

Crosswalk between PBS and Slurm submission scripts

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Equivalent commands in PBS and Slurm

<u>Purpose</u>	<u>PBS</u>	<u>Slurm</u>
Submit a job	qsub jobscript	sbatch jobscript
Delete a job	qdel job_id	scancel job_id
Delete all jobs belonging to user	qdel `qselect -u user`	scancel -u user
Job status	qstat -u user	squeue -u user
Show all jobs	qstat -a	squeue

Equivalent Environment Variables in PBS and Slurm

<u>Purpose</u>	<u>PBS</u>	<u>Slurm</u>
Job ID	\$PBS_JOBID	\$SLURM_JOBID
Submit directory	\$PBS_O_WORKDIR	\$SLURM_SUBMIT_DIR
Allocated node list	\$PBS_NODEFILE	\$SLURM_JOB_NODELIST
Job array index	\$PBS_ARRAY_INDEX	\$SLURM_ARRAY_TASK_ID
Number of cores/processes	\$PCPU	\$SLURM_CPUS_PER_TASK

Equivalent Job Specifications in PBS and Slurm

<u>Purpose</u>	<u>PBS</u>	<u>Slurm</u>
Set a wallclock limit	qsub -l nodes=1,walltime=HH:MM:SS qsub -o filename	sbatch -t [min] OR -t [days-hh:mm:ss] sbatch -o filename
	1. PBS -o filename	1. SBATCH --output filename
Standard output file	qsub -e filename	1. SBATCH -o filename sbatch -e filename
	1. PBS -e filename	1. SBATCH --error filename 2. SBATCH -e filename
Standard error file		

	qsub -j oe	
Combine stdout/stderr	1. PBS -j oe	This is the default/ specify in writing
	qsub -k oe	
Location of out/err files	1. PBS -k oe	not needed. By default, slurm will write stdout/stderr files to the directory from which the job is submitted.
Export environment to allocated node	qsub -V	SBATCH --export=all (default)
Export a single variable	qsub -v np=12	SBATCH --export=np
	qsub -m be	END FAIL ALL
Email notifications	1. PBS -m be	1. SBATCH --mail-type=ALL
	qsub -N jobname -l nodes=1 jobscript	SBATCH --job-name=name jobscript
Job name	1. PBS -N JobName	1. SBATCH --job-name=JobName
Job restart	n]	SBATCH --requeue OR --no-requeue