

We have total 75 computation nodes in the cluster.

We have the following cluster :

24 cores, 64 GB RAM, Dirac01~Dirac32 (32 eas)

28 cores, 64GB RAM, Dirac33~Dirac64 (32 eas)

40cores, 256GB RAM, Dirac65~Dirac75 (11 eas)

queue name	hostname	The number of nodes	cores/queue	Job time limit	The number of cores available simultaneously	The number of nodes available simultaneously
debug.q	dirac01	1	24	2	X	X
single.q	dirac02~dirac08	7	168	Unlimited	96	4
long_24.q	dirac19~dirac32	24	576	336	220	9
short_24.q			576	48	200	8
long_28.q	dirac33~dirac64	32	896	336	100	4
short_28.q			896	48	600	21
hm_long_40.q	dirac65~dirac75	11	440	336	120	3
hm_short_40.q			440	48	120	3
reserved.q	0	0	0	0	0	0

The commands as below are the commands how to check usage of Fermi cluster currently. You can refer it to your computation/simulation.

1. qstat -g c

- You can check the total resource usage.

```
[dasan@fermi Simple_mpi_test]$ qstat -g c
CLUSTER QUEUE          CQLOAD   USED   RES  AVAIL  TOTAL  aoACDS  cdsuE
-----
debug.q              0.00     0     0    24    24     0     0
hm_long_40.q         0.14   120     0   320   440     0     0
hm_short_40.q        0.14    80     0   360   440     0     0
long_24.q            0.40   240     0   336   576     0     0
long_28.q            0.04    28     0   868   896     0     0
reserved.q           -NA-     0     0     0     0     0     0
short_24.q           0.40     0     0   576   576     0     0
short_28.q           0.04    84     0   812   896     0     0
single.q             0.01     1     0   167   168     0     0
[dasan@fermi Simple_mpi_test]$
```

2. qhost

- You can check each node's overload such as memory, CPU..etc.

```
[dasan@fermi sge-examples]$ qhost
```

HOSTNAME	ARCH	NCPU	NSOC	NCOR	NTHR	LOAD	MEMTOT	MEMUSE	SWAPTO	SWAPUS
global	-	-	-	-	-	-	-	-	-	-
dirac01	lx-amd64	24	2	24	24	0.01	62.6G	1.4G	32.0G	55.6M
dirac02	lx-amd64	24	2	24	24	0.01	62.6G	2.0G	32.0G	152.3M
dirac03	lx-amd64	24	2	24	24	0.01	62.6G	1.4G	32.0G	507.1M
dirac04	lx-amd64	24	2	24	24	1.01	62.6G	1.5G	32.0G	299.1M
dirac05	lx-amd64	24	2	24	24	0.01	62.6G	2.3G	32.0G	276.7M
dirac06	lx-amd64	24	2	24	24	0.01	62.6G	1.3G	32.0G	499.3M
dirac07	lx-amd64	24	2	24	24	0.01	62.6G	2.1G	32.0G	106.3M
dirac08	lx-amd64	24	2	24	24	0.01	62.6G	1.8G	32.0G	145.7M
dirac09	lx-amd64	24	2	24	24	12.01	62.6G	46.9G	32.0G	715.3M
dirac10	lx-amd64	24	2	24	24	0.01	62.6G	1.2G	32.0G	610.0M
dirac11	lx-amd64	24	2	24	24	0.01	62.6G	1.1G	32.0G	765.0M
dirac12	lx-amd64	24	2	24	24	0.01	62.6G	1.1G	32.0G	183.0M
dirac13	lx-amd64	24	2	24	24	0.01	62.6G	1.1G	32.0G	752.2M
dirac14	lx-amd64	24	2	24	24	0.01	62.6G	1.1G	32.0G	722.5M
dirac15	lx-amd64	24	2	24	24	0.01	62.6G	1.1G	32.0G	794.0M
dirac16	lx-amd64	24	2	24	24	0.01	62.6G	1.2G	32.0G	662.0M
dirac17	lx-amd64	24	2	24	24	0.01	62.5G	1.1G	32.0G	713.5M
dirac18	lx-amd64	24	2	24	24	12.01	62.5G	32.9G	32.0G	718.7M
dirac19	lx-amd64	24	2	24	24	0.01	62.5G	1.0G	32.0G	759.6M
dirac20	lx-amd64	24	2	24	24	0.01	62.5G	1.0G	32.0G	756.7M
dirac21	lx-amd64	24	2	24	24	0.01	62.5G	1.1G	32.0G	725.0M
dirac22	lx-amd64	24	2	24	24	0.01	62.5G	1016.2M	32.0G	763.2M
dirac23	lx-amd64	24	2	24	24	0.01	62.5G	1.0G	32.0G	237.7M
dirac24	lx-amd64	24	2	24	24	0.01	62.5G	1.0G	32.0G	751.8M
dirac25	lx-amd64	24	2	24	24	9.99	62.5G	38.1G	32.0G	713.7M
dirac26	lx-amd64	24	2	24	24	0.01	62.5G	1.2G	32.0G	642.1M
dirac27	lx-amd64	24	2	24	24	0.01	62.5G	1.0G	32.0G	711.0M
dirac28	lx-amd64	24	2	24	24	0.01	62.5G	1.0G	32.0G	712.5M
dirac29	lx-amd64	24	2	24	24	0.01	62.5G	1.0G	32.0G	761.0M
dirac30	lx-amd64	24	2	24	24	0.01	62.5G	1.1G	32.0G	739.3M
dirac31	lx-amd64	24	2	24	24	0.01	62.5G	1.0G	32.0G	773.4M
dirac32	lx-amd64	24	2	24	24	0.01	62.5G	1.1G	32.0G	707.0M
dirac33	lx-amd64	28	2	28	28	0.01	62.6G	1.2G	32.0G	724.0M
dirac34	lx-amd64	28	2	28	28	0.01	62.6G	1.2G	32.0G	663.3M
dirac35	lx-amd64	28	2	28	28	0.01	62.6G	1.2G	32.0G	765.8M
dirac36	lx-amd64	28	2	28	28	0.01	62.6G	1.3G	32.0G	588.1M
dirac37	lx-amd64	28	2	28	28	0.01	62.6G	1.2G	32.0G	762.7M
dirac38	lx-amd64	28	2	28	28	0.01	62.6G	1.2G	32.0G	713.4M
dirac39	lx-amd64	28	2	28	28	0.01	62.6G	1.2G	32.0G	730.0M
dirac40	lx-amd64	28	2	28	28	0.01	62.6G	1.2G	32.0G	763.4M
dirac41	lx-amd64	28	2	28	28	0.01	62.6G	1.2G	32.0G	719.5M
dirac42	lx-amd64	28	2	28	28	0.01	62.6G	1.2G	32.0G	719.1M
dirac43	lx-amd64	28	2	28	28	0.01	62.6G	1.2G	32.0G	780.2M
dirac44	lx-amd64	28	2	28	28	0.01	62.6G	1.2G	32.0G	723.3M
dirac45	lx-amd64	28	2	28	28	0.01	62.4G	1.2G	32.0G	734.0M
dirac46	lx-amd64	28	2	28	28	0.01	62.4G	1.2G	32.0G	769.4M
dirac47	lx-amd64	28	2	28	28	0.01	62.4G	1.3G	32.0G	715.3M
dirac48	lx-amd64	28	2	28	28	0.01	62.4G	1.2G	32.0G	725.8M
dirac49	lx-amd64	28	2	28	28	0.03	62.4G	1.3G	32.0G	565.3M
dirac50	lx-amd64	28	2	28	28	0.01	62.4G	1.2G	32.0G	712.0M
dirac51	lx-amd64	28	2	28	28	0.01	62.4G	1.3G	32.0G	811.7M
dirac52	lx-amd64	28	2	28	28	0.01	62.4G	1.3G	32.0G	815.2M
dirac53	lx-amd64	28	2	28	28	0.01	62.4G	1.3G	32.0G	567.3M
dirac54	lx-amd64	28	2	28	28	11.12	62.4G	39.4G	32.0G	712.5M
dirac55	lx-amd64	28	2	28	28	0.01	62.4G	1.3G	32.0G	617.7M
dirac56	lx-amd64	28	2	28	28	9.54	62.4G	37.1G	32.0G	187.0M
dirac57	lx-amd64	28	2	28	28	0.01	62.4G	1.2G	32.0G	710.2M
dirac58	lx-amd64	28	2	28	28	0.01	62.4G	1.2G	32.0G	583.0M
dirac59	lx-amd64	28	2	28	28	0.01	62.4G	1.2G	32.0G	789.2M
dirac60	lx-amd64	28	2	28	28	1.64	62.4G	1.2G	32.0G	764.6M
dirac61	lx-amd64	28	2	28	28	0.01	62.4G	1.2G	32.0G	719.0M

dirac62	lx-amd64	28	2	28	28	10.04	62.4G	34.9G	32.0G	712.3M
dirac63	lx-amd64	28	2	28	28	0.01	62.4G	1.2G	32.0G	824.1M
dirac64	lx-amd64	28	2	28	28	0.01	62.4G	1.2G	32.0G	677.4M
dirac65	lx-amd64	40	2	40	40	0.01	251.4G	2.8G	32.0G	261.5M
dirac66	lx-amd64	40	2	40	40	0.01	251.4G	2.6G	32.0G	515.6M
dirac67	lx-amd64	40	2	40	40	11.51	251.4G	152.3G	32.0G	665.2M
dirac68	lx-amd64	40	2	40	40	15.99	251.4G	127.9G	32.0G	0.0
dirac69	lx-amd64	40	2	40	40	0.01	251.4G	2.7G	32.0G	309.3M
dirac70	lx-amd64	40	2	40	40	0.01	251.4G	2.4G	32.0G	0.0
dirac71	lx-amd64	40	2	40	40	0.01	251.4G	2.5G	32.0G	331.8M
dirac72	lx-amd64	40	2	40	40	1.05	251.5G	2.1G	8.0G	0.0
dirac73	lx-amd64	40	2	40	40	0.01	251.5G	2.1G	8.0M	0.0
dirac74	lx-amd64	40	2	40	40	0.01	251.5G	2.1G	8.0G	0.0
dirac75	lx-amd64	40	2	40	40	15.97	251.5G	94.8G	8.0G	0.0
fermi	lx-ami	12	2	12	12	0.19	125.5G	77.3G	32.0G	356.9M

```
[dasan@fermi sge-examples]$
```

The commands as below are the commands which you can check the queue details

1. qconf -sql | sort -v

- You can check which queues we have.

```
[dasan@fermi sge-examples]$ qconf -sql | sort -V
debug.q
hm_long_40.q
hm_short_40.q
long_24.q
long_28.q
reserved.q
short_24.q
short_28.q
single.q
```

2. qconf -sq queueName.q

- You can check the queue details

Debug.q : 2 hours time limit (Max 24Cores/node)

```
[dasan@fermi sge-examples]$
[dasan@fermi sge-examples]$ qconf -sq debug.q
qname          debug.q
hostlist       @debug_host
seq_no         0
load_thresholds np_load_avg=1.75
suspend_thresholds NONE
nsuspend       1
suspend_interval 00:05:00
priority       0
min_cpu_interval 00:05:00
processors     UNDEFINED
qtype          BATCH INTERACTIVE
ckpt_list      NONE
pe_list        make fill_up round_robin orte openmp mpi mpi_1 mpi_2 \
               mpi_3 mpi_4 mpi_5 mpi_6 mpi_7 mpi_8 mpi_9 mpi_10 mpi_11 \
               mpi_12 mpi_13 mpi_14 mpi_15 mpi_16 mpi_17 mpi_18 mpi_19 \
               mpi_20 mpi_21 mpi_22 mpi_23 mpi_24
rerun          FALSE
slots          24,[dirac01=24]
tmpdir         /tmp
shell          /bin/sh
```

```

prolog          NONE
epilog          NONE
shell_start_mode  unix_behavior
starter_method   NONE
suspend_method   NONE
resume_method    NONE
terminate_method SIGTERM
notify          00:00:60
owner_list       NONE
user_lists       NONE
xuser_lists      NONE
subordinate_list NONE
complex_values   NONE
projects         NONE
xprojects        NONE
calendar         NONE
initial_state    default
s_rt             INFINITY
h_rt            02:00:00
s_cpu            INFINITY
h_cpu            INFINITY
s_fsize          INFINITY
h_fsize          INFINITY
s_data           INFINITY
h_data           INFINITY
s_stack          INFINITY
h_stack          INFINITY
s_core           INFINITY
h_core           INFINITY
s_rss            INFINITY
h_rss            INFINITY
s_vmem           INFINITY
h_vmem           INFINITY
[dasan@fermi sge-examples]$
[dasan@fermi sge-examples]$

```

Single.q: unlimited time limit (Max 24Cores/node)

```

[dasan@fermi sge-examples]$
[dasan@fermi sge-examples]$ qconf -sq single.q
qname           single.q
hostlist        @single_host
seq_no           0
load_thresholds  np_load_avg=1.75
suspend_thresholds NONE
nsuspend         1
suspend_interval 00:05:00
priority         0
min_cpu_interval 00:05:00
processors       UNDEFINED
qtype            BATCH INTERACTIVE
ckpt_list        NONE
pe_list         make fill_up round_robin openmp mpi_1
rerun            FALSE
slots          24,[dirac02=24],[dirac03=24],[dirac04=24],[dirac05=24], \
                [dirac06=24],[dirac07=24],[dirac08=24]
tmpdir           /tmp
shell            /bin/sh
prolog           NONE
epilog           NONE
shell_start_mode  unix_behavior
starter_method    NONE
suspend_method    NONE
resume_method     NONE
terminate_method  SIGTERM
notify           00:00:60
owner_list        NONE
user_lists        NONE
xuser_lists       NONE
subordinate_list  NONE

```

complex_values	NONE
projects	NONE
xprojects	NONE
calendar	NONE
initial_state	default
s_rt	INFINITY
h_rt	INFINITY
s_cpu	INFINITY
h_cpu	INFINITY
s_fsize	INFINITY
h_fsize	INFINITY
s_data	INFINITY
h_data	INFINITY
s_stack	INFINITY
h_stack	INFINITY
s_core	INFINITY
h_core	INFINITY
s_rss	INFINITY
h_rss	INFINITY
s_vmem	INFINITY
h_vmem	INFINITY

[dasan@fermi sge-examples]\$

short_24.q: 48 hours time limit (Max 24Cores/node)

[dasan@fermi sge-examples]\$ qconf -sq short_24.q

qname	short_24.q
hostlist	@short_24_host
seq_no	0
load_thresholds	np_load_avg=1.75
suspend_thresholds	NONE
nsuspend	1
suspend_interval	00:05:00
priority	-10
min_cpu_interval	00:05:00
processors	UNDEFINED
qtype	BATCH INTERACTIVE
ckpt_list	NONE
pe_list	make fill_up round_robin orte mpi mpi_24
rerun	FALSE
slots	24,[dirac09=24],[dirac10=24],[dirac11=24],[dirac12=24], \
	[dirac13=24],[dirac14=24],[dirac15=24],[dirac16=24], \
	[dirac17=24],[dirac18=24],[dirac19=24],[dirac20=24], \
	[dirac21=24],[dirac22=24],[dirac23=24],[dirac24=24], \
	[dirac25=24],[dirac26=24],[dirac27=24],[dirac28=24], \
	[dirac29=24],[dirac30=24],[dirac31=24],[dirac32=24]
tmpdir	/tmp
shell	/bin/sh
prolog	NONE
epilog	NONE
shell_start_mode	unix_behavior
starter_method	NONE
suspend_method	NONE
resume_method	NONE
terminate_method	SIGTERM
notify	00:00:60
owner_list	NONE
user_lists	NONE
xuser_lists	NONE
subordinate_list	NONE
complex_values	NONE
projects	NONE
xprojects	NONE
calendar	NONE
initial_state	default
s_rt	INFINITY
h_rt	48:00:00
s_cpu	INFINITY
h_cpu	INFINITY
s_fsize	INFINITY
h_fsize	INFINITY
s_data	INFINITY

h_data	INFINITY
s_stack	INFINITY
h_stack	INFINITY
s_core	INFINITY
h_core	INFINITY
s_rss	INFINITY
h_rss	INFINITY
s_vmem	INFINITY
h_vmem	INFINITY

long_24.q: 336 hours time limit (Max 24 Cores/node)

```
[dasan@fermi sge-examples]$ qconf -sq long_24.q
qname                long_24.q
hostlist              @long_24_host
seq_no               0
load_thresholds      np_load_avg=1.75
suspend_thresholds   NONE
nsuspend             1
suspend_interval     00:05:00
priority             0
min_cpu_interval     00:05:00
processors            UNDEFINED
qtype                BATCH INTERACTIVE
ckpt_list            NONE
pe_list              make fill_up round_robin orte mpi mpi_24
rerun                FALSE
slots                24,[dirac09=24],[dirac10=24],[dirac11=24],[dirac12=24], \
                    [dirac13=24],[dirac14=24],[dirac15=24],[dirac16=24], \
                    [dirac17=24],[dirac18=24],[dirac19=24],[dirac20=24], \
                    [dirac21=24],[dirac22=24],[dirac23=24],[dirac24=24], \
                    [dirac25=24],[dirac26=24],[dirac27=24],[dirac28=24], \
                    [dirac29=24],[dirac30=24],[dirac31=24],[dirac32=24], \
                    [dirac08=24]
tmpdir               /tmp
shell                /bin/sh
prolog               NONE
epilog               NONE
shell_start_mode     unix_behavior
starter_method       NONE
suspend_method       NONE
resume_method        NONE
terminate_method     SIGTERM
notify               00:00:60
owner_list           NONE
user_lists           NONE
xuser_lists          NONE
subordinate_list     NONE
complex_values       NONE
projects             NONE
xprojects            NONE
calendar             NONE
initial_state        default
s_rt                 INFINITY
h_rt                 336:00:00
s_cpu                INFINITY
h_cpu                INFINITY
s_fsize              INFINITY
h_fsize              INFINITY
s_data               INFINITY
h_data               INFINITY
s_stack              INFINITY
h_stack              INFINITY
s_core               INFINITY
h_core               INFINITY
s_rss                INFINITY
h_rss                INFINITY
s_vmem               INFINITY
h_vmem               INFINITY
```

```
[dasan@fermi sge-examples]$
```

short_28.q: 48 hours time limit (Max 28Cores/node)

```
[dasan@fermi sge-examples]$ qconf -sq short_28.q
```

```
qname          short_28.q
hostlist        @short_28_host
seq_no          0
load_thresholds np_load_avg=1.75
suspend_thresholds NONE
nsuspend        1
suspend_interval 00:05:00
priority        -10
min_cpu_interval 00:05:00
processors      UNDEFINED
qtype           BATCH INTERACTIVE
ckpt_list       NONE
pe_list         make fill_up round_robin orte mpi_28
rerun           FALSE
slots           28,[dirac33=28],[dirac34=28],[dirac35=28],[dirac36=28], \
                [dirac37=28],[dirac38=28],[dirac39=28],[dirac40=28], \
                [dirac41=28],[dirac42=28],[dirac43=28],[dirac44=28], \
                [dirac45=28],[dirac46=28],[dirac47=28],[dirac48=28], \
                [dirac49=28],[dirac50=28],[dirac51=28],[dirac52=28], \
                [dirac53=28],[dirac54=28],[dirac55=28],[dirac56=28], \
                [dirac57=28],[dirac58=28],[dirac59=28],[dirac60=28], \
                [dirac61=28],[dirac62=28],[dirac63=28],[dirac64=28]
tmpdir          /tmp
shell           /bin/sh
prolog          NONE
epilog          NONE
shell_start_mode unix_behavior
starter_method  NONE
suspend_method  NONE
resume_method   NONE
terminate_method SIGTERM
notify          00:00:60
owner_list      NONE
user_lists      NONE
xuser_lists     NONE
subordinate_list NONE
complex_values  NONE
projects        NONE
xprojects       NONE
calendar        NONE
initial_state   default
s_rt            INFINITY
h_rt            48:00:00
s_cpu           INFINITY
h_cpu           INFINITY
s_fsize         INFINITY
h_fsize         INFINITY
s_data          INFINITY
h_data          INFINITY
s_stack         INFINITY
h_stack         INFINITY
s_core          INFINITY
h_core          INFINITY
s_rss           INFINITY
h_rss           INFINITY
s_vmem          INFINITY
h_vmem          INFINITY
[dasan@fermi sge-examples]$
```

long_28.q: 336 hours time limit (Max 28Cores/node)

```
[mylee@fermi sge-examples]$ qconf -sq long_28.q
```

```
qname          long_28.q
```

```

hostlist                @long_28_host
seq_no                  0
load_thresholds         np_load_avg=1.75
suspend_thresholds      NONE
nsuspend                1
suspend_interval        00:05:00
priority                0
min_cpu_interval        00:05:00
processors              UNDEFINED
qtype                   BATCH INTERACTIVE
ckpt_list               NONE
pe_list                 make_fill_up round_robin orte mpi_28
rerun                   FALSE
slots                   28,[dirac33=28],[dirac34=28],[dirac35=28],[dirac36=28], \
                        [dirac37=28],[dirac38=28],[dirac39=28],[dirac40=28], \
                        [dirac41=28],[dirac42=28],[dirac43=28],[dirac44=28], \
                        [dirac45=28],[dirac46=28],[dirac47=28],[dirac48=28], \
                        [dirac49=28],[dirac50=28],[dirac51=28],[dirac52=28], \
                        [dirac53=28],[dirac54=28],[dirac55=28],[dirac56=28], \
                        [dirac57=28],[dirac58=28],[dirac59=28],[dirac60=28], \
                        [dirac61=28],[dirac62=28],[dirac63=28],[dirac64=28]

tmpdir                  /tmp
shell                   /bin/sh
prolog                  NONE
epilog                  NONE
shell_start_mode        unix_behavior
starter_method          NONE
suspend_method          NONE
resume_method           NONE
terminate_method        SIGTERM
notify                  00:00:60
owner_list              NONE
user_lists              NONE
xuser_lists             NONE
subordinate_list        NONE
complex_values          NONE
projects                NONE
xprojects               NONE
calendar                NONE
initial_state           default
s_rt                    INFINITY
h_rt                    336:00:00
s_cpu                   INFINITY
h_cpu                   INFINITY
s_fsize                 INFINITY
h_fsize                 INFINITY
s_data                  INFINITY
h_data                  INFINITY
s_stack                 INFINITY
h_stack                 INFINITY
s_core                  INFINITY
h_core                  INFINITY
s_rss                   INFINITY
h_rss                   INFINITY
s_vmem                  INFINITY
h_vmem                  INFINITY
[mylee@fermi sge-examples]$
[0] 0:mylee@fermi:~/sge-examples*

```

hm_long_40.q: 48 hours time limit (Max 40Cores/node)

```
[dasan@fermi sge-examples]$ qconf -sq hm_short_40.q
```

```

qname                   hm_short_40.q
hostlist                 @short_40_host
seq_no                   0
load_thresholds         np_load_avg=1.75
suspend_thresholds      NONE
nsuspend                1
suspend_interval        00:05:00
priority                 -5

```



```

min_cpu_interval    00:05:00
processors          UNDEFINED
qtype              BATCH INTERACTIVE
ckpt_list          NONE
pe_list            make fill_up round_robin mpi_40
rerun              FALSE
slots              40,[dirac65=40],[dirac66=40],[dirac67=40],[dirac68=40], \
                  [dirac69=40],[dirac70=40],[dirac71=40],[dirac72=40], \
                  [dirac73=40],[dirac74=40],[dirac75=40]
tmpdir             /tmp
shell              /bin/sh
prolog             NONE
epilog            NONE
shell_start_mode   unix_behavior
starter_method     NONE
suspend_method     NONE
resume_method      NONE
terminate_method   SIGTERM
notify            00:00:60
owner_list         NONE
user_lists         NONE
xuser_lists        NONE
subordinate_list   NONE
complex_values     NONE
projects           NONE
xprojects          NONE
calendar           NONE
initial_state      default
s_rt              INFINITY
h_rt              48:00:00
s_cpu             INFINITY
h_cpu             INFINITY
s_fsize           INFINITY
h_fsize           INFINITY
s_data            INFINITY
h_data            INFINITY
s_stack           INFINITY
h_stack           INFINITY
s_core            INFINITY
h_core            INFINITY
s_rss             INFINITY
h_rss             INFINITY
s_vmem            INFINITY
h_vmem            INFINITY
[dasan@fermi sge-examples]$

```

hm_long_40.q: 336 hours time limit (Max 40Cores/node)

```

[dasan@fermi Simple_mpi_test]$ qconf -sq hm_long_40.q
qname             hm_long_40.q
hostlist           @long_40_host
seq_no            0
load_thresholds   np_load_avg=1.75
suspend_thresholds NONE
nsuspend          1
suspend_interval  00:05:00
priority          0
min_cpu_interval  00:05:00
processors        UNDEFINED
qtype            BATCH INTERACTIVE
ckpt_list        NONE
pe_list          make fill_up round_robin mpi_40
rerun            FALSE
slots            40,[dirac65=40],[dirac66=40],[dirac67=40],[dirac68=40], \
                [dirac69=40],[dirac70=40],[dirac71=40],[dirac72=40], \
                [dirac73=40],[dirac74=40],[dirac75=40]
tmpdir           /tmp
shell            /bin/sh
prolog           NONE
epilog          NONE

```

```

shell_start_mode    unix_behavior
starter_method      NONE
suspend_method      NONE
resume_method       NONE
terminate_method    SIGTERM
notify              00:00:60
owner_list          NONE
user_lists          NONE
xuser_lists         NONE
subordinate_list    NONE
complex_values      NONE
projects            NONE
xprojects           NONE
calendar            NONE
initial_state       default
s_rt                INFINITY
h_rt                336:00:00
s_cpu               INFINITY
h_cpu               INFINITY
s_fsize             INFINITY
h_fsize             INFINITY
s_data              INFINITY
h_data              INFINITY
s_stack             INFINITY
h_stack             INFINITY
s_core              INFINITY
h_core              INFINITY
s_rss               INFINITY
h_rss               INFINITY
s_vmem              INFINITY
h_vmem              INFINITY
[dasan@fermi Simple_mpi_test]$

```

The commands as below are the commands which you can check each job's state.

1. qstat

- You can check the running jobs and waiting jobs.

```

[dasan@fermi ~]$ qstat | more

```

job-ID	prior	name	user	state	submit/start at	queue	slots	ja-
task-ID								

124990	8.11330	test-1-6.s	yjkim	r	09/09/2022 22:27:10	long_28.q@dirac59	28	
125123	7.90545	sub12_AAFi	dillip	r	09/14/2022 03:19:45	hm_long_40.q@dirac74	40	
125135	8.11320	test.sh	yjkim	r	09/13/2022 23:53:55	long_24.q@dirac14	24	
125137	7.90504	sub13_AAFi	dillip	r	09/14/2022 13:48:19	long_24.q@dirac26	24	
125138	7.90504	sub14_AAFi	dillip	r	09/14/2022 13:48:22	long_24.q@dirac10	24	
125139	7.90514	sub15_AAFi	dillip	r	09/14/2022 13:48:25	long_28.q@dirac53	28	
137998	5.81201	LO_all	weihua	r	09/19/2022 12:28:27	single.q@dirac03	1	
137999	5.81201	LO_all	weihua	r	09/19/2022 12:34:38	single.q@dirac07	1	
138000	5.81201	LO_all	weihua	r	09/19/2022 13:34:54	single.q@dirac04	1	

2. qstat -s rs

- You can check only the running jobs

```

[dasan@fermi Simple_mpi_test]$ qstat -s rs

```

job-ID	prior	name	user	state	submit/start at	queue	slots	ja-
task-ID								

84534	50.05000	Sf_Arin	arindam	r	03/15/2021 14:37:16	single.q@dirac04	1	
102674	2.58165	UC_DG	merab	r	12/10/2021 10:49:05	long_24.q@dirac19	24	

```

102675 2.58165 UC_DG      merab      r      12/10/2021 11:30:02 long_24.q@dirac23      24
102676 2.58165 UC_DG      merab      r      12/10/2021 13:55:43 long_24.q@dirac24      24
102677 2.58165 UC_DG      merab      r      12/10/2021 15:13:09 long_24.q@dirac17      24
102678 2.58165 UC_DG      merab      r      12/10/2021 15:23:06 long_24.q@dirac16      24
102679 2.58165 UC_DG      merab      r      12/10/2021 15:25:01 long_24.q@dirac27      24
102680 2.58165 UC_DG      merab      r      12/10/2021 16:01:37 long_24.q@dirac13      24
102681 2.58165 UC_DG      merab      r      12/10/2021 16:31:15 long_24.q@dirac32      24
102682 2.58165 UC_DG      merab      r      12/10/2021 17:18:07 long_24.q@dirac20      24
103272 2.57067 sub10Para_ dillip    r      12/11/2021 15:18:10 hm_short_40.q@dirac67  40
103283 2.57067 sub9Para_A dillip    r      12/11/2021 16:10:52 hm_long_40.q@dirac66   40
103284 2.57067 sub8Para_A dillip    r      12/11/2021 16:10:55 hm_long_40.q@dirac71   40
103285 2.57036 sub7Para_A dillip    r      12/11/2021 16:11:02 long_28.q@dirac48      28
103287 2.57036 sub5Para_A dillip    r      12/11/2021 16:27:30 long_28.q@dirac61      28
103288 2.57067 sub4Para_A dillip    r      12/11/2021 16:40:06 hm_long_40.q@dirac74   40
103289 2.57026 sub6Para_A dillip    r      12/11/2021 16:40:09 long_24.q@dirac26      24
103294 2.57026 sub11Para_ dillip    r      12/11/2021 16:56:29 long_24.q@dirac22      24
103295 2.57026 sub12Para_ dillip    r      12/11/2021 16:56:31 short_24.q@dirac30     24
103296 2.57036 sub13Para_ dillip    r      12/11/2021 16:56:33 short_28.q@dirac35     28
103297 2.57067 sub14Para_ dillip    r      12/11/2021 16:56:36 hm_short_40.q@dirac69  40
[dasan@fermi Simple_mpi_test]$

```

3. qstat -r

- You can check the running jobs' details

```
[dasan@fermi ~]$ qstat -r | more
```

job-ID	prior	name	user	state	submit/start at	queue	slots	ja-
task-ID								

124990	8.10778	test-1-6.s	yjkim	r	09/09/2022 22:27:10	long_28.q@dirac59	28	
		Full jobname:	test-1-6.sh					
		Master Queue:	long_28.q@dirac59					
		Requested PE:	orte 28					
		Granted PE:	orte 28					
		Hard Resources:						
		Soft Resources:						
		Hard requested queues:	long_28.q					
		Binding:	NONE					
125123	7.91191	sub12_AAFi	dillip	r	09/14/2022 03:19:45	hm_long_40.q@dirac74	40	
		Full jobname:	sub12_AAFilt.sh					
		Master Queue:	hm_long_40.q@dirac74					
		Requested PE:	mpi_40 40					
		Granted PE:	mpi_40 40					
		Hard Resources:	h_rt=1080000 (0.000000)					
		Soft Resources:						
		Hard requested queues:	hm_long_40.q					
		Binding:	NONE					
125135	8.10768	test.sh	yjkim	r	09/13/2022 23:53:55	long_24.q@dirac14	24	
		Full jobname:	test.sh					
		Master Queue:	long_24.q@dirac14					
		Requested PE:	orte 24					
		Granted PE:	orte 24					
		Hard Resources:						
		Soft Resources:						
		Hard requested queues:	long_24.q					
		Binding:	NONE					

4. qstat -j job_ID

- You can check the running jobs' more details using by job_ID which you already checked in the 3rd command, qstat -r

```
[mylee@fermi sge-examples]$ qstat -j 139234
```

```
=====
```

job_number: 139234
exec_file: job_scripts/139234
submission_time: Mon Sep 19 15:59:58 2022
owner: tilen
uid: 1013
group: tilen
gid: 1013
sge_o_home: /home/tilen
sge_o_log_name: tilen
sge_o_path: /opt/sge/bin:/opt/sge/bin/lx-amd64:/opt/openssl-3.0.5/bin:/opt/openssl-3.0.5/ssl:/opt/anaconda3/condabin:/usr/lib64/qt-3.3/bin:/usr/local/bin:/usr/bin:/usr/local/sbin:/usr/sbin:/opt/ibutils/bin:/home/tilen/.local/bin:/home/tilen/bin
sge_o_shell: /bin/bash
sge_o_workdir: /home/tilen/AGP/GUE_RP/CNN_project/L2000/training_data
sge_o_host: fermi
account: sge
cwd: /home/tilen/AGP/GUE_RP/CNN_project/L2000/training_data
mail_list: tilen@fermi
notify: FALSE
job_name: high.sh
jobshare: 0
hard_queue_list: single.q
shell_list: NONE:/bin/bash
env_list: TERM=NONE
script_file: high.sh
parallel environment: openmp range: 1
binding: NONE
job_type: NONE
usage 1: cpu=00:03:12, mem=31.46235 GB s, io=0.00589 GB, vmem=205.766M, maxvmem=215.758M
binding 1: NONE
scheduling info: (Collecting of scheduler job information is turned off)
[mylee@fermi sge-examples]\$