HPC Rental Storage Overview

Requesting a rental allocation

A rental allocation can be requested by a PI or storage delegate through the user portal accessible at: https://portal.hpc.arizona.edu/

To request an allocation, navigate to the Storage tab.

Under the Rental Storage heading click Submit Rental Storage Request.

This will bring up a form where you will enter your KFS number and financial contact’s information. Next, click Send Request. You will specify the size of your allocation in a follow-up.
Checking your quota

Once your allocation has been approved, you can check its size and usage through the user portal under the Storage tab under Rental Storage → Check Rental Quota.

Right now, /rental usage can only be checked by PIs and storage delegates through the portal. A more accessible CLI option available to all group members is in development and will be available in the future.

Resizing your allocation

You can request an increase/decrease in your allocation’s size through the user portal under Storage tab under Rental Storage → Modify Rental Quota.

Deleting your allocation

If you would like to delete your allocation, go to the user portal under the Storage tab under Rental Storage → Delete Rental Storage. You will then be prompted to confirm. To proceed, click Delete.
Accessing your rental storage

After you submit your rental request, a directory will be created for your group under /rental/<pi>, where <pi> is the requesting PI’s NetID. This space will be accessible on the filexfer node (hostname: filexfer.hpc.arizona.edu).

**Important note:** data stored in /rental are not accessible on the login nodes (wentletrap and junonia) or compute nodes. Data that need to be actively analyzed should be moved to /home, /groups, or /xdisk.

An example of logging into the filexfer node to view and copy data to a space that is accessible on the login/compute nodes:

```
~ $ ssh sarawillis@filexfer.hpc.arizona.edu
Authorized uses only. All activity may be monitored and reported.
Last login: Thu Nov 17 13:49:30 2022
[sarawillis@sdmz-dtn-4 ~]$ cd /rental/chrisreidy/sarawillis
[sarawillis@sdmz-dtn-4 sarawillis]$ ls
5yr  test.out  tensorflow_21.12-tf2-py3.sif
[sarawillis@sdmz-dtn-4 sarawillis]$ cp tensorflow_21.12-tf2-py3.sif /xdisk/sarawillis/
[sarawillis@sdmz-dtn-4 sarawillis]$
```

Transferring data

**SSH**

The method shown above in the section Accessing your rental storage is a quick way to move data back and forth between /xdisk, /groups, and /home and your /rental directories using `mv` and `cp`. 
CLI Options

Warning: due to security settings on the filexfer nodes, automated data transfers in batch submissions may be unreliable.

You can use standard CLI transfer methods such as `scp`, `sftp`, `rsync`, etc. to move data to/from `/rental`. For example:

```
[sarawillis@cpu37 sarawillis]$ scp filexfer.hpc.arizona.edu:/rental/chrisreidy/sarawillis/tensorflow_21.12-tf2-py3.sif /xdisk/sarawillis
Authorized uses only. All activity may be monitored and reported.
tensorflow_21.12-tf2-py3.sif
100% 6034MB 104.3MB/s 00:57
[sarawillis@cpu37 sarawillis]$ ls | grep tensor
R-4.2.2.tar.gz tensorflow_21.12-tf2-py3.sif
```

Globus

For those unfamiliar with using Globus, see our Globus Documentation

A new Globus endpoint has been set up to access `/rental`. It can be found under Collections by searching UA Rental Storage Filesystem

To initiate transfers between `/rental` and any other endpoint, click the result (UA Rental Storage Filesystem) to open the endpoint in the File Manager window. This will put you in `/rental`. From there, navigate to the relevant PI directory.
Next, open the second endpoint under the second collection search bar. For example, to transfer data between /rental and /home, enter **UA HPC Filesystems** as the second collection.

Click the file you would like to transfer, then click Start to initiate.

**References**

- Rental information: [https://public.confluence.arizona.edu/display/UAHPC/Rental+Storage](https://public.confluence.arizona.edu/display/UAHPC/Rental+Storage)
- Transferring data: [https://public.confluence.arizona.edu/display/UAHPC/Transferring+Data](https://public.confluence.arizona.edu/display/UAHPC/Transferring+Data)
- User portal: [https://portal.hpc.arizona.edu/portal/](https://portal.hpc.arizona.edu/portal/)
- Globus: [https://www.globus.org](https://www.globus.org)
- Getting help: [https://public.confluence.arizona.edu/display/UAHPC/Getting+Help](https://public.confluence.arizona.edu/display/UAHPC/Getting+Help)