

Comparative Performance Report for cbt-12thFeb-main-8vol-writesonly-finegrain vs cbt-13thFeb-alexls19-econ4k-8vol-writesonly-finegrain vs cbt-11thFeb-alexls20-econ4k-8vol-writesonly-finegrain vs cbt-11thFeb-alexls21-econ4k-8vol-writesonly-finegrain vs cbt-10thFeb-alexls22-econ4k-8vol-writesonly-finegrain

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Comparison summary for cbt-12thFeb-main-8vol-writesonly-finegrain vs cbt-13thFeb-alexls19-econ4k-8vol-writesonly-finegrain vs cbt-11thFeb-alexls20-econ4k-8vol-writesonly-finegrain vs cbt-11thFeb-alexls21-econ4k-8vol-writesonly-finegrain vs cbt-10thFeb-alexls22-econ4k-8vol-writesonly-finegrain

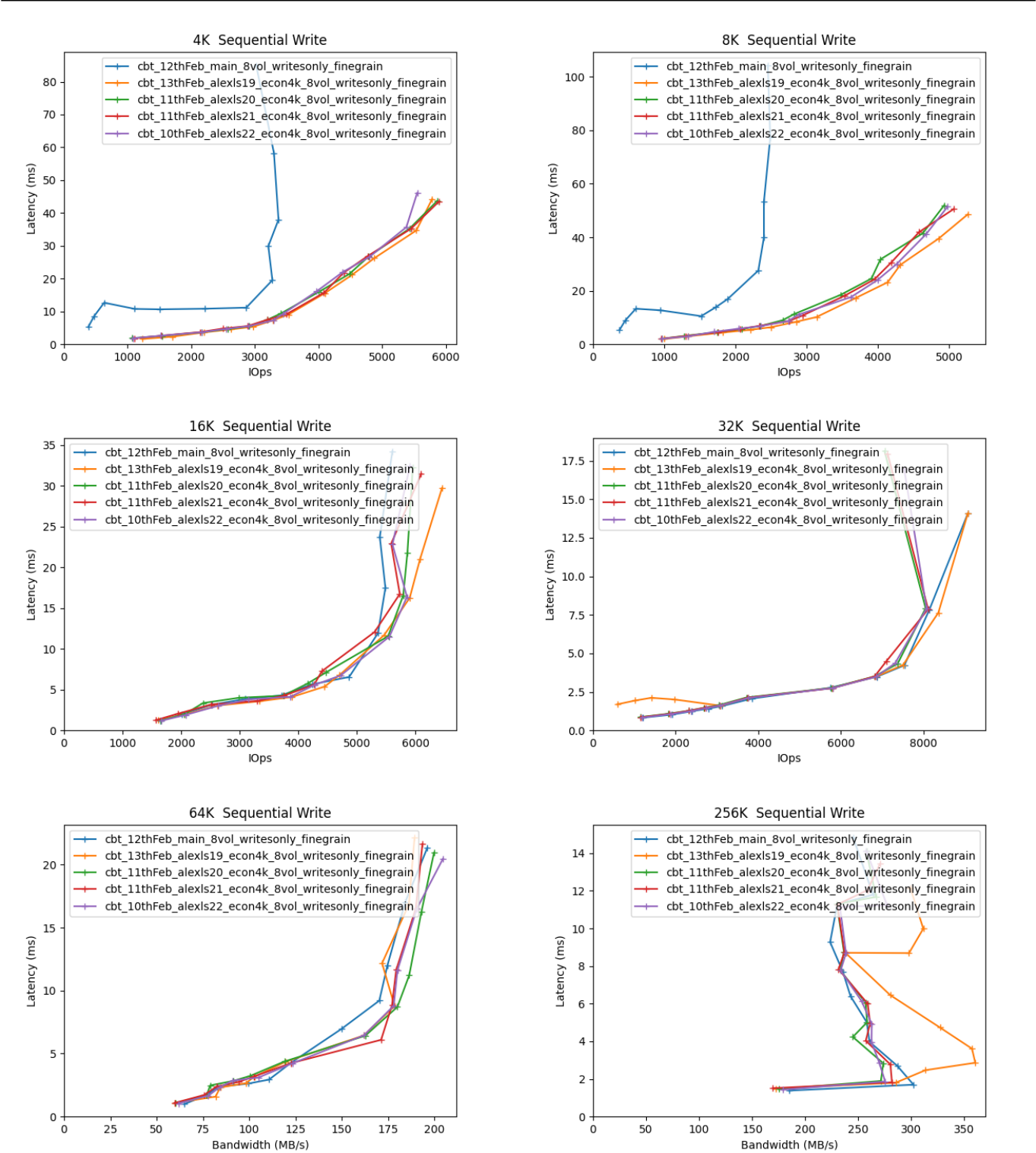
Sequential									
Write	cbt_12thFeb-main-8vol-writesonly-finegrain	cbt-13thFeb-alexls19-econ4k-8vol-writesonly-finegrain	cbt-11thFeb-alexls20-econ4k-8vol-writesonly-finegrain	cbt-11thFeb-alexls21-econ4k-8vol-writesonly-finegrain	cbt-10thFeb-alexls22-econ4k-8vol-writesonly-finegrain				
4K	3369@38.0ms	5783@44.3	72%	5861@43.7	74%	5888@43.5	75%	5548@46.1	65%
8K	2488@77.2ms	5263@48.6	112%	4928@51.9	98%	5062@50.6	103%	4977@51.4	100%
16K	5604@34.2ms	6452@29.7	15%	5953@32.2	6%	6095@31.5	9%	5906@32.5	5%
32K	9069@14.1ms	9069@14.1	0%	8047@7.9	-11%	8108@7.9	-11%	8071@7.9	-11%
64K	196@21.3ms	189@22.1	-4%	200@21.0	2%	194@21.6	-1%	205@20.5	5%
256K	302@1.7ms	360@2.9	19%	274@2.8	-9%	282@1.8	-7%	277@11.2	-8%
512K	447@11.5ms	439@14.1	-2%	439@14.1	-2%	436@14.2	-2%	438@14.1	-2%

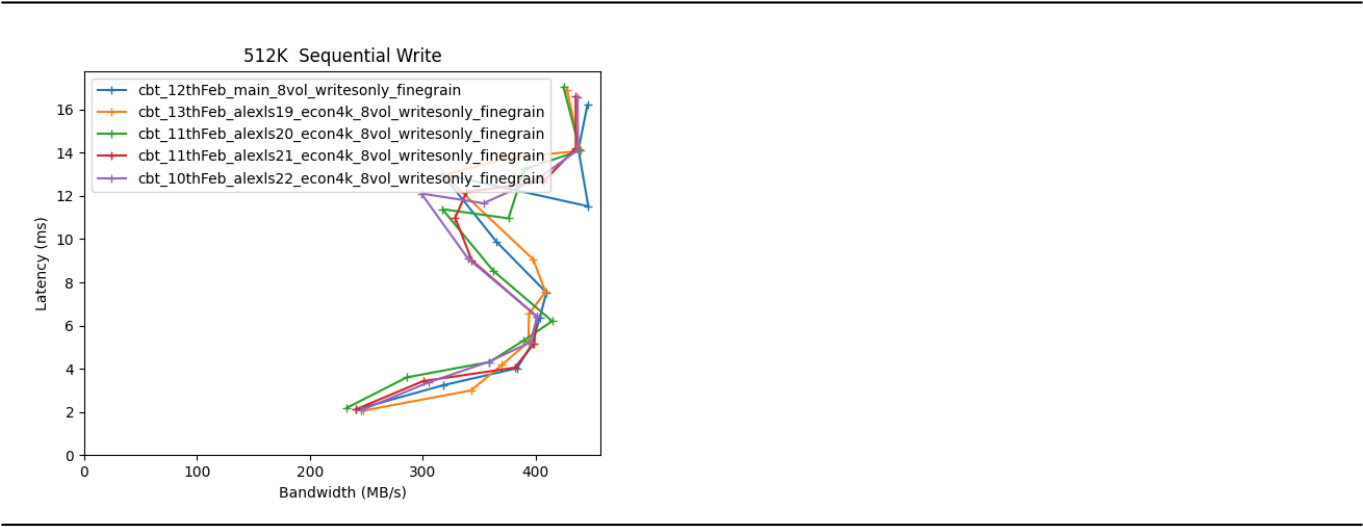
Random									
Write	cbt_12thFeb-main-8vol-writesonly-finegrain	cbt-13thFeb-alexls19-econ4k-8vol-writesonly-finegrain	cbt-11thFeb-alexls20-econ4k-8vol-writesonly-finegrain	cbt-11thFeb-alexls21-econ4k-8vol-writesonly-finegrain	cbt-10thFeb-alexls22-econ4k-8vol-writesonly-finegrain				
4K	2239@57.1ms	4307@29.7	92%	4172@30.7	86%	4229@30.3	89%	4169@30.7	86%
8K	2302@55.6ms	4412@29.0	92%	4824@26.5	110%	4490@28.5	95%	4560@28.1	98%
16K	4094@31.2ms	4856@26.3	19%	4611@13.9	13%	4487@14.2	10%	4417@14.5	8%
32K	3367@38.0ms	8330@38.4	-1%	3191@40.1	-5%	3068@20.8	-9%	3134@20.4	-7%
64K	165@50.9ms	167@12.5	1%	168@12.4	2%	165@50.8	0%	166@25.2	1%
256K	368@17.0ms	331@25.1	-10%	345@6.0	-6%	395@10.5	7%	333@6.2	-10%
512K	444@47.0ms	439@37.9	-1%	442@47.1	-0%	445@46.9	0%	443@47.1	-0%

Random									
Read/Write	cbt_12thFeb-main-8vol-writesonly-finegrain	cbt-13thFeb-alexls19-econ4k-8vol-writesonly-finegrain	cbt-11thFeb-alexls20-econ4k-8vol-writesonly-finegrain	cbt-11thFeb-alexls21-econ4k-8vol-writesonly-finegrain	cbt-10thFeb-alexls22-econ4k-8vol-writesonly-finegrain				
16K_70/30	6362@20.1ms	6100@21.0	-4%	5847@21.9	-8%	5882@21.7	-8%	5982@21.4	-6%

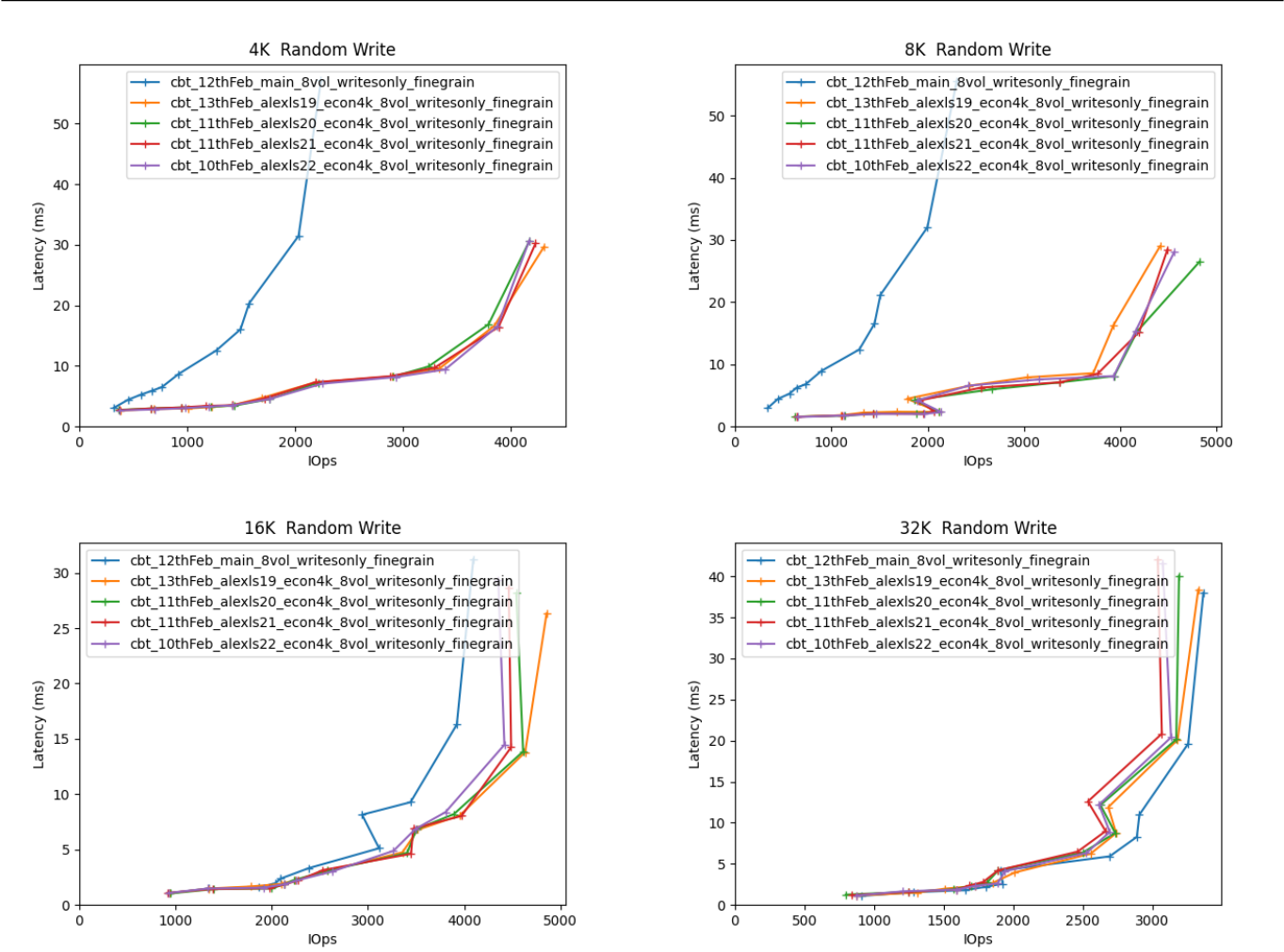
Response Curves

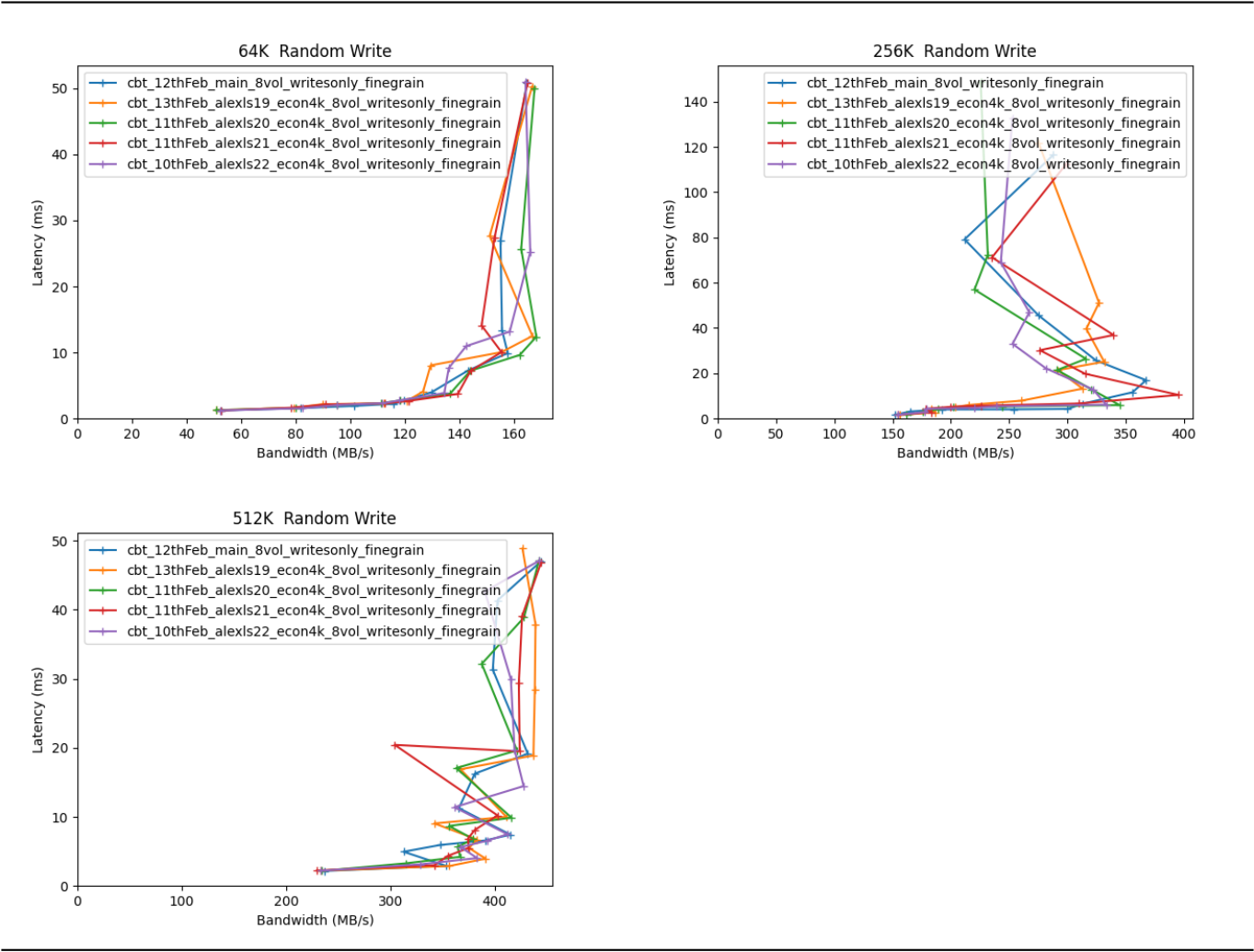
Sequential Write



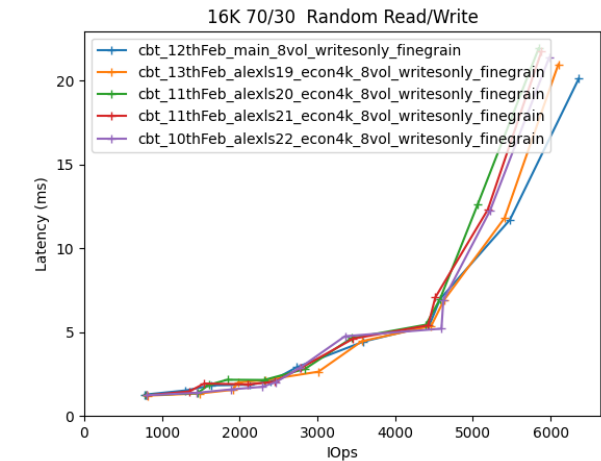


Random Write





Random Read/Write



Configuration yaml files

Only yaml files that differ by more than 20 lines from the yaml file for the baseline directory will be added here in addition to the baseline yaml

results

```

librbd fio:
  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
  precondition_time: 600
  prefill:
    blocksize: 64k
    numjobs: 1
  procs_per_volume:
    - 1
  ramp: 30
  time: 90
  time_based: true
  use_existing_volumes: true
  vol_size: 52500
  volumes_per_client:
    - 8
  workloads:
    16k7030:
      jobname: randmix
      mode: randrw
      numjobs:
        - 1
      op_size: 16384
      rwmixread: 70
      total_iodepth:
        - 1
        - 2
        - 3
        - 4
        - 5
        - 8
        - 16
        - 24
        - 32
        - 64
        - 128
    16krandomwrite:
      jobname: randwrite
      mode: randwrite
      numjobs:
        - 1
      op_size: 16384
      total_iodepth:
        - 1
        - 2
        - 3
        - 4
        - 5
        - 8
        - 16
        - 24
        - 32
        - 64

```



```

- 128
256krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 262144
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 48
    - 64
    - 128
32krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
4krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 4096
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
512krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:

```

```

- 1
- 2
- 3
- 4
- 5
- 6
- 8
- 12
- 16
- 24
- 32
- 40
512kseqwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 14
64krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 65536
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
64kseqwrite:
  jobname: write
  mode: write
  numjobs:
    - 1
  op_size: 65536
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24

```

```

- 32
- 48
- 64
8krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 8192
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
precondition:
  jobname: precond1rw
  mode: randwrite
  monitor: false
  numjobs:
    - 1
  op_size: 65536
  precondition: true
  total_iodepth:
    - 16
seq16kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 16384
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 192
seq256kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 262144
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7

```

```

- 8
- 10
- 12
- 14
seq32kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 32768
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
seq4kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 4096
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 192
    - 256
seq8kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 8192
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 192
    - 256
cluster:
  archive_dir: /tmp/cbt
  ceph_mgr_cmd: /usr/bin/ceph-mgr

```

```

ceph-mon_cmd: /usr/bin/ceph-mon
ceph-osd_cmd: /usr/bin/ceph-osd
ceph-run_cmd: /usr/bin/ceph-run
ceph_cmd: /usr/bin/ceph
clients:
- --- server1 ---
clusterid: ceph
conf_file: /cbt/ceph.conf.4x1x1.fs
fs: xfs
head: --- server1 ---
iterations: 1
mgrs:
  --- server1 ---:
    a: null
mkfs_opts: -f -i size=2048
mons:
  --- server1 ---:
    a: --- IP Address --:6789
mount_opts: -o inode64,noatime,logbsize=256k
osds:
- --- server1 ---
osds_per_node: 6
pdsh_ssh_args: -a -x -l%u %h
rados_cmd: /usr/bin/rados
rbd_cmd: /usr/bin/rbd
tmp_dir: /tmp/cbt
use_existing: true
user: root
monitoring_profiles:
  collectl:
    args: -c 18 -sCD -i 10 -P -oz -F0 --rawtoo --sep ";" -f {collectl_dir}
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
  precondition_time: 600
  prefill:
    blocksize: 64k
    numjobs: 1
  procs_per_volume:
  - 1
  ramp: 30
  time: 90
  time_based: true
  use_existing_volumes: true
  vol_size: 52500
  volumes_per_client:
  - 8
  workloads:
    16k7030:
      jobname: randmix
      mode: randrw
      numjobs:
      - 1
      op_size: 16384

```

```

    rwmixread: 70
    total_iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 8
      - 16
      - 24
      - 32
      - 64
      - 128
  16krandomwrite:
    jobname: randwrite
    mode: randwrite
    numjobs:
      - 1
    op_size: 16384
    total_iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 8
      - 16
      - 24
      - 32
      - 64
      - 128
  256krandomwrite:
    jobname: randwrite
    mode: randwrite
    numjobs:
      - 1
    op_size: 262144
    total_iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 8
      - 16
      - 24
      - 32
      - 48
      - 64
      - 128
  32krandomwrite:
    jobname: randwrite
    mode: randwrite
    numjobs:
      - 1
    op_size: 32768
    total_iodepth:
      - 1
      - 2
      - 3
      - 4
      - 5
      - 8

```

```

- 16
- 24
- 32
- 64
- 128
4krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 4096
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 8
    - 16
    - 24
    - 32
    - 64
    - 128
512krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 8
    - 12
    - 16
    - 24
    - 32
    - 40
512kseqwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 524288
  total_iodepth:
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7
    - 8
    - 10
    - 12
    - 14
64krandomwrite:
  jobname: randwrite
  mode: randwrite

```

```

  numjobs:
  - 1
  op_size: 65536
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
64kseqwrite:
  jobname: write
  mode: write
  numjobs:
  - 1
  op_size: 65536
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 48
  - 64
8krandomwrite:
  jobname: randwrite
  mode: randwrite
  numjobs:
  - 1
  op_size: 8192
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
precondition:
  jobname: precond1rw
  mode: randwrite
  monitor: false
  numjobs:
  - 1
  op_size: 65536
  precondition: true
  total_iodepth:
  - 16
seq16kwrite:
  jobname: seqwrite

```



```

mode: write
numjobs:
- 1
op_size: 16384
total_iodepth:
- 2
- 4
- 8
- 12
- 16
- 24
- 32
- 64
- 96
- 128
- 192
seq256kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
  - 1
  op_size: 262144
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 10
  - 12
  - 14
seq32kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
  - 1
  op_size: 32768
  total_iodepth:
  - 1
  - 2
  - 3
  - 4
  - 5
  - 8
  - 16
  - 24
  - 32
  - 64
  - 128
seq4kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
  - 1
  op_size: 4096
  total_iodepth:
  - 2
  - 4
  - 8
  - 12

```

```

- 16
- 24
- 32
- 64
- 96
- 128
- 192
- 256
seq8kwrite:
  jobname: seqwrite
  mode: write
  numjobs:
    - 1
  op_size: 8192
  total_iodepth:
    - 2
    - 4
    - 8
    - 12
    - 16
    - 24
    - 32
    - 64
    - 96
    - 128
    - 192
    - 256
cluster:
  archive_dir: /tmp/cbt
  ceph_mgr_cmd: /usr/bin/ceph-mgr
  ceph_mon_cmd: /usr/bin/ceph-mon
  ceph_osd_cmd: /usr/bin/ceph-osd
  ceph_run_cmd: /usr/bin/ceph-run
  ceph_cmd: /usr/bin/ceph
  clients:
    - --- server1 ---
  clusterid: ceph
  conf_file: /cbt/ceph.conf.4x1x1.fs
  fs: xfs
  head: --- server1 ---
  iterations: 1
  mgrs:
    --- server1 ---:
      a: null
  mkfs_opts: -f -i size=2048
  mons:
    --- server1 ---:
      a: --- IP Address ---:6789
  mount_opts: -o inode64,noatime,logbsize=256k
  osds:
    - --- server1 ---
  osds_per_node: 6
  pdsh_ssh_args: -a -x -l%u %h
  rados_cmd: /usr/bin/rados
  rbd_cmd: /usr/bin/rbd
  tmp_dir: /tmp/cbt
  use_existing: true
  user: root
monitoring_profiles:
  collect1:
    args: -c 18 -sCD -i 10 -P -oz -F0 --rawtoo --sep "," -f {collect1_dir}

```