Getting Data From Globus

This guide is intended to describe the process of connecting to Globus to transfer data collected at the Advanced Photon Source (APS) and stored using the APS Data Management System to a computer at a user's home institution.

Logging in

The external user will need an account that allows logging into the Globus site. Some institutions, which regularly use Globus, have arranged for users to log into Globus using credentials from the institution's login system. Argonne, for instance, is one of those sites. It is recommended that users select their home institution when possible on this page. Users will need to authenticate with Argonne credentials in a later step to access experiment data.

When a user selects to login to Globus the first page will prompt the user to select from a list of organizations. An example of this is shown below.

On selection of the organization you will see a login page such as the one from Argonne below. Note this page will differ depending on the chosen organization.
Connecting

Once logged in, you will land on a File Manager page. In the collection box on this page enter aps#data for the collection. The first time that this is set up and then periodically after you will be asked to authenticate for access to this collection (see image below). For this you will need one of two accounts at Argonne:

- **An ANL Domain Account.** All current users and employees should have access to an ANL domain account. ANL Domain accounts have been used for some time for Argonne employees for e-mail, training & other central services. These accounts have also been used internally for the APS Proposal and ESAF system. These accounts have more recently been made available to external users in an effort to standardize access across user facilities at Argonne.

- **The APS Data Management account which is linked to the APS Web Account.** The APS Web Account is used for the APS Proposal & ESAF system. While the Data Management account and APS Web Account are different accounts, the passwords for these are synchronized by the DM system (passwords are periodically copied from APS Web to DM system). The user name for the Web Account is the users badge number while the DM user name is the badge number prefixed by the letter 'd' (e.g. d123456).

Note that the APS Data Management account is scheduled to be phased out as users are switched over to the ANL Domain accounts. Both accounts will be supported for a transition period but use of the ANL domain account should be considered to be the preferred account when possible.
Clicking **Continue** on the page above will lead to a MyProxy login page where you will enter the user name and password for the user account.

If you are experiencing problems logging in it is possible that the password is expired/incorrect.

Information on managing the ANL Domain account can be found on the [APS User Checklist Page](#).

Management of the APS Web Account is through the APS Web portal. See the section below on verifying accounts. Also note that if the password in the APS Web portal has recently changed it may take about 15 minutes for this to be sync’d. If you can log into the APS Web Portal (username = ‘badge #’) and cannot log into the DM system (username = ‘d’ + ‘badge #’) after considering the information above then contact your beamline contact or DM administrators (‘[dm-admin@aps.anl.gov](mailto:dm-admin@aps.anl.gov)’).

Once logged in, the user will land on a page with a number of directories. Files from the Data Management System will be found under the ‘dm’ directory. At that level, the directories are broken down by station and then as defined by conventions on each beamline. A user will be able to move down the directories to find their data but users will only have access to data directories associated with experiments that they are listed as an experimenter. If you try to enter other directories, you will get a message that you are not authorized for that directory.
Verifying/updating APS Web Account

All experimenters on APS Proposal or ESAF should have created an account through the APS Web Portal. If the user does not have a badge number, they will need to register with the APS User Office. To verify or update the Web Password, users can try to log into the web portal above. Like other web accounts, it is possible to update an unknown/expired password by clicking a link on the portal web page. For this you will need to provide answers to security questions that were entered at the time the account was set up.

On the Next Pages you will setup your Endpoint

Once you can login to Globus and have a personal endpoint, you can start accessing your data. To begin, click on File Manager from the menu on the left-hand side. In order to view your personal endpoint and the DCS endpoint which you will be collecting your data from, click on the split screen panel shown in Figure 5. To search your data from the DCS endpoint, type in aps#data in the upper left box titled Collection. Press continue and you will be prompted to authenticate your account using your APS credentials. The username is d<your badge number>. Example: d123456. Don't forget the d in front of the badge number, there should be no other letters. Enter your APS password. Once you have authenticated, navigate to /gdata/dm/DCS/.
This following section will discuss how to enable Globus Connect Personal. Globus Connect Personal is a service that allows individual users to access and transfer data that is available at the APS on site. It does this by creating an endpoint at the user's personal machine. Then, the user can transfer data from the endpoint at the APS storage system to the endpoint at their own computer. There are two ways to install it on a personal machine: from the home page and from the file manager. The two methods are explained below.

**Home Page**

On Globus' home page, there are several drop down options in the top right corner. The first drop down is labeled “I Want To…” One of the following options is “Enable Globus on my System.”

Clicking on that option will lead to the Globus Connect page. Globus Connect can allow users to establish an endpoint at either a personal machine, Globus Connect Personal, or a multi-user computing system, Globus Connect Server. Here, we want to focus on a single user. Scrolling down the page will reveal the two Globus Connect options.

Select the “Get Globus Connect Personal” hyperlink to lead to the Globus Connect Personal installation page. Based on your operating system, select the corresponding hyperlink.

Globus Connect Personal turns your laptop or other personal computer into a Globus endpoint with just a few clicks. With Globus Connect Personal you can share and transfer files to/from a local machine—campus server, desktop computer or laptop—even if it’s behind a firewall and you don’t have administrator privileges.

Globus Connect Personal is available for all major operating systems. Please click on the links below for installation instructions.

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Link</th>
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<tbody>
<tr>
<td>Mac OS X 10.7 or higher</td>
<td><strong>Globus Connect Personal for Mac</strong></td>
</tr>
<tr>
<td>Linux</td>
<td><strong>Globus Connect Personal for Linux</strong></td>
</tr>
<tr>
<td>Windows</td>
<td><strong>Globus Connect Personal for Windows</strong></td>
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Globus has its own documentation on the installation process for each operating system. Following the steps on that page will allow you to establish an endpoint at your own machine and begin transferring files. It also has detailed instructions for how to remove Globus Connect Personal.

**File Manager**

Globus Connect Personal can also be managed from the file manager page that was discussed before. Once a user logs in, the home page looks as such.

Users can search for specific collections of data by using the search bar shown above. Clicking on the search bar will cause the interface to change to the following layout:

As visible here, Globus Connect Personal is available through the “Recent” tab under the search bar. If it is not visible from that tab, navigate to the “More Options” tab.
Click on the “Install Globus Connect Personal” button. This will lead you to a page with the option to download Globus Connect Personal. The first option is for a Mac download. However, if you have another operating system, click the hyperlink below for Windows and Linux installations. There is also a hyperlink above that will lead you to a detailed explanation about Globus Connect Personal.