.00	The meeting began and the attendees introduced themselves.	
17.05.01	<p>Agenda Item 1 - Fellowship updates</p> <ul style="list-style-type: none"><li>• <b>Jakob Sauer Jørgensen - 6 months – travel sponsorship to RAL Jan 2016:</b> Jakob gave an overview of his reconstruction work for scans of fibres, and in repairing missing projection data. Currently using FBP, may try TGV in future. PL mentioned a microscopy technique for replicated structures to enhance the resolution that could be related to this problem.</li><li>• <b>Parmesh Gajjar - Q2 2016 – two months</b> Parmesh reviewed his work with the custom CT scanner at Manchester University and how to “hack” the interface to re-program the Nikon X-ray machines. He will be giving talks at Southampton and RAL.</li><li>• <b>Russell Garwood – Large memory machine at ICAL</b> Russell reviewed the use of the new CCPi funded computer</li></ul>	

	<p>installed at ICAL. Reconstruction work included that of 350 million year old fossils using open source software such as ImageJ and blender. Good feedback on the work via FaceBook. MT noted that CCPi members can ask for access to ICAL and Manchester Museum has a vast range of interesting samples.</p> <ul style="list-style-type: none"> <li>• <b>Antonio Pop</b> - (travel sponsorship to RAL – outcome was an EPSRC proposal submitted with a case study for DLS code) MT reported on this visit.</li> <li>• <b>Matt Pankhurst</b> (University of Leeds) – RF reported that Matt is now an SCD Visiting Scientist. This will allow him to use Avizo and the local machines for ongoing analysis of his work with beam hardening for volcanic samples.</li> <li>• <b>MDC workshop at DLS</b> – MT said that CCPi is sponsoring some of the speakers at the workshop on the 10<sup>th</sup> June. A round table session with some of the speakers will also be held on the 9<sup>th</sup> June with VC link to University of Manchester.</li> </ul>	
17.05.02	<p>Agenda Item 2 – Actions from previous meeting</p> <ul style="list-style-type: none"> <li>• 26.11.02 MT has invited the author of TomViz (based on ParaView with better support for volume visualisation) to visit in September 2016. PL noted that the ISIS software Mantid makes use of ParaView and we should consider links here. SN is already working with the Mantid team on some uses of ParaView.</li> <li>• Visiting fellows suggestions (All) Ongoing</li> <li>• Seek e-Science journal for reconstruction work. (All) Ongoing – New IOP journal with MS has been proposed that may be suitable.</li> <li>• Arrange talks on Savu , IMAT and Avizo frameworks (MT) Ongoing</li> <li>• Mark Basham to add data sets to Zenodo site Ongoing</li> <li>• Encourage people to add data sets to Zenodo. (ALL). <ul style="list-style-type: none"> <li>○ MT noted that open source data sets up to 50GBytes can be hosted on this site.</li> <li>○ PL said he had some large data sets referenced in papers that need hosting on line. PL to email details to SN &amp; RF.</li> <li>○ RA said that the Zenodo site could be ideal for NPL; MT to contact them about using Zenodo.</li> </ul> </li> <li>• Case studies on beam hardening, quantification RF/SN/MT Ongoing</li> <li>• Report on the expanded CCPForge facilities. MT reported that a presentation had been made for CCP PET/MR. However it lacked technical content. Will seek a more technical presentation for CCPi. Ongoing.</li> <li>• Contact Russell Garwood about segmentation workshop. (PW) Replaced by MCD workshop.</li> <li>• 26.11.13 MT noted that Ceri Brenner from CLF had been elected onto the CCPi working group.</li> <li>• 26.11.17 MT had submitted the required progress reports on CCPi to STFC and EPSRC. It was noted that Paul Sherwood, the STFC coordinator of CCPs at STFC, is to retire later this year; and thanked him for the continual support.</li> </ul>	<p>ALL ALL  MT MB  PL MT RF/SN/MT  MT/RF</p>



	<ul style="list-style-type: none"> <li>• MT reported that the shared DLS/RCaH/RAL Avizo license agreement was put in place in March 2016 with an increased number of tokens and for three years.</li> <li>• Kate Dobson is still looking to get an EduServ licensing agreement for academic use of Avizo.</li> <li>• The ICAL node is aiming to use only Open Source software.</li> </ul>	
17.05.08	<p>Agenda Item 8 – Test data sets</p> <ul style="list-style-type: none"> <li>• MT suggested that a test data set from the ISIS IMAT instrument would be a good example to place on the Zenodo CCPi site. SN to investigate.</li> <li>• SN had tested DLS to UoM transfer times and found them to be adequate, but less than hoped for, possibly due to fire wall issues. RA said that a new interface to data on DLS has been implemented and this may provide improved performance. MT suggested SN retest transfer times and liaise with UoM security/network contacts (via MT).</li> </ul>	<p>SN</p> <p>SN</p>
17.05.09	<p>Agenda Item 9 – Phil Trans Journal Issue #2 and new IOP Journal</p> <ul style="list-style-type: none"> <li>• MT discussed a possible second issue of Phil Trans on CCPi work in the area of image reconstruction. GD and BL agreed to be joint editors. Talk to editor of previous edition for advice (MS). Need list of authors willing to contribute to edition.</li> </ul>	GD/BL/ALL
17.05.10	<p>Agenda Item 10 – EU Updates</p> <ul style="list-style-type: none"> <li>• PW reported that he had presented at the recent quantification workshop.</li> <li>• The COST programme has approximately one year left to run and it would be useful to arrange a visit from the Astra toolbox developers.</li> <li>• DK will investigate arranging a visit by Astra developers to CCPi sites.</li> </ul>	DK
17.05.11	<p>Agenda Item 11 – Working group membership</p> <ul style="list-style-type: none"> <li>• Two new members for working group have been proposed: <ul style="list-style-type: none"> <li>○ Farah Ahmed</li> <li>○ Tim Burnett</li> </ul> </li> <li>• No objections were made to the above.</li> <li>• Other membership suggestions are welcome.</li> </ul>	
17.05.12	<p>Agenda Item 12 – 4 year plan</p> <ul style="list-style-type: none"> <li>• MT discussed the targets for the next 4 years of the CCPi project (on website). The Frameworks could include iterative reconstruction, rich tomography and fast tomography areas.</li> <li>• BL said that he had two on going proposals in the above areas, related to rich tomography and this could be a good theme for CCPi to follow.</li> <li>• PL reported that he had recently visited the Chinese Shanghai Synchrotron. Collaboration with them may be possible and there are funds that we could bid for.</li> <li>• KT and BL discussed the proposed joint workshop between CCPi and CCP PET/MR on possible topics such as Bayesian methods and uncertainty quantification.</li> </ul>	



	sites.		
17.05.12	Updated proposal for joint CCPI/CCP PET/MR workshop at next CCP PET/MR working group meeting.	MT/BL	
17.05.13	Discuss of policy on CCPI support for attending training courses.	PW/MT	
	Send suggestions and contributions to CCPI report to CCP steering group to MT.	ALL	