Common User Commands

	PBS/Torque	Slurm	LSF	SGE	LoadLeveler
Job submission	qsub [script_file]	sbatch [script_file]	bsub [script_file]	qsub [script_file]	llsubmit [script_file]
Job deletion	qdel [job_id]	scancel [job_id]	bkill [job_id]	qdel [job_id]	llcancel [job_id]
Job status	qstat [job_id]	squeue [job_id]	bjobs	qstat [-j job_id]	llq -u [username]
Job status (by user)	qstat -u [user_name]	squeue -u [user_name]	bjobs	qstat [-j job_id]	llq -u [user_name]
Job hold	qhold [job_id]	scontrol hold [job_id]	bstop [job_id]	qhold [job_id]	llhold -r [job_id]
Job release	qrls [job_id]	scontrol release [job_id]	bresume [job_id]	qrls [job_id]	llhold -r [job_id]
Queue list	qstat -Q	squeue	bqueues	qconf -sql	llclass
GUI	xpbsmon	sview	xlsf/xlsbatch	N/A	xload

Environment Variables

	PBS/Torque	Slurm	LSF	SGE	LoadLeveler
Job ID	$PBS_JOBID	$SLURM_JOBID	$LSB_JOBID	$JOB_ID	$LOAD_STEP_ID
Working Directory	$PBS_O_WORKDIR	Use "pwd" command	Use "pwd" command	$SGE_O_WORKDIR	$LOADL_STEP_INITDIR
Node List	$PBS_NODEFILE	$SLURM_JOB_NODELIST	$LSB_HOSTS/LSB_MCPU_HOST	$PE_HOSTFILE	$LOADL_PROCESSOR_LIST

Job Specification

	PBS/Torque	Slurm	LSF	SGE	LoadLeveler
Script directive	#PBS	#SBATCH	#BSUB	#$	#@
Queue	-q [queue]	-p [queue]	-q [queue]	-q [queue]	class=[queue]
Node Count	-l nodes=[count]	-N [min[-max]]	-n [count]	N/A	node=[count]
CPU Count	-l ppn=[count]	-n [count]	-n [count]	-pe ompi [#]	tasks_per_node=[count]
Wall Clock Limit	-l walltime=[hh:mm:ss]	-t [min] OR -t [days-hh:mm:ss]	-W	-l time=[hh:mm:ss]	wall_clock_limit=[hh:mm:ss]
Standard Output FIle	-o [file_name]	-o [file_name]	-o [file_name]	-o [path]	output=[file]
Standard Error File	-e [file_name]	e [file_name]	-e [file_name]	-e [path]	error=[file]
Combine stdout/err	-j oe (both to stdout) OR -j eo (both to stderr)	(use -o without -e)	(use -o without -e)		
Copy Environment	-V	--export=[ALL | NONE | variables]	?	-V	environment=COPY_ALL
Event Notification	-m abe	--mail-type=[events]	-B or -N	-m abe	notification=start|error|complete|never|always
Email Address	-M [address]	--mail-user=[address]	-u [address]	-M [address]	notify_user=[address]
Job Name	-N [name]	--job-name=[name]	-J [name]	-N [name]	job_name=[name]
Job Restart	-r [y|n]	--requeue OR --no-requeue (NOTE: configurable default)	-r	-r [yes|no]	restart=[yes|no]
Job Type	N/A	N/A	N/A	N/A	job_type=[type]
Working Directory	N/A	--workdir=[dir_name]	(submission directory)	-wd [directory]	initialdir=[directory]
Resource Sharing	-l naccesspolicy=singlejob	--exclusive OR--shared	-x	N/A	node_usage=not_shared
Memory Size	l mem=[MB]	--mem=[MB] OR --mem-per-cpu=[MB]	-M [MB]	-mem [GB]	requirements=(Memory >= [MB])
Project to charge	-W group_list=<project>	--acount=[project]	-P <project>		
Resource Requirements			-R		
Job dependency		--depend=[job_id:state]	-w [done | exit | finish]		
Job project		--wckey=[name]	-P [name]		
Job host preference		--nodelist=[nodes] AND/OR --exclude=[nodes]	-m [nodes]		