



We are a supercomputer centre for the West of Scotland based at the University of Strathclyde and dedicated to wealth creation and research excellence. Funded by EPSRC, we operate in partnership with the Universities of Glasgow, Glasgow Caledonian, West of Scotland and Stirling.

Our Team

- Experienced HPC Manager and technical System Administrator
- Dedicated User Support Manager
- Academic Director and Operational Director
- Advisory Board includes Industrialists and partner Universities

We are committed to supporting Industry to exploit High Performance Computing, helping to deliver projects efficiently and effectively.

Our Service Includes

- High performance computing resources at a highly competitive price
- 500 free introductory compute hours for feasibility studies
- **Introductory training and assistance** at our scheduled courses to help you get up and running at **no extra charge**
- Priority service for commercial customers to ensure rapid turnaround

Advanced bespoke training (at an additional cost)*

Including, but not limited to:

- Advanced HPC methods
- Molecular Modelling & Chemo/Bio Informatics
- Computational Fluid Dynamics
- Finite Element Modelling

*Advanced training courses start from £1500 ex-VAT per day for up to 5 people, plus £250 per head thereafter.

High Performance Computer Specification

ARCHIE-WeSt is a state-of-the-art water cooled 38 Teraflop High Performance Computing (HPC) Facility located at the University of Strathclyde.

Technical specification:

Standard Nodes:	3408 2.66GHz Intel Xeon X5650 cores (Westmere) 48 GB RAM (4GB per core)
Large Memory Nodes:	Eight 512GB RAM nodes 2 Intel Xeon E7-4830 2.13GHz CPU's
GPU nodes:	Eight Standard Nodes each with Nvidia Tesla M2075 GPU cards (448 cores, 6GB RAM)
Visualisation Nodes:	Two Dell R5500 servers with Nvidia Quadro 6000 graphics. 2 Xeon X5650 CPU's, 48GB RAM.
Network:	QDR Infiniband 40Gb/s networking throughout the whole cluster
Storage:	150 TB of high performance LUSTRE parallel storage, capable of 3.5Gb/s data transfer.

- ARCHIE-WeSt uses the Linux operating system but also offers Windows virtual machines where this is required
- You can access ARCHIE-WeSt **directly from your desktop** using Remote Desktop software



ARCHIE-WeSt

Academic and Research Computer
Hosting Industry and Enterprise
in the West of Scotland

Open Source Software

We promote the use of Open Source software and provide access to many standard packages. Our current list of installed software includes:

- OpenFOAM (for computational fluid dynamics)
- GROMACS, NAMD and VMD (for molecular dynamics)
- Octave (alternative to MATLAB)
- ATLAS and R (data analysis and statistical computing)
- GCC (Fortran, C, and other compilers)
- CUDA (for gpu programming)
- BLAS and LAPACK (linear algebra), FFTW (Fourier Transforms)

We are happy to install and support other open source software as required

Commercial Software

We also provide access to commercial software either under the terms of the user's own license or via a short term license lease*. Examples include:

- Ansys (Finite element /Computational fluid dynamics)
- Abaqus (Finite elements)
- Matlab (Programming environment)
- Comsol (Multiphysics software)
- Schrodinger (Computational drug design)

*The cost of the software leases will be included in the charges for accessing ARCHIE



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Charges

ARCHIE-WeSt is a non-profit making facility focussed on supporting Research and Enterprise in the West of Scotland.

Our entry level price is **£0.10 per standard core hour (excl. VAT)**

- Our standard core hour is 1 hour of a 2.66GHz Intel Xeon X5650
- Large volumes can be purchased at a discounted rate
- Our price includes basic support to get you up and running
- We can provide advanced training (at an additional cost).

Our charges compared with other HPC providers:

Facility	Advertised price core-hour price	Performance Adjusted Price* comparing relative cpu performance
ARCHIE-WeSt:	£0.10	£0.10
HECToR:	£0.10	£0.13
Amazon: Compute cluster instance	\$0.16	\$0.40

* Price determined by scaling peak CPU performance data according to figures published at www.spec.org
Prices exclude VAT.

Other prices include:

- Large memory nodes: £0.15 per core-hour
- GPU nodes: £1 per node-hour