Random Bash/R/LSF/PBS Tricks and Notes

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Commands for the LSF-based Linux clusters

To delete all your queued and running jobs:

```
$ qselect -u $USER -s Q | xargs qdel
$ qselect -u $USER -s R | xargs qdel
```

To kill a specific job:

```
$ bkill <job_id>
```

To see the jobs running/queued from a specific user or from all users:

```
$ bjobs -u <user>
$ bjobs -u all
```

To see the resource usage information for a specific job:

```
$ bjobs -l <job_id>
```

To see the overall number of jobs using different queue types:

```
$ bqueues
```

To see the information (name, cpu type, memory, swap) on all the available computing nodes:

```
$ lshosts
$ lsinfo
```

Other

To kill a Linux process by name, rather than ID:

```
$ pkill -U <username> <jobname/pattern>
$ pkill <jobname/pattern>
```

To convert a text file from Windows/DOS to Unix format and back (without using the dos2unix and unix2dos commands):

```
# Convert a text file from Windows/Dos to Unix:
$ tr -d '\015' < winformat.txt > unixformat.txt
# or
$ tr -d '\r' < winformat.txt > unixformat.txt
# Convert a text file from Unix to Windows/Dos:
$ sed -e 's/$/\r/' unixformat.txt > winformat.txt
```

Example command to run ClustalΩ using 24 cores:

```
$ ./clustalo --threads=24 --in seq.fasta --outfmt=fa --out seq_OUT.fasta  -v
```

The content of an example command file that is used to create a rotating molecule animation with UCSF Chimera:

```
movie record
turn y 1 440
wait 440
movie stop
movie encode output spin.mov
```

To get an information about the I/O load of the computer:

```
sudo iotop -aoP
# a - shows accumulated output
# o - to get only an output
# P - shows only processes, instead of threads
```

The command will tell how much a process has read from and written to the disk since the command was launched.