

Australian eResearch Organisation – a New Affiliation.

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Abstract

Most of the regional eResearch providers – iVEC, QCIF, VPAC, TPAC, Intersect and eRSA – grew out of the APAC initiative in the early 2000's. They linked together the major universities in any one state who were pursuing HPC or similar eResearch activities, often along with their relevant State Governments. The APAC initiative was followed by ARCS, and each of the regional providers became Members of ARCS, along with CSIRO and ANU, and contributed to and shared in the provision of the services that ARCS provided.

The demise of ARCS caused the regional providers to consider how they were going to figure in the national eResearch community. They recognized that their similarity in purpose gave reason to speak with a common voice. During 2011, they formed an alliance that they have called the Australian eResearch Organisation (AeRO).

AeRO's aims are:

- To accelerate the development and adoption of eResearch practices, capabilities, and standards in Australia.
- To stimulate and enhance collaboration between and amongst researchers, research institutions and eResearch service providers nationally and internationally.
- To develop strategies for and co-ordinate and facilitate improved delivery and support of eResearch services and platforms.
- To advocate the advancement and adoption of eResearch to researchers, research institutions, government and other organisations.

From the end of June 2011, three members of AeRO have become the operators of the three major ARCS activities on a transitional basis. The operators decided to do this on the basis of support from each other and the other regional providers. This initiative illustrates the kind of transitional project that can help to support the national fabric of eResearch services.

This presentation “launches” AeRO to the national eResearch community. Its membership is intended to be open to any organisation that is involved in the provision and support of eResearch services.

About the Authors

Mary Hobson

Mary Hobson is the Director of eResearch SA, a joint venture between the University of Adelaide, Flinders University and UniSA. Mary started her technology career in 1975 programming for the Ministry of Defence in the UK. She went on to own a software house and then lectured in systems analysis and management information systems for 10 years.

In the early 1990s she went to work in Russia with the Moscow University of Microelectronic Technology, setting up an innovation park. She worked with Russian engineers starting an independent integrated circuit design house, with clients including GEC Plessey Semiconductors, Intel

and Alcatel. She also set up a technology transfer consultancy, introducing western companies to technologies developed in the research institutes in the former USSR.

In 2005 she moved to the Polytechnic sector in New Zealand, working as a Head of School and later a member of senior management. She became Director of eResearch SA in August 2010.

Andrew Rohl

Andrew is a world recognized leader in the field of computer simulation of surfaces. He has focused on the simulation of surface interactions in growing crystals but the methods and programs that he has developed are directly relevant to all areas of materials science and nanotechnology. His success in this endeavour is demonstrated by his large number of publications with world-leading research groups, his major roles in 2 Cooperative Research Centres and bringing together researchers from Curtin University and the University of Oxford, leading to several patents. In 2004, he became the Executive Director of iVEC. His skills have been utilized at iVEC to develop a successful partnership across five institutions that provides major advanced computing facilities for all Western Australian researchers. In May 2009, iVEC was awarded \$80M from the Commonwealth Government to build and operate one of the world's leading supercomputing centres – the Pawsey Centre.

Nathan Bindoff

Nathan Bindoff is Professor of Physical Oceanography at the University of Tasmania, and CSIRO Marine Research Laboratories, Director of the Tasmanian Partnership for Advanced Computing.

Professor Bindoff is a physical oceanographer, specialising in ocean climate and the earth's climate system. He was the coordinating lead author for the ocean chapter in the Inter-Governmental Panel on Climate Change (IPCC) Fourth Assessment Report and for the Fifth Assessment Report for the detection and attribution chapter.

His current interests are primarily in understanding how the changing ocean can be used to infer changes in atmosphere and whether these changes can be attributed to rising greenhouse gases and projecting future changes and its impacts on regional climates. He has established the programs and experiments that determined the total production of Adelie Land Bottom Water formation and its contribution Antarctic Bottom Water Formation, contributed to the development of some of the largest and highest resolution model simulations of the oceans and was deeply involved in oceanographic data and data management as the chairman of the Data Products Committee for the World Ocean Circulation Experiment and the International Polar Year.

As Director of TPAC, Professor Bindoff provides expertise and educational programs, as well as high performance computing facilities to the Australian and International research community.

Bill Appelbe

Bill Appelbe is the founding CEO and Chief Scientist of Victorian Partnership For Advanced Computing (VPAC) since 2000. Bill completed an undergraduate honours science degree at Monash University in 1974 then completed a Masters then Doctorate in Computer Science and Electrical Engineering in 1978 at the University of British Columbia. Subsequently, he was employed as an Assistant Professor at the University of California, San Diego (1979-1986), then as an Associate Professor at Georgia Tech (1987-1998). Bill's research interests are in parallel programming tools, software engineering and software frameworks. Bill's research in parallel programming dates back to the early 1980's with the development of a unique parallel programming static debugging tool, followed by ongoing development of interactive parallelization toolkits and animation tools for parallel programming (funded by the NSF, IBM, and LANL). More recently, Bill and the team at VPAC, in collaboration with Monash and CIG/Caltech since 2001, have been developing frameworks and tools for computational mechanics/geophysics: StGermain, Underworld, Gale, and MADDS. Bill is an honorary faculty member of Monash University and RMIT.

Rob Cook

Rob is the CEO of QCIF (the Queensland Cyber Infrastructure Foundation), a not-for-profit company established by the Queensland universities to provide high performance infrastructure and services. His consulting company, Pangalax, has been active in the research sector helping with the establishment and development of major research and research infrastructure facilities including

several Cooperative Research Centres. Prior to Pangalax, Rob spent several years in North America leading Astracon, a start-up company providing broadband network provisioning software to the telecommunications industry and before that CiTR – a telecoms software company in Brisbane

Ian Gibson

Dr Ian Gibson is Chief Executive Officer of Intersect Australia Ltd. Ian has extensive experience at executive level R&D management. He has a strong track record in the research, development and commercialisation of new technology across a broad range of electrical engineering, computer science and digital imaging.

Previously Ian was a Division General Manager at CiSRA, the Australian R&D lab for Canon. There he built research capability over several years to deliver original, world leading technology into a wide range of Canon's major product groups.

Ian has a PhD from the University of New South Wales in Computer Science, a BE in Electrical Engineering (Hons) and a BSc, is on several industry advisory boards at Australian universities and is an Adjunct Professor at the University of Queensland.

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