

Moab

How can I use a job template to limit a jobs walltime based on the number of processors requested?

Issue: How can I use a job template to limit a jobs walltime based on the number of processors requested?

Affected Versions: All

Symptom:

Some sites wish to give a longer walltime to jobs that request more processors and less walltime for smaller jobs. Job templates can be a good solution for this.

Solution:

In this solution, we limit the long queue to a single running job.

```
CLASSCFG[long] MAXJOB=1
```

In this template, we look for a jobs requesting between 1 and 2 procs and CLASS long. We then set the walltime to 300 seconds.

```
JOBCFG[job1.set] WCLIMIT=300
JOBCFG[job1.min] DPROCS=1 class="long"
JOBCFG[job1.max] DPROCS=2
JOBMATCHCFG[job1] JMIN=job1.min JSET=job1.set JMAX=job1.max
```

In this template, we look for a jobs requesting between 3 and 4 procs and CLASS long. We then set the walltime to 600 seconds.

```
JOBCFG[job2.set] WCLIMIT=600
JOBCFG[job2.min] DPROCS=3 class="long"
JOBCFG[job2.max] DPROCS=4
JOBMATCHCFG[job2] JMIN=job2.min JSET=job2.set JMAX=job2.max
```

Unique solution ID: #1038

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Last update: 2017-05-18 01:57