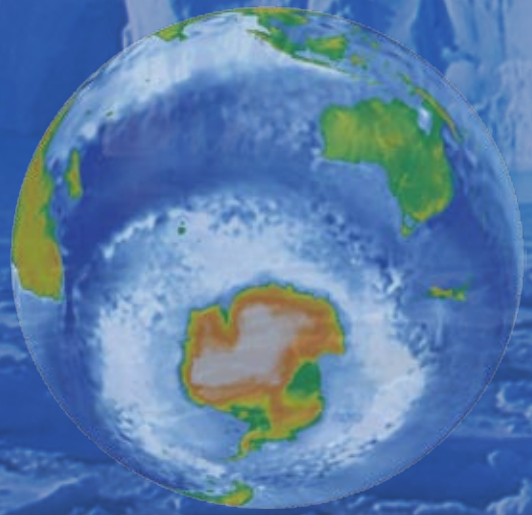
About Us

The Tasmanian Partnership for Advanced Computing (TPAC) is part of the Australian network of advanced computing facilities, and is a partner in the Australian Partnership for Advanced Computing (APAC) with expertise in Earth Systems Science (ESS).

TPAC is located at the University of Tasmania in Hobart, and its partners are the University of Tasmania, CSIRO Marine & Atmospheric Research, Australian Antarctic Division, Antarctic Climate & Ecosystems CRC, Bureau of Meteorology Research Centre, and the Australian Maritime College.

TPAC provides expertise and educational programs, as well as high performance computing facilities to the Australian and International research community. TPAC supports Australian researchers and industry through:

- Computational Tools & Techniques program;
- Educational, Outreach & Training program;
- Grid Program;
- Research Consultancy;
- Commercial Users.



Contact Us

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UTAS
CSIRO
apac
Australian Government
Bureau of Meteorology
Australian Government
Department of the Environment and Heritage
Australian Antarctic Division
ARCNESS
ARC Network for Earth System Science
insight4
ace CRC
ANTARCTIC CLIMATE & ECOSYSTEMS
COOPERATIVE RESEARCH CENTRE

TPAC

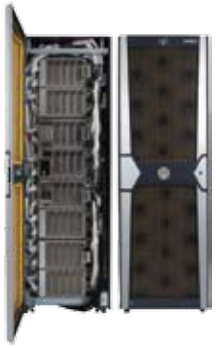
Tasmanian Partnership for Advanced Computing

Facilities

Facilites

High performance computing (HPC)
TPAC operates a state-of-the-art HPC facility that provides advanced computing tools and capabilities to its partners, industry and other organisations.

SGI Altix 4700
Supercomputer features:



- 128 Itanium2 1.6 GHz processors, each with a 9 Mbyte cache;
- 320 Gigabytes (GB) of memory;
- SGI's NUMAlink4 interconnect between processor and memory to provide 3.2 GB bidirectional bandwidth per link, and < 2µs MPI latency;
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- a total of 40 Terabytes (TB) of SGI TP9300 storage comprising 10 TB of fibre channel disks, and 30 TB of SATA disks;
- total peak speed of over 820 billion calculations per second (0.8 Tflops).

The operating system is based on SUSE SLES9 Linux with an enhanced Linux 2.6 kernel and SGI ProPack4.

Storage Tek L700 Silo Tape Library
The L700 allows for seamless migration of data between disk and tape using SGI's Data Migration Facility (DMF) product. The StorageTek silo at TPAC uses LTO2 tapes to provide a total capacity of 66 TB of mirrored storage.

The TPAC HPC facility is housed in a secure, modern, well-serviced machine-room at the University of Tasmania.

Access grid
The Access Grid is a system designed to support group-to-group conferencing via high-speed networking over the web. The high-quality audio, real-time video, and shared applications provide an interactive experience for users across Australia and around the world.

TPAC houses an Access Grid node that uses a connection to AARNet to allow simultaneous connections to hundreds of other nodes around Australia and the world. A complete listing of Access Grid nodes can be obtained from the Access Grid website at http://www.accessgrid.org

The TPAC Access Grid node is located in the Alec Lazenby Room, at the University of Tasmania - Faculty of Science, Engineering & Technology building.

TPAC partners, members and users are able to access this advanced video conferencing facility free of charge. Bookings can be made through the UTAS Faculty of Science, Engineering & Technology office on (03) 6226 2125 and through the TPAC website http://www.tpac.org.au or email accessgrid@tpac.org.au

For further information on TPAC's Access Grid phone John Dalton on (03) 6226 6597 or Jason Roberts on (03) 6226 2990.

Software
Available software includes:

- CFX (fluid dynamics)
- Gaussian (computational chemistry)
- Octave and R (mathematical)
- Intel C and Fortran compilers
- NetCDF libraries

Computing Facility

TPAC is committed to ensuring that all current and potential users have every opportunity to make the best possible use of TPAC facilities, and to develop solutions and skills that are appropriate to their needs.

TPAC help is available by:
Phone: (03) 6226 2990
Email: helpdesk@tpac.org.au

TPAC HPC accounts can be obtained by sending an email to J.L.Roberts@utas.edu.au, or phone Jason Roberts on (03) 6226 2290.

Further information on TPAC facilities is available at http://www.tpac.org.au.