

PFLOCK Report

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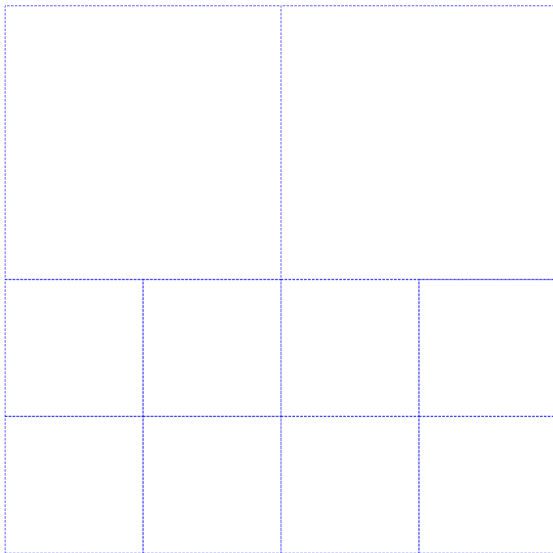
April 3, 2020

Partition based join...

1. Partition pointset A and B using the same set of grids (Quadtree grids).
2. For pointset A, compute the position of each point according to a local grid with a predefined width.
3. For pointset B, compute the position in the local grid AND manage replication.
4. At each local grid, filter points which do not fulfill the distance condition.
5. Merge back and remove possible duplicates.

Partition based join...

Global grids



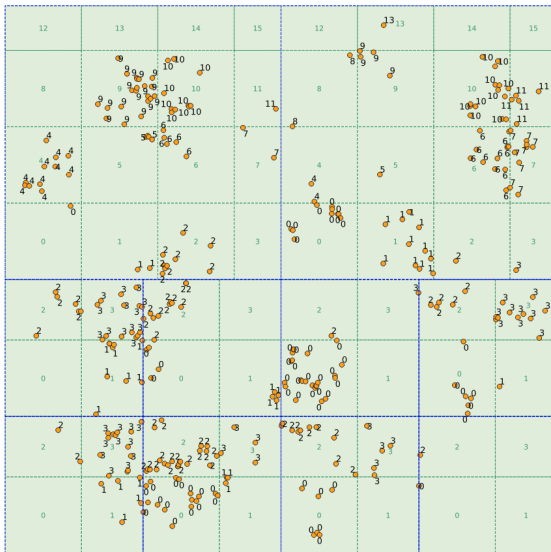
Partition based join...

Local grids

12	13	14	15	12	13	14	15
8	9	10	11	8	9	10	11
4	5	6	7	4	5	6	7
0	1	2	3	0	1	2	3
2	3	2	3	2	3	2	3
0	1	0	1	0	1	0	1
2	3	2	3	2	3	2	3
0	1	0	1	0	1	0	1

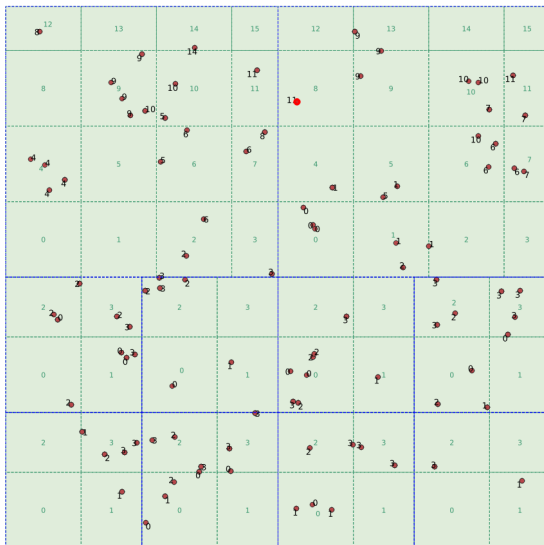
Partition based join...

Pointset A



Partition based join...

Pointset B (replication)



Identify Results

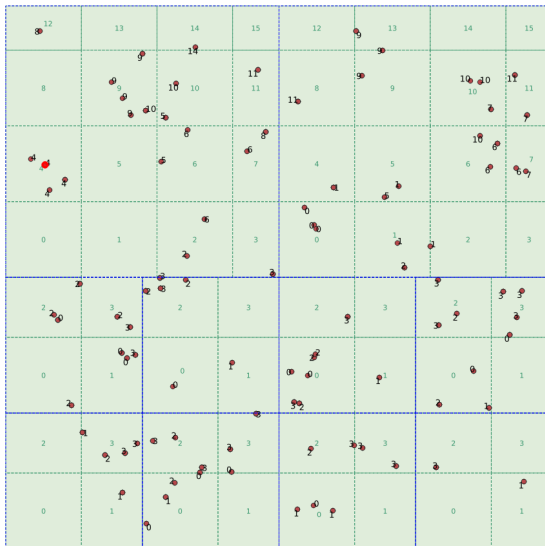
Feature	Value
Partition...	
fid	150
(D...	
(A...	
fid	150
file...	11
file...	0
fid	151
(D...	
(A...	
fid	151
file...	4
file...	1
fid	152
(D...	
(A...	
fid	152
file...	7
file...	0
fid	153
(D...	
(A...	
fid	153
file...	8
file...	1

Mode: Current layer

View: Tree

Partition based join...

Pointset B



Identify Results

Feature Value

- Partition...
 - fid 91
 - (D...
 - (A...
 - fid 91
 - fid... 4
 - fid... 0

Mode Current layer

View Tree

What's next?

- ▶ Currently working on the merge back and deduplication strategies...
- ▶ Perform more robust tests...