move2top Script Documentation

# Notes:

* Job priorities can only be decreased, not increased.

move2top

* This script moves a specified job to the top of a queue.
* Usage:
  + module load powertools
  + move2top {jobid}
* Explanation:
  + Given a job, the script lowers the priorities of the other jobs in the queue, not including the specified job, to be significantly lower than the specified job.
  + The priority adjustment is calculated by finding the target priority:
    - Target priority = (specified job’s priority) - 25000
      * The 25000 is chosen for the same reason as mentioned in move2bot
  + The script then loops through all of the jobs in the queue (excluding the specified job) and reduces the priority of each job given the adjustment:
    - Adjustment = - (specified job’s priority - target priority) / weight
    - Each job excluding the specified job has its priority reduced with the adjustment:
      * qalter -p {adjustment\_value} {jobid}
* Notes:
  + This script can only be used to move one job to the top once until the queue is cleared.
  + For example, given an idle queue with the jobs 11111111, 22222222, 33333333, only one job (in this case let’s choose 22222222) can be moved to the top with the script. Trying to move the other jobs will not be guaranteed to be moved to the top.
    - After jobs 11111111, 22222222, 33333333 are out of the idle queue and new jobs enter can the mov2top script be run on any valid job in the idle queue.