

## PCC TCN Instructions for setting up and using CyberDuck to upload images to CyVerse (Revised 10/4/2019)

These instructions have three parts.

Part A: Getting set up with CyVerse and Cyberduck (one-time process)

Part B: Uploading your images to CyVerse

Part C: Mapping your image URLs to your specimen records within the Pteridportal

### Part A: Get access to CyVerse and install Cyberduck:

1. Obtain a CyVerse account
  - a. Create a CyVerse account at <https://user.cyverse.org>
  - b. Once your account is set up, request access to the BisQue Image Server: <https://www.cyverse.org/bisque>. You must do this in order for your image to appear online! To check if you have BisQue access, click on the Services tab while you are logged into CyVerse. You should see BisQue listed under My Services.

The screenshot shows the CyVerse user interface. At the top, there is a dark blue navigation bar with the following items: 'SERVICES', 'POWERED BY', 'HELP RESOURCES', 'FORMS', 'WORKSHOPS', a user profile icon for 'akasameyer', and a dropdown arrow. Below the navigation bar, there are two tabs: 'MY SERVICES' (which is selected and highlighted with a blue underline) and 'AVAILABLE'. Under the 'MY SERVICES' tab, there are three service cards. Each card has an icon on the left, the service name, a description, and a 'LAUNCH' button on the right. The services listed are: 1. BisQue: Bio-Image Semantic Query User Environment for the exchange and exploration of image data. 2. Data Commons: A unified system for managing and sharing your data across CyVerse's tools and services. 3. Discovery Environment: Use hundreds of bioinformatics apps and manage data in the CyVerse Data Store from a simple web interface.

If you do not see BisQue listed, click on the Available tab. Find BisQue on the list, and click on the Request Access.

2. The PCC CyVerse Administrator will set up a folder for your institution within the CyVerse PCC\_TCN folder. Send Joyce Gross ([joyceg@berkeley.edu](mailto:joyceg@berkeley.edu)) and Amy Kasameyer ([akasameyer@berkeley.edu](mailto:akasameyer@berkeley.edu)) an email with the following information

- a. The name of the collection for which you will be uploading images
- b. The first and last names and CyVerse account names of the people who created CyVerse accounts at your institution. They will be given the proper permissions to access your CyVerse folder.

Important: If you will be uploading images for multiple collections, each collection will need its own folder within the PCC\_TCN folder

3. We will be using the open source software Cyberduck to upload images to CyVerse. For more information about Cyberduck and CyVerse, see

<https://wiki.cyverse.org/wiki/display/DS/Using+Cyberduck+for+Uploading+and+Downloading+to+the+Data+Store>

- a. To install Cyberduck, download the software from <https://cyberduck.io/> and follow the instructions for the installer.
- b. Once it is installed, open Cyberduck
- c. Now you will need to configure Cyberduck to connect to CyVerse. See step 2 of the instructions at <https://wiki.cyverse.org/wiki/display/DS/Using+Cyberduck+for+Uploading+and+Downloading+to+the+Data+Store> to download the CyVerse Connection Profile
- d. Open the Connection Profile and make the following edits:
  - i. At the top dropdown menu, iPlant Data Store should be displayed
  - ii. In the iPlant username field, enter your username
  - iii. Verify that 1247 is entered in the Port field
  - iv. Enter /iplant/home/shared/pcc\_tcn/XXX in the Path field. XXX is the name of your folder for your collection
  - v. Under Transfer Files, select Open Multiple Connections
  - vi. Close the connection profile window
  - vii. If prompted, enter your CyVerse password. You should now be able to connect to your folder in CyVerse.

Example of connection profile bookmark for UC. Replace UC with your collection folder.

## Part B: Uploading images

**IMPORTANT:** For this project, we are only uploading JPEG images to CyVerse. Please **do not** upload TIFF, DNG, or RAW files to the PCC\_TCN directory on CyVerse. Target size for JPEGs is 4-6 MB.

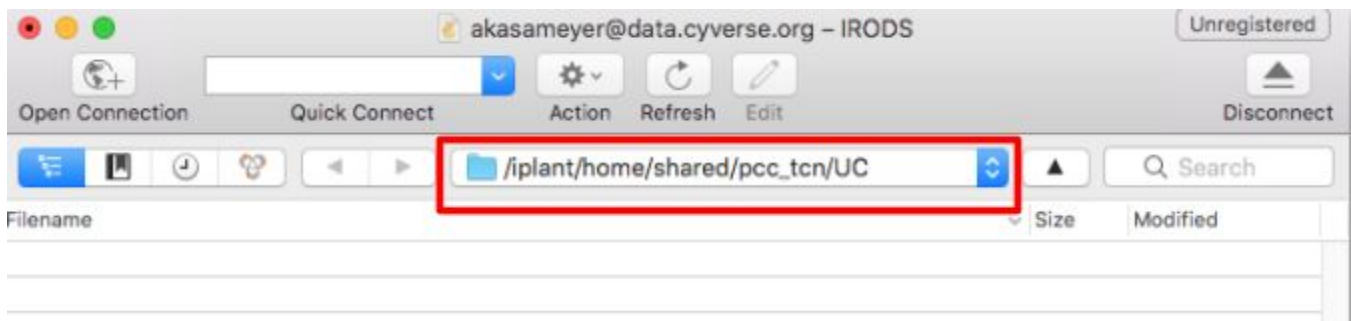
For your first batch, do a test batch of 5 images. Once you have uploaded images and confirmed that they are successfully linked to your records in Symbiota, with Joyce and Amy, you can begin uploading larger batches of images.

### Image uploading tips

- Before uploading, put your images in folders labeled with the date you plan to upload them, (“2019-08-30”). Do not put more than 2000 images in each folder! Uploading larger batches may cause problems.
- Verify that you have access to BisQue (See **Part A**) before uploading images.

- Before you upload your files, verify that the images have the correct orientation. It can be challenging to replace mages in CyVerse, so verify that images are correct the first time.
- Double-check and triple-check that you are uploading the correct images! If an incorrect batch is uploaded, we have to request that CyVerse deletes it.

1. Open Cyberduck.
2. Double click the data.cyverse.org bookmark that you set up in Step 3.
3. Enter your CyVerse password.
4. Once connected, you should be able to see your collection's folder within the PCC\_TCN directory. Always confirm that you are uploading your images to the correct folder! Make sure the correct path to your folder is displayed in the window.



5. Under the Action menu, select Upload.
6. Select your folder of images you wish to upload, and click Upload.
7. When the uploaded has finished (this may take some time), disconnect from the server by clicking on the Disconnect button in the upper right.
8. If desired, verify images in the BisQue image client. You will only be able to see your images on BisQue if you have already logged in to BisQue before uploading to activate your account.
  - a. Go to <https://bisque.cyverse.org> and login with your CyVerse account details if needed.
  - b. Under My recent stuff, click on the Images tab. Here you should see your recently uploaded images.

### Reminders and Tips:

- Store images to be uploaded in batches of **2000 images or less** per folder. You can make as many folders as needed. It is recommended that you use the date of capture or date uploaded for the folder title, in the format YYYY-MM-DD. If you are uploading more than one folder of images per day, append a date stamp or alphabetically suffix to distinguish the folders.
- Please only upload **JPG** files and double check that your files are around 4-6MB in size.

- Please check that your images are rotated correctly and named correctly before uploading to CyVerse. Deleting, moving and renaming files is difficult in CyVerse, so we want to make sure we upload good images the first time.
- Your institution may have limitations on how many files you can upload at once. Do some tests to make sure all of your images are being uploaded.

**Part C: Map the image URLs to specimen records within the Symbiota portal using the iPlant image mapping tools available from the Processing Toolbox.**

**Note:** Test this process out with your first batch of 5 images to confirm everything is configured properly. If the images do not load, contact Joyce and Amy.

**These instructions are for uploading images to the Pteridoportal. If you are uploading images to a different portal, such as SERNEC or the Midwest Herbaria Portal, talk to Joyce and Amy for more instructions**

**For collections with live data in the Pteridoportal:**

1. Login to the Pteridoportal, go the **Control Panel** for your collection, select **Processing Toolbox**, click the **Image Loading** tab. In the **Saved Image Processing Profiles** box, select the **iPlant Image Processing TEST** profile.
2. **Processing Start Date:** The first time you run the Image Loader, the **Last Run Date** will be set to “no run date”. Set the **Processing start date** to the date you first loaded images to CyVerse. If you have a question, contact us. Subsequently, once you run the Image Loader, the **Last Run Date** and the **Processing Start Date** should automatically set to the date the loader was last run. This will ensure that only new images added since you have last run the Image Loader will be mapped.
3. The first time you run the Image Loader, you may need to set up the **Pattern match term**. Joyce and Amy can help you with this if needed. This expression allows your images to be linked to the corresponding records in Symbiota.
4. Click on **Process Images**.
5. Check the log file to confirm that the correct number of images were loaded.