# Constellation; Guide to Downloading Data for Non-ORNL Users

May 6, 2022

Constellation uses a data transfer service called Globus to handle the actual movement of data from one location to another. Those locations might be your personal computer, a hard drive in your lab, or a user facility here at ORNL. Globus calls these data locations “Endpoints”.

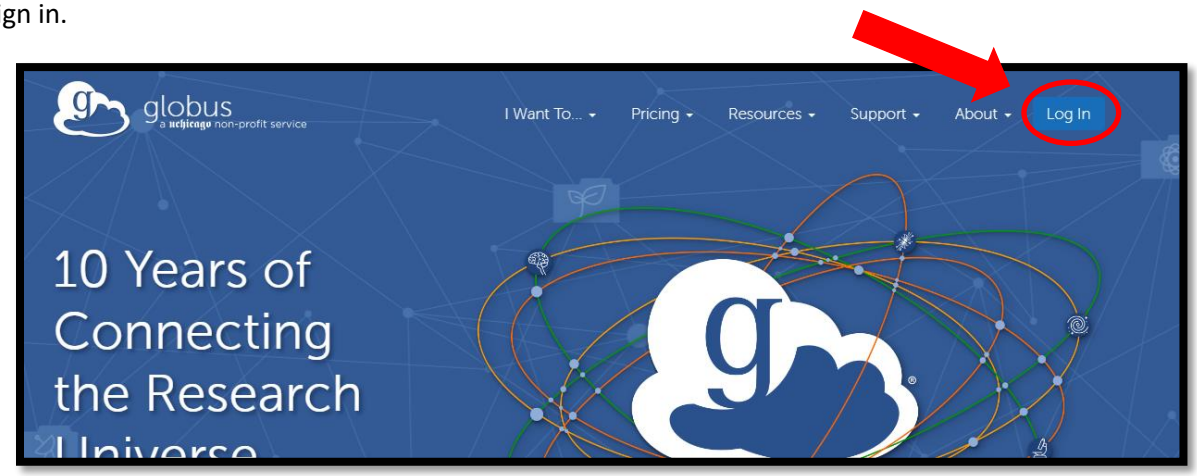
In short, these are the three main things you will need to do to get a DOI for your data:

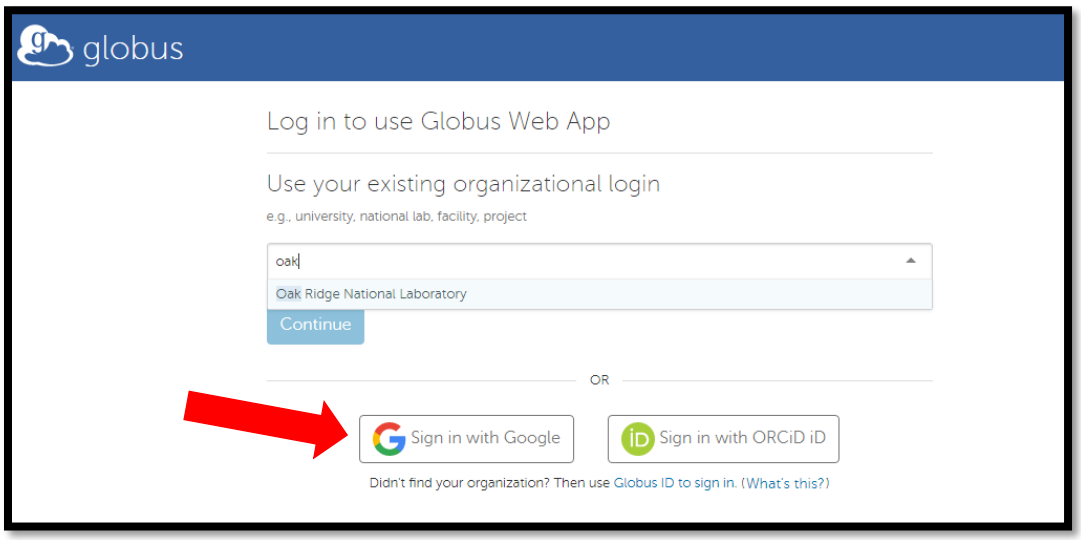
1. Create an account with Globus
2. Establish or Identify a Globus Endpoint
3. Use Constellation to download your desired data

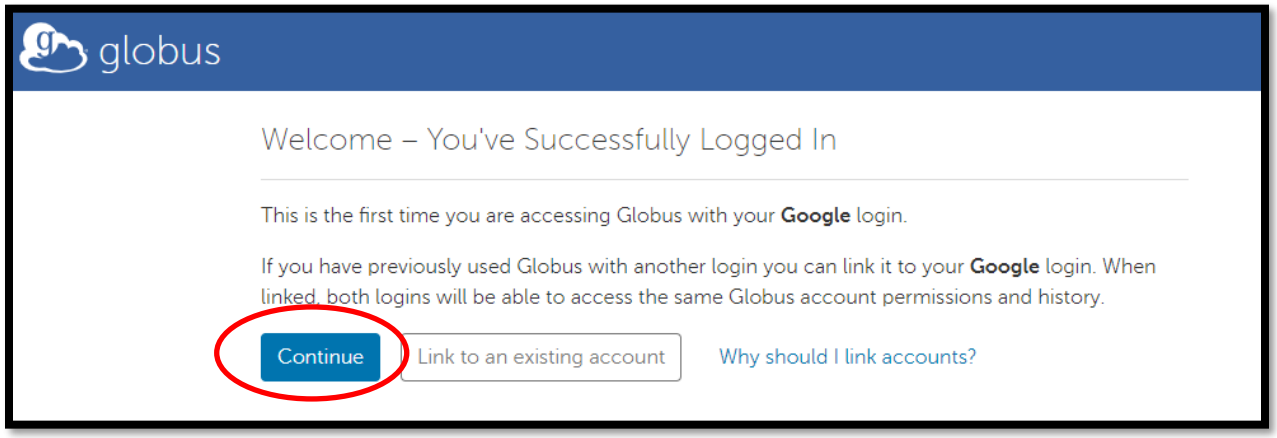
Globus is the tool you will use to move your data files. Constellation will provide the DOI. Endpoints are the link between Constellation and Globus. Please feel free to skip to the relevant section of this guide to address each of these steps in the DOI process.

## Establishing a new Globus account

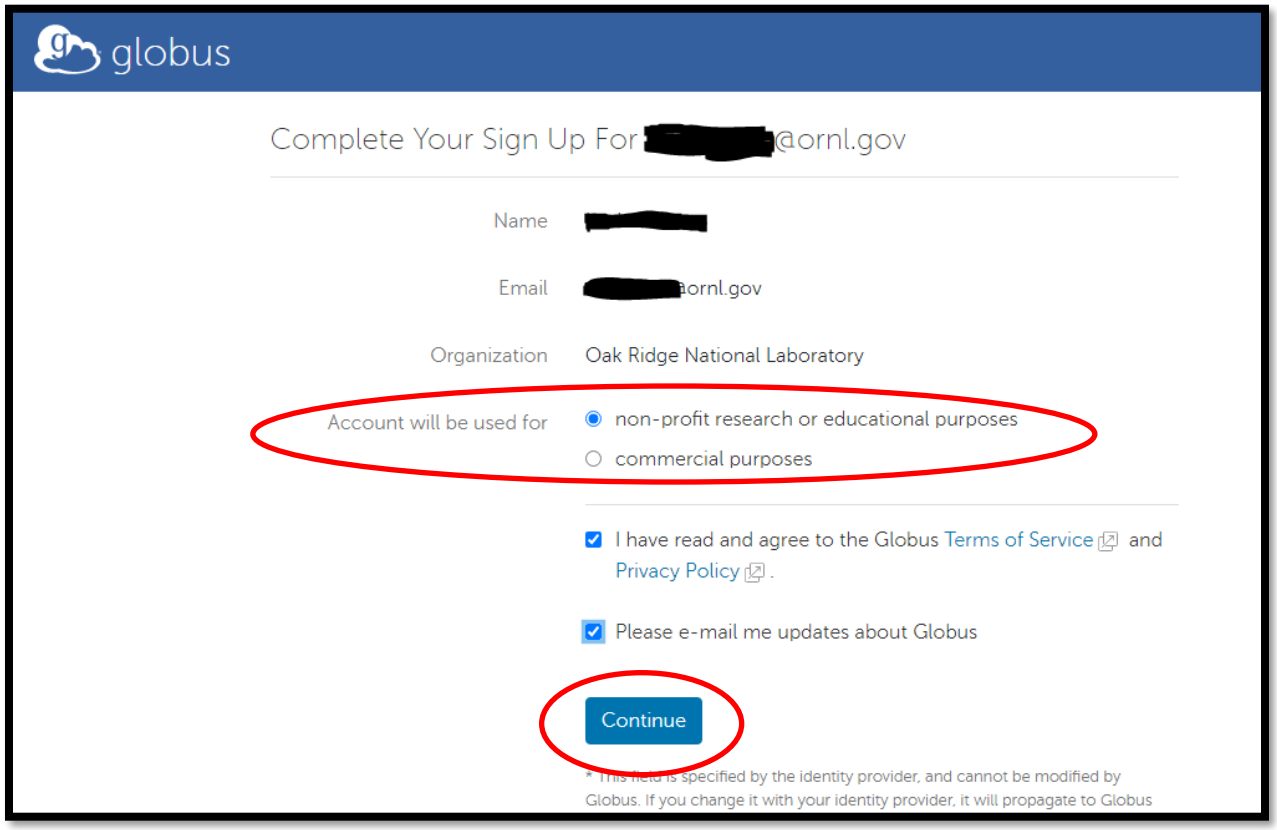
1. You will need an account with Globus to download data from Constellation. You can use a Google or ORCID account to create an account with Globus. If your home institution is recognized by Globus you can also use your institutional account to create one. You can also create a Globus ID and use that to sign in.



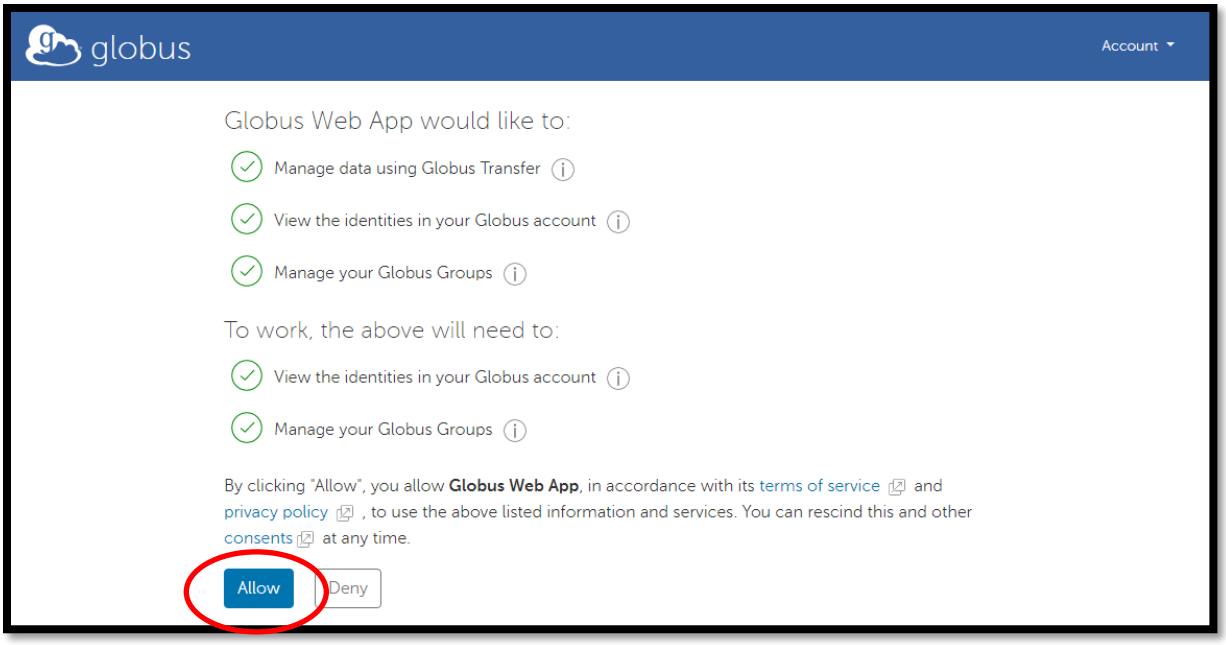





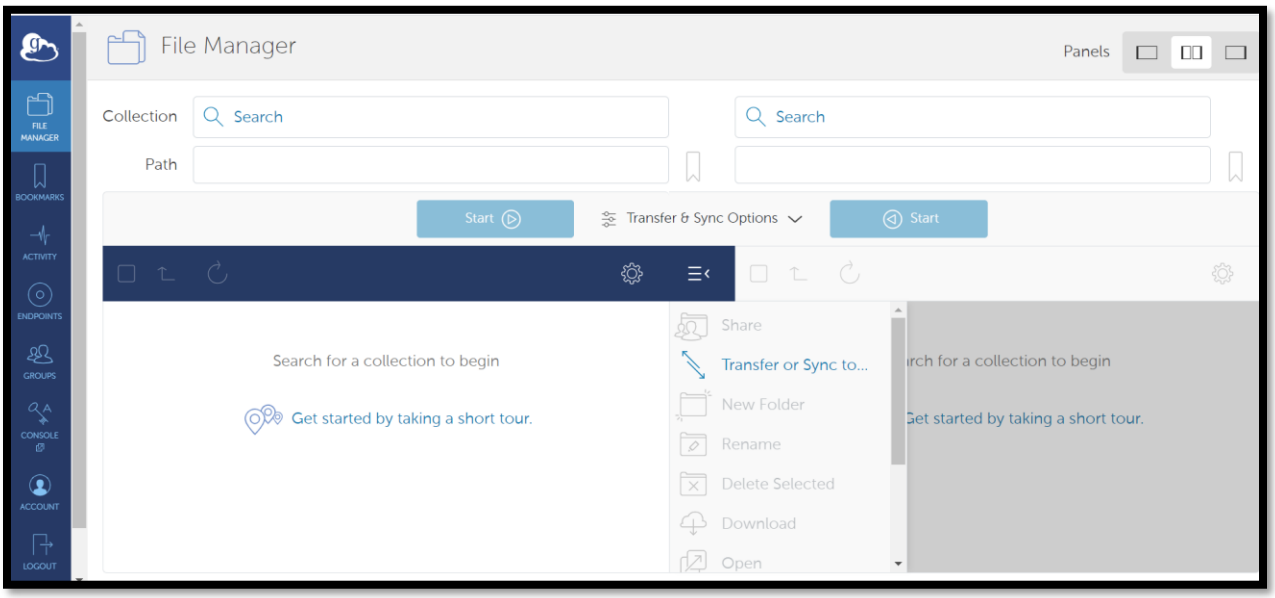

Verify that your email and name are correct, and next to "Account will be used for" select the appropriate answer (most likely "non-profit research or educational purposes"). Check the box to agree to the Terms of Service and Privacy Policy, and if you wish to receive e-mail updates check that box as well. If everything looks appropriate, click "Continue".




On the next screen, you will be presented with permissions to accept to use Globus. Please review and click "Allow".

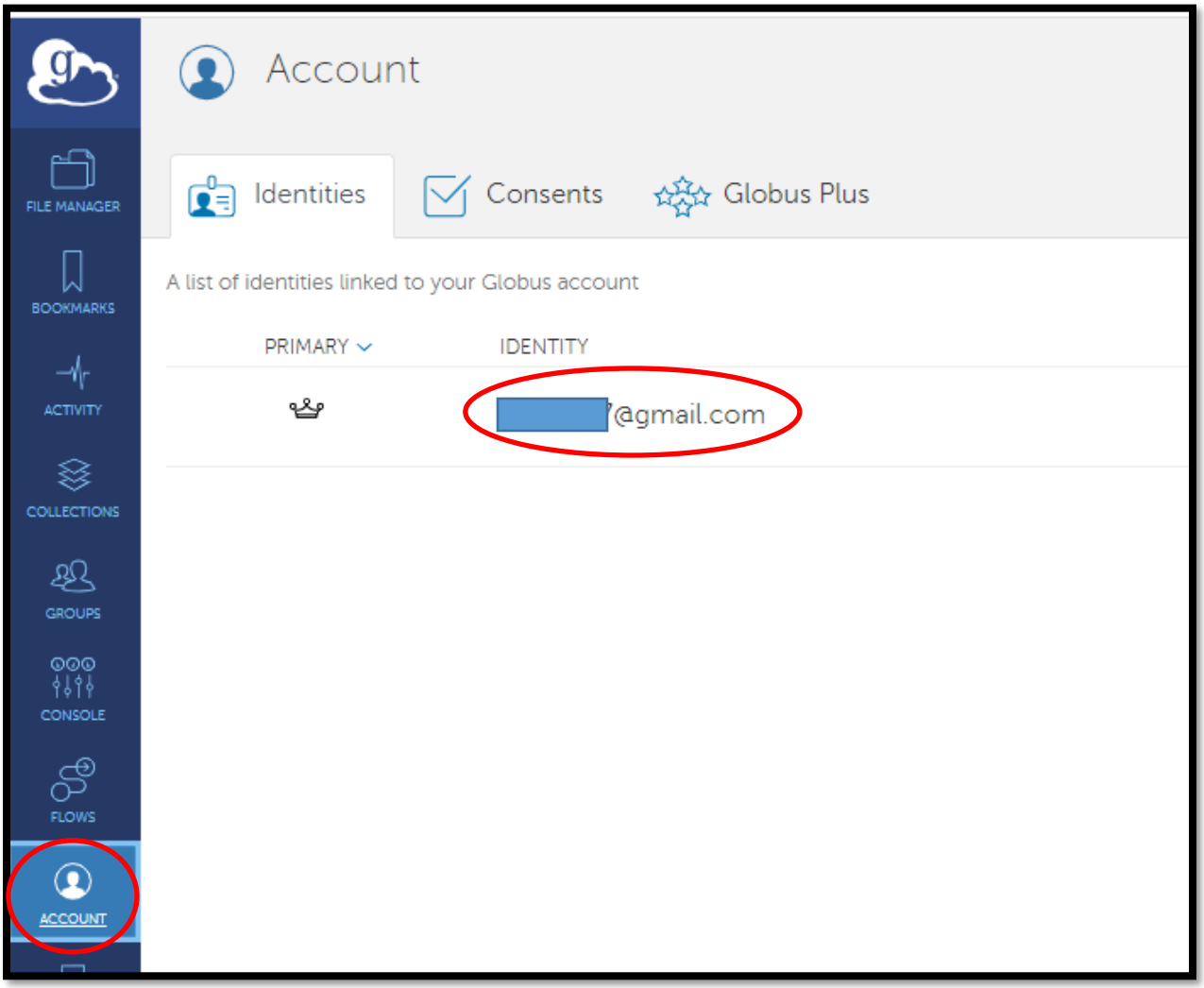



To confirm that you have successfully created your Globus account, you should be viewing a screen that looks like this now:




That's it! Now you have a Globus account.

Here is where you can see your 'official' Globus ID:


Account
FILE MANAGER
BOOKMARKS
ACTIVITY
COLLECTIONS
GROUPS
CONSOLE
FLOWS
ACCOUNT
Identities
Consents
Globus Plus
A list of identities linked to your Globus account
PRIMARY
IDENTITY
@gmail.com

## Setting up an Endpoint in Globus

You will be moving data from a **Source** Globus Endpoint to a **Destination** Endpoint. The **Source** Endpoint when downloading data will be Constellation. The **Destination** Endpoint will likely either be your personal computer or an established Endpoint, which may be in your lab or at a user facility.

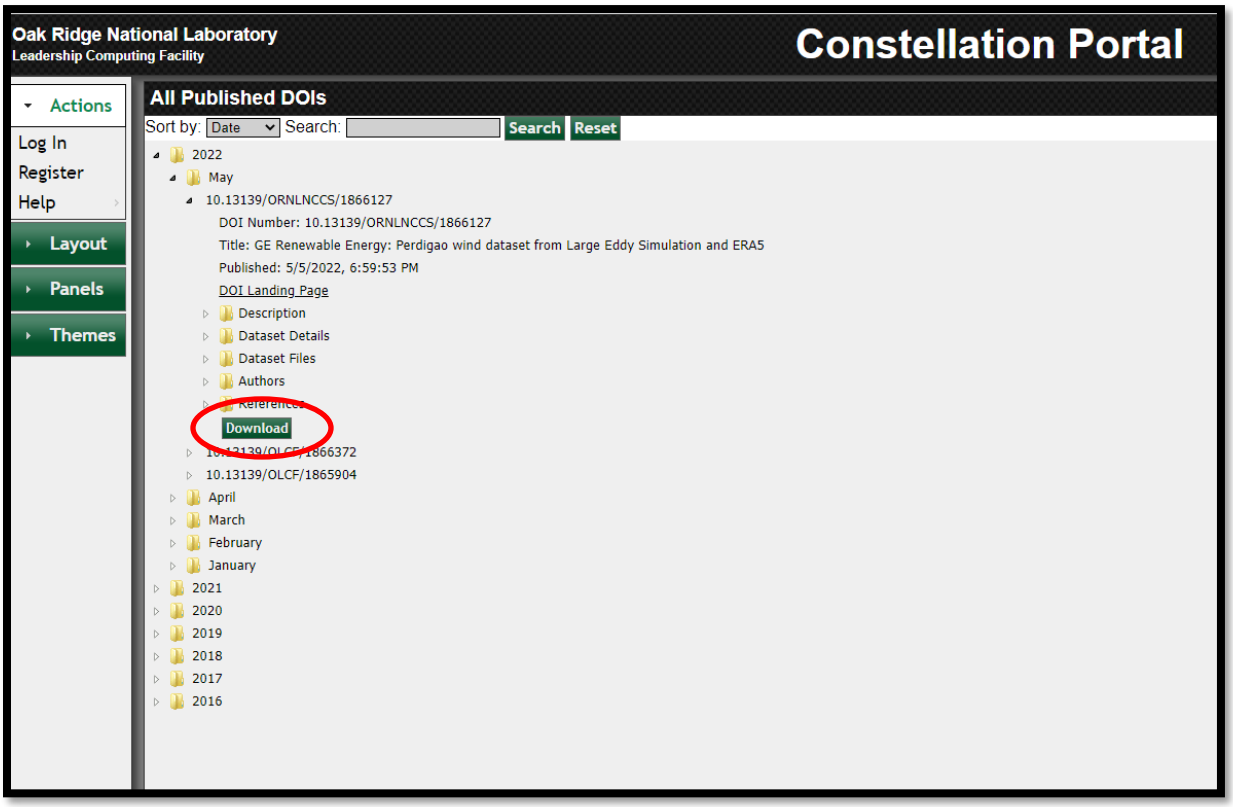
In the case that you want to download Constellation data currently to your personal computer, OLCF has put together a guide for helping users establish their personal computer as a Globus Endpoint. That guide can be found here: https://docs.olcf.ornl.gov/data/transferring.html#using-globus-from-your-local-machine.

If you wish to move Constellation data to a location that is somewhere other than your personal computer, you will need to establish that location as an Endpoint or you will need to move your data to an already-established Endpoint. Once your desired location is recognized as a Globus Endpoint, you will simply need to point your **Destination** Endpoint to your data's location.

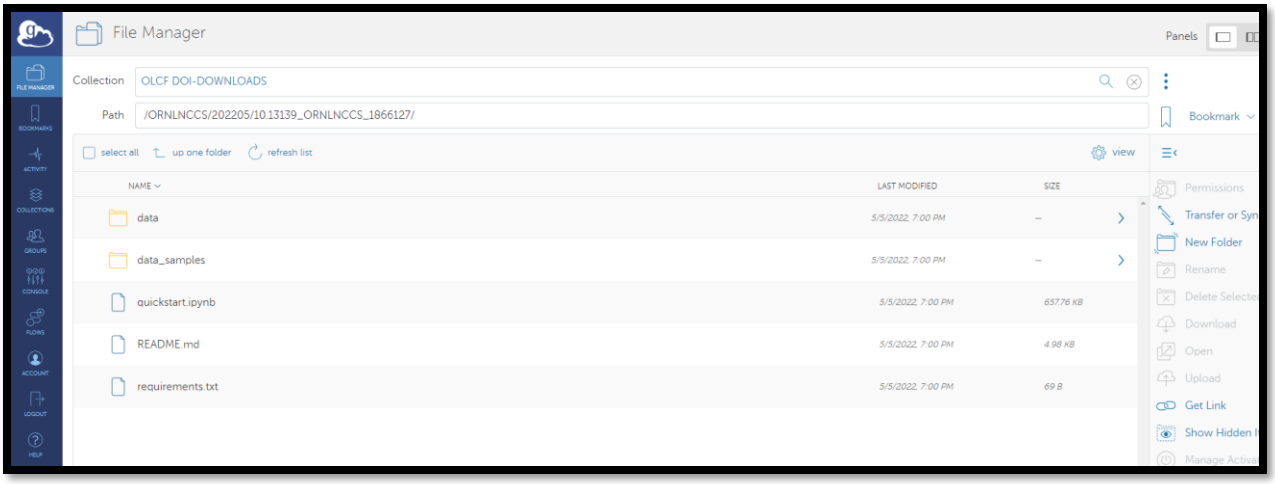
# Downloading Data from Constellation

Once you have a Globus account and your destination is a location that is recognized as a Globus Endpoint, you are ready to register with Constellation. We are going to use your newly created Globus account to do that.

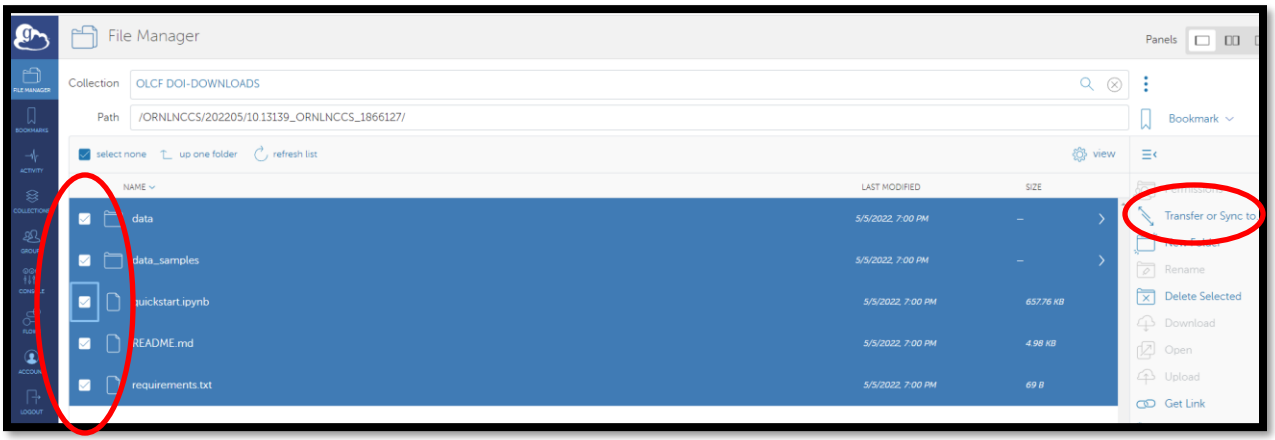
Starting at the Constellation home page (https://doi.ccs.ornl.gov/), navigate to a dataset you wish to download, for example:



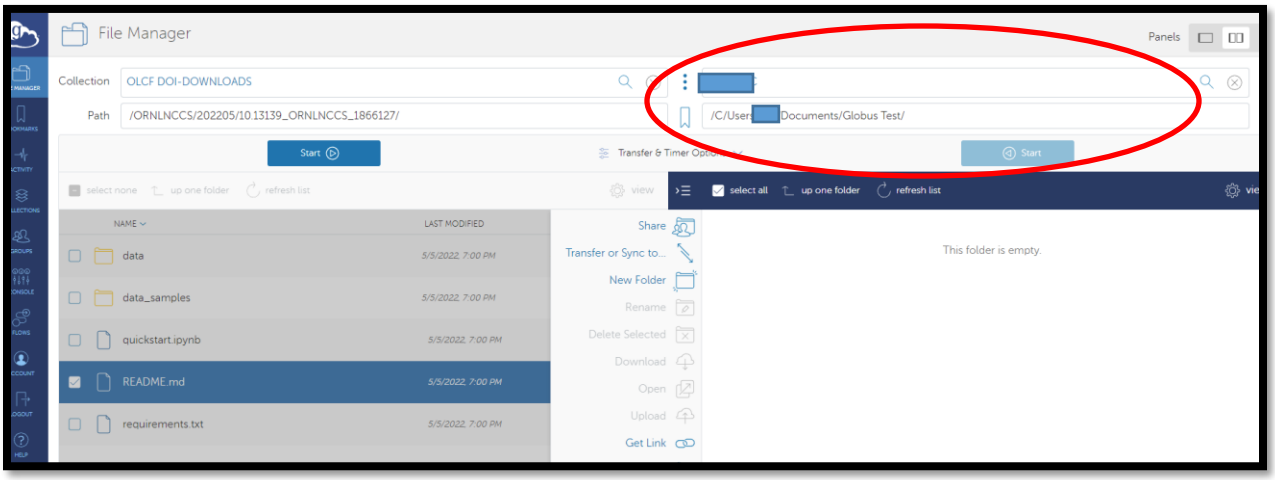

Click the **Download** button to be taken to the Globus File Transfer page with that dataset pre-loaded as the Source Endpoint. You should see the data files for that dataset in the File Manager view:



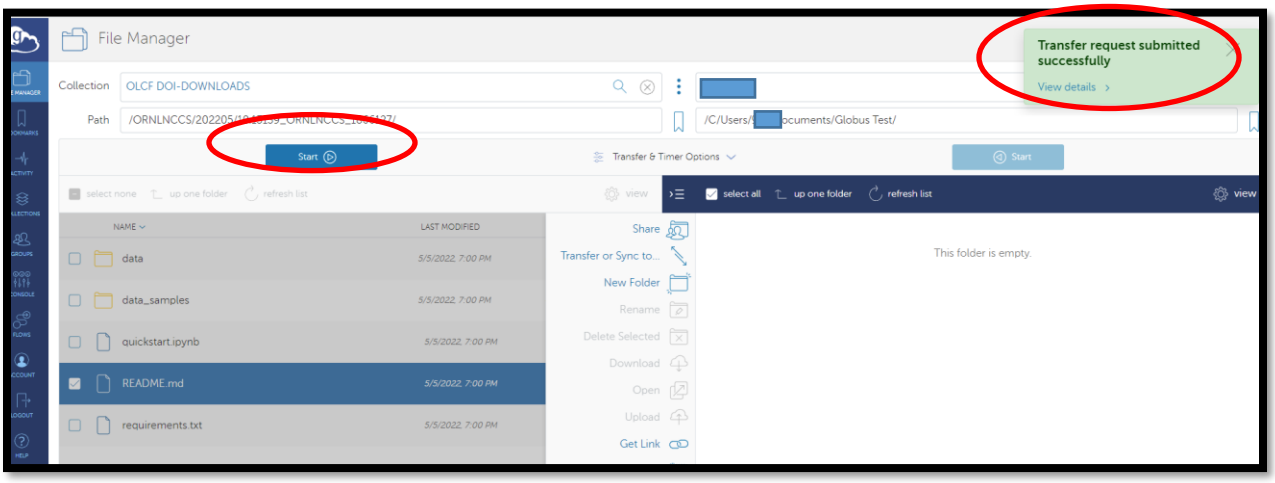

Select the data you wish to transfer and click the Transfer or Sync to button…:



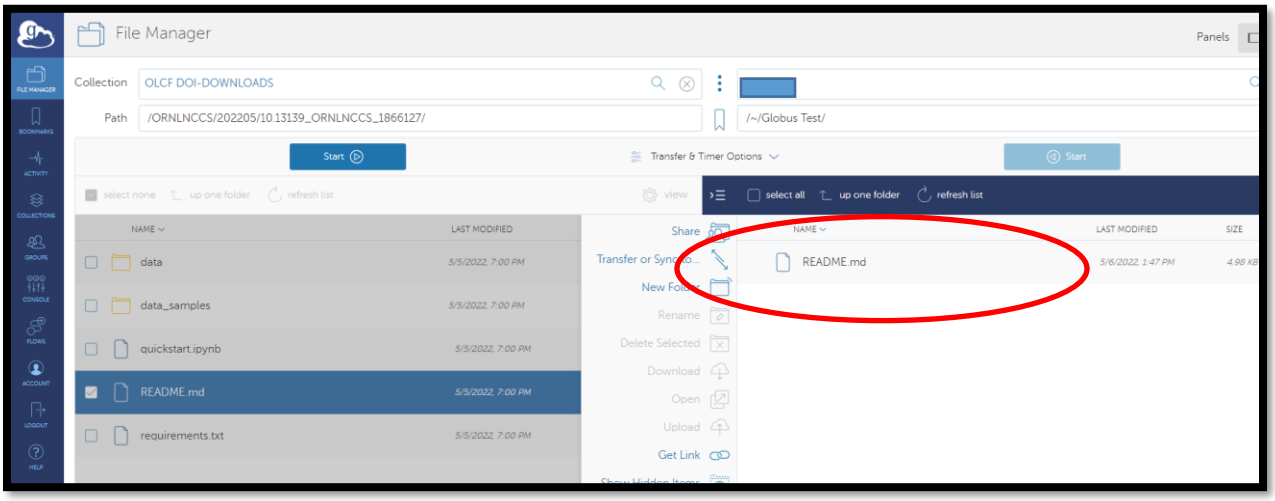

…to reveal the Destination Endpoint screen where you will select the location to which you wish to move the data:



Then, click the **Start** button underneath the Source Endpoint to initiate the transfer (you will see a pop up notification that the Transfer Request has been submitted successfully):




After the transfer is complete, you should see the downloaded file(s) in your Endpoint directory:




You can now confirm that the downloaded file(s) are on your local machine, if you are using Globus Personal to move data to your personal computer.