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>

>   Recursivly 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 parition <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 on 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, or spacebar
> Press 'q' to exit out of less

`less -S <file>`

> Show contents of file without line wrap
> Navigate using up/down arrow keys, or spacebar
> Press 'q' to exit out of less

`man <command>`

> Show the manual entry (if one exists) for the given command
> Uses the same controls as less
> Press 'q' to exit out of man

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`