move2bot Script Documentation

# Notes:

* Job priorities can only be decreased, not increased.

# move2bot

* This script lowers the priority of the specified job.
* Usage:
  + module load powertools
  + move2bot {jobid}
* Explanation:
  + Given a job, the script lowers the priority of the specified job relative to the current job in the (idle) queue with the lowest priority.
  + The amount that the specified job needs to be reduced by is defined by:
    - - ( (specified job’s priority - current lowest job’s priority) + 25000 ) / weight
    - We add by 25000 because the adjustment needs to be significantly lower the current lowest job’s priority.
    - The weight is configured by the administrator.
    - The value is multiplied by a -1 to ensure that the value is decreasing the priority.
  + Once this adjustment is calculated, the specified job’s priority is decreased by:
    - qalter -p {adjustment\_value} {jobid}
* Notes:
  + This script can be used to move jobs to the bottom of the queue once.
  + Afterwards, trying to run the script (move2bot) to move a job that has already been moved to the bottom using move2bot will exhibit unexpected behavior. It will not be guaranteed that the specified job will be moved to the bottom of the queue.
  + Ex.
    - Executing ./move2bot 11111111, ./move2bot 22222222, ./move2bot 33333333 consecutively will work but running ./move2bot 1111111 once more will not guarantee job 11111111 will be at the bottom of the queue.
  + The reasoning behind this is that jobs first submitted to the queue versus jobs submitted later are given higher priority within the scheduler and even explicitly specifying the decrease in priority will not guarantee the job gets moved accordingly.