

## Logging on to Hyak

Before you can logon to Hyak you have to activate two-factor authentication for your account, if you haven't done that please follow the instructions here:

<https://itconnect.uw.edu/security/uw-netids/2fa/>

You'll need either a terminal or an SSH client, if you haven't used one before both [putty](#) and [MobaXterm](#) work well on Windows. In either case you'll need to create a new session using the hostname/port below.

**Host: kclone.hyak.uw.edu**

**Port: 22**

and login with your netID.

For transferring files between your local machine and Hyak I recommend an FTP client like WinSCP or FileZilla. The host and port number for FTP connections are the same as SSH.

## Up to date documentation

Use this document to get started, but know that the most up to date information on using Hyak is located here:

<https://hyak.uw.edu/docs/>

## Running jobs

The server you log into, kclone, is not where you'll be running jobs. To start an interactive session Foster's compute node you need to run the following command:

```
$ salloc -A foster -p compute --time=4:00:00 -c 4 --mem=16G
```

This creates a new session on our node lasting 4 hours, utilizing 4 out of the 40 cores available and 16GB of RAM. You'll know the session has been activated when the terminal prompt changes from something like this:

```
[jwhitt@kclone1 ~]$
```

To this:

```
[jwhitt@3192 ~]$
```

Jobs can be submitted as batch as well, as detailed here:

<https://hyak.uw.edu/docs/compute/scheduling-jobs#batch-jobs>

If you're unsure about how many resources to allocate to a given job, you can see what's available by typing 'hyakalloc' at the prompt. The output will tell you how many cores and how much memory is currently available. Be aware that these resources are shared across all Foster users, and please use only as much as necessary for your research.

## Using SAS on Hyak

Most of the available software on Hyak are contained in modules that need to be loaded before the software can be used. To run a SAS program, first begin a new session as detailed above, then the following:

```
$ module load foster/sas/9.4  
$ sas program.sas
```

Before you run SAS for the first time, you need to fetch the autoexec.sas file in order to have all the WRDS libraries set each time you run SAS and place it in your home directory. The second line renames it from users\_autoexec.sas to just autoexec.sas:

```
$ cp /sw/contrib/foster-src/sas/sas_extra/users_autoexec.sas $HOME  
$ mv users_autoexec.sas autoexec.sas
```

## Using R and Python on Hyak

R and Python can both be run on Hyak, as well as RStudio and Jupyter notebooks. Instructions on installing and running them can be found here:

<https://hyak.uw.edu/docs/tools/r/>  
<https://hyak.uw.edu/docs/tools/python/>