

Research it

Supporting your research

A newsletter from IT Services: Research IT

Welcome to issue #23, March 2015, in a **regular series** of updates on IT research support and facilities for postgraduates, researchers and academics of The University of Manchester.

Your main Faculty contact email addresses (for research computing support) are given on the last page; emailing your research computing queries this way will also automatically raise a job for you in the *Remedy* tracking system.

Every day, routine work should continue to be submitted through the IT Service Desk on +44 (0) 161 306 5544 or via online submission at: www.manchester.ac.uk/servicesdesk.



Web Page: Research IT

The web site for our support areas and all contact details is available here: www.its.manchester.ac.uk/research/.

Clickable Web Links

If you have received a printed copy of this newsletter and wish to follow the links, staff can download an electronic copy with clickable links at:

<http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=23679>

The link to #22 of the Newsletter was clicked on 1778 times in February. Please help us increase our readership by forwarding the link to colleagues.

Research Computing Facilities

IT Services supports University of Manchester researchers and staff on a wide range of facilities including your own desktop, University owned clusters and externally hosted facilities. Links to a range of facilities are provided below. If you would like to find out more about the best option for your particular research needs, please [contact us](#).

- [University of Manchester Computational Shared Facility](#)
- [University of Manchester Condor Service](#)
- [N8 Regional High Performance Computing Service](#)
- [ARCHER UK High Performance Computing Service](#)
- [UK Hartree Centre Facilities](#)
- [PRACE EU High Performance Computing Service](#)
- [XSEDE USA High Performance Computing Service](#)

“Polaris” Advance Notice: Out of Service

The power supply to the data centre hosting N8 HPC's Polaris is being upgraded and as a consequence, Polaris will be taken out of service on Friday 6 March at 12:00. Service is expected to resume by 17:00 on Monday 9 March. We appreciate this may cause disruption to your work, but is unavoidable due the building work. If you have any questions or concerns, please [contact us](#).

Do you run a data hosting service for University of Manchester academics and external bodies?

IT Services is undertaking a project to improve the way we support our academics who host services containing data which belongs to academics and others external to the University. If you would like to participate please contact [Mary McDerby](#).

PRACE Call for Proposals

The [PRACE 11th Project Access Call for Proposals](#) is open until **18 March 2015**. The call offers resources on a range of European supercomputing facilities. Applications can be submitted [online](#).

Research Computing Training

University Courses

IT Services offer a portfolio of short courses in research computing. [Click here](#) for the latest schedule. We also tailor courses for doctoral training programmes and arrange on-demand training with external tutors. Please contact [Lee Margetts](#) for details.

PRACE Advanced Training Courses

The Partnership for Advanced Computing in Europe (PRACE) offers a range of [free courses](#) at different HPC centres in Europe. Courses offered in March and April 2015 include:

2-5 March	Cray XC40 Optimization	Germany
5-6 March	Parallel Filesystems & Libraries	France
9-13 March	Fortran for Scientific Computing	Germany
10-13 March	Computational Chemistry	Finland
11-13 March	HPC Numerical	Italy
12-13 March	Simulation Environments	Spain
25-27 March	HPC enabling of OpenFOAM	Italy
7-10 April	Advanced Topics in HPC	Germany
7-10 April	Parallel Linear Algebra	France
16-17 April	Programming MareNostrum III	Spain
16-17 April	OpenACC Programming	Germany
16-17 April	ARCHER Software Carpentry	London
20-22 April	Debugging and Optimization	Italy
20-22 April	GPU Programming with CUDA	Germany
23-24 April	Intro to UPC and CAF	Germany
27-29 April	Intel MIC&GPU Programming	Germany

EPCC's MSc Programmes in High Performance Computing

The Edinburgh Parallel Computing Centre (EPCC) at the University of Edinburgh is currently inviting applications for their [MSc Programmes](#) in High Performance Computing and HPC with Data Science. **Up to two Scholarships in HPC are also available.** For more information please [click here](#). If you have any questions about the MSc in HPC or the scholarships, please contact the MSc Administrator, [Crystal Lei](#).

PRACE Summer of HPC 2015

Would you like to spend the summer working abroad at a European High Performance Computing (HPC) Centre? Are you interested in programming and are eager to improve your skills? Have you a passion for visualising scientific data in novel ways to grab the attention of the general public? Applications are now open for the [PRACE Summer of HPC 2015](#). Twenty students will go to PRACE member centres around

Europe, where they will work on PRACE related projects from 1 July to 31 August 2015. Flights, accommodation and a stipend will be provided. Deadline for applications is **8 March 2015**.

Upcoming Events

Software Sustainability Institute's Collaborations Workshop 2015 (CW15)

Registration is now open for this year's CW15, which will take place on March 25th-27th at the Oxford e-Research Centre. CW15 brings together researchers, software developers, managers, funders, publishers and more to share practice, explore ideas, highlight problems and establish a community-based understanding of the state of interdisciplinary collaboration and software. For further information including how to register, [click here](#).

Other News

The Story of HECToR

The UK High Performance Computing Facility that was in service before ARCHER was called HECToR. The research councils have recently commissioned a report outlining the key research outputs that were enabled by HECToR. For further details, please see the [press release](#). You can also read the [final report](#) itself. Look out for University of Manchester research into dinosaurs!

STFC Software Outlook Programme

The Science and Technologies Facilities Council (STFC) run a Software Outlook programme in which they evaluate new software techniques and report on their use with real application codes. Current highlights of the programme include:

- Comparative debugging
- Partitioned Global Address Space languages
- Hybrid MPI and OpenMP
- Hybrid MPI with shared memory
- Parallel Input/Output

For a summary of the results of these studies and links to further information please visit the STFC [website](#) or contact [Dr Mike Ashworth](#).

Outlining Bones in X-rays

Professor Tim Cootes in the School of Computer Science has been awarded an EPSRC grant to further

develop free software that is used to help outline bones in X-rays. For further details, please see the [School of Computer Science Winter 2014 Newsletter](#).

Where is the February Newsletter?

If you think you missed the February edition of the newsletter, do not worry, you will not find it! We have changed to a magazine date format and the #23 edition of the newsletter is the March edition.

Drop Box Facts

This month, we have a guest article on Drop Box from IT Relationship Manager Ian Cottam who writes:

A top research University can't live without data cloud sharing via services such as Dropbox – and Dropbox is still the gold standard for such a service. Here are a few small facts, just for interest, about Dropbox, and I've mixed up UoM usage data with global information about the Dropbox service.

- Over 5000 members of staff at UoM are Dropbox users.
- Only around 150 of us pay for the service (the rest use the free version).
- It's well known that Dropbox stores users' files on Amazon – using tens of thousands of EC2 instances to store over a trillion objects (i.e. file chunks) – but did you know Dropbox have tens of thousands of their own servers just to handle the metadata (e.g. who owns what, who shares what with whom, etc.)?
- Dropbox processes 100s of gigabits of data per second.
- A billion files are stored or updated in Dropbox per day.
- If you pay for Dropbox (Pro), as I do, amongst other things you get the ability to share folders as view/read-only (the biggest limitation, apart from space, with the free version).
- Microsoft Office files (300 million of them) can be edited directly from Dropbox, using the Microsoft Office apps freely available for the Apple iPad.
- Dropbox Pro users can store, and selectively sync, at least a terabyte of data.
- Remember not to store sensitive "data protection" type data in Dropbox as, currently, all their servers are outside the EU (i.e. they are in the USA).
- Some University of Manchester users (a team or teams of 25 users) have the full Dropbox for Business account, but I don't know who they are. Please let [me](#) know of your experiences with that service so we can share the information more widely within the University.

Vacancies

Are you trying to recruit someone? Let us know and we will help you advertise here. The newsletter is read by thousands of potential candidates each month.

[Postdoctoral Researcher at the University of Kansas](#)
[Computational Scientists / Researchers \(3\) Irish Centre for High-End Computing Ref. No. NUIG 023-15](#)

Useful Links

Contact the editor to request to add appropriate links in this section. Thank you for contributions from Humanities.

[Faculty of Humanities Blog with News and Events](#)
[Faculty of Humanities Training Hub for Postgraduates](#)

Subject-specific Email Lists

Please note that these lists are subject specific forums, rather than a way of contacting IT Services.

finite-elements@listserv.manchester.ac.uk
fortran@listserv.manchester.ac.uk
sciprogramming@listserv.manchester.ac.uk
university-gpuclub@listserv.manchester.ac.uk

Faculty Contact Emails

Humanities:

Hum-ITResearch@manchester.ac.uk

Engineering and Physical Sciences:

EPS-ITResearch@manchester.ac.uk

Medical and Human Sciences:

MHS-ITResearch@manchester.ac.uk

Life Sciences:

FLS-ITResearch@manchester.ac.uk

Next edition

The next edition of this newsletter will be circulated at the beginning of April 2015. If you have any news to contribute, please contact the editors [Lee Margetts](#) or [Dalinder Sall](#) at any time.

Items received **before Friday 20th March 2015** will be included in the next edition. News from academic colleagues and researchers are most welcome.