



Research IT

Helping you achieve your research outcomes

A newsletter from IT Services: Research IT

Welcome to issue #29, September 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 contact email address for research computing support is given on the last page; emailing your queries this way will automatically raise a job for you in the IT Services helpdesk system. Every day, routine work should continue to be submitted through the IT Service Desk on +44 (0) 161 306 5544 or via the Support Centre online at:

www.itservices.manchester.ac.uk/help/

New Website for Research IT

We are currently redeveloping the Research IT website to bring it in line with our new platforms and services. The link will be posted in the newsletter when it's ready.

Research IT Twitter

The Research IT team now have a voice on Twitter. We will be tweeting about a wide variety of exciting topics from the world of e-Research to help keep you informed of the cutting edge of the field. From the very latest news on our fast developing platforms and services, to hand-picked tweets from the rest of the world. Please follow us at [@UoM_eResearch](https://twitter.com/UoM_eResearch).



Project Providentia

This project will enhance our local on-campus capabilities to deliver increased capacity for data-intensive research and improvements to usability with the development of a new job submission engine. It will extend the boundaries of what is currently possible in big-data type research for users of our current infrastructure, whilst also helping non-expert HPC users by improving the usability of our platform interfaces. This project is underway with two releases planned to incrementally deliver new functionality in Nov-Dec 2015 and Feb-Mar 2016.

Research virtual machine infrastructure (RVMi)

This initiative will implement dedicated, research virtual machine (VM) infrastructure to enable responsive, cost effective “fit for purpose” capabilities to researchers, enabling wide usage across the research community and enhancing productivity. It will involve the migration of our current, fragmented VM infrastructure to a new environment with higher levels of resilience and performance and will provide a self-service capability for researchers requiring on-demand VMs for workflow, collaboration and data management. Work is underway with completion expected by late 2015 / early 2016.

Call for Proposals for HPC Compute Resources from DECI-13 (Tier-1)

DECI (<http://www.prace-ri.eu/dec1-projects/>) provides cross-national access to European Tier-1 HPC resources (national systems). DECI enables European researchers to obtain access to the most powerful national (Tier-1) computing resources in Europe regardless of their country of origin or employment and to enhance the impact of European science and technology at the

highest level. Access will be awarded for a period of 12 months, beginning 18 January 2016. Resources are available on the following architectures: Cray XC30/Cray XC40, IBM Blue Gene/Q, Intel clusters, and hybrid systems (clusters with GPGPU accelerators or Xeon Phi Co-processors).

Applicants should apply to DECI via the submission tool [here](#). The DECI support team is available to answer questions by email while the call is open and applicants are encouraged to contact them (deci-support@prace-ri.eu) if they have any questions.

Key information:

- Closing date: 21/09/2015
- Allocation start date: 18/01/2016
- Allocation period: 1 year for Project Access
- Type of access: DECI (Tier-1)

The Hartree Centre- 3rd Intel Xeon Phi Coprocessor Access Programme

The Hartree Centre is pleased to announce a third programme of access to its Intel Xeon Phi coprocessor cluster. This is for projects from academia and industry that would like to experiment with their code on this exciting new architecture.

The third phase covers the period between Monday 28 September and Thursday 24 December 2015.

An application form can be downloaded [here](#). Please contact [The Hartree Helpdesk Team](#) with any questions.

Call for Proposals- ARCHER 6th Embedded CSE

ARCHER are inviting proposals for their 6th embedded CSE (eCSE) call which will provide effort for research groups to develop software in a sustainable manner. Embedded CSE (eCSE) funding will enable the employment of a researcher or code developer to work specifically on the relevant software to enable new features or improve the performance of the code.

ARCHER eCSE funding is available for established ARCHER communities and proposals from these communities are encouraged. However, proposals from new scientific

communities are also encouraged.

More details of how to apply are available [online](#). The deadline for proposals is **Tuesday 15 September 2015**.

iSPEX-EU: Take part in gathering air pollution data using your iPhone

Urban air pollution is a global problem with particulate matter, or aerosol particles, a major contributor. Within the iSPEX-EU project a simple add-on for iPhones 4, 4S, 5, and 5S enables people to take part in collating data to improve our understanding on how best to tackle the issue. Funded under the Horizon 2020 programme, the project is taking place in cities across Europe to show how air pollution changes in and above cities depending on the weather conditions.

The project runs from 12 September to 15 October 2015 during which the participants can join in by attaching the iSPEX add-on to their iPhones and taking measurements of the sky at different angles. If you are interested, you can come and collect the add-on and chat with the project team at the Manchester Museum on these dates:

Saturday 12 September, 11am-4pm (The Study-Opening day event)

Wednesday 16 September, 12-2pm (The Study)

Friday 25 September 6-10pm (The Study – Science Uncovered: Manchester)

If you are not able to make these dates you can send an email to manchester@ispex-eu.org to reserve an iSPEX device. For more information on the project please [click here](#).

Software Sustainability Institute (SSI) Fellowship Programme

Applications are now open for the SSI's Fellowship Programme 2016. Applications are welcome from researchers, developers and research software

engineers. Each Fellow will be allocated £3,000 to spend over fifteen months. The funding is flexible to support activities that are beneficial to both the Fellows and the Institute's aims e.g. to setup and run workshops or to host, organise or teach at [Software Carpentry](#) or similar training events.

Please visit the [Fellowship Programme 2016 webpage](#) for more information and to apply. The deadline for applications is **Thursday 1 October 2015**.

Upcoming Events

Technology and Healthcare Professional Behaviour Change Seminar

Manchester Pharmacy School will be hosting a seminar on **8 September 2015** to discuss the technological solutions supporting healthcare professional behaviour change. The seminar will be held from 11am-2pm in Room 306 A/B Jean McFarlane Building.

This seminar is open to anyone across The University of Manchester who has an interest in using technology; such as those working in behaviour change and/or technological support (for example computerised feedback or reminders, mobile phone apps etc).

To register for the event please [click here](#). For further information please contact: christopher.keyworth@manchester.ac.uk

Maxeler Training Workshop

The Hartree Centre will be hosting a two-day Maxeler Training Workshop on 29-30 September focussed on developing skills around the Maxeler system at the Hartree Centre.

Day one will be an introduction to programming the Maxeler dataflow machine. Day two will focus on addressing specific challenges and issues associated with dataflow computing with a Q&A session at the end of the day. To register, please [click here](#).

Other News

Data Vault Platform



We are pleased to announce that the University of Manchester in collaboration with the University of Edinburgh has been funded via the JISC #DataSpring programme to develop a Data Vault platform. The Data Vault will allow data creators to describe and store their data safely in one of the growing number of options for archival storage. This may include cloud solutions, shared storage systems, or local infrastructure.

The team at Manchester is a collaboration between the University of Manchester Library and Research IT, and consists of Lorraine Beard, Mary McDerby and Tom Higgins.

For further information please see the [Jisc Data Vault blog](#).

If you have any questions please do not hesitate to contact the Data Vault project manager: Mary McDerby mary.mcderby@manchester.ac.uk

Do you still use a umist.ac.uk or man.ac.uk email address?

You may have seen that on Thursday 1 October, the University will be decommissioning the man.ac.uk and umist.ac.uk email domains, which were replaced with the manchester.ac.uk domain several years ago.

This means that any email sent to an address ending in @man.ac.uk or @umist.ac.uk will not work, and the sender will receive an automatic response advising that the email address is no longer in use.

For more information on the decommissioning please follow [this link](#).

Coping with IT Infrastructure outages

This month we have a guest article from Ian Cottam, IT Relationship Manager, who has collated his top tips for

researchers on coping with IT Infrastructure outages in light of the Kilburn Data Centre move and the upgrading of several network switches on campus.

To read the full article, please [click here](#). If you'd like to send Ian your top tips for researchers for future articles, please contact: ian.cottam@manchester.ac.uk

Vacancies

Are you trying to recruit someone? Let us know and we will help you advertise here.

Internship Opportunity

Research IT is working with the Manchester Graduate Internship Programme (MGIP) to offer two recent graduates a year's employment working on a small number of innovative projects. If you are aware of competent graduates who would thrive by working with members of Research IT then please encourage them to apply by clicking on the link below.

Projects available include developing materials to support virtual/augmented reality platforms, enabling easier access to high end compute by helping developing "on ramps", evaluating tools to enhance performance (profilers, debuggers etc.), or exploring how best to support researchers exploiting the Internet of Things.

For an informal chat about these opportunities please contact [Michael Bane](#), Research Apps. The deadline for applications is **Sunday 6 September** with interviews on Friday 11 September. To apply, [click here](#).

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 \(N8 HPC\)](#)
- [PRACE EU High Performance Computing Service](#)
- [UK Hartree Centre Facilities](#)
- [PRACE EU High Performance Computing Service](#)
- [XSEDE USA High Performance Computing Service](#)

Access to ARCHER

Researchers can request anything from pump-priming access to full projects on the UK High Performance Computing Service (ARCHER) for suitability for their work all year round via a lightweight application process. [Click here](#) for details.

Research Computing Training

PRACE Advanced Training Courses

The Partnership for Advanced Computing in Europe (PRACE) offers [free courses](#) at different HPC centres in Europe. Courses offered in September and October 2015 include:

17-18 Sep	Advanced Fortran	Germany
22-24 Sep	Introduction to Fortran Programming	Finland
23-25 Sep	Industrial Workshop on COMSOL and OpenFOAM	Sweden
28-02 Oct	Parallel Programming with MPI and OpenMP	Germany
28-02 Oct	Parallel Programming Workshop	Germany
20-22 Oct	Introduction to Parallel Programming	Finland
26-28 Oct	Debugging and Optimisation	Italy
28-29 Oct	Advanced MPI	Edinburgh
29-30 Oct	Data Carpentry	Leeds

University of Manchester Courses

Research IT aim to further enable research using various state-of-the-art facilities and applications by assisting researchers to achieve their research goals. We offer training courses both online and in a classroom environment to enrich and optimise research outcomes.

A wide range of courses offered to postgraduates and staff members during the 2015 autumn semester reflects what we would like to achieve in enabling

research and enriching/optimising research outcomes. These courses are a mix of face-to-face and online, covering a variety of topics such as Research Computing, UNIX, MATLAB, FORTRAN, visualisation packages, optimisation & parallelisation techniques, Condor, GPU programming (CUDA and OpenCL) and OpenMP. Please [click here](#) for further details and booking.

We can also tailor courses for doctoral training programmes and arrange on-demand training with external tutors. Please [contact us](#) to discuss your requirements.

Subject-specific Email Lists

Join the email lists below to collaborate and share ideas with a broad network of staff across campus. Please note that these email lists are subject specific discussion forums, rather than a way of contacting IT Services.

[University HPC PhD Network](#)

finite-elements@listserv.manchester.ac.uk

fortran@listserv.manchester.ac.uk

sciprogramming@listserv.manchester.ac.uk

university-gpuclub@listserv.manchester.ac.uk

Useful Links

[Faculty of Humanities Blog for Researchers](#)

[Faculty of Humanities Training Hub for Postgraduates](#)

Useful Links

[Faculty of Humanities Blog for Researchers](#)

[Faculty of Humanities Training Hub for Postgraduates](#)

Online Copy

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=24855>

Contact

Research IT:

its-research@manchester.ac.uk

Head of Research IT:

Kurt Weideling

kurt.weideling@manchester.ac.uk

tel +44 (0)161 275 7229

High performance computing:

Simon Hood

simon.hood@manchester.ac.uk

tel +44 (0)161 306 6650

External services:

Robin Pinning

robin.pinning@manchester.ac.uk

tel +44 (0)161 275 7028

Research software and data engineering:

Robert Haines

robert.haines@manchester.ac.uk

tel +44 (0)161 275 7821

Applications, training and support:

Michael Bane

michael.bane@manchester.ac.uk

tel +44 (0)161 306 6652



[@UoM_eResearch](#)

Next edition

The next edition of this newsletter will be circulated at the beginning of October 2015.

If you have any news to contribute, please contact Gillian Sinclair gillian.sinclair@manchester.ac.uk and Dalinder Sall dalinder.sall@manchester.ac.uk at any time.

Items received **before 25 September 2015** will be included in the next edition. News from academic colleagues and researchers are most welcome.