

Comparitive Performance Report for
cbt-7thApr-4k-ecopt2-o01-pdwauto-6+2
vs cbt-11thApr-4k-ecopt2-o01-pdwauto vs
cbt-12thApr-4k-ecopt2-pdwauto-o01

Table of contents

- Comparison summary for cbt-7thApr-4k-ecopt2-o01-pdwauto-6+2 vs cbt-11thApr-4k-ecopt2-o01-pdwauto vs cbt-12thApr-4k-ecopt2-pdwauto-o01
- Response Curves
 - Sequential Read
 - Sequential Write
 - Random Read
 - Random Write
 - Random Read/Write
- Configuration yaml files
 - results

Comparison summary for cbt-7thApr-4k-ecopt2-o01-pdwauto-6+2 vs cbt-11thApr-4k-ecopt2-o01-pdwauto vs cbt-12thApr-4k-ecopt2-pdwauto-o01

Sequential Read	cbt_7thApr_4k_ecopt2_o01-pdwauto-6+2	cbt_11thApr_4k_ecopt2_o01-pdwauto	%change	cbt_12thApr_4k_ecopt2_pdwauto-o01	%change
4K	108873@2.2ms	106946@2.2	-2%	108823@2.2	-0%
8K	66391@3.6ms	66473@2.7	0%	67857@3.5	2%
16K	38092@4.7ms	38443@4.7	1%	39508@4.6	4%
32K	26035@4.6ms	25949@4.6	-0%	26597@4.5	2%
64K	1482@5.3ms	1468@3.6	-1%	1450@3.6	-2%
256K	3312@3.2ms	3209@3.3	-3%	3303@3.2	-0%
512K	3890@2.4ms	3865@2.4	-1%	3894@2.4	0%
1024K	4240@2.5ms	4113@2.5	-3%	4185@2.5	-1%

Sequential Write	cbt_7thApr_4k_ecopt2_o01-pdwauto-6+2	cbt_11thApr_4k_ecopt2_o01-pdwauto	%change	cbt_12thApr_4k_ecopt2_pdwauto-o01	%change
4K	120742@5.3ms	150938@6.4	25%	154165@6.2	28%
8K	112090@7.1ms	121525@7.9	8%	123233@7.8	10%
16K	52930@6.0ms	70707@9.0	34%	71858@8.9	36%
32K	40842@11.7ms	41534@11.5	2%	42088@11.4	3%
64K	1532@13.7ms	1508@13.9	-2%	1514@13.8	-1%
256K	1999@20.9ms	1949@21.4	-3%	1967@21.2	-2%
512K	2090@19.8ms	2035@20.4	-3%	2077@20.0	-1%
1024K	2659@38.9ms	2490@41.6	-6%	2565@40.3	-4%

Random Read	cbt_7thApr_4k_ecopt2_o01-pdwauto-6+2	cbt_11thApr_4k_ecopt2_o01-pdwauto	%change	cbt_12thApr_4k_ecopt2_pdwauto-o01	%change
4K	76373@6.3ms	67857@7.1	-11%	67775@7.1	-11%
8K	47236@10.2ms	45777@8.1	-3%	46725@10.3	-1%
16K	29980@12.3ms	29179@12.7	-3%	30276@12.2	1%
32K	21400@7.5ms	20856@7.7	-3%	21084@3.8	-1%
64K	1277@8.2ms	1228@8.5	-4%	1274@8.2	-0%
256K	3004@7.0ms	2948@7.1	-2%	3014@6.9	0%
512K	4137@3.5ms	4010@3.6	-3%	4137@3.5	0%
1024K	4537@4.1ms	4316@4.4	-5%	4442@4.2	-2%

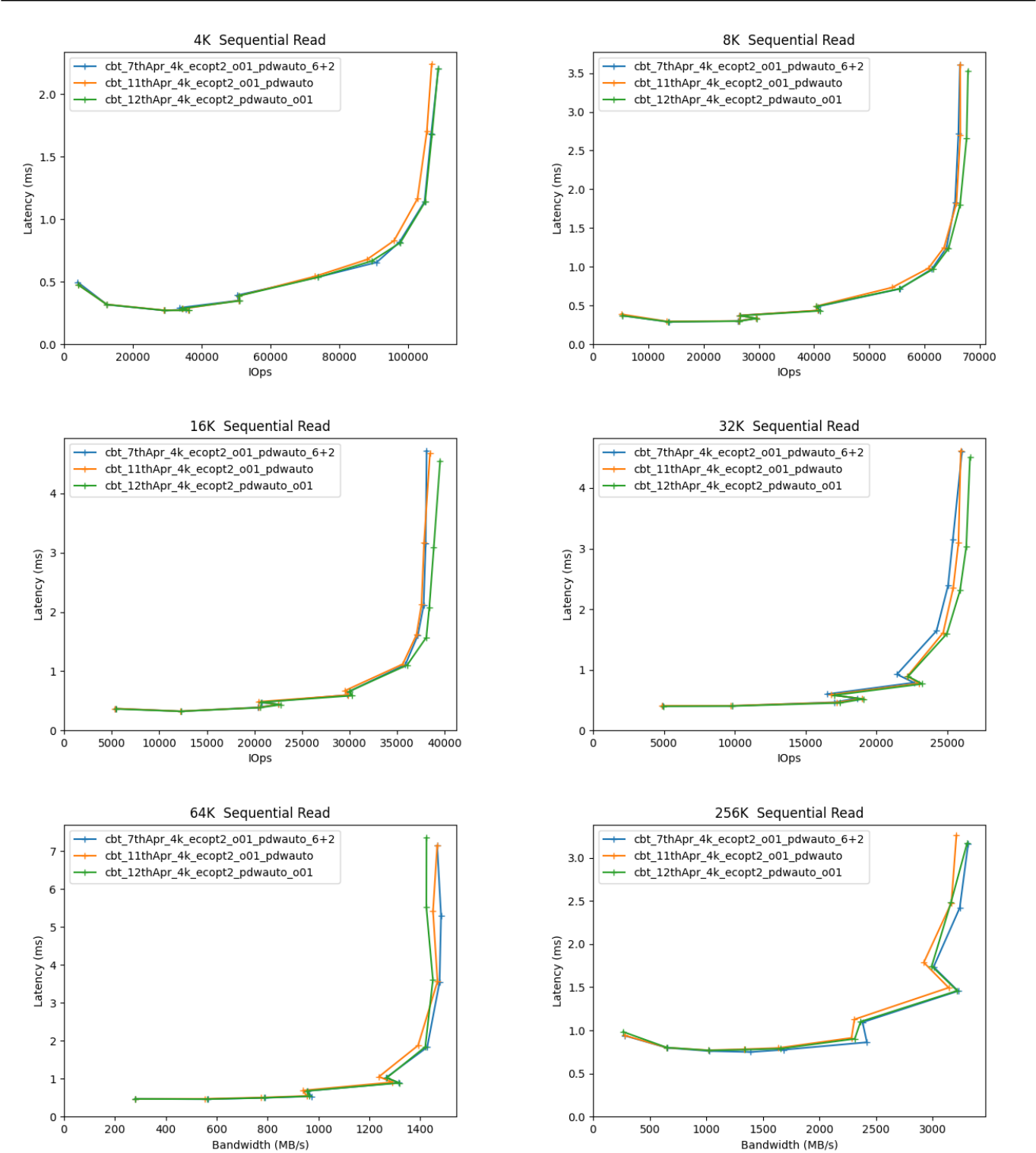
Random Write	cbt_7thApr_4k_ecopt2_o01-pdwauto-6+2	cbt_11thApr_4k_ecopt2_o01-pdwauto	%change	cbt_12thApr_4k_ecopt2_pdwauto-o01	%change
4K	15288@31.4ms	10468@45.8	-32%	10275@46.7	-33%
8K	13160@36.5ms	9722@49.3	-26%	9648@24.8	-27%
16K	10539@30.3ms	8946@35.7	-15%	9129@35.0	-13%
32K	8324@38.4ms	7763@41.2	-7%	7713@41.4	-7%
64K	510@30.8ms	477@32.9	-6%	482@32.6	-5%
256K	1370@30.5ms	1330@31.4	-3%	1326@31.5	-3%

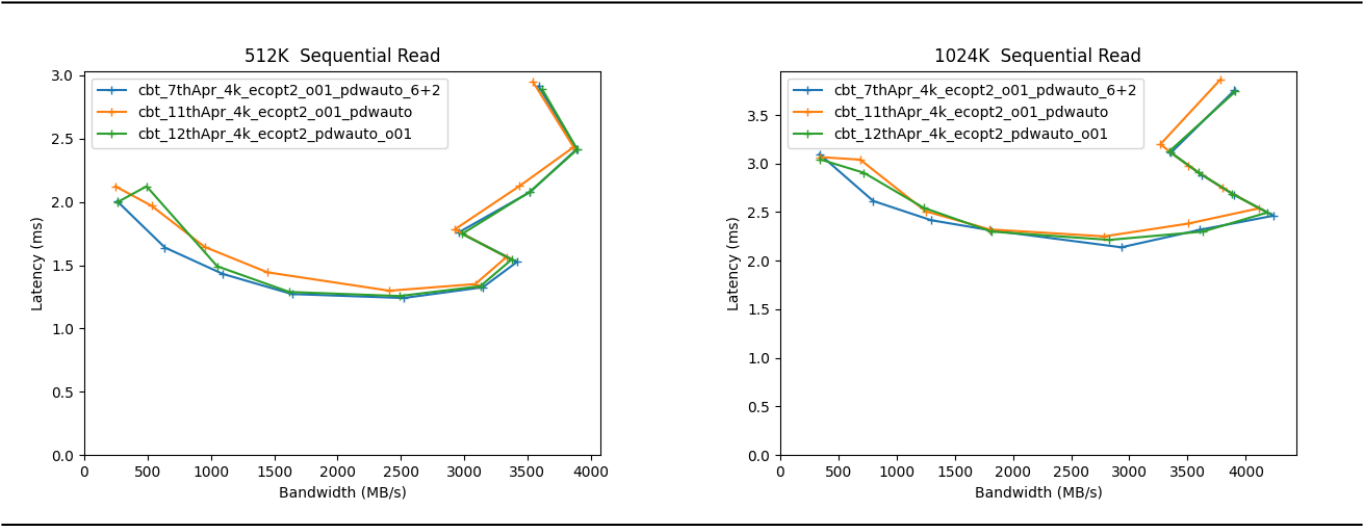
Random Write	cbt_7thApr_4k_ecopt2_o01-pdwauto-6+2	cbt_11thApr-4k-ecopt2-o01-pdwauto	%change	cbt_12thApr_4k_ecopt2_pdwauto-o01	%change
512K	1887@4.8ms	1816@5.0	-4%	1865@4.9	-1%
1024K	2697@6.6ms	2658@6.7	-1%	2721@6.5	1%

Random Read/Write	cbt_7thApr_4k_ecopt2_o01-pdwauto-6+2	cbt_11thApr-4k-ecopt2-o01-pdwauto	%change	cbt_12thApr_4k_ecopt2_pdwauto-o01	%change
4K_70/30	32801@7.3ms	25496@9.4	-22%	26791@8.9	-18%
16K_70/30	19070@8.4ms	16324@9.8	-14%	16930@9.4	-11%
64K_70/30	884@11.8ms	767@13.7	-13%	784@13.3	-11%
64K_30/70	596@17.5ms	554@18.9	-7%	562@18.6	-6%

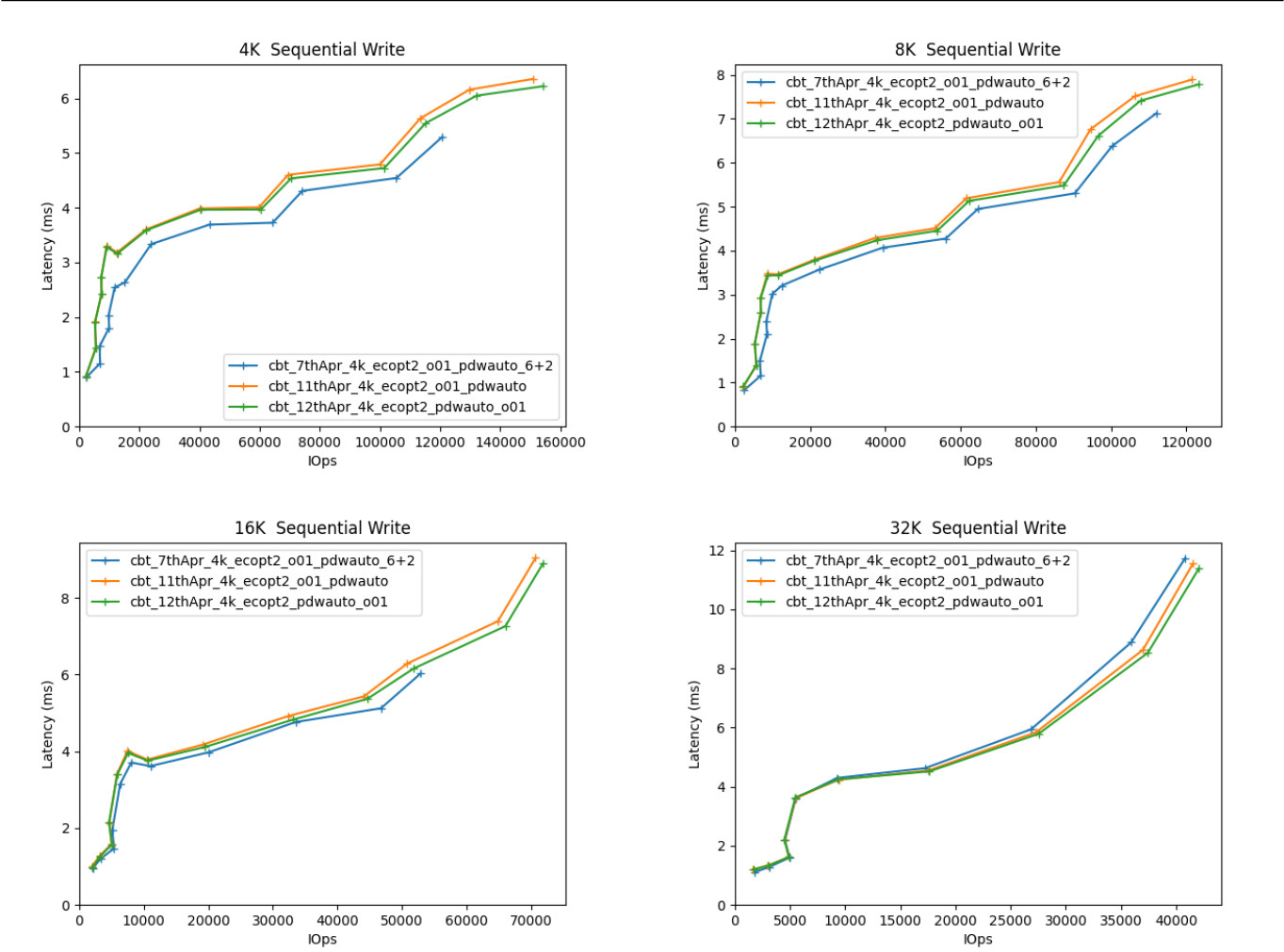
Response Curves

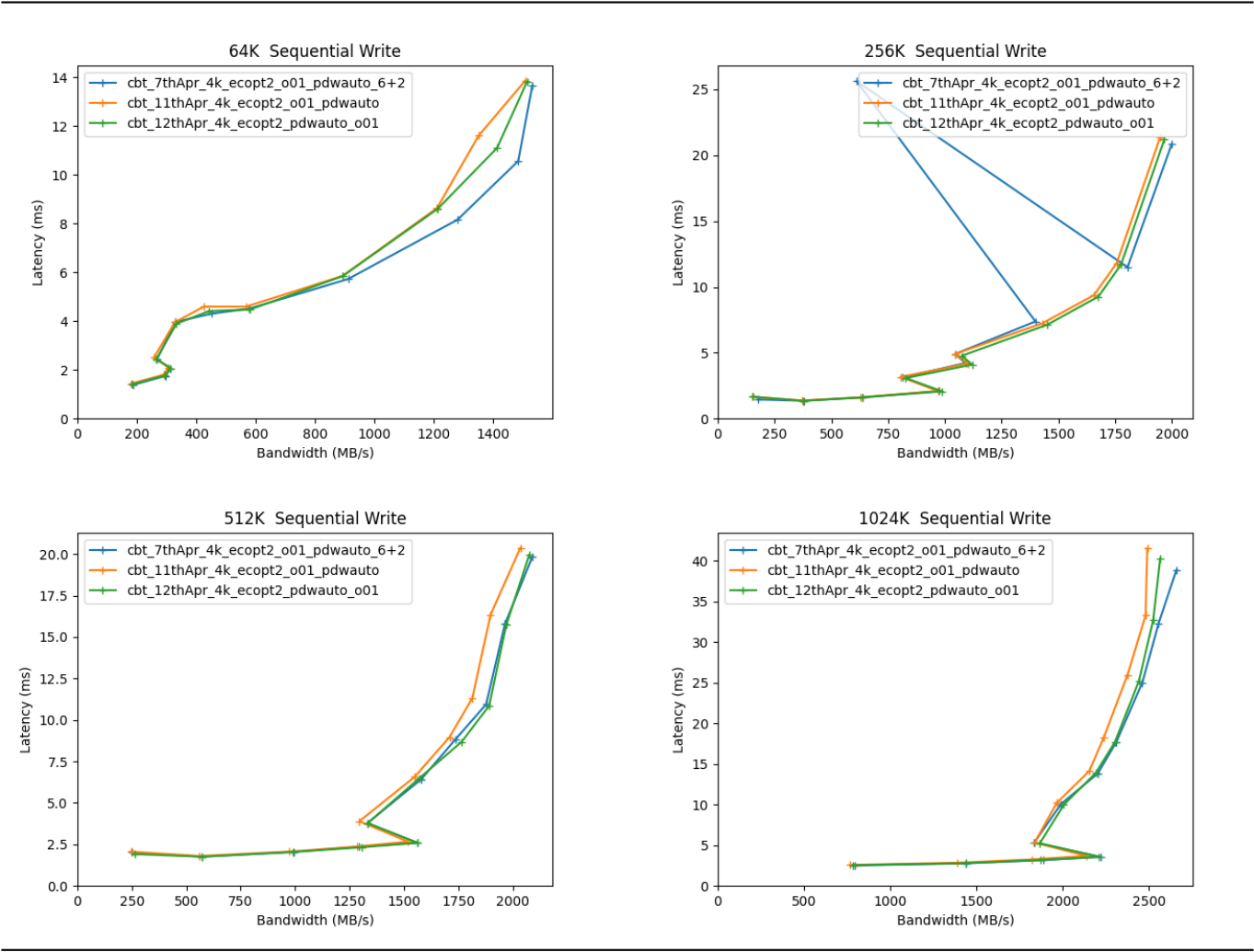
Sequential Read



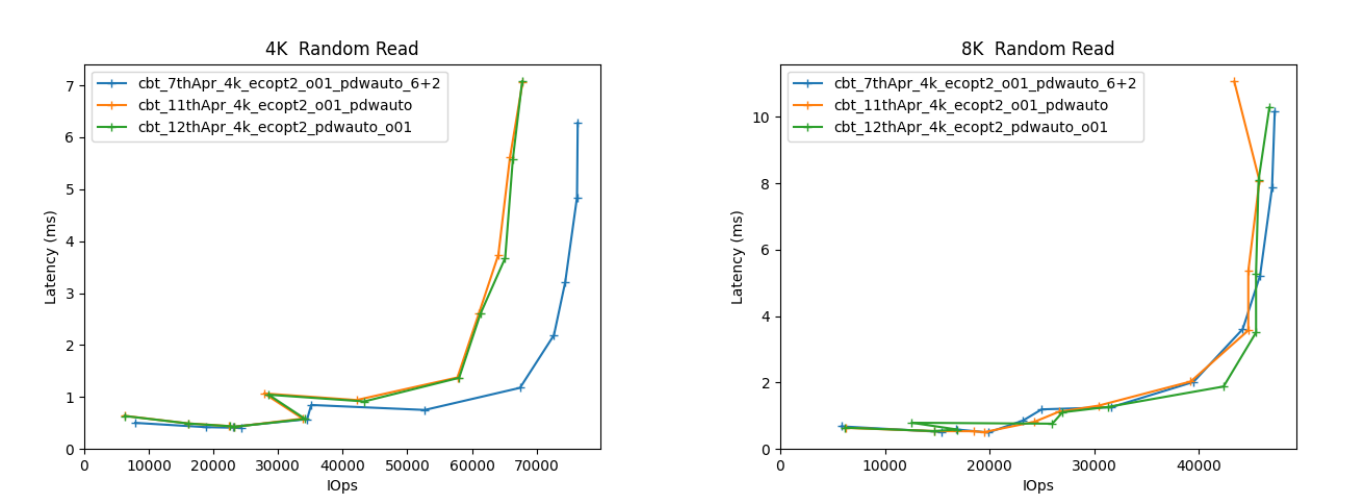


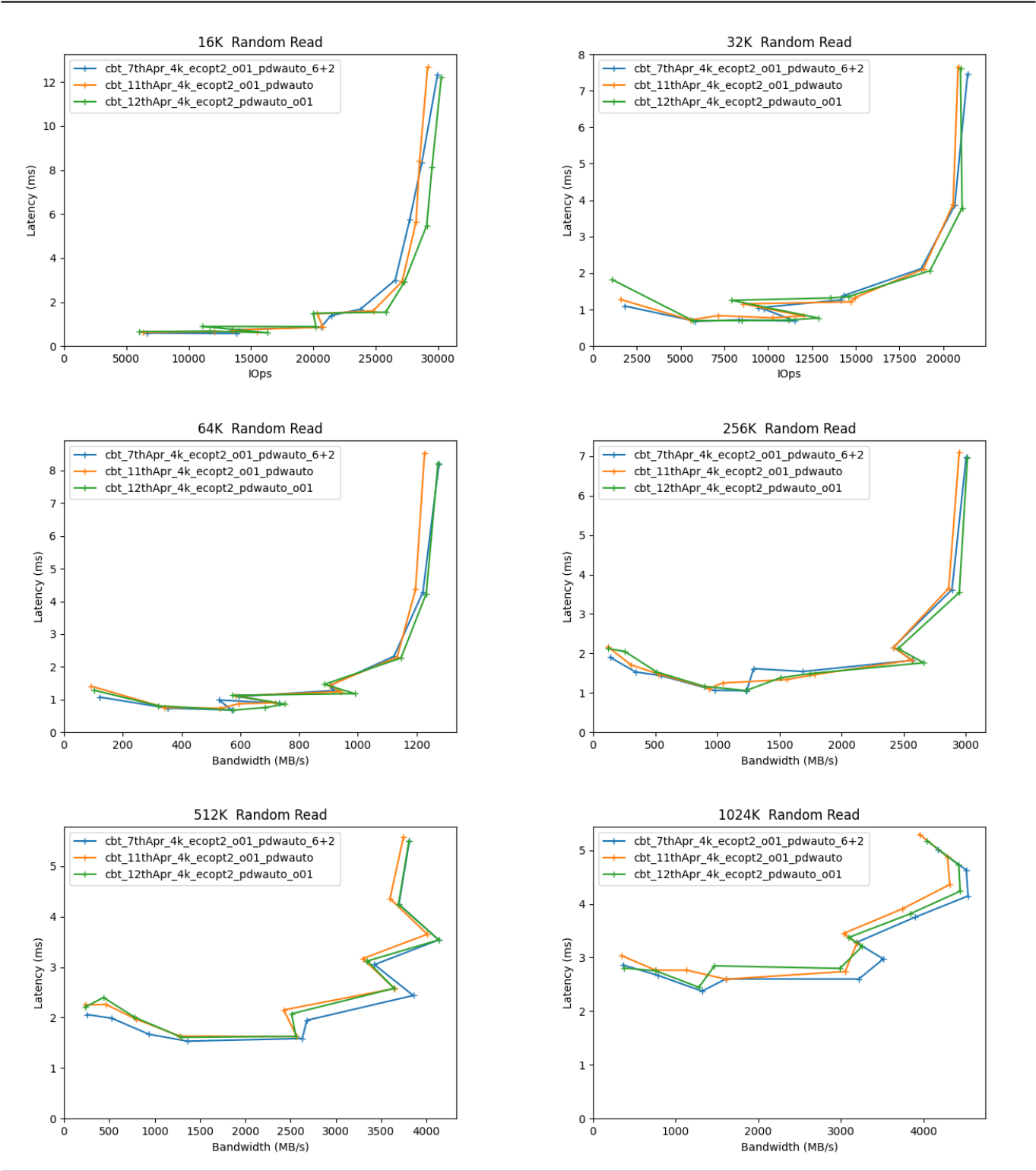
Sequential Write



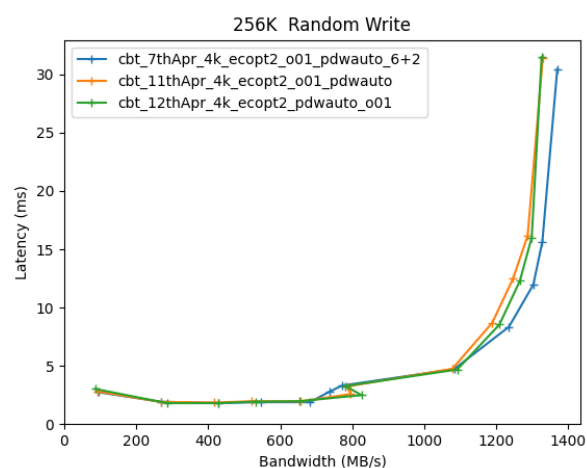
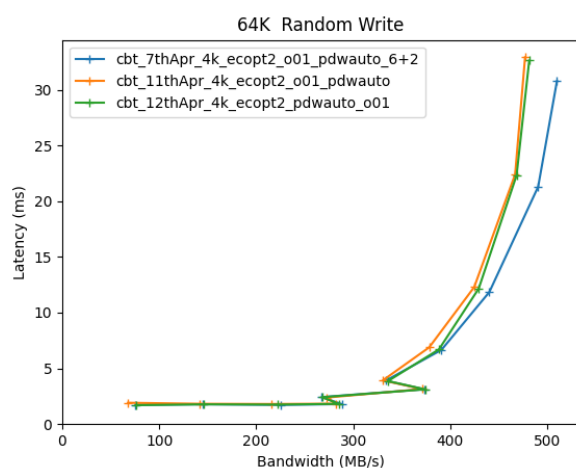
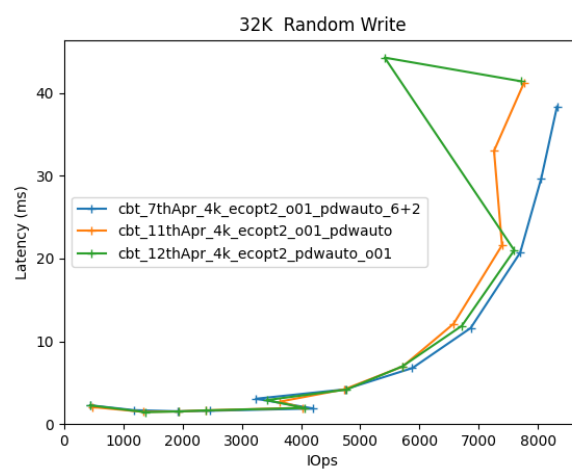
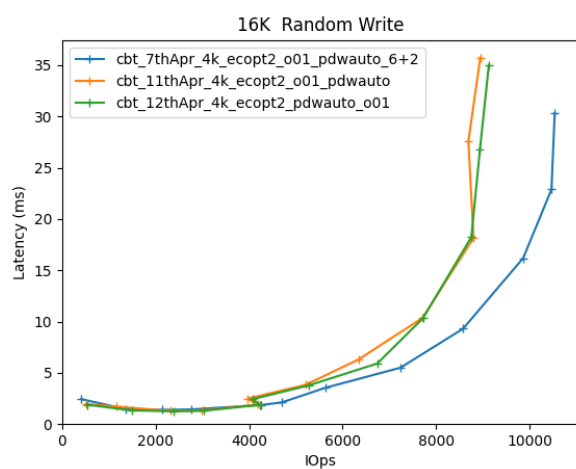
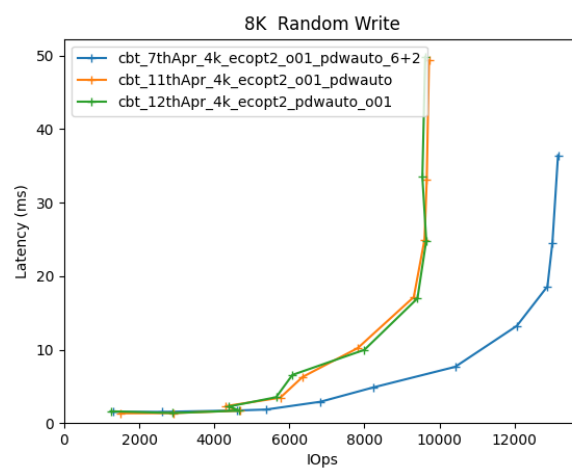
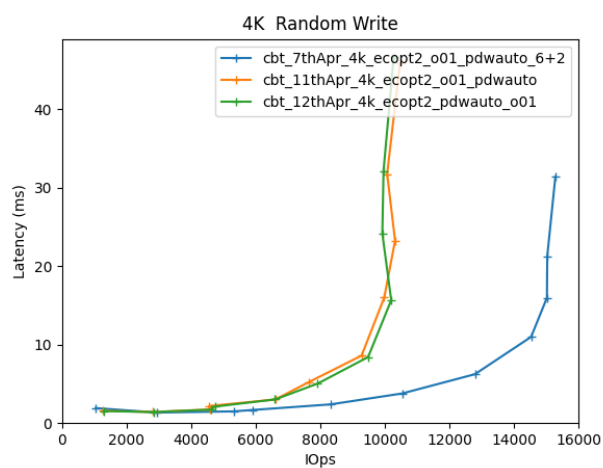


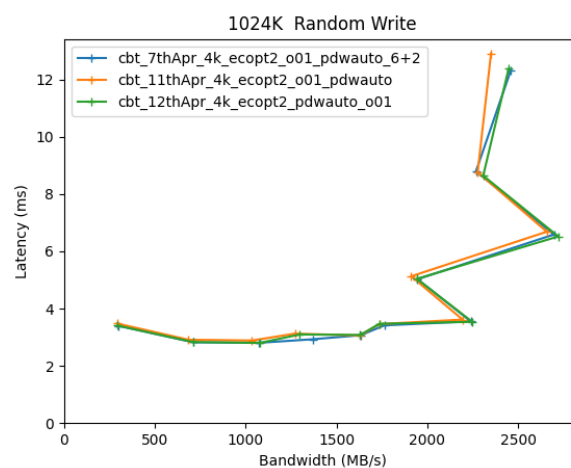
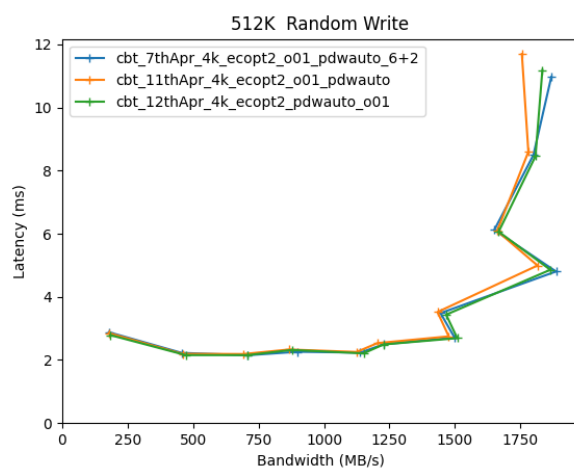
Random Read



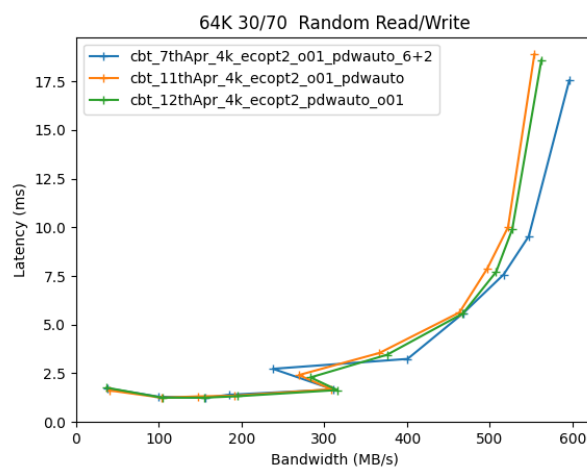
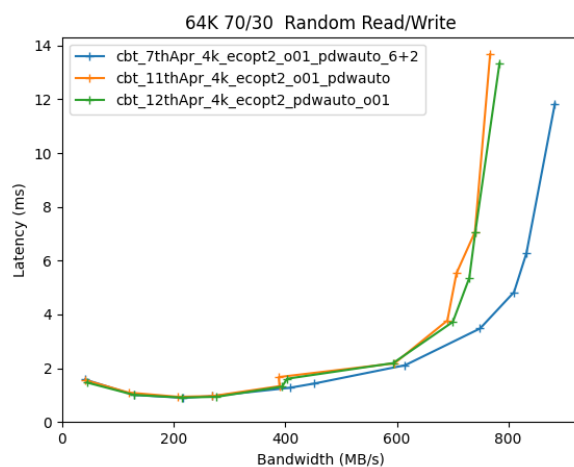
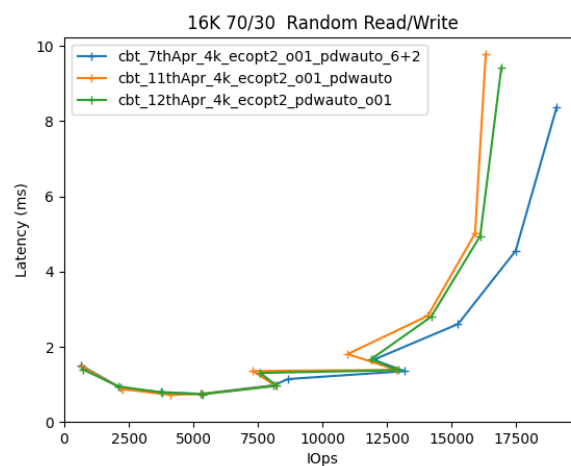
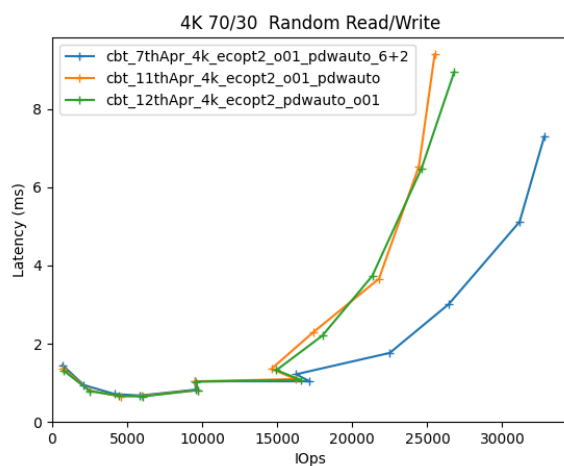


Random Write





Random Read/Write




```
librbdfio:
  cmd_path: /usr/local/bin/fio
  fio_out_format: json
  log_avg_msec: 100
  log_bw: true
  log_iops: true
  log_lat: true
  norandommap: true
  osd_ra:
    - 4096
  poolname: rbd_replicated
  prefill:
    blocksize: 64k
    numjobs: 1
  procs_per_volume:
    - 1
  ramp: 30
  time: 90
  time_based: true
  use_existing_volumes: true
  vol_size: 1368750
  volumes_per_client:
    - 16
  workloads:
    16k7030:
      jobname: randmix
      mode: randrw
      numjobs:
        - 1
      op_size: 16384
      rwmixread: 70
      total_iodepth:
        - 1
        - 2
        - 3
        - 4
        - 8
        - 16
        - 24
        - 32
        - 64
        - 128
        - 256
    16krandomread:
      jobname: randread
      mode: randread
      numjobs:
        - 1
      op_size: 16384
      total_iodepth:
        - 4
        - 8
        - 12
        - 16
        - 24
        - 48
        - 64
        - 128
        - 256
        - 384
        - 588
```

cbt-7thApr-4k-ecopt2-o01-pdwauto-6+2 vs cbt-11thApr-4k18ecopt2-o01-pdwauto vs cbt-12thApr-4k-ecopt2-o01-pdwauto


```

- 128
- 256
32krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 2
    - 4
    - 6
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
32krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 384
    - 512
4k7030:
  jobname: randmix
  mode: randrw
  numjobs:
    - 1
  op_size: 4096
  rwmixread: 70
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
    - 384
4krandomread:
  jobname: randread
  mode: randread
  numjobs:

```

```
- 1
op_size: 4096
total_iodepth:
- 4
- 8
- 12
- 16
- 32
- 48
- 64
- 128
- 256
- 384
- 588
- 768
4krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
  - 1
  op_size: 4096
  total_iodepth:
  - 2
  - 4
  - 8
  - 16
  - 32
  - 64
  - 128
  - 256
  - 384
  - 512
  - 768
512krandomread:
  jobname: randread
  mode: randread
  numjobs:
  - 1
  op_size: 524288
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 8
  - 16
  - 24
  - 32
  - 40
  - 48
  - 64
512krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
  - 1
  op_size: 524288
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
```


64krandomread:

```
8krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 8192
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 384
    - 512
```

```

- 768
precondition:
  jobname: precond1rw
  mode: randwrite
  monitor: false
  numjobs:
    - 1
  op_size: 65536
  time: 600
  total_iodepth:
    - 16
seq16kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 16384
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 192
    - 288
seq16kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 16384
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 48
    - 64
    - 128
    - 256
    - 384
    - 512
seq256kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 262144
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24

```


[illegible]

Apr-4k-ecopt2-o01-pdwauto-6+2 vs cbt-11thApr-4k-ecopt2-o01-pdwauto vs cbt-12thApr-4k-ecopt2-o01-pdwauto
April 1st, 2005


```
1Mrandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 1048576
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 12
    - 16
    - 20
    - 24
    - 28
    - 32
1Mrandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 1048576
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 8
    - 16
    - 24
    - 32
    - 48
1Mseqread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 1048576
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 6
    - 8
    - 10
    - 12
    - 14
    - 16
    - 20
1Mseqwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 1048576
  total_iodepth:
    - 2
    - 4
```



```

- 256
32krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 384
    - 512
4k7030:
  jobname: randmix
  mode: randrw
  numjobs:
    - 1
  op_size: 4096
  rwmixread: 70
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
    - 384
4krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 4096
  total_iodepth:
    - 4
    - 8
    - 12
    - 16
    - 32
    - 48
    - 64
    - 128
    - 256
    - 384
    - 588
    - 768
4krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:

```

```
- 1
op_size: 4096
total_iodepth:
- 2
- 4
- 8
- 16
- 32
- 64
- 128
- 256
- 384
- 512
- 768
512krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 8
    - 16
    - 24
    - 32
    - 40
    - 48
    - 64
512krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 8
    - 16
    - 24
    - 32
    - 48
    - 64
512kseqread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 6
```



```
64krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 65536
  total_iodepth:
    - 2
    - 4
    - 6
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
    - 256
    - 384
64kseqread:
  jobname: read
  mode: read
  numjobs:
    - 1
  op_size: 65536
  total_iodepth:
    - 2
    - 4
    - 6
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
    - 192
    - 256
64kseqwrite:
  jobname: write
  mode: write
  numjobs:
    - 1
  op_size: 65536
  total_iodepth:
    - 4
    - 8
    - 12
```

```
- 16
- 32
- 48
- 64
- 128
- 256
- 384
- 512

8krandomread:
  jobname: randread
  mode: randread
  numjobs:
    - 1
  op_size: 8192
  total_iodepth:
    - 4
    - 8
    - 12
    - 16
    - 32
    - 48
    - 64
    - 128
    - 256
    - 384
    - 588
    - 768

8krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 8192
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 384
    - 512
    - 768

precondition:
  jobname: precond1rw
  mode: randwrite
  monitor: false
  numjobs:
    - 1
  op_size: 65536
  time: 600
  total_iodepth:
    - 16

seq16kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 16384
  total_iodepth:
    - 2
```



```

- 128
- 256
seq32kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 192
seq32kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 2
    - 4
    - 8
    - 16
    - 32
    - 64
    - 128
    - 256
    - 512
    - 768
seq4kread:
  jobname: seqread
  mode: read
  numjobs:
    - 1
  op_size: 4096
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 192
    - 288
    - 384
seq4kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 4096

```


cbt-7thApr-4k-ecept2-o01-pdwauto-6+2 vs cbt-11thApr-4k3ecept2-o01-pdwauto vs cbt-12thApr-4k-ecept2-o01-pdwauto
April 14, 2005