



XNAT Core Capabilities



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- Senior Product Owner, former UI / UX designer on the XNAT development team
- Worked with XNAT since 2010, mostly in the NRG Lab at Washington University School of Medicine
- Last visited England when he was 12 years old

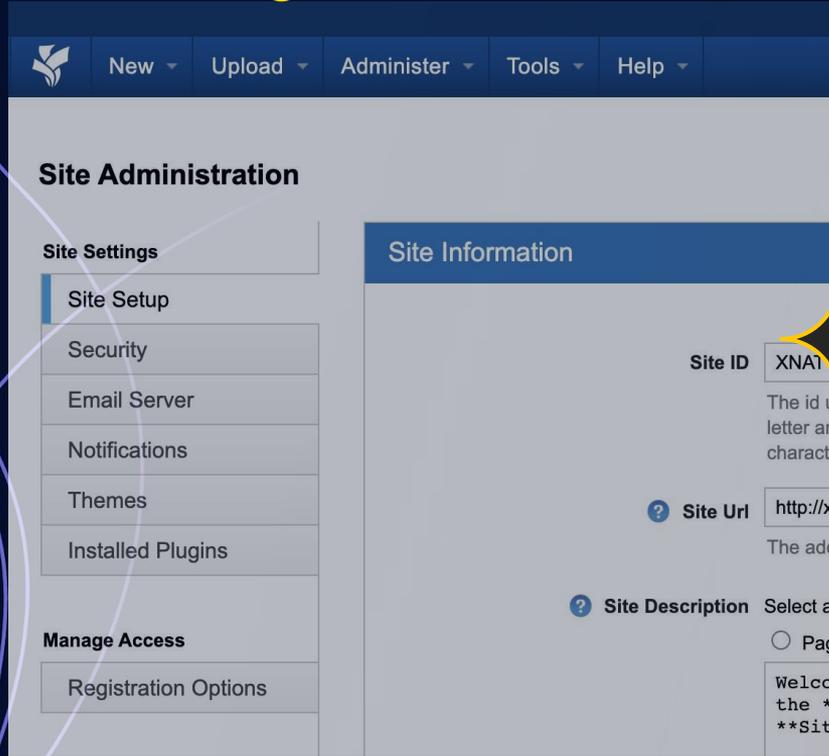


What Can You Do with XNAT?



- Extend XNAT
- Create Projects
- Add Data
- View, Annotate, & QC your Data
- Explore your Data
- Process your Data
- Share & Publish Data
- Download Data

Extend XNAT: Add Plugins



OHIF Image Viewer



Remote Authentication

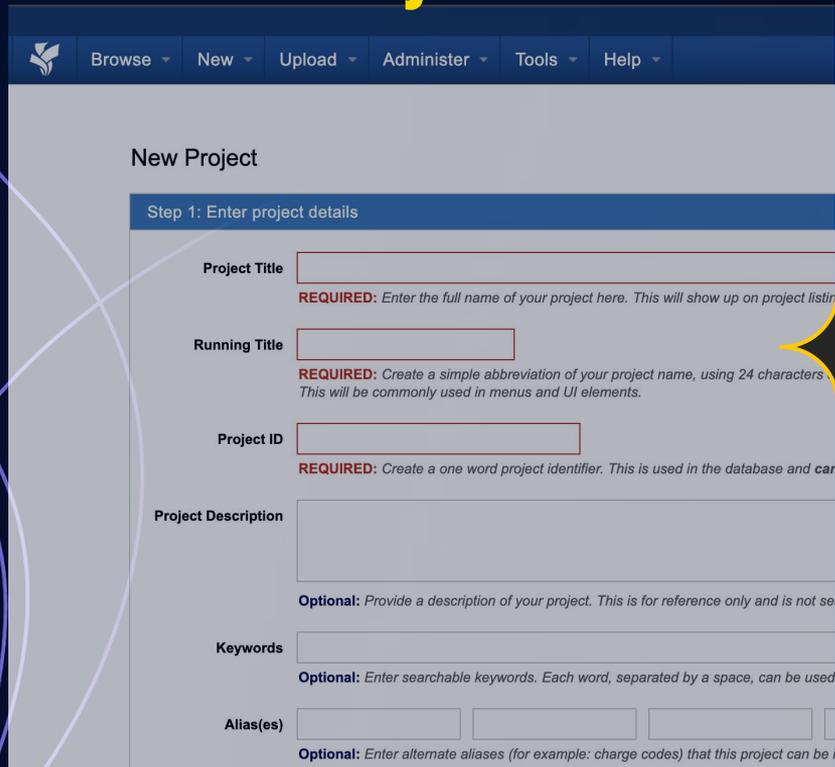


Container Service



And more...

Organize Your Data: Create a Project



The screenshot shows a web application interface for creating a new project. At the top, there is a navigation bar with a logo and menu items: 'Browse', 'New', 'Upload', 'Administer', 'Tools', and 'Help'. Below the navigation bar, the main heading is 'New Project'. Underneath, there is a sub-heading 'Step 1: Enter project details'. The form contains several input fields with associated labels and instructions:

- Project Title**: A text input field. Below it, a red error message reads: **REQUIRED:** Enter the full name of your project here. This will show up on project listin
- Running Title**: A text input field. Below it, a red error message reads: **REQUIRED:** Create a simple abbreviation of your project name, using 24 characters. This will be commonly used in menus and UI elements.
- Project ID**: A text input field. Below it, a red error message reads: **REQUIRED:** Create a one word project identifier. This is used in the database and car
- Project Description**: A large text area. Below it, a red error message reads: **Optional:** Provide a description of your project. This is for reference only and is not se
- Keywords**: A text input field. Below it, a red error message reads: **Optional:** Enter searchable keywords. Each word, separated by a space, can be used
- Alias(es)**: Three text input fields. Below them, a red error message reads: **Optional:** Enter alternate aliases (for example: charge codes) that this project can be i



Define Project Metadata



Set Your Project Visibility

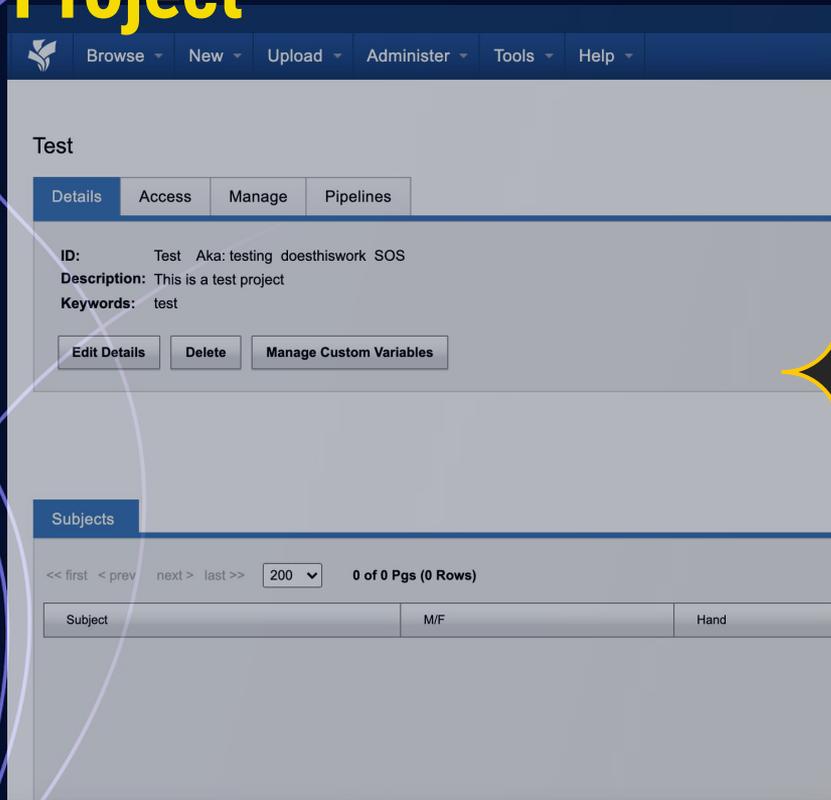


Set Project Roles & Invite Users



Change Project Settings

Add Data To Your Project



The screenshot shows the XNAT web interface for a project named "Test". The top navigation bar includes "Browse", "New", "Upload", "Administer", "Tools", and "Help". The main content area has tabs for "Details", "Access", "Manage", and "ipelines". Under the "Details" tab, the following information is displayed:

- ID:** Test Aka: testing doesthiswork SOS
- Description:** This is a test project
- Keywords:** test

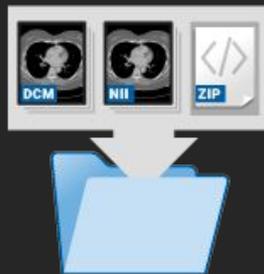
Buttons for "Edit Details", "Delete", and "Manage Custom Variables" are visible. Below the details, there is a "Subjects" section with a table. The table has columns for "Subject", "M/F", and "Hand". The table is currently empty, and the pagination shows "0 of 0 Pgs (0 Rows)".



Add Subjects



Add Clinical Data



Add Image Data



Add Resource Files

Adding Image Data

XNAT Desktop Client
v3.0.0-beta.8 MENU 10.1.1.17

Upload Image Session to [10.1.1.17]

Project / Data Selection | Confirm Details | Inspect Bulk Images | Upload to XNAT

Custom Upload

A "custom upload" process allows you to modify session metadata and add parameters, and also includes view options that can switch to the Quick Upload Process if you wish.

Relabeling Settings [HELP](#)

Subject Labeling Pattern:

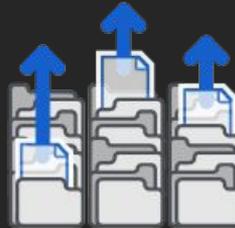
Session Labeling Pattern:

<input checked="" type="checkbox"/>	Patient Name	XNAT SUBJECT ID	Study Id	Tr
<input checked="" type="checkbox"/>	01*Breast-MRI-NACT-Pilot	VQ987	218019	
<input checked="" type="checkbox"/>	01*Breast-MRI-NACT-Pilot	DZ554	797021	
<input checked="" type="checkbox"/>	67*Breast-MRI-NACT-Pilot	BD614	735773	
<input checked="" type="checkbox"/>	RIQ_AA	YX330	1	
<input checked="" type="checkbox"/>	RIQ_HL	TG531	12156	
<input checked="" type="checkbox"/>	Subj_010	KZ677	05010	
<input checked="" type="checkbox"/>	Subj_012	OQ758	05012	

How should XNAT handle overwriting existing data?



Anonymize Incoming Data



Upload Image Data from Local Files



Import or Receive Image Data from PACS

Working With Image Data

OHIF-XNAT Viewer | v3.0.1

Scans XNAT Nav Layout Stack Scroll Zoom Levels Pan Reset CINE Annotations Tools Commands Contour Mask

UXE_London

Subj_012
0000012

Coronal two-phase IV contrast fat suppressed; temp posn, stacks
S: 1 F: 1 112

Coronal fat suppressed; no contrast module; temp posn, stacks
S: 2 F: 1 18

Ser: 1
Img: 1 112/112
512 x 512

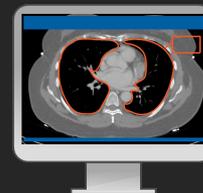
Unnamed contour R
Mean: 29.74
StdDev: 6.25
Area: 25,065.89 pix
1 contours



View Image Data



QC Image Data



Annotate Image Data

Explore Your Data

 Browse ▾ New ▾ Upload ▾ Administer ▾ Tools ▾ Help ▾

Advanced Search - Criteria

- 1 Pivot Data-type: MR Sessions**
- 2 Additional Data-types:**
None.
- 3 Define Search Criteria:**
Define the constraints which will determine which rows show up in your search results.

MR Sessions

Search by Criteria **Search by Exact IDs**

Subject Fields

Subject: Gender: (SELECT) ▾

Age:

Session Fields



Perform Searches

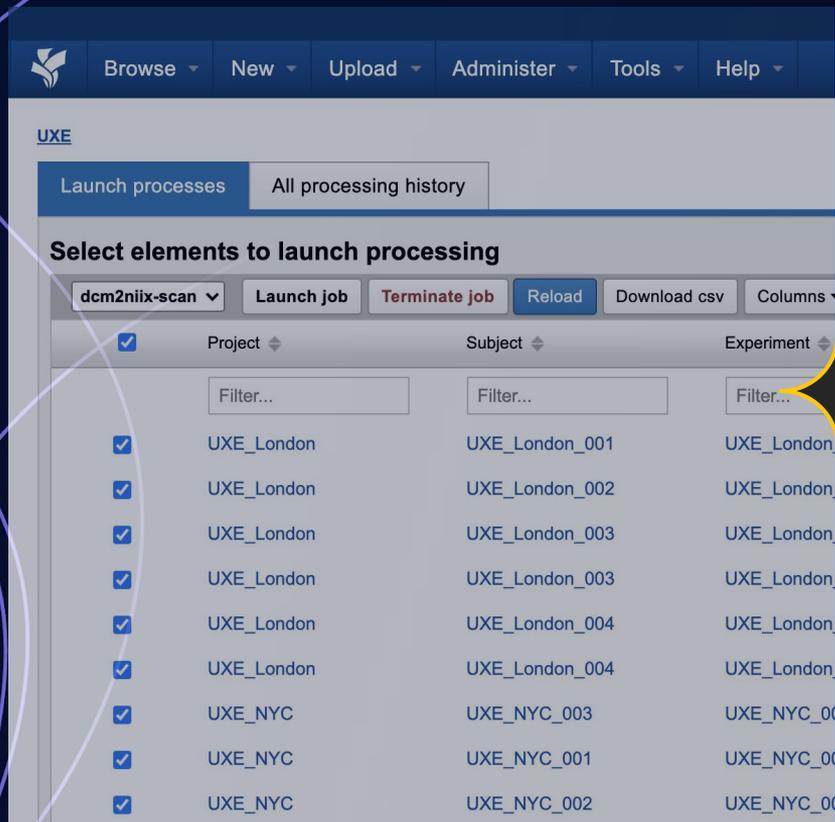


Save Searches as Reports



Script Interactions with
Data via API / Notebooks

Process Your Data



The screenshot shows the UXE web interface. At the top, there is a navigation bar with a logo and menu items: Browse, New, Upload, Administer, Tools, and Help. Below this, there are two tabs: "Launch processes" (selected) and "All processing history". The main content area is titled "Select elements to launch processing" and includes a dropdown menu set to "dcm2niix-scan", along with buttons for "Launch job", "Terminate job", "Reload", "Download csv", and "Columns". Below these controls is a table with columns for "Project", "Subject", and "Experiment". Each row has a checkbox in the "Project" column, and the table lists various data points for London and NYC projects.

<input checked="" type="checkbox"/>	Project	Subject	Experiment
<input checked="" type="checkbox"/>	UXE_London	UXE_London_001	UXE_London_001
<input checked="" type="checkbox"/>	UXE_London	UXE_London_002	UXE_London_002
<input checked="" type="checkbox"/>	UXE_London	UXE_London_003	UXE_London_003
<input checked="" type="checkbox"/>	UXE_London	UXE_London_003	UXE_London_003
<input checked="" type="checkbox"/>	UXE_London	UXE_London_004	UXE_London_004
<input checked="" type="checkbox"/>	UXE_London	UXE_London_004	UXE_London_004
<input checked="" type="checkbox"/>	UXE_NYC	UXE_NYC_003	UXE_NYC_003
<input checked="" type="checkbox"/>	UXE_NYC	UXE_NYC_001	UXE_NYC_001
<input checked="" type="checkbox"/>	UXE_NYC	UXE_NYC_002	UXE_NYC_002



Run Containers & Store Outputs

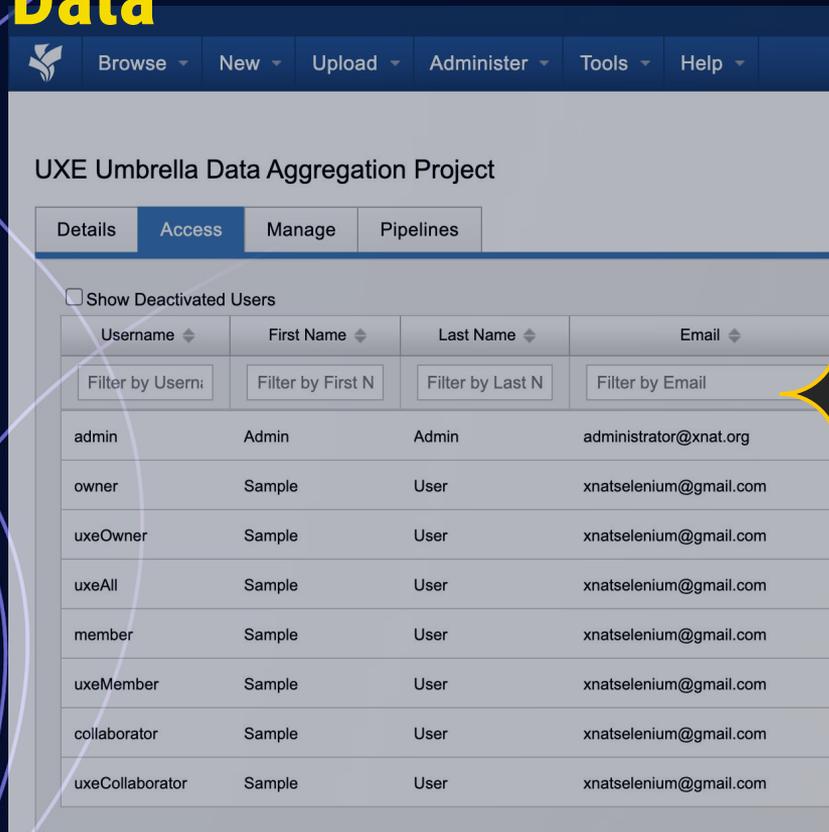


Run Legacy XML Pipelines & Store Outputs



Script Interactions with Data via API / Notebooks

Share & Publish Your Data

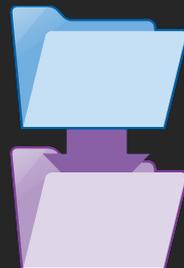


The screenshot shows the XNAT web interface for the 'UXE Umbrella Data Aggregation Project'. The navigation bar includes 'Browse', 'New', 'Upload', 'Administer', 'Tools', and 'Help'. The 'Access' tab is selected, displaying a table of users with columns for Username, First Name, Last Name, and Email. There are also filter buttons for each column and a checkbox for 'Show Deactivated Users'.

Username	First Name	Last Name	Email
admin	Admin	Admin	administrator@xnat.org
owner	Sample	User	xnatselenium@gmail.com
uxeOwner	Sample	User	xnatselenium@gmail.com
uxeAll	Sample	User	xnatselenium@gmail.com
member	Sample	User	xnatselenium@gmail.com
uxeMember	Sample	User	xnatselenium@gmail.com
collaborator	Sample	User	xnatselenium@gmail.com
uxeCollaborator	Sample	User	xnatselenium@gmail.com



Invite Collaboration within your XNAT



Share Data to Other Projects



Release Data to a Public XNAT

Download Data

UXE

Imaging Data Download

1: Select Sessions

Sessions

- All Filter
- UXE_London_001_MR (MR)
- UXE_London_002_MR (MR)
- UXE_London_003_MR (MR)
- UXE_London_004_MR (MR)
- UXE_NYC_001_MR (MR)
- UXE_NYC_002_MR (MR)
- UXE_NYC_003_MR (MR)
- UXE_NYC_004_MR (MR)
- UXE_Seoul_001_MR (MR)
- UXE_Seoul_002_MR (MR)
- UXE_Seoul_003_MR (MR)

2: Select Image Data

Scan Formats

- All Filter
- DICOM
- secondary

Scan Types

- All Filter
- 3D FSE
- 3D SPGR AX
- AX FLAIR
- Axial
- * AXIAL DWI
- Coronal fat suppressed; no co...
- Coronal two-phase IV contrast ...
- * FLAIR AXIAL



Download Image Data & Resource Files



Download CSV Metadata



Download XML Metadata



XNAT WORKSHOP LONDON 2022



Dedicated Wi-Fi

SSID: **XNAT-Workshop**

PW: **London2022!**