

Moab/Torque to SLURM Translations

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| **User Commands** | **PBS/Torque** | **Slurm** |
| Job submission | qsub [script\_file] | sbatch [script\_file] |
| Job deletion | qdel [job\_id] | scancel [job\_id] |
| Job status (by job) | qstat [job\_id] | squeue [job\_id] |
| Job status (by user) | qstat -u [user\_name] | squeue -u [user\_name] |
| Job hold | qhold [job\_id] | scontrol hold [job\_id] |
| Job release | qrls [job\_id] | scontrol release [job\_id] |
| Queue list | qstat -Q | squeue |
| Node list | pbsnodes -l | sinfo -N OR scontrol show nodes |
| Cluster status | qstat -a | sinfo |
| GUI | xpbsmon | sview |

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| **Environment** | **PBS/Torque** | **Slurm** |
| Job ID | $PBS\_JOBID | $SLURM\_JOBID |
| Submit Directory | $PBS\_O\_WORKDIR | $SLURM\_SUBMIT\_DIR |
| Submit Host | $PBS\_O\_HOST | $SLURM\_SUBMIT\_HOST |
| Node List | $PBS\_NODEFILE | $SLURM\_JOB\_NODELIST |
| Job Array Index | $PBS\_ARRAYID | $SLURM\_ARRAY\_TASK\_ID |

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| **Required** | **Not** **recommended** |

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| **Job Specification** | **PBS/Torque** | **Slurm** |
| Script directive | #PBS | #SBATCH |
| Queue/Partition | -q [name] | -p [name] ***\*Best to let Slurm pick the optimal partition*** |
| Node Count | -l nodes=[count] | -N [min[-max]]. ***\*Autocalculates this if just task # is given*** |
| Total Task Count | -l ppn=[count] OR -l mppwidth=[PE\_count] | -n OR --ntasks=ntasks |
| Wall Clock Limit | -l walltime=[hh:mm:ss] | -t [min] OR -t [days-hh:mm:ss] |
| Standard Output FIle | -o [file\_name] | -o [file\_name] |
| Standard Error File | -e [file\_name] | -e [file\_name] |
| Combine stdout/err | -j oe (both to stdout) OR -j eo (both to stderr) | (use -o without -e) |
| Copy Environment | -V | --export=[ALL | NONE | variables] |
| Event Notification | -m abe | --mail-type=[events] |
| Email Address | -M [address] | --mail-user=[address] |
| Job Name | -N [name] | --job-name=[name] |
| Job Restart | -r [y|n] | --requeue OR --no-requeue |
| Working Directory | *Always starts in /home* | --workdir=[dir\_name]. ***\*Probably /scratch or /projects*** |
| Resource Sharing | -l naccesspolicy=singlejob | --exclusive OR --shared |
| Memory Size | -l mem=[MB] | --mem=[mem][M|G|T] OR --mem-per-cpu=[mem][M|G|T] |
| Account to charge | -A OR -W group\_list=[account] | --account=[account] OR -A |
| Tasks Per Node | -l mppnppn [PEs\_per\_node] | --tasks-per-node=[count] |
| CPUs Per Task |  | --cpus-per-task=[count] |
| Job Dependency | -d [job\_id] | --depend=[state:job\_id] |
| Job host preference |  | --nodelist=[nodes] AND/OR --exclude=[nodes] |
| Quality Of Service | -l qos=[name] | --qos=[normal|high|] |
| Job Arrays | -t [array\_spec] | --array=[array\_spec] |
| Generic Resources | -l other=[resource\_spec] | --gres=[resource\_spec] |
| Licenses |  | --licenses=[license\_spec] |
| Job Enqueue Time | -a "YYYY-MM-DD HH:MM:SS" | --begin=YYYY-MM-DD[THH:MM[:SS]] |