



Position Description

College/Division:	Research & Innovation
Faculty/School/Centre:	Research Initiatives & Infrastructure
Department/Unit:	ACCESS-NRI
Position Title:	Associate Director, Model Development
Classification:	ANU Senior Manager 3 (IT)
Position No:	New
Responsible to:	Director, ACCESS-NRI
Number of positions that report to this role:	4
Delegation(s) Assigned:	D4

PURPOSE STATEMENT:

ACCESS – The Australian Community Climate and Earth-Systems Simulator – is a collaborative venture between Government and the Australian research community to support development, maintenance and access to climate and weather models. ACCESS is being transformed into a national research infrastructure capability accessible by a broader community of users, enabled by Australian Government investment through the National Collaborative Research Infrastructure Strategy (NCRIS). Hosted at ANU, ACCESS-NRI (ACCESS National Research Infrastructure) is being established as a multi-party collaborative venture responding to the current and future needs of Australia's scientific, Government and stakeholder community.

The position of Associate Director, ACCESS Model Development will: (a) oversee development of the ACCESS model infrastructure; (b) manage the Team Leaders across a portfolio of modelling domains; (c) contributing broadly to the strategic planning of the ACCESS National Research Infrastructure's future infrastructure and modelling environment, undertaking a leadership role involving stakeholder engagement and coordination, and mentoring and guidance of staff. This position will require high familiarity with technical software management, and will be called upon to methodically resolve issues and trade-offs between software components and development priorities, in the interest of the national research community as a whole.

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:

The ACCESS National Research Infrastructure (ACCESS-NRI) is led by a Director, who will play a national and international role in promotion of the ACCESS-NRI, contribute to the wider development of climate, earth system and weather modelling in Australia and provide technical and strategic leadership. There are two Associate Directors within the ACCESS-NRI facility, Associate Director Model Development and Associate Director Release Management and User Support. The Associate Directors are part of the ACCESS-NRI Management group.

The position of Associate Director, Model Development will lead a small number of Team Leaders and in turn lead teams of software engineers. In undertaking their work, the incumbent will work/liaise with other members of the platform. The Associate Director Model Development will work closely with the other ACCESS-NRI Associate Director to ensure clarity on service delivery, and develop and maintain strong and professional relationships with a variety of ACCESS-NRI stakeholders.

Role Statement:

Under the broad direction of the Director, ACCESS-NRI, the Associate Director, Model Development will:

- Lead ACCESS model development to provide a high quality research infrastructure facility for the users of ACCESS-NRI's climate, earth system and weather modelling, including engaging with relevant modelling groups nationally and internationally, and taking a leading role in ensuring Australia has a capable software engineering facility for earth systems research.
- Strategically lead the development of ACCESS software infrastructure, including:
 - policies and processes for the quality of the Australian development model, including software code revisions that interact with international software teams in co-developed or interdependent software development, and the regular release of the model to Australian users, in collaboration with ACCESS-NRI release management.
 - tools, software and services that integrate across the modelling portfolio; and
 - software transformation and new model techniques that optimise capability and align to emerging HPC trends.

- Oversee model code publishing and repositories that are integrated both with NCI's environments and relevant international environments to a high quality. This includes the generation of metadata, and data formats; version control, and that facilitate data management plans and associated requirements such as unique identifiers, licenses, and access controls.
- Supervise team leaders in the Model Development portfolio, and oversee the support for staff within this portfolio.
- Manage resources (people and technical) needed and assign responsibilities in consultation with team leaders and project managers.
- Develop communication strategies for the ACCESS-NRI Modelling portfolio, including web, other electronic forums, workshops and training.
- Maintain currency with advances in climate, weather and earth systems modelling, through literature, conferences, international working groups, and other means.
- Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity.
- Other duties as required, as appropriate to this classification and in line with the principle of multi-skilling.

SELECTION CRITERIA:

1. Completion or progress towards postgraduate qualifications in a relevant field of science or software engineering with relevant specialist experience in model development, or a relevant combination of training and experience.
2. Well-developed skills in developing scientific models from an observation data source (climate modelling would be highly regarded). A strong working knowledge of international scientific and modelling landscape, including available models and data tools.
3. Demonstrated capability in HPC model architecture and software in linux environments, including:
 - Demonstrated experience in software programming for HPC environments (such as Fortran using MPI and OpenMP and associated libraries, and Python);
 - Managing code repository systems for large teams (preferably Git) with quality assurance and control procedures;
 - Performance analysis and associated methodologies in HPC, cloud and virtualised systems, including systems architecture, I/O and filesystem technologies.
4. Demonstrated experience in supporting a diverse stakeholder group, including resolving issues and/or trade-offs between the various software components and development platforms, analysing problems and resolving problems related to scientific requirements, monitoring the status of services, and proactively seeking service improvements to meet emerging areas of need.
5. Demonstrated experience leading a positive, collaborative, high-achieving team environment with evidence of focus on team-building, mentoring and professional development.
6. Demonstrated experience with leading high-level requirements gathering processes for major projects, including oversight of consultation processes (e.g. facilitated workshops) to understand the needs and priorities of stakeholders.
7. Demonstrated high-level written and oral communication and interpersonal skills, including the ability to communicate technical concepts clearly, consult, negotiate and liaise with colleagues in a team environment, with senior managers, and clients both internal and external to the organisation.
8. A demonstrated high-level understanding of equal opportunity principles and a commitment to the application of Equal Opportunity policies in a university context.

The ANU conducts background checks on potential employees, and employment in this position is conditional on satisfactory results in accordance with the Background Checking Procedure which sets out the types of checks required by each type of position.

Supervisor/Delegate Signature:

Date:

Printed Name:

Uni ID:

References:

[General Staff Classification Descriptors](#)

[Academic Minimum Standards](#)



**Australian
National
University**

Position Description

College/Division:	Research & Innovation
Faculty/School/Centre:	Research Initiatives & Infrastructure
Department/Unit:	ACCESS-NRI
Position Title:	Associate Director, Release Management and User Support
Classification:	ANU Senior Manager 3 (IT)
Position No:	New
Responsible to:	Director, ACCESS-NRI
Number of positions that report to this role:	3
Delegation(s) Assigned:	D4

PURPOSE STATEMENT:

ACCESS – The Australian Community Climate and Earth-Systems Simulator – is a collaborative venture between Government and the Australian research community to support development, maintenance and access to climate and weather models. ACCESS is being transformed into a national research infrastructure capability accessible by a broader community of users, enabled by Australian Government investment through the National Collaborative Research Infrastructure Strategy (NCRIS). Hosted at ANU, ACCESS-NRI (ACCESS National Research Infrastructure) is being established as a multi-party collaborative venture responding to the current and future needs of Australia's scientific, Government and stakeholder community.

The position of Associate Director, Release Management and User Support will: (a) be responsible for the implementation and delivery of a strategic program to provide a quality end-to-end release process for software updates and new services into the ACCESS NRI production environment; (b) manage the Team Leaders across a portfolio of modelling domains; (c) contributing broadly to the strategic planning of the ACCESS National Research Infrastructure's future infrastructure and modelling environment, undertaking a leadership role involving stakeholder engagement and coordination, and mentoring and guidance of staff. This position will require high familiarity with technical software management, and will be called upon to resolve complex issues through strong stakeholder engagement skills.

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:

The ACCESS National Research Infrastructure (ACCESS-NRI) is led by a Director, who will play a national and international role in promotion of the ACCESS-NRI, contribute to the wider development of climate, earth system and weather modelling in Australia and provide technical and strategic leadership. There are two Associate Directors within the ACCESS-NRI facility, Associate Director Model Development and Associate Director Release Management and User Support. The Associate Directors are part of the ACCESS-NRI Management group.

The position of Associate Director, Release Management and User Support will lead a small number of Team Leaders, who in turn lead teams software engineers and user support staff. In undertaking their work, the Associate Director will work closely with other members of ACCESS-NRI and with the National Computational Infrastructure (NCI). The Associate Director will manage ACCESS-NRI's software release and user support program servicing the Australian research community. This will involve extensive liaison with ACCESS-NRI's collaborating organisations, technical and research staff across Australia and internationally to deliver a quality end-to-end release process that meets stakeholder requirements.

Role Statement:

Under the broad direction of the Director, ACCESS-NRI, the Associate Director, Release Management and User Support will:

- Deliver a key strategic program for the ACCESS-NRI by developing a suite of software products and implementing a quality end-to-end release process for software updates
- Develop and maintain detailed policies and guidelines for management of the software updates and access to services provided within the ACCESS-NRI production environment.
- Plan and coordinate Open Source code management including version control and tracking of updates and contributions.
- Manage resources (people and technical) needed and assign responsibilities in consultation with team leaders and project managers.

- Develop and coordinate completion of tests to meet the agreed production acceptance criteria, and ensure provenance is recorded throughout the development/release lifecycle.
- Develop, implement and maintain a framework and methods for regular and effective communication to inform and engage key stakeholders including provision of progress reports and updates to senior managers, project managers and team leaders.
- Define and manage guidelines for best-practice release processes and the effective management of risks and issues that affect release scope, schedule and quality, including the identification and implementation of suitable software tools and services.
- Maintain knowledge and understanding of contemporary and relevant sector-wide developments in software development and release management through literature, conferences, international working groups, and other means.
- Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity.
- Other duties as required, as appropriate to this classification and in line with the principle of multi-skilling.

SELECTION CRITERIA:

1. Completion or progress towards postgraduate qualifications in computational science with relevant specialist experience or extensive experience as a release manager or as a project manager in a scientific setting.
2. Advanced knowledge and proven experience the release process, maintenance and user support within the application/software development lifecycle (Open Source governance process and management is highly valued), and experience in working in an agile software development environment, preferably in a scientific or production IT services setting.
3. Proven experience developing and implementing policies and guidelines that involve major change which have had a direct impact on business and external clients.
4. Demonstrated skills in planning, scheduling and controlling in a complex IT environment including the ability to use software and tools to manage release configuration coordinate resources and track progress. Strong hands-on proficiency with project management tools (e.g., Atlassian) and Git to support the software version lifecycle through quality assurance processes and managing long-term issues such as version citation and retirement.
5. Demonstrated experience leading a positive, collaborative, high-achieving team environment with evidence of focus on team-building, mentoring and professional development.
6. Demonstrated experience with the development or oversight of user support and training, including coordination of training events or materials for a broad user group.
7. Demonstrated high-level written and oral communication and interpersonal skills, including the ability to communicate technical concepts clearly, consult, negotiate and liaise with colleagues in a team environment, with senior managers, and clients both internal and external to the organisation.
8. A demonstrated high level understanding of equal opportunity principles and a commitment to the application of Equal Opportunity policies in a university context.

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