

The Great Race

CS 414 Readers/Writers
erenrich@cs.cornell.edu

The Contest

- Many solutions to readers/writers problem
- Pit your solution against those of your peers

Purpose

- Our motivation
 - Provide experience in designing semi-real world solutions
- Your motivation
 - ...the glory!
 - ...the fame!
 - ...the extra credit!

Two Easy Pieces

- Add a “-challenge” mode to your code
 - Analyzes control files
 - Adapts solution dynamically (i.e., chooses *preferReaders* if many readers)
 - Or just naively defaults to *preferWriters*
- Create a *CHALLENGE* control file
 - Trick other contestants
 - Ensure that your code performs well on this challenge

The Ranking

(subject to change)

- Each *readwrite* submission will be tested on all submitted challenge control files
 - $O(n^2)$ tests in total
 - Multiple trials are likely to reduce variance
- For each challenge control file
 - Rank all *readwrite* solutions based on execution time
 - Note: *mean* & *std. dev.* are irrelevant
 - Average of all rankings is ultimate rank

Requirements

- All testing done on Linux
- Precise filenames necessary for automated testing
 - “*Makefile*” to create executables
 - “*readwrite*” is generate via *make*
 - “-challenge” mode
 - “*CHALLENGE*” control file



Requirements (cont)

- Reasonable runtimes
 - Timeout of 15 minutes for all cases
 - Using your code, your challenge problem should complete in ≤ 5 minutes
 - (subject to change, based on initial feedback)
- Base code is not modified to artificially enhance performance
 - “*sleep(1)*”, sum code, etc.
 - I.e., No cheating!