

HPC-101 – Cheatsheet

Sean Cleveland Ph.D, Ron Merrill Ph.D,
David Schanzenbach M.S.

University of Hawai'i
Information Technology Services – Cyberinfrastructure

January 21, 2016

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>`

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 Modules

`module avail`

List all available software modules

`module load <module name>`

Load the specified module into your environment

`module show <module name>`

Shows you what actions the module performs to your environment

`module purge`

unload all loaded modules

5 Miscellaneous

5.1 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

`man <command>`

Show the manual entry (if one exists) for the given command
Press 'q' to exit out of less

5.2 Operators

|

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`

5.3 Hosts

login-0001 – `uhhpc1.its.hawaii.edu`

login-0002 – `uhhpc2.its.hawaii.edu`

5.4 Globus Endpoints

login-0001 – `hawaii#UHHPC1`

login-0002 – `hawaii#UHHPC2`