CCPi Working Group Meeting – Monday 21st Nov. 2016

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

DRAFT

Attendees – in person UoM:
- Philip Withers (PW)
- Martin Turner (MT)
- Bill Lionheart (BL)
- Jakob Sauer Jørgensen (JJ)
- Parmesh Gajjar (PG)
- Tim Burnett (TB)
- Stefan Mairhofer (SM)
- Margherita Polacci (MP)
- Razvan Sencu (RS)

Attendees – in person at RAL:
- Daniil Kazantsev (DK)
- Peter Lee (PL)
- Winfried Kockelmann (WK)
- Ron Fowler (RF)
- Srikanth Nagella (SN)
- Erica Yang (EY)

Attendees – Remote VC links
- Kris Thielemans (KT)
- Andrew Ramsey (AR)
- Manuchehr Soleimani from 11:15

Apologies

- Thomas Blumensath
- Ian Sinclair
- Graham Davies

Minute	Item	Action
21.11.00	The meeting began and the attendees introduced themselves. • MT had distributed the draft minutes from the previous meeting. These will be placed on the web site shortly. Send any corrections to MT.	All

21.11.01	Agenda Item 1 – Actions from previous meeting	
	• Visiting fellows suggestions (All) Ongoing	All
	• Seek e-Science journal for reconstruction work. (MT) Ongoing	MT/MS
	• Arrange talks on Savu , IMAT and Avizo frameworks (MT) Ongoing	MT
	• Add data sets to Zenodo site. MT said that the Zendo site has now taken off with several new data sets added. Thanks to BL in particular. Link to Zenodo now available on the CCPi website. Upload data then request to add it to the CCPi community.	
	• Training courses continue to be announced on the CCPi email list	MT
	• Case studies on Beam Hardening, Quantification: Ongoing	RF/SN
	• The CCPForge repository has been updated and now supports a Jenkins continuous build server.	
	• Contact NPL to see if they can make use of Zenodo site for their data sets. Ongoing.	MT
	• Dropbox for business size is now available with link from CCPi website.	
	• Links with the UCL CDT have not been investigated.	
	• MT said that Show and Tell sessions for CCPi are continuing. A pod cast of the last session was recorded. EY will be managing these events in future.	MT/EY
	• Seek IMAT data to place on Zenodo – ongoing.	SN
	• File transfer from DLS to UoM: SN has run tests which are successful, though speed is limited. Local firewalls seem to the issue. MB said that high speed transfers are possible to sites in USA that are correctly configured. Issue is not with JANET network but with local system administrators needing to bypass firewalls. Action MT/All to ask local admins for high speed file transfers to DLS, where needed.	MT/All
	• GD and BL to discuss editing new Phil Trans issue on pre-reconstruction techniques: ongoing.	GD/BL
	• Suggest articles for new Phil Trans issue – Ongoing.	All
	• Arrange visit by Astra developers to CCPi sites. MB had been talking to Astra developers recently and they are keen to visit early next year. Hope to be able to include Astra code into Savu framework.	MB
	• Updated proposal for joint CCPi/CCP PET/MR workshop at next CCP PET/MR working group meeting. KT said this had been discussed in the CCPPETMR working group and it was thought too close to recent workshops to do this currently. Action: Arrange meeting for late next year.	BL/KT
	• Discuss of policy on CCPi support for attending training courses: MT said there had not been much feedback on CCPi helping with costs of training courses and no requests so far. Ongoing.	PW/MT
	• Contributions to CCPi report to CCP steering group: another report is due soon so send any contributions to MT.	All
21.11.02	Agenda Item 2 CCPi related activities for last 6 months	
	• PL reported on the ``Lego tomography'' demo used to illustrate tomography principles for public understanding. Well received at	

	events. Work needed to avoid use of Avizo license. PL hopes to have student effort to find open source alternative. Action PL.	PL
	• Alternatives to Avizo were discussed including the new (ParaView based) TomViz package. The main developer, Marcus Hanwell, visited RAL and UoM after ToScA.	
	• The main CCPi activities were:	
	o Eight visitor exchanges as short-term fellows receiving small amounts of travel/subsistence money.	
	o SN gave an update on ISIS funded STFC summer student (Zechang Xu). An updated Drishti/Prayog manual with emphasis on ISIS/IMAT was produced with edits by MT. New document will be available on line.	
	o Two UoM summer students carried out helical reconstruction - about three months money requested (Moe, Yngve M.; Lloyd, Ryan) – funded by CCPi. BL gave an overview of their work on helical scanning and a poster presented at ToScA. Code and visual basic scripts are available.	
	o Six seminars (software show-and-tells) events and ToScA organisation (included seven posters and a talk).	
	o Five Public Engagement events (including the Manchester Science Festival at end of this month).	
	o Link/advertise six training courses, for materials science visualisation. MT mentioned upcoming course on Avizo at RAL. FEI/Avizo has been taken over by Thermo Fisher Scientific.	
	o One conference paper published (Eurographics UK) as well as the seven posters (ToScA)	
	o We now have 314 members on the email list after a few reminder emails (some may be dormant).	
	o Website refreshed and data archives in use (zenodo and dropbox for business are now available).	
	▪ https://www.ccpi.ac.uk/	
	▪ https://zenodo.org/communities/ccpi/	
	• CCPi supported publications should reference the CCPi EPSRC grant: Action: MT to find suitable form of words for acknowledgement and add to CCPi website.	
	Action: RF to do the same for CCPPETMR site.	MT RF
21.11.03	Agenda Item 3 – Software plan	
	• MT reported that the support plan was 1.15 FTPS/year and is current under spending by 0.4. A new recruitment exercise is underway with interviews due shortly.	
	• Currently have 10 priorities in plan with the 3 software frameworks agreed from last year.	
21.11.04	Agenda Item 4 – Update on Frameworks	
	• WK gave an update on IMAT. The project is proceeding well, despite a staff member having left. A new member of the team is now picking up the work. Objectives include a Mantid GUI for IMAT and integration with work on Savu.	
	• SN gave an update on the work to make Savu available on the Scarf	

	cluster at RAL and issues with the file system. Savu is being extended to work with lab based systems. MB reported that Savu is now much easier to install on small clusters and workstations. Action: SN to get easy to install Savu for Scarf and UoM systems.	SN
	• MB reported on a 3 day workshop held at the Lawrence Berkeley lab on tomographic reconstruction. This gave a very useful overview of current reconstruction software packages, some of which could be integrated within Savu. MB found the conference was very useful and thought that CCPi should be represented at next year's meeting.	
	• There was a discussion on which of the Open Source reconstruction packages should be included in Savu. MB thought that all have good points. Provide several with test data sets so users can evaluate performance. Providing a range of algorithms is useful for making comparisons. The Savu framework can be used to wrap Open Source packages and give reference to the underlying algorithms and packages. Integration of cone beam methods into Savu was suggested as a task the new starter at STFC could be involved with. KT mentioned the CCPPET-MR interface that is used to wrap reconstruction packages and may be of interest in this context. MB will attend the conference next year and could represent CCPi. Action: MT to arrange meeting with BL and MB when new recruit joins STFC to define priorities for CCPi work.	MT/BL/MB/EY

	• SN gave an update on the status of the CPPi quantification codes.
	    o A set of quantification methods have been implemented.
	    o Erwan Plougonven has provided a set of Avizo plugins that are distributed via CCPForge
	    o Approximately 60 downloads of the software.
	    o Would like to get more algorithms to implement.
	    o Provides wrappers for ImageJ, Avizo and ParaView.	

	Action: Request suggestions for additional quantification codes.	
	Action: Contact Brian Bay to see if DVC code is available to include in quantification package.	MT
	Discussion on how to get feedback on quantification codes. SN said that codes are automatically rebuilt when updated in CCPForge, but need to manually repackage for release.	MT
	Action: Set dates for formal releases of quantification codes.	SN
	• MB said DLS may be able provide some support to Ajay Limaye for Drishti development.	
21.11.05	Agenda Item 5 – CCPi Website and email lists • Email lists now have 314 members • Website has been refreshed and includes links to zenodo for large data sets.	
21.11.06	Agenda Item 6 – Future meetings MT reported future meetings of interest to CCPi: • 14-15 December 2016 Computing Insight UK 2016 http://www.stfc.ac.uk/ciuk • Avizo courses will be running at Manchester on 6&7 December 2016. Noriko.Griffiths@manchester.ac.uk • 5 December 2016 CCP Steering Panel at London in MRC • 24 November 2016 FEI visit and Workshop on Avizo at RAL:	

	Developers will be available for consultation.		
	• Workshop in the afternoon of Wednesday 23 November 2016 at Imperial with the aim of engaging the UK materials modelling community with the activities of the Sir Henry Royce Institute.		
	• NPL event - 1st 3D Metrology Conference: 22-24 November 2016 in Aachen 'dedicated to the application and development of 3D measurement'		
	• 3rd International Conference on Tomography of Materials and Structures, which will be held in Lund, Sweden, 26th – 30th June 2017. ICTMS 2017		
	• 12-13 May 2017 Practical+Clinical hosted by UCL as a course for PETMR		
	• TMS2017 (San Diego) Session on Defects and Properties of Cast Metals Sunday, 26 February, 2017 to Thursday, 2 March, 2017		
	• 9-12 January 2016 Workshop in Switzerland focused on the visualisation of complex imaging.		
21.11.07	Agenda item 7 Short talks • AR/PG gave an update on the collaboration with PG over hacking the control code on Nikon xtek machines. • RF gave short updates on: o Software testing using Jenkins for the CCPi codes o The beam hardening correction code work with Matthew Pankhurst and the RCaH. o The CCP-WSI project and its use of OpenFOAM for CFD modelling.		
21.11.08	Agenda Item 8 – AOB • MT said that a new EU COST proposal is being submitted. • Public engagement grants are available from STFC which could be used to fund outreach work. • MT mentioned the Advanced Radiotherapy Network who are offering Sandpit events and possible PhD studentships. • Management of CCPi may be changing on 1st March.		

Minute	Action	Person Responsible	Date due to be completed by
21.11.00	Send any corrections to previous minutes to MT	All	
21.11.01	Visiting fellows suggestions	All	Ongoing
	Seek e-Science journal for reconstruction work	MT/MS	Ongoing
	Arrange talks on Savu , IMAT and Avizo frameworks	MT	Ongoing
	Announce training courses on the CCPi email list	MT	Ongoing
	Encourage people to add data sets to Zenodo.	ALL	Ongoing
	Case studies on beam hardening,	RF/SN/MT	Ongoing

	quantification		
	Contact NPL to see if they can make use of Zenodo site for their data sets.	MT	Ongoing
	For high speed files transfers to/from DLS ask local admins to allow firewall bypass.	MT/All	
	Seek ISIS IMAT data to publish on Zenodo site.	SN	Ongoing
	GD and BL to discuss editing new Phil Trans issue on reconstruction.	GD/BL	Ongoing
	Suggest articles for new Phil Trans issue	ALL	Ongoing
	Arrange visit by Astra developers	MB	
	Updated proposal for joint CCPi/CCP PET/MR workshop late next year	MT/BL/KT	Ongoing
	Discuss of policy on CCPi support for attending training courses.	PW/MT	Ongoing
	Send suggestions and contributions to CCPi report to CCP steering group to MT.	ALL	
21.11.02	Find suitable form of words for acknowledgement for CCPi/EPSRC support and add to website. Also for CCP PET/MR	MT/RF	
21.11.03	Help install Savu on Scarf and UoM machines	SN	
	Arrange meeting with BL and MB to set objectives for new recruit at STFC.	MT/BL.MB/EY	
	Request additional codes to include in CCPi quantification software	MT	
	Contact Brian Bay to see if DVC code can be included CCPi quantification software	MT	
	Set dates for formal releases of the CCPi quantification software	SN	