

# Test Report

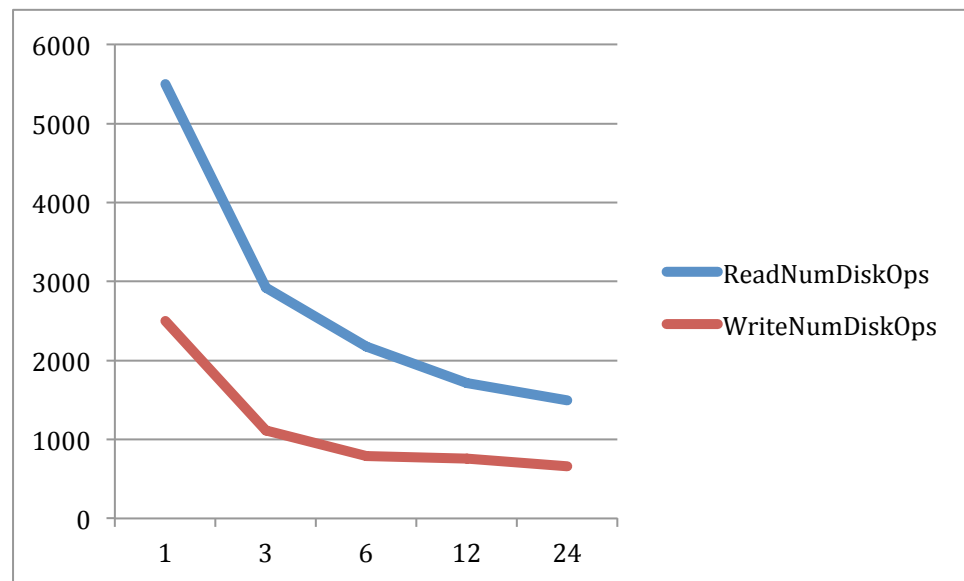
B01295167

ReadNumDiskOps: Every time you read a block, the ReadNumDiskOps add one.

WriteNumDiskOps: Every time you write something into a block, the WriteNumDiskOps add one.

I ran two test tiles for the read and write operations, one is insert500.txt, another is delete500.txt. And following graphics are the performance result.

Insert500.txt:

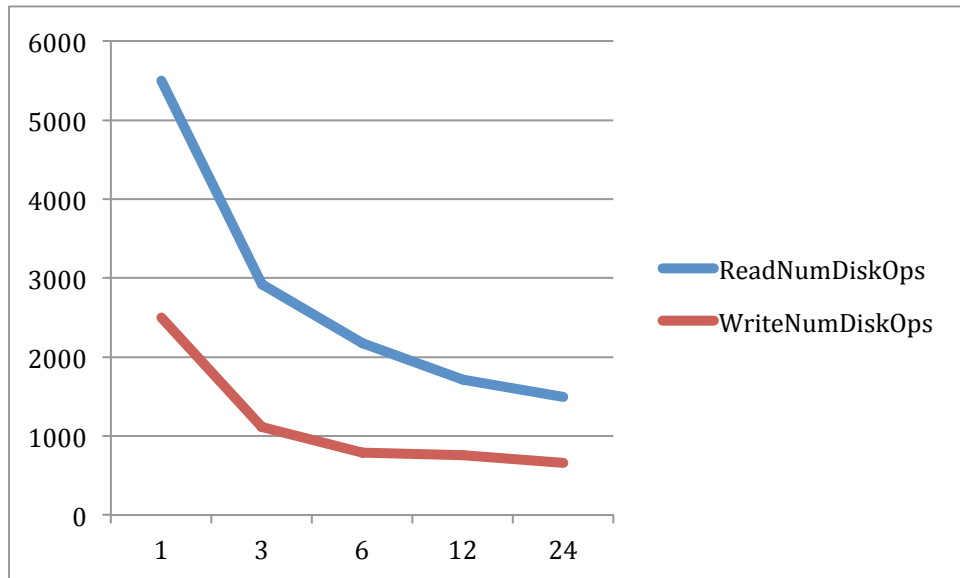


x-axis: m\_d

y-axis: operations

m-d	1	3	6	12	24
Read	3306	1805	1377	1010	951
Write	2210	917	695	587	542

## Delete500.txt



x-axis: m\_d

y-axis: operations

m-d	1	3	6	12	24
Read	5495	2918	2172	1711	1495
Write	2503	1113	792	757	658

As showing in the above graphics and charts, a B+ tree with larger m-d value would have less I/Os . The reason behind this is that a B+ tree with larger d-value will have a smaller height. And the most read and write I/O comes from going down the tree from root to leaf, so if the height of tree become less, the times of reads and writes will reduce.