How To Use XNAT

These documents are designed for all types of users of XNAT.

It's important to note that your role as a user is defined by the project that you are working in. In a typical XNAT, any person can create a project and upload data, thereby becoming a "Project Owner." This gives you full permissions to create, upload, modify and delete data within that project. However, in someone else's project, you may be given fewer permissions as a Project Member or Project Collaborator. **Learn more about user permissions in XNAT**.

Also, your XNAT administrator may have created custom roles within XNAT, which could be tied to specific user workflows. If there are differences between your XNAT screen and the screenshots seen here, these user permission and accessibility settings may be a contributing factor.

User Registration and Login

User Registration and Accounts in XNAT

Related Topics:

- Troubleshooting XNAT Login and Session Issues
- Understanding User Roles and Permissions

Project Setup

Any registered user can create a project in XNAT, unless an administrator has removed that ability.

How To Create and Manage Projects

Related Topics:

- Understanding Data Sharing in XNAT's Security Structure
- Understanding the XNAT Data Model
- Understanding User Roles and Permissions

Project Administration

All Project Admin tasks are accessible in the "Manage" tab at the top of the project report page, unless otherwise specified.

- Project Notification Settings
- Adding Or Removing Resource Files
- Cleaning Up Scan Types In Your Project
- Adding and Configuring Pipelines for your Project
- Adding Custom Variables to XNAT Projects
- Project Data Import and Anonymization Settings

Working With Subjects

These activities can be performed by Project Owners and Project Members.

How to Create and Manage Subjects

Related topics:

- Adding Custom Demographic Metadata to Subjects

Uploading Image Data to XNAT

Data uploads can be performed by any Project Owner or Project Collaborator, or any other role with "Create" permissions on your project.

XNAT Supports multiple image session types out of the box. The most commonly used are MR, PET and CT. Additional image session types, (e.g. MEG) can be added by your XNAT Administrator. See **Adding Data Types to XNAT**.

How To Upload Image Sessions

Related topics:

- Merging Duplicate or Updated Image Session Uploads
- Project Data Import and Anonymization Settings
- Using DICOM Inbox to import an image session
- Using the Compressed Image Uploader
- Using the Desktop Upload Assistant
- Using the Prearchive
- Using the Upload Applet

Uploading Experiment Data to XNAT

Data uploads can be performed by any Project Owner or Project Collaborator, or any other role with "Create" permissions on your project.

When any data type is added to XNAT, it will automatically have a data entry form created. (Some data types will have custom-formatted data entry forms.) Data can be entered manually, or it can be imported in bulk using our CSV uploader.

- Uploading Data via StoreXML
- Upload Experiment Data via Spreadsheet
- Advanced Tutorial: How to Upload Custom Variables via Spreadsheet
- Creating a Custom Resource Uploader

Working with Scans

From an image session report page, users can compare scan details, add qualitative notes, open scans in the Image Viewer, download or delete scans. With XNAT 1.7.3, your system can be extended with the Selectable Table plugin to make scan operations even easier to use.

- Batching Actions on Scans with the Selectable Table Plugin

Running Pipelines and Containers on Project Data

Pipelines must be installed in XNAT by an XNAT administrator before they can be configured and used in your projects. Likewise, container actions for images and scripts must be configured by an XNAT Administrator. See **Installing Pipelines in XNAT** for more details.

- Running Pipelines In XNAT
- Adding Pipelines To Your Project

Downloading Data from XNAT

Any user with read access to your project data can download your project data.

How To Download Image Data From XNAT Projects

Related Topics:

- How To Download Files via the XNAT REST API

Searching, Reporting and Data Mining

Any user with read access to your project data can see that data in their searches.

- Saving a Data Table as a Stored Search
- Using the Advanced Search
- How to Edit, Filter, and Join Data Tables
- Using the Standard Search
- Browsing Data Types

Sharing Data Within XNAT

Any user with read access to your project data can share a copy of that data into their own project. The user will have project ownership of their project, but will not be able to directly modify their copy of the shared data.

Understanding Data Sharing in XNAT's Security Structure

Related Topics:

- How To Share Data in XNAT

Using Anonymization within XNAT

XNAT frequently needs to examine and alter the contents of image objects. Uses include:

1. Remove Protected Health Information (PHI)
2. Re-identify with experiment-required identifiers
3. Enable automatic mapping of Image objects into XNAT's Project/Subject/Session data model.
4. Create custom functions. (e.g. DIAN project functions, send session/visit from XNAT)

Where Anonymization Happens in XNAT

How to Write an Anonymization Script

Advanced Topics in XNAT Usage

- How XNAT translates DICOM metadata
- Troubleshooting XNAT Java Applet Issues
- Understanding the XNAT Data Model