

# File Management - Getting your files to and from RC systems

Research Computing provides home directories under a unified high performance file system managed by [NFS](#). This means that if you copy files to your home directory on one host (ion.rc.rit.edu), they'll be available on another host (haswell-01.rc.rit.edu) without you having to make any changes.

All users are allowed 500GB of disk space when their accounts are created. If you need more than this, just ask us by emailing [rc-help@rit.edu](mailto:rc-help@rit.edu).

What follows are sets of instructions for transferring files to and from the Research Computing file system.

## Linux and Mac OSX - scp

If you do your primary work on a Linux or Mac OS X desktop or laptop, you can use the `scp` command to copy files to and from. Let's say you're working from your laptop called fancytop.rc.rit.edu and you want to copy a file called fibonacci.py to ion.rc.rit.edu. On fancytop.rc.rit.edu, open up a terminal session and run:

```
$ scp ~/mywork/fibonacci.py abc1234@ion.rc.rit.edu:~/fibonacci.py
```

(where *abc1234* is your RIT username). You can verify that the file transfer was successful by running:

```
$ ssh abc1234@ion.rc.rit.edu "cat ~/fibonacci.py"
```

If you want to copy a whole directory of work to our systems, use the `-r` option:

```
$ scp -r ~/mywork abc1234@ion.rc.rit.edu:~/copied-work-dir
```

You can check that this was successful by running:

```
$ ssh abc1234@ion.rc.rit.edu "ls ~/copied-work-dir"
```

You can copy output files from your experiments back to fancytop.rc.rit.edu by using the same commands in reverse. From the prompt on fancytop run:

```
$ scp -r abc1234@ion.rc.rit.edu:~/copied-work-dir/output-files/ .  
$ ls -alh output-files
```

## Mac OSX - CyberDuck

There is a graphical utility for transferring files to and from Linux systems (such as the Research Computing compute nodes) called CyberDuck.

Steps:

- *Download CyberDuck and install it.*
- *Start up the application. When prompted:*
  - *Select SFTP*
  - *Enter your RIT credentials for username and password*
  - *For the hostname specify ion.rc.rit.edu.*

Transferring files to and from RC systems should be straightforward after that.

## Windows - WinSCP

Much like Fugu for Mac OSX, there is a graphical utility for Windows for transferring files to and from Linux systems like those of Research Computing.

Steps:

- *Download WinSCP and install it.*
- *Start up the application. When prompted:*
  - *Enter your RIT credentials for username and password*

- *For the hostname specify ion.rc.rit.edu.*

Transferring files to and from RC systems should be straightforward after that.