osproject2

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What is the least (expected) elapsed (wall) time for a random datafile of 1GB in your implementation with M workers?

I could not find any combination of parameters to process a 1GB file, it would just run forever.

What is the largest (random) datafile you can process within 3 mins (wall) elapsed time with M workers?

M=4

Size of filename.dat =4KB; worker C=1KB N=1KB
Results: *min 55 max 86 median 68.00 avg 69.67*
total seconds elapsed 86

M=8

Size of filename.dat =8KB; worker C=1KB N=1KB
min 19 max 184 median 126.00 avg 126.14
total seconds elapsed 184

M=16

Size of filename.dat =16KB; worker C=1KB N=1KB
min 284 max 371 median 300.5 avg 310.2
total seconds elapsed 371

How does the elapsed time change as a function of M, for the datafile in Q2 and the N, C parameter values?

Increasing C and N increases time, increasing M usually decreases.