

PFLOCK Report

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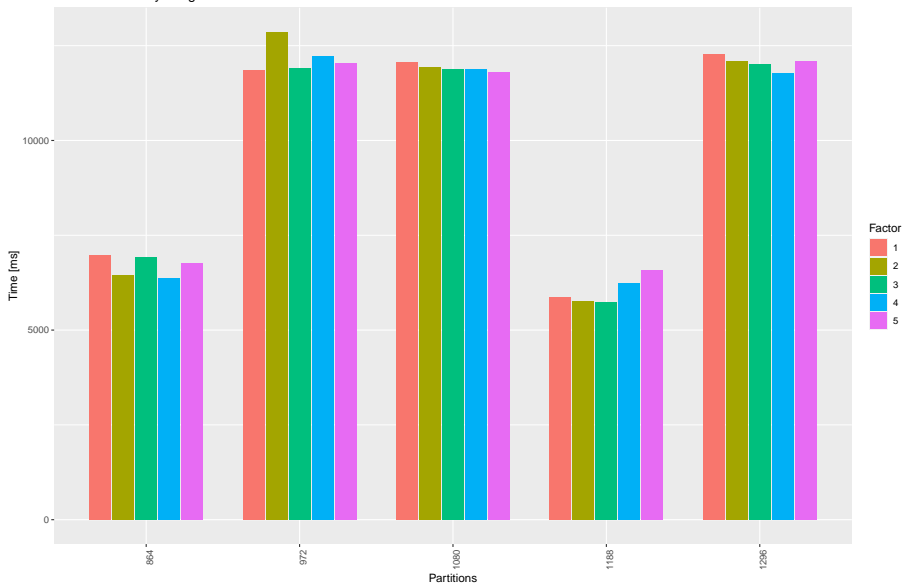
July 31, 2020

Experiment settings

- ▶ Working with the new Quadtree implementation.
- ▶ Varying a value to limit the size of the cell. It was between 1 and 5 times the ε value.
- ▶ Varying the number of partitions between 8 and 12 times the number of available cores (108).
- ▶ Finding disks for LA50K dataset using ε 10m.
- ▶ Using 12 nodes with 9 cores each.
- ▶ Collecting the task with longest duration for each case. Average of 5 runs.

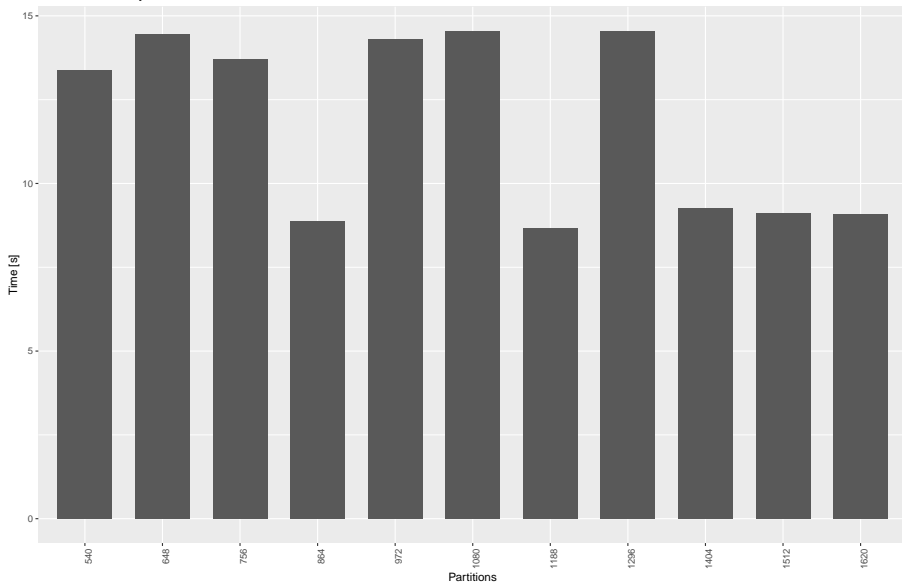
Results

Execution time by Longest Task duration



Results

Execution time by Number of Partitions



What's next

- ▶ Check the distribution of partitions of longest tasks to confirm behaviour.
- ▶ Double-check with previous implementation.
- ▶ Give a try with a different dataset.