

HPC-101 – Cheatsheet

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1 Directory Navigation

`cd <Directory>`

Change to directory specified

`ls <Path>`

List the contents of the specified path

`ls -l <Path>`

This flag list the paths content in long form

`ls -lh <Path>`

Make the filesize humanreable

`ls -a <Path>`

Show hidden directories and files

2 SSH/SCP

- `ssh <user>@<host>`

- `ssh -Y <user>@<host>`

Enable X11 forwarding

- `scp <file> <user>@<host>:<remote path>`

Copy a file to a remote location

- `scp -r <dir> <user>@<host>:<remote path>`

Recursively copy a directory to a remote location

3 SLURM

3.1 Management And Monitoring

`sbatch <slurm_script>`

Submit a slurm script to the scheduler for batch processing

`sbatch -array=[#-#] <slurm_script>`

Submit a job array to the scheduler

`srun`

Used in submitting an interactive job, or also used within a `slurm_script`

`srun.x11`

Used in submitting an interactive job, that also forwards the X, if you logged in while enabling X forwarding

- `squeue`

Display all jobs running or waiting on the cluster

- `squeue -u<user>`

Only display jobs for the specified user

- `sinfo`

Display the partitions and nodes state

- `scancel <jobid>`

Cancel the specified job

3.2 Details and Profiling

```
scontrol show jobid <jobid>
```

Show job details of a waiting or running job

```
scontrol show partition <partition name>
```

Show details of the specified partition

```
scontrol show node <node name>
```

Show details of the specified node

```
sacct -l -j <jobid>
```

Show usage details of a job

```
sacct -u <user>
```

Show all jobs from a given user

4.2 Operators

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Pipe operator is used between two commands, in which you wish to pass the output of the 1st command to the input of the 2nd command

Ex. `sacct -l -j 467 | less -S`

4.3 Hosts

login-0001 – `uhhpc1.its.hawaii.edu`

login-0002 – `uhhpc2.its.hawaii.edu`

4.4 Globus Endpoints

login-0001 – `hawaiiUHHPC1`

login-0002 – `hawaiiUHHPC2`

4 Miscellaneous

4.1 Commands

```
less <file>
```

Show contents of file

Navigate using up/down arrow keys, spacebar, or pageup/pagedown keys

Press 'q' to exit out of less

```
less -S <file>
```

Show contents of file without line wrap

Navigate using up/down arrow keys, spacebar, or pageup/pagedown keys

Press 'q' to exit out of less