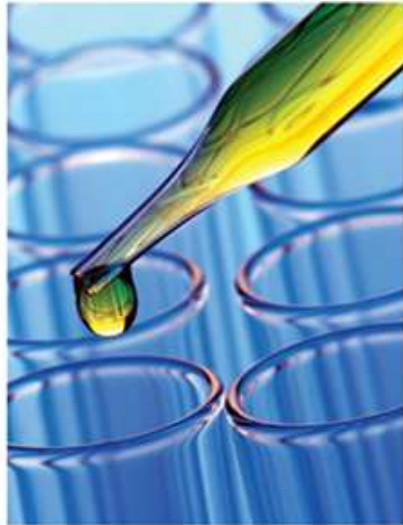


N8 HPC – how to get started

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N8 HPC Service Development Manager



Applying for access



High
Performance
Computing

Go to the N8 HPC website – www.n8hpc.org.uk

Getting started – from the menu section or the home page

www.n8hpc.org.uk/home

N8 High Performance Computing Research Partnership

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BBC – In the Mood for Music

The first of our industrial case studies has been published. Learn how the BBC collaborated with N8 HPC to use our skills and resources to slash the processing time of a large music database. A fantastic example of how N8 HPC is working with industry to tackle their issues.

N8 HPC

N8 HPC is an EPSRC funded initiative involving the N8 Research Partnership. The aims are to:

- seed engagement between industry and academia around research using e-Infrastructure
- develop skills in the use of e-Infrastructure across the N8 partnership
- share the asset of skills and equipment across the N8 partnership via the facilitation of networks of people

The initial investment will provide a focus for the aims above, comprising:

- Centre - a distributed team of experts to help with optimising time-to-solution and industrial engagement
- Facilities - a Tier 2 SGI 5,000+ core high performance computing facility

A key aspect of N8 HPC is industrial collaborations and we invite those with potential interest to contact us.

Accessing N8 HPC

N8 HPC facilities are available to all researchers based at N8 institutions subject to a light weight peer review. For more details on how to access the facility, please see "Getting Started".

www.n8hpc.org.uk

EPSRC

Engineering and Physical Sciences
Research Council

First things first



High Performance Computing



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Getting Started

Getting access to N8 HPC is a simple two stage process. All project applications are reviewed and approved in your local institution. Applications will be assessed on suitability of the research for the facilities (ie. could you be using tier 3 institutional facilities?) and other factors such as industrial and cross N8 collaboration.

Project Account

In order to use the facility you **must** have a N8 HPC Project Account. We ask that *Pis are permanent members of staff* at their institution, this will allow us to have a permanent contact for project reporting purposes. The PI of the project should complete a Project application form which will then be reviewed by your local N8 HPC team. If approved a **N8 HPC Project Code** will be supplied by your local N8 HPC team contact. The Project PI should then distribute the project code to all research team members before they apply for user accounts.

In order to help you prepare the information required in advance, a pdf of the project application form is available. **However you must complete and submit the online form. The pdf is for information only.**

User Account

IMPORTANT WARNING: Please read application instructions carefully, as incorrect or incomplete applications will be unnecessarily delayed. If your account has not been created within a week please contact your local N8 HPC team.

Each user must apply for an individual user account. University of Leeds users should email leeds@n8hpc.org.uk to apply for individual user accounts, while users from other institutions should use the username application form. Please follow the instructions provided on the application page, and **ensure that:**

- From the **Category** drop down box select the **External HPC User** option and then from the **Faculty** drop down select the **Remote Sites** option. You should then be able to select your institution from the **Department** drop down.
- Include the project code, as supplied by the Project PI, in the "Further information box". Applications without a code will be rejected.
- Include your institutional email address in the "Further information box". If the email is omitted, account creation may be delayed.

The application will be reviewed by your local N8 HPC team. If approved you will receive a welcome email and your account will be made active.

Forgotten passwords and password resets

A password will be issued upon account application. If the password is forgotten or needs to be reset for any reason, please contact the University of Leeds ISS Help Desk on 0113 343 3333, mentioning that you are an external user. Currently, password resets can only be done via this method.

File and Data Management

This section contains information on basic processes such as copying files and backup policy as well as filesystem information and Research Data Management (RDM) policy and requirements.



Project account



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Must be completed by a PI who is a permanent member of staff

Project applications administered at Manchester



N8 HPC Application

Your details

Please let us know who you are and, on following pages, how you would like to use the high performance facilities. We will then process your application and be in touch.

1. Please enter your name.
2. Your institution*
3. Please enter your institutional email address.*
4. Please enter your institutional phone number.*
5. Please enter your status.*
Only permanent members of staff from an N8 institutions may apply for time. If you wish for access to the N8 HPC Service, we can arrange to discuss potential collaborations.

Next

Completion and next steps



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Information required

- Project title and brief description
- Funders
- Industry involvement

Computational requirements

- Codes, compilers, debuggers, libraries, profilers

Expected usage

- Number of cores per job
- Wallclock time per job
- Memory required per core per job (GBytes)
- Amount of data written to disk per job (GBytes)
- Number of such jobs/per month
- Total number of such jobs

Application submitted and passed onto your **local HPC team** for approval

Project code devised and given to the PI by the local HPC team

Individual user accounts can now be applied for **using this code.**

www.n8hpc.org.uk

EPSRC

Engineering and Physical Sciences
Research Council

User applications

Administered at Leeds. Read carefully - remember the project code!



High Performance Computing

When you apply you will be issued a password – make a note of this.

You are here: Home [Application for a Computer Username](#)

Application for a Computer Username

Please use this form if you are a new member of staff at the University or a visitor/contractor and wish to apply for an ISS username and password. **This form MUST be completed by the applicant themselves. It involves the applicant agreeing to be bound by the terms and conditions of use. It is NOT permitted for a third party to complete the form on the applicant's behalf. Applications submitted by third parties will be rejected.** If you have previously worked for the University and are returning please do NOT use this form and contact ISS User Administration team on 0113 343 5420

Applicant Details:

First Name(s) Family Name

Date of birth: Day Month Year

Category

If you are unsure which Department or Faculty you will be working in please contact User Admin on 0113 3435420.

If you are an External User applying for an account in order to use Sharepoint, please select the Faculty and Department within which the collaborative project is based. You should also include the name of your institution and a contact email address in the "Further Information" box at the bottom of this form.

If you are an External user applying for an account in order to use the N8 HPC system, please select 'Remote Sites' and your Institution from the Faculty and Department drop down menu. You should also include your institutional email address and details of the project, including the principal investigator/supervisor(s), in the "Further Information" box at the bottom of this form.

Faculty

Department

Contact telephone number - we may wish to contact you for further information.

If a visitor please state date of leave if known: Day Month Year

User applications



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Application approved by your local HPC team who will confirm you are based at the correct university.

Your account will be live when you receive an email stating that you have been added to the Polaris-users mailing list.

Lift off!



Access granted



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Plenty of information and help on the website



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Accessing the Facility and Running Jobs

Accessing Polaris

The current N8 HPC facility is called Polaris and may be accessed via standard Secure Shell (**ssh**) tools to connect to the host name **polaris.leeds.ac.uk**. For example using:

```
$ ssh <username>@polaris.leeds.ac.uk
```

from the command line of a Unix shell or shell emulator if using Windows.

Please note that firewalls may be in place - please contact your local support if you have any access problems.

Current Status

Currently, the service on Polaris is in **pilot phase** so there may be very short notice of downtime or changes to the system, and backup/restores are not guaranteed.

Please pay close attention to the message of the day when you login, for details of planned maintenance.

New Accounts & Passwords

N8 HPC are contacting potential early adopters for the pilot phase of the service.

Full details of how PIs can apply for a project using the N8 HPC service can be found on the [Getting Started page](#).

Overview of section

- **Modules**- this section contains details about the user environment and how it can be controlled via **modules**
- **Batch system**- an overview of how to use the SGE batch system to run jobs. Contains specific details details of the implementation of SGE on Polaris.
- **Submitting jobs**- lists some commonly used jobs submission options
- **Script Examples**- contains a number of submission script examples for various types of jobs
- **File systems**- an overview of the file systems available on the facility

www.n8hpc.org.uk

Moving onwards



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Keep in touch

- www.n8hpc.org.uk
- <http://twitter.com/N8HPC>

Project descriptions (in progress!)

- <http://n8hpc.org.uk/research/projects>

Case studies / research papers

- coming soon

Acknowledgement

- <http://n8hpc.org.uk/research/acknowledgement/>
- logos etc

Local helpdesk

- sheffield@n8hpc.org.uk

www.n8hpc.org.uk

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