

GLOBUS DATA TRANSFER

QUICK START GUIDE

NRAMM – SEMC – NYSBC

03/12/2019

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Introduction

Globus is an application that lets you transfer large amounts of research data efficiently and securely to your personal computer, institution's storage systems or a cloud provider. It eliminates the use of big portable external hard drives that needs to be mounted to a local storage to transfer data. The New York Structural Biology Center primarily use Globus to transfer data that is collected on-site from electron microscopes. To get started with, follow the instructions below.

How to register?

1. Open a web browser and navigate to <https://www.globusid.org/create>
2. Create a Globus ID

Create a Globus ID [Already have a Globus ID? Log In](#)

The client **Globus Auth** is requesting access to your **globusid.org** account for accessing a third-party website or application located at **auth.globus.org**. If you approve, please create a Globus ID account to continue.

Username @globusid.org
Your username will be checked for availability.
Usernames may contain both letters and numbers, but must begin with a letter and be between 3 and 31 characters long.
NOTE: this is an ID you are creating — not a working e-mail address

Password
Better passwords are longer, use mixed-case letters with punctuation and numbers.
Your password must be strong to be accepted.
 show password

Full Name first and last name

E-mail user@example.edu

This account will be used for non-profit research or educational purposes
 commercial purposes

Organization

I have read and agree to the Globus [Terms of Service](#) and [Privacy Policy](#)

- Make sure you select the non-profit option
 - Please use your institution provided email address for registration, if possible. You can also use your personal email ID but it should be valid
3. After you click on Create ID, you will shortly receive a conformational email to verify your email address
It is possible that the verification email has been sent to your spam folders. Please check it for confirmation

- In the verification email, you will receive a verification code which you need to enter on the Globus website



To verify your email address and complete your Globus ID activation, copy the verification code below to the Globus ID verification page.

Verification Code: f50ffa5d-3c0f-484f-97a6-88debe33877b

Thank you for using Globus ID.

The Globus Team

If this wasn't you, please let us know: support@globus.org

- Copy paste the verification code into the Globus website



test (testglobus1@globusid.org)
[Verify Your E-mail Address](#)
[Home](#) | [Log Out](#)

Verify E-mail Address

The client **Globus Auth** is requesting access to your **globusid.org** account for accessing a third-party website or application located at **auth.globus.org**. If you approve, please verify your e-mail address to continue.

An email was sent to **test@test.io**.

Please check your e-mail and click on the verification link in that e-mail or enter the verification code that appears in that e-mail into the text box below.

Verification Code

This is a text string like the following:
12345678-90ab-cdef-1234-567890abcdef

Can't find the verification e-mail? Check your spam folder or search for an e-mail from support@globus.org. You may also [re-send the verification e-mail](#).

How to login?

There are 2 ways to login into Globus.

- Use the account id from which you registered or
- You can look up for your institution name under the login page and directly sign in using your institution credentials

Log in to use Globus Web App

Use your existing organizational login

e.g., university, national lab, facility, project

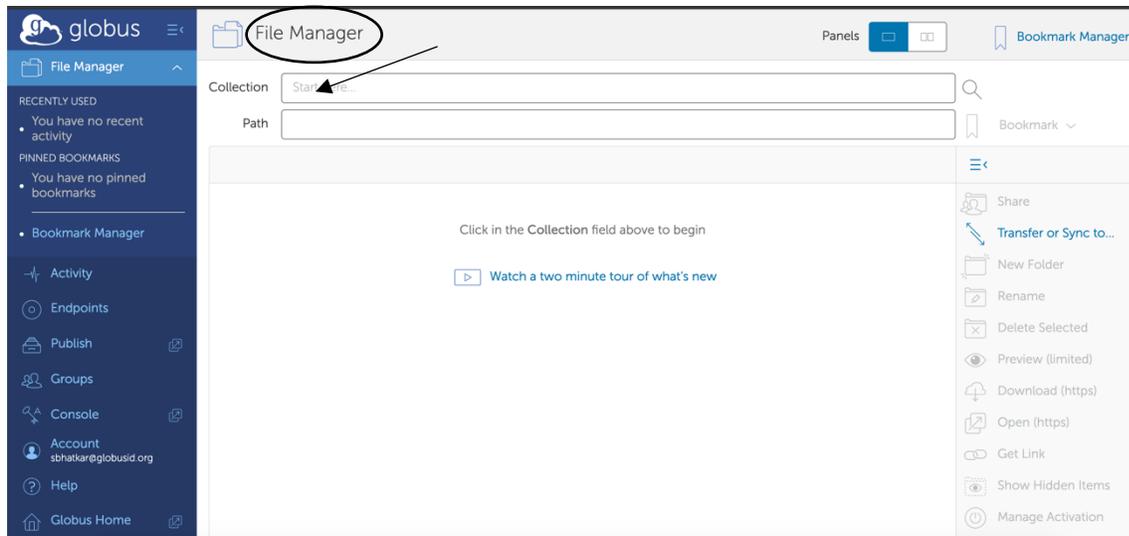
New York University

Didn't find your organization? Then use [Globus ID to sign in](#). ([What's this?](#))

Continue

Some institutions have already signed up with Globus which enables the users to sign with their existing email ID without registering for a new account on Globus. If your institution's name is not on the list, you have to create a new Globus ID described in the above step

Once you log in, you will see the following screen

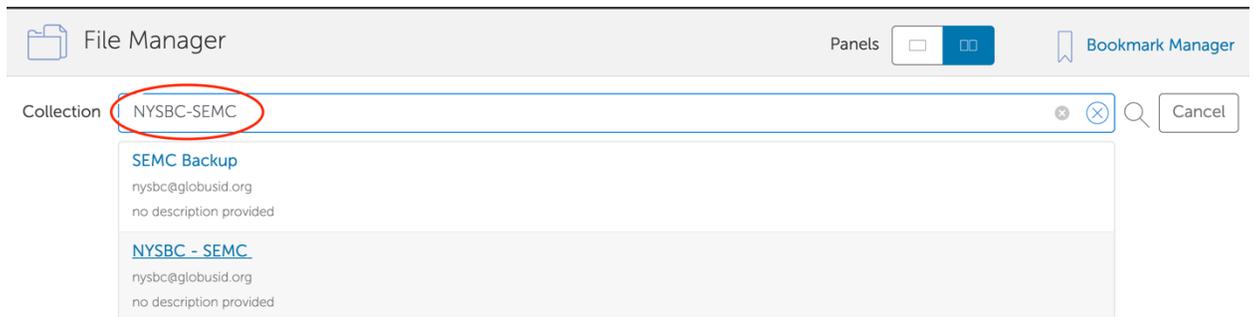


A collection is a named location containing data you can access with Globus. Collections can be hosted on many different kinds of systems, including campus storage, HPC clusters, laptops, Amazon S3 buckets, Google Drive, and scientific instruments. A collection allows authorized Globus users to browse and transfer files. Collections can also be used for sharing data with others or data publication. For us, the collection name is 'NYSBC-SEMC'

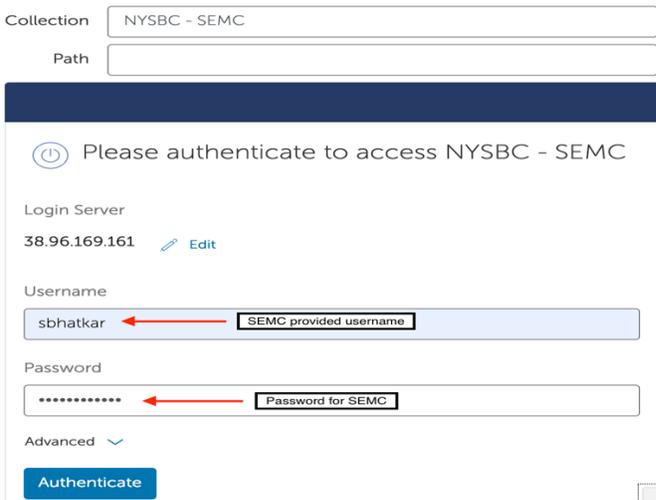
How to transfer files?

a. Transferring files from NYSBC to your personal endpoint

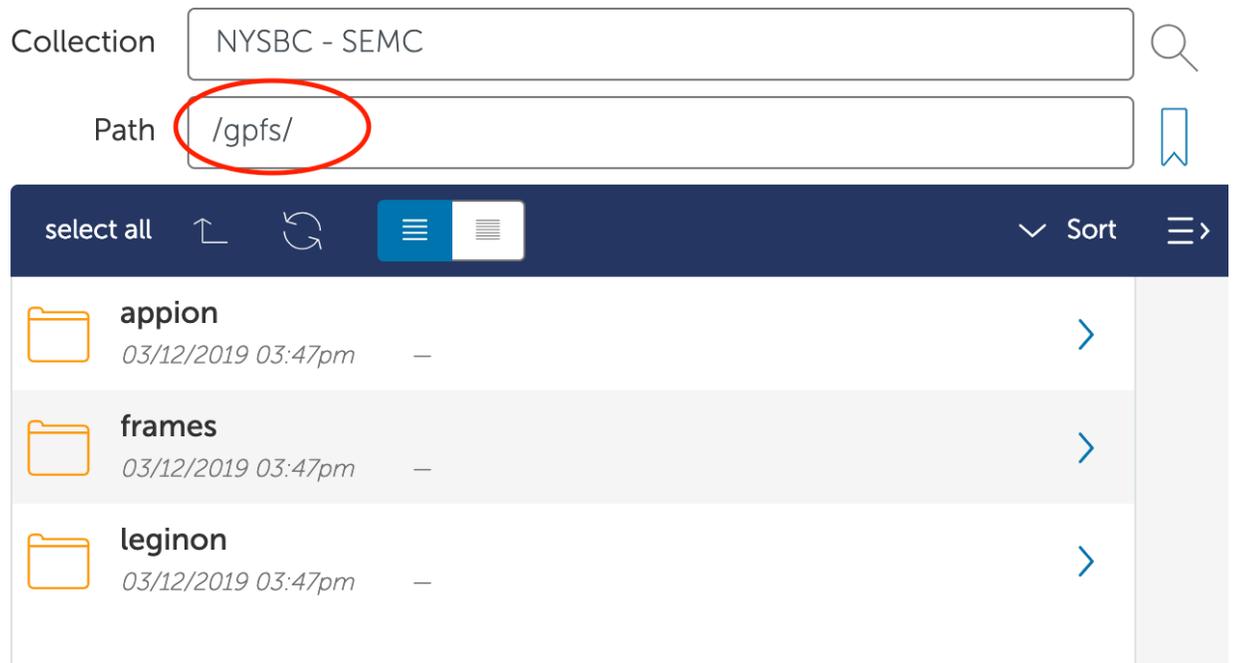
1. Click on the Collections tab and type 'NYSBC-SEMC' This will act as your source endpoint, where you will be transferring files from



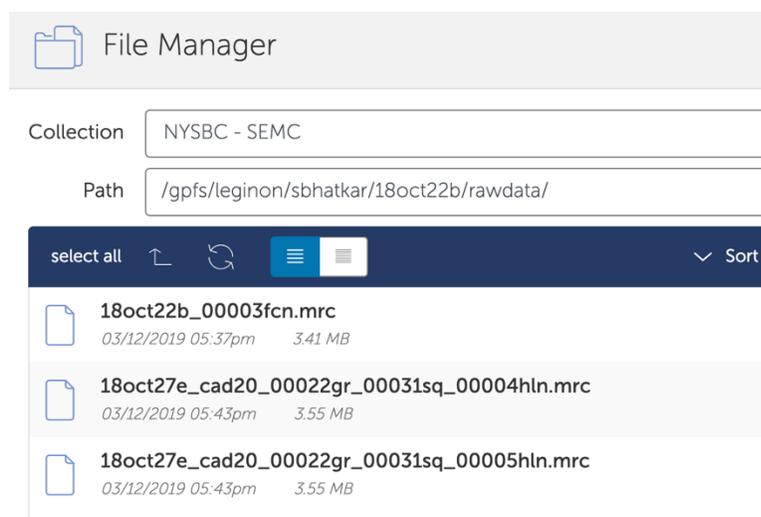
2. You will see a login widget below which will ask for your username and password to authenticate.
Please take a note that, you need to enter the username which is provided by SEMC/NRAMM when you first registered for your project.
Also, note that this username is all **lowercase**



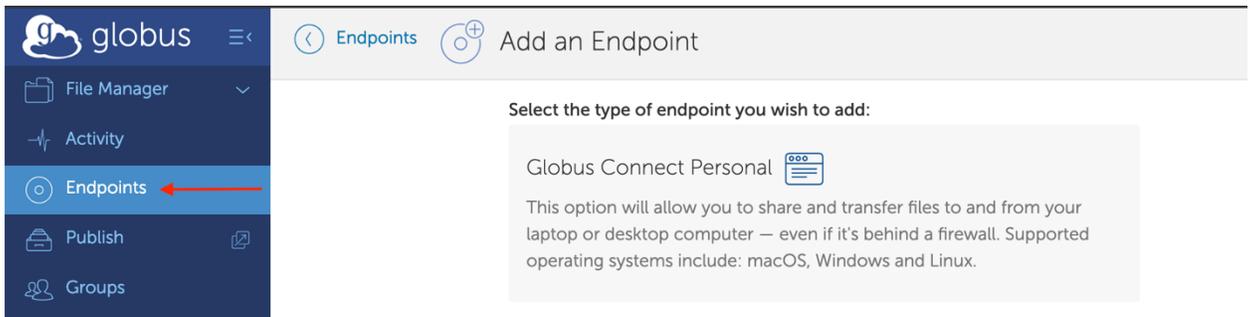
3. After you authenticate, you will see your default path which is currently set at /gpfs/



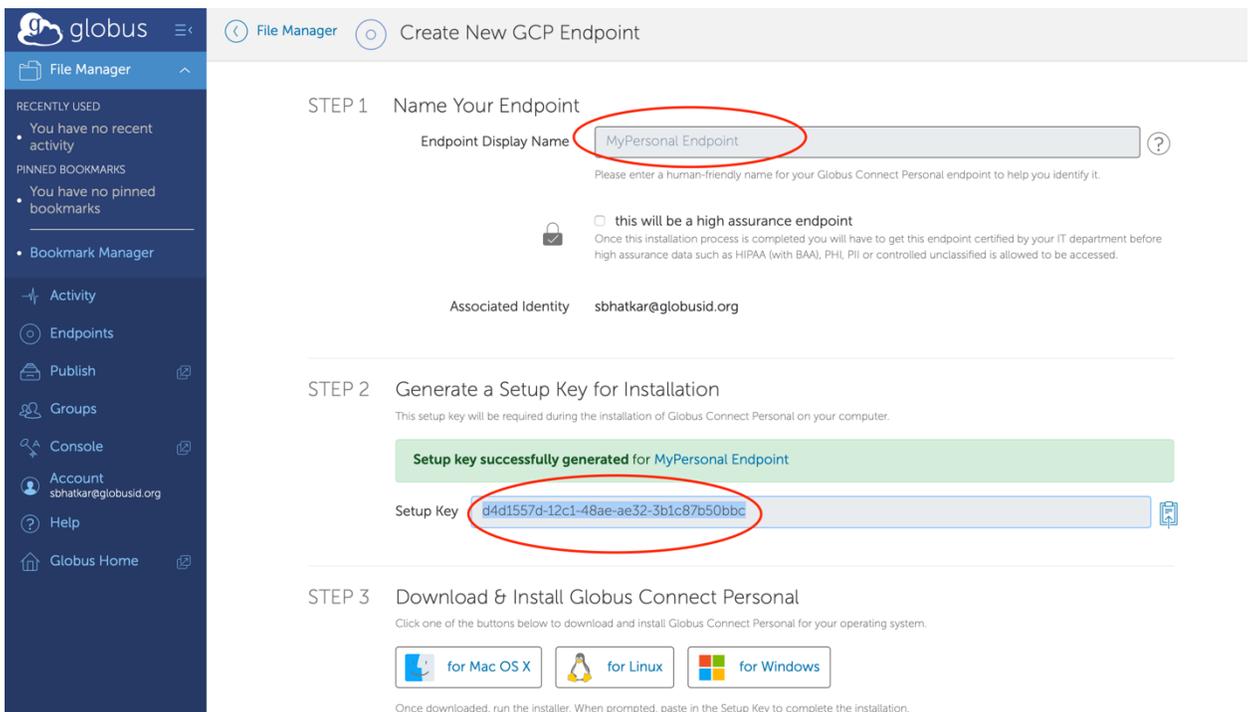
4. You can transfer raw frames and references by selecting the **'frames'** folder
 - Select your username
 - Then, select the session you want to transfer frames from **eg:** (19mar07c)
 - Under the rawdata folder, you will see all your raw frames
5. You can also transfer aligned images by selecting the **'leginon'** folder
 - Select your username
 - Then select the session you want to transfer frames from **eg:** (19marc07c)
 - Under the rawdata folder you will see all your aligned images



6. Now, you need to select the destination endpoint. For transferring files to your personal computer, you need to install Globus Connect Personal. Click on 'Endpoints' on the left navigation bar and select 'Globus Connect Personal'



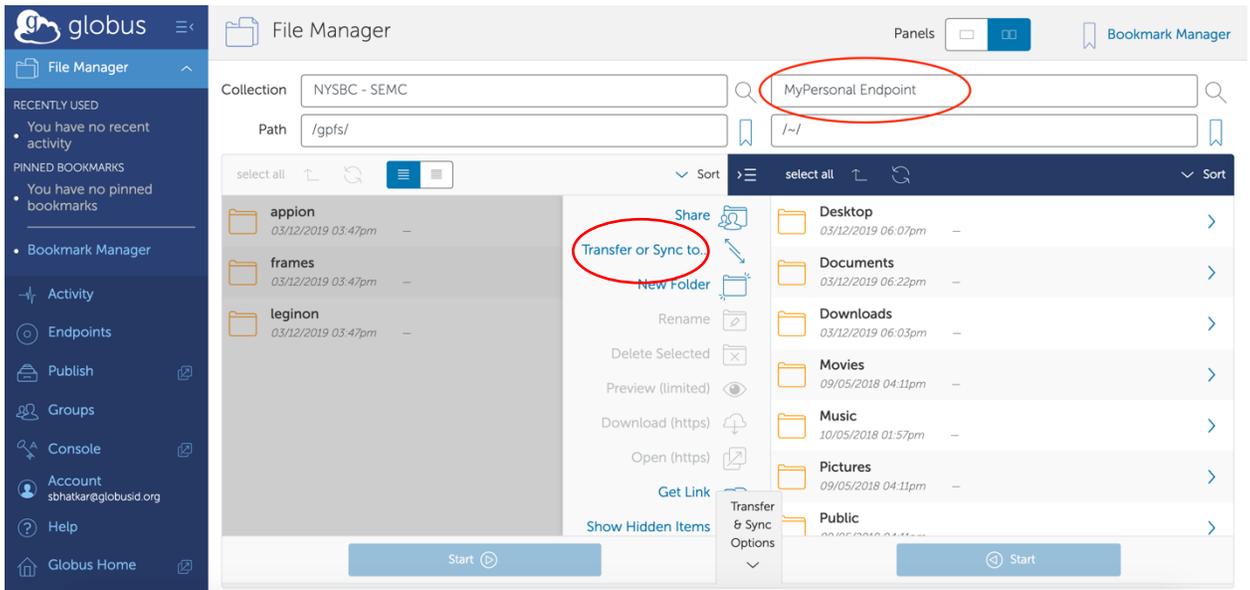
7. You will see the following screen



- Enter your endpoint display name. eg: MyPersonalEndpoint
- Click on generate key and a setup key will be generated.
- Copy the key to any safe location because you will need it while installing the software on your personal laptop
- Download and install the Globus Connect Personal as per your OS distribution
For specific installation instructions,
Mac installation: <https://docs.globus.org/how-to/globus-connect-personal-mac/>
Windows: <https://docs.globus.org/how-to/globus-connect-personal-windows/>
Linux: <https://docs.globus.org/how-to/globus-connect-personal-linux/>

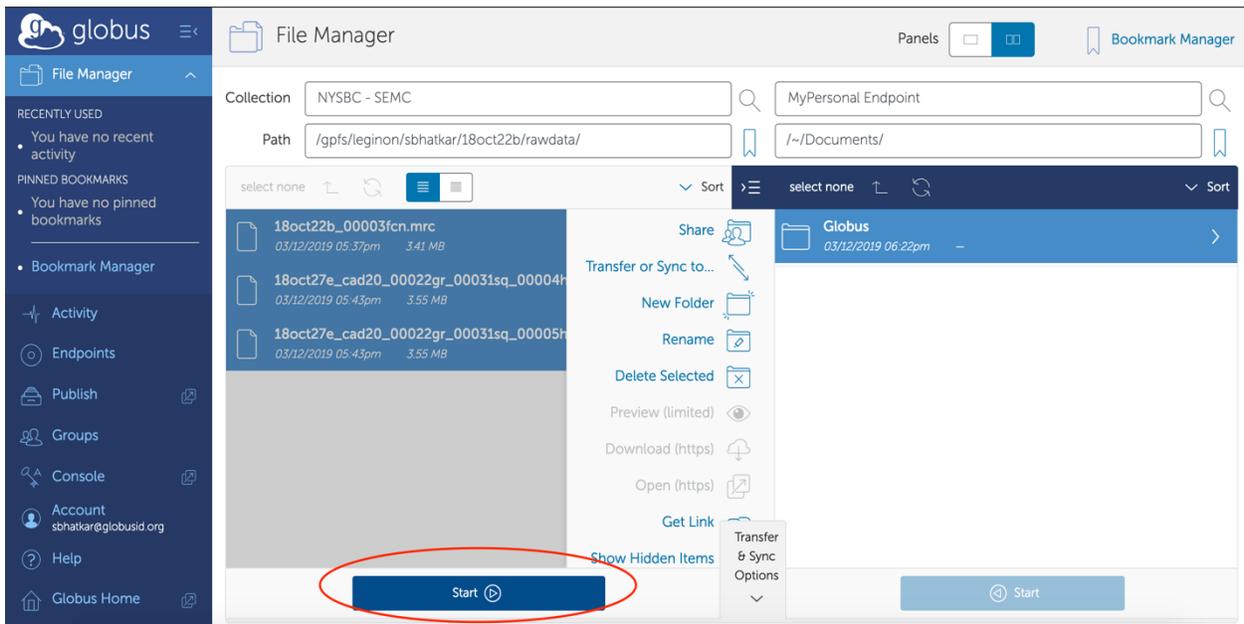
8. Next, select your personal endpoint as your destination endpoint.
Go back to the file manager and select NYSBC-SEMC in the Collection tab
9. Then select, transfer and sync to option.

10. On the right side, select your personal endpoint as the destination endpoint. Please see the screenshot



You will now see the folders on your laptop.

11. Once you select the appropriate source and destination folder, then click on Start to initiate the transfer process



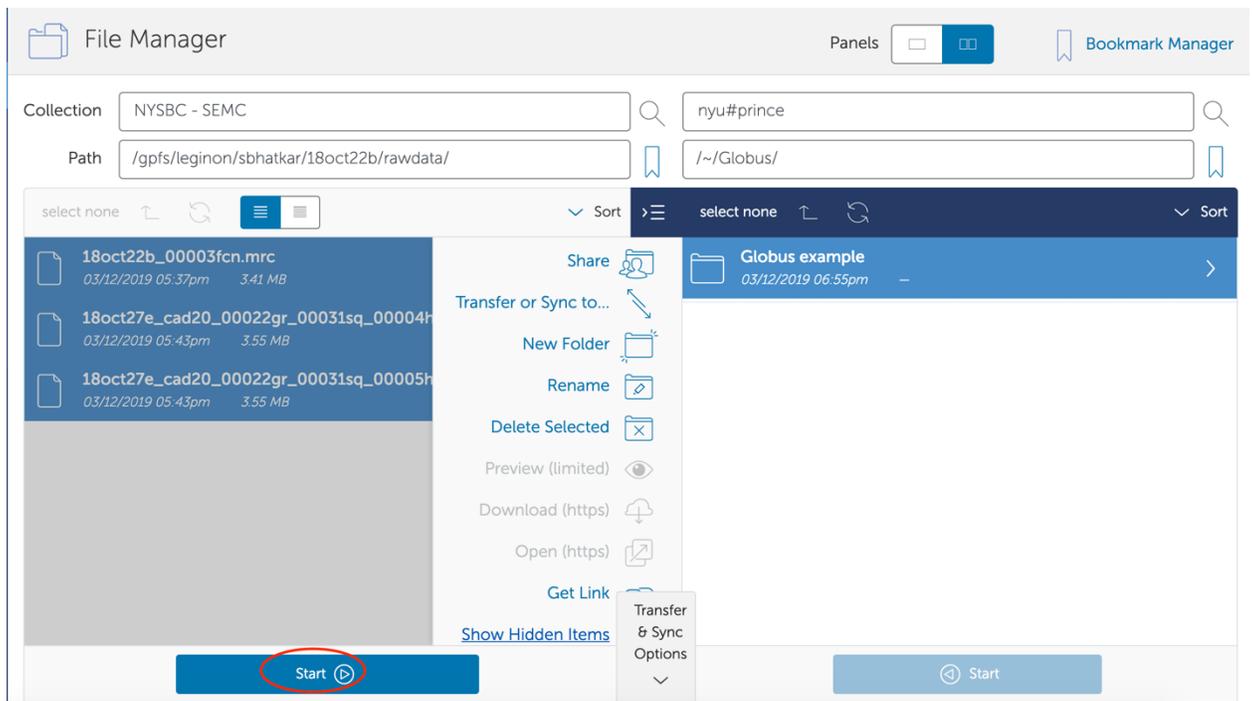
12. To monitor the transfer process, click on the Activity tab on the left sidebar

You will see the transfer logs and the message when the transfer is completed.

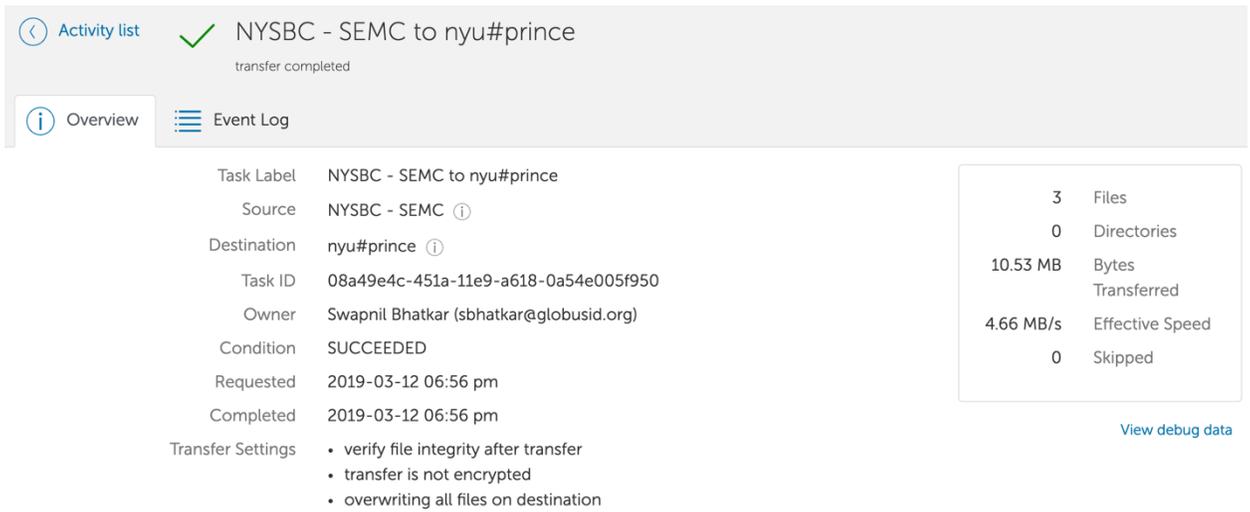
Note: Sometimes, your personal computer will be under firewall which will not allow transferring files. To configure your firewall settings, please follow the link <https://docs.globus.org/how-to/configure-firewall-gcp/>

b. Transferring files from NYSBC to your home institution endpoint

1. Follow steps 1 - 5 as described above
2. Then select your home institution endpoint as the destination endpoint. Please contact your organization's IT team to acquire the name of the endpoint authorized by your institution and for the login credentials and queries related to your directory permissions
3. For this tutorial, New York University is used as the destination endpoint



4. When you click on the Activity tab, you'll see the following message when the transfer is complete



The screenshot displays a web interface for a Globus activity. At the top, there is a navigation bar with a back arrow and the text "Activity list". To the right of this, a green checkmark is followed by the text "NYSBC - SEMC to nyu#prince" and "transfer completed" below it. Below the navigation bar, there are two tabs: "Overview" (selected) and "Event Log". The main content area is divided into two columns. The left column lists various details about the transfer, including Task Label, Source, Destination, Task ID, Owner, Condition, Requested time, and Completed time. The right column shows a summary of the transfer results, including the number of files and directories transferred, the total bytes transferred, the effective speed, and the number of skipped items. A "View debug data" link is located at the bottom right of the summary box.

Task Label	NYSBC - SEMC to nyu#prince
Source	NYSBC - SEMC ⓘ
Destination	nyu#prince ⓘ
Task ID	08a49e4c-451a-11e9-a618-0a54e005f950
Owner	Swapnil Bhatkar (sbhatkar@globusid.org)
Condition	SUCCEEDED
Requested	2019-03-12 06:56 pm
Completed	2019-03-12 06:56 pm
Transfer Settings	<ul style="list-style-type: none">• verify file integrity after transfer• transfer is not encrypted• overwriting all files on destination

3	Files
0	Directories
10.53 MB	Bytes Transferred
4.66 MB/s	Effective Speed
0	Skipped

[View debug data](#)

You will also get an email notification when the transfer is complete.

For any issues related to Globus please contact semcit@nysbc.org