LONI IMAGE & DATA ARCHIVE
USER MANUAL

Laboratory of Neuro Imaging
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LONI
Image & Data Archive

INTRODUCTION

The LONI Image & Data Archive (IDA) is a user-friendly environment to archive, search, share, track and disseminate neuro-imaging data. It accommodates MRI, fMRI, PET, MRA, DTI and other imaging modalities. A flexible data de-identification engine and encrypted file transmission help ensure compliance with patient-privacy regulations. All data are stored on redundant servers with daily and weekly on- and off-site backups. Archiving data in the IDA is simple, secure and requires no specialized hardware or software. The IDA automatically extracts relevant metadata from de-identified image files, and allows data to be searched within moments of archival. Once archived, data can be downloaded and/or streamed into the LONI Pipeline workflow environment for processing and analysis. Integration of the LONI Debabeler file format translation engine allows users to download image data in a number of common file formats.

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For questions or problems with the IDA, please e-mail dba@loni.usc.edu

ACKNOWLEDGEMENTS

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A – IMAGE & DATA ARCHIVE OVERVIEW

The LONI Image & Data Archive (IDA) provides an integrated and safe environment to archive neuro-imaging data. The archive protects data from unauthorized access and allows investigators to share data. For questions or problems with the IDA, please e-mail dba@loni.usc.edu

System Requirements:

The IDA system requires a computer with internet access, newer web browser software (IE, Netscape, Mozilla, Safari, Chrome), Java plug-in (version 1.5 or higher), and a valid user account.

IDA Menu Overview
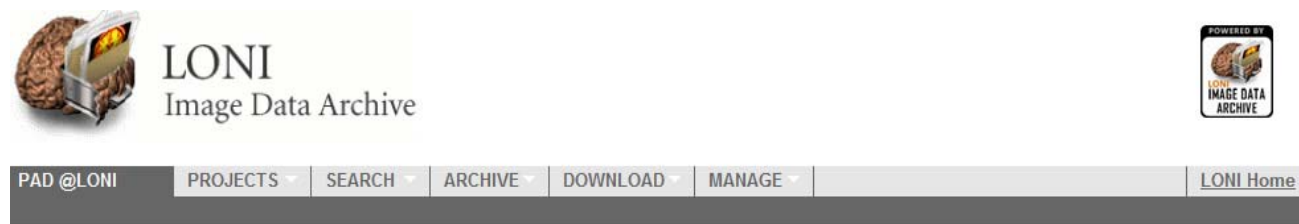
Projects:
- *All:* View participant gender and research group distribution on public projects and other private projects you are permitted to access. Public projects such as PAD are available to all users.
- *Individual Projects:* View project information and participant gender distribution from your project.

Search:
- *Simple Image Search:* Database queries based on a limited set of subject and image parameters.
- *Advanced Image Search*: Database queries using a more extensive list of parameters. Limited to authorized users on a project-by-project basis.

Archive:
- *Archive Files:* De-identify images to remove potentially identifying subject information, and securely transmit files to be stored in the LONI Image & Data Archive.

Download:
- *Image Collections:* Download individual images or entire collections.
- *Study Data:* Download study data for selected projects.

Manage:
- *Edit metadata:* Provide or modify subject-related information such as sex, age and weight.
- *Delete data:* Remove images from the LONI Image and Data Archive. Available to users with higher access levels.
- *Image QC*: Quality-control of imaging data. Available to users with higher access levels.
- *Project Summary:* View project upload and download summary information. Available to users with higher access levels.
- *Manage user access:* Grant or modify user's privileges. Available to project leaders.

Note:
Available submenus vary depending on project and user access level.

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USER REGISTRATION

If you do not have a user account, click REGISTER on the Image & Data Archive Log-In page. **https://ida.loni.usc.edu**.

Complete the form to create a new account then click the REGISTER button.

Once the registration process is complete, a confirmation email will be sent with a temporary password and login instructions.
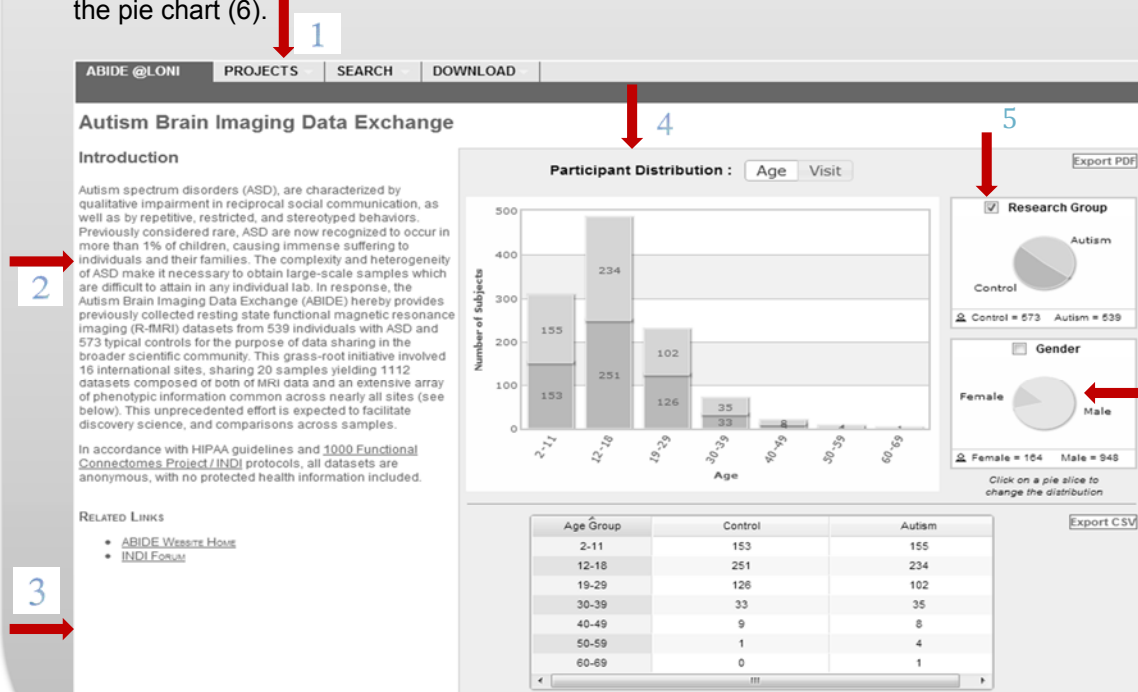
LONI
Image & Data Archive

Image & Data Archive Log-In

Note:
If you are experiencing difficulty with access, notify dba@loni.usc.edu.

Select a project from the Projects menu (1).
The Projects menu displays a description of the project (2), project–related links (3), and a chart showing participant distribution (4). You may view a break-down of the distribution based on research group and gender by selecting the checkbox in the corresponding chart (5). To remove an individual group from the participant distribution chart, click on the corresponding section of the pie chart (6).

B – SEARCH

Users can search for images based on subject and image-related criteria, view images, form collections and download images. There are two types of image searches: Simple search and Advanced search. The Simple Search performs a basic database query on subjects and images, providing information such as subject age, sex and image modality or series description. The Advanced Search supports a more extensive exploration of the database and provides additional information about subjects and images. To download images, perform a Simple or Advanced Search, add the images to a data collection then download. To access processed images, use the Advanced Search.

SEARCH AND DOWNLOAD DATA GRAPHIC OVERVIEW

SIMPLE SEARCH

Choose SIMPLE SEARCH on the SEARCH menu.
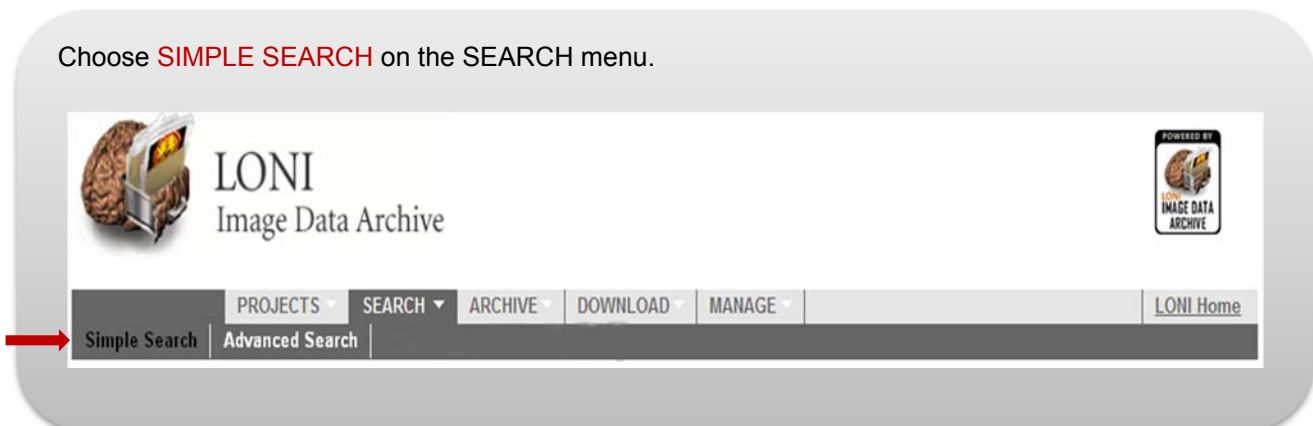
Note: Available menu options vary based on project and user access level.

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Enter the search criteria and click SEARCH

Click VIEW to see an image using the IDA Image Viewer.

VIEW IMAGES

The IDA Image Viewer provides a multi-dimensional reconstruction of the image data. Users can view an image in different orientations, flip vertical and horizontal planes and adjust brightness and contrast. Currently, the image viewer works on 3-D images only. Only the first time point appears on 4-D images.

To view different slices, drag one of the red bars on the SELECT SLICE section.
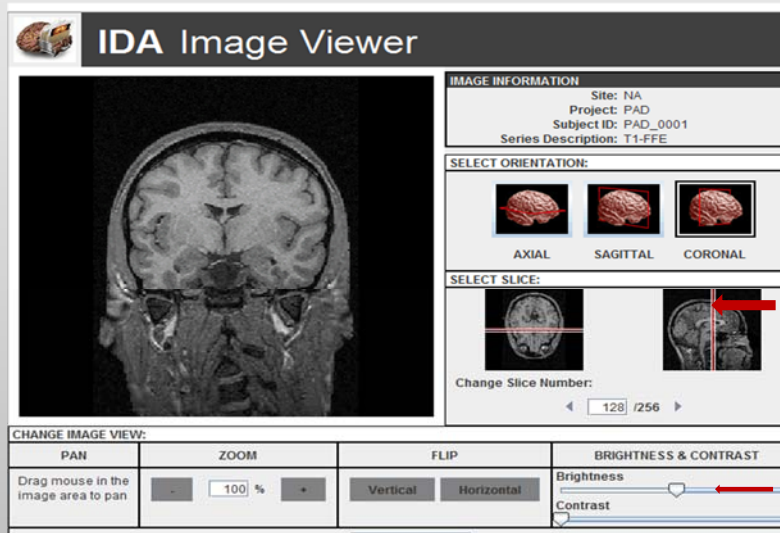
ADVANCED SEARCH

Use the Advanced Search to query the database using a more extensive list of elements than the Simple Search. Choose additional elements or image types, original or processed data, and set the sort order of the results. The availability of elements varies according to project and user access level. You may save queries to be reused.

Choose ADVANCED SEARCH from the SEARCH menu.

Complete the form sections.

> ➢ To display specific categories in the SEARCH CRITERIA, check the corresponding checkbox in SEARCH OPTIONS (1).
> ➢ To display specific information on the Results menu (the next page), check DISPLAY IN RESULTS (2). Some items display by default.
> ➢ Click SEARCH (3).

DEFINITIONS:

> ➢ Original data refers to raw image files.

> ➢ Processed data refers to registered or warped data (e.g. segmentations).

> ➢ To select more than one item in a drop-down, click each item while holding down the control key on PC or Command key on Mac).

Advanced Search Results

The Search Results tab displays information about image sets matching the search criteria. Users can view and add these results to collections, and save search parameters (page 12). The Series Description of each image is a link to the detail page, which provides additional information about the image such as weighting, pulse sequence, acquisition type, etc. Users can also view images from the Image Protocol Details page.

> ➢ Check the checkbox beside VIEW (1) and then select ADD TO COLLECTION (2) to add images to a collection. This is a necessary step before downloading the image(s) (see page 14).

> ➢ To view image header information/ imaging protocol, select an image DESCRIPTION (3). This will open the IMAGE DATA DETAILS interface.

On the IMAGE DATA DETAILS page display an image by selecting VIEW. The image will open in the IDA image viewer (page 9).

Image Data Details

LEGEND: Projects | Research Groups | Modalities | Help | View Collections | Image Status

T1-FFE		Subject ID: MNI_0101
Modality : MRI		Research Group : Control
Image Type : Original		Sex : Female
Image File Type : Image Volume		Visit : N/A

Acquisition Protocol

Image Status : AVAILABLE VIEW

Imaging Protocol : Acquisition Plane=SAGITTAL; Acquisition Type=3D; Coil=; Field Strength=1.5 tesla; Flip Angle=30.0 degree; Manufacturer=Philips; Matrix X=172.0 pixels; Matrix Y=25 Spacing Y=-1.0 mm; Pulse Sequence=; Slice Thickness=-1.0 mm; TE=10.0 ms; TI=0.0 ms; TR=18.0 ms; Weighting=T1;

Note: Processed images display an additional section describing information such as package name, process name, program name, etc.

SAVE QUERIES

Any search generated with the Advanced Search can be saved and re-used. Users can query the database with saved searches for repeated use in analysis and comparison.

Click SAVE QUERY on the Advanced Search Results tab.

The Save Query pop-up appears.

➤ Provide a new query name (1) and description (2).
➤ Click SAVE QUERY (3).

DETAILS:

- ➢ Once a search has been saved, a drop-down list appears on the Advanced Search submenu.

To run a saved query, select the query from the saved query drop-down list.

C – IMAGE COLLECTIONS

OVERVIEW

The Collections Interface provides access to existing collections and their individual components. Users can view, remove, regroup or download single images and entire collections. This level of interaction applies both to personal collections and shared collections, those created by other users to which the user has access.

Users can create collections with an unlimited number of images. It is not necessary to perform a search to access previously created collections. Collections can be restructured by adding or removing images.

Features:
- Access Personal data collections.
- Download Any number of images with a single request.
- Download images in a number of file formats, including the originally archived format, or an alternate format of the user's choice (Analyze, NIfTI, 4D, MINC)
- Track downloaded/ not downloaded images.
- Access shared collections (Created by other users).

CREATE IMAGE COLLECTIONS AND DOWNLOAD

Use the Image Collections submenu to manage and download data selected through Simple and Advanced Searches. Create new collections, add to previously created collections, or change collections as needed. Use collections for viewing, downloading and sharing imaging data.

Perform a Simple or Advanced Search (see page 7).

➢ On the Search Results page, choose images by checking the Select box beside the image(s) (1).
➢ Click ADD TO COLLECTION (2).

➢ Enter a name for the collection or select an existing collection name (1).
➢ Click OK (3).

➢ A new window displays the collection contents.

➢ To view the image, click on the DESCRIPTION link.

➢ A new window opens. Click VIEW under Acquisition Protocol (not shown).

➢ Instead, to download, select images or entire collections by selecting the checkbox beside an image (1) or checking the All box (2).

➢ Choose file download format, either as originally archived or converted to MINC, Analyze, NIfTI or NIfTI 4D by choosing the corresponding button in the Actions section (1). Click DOWNLOAD (2).

➢ A new window opens. Provide the download location. The files will download to the selected location.

DETAILS:

- ➢ Converting file formats adds slightly to the overall download time.

- ➢ For each image downloaded, an XML file containing metadata about the subject and the image is placed in the root of the download directory.
  - See Appendix for an example of an XML file.

To view a collection, click on the collection name.
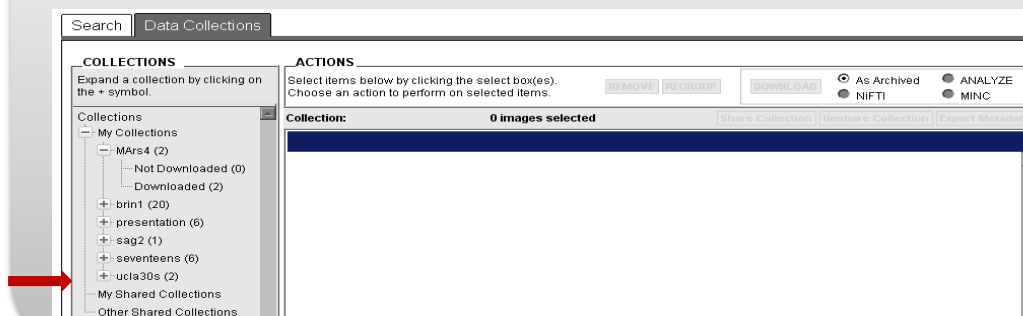
To move an image or group of images to a new or different collection, check the appropriate checkbox beside the image(s) (1) and click REGROUP (2).
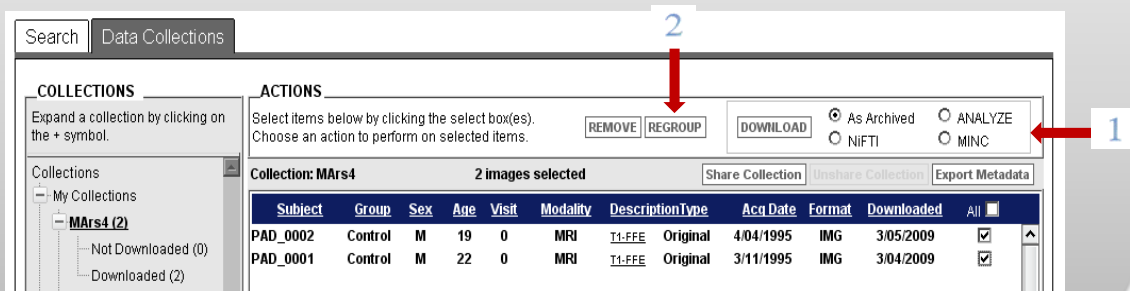
A dialogue box appears. Select an existing collection or enter a new name for the collection (1) and click OK (2).

The new regrouped collection appears.

SHARE COLLECTIONS

A dialogue box appears. It is possible to grant different access levels to other users who can view your collection. Guest is the minimum access level to view the collection.

Choose the user access level for your collection then click SHARE.

To remove other users' access to your collection click UNSHARE COLLECTION.
The collection is no longer seen by others

To remove an image from your collection, click the checkbox beside the image (1), or click the All checkbox (2) to remove the entire collection, then click REMOVE (3).

D – ARCHIVE

There are two steps in the archive process: de-identification and file transmission. The de-identification step removes or replaces potentially identifying subject information from the image headers.

During the file transmission step, the de-identified files are securely transmitted to LONI and stored in the data archive. The data archive accepts DICOM, GE, Philips, HRRT and ECAT files (Type 1 headers), and files with limited header information, such as Analyze and MINC (Type 2 files). Archiving Type 2 files requires some user input to provide image metadata.

ARCHIVE PROCESS GRAPHIC OVERVIEW

Archive Method
- Single
- Batch (Multiple)

Data Types
- Original (raw image files)
- Processed (pre and post processed)

Image File Formats
- Type 1 (DICOM, GE, Philips, HRRT, ECAT)
- Type 2 (ANALYZE, MINC)

De-Identify
- Remove potentially subject-identifying information
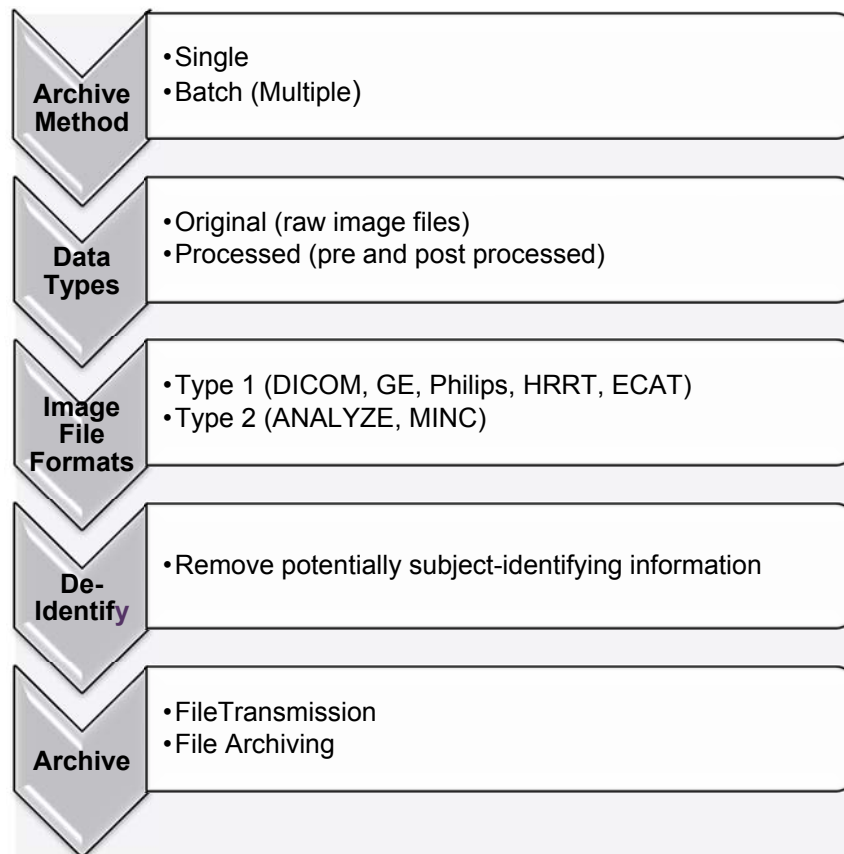
Archive
- FileTransmission
- File Archiving

SINGLE ARCHIVE INSTRUCTIONS

Use the Single Archive process to upload one or more files from a single subject.

TYPE 1 FILES ARCHIVING INSTRUCTIONS (e.g. DICOM, GE, Philips, HRRT, ECAT)

PREREQUISITES
- Place all image files for each subject within a single directory (source directory), which may contain subdirectories. The source directory must not contain multiple image formats.
- Create an empty directory where the de-identified files will be written (target directory).

NOTE
The browser window must remain open during the entire upload process. Closing the browser window cancels the upload. You may minimize the window.

HOW TO ARCHIVE TYPE 1 FILES (E.G. DICOM, GE, PHILIPS, HRRT, ECAT):

Choose ARCHIVE FILES from the Archive menu.

➢ Select your Project/Site from the drop down menu (1).
➢ Click SINGLE ARCHIVE (2).
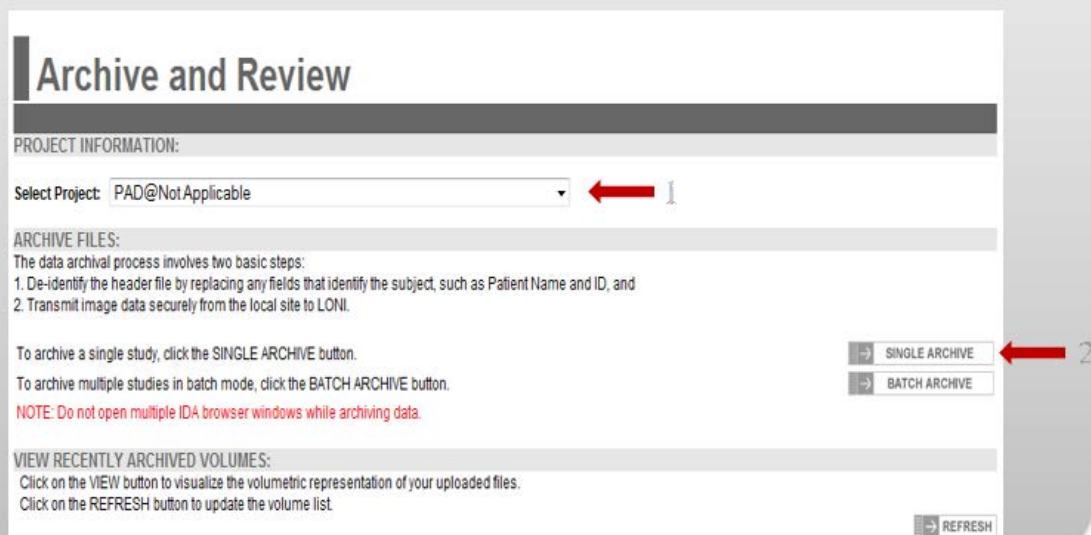
On the DE-IDENTIFY page:

➢ Provide a Subject ID.
➢ Click Source Directory - Browse to find the directory which contains the file(s) to be uploaded or provide the directory path then click Select Source File Directory.
➢ Repeat the process to select a target directory to contain the de-identified files.
➢ To upload files without validating de-identification results, check the Bypass Validation Steps box (not recommended for first time users).
➢ Click CONTINUE to begin the de-identification process.
➢ To automatically record any issues during the archive process, check the box near Record diagnostics to file. You will be prompted to provide a location to store the diagnostics file. **Note**: this is an optional step.

Please follow the instructions outlined above:

Project PAD@NA   ☐ Bypass validation steps

Select Data Type ⦿ Original ◯ XML

Subject ID: [_____]   Max. 10 characters allowed
Identifier to replace Patient ID

Source Directory: [_____]   [BROWSE...]
Location of original files

Target Directory: [_____]   [BROWSE...]
Location for target files

NOTE: Source Directory for file formats with complete headers (DICOM, GE, ECAT, etc) may contain multiple series from a single subject. Source Directory for file formats with limited headers (ANALYZE, MINC) or no headers (TIFF, TGA, etc) must contain a single series for a single subject in a single directory. Headerless files must contain a sequential slice number within the file name. ANALYZE files are assumed to be in SPM orientation.

[☐ CANCEL]   [☐ CONTINUE] ⬅

☐ Record diagnostics to file

When the de-identification step is complete, a list of de-identified files is shown along with the de-identified header information.

> ➢ To remove any images, uncheck the <u>Selected</u> box beside the image (1).
> **Note:** This feature is not an option with Batch Archival (page 24)).
> ➢ Click SUBMIT to transmit the de-identified images (2).
> ➢ Choosing DISCARD cancels the upload and returns to the previous page (3).

The progress bar shows the status of the file transmission step.

> ➢ Once the file transmission is complete, click REVIEW UPLOADED FILES to view the results of the archiving process.
>
> ➢ Or click ARCHIVE MORE to upload more files.

TYPE 2 FILES ARCHIVING INSTRUCTIONS (Analyze, MINC)

Available to users with higher access levels.

REFER TO THE APPENDIX FOR INFORMATION ABOUT HOW TO ARCHIVE ANALYZE AND MINC FILES. PLEASE CONTACT DBA@LONI.USC.EDU FOR OTHER FILE FORMATS.

BATCH ARCHIVE INSTRUCTIONS

The Batch Archive process is similar to Single Archive, except that multiple subjects and image series can be submitted in a batch. Batches can be of the same or different file formats and modalities. However, users cannot review the results of the de-identification process prior to the batch upload.

Click **BATCH ARCHIVE** on the Archive and Review page.

Follow the instructions on the Single Archive section.

➢ On the Batch Queue page, click **ADD MORE** (1) to add more studies. Repeat this process for each study series or subject to be archived.
➢ Click **SUBMIT**(2) to de-identify and upload all files.

DETAILS:
➢ Once files are archived, click **Review Uploaded Files** to view a list of all the successfully archived images. Or click **Archive More** to upload more files.

PROCESSED IMAGE ARCHIVE INSTRUCTIONS

Archiving processed images requires the inclusion of an XML file that describes the processing provenance and the link to the image(s) from which it is derived. This method is best suited to large batch archival. Please contact dba@loni.usc.edu for more information about using XML files.

E - DOWNLOAD

The DOWNLOAD menu allows users to manage and download image collections, and download study data.

STEPS TO DOWNLOAD IMAGING DATA

- ➢ Perform a Simple or Advanced search.
- ➢ Form an image collection.
- ➢ Download.

There are two ways to access and manage existing Collections in the IDA:

- ➢ Select IMAGE COLLECTIONS on the Download menu.

- ➢ Or click DATA COLLECTIONS on the Simple or Advanced Query menu

Note: Refer to the Create collections section (page 14) for information on how to create and manage collections before downloading imaging data.

DOWNLOAD STUDY DATA

Clinical and research data are available for downloading on selected projects.

Select DOWNLOAD then STUDY DATA from the menu.

The Download Study Data page displays a list with available categories to the left.

➢ Click on a category to display a list of csv files available for downloading. In the example below, the category ASSESSMENTS (1) was selected.
➢ Click on the checkbox beside the item(s). In the example below, the item MMSE (2) was selected.
➢ Click DOWNLOAD (3).
➢ When the pop-up window appears, choose to open or save the file.
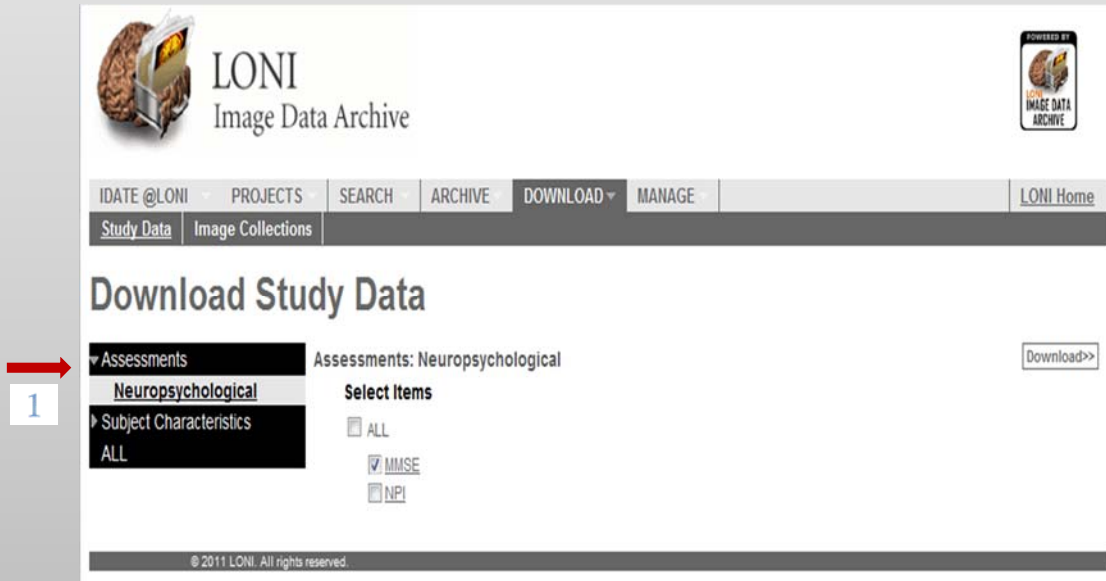
F – MANAGE

The MANAGE menu allows project leaders and users with higher access levels to manage projects, edit metadata, delete data, perform image quality control, view project summaries and manage other users. **Note**: not all options are available to all projects/users.
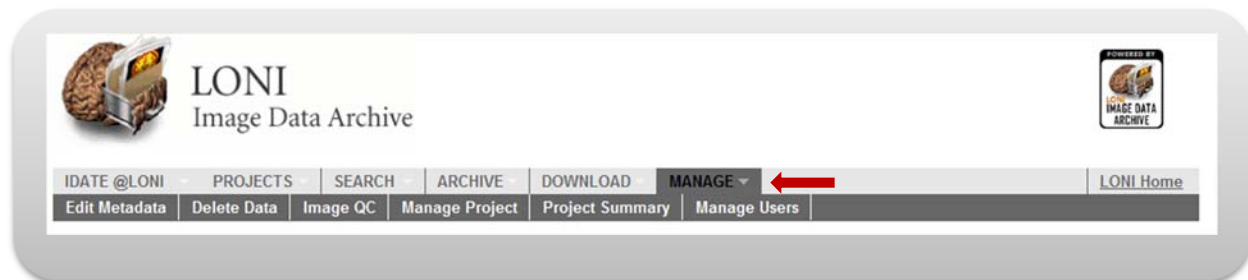
EDIT METADATA

The Edit Metadata submenu allows authorized users to add or modify subject-related information such as sex, age and weight.

> ➤ Click Edit Metadata on the Manage menu.
> ➤ Search for a specific subject in a particular site by providing Subject ID and Site Name then click SEARCH.

Click UPDATE beside the subject to be edited.

Change the desired information then click UPDATE.

Notes:

➤ Items grayed out cannot be changed.
➤ Project specific Information may need to be entered for each new subject.

The Updated Results page displays the edited record information.

DELETE DATA

Use the Delete submenu to permanently remove an image, study, series or subject from the archive. There is a delay time of approximately seven days from when the user deletes an image until it is permanently removed from the archive. **Note**: only users with higher access levels are permitted to delete data.

Click DELETE DATA on the MANAGE menu.

Provide a subject ID, a study date and/or series description on the Search tab and click SEARCH.

Enter your selection criteria using the form below:

SUBJECT INFORMATION

You may use the wild card character in the Subject ID & Series Description. For example, enter UCLA* to search for all Subject IDs beginning with UCLA.

Subject ID: UCLA_0001   Study Date: Equals ▾

Image Type: ☑ Original ☑ Processed ☑ Post-processed   Series Description:

RESET   SEARCH ←

- ➢ To delete an individual image, check the checkbox beside SERIES DESCRIPTION (1) column.
- ➢ Alternatively, check the STUDY (2) box to delete all images within a study.
- ➢ PROCEED TO DELELETE 1 IMAGE (3).

(1 of 1) < prev 1 next >   Proceed to delete 1 image

Subject	Research Group	Sex	Scan Date	Visit	Age	Study	Modality	Image Type	Series Description	Series
UCLA_0001	Control	F	8/04/1997		21	☐	MRI	Original	Head,Sag,2D,Spin Echo,EDR, GR	☑
								Original	Long TE FSE 1	☐
								Original	Long TE FSE 2	☐
								Original	Short TE FSE 2	☐

- ➢ Provide a reason on the REASON FOR DELETION box (1).

- ➢ Click COPY TO ALL (2) if the reason for deletion is the same for all files .

- ➢ Click DELETE IMAGES (3)

The images listed below have been selected for deletion.
You must supply a reason for each selection you delete.

Delete Images

Remove Selection   Copy To All Type Reason Here

Select All ☑	Subject	Research Group	Sex	Scan Date	Visit	Age	Modality	Image Type	Series Description	Reason For Deletion
☑	UCLA_0001	Control	F	8/04/1997		21	MRI	Original	Head,Sag,2D,Spin Echo,EDR, GR	Type reason here

- ➢ To remove the image from the delete list, click REMOVE SELECTION (4).

> Click PRINT OUT THE RECEIPT to print a copy of the deletion list for your records.

PROJECT SUMMARY

The Project Summary submenu is a multi-layered environment which allows authorized users to view the project upload and download summary information. Summaries can be exported as CSV files into Excel spreadsheets.

Project Management Summary requires Flash player to display charts. Tables in Project Management Summary are viewable without a Flash player.

Select a project from the Project menu, click Manage then PROJECT SUMMARY. There are three sub-sections: Upload Summary, Download Summary, and Upload Listings.

Use the UPLOAD LISTINGS (shown below) or DOWNLOAD SUMMARY tabs to view statistics on archived files, or downloaded data, respectively.

> Specify a date range (1) and click Refresh (2).
> To download this data, select Export CSV (3).

Click the **UPLOAD SUMMARY** tab to view a breakdown of images by Modality (MRI, PET, DTI, etc.), Image Type (original or processed), or Image Status (available, User Quarantine, Failed QC).

➤ Select the checkboxes above the pie charts to view individual or combined breakdowns. At least one category must be selected. For example, the interface below displays the quantity of differing image modality types collected over time.

MANAGE USERS

The Manage Users submenu allows project leaders to manage permissions for team members and associated collaborators.

Users must register for an account before they can be granted access to a project. Refer User Registration (page 5) for information on how to create an account.

Grant New User Access

> ➢ Select a project from the PROJECTS menu.
> ➢ Click MANAGE USERS on the Manage menu.
> ➢ Enter the user's email in the text box(1)
> ➢ Click FIND (2)

User access is determined by the combination of site and access level. Modify an existing user's access level by clicking on the edit button, or to add a new user access, enter the user's email address in the New User Access section below.

NEW USER ACCESS					
Enter user's email:				FIND	

MODIFY USER ACCESS					
User	User Email	Site	Access Level	Last Login	Action

> ➢ Choose a site in the DEFINE USER ACCESS section (1).
> ➢ Select the user access level (2):
>
> - Manager: permission to search, view, download and archive data; edit metadata; delete images and manage user access.
> - Leader: permission to search, view, download, and archive data; as well as edit metadata.
> - Member: permission to search, view, download and archive data.
> - Guest: permission to search, view and download data.
>
> ➢ Click UPDATE (3).

Select the new user's site and access level from the drop-down lists and click Update, or click Cancel to return to the previous page.

DEFINE USER ACCESS			
User	User Email	Site	Access Level
User	user@loni.ucla.edu	Project-Wide ▾ 1	DBA ▾ 2
	CANCEL	UPDATE 3	Guest / Member / Leader / Manager / DBA

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> ➢ To repeat the process for another project, choose a different project from SELECT NEW PROJECT.

Change Existing User Access

> ➢ Click the MANAGE USERS submenu from the MANAGE menu.
> ➢ Click either EDIT or REMOVE beside the user whose access level is to be modified.
> ➢ Select SITE and/or ACCESS LEVEL from the drop down boxes.
> ➢ Click UPDATE.

G - GLOSSARY

Advanced Search:
Advanced Search allows users to search with a combination of subject, study, and image descriptors. Users can search several modalities simultaneously and save search results.

Archiving:
The storage of image data and metadata descriptors for future retrieval.

Batch archive:
Uploading data from multiple subjects simultaneously. Batches may be of different file formats and modalities.

Collections:
An image or group of images selected from the results of a Simple or Advanced Search and given a meaningful description (collection name).

Delete:
Removing image files from the archive.

De-identification:
Removal or replacement of certain image header contents to protect the identity of the subject.

DICOM:
Digital Imaging and Communication in Medicine.

DTI:
Diffusion Tensor Imaging.

Edit Metadata:
Modifying information such as sex, age, and weight, as well as other project-specific attributes.

Files with TYPE 1/comprehensive headers:
File formats: DICOM, GE, Philips, HRRT and ECAT.

Files with TYPE 2/ limited headers:
File formats: Analyze, MINC.

FMRI:
Functional Magnetic Resonance Imaging.

Image metadata:
Information contained in the image header describing the subject and image.

MINC:
Medical Imaging NetCFD.

MRA:
Magnetic Resonance Angiography.

MRI
Magnetic Resonance Imaging.

NIfTI:
Neuroimaging Informatics Technology Initiative.

Original data:
Raw image files not pre- or post-processed.

PET:
Positron Emission Tomography.

Processed data:
Image data files transformed or modified from their original form, i.e., registered, warped or corrected data.

Series description:
An identifier (name) given to a data set.

Sequence name:
Same as series description.

Simple Search:
Searches based on a limited set of criteria such as subject ID, research group, sex, age, weight, modality, series description.

Single archive:
Upload of data for one subject at a time. File headers must be of the same type for upload (all TYPE 1 or TYPE 2).

Source directory:
Directory or folder containing files to be de-identified. Contains single format, single subject image files only.

Study:
One or more files from the same subject acquired on the same visit and scanner.

Target directory:
The Target Directory can be an existing folder or a new directory. A temporary location to contain de-identified files, information and a copy of the logs of the upload process.

Validation:
The process of verifying results of de-identification, and removing images which are not to be uploaded. The validation button appears only with the Single Archive process.

XML:
Extensible Markup Language. A language framework created in 1996 by the W3C to allow structured information to be shared and stored on the internet in an easily readable text format.

H - APPENDIX

XML FILES

When an image file is downloaded, an XML file containing metadata describing the subject and other information is placed in the root of the download directory. For processed data, the file also includes processing provenance. The contents of the XML file vary depending on project.

XML file example:

```
<?xml version="1.0" encoding="UTF-8" ?>
-<idaxs xmlns="http://loni.usc.edu/ida/idaxs/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="/XSDS/IDAXS_2_0.XSD">
- <project xmlns="">
<projectIdentifier>ICBM</projectIdentifier>
<projectDescription>International Consortium for Brain Mapping</projectDescription>
<siteKey>004</siteKey>
- <subject>
<subjectIdentifier>USC_0004</subjectIdentifier>
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TYPE 2 FILES ARCHIVING INSTRUCTIONS (Analyze, MINC).
Please contact DBA@LONI.USC.EDU for other file formats.

➢ On the Archive and Review tab, choose SINGLE archive.

➢ Provide subject identification, select Source and Target Directories.

Select a modality from the drop-down list.

Provide the study information and click SUBMIT DATA.

DEFINE A NEW STUDY:

Study Date	2011-07-12	YYYY-MM-DD
Subject Age	22	Years
Subject Weight	120	kg
Post Mortem	No	

CANCEL   SUBMIT DATA ⬅

➢ Provide the Image Metadata information.

➢ To save the information provided for reusing at a later date, click SAVE PROTOCOL(1)

➢ Click SUBMIT DATA (2).

REQUIRED INFORMATION: SAVE PROTOCOL ⬅ 1

Sequence Name	MPRAGE	
Weighting	Select Value	Select Other to type in.
Slice Thickness mm	Select Value	Select Other to type in.
Acquisition Plane	Select Value	
Matrix X pixels	Select Value	Select Other to type in.
Matrix Y pixels	Select Value	Select Other to type in.
Matrix Z	Select Value	Select Other to type in.
Pixel Spacing X mm	Select Value	Select Other to type in.
Pixel Spacing Y mm	Select Value	Select Other to type in.
Manufacturer	Select Value	Select Other to type in.
Mfg Model	Select Value	Select Other to type in.
Field Strength tesla	Select Value	Select Other to type in.

MR ACQUISITION:

Acquisition Type	Select Value	
Pulse Sequence	Select Value	Select Other to type in.
TE ms	Select Value	Select Other to type in.
TR ms	Select Value	Select Other to type in.
TI ms	Select Value	Select Other to type in.
Coil	Select Value	Select Other to type in.
Interslice Spacing mm	Select Value	Select Other to type in.
Flip Angle degree	Select Value	Select Other to type in.

CANCEL   SUBMIT DATA ⬅ 2

On the Verify & Submit Data screen, click SUBMIT to archive the de-identified images or DISCARD to cancel the upload and return to the previous page.

DETAILS:

> ➤ If the subject has other studies already archived, a list of previously archived images and their dates appears. Click Select for the desired study.
> ➤ Study information must be provided only if an existing study is not selected.
> ➤ For Analyze and MINC, source files can be in a shared directory.
> ➤ Image protocol information must be provided for each image series.
> ➤ For 3-D images: if archiving multiple files in the same source directory, use batch archive and select specific image files rather than subdirectories.