

GRP4 Uploading Data To XNAT

PURPOSE OF THE PROCEDURE

To outline the steps required for importing data into XNAT in a standardised and supported way.

APPLICABILITY

This procedure applies to trial technicians who are uploading data into an XNAT project supported by the Australian Centre for Quantitative Imaging/Australian Imaging Service.

RELATED PROCEDURES

Procedure Number	Scope
GRP1	Gaining access to XNAT
GRP2	Managing a project
GRP3	Preparing Data For Upload
GRP5	Performing Data Review
GRP6	Analysing project data

PROCEDURES

Create Subjects/Participants

- Log into [XNAT](#)
- Select New->Subject
- Enter values for desired fields

PROCEDURE TESTS

Test description	Test completed	Pass/Fail	Comments
Can Select menu option to Create New Subject			
Can fill out desired fields			
Can see the subject listed in the Desktop client after logging in and selecting the correct project			

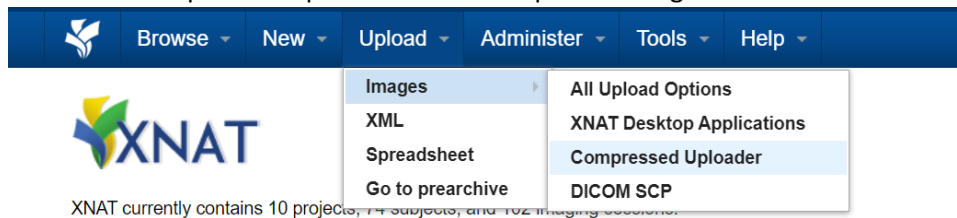
Prepare Image Sets for upload

Ensure that data is processed in accordance with GRP3.

Method 1: Uploading Via a Web Browser

This is the recommended method for uploading.

- Zip the imaging files
- Log in to the XNAT server (<https://instance-146-118-67-25.nimbus.pawsey.org.au/>)
- Select the Compressed Uploader from the Upload->Images menu



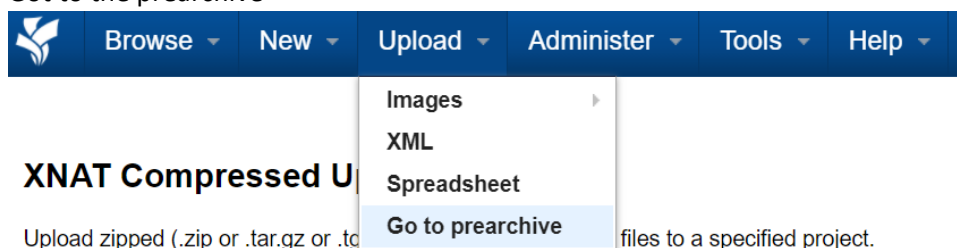
- Select your project
- Select Prearchive as the destination (This is important!)

Project PRIMARY2 ▼

Destination ☒ Prearchive ☐ Archive

File No file chosen


- Choose your zip file
- Click begin upload
- Got to the prearchive



- Find the plan(s) you just uploaded. The Filters Menu on the right is helpful here. For example you could look for plans uploaded on the current date.

Filters

Projects:

Upload Date: 

Scan Date:

Status:

Subject/Session:

January 2022

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
52	27	28	29	30	31	1	2
01	3	4	5	6	7	8	9
02	10	11	12	13	14	15	16
03	17	18	19	20	21	22	23
04	24	25	26	27	28	29	30
05	31	1	2	3	4	5	6

- Check the box next to one of your uploaded sessions
- Click Review and Archive from the actions menu on the right

Actions


Actions are performed on checked sessions.

- Select the patient trial ID from the Subject selection Menu or chose to create a new subject with using the patient trial ID if one doesn't already exist

PROJECT: P

Add New

Project:

Subject:  [Add New Subject](#)

Session:

s3

s5

s6

spectCTSubject1

spectSub3

- Rename the session using the following the format required for your trial in the imaging manual. For example: patient trial id_ImageType_number, where the number would be 1 and increase for each subsequent image for that patient of the same modality. For example

Project: Test

Subject: testphantom

[Add New Subject](#)

Session: testphantom_MR_1

If the number has been used already then red text will appear telling you that the session ID already exists. In this case use the next number.

- Click Submit

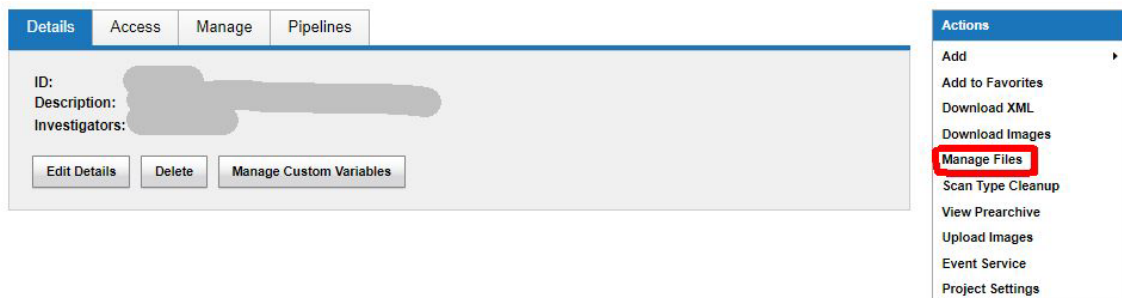
PROCEDURE TESTS

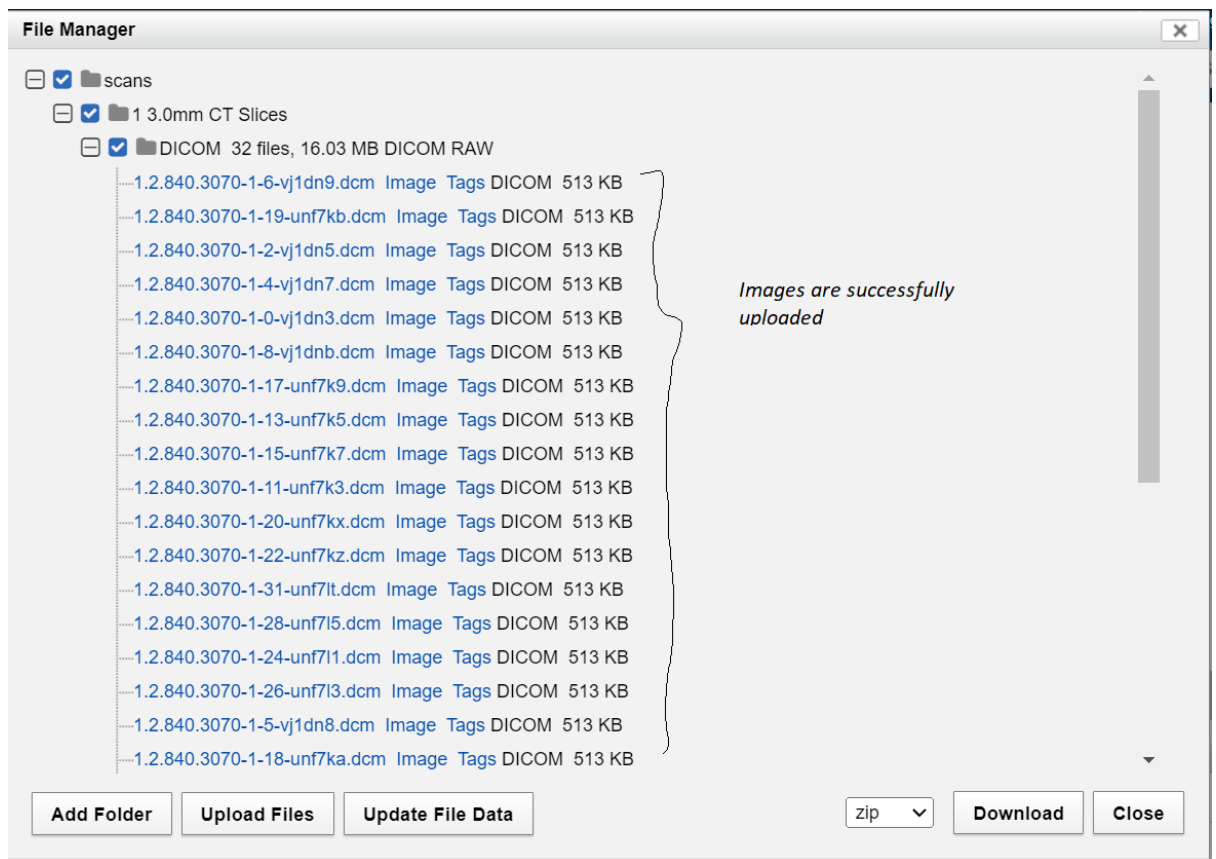
Test description	Test completed	Pass/Fail	Comments
Check that you can upload a zipped dataset to the pre-archive			
Test that you can locate the uploaded dataset in the prearchive			
Test that the correct subject can be selected or created			
Test that you can set the session name using the specified format			
Check that you can archive the dataset			

Cross check of correct uploading

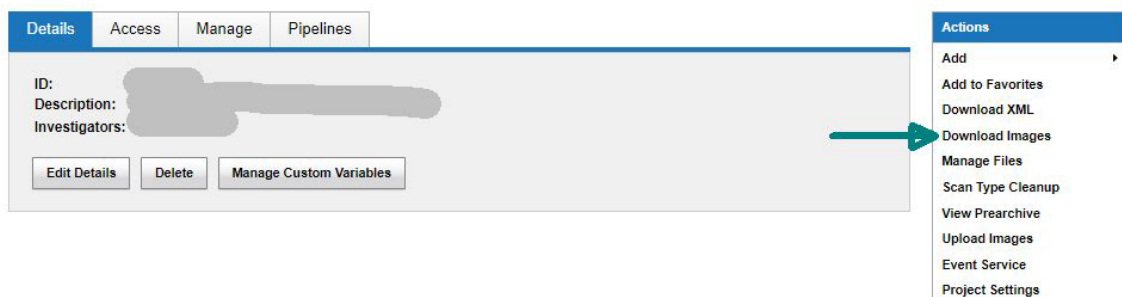
To cross-check if files (dicom images) are uploaded correctly, do the following:

- Click on "Manage Files" in the Actions menu and check that the files are visible (like in a File Explorer in Windows).





- Images should be downloaded by pressing Download Images without any errors.



- the OHIF-Image-Viewer should not display any errors by clicking on “View Images”

PROCEDURE TESTS

Test description	Test completed	Pass/Fail	Comments
Can install the client			
Can add a new server			
Can log in			
Can set the “upload mode” setting to zip			

If you have any problem contact: ACQI Project officer projectofficer-acqi-smed@uwa.edu.au and/or the Site Administrator: official.xnat.acqi@gmail.com

Method 2: Upload images using Desktop client

IMPORTANT NOTE: there might be some firewall issues occurring when using the XNAT Desktop uploader. For this reason, we recommend using the web-based uploader as described in Method 1. If you use the desktop uploader, please test if you have any firewall issues with your institution by doing a test upload before you are ready to upload your data and checking the test upload is successful. If you are unable to upload, please contact the IT department in your institution and the ACQI XNAT site administrator at official.xnat.acqi@gmail.com

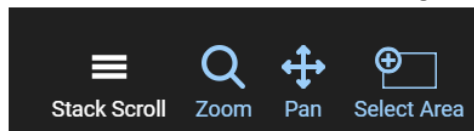
Set up XNAT Desktop Client (Required once per machine used for uploading with one exception)

- Downloaded and install the client found [here](#)
- Open the client and select “ADD NEW XNAT SERVER”
- Set the URL to <https://instance-146-118-67-25.nimbus.pawsey.org.au>
- Enter your username and password and then click “Login”
- Select the gear symbol in the top right corner of the screen.
- Click the “User Settings” tab
- Set the “Upload mode” to zip

Once set-up is completed:

- Open the desktop XNAT Client
- Click on your saved link to the xnat server (<https://instance-146-118-67-25.nimbus.pawsey.org.au>)
- Enter your username and password and click Login or press enter
- Select “Upload Files”
- Select the project you want to upload data to
- Select Subject: Either
 - Select an existing subject or
 - click “Create a new Subject” if the subject does not exist yet.
 - Enter the Subject ID
 - Enter the subject’s research group if applicable
- Choose upload folder and click next
- Modify the values in any fields if needed. For example for PET images you will need to select a tracer.

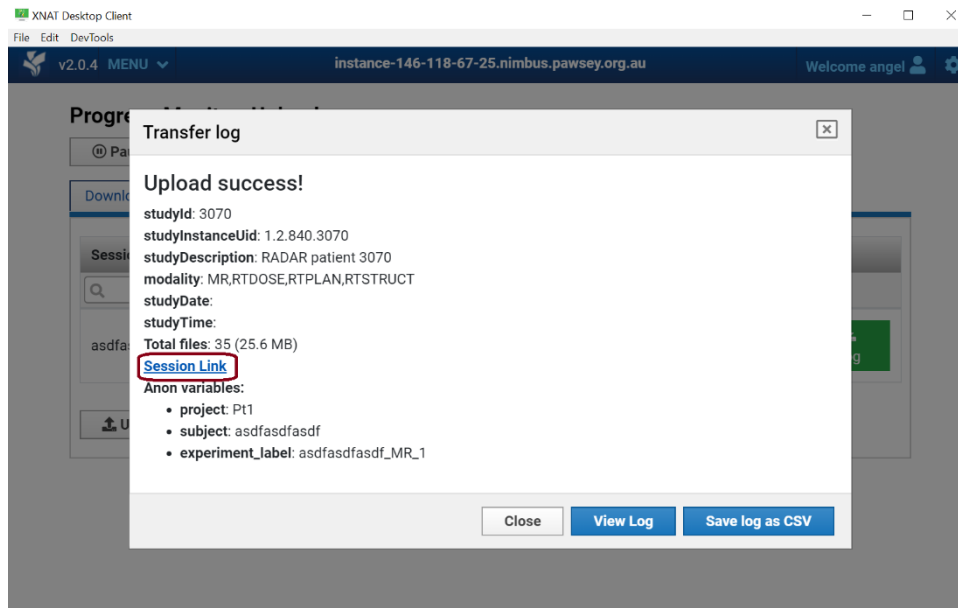
- Click next
- An image viewer will show your images. It will allow you to remove burned in PHI if needed.
 - Select “Stack Scroll” to scroll through image slices



- Select “Select Area” to choose a rectangular area to erase
 - Select “Save scan” to save
- Select “Finish and Upload” to start upload process

Session	Session Date	Transfer Date	Status	Log
subject_10_PSMA_1	2020-01-02 08:30:26	2021-08-20 13:20:31	Completed	Details
subject_10_F18_1	2021-04-13 19:25:58	2021-08-19 13:28:49	Completed	Log
subject_9_CT_1	2020-01-02 08:30:26	2021-08-19 10:29:09	Completed	Log
subject_8_CT_1	2020-01-02 08:30:26	2021-08-19 10:20:01	Canceled	Details
subject_7_MR_1	1990-01-01 08:08:01	2021-08-17 12:09:04	Archiving...	Details
subject_7_MR_1	1990-01-01 08:08:01	2021-08-13 15:15:12	Completed	Log
subject_6_MR_1	2020-01-02 08:30:26	2021-08-13 14:23:50	Canceled	Details
subject_5_PSMA_1	2020-01-02 08:30:26	2021-08-13 14:13:20	Completed	Log

- Select Details to see further upload details



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- Click “Session Link” in the transfer log to view the dataset in xnat.

PROCEDURE TESTS

Test description	Test completed	Pass/Fail	Comments
Can login to saved server setup			
Can select “upload files”			
Can select project to upload to			
Can select subject to upload to			
Can create a new subject to upload to			
Can select upload folder			
Can set any required values and chose which scans to upload			
Can check for burned in PHI			
Can remove burned in PHI			
Can upload successfully			
Can use link to view uploaded data in XNAT			

*See troubleshooting section if there are any issues with uploading.

Troubleshooting uploading of images

-Please see note above regarding firewall issues. If you are confident that there are no firewall issues and you are still having uploading issues, please read on.

-Upload issues may arise if “XNAT DESKTOP CLIENT” is not upgraded to the latest version or some file corruption occurred in the installed version.

If you are having trouble with uploading:

1. first uninstall the XNAT DESTOP CLIENT application by a fit-for-purpose Installer such as “Advanced Uninstaller PRO 13”
2. Reinstall the similar version of “XNAT DESKTOP CLIENT” you already have installed
Or
3. Upgrade “XNAT DESKTOP CLIENT” from <https://www.xnat.org/download/desktop-client/>

By reinstalling the program, you essentially reset the application to its default state, which may have resolved any configuration issues that cause the unsuccessful upload. It's also possible that during the reinstallation process, any missing dependencies or prerequisites required for the xnat desktop client to function properly will be installed or repaired.

DOCUMENT HISTORY

Author	Version	Effective Date	Changes
Angel Kennedy	1	17/08/2021	Initial release
Angel Kennedy	2	25/10/2021	Update for AAF authentication
Angel Kennedy	3	19/11/2021	Remove AAF authentication
Christel Norman	4	14/02/23	Added ACQI logo, updated site address throughout
Christel Norman	5	9/05/23	Added cross check and troubleshooting uploading image sections
Christel Norman	6	16/10/23	Swapped around the sections for web-based uploader instructions and desktop uploader instructions as trials have issues with the desktop uploader so this is now the second recommended options and warnings were added regarding firewalls issues.