

? Windows Server 2022 ?????? IOPS

Windows Server 2022 IOPS DiskSpd

???????DiskSpd???????

???????

- DiskSpd

?????? GitHub "DiskSpd" ???

???????

```
C:\diskspd\diskspd.exe
```

????????????????????

???????? 10GB

```
fsutil file createnew D:\iops_test.dat 10737418240
```

????? IOPS ????????????

1. 4K ????????????????

```
Cd e:\soft\diskspd\
```

```
./diskspd.exe -b4K -r -o32 -t4 -d30 -Sh -L D:\iops_test.dat
```



□□	□□
-b4K	□□ 4KB
-r	□□ IO
-o32	□□□□ 32
-t4	4 □□
-d30	□□ 30 □
-Sh	□□□□□
-L	□□□□□

2. 4K ??? IOPS

```
C:\diskspd\diskspd.exe ^  
-b4K -r -w100 -o32 -t4 -d30 -Sh ^  
-L D:\iops_test.dat
```

??????????

1. ??????????

```
C:\diskspd\diskspd.exe ^  
-b1M -s -o4 -t2 -d30 -Sh ^  
-L D:\iops_test.dat
```

2. ???

```
C:\diskspd\diskspd.exe ^  
-b1M -s -w100 -o4 -t2 -d30 -Sh ^  
-L D:\iops_test.dat
```

????? IOPS ??

□□□□

□ **DiskSpd** □□□

E:\iops_test.dat □□□□□

□□□□□□□

???????

DiskSpd □□□□□□□□

□□□□□

□□□□□

□□□□□□□

□□□□□□□□□□□□□□

E: □□□□□□□

??????????????

□□ E: □□□□□□□□

□ PowerShell □□□□

```
fsutil file createnew E:\iops_test.dat 10737418240
```

□□□□□ **10GB** □□ □

□□□□□□

```
dir E:\iops_test.dat
```

??????????????

```
.\diskspd.exe -b4K -r -o32 -t4 -d30 -Sh -L E:\iops_test.dat
```

□□□□□□□ IOPS □□□

????????????????????

□□□□

- Windows Server 2022
- □□ CPU □ 2 sockets □

• 48

□□□□ □□

□□□□

1. ??????? C: ????

□□□□□□□□

2. ?? E: ???????

□□ U □□□□□□□□

??????

□□□□□ DiskSpd □□□□□□

□ □□□□□□□

□ □□ fsutil □□□□□□

□□□□ E: □□□ **Hyper-V** □□□□ □□□□□□□□□□□□□□□□

□□□□ □□□□□□□□□□ □□□□□□□□□□□□

? ????? IOPS ??

□□□□□□□□

total: 328754.98 I/O per s

???

□□ □□□□□□ **IOPS ≈ 328,755**

□□□□ □□□ **NVMe** □□□□ □□□□

? ? ? ? ? ?

□□	□□	□□
IOPS	328,755	□□
□□	1284 MB/s	□□
□□□□	0.012 ms □ 12 □□	□□

? ? ? ? ? ?

□□□□□□□□□□

□□□	□□
99%	0.020 ms
99.999%	0.908 ms
□□□□	5.685 ms

□□□□□□□□□□□□□□□□□□□□

? ? ? ? ? ? ? ? ? ?

□□□□□□□□

□□□□	□□□□
SATA SSD	□ □□□
□□ NVMe	□ □□□
□□□□	□

□□ E: □□□□□□

- □□□ NVMe SSD
- □□□□ RAID10 / □□□□

□□□□ **□□ “□□□□□□□□ I/O □□ ”**□□□□□□□□ □□□□ □

```
“□ NVMe ×4 + RAID5 + □□□□ Windows □ RAID□
□ □□□□
□ □□ 4K IOPS □□□□
□ □□□□ — □□□□□□□□□□
```

????????????????

1. ??????????????

Windows □□□□□□

- I/O □□□□ **1MB** □ **8MB** □□
- □□ □□□□
- RAID5 □□ □□□□□□
- NVMe □□□□□□□□□□

□□□□□□

□ 500MB/s □□□□□□□□□□

2. DiskSpd ??? 4K ???????? I/O

□□□□□□

```
-b4K // 4K □□
-r // □□
-w30 // 30% □
-o32 // □□□
```

□□ I/O □ RAID5 □□□ “□□□□□” □□

RAID5 ??? 4K ????????????

☐ ☐☐☐☐ OK
☐ ☐☐☐ I/O ☐☐☐

????????????????????

☐☐☐☐☐

☐☐	☐☐☐☐
☐☐☐ 500MB/s	☐ ☐☐☐
4K ☐☐☐ 4-5K IOPS	☐ ☐☐☐
☐☐ 60ms+	☐ RAID5 ☐☐☐☐☐

☐☐☐☐☐☐

☐☐ ☐☐☐☐☐☐☐☐☐☐☐☐

?????????DiskSpd ???“????? I/O”

☐☐☐☐☐☐

hardware write cache disabled, writethrough on

☐☐☐

- DiskSpd ☐☐☐☐☐☐☐☐
- ☐☐☐☐☐☐
- ☐☐☐☐ RAID ☐☐

☐☐☐☐☐☐☐☐

☐ Windows ☐☐☐☐☐☐☐☐
☐ ☐☐☐☐☐☐☐☐☐☐☐☐
☐ ☐☐☐☐ “☐☐ ”

????????? NVMe RAID5 ???????????

☐☐☐☐☐☐☐☐ “☐☐☐☐☐☐☐☐”☐

??????????

□□ **500MB/s** □□□□ □□□□ **4K** □□□□□□ □
□□□□ NVMe □□□□ RAID5 + □□□□□□□□

□□□□□□

□□□ D □□□□□□□□
□□□□□□□□ □□□□□□□□ □

Revision #6
Created 8 December 2025 09:56:43 by Admin
Updated 9 December 2025 01:08:12 by Admin