

The NEVP project has made arrangements to store images on iPlant's cloud-based iRODS Data Store (<http://www.iplantcollaborative.org/discover/data-store>). The iPlant Data Store provides basic digital preservation services, parallel upload functionality, an image service (through BISQUE - http://bovary.iplantcollaborative.org/image_service) whereby image derivatives can be generated on the fly, and many other features.

We will be using an application called iDrop to upload images to iPlant. iDrop is an iRODS Java applet that allows one to manage data files and folders. iDrop allows one to upload and download files from your local computer to the NEVP iPlant iRODS Data Store repository, and to copy and move files and folders from the iPlant repository to your local computer, as well as delete and view items in the repository.


Obtain an iPlant account:

- To obtain an iPlant account(s) visit <https://user.iplantcollaborative.org/register/>.
- To activate your BISQUE account(s) goto <http://bovary.iplantcollaborative.org/> and login using your iPlant credentials.
- Email patrick.sweeney@yale.edu the first and last name(s) of the user(s) who created iPlant accounts at your institution. This will allow your institution's NEVP folder to be shared with your institution's iPlant users.

Downloading and installing iDrop:

- Ideally, the computer that you use to connect to iPlant should have a wired internet connection with the fastest possible bandwidth available in your work area.
- To run iDrop, Java 7 must be installed on your computer:
<http://www.java.com/en/download/installed.jsp?detect=jre&try=1>. We have tested iDrop on Mac OS 10.8, Windows XP, 7, & 8.
- Download the iDrop application:
 - https://code.renci.org/gf/project/irodsidrop/frs/?action=FrsReleaseView&release_id=223
 - click the "Files" tab
 - choose the version corresponding to your operating system.
 - install iDrop using the installer application



Configuring iDrop:



- Open iDrop by double-clicking the iDrop Transfer Manager icon. The first time you open iDrop, you will be prompted to create a pass phrase. Choose whatever pass phrase you want, and don't forget it.
- Next, add a connection by clicking the add connection icon  and supplying the following information:

Field	Specifics
Host/Server	data.iplantcollaborative.org
Port	1247
Zone	iplant
irodsUserName	<myiplantusername>
irodsPassword	<myiplantpassword>

Leave the other fields blank or as default values.

Using iDrop:

- Open iDrop.
- Provide your pass phrase, if prompted.
- From the list of accounts, click the data.iplantcollaborative.org account and then click the login icon .
- If not presented with a window, click green check mark in menu or task bar and select iDrop.
- The left hand panel of the iDrop interface shows the directory tree on your local computer. Navigate to the directory containing folders of images to be uploaded.
- The right-hand panel shows the directory tree on iPlant. Navigate to your institution's folder in the shared NEVP directory.
 - Click the Tree icon  (wait ca. 40 seconds)
 - In the text field at the top of the window, type "/iplant/home/shared/NEVP" and press enter.
 - Click your institution directory - named with your institution's collection code.
- To copy files:
 - Batches of images ready for export should be placed into folders named as the date the images were bundled for export (e.g., "2013-11-06"). If there are two folders for a particular date consider appending each file name with a timestamp (e.g., "2013-11-06-091945").
 - Drag the folder of images to be copied to your institution directory (drop on folder icon). If there are hundreds of files, the transfer will take some time. Consider beginning the transfer at the end of the day and letting it run over night.
- After files are copied:
 - Click the source folder of images on the local computer and click the corresponding destination folder on iPlant.

- Click the Tools icon .
- Run the Diff tool by clicking the Diff icon . This will evaluate if the local and remote files have the same names, sizes, and checksum values. This may take a while, and a progress bar is not provided. When complete a Diff View window will appear.
- In Diff Result View report:
 - If the source and destination folders are identical:
 - only the folder name will appear in the report, and the upload was successful
 - you can delete the source folder from the local computer
 - if your institution has the infrastructure to store your images, consider storing a set of images locally
 - If there are any discrepancies between files in the local and remote folders:
 - This should happen rarely. If it happens frequently, report it to iPlant support (<http://www.iplantcollaborative.org/forms/support>) and to patrick.sweeney@yale.edu.
 - The number of differences will be reported followed by a list of the differences
 - if a local file and remote file are different, the result will be the file name followed by “FILE_OUT_OF_SYNC”.
 - if a local file failed to upload, the result will be the local file name followed by “LEFT_HAND_PLUS”.
 - If an entire folder of images failed to upload or is corrupted, repeat the entire upload process.
 - If a subset of files failed to upload or are corrupted on iPlant, delete the corrupted files on iPlant and copy them over again by dragging and dropping the individual files from the local computer to iPlant.
- To quit the application:
 - On OS X, click “iDrop Transfer Manager” in the menu bar and choose “Quit iDrop Transfer Manager”
 - On Windows, quit the application by clicking the appropriate icon in the task bar. Do not quit the program by clicking the close window icon (x); this will only close the window and will not close the program.
- Purging the queue
 - Periodically the data transfer queue should be purged.
 - Click the Queue icon.
 - Click "Purge All" or "Purge Successful".

iPlant iDrop page:

<https://pods.iplantcollaborative.org/wiki/display/start/Using+iDrop+Desktop>. Note that the version of iDrop featured in the iPlant instructions is slightly different than the one specified above.

To view your institution's images via the BISQUE web client:

- Visit <http://bovary.iplantcollaborative.org/>.
- Sign in with your iPlant credentials.
- Click the images tab or the images menu item.
- View this page for more instructions on using the web client:
http://bovary.iplantcollaborative.org/client_service/help.