

## **SERNEC iDrop instructions**

The SERNEC 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](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. This includes both .jpeg and .dng file types. The iDrop application is an iRODS Java applet that allows one to manage data files and folders locally. iDrop allows you to upload and download files from your local computer to the SERNEC iPlant 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.

Below are the steps needed to set up this service.

### **1. Each collection must obtain an iPlant account. To obtain an account:**

- Visit <https://user.iplantcollaborative.org/register/>. Please ensure that you request access to Bisque as part of this step.
- To activate your BISQUE account(s) go to <http://bovary.iplantcollaborative.org/> and login using the iPlant credentials you just generated from the previous step.
- Email Michael Denslow ([michael.denslow@gmail.com](mailto:michael.denslow@gmail.com)) the first and last name(s) of the user(s) who created iPlant accounts at your institution. This will allow your institution's SERNEC folder to be shared with your institution's iPlant users. This is where you can upload your images and access them as needed. You will not be able to upload images until this step has been completed.
- If you are loading images for a collection besides your own, then it is important that you have a separate iPlant directory for each collection. There is no limit to how many iPlant directories you can manage. These folders need to be generated by the Administrator of the SERNEC iPlant account.

### **2. Downloading and installing iDrop:**

- 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. [need to verify this MD is using 10.6.8, Java version "1.6.0\_65", the below only works with 10.7 or higher]
- Download the iDrop application by going to [www.iplantcollaborative.org](http://www.iplantcollaborative.org), click "Get Started" under Learning Center at the bottom of the homepage. Clicking on "Import Data" should take you here: <http://www.iplantcollaborative.org/learning-center/get-started/import-data>. This is the iDrop download page. Select and download the version appropriate for your operating system.

- This documentation was written using iDrop 2.0.1. Be sure to select the version appropriate for your operating system.
- Open the installer and follow the instructions to install iDrop according to your personal preferences.

### 3. 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.
- Enter your user name and password when prompted.
- You will need to make sure that the connection to the iPlant server is correctly configured. In the Mac version you can see this information along the bottom of the GUI window. To verify this click on the Grids icon, then highlight the first item in the list and click the Pencil icon (Edit the selected grid). It should be filled out as follows:

<b>Field</b>	<b>Values</b>
<i>Host:</i>	data.iplantcollaborative.org
<i>Port:</i>	1247
<i>Zone:</i>	iplant
<i>User:</i>	[your iPlant username]
<i>Password:</i>	[your iPlant password]
<i>Confirm Password:</i>	[your iPlant password]
<i>Default Resource:</i>	[must be left blank]

Leave any other fields can be left as default.

### Using iDrop:

- Open iDrop.
- Provide your pass phrase and/or log in and password, if prompted.
- 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 servec directory.
  - Click on the Tree icon
  - You should navigate directly to the servec directory by typing "/iplant/home/shared/servec" in the text field at the top of the window, type and press enter. Note that it can take some time for the directories to appear if you click on the names in the lower screen.
  - Click your institution directory - named with your institution's collection code (e.g., BOON).
  - If you load images for more than one collection, remember to select the directory that you are loading images for in each session.
- Copying 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”). **Note that spaces in directory names should be avoided.** If there are two folders for a particular date consider appending each folder name with a timestamp in hhmms format (e.g., “2013-11-06-091945”).
- Drag the folder of images to be copied to your institution directory (drop on folder icon). You will be prompted to verify the transfer. If everything looks correct, click Yes. 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.
  - Click the Diff icon when the window pops up.
  - 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. You will know that it is complete when the Diff View window appears.
    - If the source and destination folders are identical then only the folder name will appear in the report. You can also highlight the folder to see a brief report which should state that “No diffs detected at this directory.” Your upload to the iPlant servers was successful and you can now delete the source folder from your local computer. If your institution has the infrastructure to store your images, consider storing a set of images locally.
    - If there any there are any discrepancies between files in the local and remote folders you will see the folder name as well as some red text below it. **This should be a rare occurrence.** The report will indicate where the differences are between the local directory and the server. 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.
    - If any of these errors happen frequently, report it to michael.denslow@gmail.com.
- 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. In Windows 7 you may need to do this from Windows Task Manager under processes.
  - 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"

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

- This step is not required, but remember that you must log into BISQUE at least once to activate your account there.
- Go to <http://bovary.iplantcollaborative.org/>.
- Sign in with your iPlant credentials.
- Click the images tab or the images menu item. Note that BISQUE does not have a directory structure.

**To view your institution's images via the iPlant Discovery Environment (Data Store):**

- This step is not required.
- Go to <https://de.iplantcollaborative.org/>.
- Sign in with your iPlant credentials.
- In the Navigation panel on the left side, look for Community Data and click on it.
- Once it expands look for sernec folder. Your folder will be located there.

**Additional Resources:**

More information and instructions on using the BISQUE web client can be found here:  
[http://bovary.iplantcollaborative.org/client\\_service/help](http://bovary.iplantcollaborative.org/client_service/help)

More information and instruction on using the iPlant iDrop application can be found here:  
<https://pods.iplantcollaborative.org/wiki/display/DS/Using+iDrop+Desktop>. Note that the version of iDrop featured in the iPlant instructions is different than the one specified above.

This document is a modified version of the New England Vascular Plant – TCN (NEVP) documentation posted here:  
[http://nevp.org/sites/default/files/resources/NEVP\\_iDrop\\_Instructions\\_2014\\_05\\_20.pdf](http://nevp.org/sites/default/files/resources/NEVP_iDrop_Instructions_2014_05_20.pdf)

See also the instructions from iPlant:  
<https://pods.iplantcollaborative.org/wiki/display/DS/Using+iDrop+Desktop>