

GRP 1 Gaining Access to ACQI-XNAT

PURPOSE OF THE PROCEDURE

This procedure outlines the steps required to obtain access to the ACQI-XNAT imaging database, ensuring access requests are processed in a controlled, auditable, and secure manner.

It ensures that only authorised personnel are granted access in compliance with data governance, ethical, and institutional requirements for clinical research data management.

SCOPE

This procedure applies to:

- Investigators, research coordinators, trial technicians, and data managers involved in projects supported by the Australian Centre for Quantitative Imaging (ACQI) or the Australian Imaging Service (AIS).
- Any personnel who require access to ACQI-XNAT for the purpose of data upload, review, analysis, or project management within approved clinical trials or research studies.

DEFINITIONS

| Term | Definition |
|---------------------|---|
| ACQI | Australian Centre for Quantitative Imaging – a national hub supporting imaging-based clinical trials and quantitative imaging research. |
| ACQI-XNAT | The secure cloud-hosted instance of XNAT maintained by ACQI and hosted at the Pawsey Supercomputing Centre. |
| Institutional Email | An email address issued by a recognised research, healthcare, or academic institution (e.g., .edu.au, .gov.au, or hospital domains). Personal email domains (e.g. Gmail, Hotmail, Yahoo) are not permitted. |
| Project Owner | The designated lead(s) responsible for managing and authorising access to a specific project. |
| XNAT | Extensible Neuroimaging Archive Toolkit – an open-source imaging informatics platform for managing, processing, and sharing imaging and related research data. |
| XNAT Administrator | A designated ACQI administrator authorised to approve account requests and manage user permissions. |

RELATED PROCEDURES

| Procedure Number | Scope |
|------------------|-----------------------------------|
| GRP2 | Managing a project |
| GRP3 | Preparing Data for Upload to XNAT |
| GRP4 | Uploading Data to XNAT |
| GRP5 | Performing Data Review |
| GRP6 | Analysing project data |
| GRP7 | Uploading Additional Data |

WHAT IS XNAT?

XNAT (Extensible Neuroimaging Archive Toolkit) is an open-source imaging informatics platform developed by the Neuroinformatics Research Group at Washington University. XNAT was originally developed in the Buckner Lab at Washington University, now at Harvard University, XNAT is now widely used internationally for research data organisation, quality assurance, and analysis. It facilitates common management, productivity, and quality assurance tasks for imaging and associated data. Thanks to its extensibility, XNAT can be used to support a wide range of imaging-based projects.

The Australian Centre for Quantitative Imaging (ACQI) supports an XNAT image data repository hosted on cloud resources at the Pawsey Supercomputing Centre. ACQI@XNAT supports:

- Secure collation and storage of imaging datasets from clinical trials and research projects
- Standardised data analysis and reproducible research workflows
- Ethical data sharing between approved collaborators and research partners

ACQI@XNAT is part of the Australian Imaging Service (AIS) network of national XNAT repositories.

PROCEDURES

Step 1 – Access the Registration Portal

1. Go to the **ACQI-XNAT site**:
<https://instance-146-118-67-25.nimbus.pawsey.org.au/>
2. Click on “**Register**” to open the user registration form.
3. Alternatively, you may receive an automated email inviting you to create an account by a project owner. The registration and approval processes are the same.

Step 2 – Complete the Registration Form

1. Complete all required fields accurately, using your institutional email address.

Note: Personal email accounts (e.g., Gmail, Yahoo, Outlook.com) will not be approved.

2. In the Comments section, provide:
 - The project name(s) or trial title(s) you are affiliated with.
 - Your role (e.g., Investigator, Research Coordinator, Data Manager).
 - The organisation or institution you represent.
3. Review all information for accuracy and click **Submit**.

Step 3 – Verify Your Email Address

1. After submitting your registration, you will receive an automated verification email.
2. Click the verification link in the email to confirm your identity.

3. This step must be completed before your access request can be reviewed.

Note: Verifying your email does not activate your account. **Your account will remain disabled until Step 4 is completed.**

Step 4 – Administrative Review and Approval

1. Once verified, your request is automatically forwarded to the ACQI-XNAT Administrator for review.
2. The Administrator will:
 - Confirm your affiliation with an approved ACQI or AIS project.
 - Determine appropriate user permissions (e.g., Project Owner, Member, Collaborator).
3. If required, the Administrator may contact the Project Owner for authorisation before granting access.

Step 5 – Account Activation

1. Upon approval, you will receive an email confirmation indicating that your account has been activated.
2. Follow the link provided to log in using your institutional credentials.
3. Confirm that you have access only to the projects you have been authorised for.

Step 6 – Password and Account Management

- If you forget your password, use the “Forgot Password” link on the login page.
- Users are responsible for maintaining password confidentiality and complying with institutional IT security requirements.
- Accounts may be suspended or revoked if inactive for extended periods (greater than 6 months) or if project affiliation ends.

Security and Compliance Notes

- Access to ACQI@XNAT is governed by institutional data governance and ethical research requirements.
- Users must comply with the Australian Code for the Responsible Conduct of Research and institutional data protection policies.
- Sharing login credentials or downloading data without authorisation is strictly prohibited.
- All activity within ACQI-XNAT is logged for security and audit purposes.

TESTS OF PROCEDURES

| Test description | Test completed | Pass/Fail | Comments |
|---|----------------|-----------|----------|
| Confirm server accessibility | | | |
| Verify user can access registration portal | | | |
| Confirm account registration and email verification process | | | |
| Confirm approval email sent after account activation | | | |
| Check that the user is able to reset their password | | | |
| Check that user can log in | | | |
| Confirm correct project-level access assigned | | | |

DOCUMENT HISTORY

| Author | Version | Effective Date | Changes |
|-----------------|---------|----------------|---|
| Angel Kennedy | 1 | 17/08/2021 | Initial release |
| Angel Kennedy | 2 | 25/10/2021 | Update for AAF login option |
| Angel Kennedy | 3 | 19/11/2021 | Remove AAF login option |
| Christel Norman | 4 | 14/02/2023 | Review and update XNAT site URL, remove comments/edits, add ACQI logo. |
| Christel Norman | 5 | 26/02/2024 | Added paragraph: What is XNAT? Added expended version of the link to ACQI-XNAT |
| Martin Ebert | 6 | 14/08/2025 | Added specification that email must be institutional. |
| Grainne Cahill | 7 | 25/11/2025 | Expanded procedure steps, added compliance and security sections, improved formatting and terminology |