

OASIS on XNAT Central

Data from the Open Access Series of Imaging Studies (OASIS) is now available on XNAT Central! The OASIS project is aimed at making neuroimaging datasets freely available to the scientific community.

More information about these studies can be found at oasis-brains.org.

The OASIS Datasets

There are 3 OASIS datasets that can be viewed and downloaded on XNAT Central. The data from these projects should not be combined - Each dataset should not be used individually only, as there may be overlap across the different studies.

OASIS-1 consists of cross-sectional MRI data from 434 scan sessions across 416 different subjects. It was made available in 2007.

OASIS-2 consists of longitudinal MRI data from 373 scan sessions across 150 subjects. It was made available in 2010.

OASIS-3 consists of both cross-sectional and longitudinal MRI and PET data across 1098 subjects. It was made available in 2018.

OASIS-3 is the newest release of data. It includes MR and PET scan data in the **BIDS** format, which consists of a **NIFTI** (.nii or .nii.gz) file plus a corresponding **JSON** (.json) file. Also included in OASIS-3 are **Freesurfer** output files and output from the **Pet Unified Pipeline** (PUP). More details about use of BIDS, Freesurfer, and PUP can be found in the [OASIS-3 Data Dictionary](#).

Accessing OASIS Data

To access datasets from any of the three OASIS projects, you must first sign the data use agreement located at oasis-brains.org. Within one week of completing this form, you will be sent an invite to XNAT Central at the email address you provided. You can then follow the XNAT Central sign-up process and view the data. If you already have an XNAT Central account at your provided email address, you will be granted access to the OASIS-1, 2, or 3 projects on Central, depending on what you selected in the data use agreement form.

For more information on registering an XNAT account, see [User Registration and Accounts in XNAT](#).

Note: Requesting OASIS project access directly from XNAT Central will not enable you to access the data immediately. You must fill out the data use agreement first to receive project access.

Viewing Data from the Project Page

When you visit a project page for an OASIS project on XNAT Central, you will see a table of the various subjects in the project. Clicking on other tabs will display MR scan sessions, PET scan sessions, Freesurfer or PUP (PET processing) sessions. Shown below is an example of the MR Session listing.

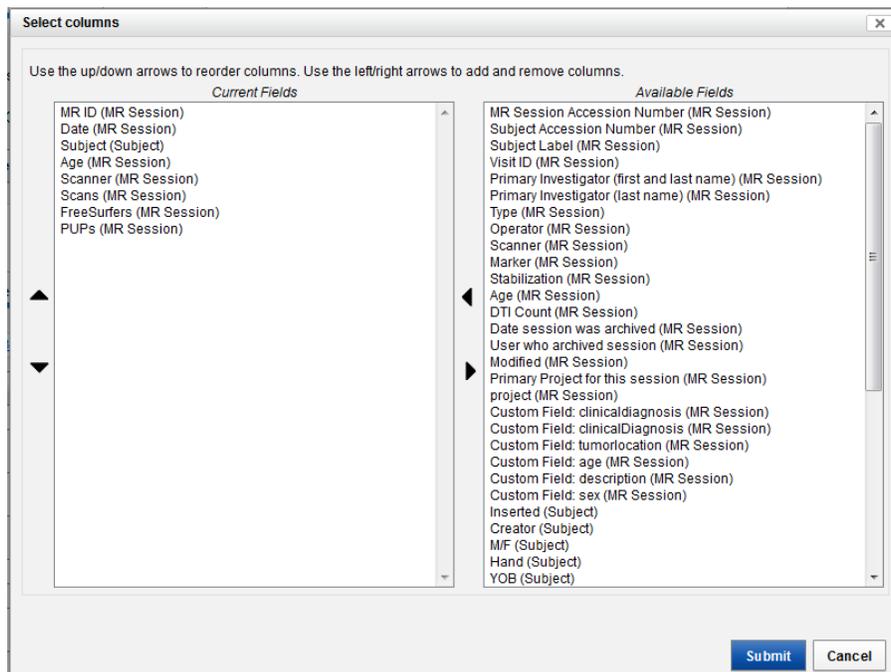
If you click on the "Options" button (outlined in red below) you will see a list of options for the data listing.

The screenshot shows the XNAT Central interface for the OASIS3 project. At the top, there are tabs for 'Details', 'Access', 'Manage', and 'Pipelines'. Below these is a summary box with the project ID (OASIS3), a description, and keywords. To the right is an 'Actions' menu with options like 'Add', 'Upload Images', 'View Prearchive', 'Scan Type Cleanup', 'Add to Favorites', 'Download XML', 'Download Images', and 'Manage Files'. Below this is a navigation bar with tabs for 'Subjects', 'FreeSurfers', 'MR Sessions', 'PUPs', 'PETs', and 'ADRC Clinical Data'. The 'MR Sessions' tab is active, showing a table with columns for MR ID, Date, Subject, Age, Scanner, Scans, FreeSurfers, and PUPs. The table contains 11 rows of data. At the bottom right of the table, there is a 'Reload' button and an 'Options' button, which is highlighted with a red box.

MR ID	Date	Subject	Age	Scanner	Scans	FreeSurfers	PUPs
OAS30001_MR_00129		OAS30001	65	3.0T	bold(3), T1w(2), T2w(2)	1	
OAS30001_MR_00757		OAS30001	67	3.0T	bold(2), dwi(1), miniP(1), swi(1), T1w(2), T2star(1), T2w(2)	1	
OAS30001_MR_02430		OAS30001	71	3.0T	angio(1), asl(1), dwi(2), fieldmap(3), FLAIR(1), T1w(1), T2star(1), T2w(1)	1	
OAS30001_MR_03132		OAS30001	73	3.0T	asl(2), bold(2), dwi(2), fieldmap(3), T1w(1), T2star(1), T2w(2)	1	
OAS30002_MR_00371		OAS30002	68	1.5T	T1w(1), T2w(2)		
OAS30002_MR_00653		OAS30002	68	3.0T	bold(2), T1w(2), T2w(2)	1	
OAS30002_MR_02340		OAS30002	73	3.0T	angio(1), asl(1), bold(2), dwi(2), fieldmap(3), FLAIR(1), T1w(2), T2star(1), T2w(2)	1	
OAS30002_MR_02345		OAS30002	73	3.0T	asl(2), bold(2), dwi(2), fieldmap(3), GRE(2), miniP(1), swi(1), T1w(1), T2star(1), T2w(2)	1	

Options Spreadsheet will enable you to download the current table in a .csv (comma-separated) spreadsheet format.

Options Edit Columns will display a column editor window that enables you to select which columns to display in the table.



The list on the left contains the currently visible columns. The list on the right contains the fields available to be added to the current list. Use the left and right arrows in the center to move fields between the lists, and use the up and down arrows on the left side to rearrange fields in the Current Fields listing. Press Submit to display the results.

Note: Not all fields listed under Available Fields will have data to display. For example, OASIS data does not contain tumor information, so the field "Custom Field:tumorlocation" will always be blank.

Filtering OASIS Data Using Searches

In addition to viewing the full list of subjects from the project page, you can view a subset of subjects based on a search result. A standard search can be useful if you're looking for a single subject, session, Freesurfer result or PUP result based on an ID or name that you have. For details, see [Using the Standard Search](#).

If you want to filter a subjects, sessions, Freesurfers or PUPs based on criteria that you choose, use an Advanced Search. For details, see [Using the Advanced Search](#).

Downloading Data from XNAT Central

Using the Web User Interface

Note: We have been experiencing intermittent issues with this download method. If you experience problems with this method, please see [Downloading Data Using the Command Line](#).

OASIS data can be downloaded directly from the XNAT Central website using your web browser. For more information, see [How To Download Image Data From XNAT Projects](#).

Using the Command Line

OASIS data can be downloaded using scripts called from a Windows, Mac, or Linux command line. This can be useful if you'd like to automate downloading or organize files.

For example scripts and instructions on how to use them, visit the [oasis-scripts repository on Github](#).

Creating Usable Spreadsheets for Downloading Data

The example OASIS download scripts on the [Github page](#) require a list of OASIS experiment_ids as an input. This can be created by including the "MR ID" column in your column view, and downloading the result via the **Options Spreadsheet** option described above. Once you download a spreadsheet, remove all columns from it except for the "MR ID" column and save it as a .csv file. This can be done in Microsoft Excel by selecting Save As and choosing "CSV (Comma delimited) *.csv" as the file type.

If you save a file using Microsoft Excel, you must convert it to Unix format before using it as input to a script. If the file is incorrectly formatted, you will receive "Illegal character" errors when you run the script. Instructions for doing this conversion can be found in the ["Note on Unix file formatting" section of the oasis-scripts README](#).

Writing Custom Scripts Using the REST API

More advanced users can write their own scripts to download data from XNAT Central via the REST API. For more details on using the XNAT REST API to download scan data and processed image data, see [How To Download Files via the XNAT REST API](#).