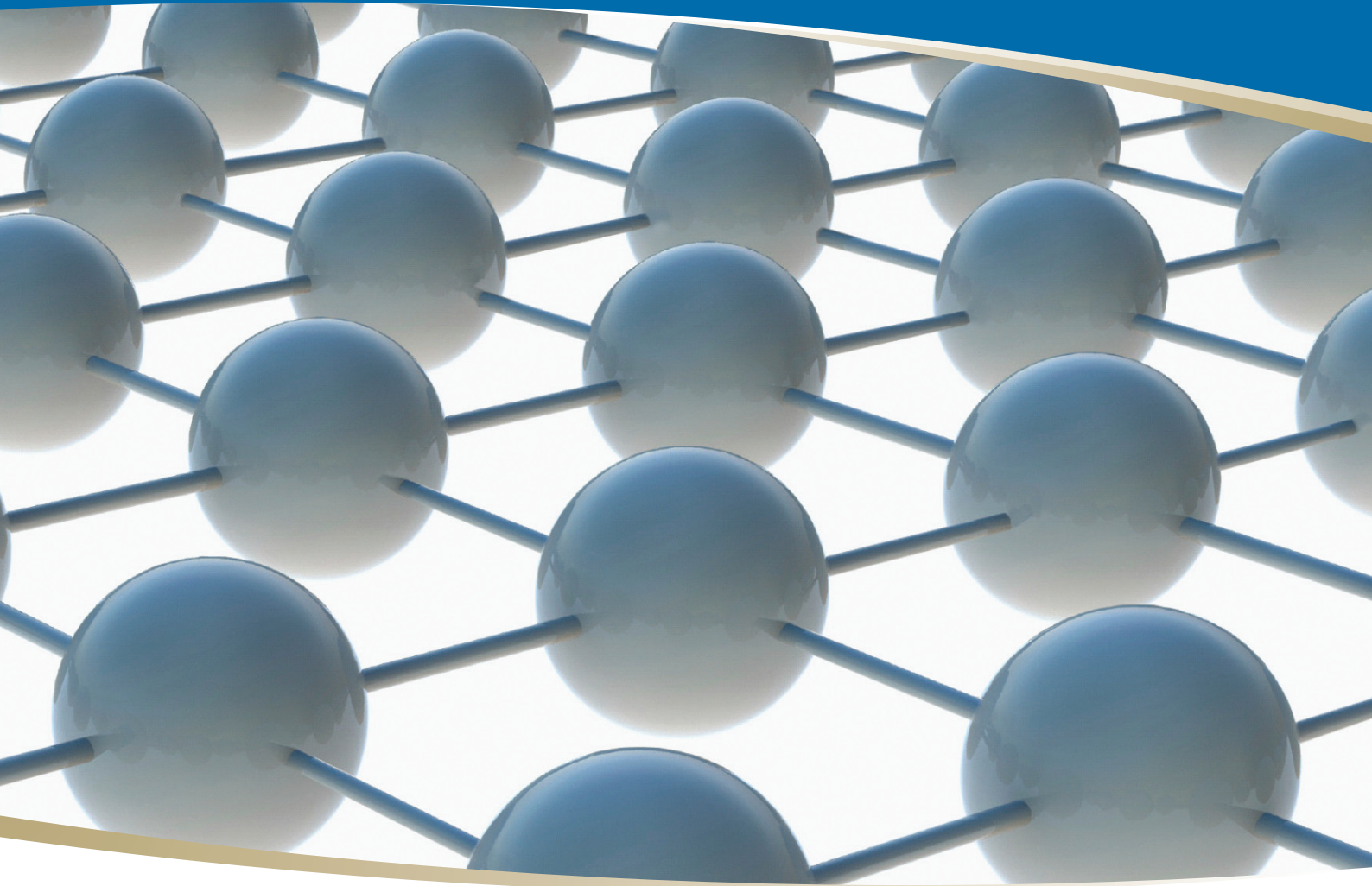




Empowering researchers to do faster, better and more creative research



Monash e-Research Centre (MeRC)

'e-Research' is the use of cutting-edge information and communication technology (ICT) to facilitate and enable global collaborative research, smaller niche research and research requiring advanced computing.

MeRC harnesses the skills and resources of the IT Services Division, the Library and computer scientists in the Faculty of Information Technology to provide advanced ICT tools and solutions.

The key areas are:

- Collaboration Services
- High Performance Computing
- Visualisation
- Data Storage and Management

MeRC empowers Monash researchers with customised ICT solutions enabling them to do faster, better and more creative research.

MeRC background

The Monash e-Research Centre is an initiative of the DVC Research and was established in 2005. The aim of MeRC is to nurture and proactively develop e-Research links within, both, the university sector and with researchers in industry and the community.

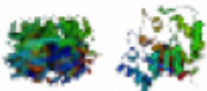
Monash University expertise

MeRC is fortunate to have its own Monash researchers who are leaders in the fields of Grid technology, High Performance Computing and Data Mining.

The Centre also benefits from Monash expertise and leadership in the development of internationally recognised research data management programmes:

- Australian National Data Service (ANDS)
- Australian Research Repositories Online to the World (ARROW)
- Australian ResearCH Enabling enviRonment (ARCHER)
- Nimrod
- The Australian Repositories for Diffraction Images (TARDIS)

Example projects supported by MeRC



MeRC supports over 50 exciting and diverse research projects spanning the full range of disciplines:

Examples: 'Bioinformatics in Protein Crystallography' - Use of high throughput computer processing to ultimately determine shape and function of proteins (Steve Androulakis and Dr Ashley Buckle).

The Jewish Music Cultural Archive (Prof. Margaret Kartomi and Bronia Kornhauser, School of Music) - Collecting, digitising and preserving Jewish music collected throughout Australia and Asia.

MeRC Linkages:

MeRC harnesses the skills and resources of the IT Services Division, the Library and computer scientists in the Faculty of Information Technology to provide advanced ICT tools and solutions.

For more information visit: www.monash.edu/eresearch

Collaboration Services

MeRC provides remote seminar broadcasts in High Definition Video from overseas to Monash audiences. Online video collaboration, and web spaces, provide researchers with greater freedom and choice of communication. Some examples:

Enabling Virtual Organisations (EVO), Sakai Virtual Research Environment, Confluence Enterprise Wiki Platform, Blogs, High Definition Video (HDV) teleconferencing and OptiPortal visualisation wall.

High Performance Computing facilities

- Monash Sun Grid (MSG): Enabling advanced algorithms and computational modelling of data. MSG is Monash University's central production-class High Performance Computing (HPC) and Data Storage facility supporting researchers from wide-ranging disciplines. There is 80% continuous utilisation of the HPC service, and 1.3 petabytes of data storage (LaRDS).
- Monash SPONGE: Harvested capacity from over 1,000 desktop computers at Monash campuses.

Access to state, national and international HPC facilities.

Data Storage and Management

- LaRDS: Large, secure, backed up data storage facility offering free storage to all Monash researchers and HDRs. - Popular as a repository for imaging datasets and cultural archives, and securely storing all data for the Monash Sun Grid.
- TARDIS/MyTARDIS: Data repository. System for high-end instrumentation data capture (e.g. X-ray diffraction images).
- Data Mining: Solutions for extracting unique patterns from data sets.
- ANDS Projects at Monash: Software development supporting researchers.
- A range of Digital Asset Management Systems (e.g. Sakai, Mediaflux, etc.)

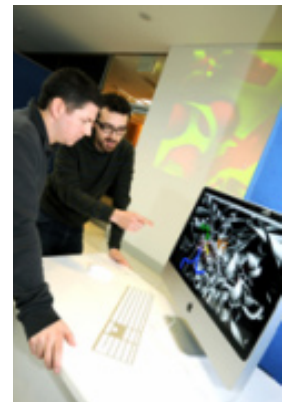
Visualisation

- The Multi-modal Australian ScienceS Imaging and Visualisation Environment is a facility that will help researchers to visualise, process and reconstruct large-scale and multi-dimensional data. MASSIVE is being developed by the Australian Synchrotron, CSIRO, Monash University and VPAC, and is also one of two facilities funded by NCI.
- 3D ALIVE <http://geodynamics.monash.edu.au/3d-alive/>

What services are provided by MeRC?

MeRC is all about finding the best solutions to meet your research needs. MeRC provides:

- Specialist advice
- Customised ICT solutions
- On-going support and platforms throughout a research project
- Seminars and outreach



Contact MeRC

MeRC staff can discuss all your research requirements.

*Please email your enquiry to:

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