

Moab

What does (Est/Avg Backlog) mean in showstats

Issue: What does (Est/Avg Backlog) mean in showstats

Symptom:

```
[root@moab ~]$ showstats
```

```
moab active for 00:00:54 stats initialized on Wed May 20 13:19:37 2015
```

```
Eligible/Idle Jobs: 0/0 (0.000%)
```

```
Active Jobs: 1
```

```
Successful/Completed Jobs: 0/0 (0.000%)
```

```
Avg/Max QTime (Hours): 0.00/0.00
```

```
Avg/Max XFactor: 0.00/0.00
```

```
Dedicated/Total ProcHours: 0.02/0.02 (100.000%)
```

```
Current Active/Total Procs: 1/1 (100.000%)
```

```
Avg WallClock Accuracy: <N/A>
```

```
Avg Job Proc Efficiency: <N/A>
```

```
Est/Avg Backlog: 00:59:17/00:00:00
```

Solution: Estimated backlog creates a statistical estimate for the length of time the scheduler will require to complete all running and queued workload. It does this using the following algorithm:

$\text{Backlog} = \text{WorkloadRemaining} / \text{SystemThroughput}$

WorkloadRemaining

$\text{WorkloadRemaining} = (\text{QueuedWorkload} + \text{RemainingActiveWorkload}) * \text{AverageWallClockAccuracy}$

SystemThroughput

$\text{SystemThroughput} = \text{SystemResources} * \text{SystemEfficiency}$

So in the case of "Est/Avg Backlog: 00:59:17/00:00:00" my average historical average jobs walltime is 1 hour or 59 minuits 17 seconds. Note that Moab uses historical information about a clusters workload to determin these values so if your average job ran 3 days and then you submit small 1 minuit jobs you would see a

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drastically larger number on the Est Backlog.

Unique solution ID: #1009

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