

## QCG Client - Cheat Sheet



QosCosGrid

[www.qoscogrid.org](http://www.qoscogrid.org)



[docs.plgrid.pl/qcg](http://docs.plgrid.pl/qcg)

### Client Documentation

EN	<a href="http://www.qoscogrid.org/trac/qcg-broker/wiki/client_user_guide">www.qoscogrid.org/trac/qcg-broker/wiki/client_user_guide</a>
PL	<a href="http://docs.plgrid.pl/qcg-client">docs.plgrid.pl/qcg-client</a>

### UI (Submit host)

PCSS	ssh plguser@qcg.man.poznan.pl
WCSS	ssh plguser@ui.plgrid.wcss.wroc.pl
CYFRONET	ssh plguser@zeus.cyfronet.pl
ICM	ssh plguser@ui.grid.icm.edu.pl

### Basic Commands

<b>qcg-sub <i>script.qcg</i></b>	Submit a job
<b>qcg-list</b>	List active jobs
<b>qcg-info <i>JOB_ID</i></b>	Get job information
<b>qcg-peek <i>JOB_ID</i></b>	Peek job output
<b>qcg-cancel <i>JOB_ID</i></b>	Delete job
<b>qcg-connect <i>JOB_ID</i></b>	Connect Interactively
<b>qcg-resub <i>JOB_ID</i></b>	Resubmit job
<b>qcg-offer</b>	Show resources, apps

### Basic script directives

#QCG queue=plgrid	Queue name
#QCG host=Cluster	Target resource name
#QCG nodes=N:P	Parallel topology (N -nodes, P - cores per node)
#QCG procs=P	Number of cores
#QCG walltime=PT8H	Max job walltime
#QCG memory=1024	Total memory requirement (in megabytes)
#QCG grant=MyGrant	Grant/Allocation Id
#QCG note=Info	Short description of the job
#QCG application=g09	Request application
#QCG argument=et.gjf	Application argument
#QCG module=namd	Request module
#QCG notify=dest.	Status notification
#QCG properties=prop	Node properties
#QCG module = nwchem/6.0	Request particular version of module
#QCG include=file	Includes a file
#QCG note=desc	Task note

### Clusters (#QCG host)

Reef (PSNC)	reef	reef.man.poznan.pl
Inula (PSNC)	inula	inula.man.poznan.pl
Nova (WCSS)	nova	nova.wcss.wroc.pl
Zeus (Cyfronet)	zeus	zeus.cyfronet.pl
Galera+ (TASK)	galera	galera.task.gda.pl
Hydra (ICM)	hydra	hydra.icm.edu.pl

### Staging directives

#QCG input=input.txt	Standard input file name
#QCG output=out.txt	Standard output file name
#QCG error=err.txt	Standard error file name
#QCG stage-in-file = input_file.txt	Name of the file to be staged in
#QCG stage-in-dir = inputs	Name of the directory to be staged in
#QCG stage-out-file = results.dat	Name of the file to be staged out
#QCG stage-out-dir = outputs	Name of the directory to be staged out
#QCG stage-out-dir = ./ -> results	Stage out complete job working directory

### Advanced script directives

#QCG monitor [= monitor.sh]	Monitor script
#QCG preprocess = mkdir outputs	Job prolog command
#QCG postprocess = tar cvf results.tar *	Job epilog command
#QCG native=-r n	Arguments passed directly to the batch system
#QCG reservation=r	Local Reservation Identifier

### Parameter-sweep directives

#QCG parameter-sweep=var->list:val1,val2,val3,...,valN
#QCG parameter-sweep=var->for:start..end..step
#QCG parameter-sweep=var->pattern->*.input*
#QCG parameter-sweep=var->file:file_with_values

### Example Job Script (I)

```
#QCG queue=plgrid-long
#QCG note=etanal Gaussian
#QCG output=${JOB_ID}.output
#QCG error=${JOB_ID}.error
#QCG stage-in-file=etanal.gjf -> etanal.gjf
#QCG stage-out-file=results.tar -> ${JOB_ID}.tar
#QCG nodes=1:12
#QCG host=galera.task.gda.pl
#QCG walltime=P7D
#QCG notify=mailto:jon@example.com
#QCG memory=15360
#QCG application=g09
#QCG argument=etanal.gjf
#QCG postprocess=tar cvf results.tar *
```

### Example Job Script (II)

```
#!/bin/bash
#QCG walltime=PT5M
#QCG parameter-sweep=MONTH->list:Jan,Feb
#QCG parameter-sweep=DAY->for:0..10..5
#QCG output=${JOB_ID}.output
echo ${JOB_ID} parameter: ${MONTH} ${DAY}
```