Appendix 6: Data Transfer to LONI

Uploading MRI data to the Laboratory of Neuro Imaging (LONI)

Image Data Archive Instructions

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A - IMAGE DATA ARCHIVE OVERVIEW

The LONI Image Data Archive (IDA) provides an integrated environment for safely archiving, querying and visualizing neuroimaging data utilizing a web-browser interface. The archive protects data from unauthorized access while providing the ability to share data among collaborative investigators.

For questions or problems with the IDA please send e-mail to adni@loni.ucla.edu

B - SYSTEM REQUIREMENTS

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

C - USER REGISTRATION

1. Click "Click here to create an account" on the Image Data Archive Sign-In page. https://ida.loni.ucla.edu

2. Complete the Create New Account form then press the Register button. A temporary password will be sent to your email address.
D – IDA LOG IN

From the home page https://ida.loni.ucla.edu/login.jsp?project=ADNI, enter your e-mail address and password, then click the Sign-In button. New users, please refer to the user registration section for instructions on how to register for a user account.

1. On the Sign-in page, enter your e-mail address and password.

2. Click Sign-In.
E – ARCHIVE PROCESS OVERVIEW

The two steps that comprise the image archive process are de-identification and file transmission. The image files are de-identified at the user’s local workstation, in accordance with HIPAA regulations and ensuring that no identifiable subject information crosses the network. Then, the de-identified files are securely transmitted to LONI and stored in the data archive.

SYSTEM REQUIREMENTS

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

PROCESS

Following user authentication, the user chooses the data to be archived by selecting the directory where the data are located and chooses a directory where the de-identified files will be written. Next, a Java applet de-identifies the files, inserting the user-supplied subject identifier and removing or replacing other potentially identifying information. The user is given the opportunity to validate the de-identification results, prior to transmitting the images. Once the results of the de-identification process have been validated, the files are transmitted from the user’s local computer to LONI. Upon arrival at LONI, the data are stored in a fault-tolerant storage area network and the database is populated with relevant metadata attributes.

The archive log in page is available from IDA Home page https://ida.loni.ucla.edu/login.jsp?project=ADNI. Enter your e-mail address and password then click the Sign-In button. New users, please refer to the user registration section for instructions on how to register as a user.

On the IDA Menu page, click the Archive Files button to upload images to the data archive.
The Archive and Review page is the starting point for uploading new images. The bottom portion of the page lists the last images uploaded by the user.

REQUIREMENTS:

- All image files for each subject must be within a single directory tree, which may contain subdirectories.
- The source directory must not contain multiple image formats.
- An empty directory for holding the de-identified files.

DEFINITIONS

- The **Source Directory** is where the original files are located.
- The **Target Directory** is an empty directory, where the new, de-identified files will be written.

NOTES

- The browser window must remain open during the entire upload process.
- Closing the browser window will cancel the upload.
- Compressing files will speed the upload process for computers with slower connections.
- Files being uploaded will not be modified (lossless compression).

On the “Archive and Review” page, select your **Project/Site** from the drop down menu and click the "**Single Archive**" button. Do not open multiple IDA browser windows when archiving data.
Step 1:
Complete the required information on the De-Identify page then click the **Continue** button.

1. Select the data type: choose **Original**.
2. Select the **Research Group** from the drop-down menu.
3. Select the **Visit** type from the visit drop-down menu.
4. Provide a **Subject ID**.
5. Click **Source Directory Browse**. The Select Source file Directory window will open. Find the directories that contain files to be uploaded or fill in the directory path. Click **Select Source File Directory**.
6. Click Target Directory **Browse** button to select a directory to contain the de-identified files. A new target directory may be created by clicking the folder icon, as shown below. The target directory for holding the de-identified files must be empty.

   ![Select De-Identified File Directory]

   1. **Look In:**
   2. **File Name:** C:\\man1\anom2\anom1
   3. **Files of Type:** All Directories

   Click **Select De-Identified File Directory**

7. To upload files without validating de-identification results and upload all series without further interaction, check the **Bypass validation steps** box (Not recommended for first time users.)

   Click **Continue** to begin the de-identification process
Step 2:

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

After reviewing the metadata click **Submit** to transmit the de-identified images.

To remove any images, uncheck the **Selected** box beside the image sequence.

The **Compress files before transmitting** checkbox is automatically checked.

Compressing files will speed the upload process.

Clicking **Discard** will cancel the upload and return to the previous page.
Step 3:
The progress bar will show the progress of the upload process. When the transmission is complete choose to Archive More files, Review Uploaded Files, or Log Out.

G. ARCHIVING DATA IN BATCH

The Batch Archive process is similar to Single Archive, except that multiple subjects and image series can be added to the queue and submitted in a batch. The Batch Archive can be used to de-identify and archive files from multiple acquisitions and/or subjects. Batches may be of the same or different file formats and modalities. The advantage of archiving images in batch is the possibility to upload several images simultaneously. However, the batch option does not allow the user to review results of the de-identification process prior to the upload.

**BATCH ARCHIVE INSTRUCTIONS**
On the “Archive and Review” page, select your Project/Site from the drop down menu and click the “Batch Archive” button. Do not open multiple IDA browser windows when archiving data.
Complete the required information on the De-Identify page then click the **Continue** button.

On the Batch Queue page, click the **Add More** button to add more studies. Repeat this process for each study or subject to be archived. Click **Remove** to remove from the queue images that should not be archived.

When all desired images are added to the queue, click **Submit** to de-identify and upload all files.
No further interaction is necessary until the process is completed and the browser returns to the Image Database Batch Queue page with a listing of recently archived files and their statuses.

Check the Status column to verify if the file(s) were successfully archived as below.

Click Clear to return to the Archive and Review page.