O2, SLURM and LMOD Cheatsheet

LMOD commands

module list *List all currently loaded software packages*

module avail *List all available software packages on O2*

module spider <software> *Retrieve information on a software package*

module load <software_to_load> *Load a software package*

module swap <software_to_unload> <software_to_load> *Exchange two software packages*

module unload <software_to_unload> *Unload a software package*

module purge Unload all currently loaded software packages

SLURM Directives

Partitions -p

Partition	Priority	Max Runtime	Max Cores	Limits
interactive	14	12 Hours	20	2 Job Limit
priority	14	30 Days	20	2 Job Limit
highmem	12	5 Days	20	420 GiB (total)
short	12	12 Hours	20	
medium	6	5 Days	20	
long	4	30 Days	20	
transfer	1	5 Days	4	

Time *-t*
-t HH:MM:SS or *-t* DD-HH:MM
DD: Days
HH: Hours
MM: Minutes
SS: Seconds

Memory *--mem*
--mem XG
X: Number of Gibibytes (~Gigabyte)

Cores *-c*
-c Y
Y: Number of cores

Standard Error *-e*
-e <filename>
<filename>: File to write the Standard Error to

Standard Output *-o*
-o <filename>
<filename>: File to write the Standard Output to

Dependencies *--dependency*
--dependency=afterok:<jobid>
<jobid>: Job ID that the submitted job is dependent on completing successfully

E-mail Address *--mail-user*
--mail-user=<email_address>
<email_address>: E-mail address for notifications to be sent to

E-mail Notification *--mail-type*
--mail-type [ALL, BEGIN, END, TIME_LIMIT_ZZ]
(requires --mail-user is specified)
ALL: Sends an e-mail when job begins and ends
BEGIN: Sends an e-mail when job begins
END: Sends ane-mail when job ends
TIME_LIMIT_ZZ: Sends an e-mail when job gets to ZZ percent of the time limit

Job Managment

Open Interactive Job
srun --pty -p interactive -t HH:MM:SS --mem XG -c Y bash

sbatch <submission_script> *Submit a job*

scancel <jobid> *Cancel job*

O2squeue *Display jobs*

O2_jobs_report *Display a summary report with per-job information*

O2 Storage Options

Storage Name	Capacity	Back-up
/home	100GiB (~107GB)	Snapshots daily to 14 days, weekly up to 60 days
/n/data1 , /n/data2 , /n/groups	Expandable	Snapshots daily to 14 days, weekly up to 60 days
/n/scratch/	25 TiB (~27TB) and 2.5 Million files	None