LSF - lxbatch

Load Sharing Facility (or simply LSF) is a commercial computer software job scheduler sold by Platform Computing. It can be used to execute batch jobs on networked Unix and Windows systems on many different architectures. It is installed on Batch Farm of about 3000 machines providing computing power to CERN users needed for data analysis and simulation tasks.

Documentation

- CERN Batch Service
- IBM documentation - many useful commands

Useful commands

- bsub
- bjobs
- bkill

Example usage

In order to use LSF, you need to login to lxplus machine, then you can submit your jobs, requesting resources and choosing queue:

```
bsub -R "swp>2000&&pool>30000" -q 8nh /afs/.../script.csh
```

Try not to use "type==SLC4".

Useful commands extended edition

- If you want to kill all jobs for user: bkill -u [username] 0 (0 will force killing without waiting for job ending properly)
- A lot of info about command bjobs, flags, triggers, etc.
- As default when job ends we get message on our e-mail with output of the job. However, sometimes you submit many jobs on batch and don't want have hte mailbox spammed. To avoid getting mails put 'LSB_JOB_REPORT_MAIL=N' before bsub command.

Monitoring lxbatch jobs

- Monitoring for zj group
- You can monitor your jobs by using the same page as above filling 'Search User' input.

Helpful information

- If jobs you tries to submit are always in PENDING state, than check lxbatch monitoring for queue, which you use. Sometimes there is big load on specified queue and you have to wait a lot of time to get your turn.
- When you submit job, the output job information is saved in your actual submit directory. Better make new directory for jobs outputs in case not having spammed your submit directory.

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