

Translating from Torque to SLURM

Quick Guide to translating features from Torque/MOAB to SLURM

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 --user=[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 --Node OR scontrol show nodes
Cluster status	qstat -a	sinfo
Environment Variables		
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
Job Specification		
Script directive	#PBS	#SBATCH
Queue	-q [queue]	--partition=[queue]
Node Count	-l nodes=[count]	--nodes=[min[-max]]
CPU Count	-l ppn=[count]	--ntasks-per-node=[count]
Wall Clock Limit	-l walltime=[hh:mm:ss]	--time=[min] OR --time=[days-hh:mm:ss]
Standard Output File	-o [file_name]	--output=[file_name]
Standard Error File	-e [file_name]	--error=[file_name]
Combine stdout/err	-j oe (both to stdout) OR -j eo (both to stderr)	(Default if you don't specify --error)
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	N/A (always current working directory)	--workdir=[dir_name]

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	-W group_list=[account]	--account=[account]
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 Project		--wckey=[name]
Job host preference		--odelist=[nodes] AND/OR --exclude=[nodes]
Quality Of Service	-l qos=[name]	--qos=[name]
Job Arrays	-t [array_spec]	--array=[array_spec]
Generic Resources	-l other=[resource_spec]	--gres=[resource_spec]
Licenses		--licenses=[[license_spec]
Begin Time	-A "YYYY-MM-DD HH:MM:SS"	--begin=YYYY-MM-DD[THH:MM[:SS]]



Long options are being shown here for clarity. Most long options have shorthand available (e.g. "--partition=commons" becomes "-p commons") Check the online manual for details and for options not mentioned here (*man sbatch* or *sbatch --help*)

Links

<http://slurm.schedmd.com/rosetta.html>