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databases sabrent

AMD Ryzen 7 5800X 8-Core testing with a ASRock X570 Pro4 (P3.40 BIOS) and Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 8GB on Ubuntu 20.10 via the Phoronix Test Suite.

Test Systems:

1

2

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P3.40 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 Plus, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 8GB (1560/2100MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: G237HL, Network: Intel I211

OS: Ubuntu 20.10, Kernel: 5.8.0-31-generic (x86_64), Desktop: GNOME Shell 3.38.1, Display Server: X Server 1.20.9, Display Driver: modesetting 1.20.9, OpenGL: 4.6 Mesa 20.2.1 (LLVM 11.0.0), Vulkan: 1.2.131, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 1920x1080

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Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-gcn/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand (Boost: Enabled) - CPU Microcode: 0xa201009
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	1	2
MariaDB - 1 (Queries/sec)	**3468**	**3425**
Normalized	100%	98.76%
Standard Deviation	0.2%	5.1%
MariaDB - 4 (Queries/sec)	**2177**	**1709**
Normalized	100%	78.5%
Standard Deviation	0.1%	10.4%
MariaDB - 8 (Queries/sec)	**2078**	**1545**
Normalized	100%	74.35%
Standard Deviation	1.9%	2.7%
MariaDB - 16 (Queries/sec)	**2030**	**1465**
Normalized	100%	72.17%
Standard Deviation	0.1%	21.3%
MariaDB - 32 (Queries/sec)	1701	
Standard Deviation	6.5%	
MariaDB - 64 (Queries/sec)	1422	
Standard Deviation	0.9%	
MariaDB - 128 (Queries/sec)	428	
Standard Deviation	8.8%	
MariaDB - 256 (Queries/sec)	348	
Standard Deviation	2.8%	
MariaDB - 512 (Queries/sec)	331	
Standard Deviation	1.5%	
PostgreSQL pgbench - 1 - 1 - Read Only (TPS)	39916	
Standard Deviation	0.4%	
PostgreSQL pgbench - 1 - 1 - Read Only - Average Latency (ms)	0.025	
Standard Deviation	0%	
PostgreSQL pgbench - 1 - 1 - Read Write (TPS)	1377	
Standard Deviation	20.3%	
PostgreSQL pgbench - 1 - 1 - Read Write - Average Latency (ms)	0.786	
Standard Deviation	41.7%	
PostgreSQL pgbench - 1 - 50 - Read Only (TPS)	374081	
Standard Deviation	0.9%	
PostgreSQL pgbench - 1 - 50 - Read Only - Average Latency (ms)	0.134	
Standard Deviation	1.1%	
PostgreSQL pgbench - 1 - 100 - Read Only (TPS)	366330	
Standard Deviation	0.9%	

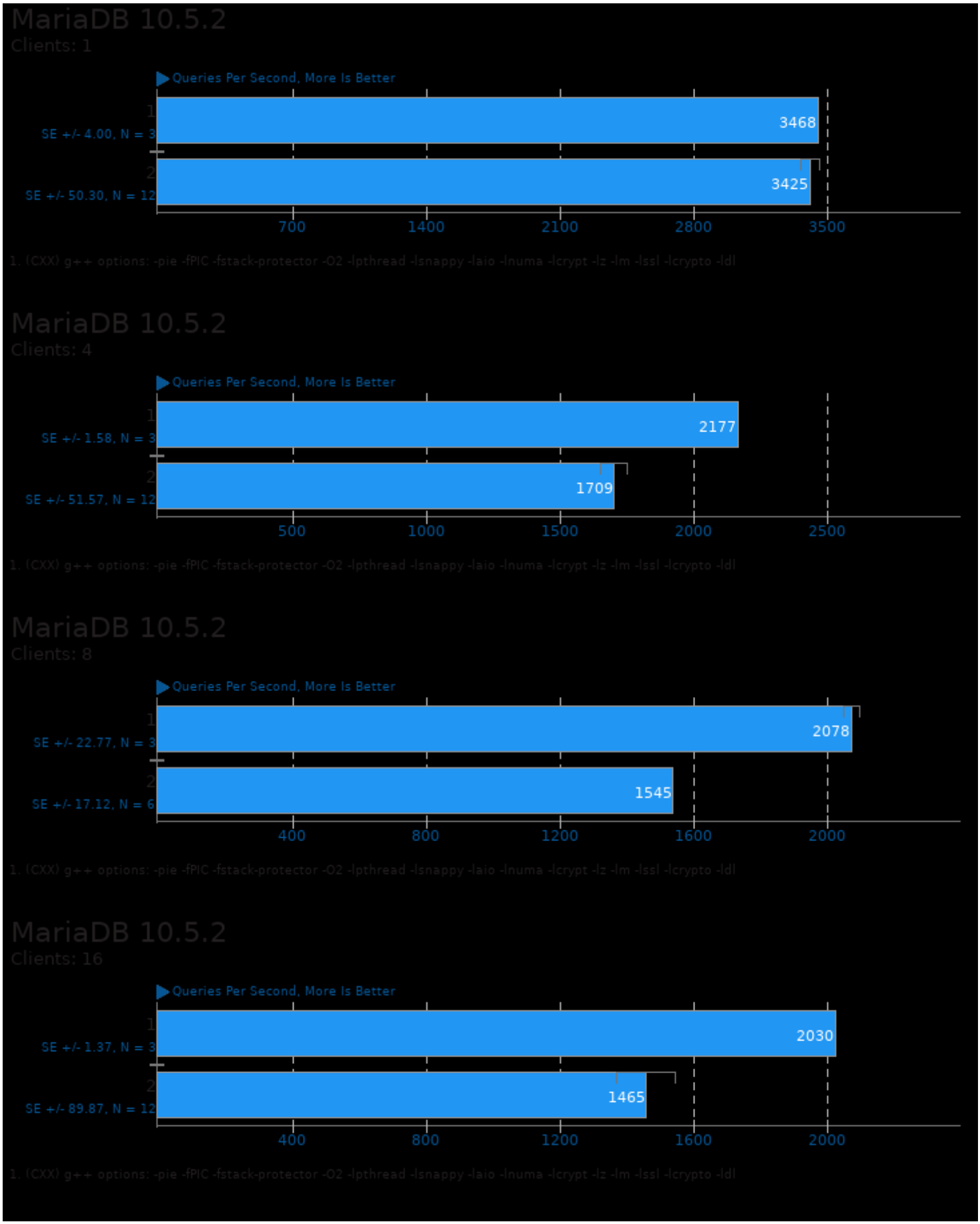
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PostgreSQL pgbench - 1 - 100 - Read Only - Average Latency (ms)	0.273
Standard Deviation	0.9%
PostgreSQL pgbench - 1 - 50 - Read Write (TPS)	1772
Standard Deviation	0%
PostgreSQL pgbench - 1 - 50 - Read Write - Average Latency (ms)	28.220
Standard Deviation	0%
PostgreSQL pgbench - 100 - 1 - Read Only (TPS)	32441
Standard Deviation	2.4%
PostgreSQL pgbench - 100 - 1 - Read Only - Average Latency (ms)	0.031
Standard Deviation	3.2%
PostgreSQL pgbench - 1 - 100 - Read Write (TPS)	1672
Standard Deviation	0.8%
PostgreSQL pgbench - 1 - 100 - Read Write - Average Latency (ms)	59.843
Standard Deviation	0.8%
PostgreSQL pgbench - 100 - 1 - Read Write (TPS)	1362
Standard Deviation	0.7%
PostgreSQL pgbench - 100 - 1 - Read Write - Average Latency (ms)	0.734
Standard Deviation	0.6%
PostgreSQL pgbench - 100 - 50 - Read Only (TPS)	318339
Standard Deviation	1.2%
PostgreSQL pgbench - 100 - 50 - Read Only - Average Latency (ms)	0.157
Standard Deviation	1.3%
PostgreSQL pgbench - 1000 - 1 - Read Only (TPS)	12522
Standard Deviation	12%
PostgreSQL pgbench - 1000 - 1 - Read Only - Average Latency (ms)	0.081
Standard Deviation	11.7%
PostgreSQL pgbench - 100 - 100 - Read Only (TPS)	319943
Standard Deviation	0.7%
PostgreSQL pgbench - 100 - 100 - Read Only - Average Latency (ms)	0.313
Standard Deviation	0.7%
PostgreSQL pgbench - 100 - 50 - Read Write (TPS)	30033
Standard Deviation	2%
PostgreSQL pgbench - 100 - 50 - Read Write - Average Latency (ms)	1.665
Standard Deviation	2%
PostgreSQL pgbench - 1000 - 1 - Read Write (TPS)	512
Standard Deviation	2.9%
PostgreSQL pgbench - 1000 - 1 - Read Write - Average Latency (ms)	1.954
Standard Deviation	2.9%
PostgreSQL pgbench - 1000 - 50 - Read Only (TPS)	276699
Standard Deviation	1%

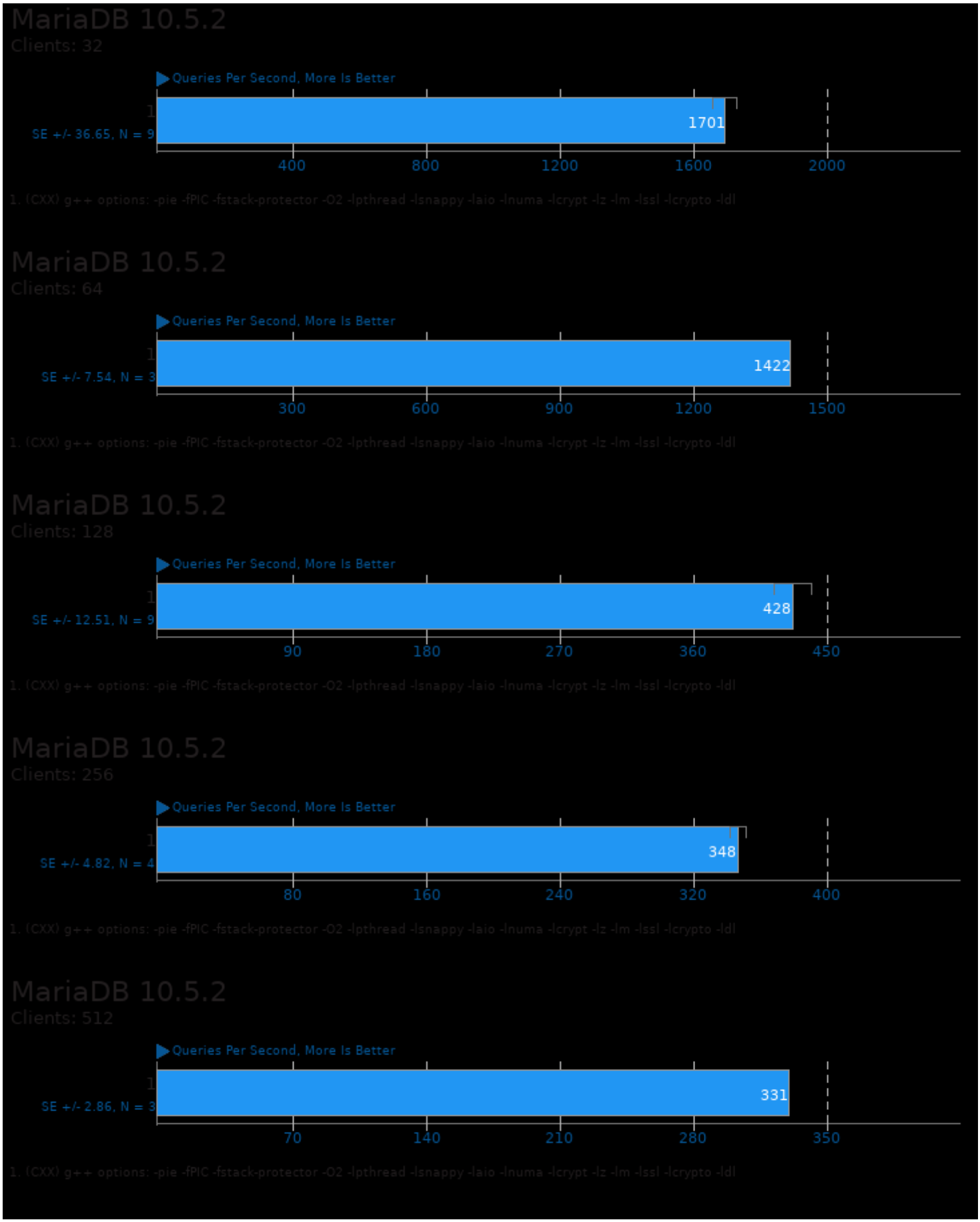
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PostgreSQL pgbench - 1000 - 50 - Read Only - Average Latency (ms)	0.181
Standard Deviation	1.2%
PostgreSQL pgbench - 100 - 100 - Read Write (TPS)	37163
Standard Deviation	1.7%
PostgreSQL pgbench - 100 - 100 - Read Write - Average Latency (ms)	2.693
Standard Deviation	1.7%
PostgreSQL pgbench - 1000 - 100 - Read Only (TPS)	284058
Standard Deviation	1.1%
PostgreSQL pgbench - 1000 - 100 - Read Only - Average Latency (ms)	0.352
Standard Deviation	1.1%
PostgreSQL pgbench - 1000 - 50 - Read Write (TPS)	6203
Standard Deviation	0.6%
PostgreSQL pgbench - 1000 - 50 - Read Write - Average Latency (ms)	8.062
Standard Deviation	0.6%
PostgreSQL pgbench - 1000 - 100 - Read Write (TPS)	9330
Standard Deviation	0.4%
PostgreSQL pgbench - 1000 - 100 - Read Write - Average Latency (ms)	10.723
Standard Deviation	0.4%

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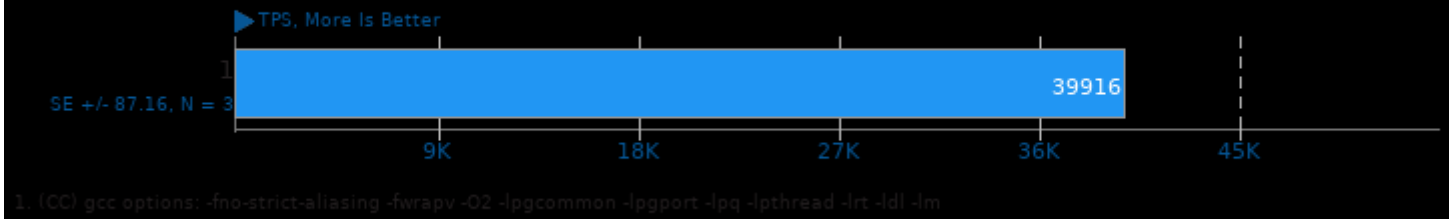
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PostgreSQL pgbench 13.0

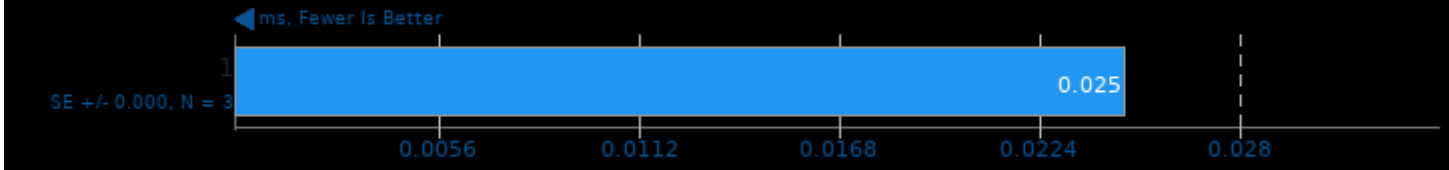
Scaling Factor: 1 - Clients: 1 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

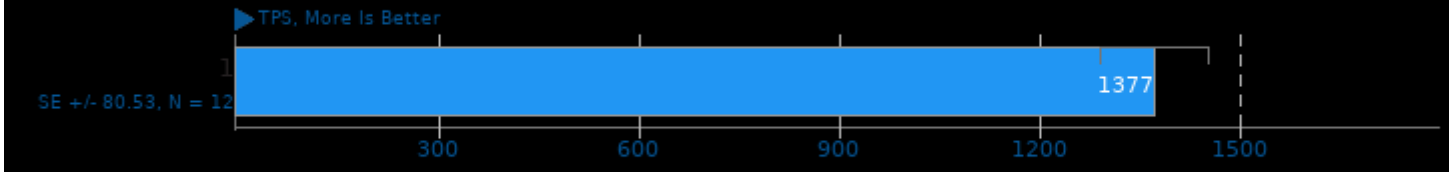
Scaling Factor: 1 - Clients: 1 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

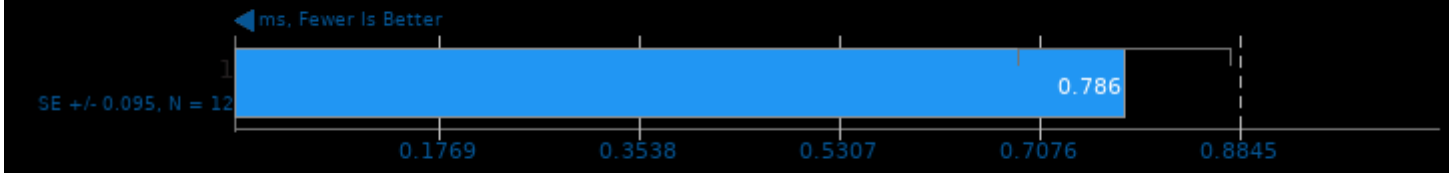
Scaling Factor: 1 - Clients: 1 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

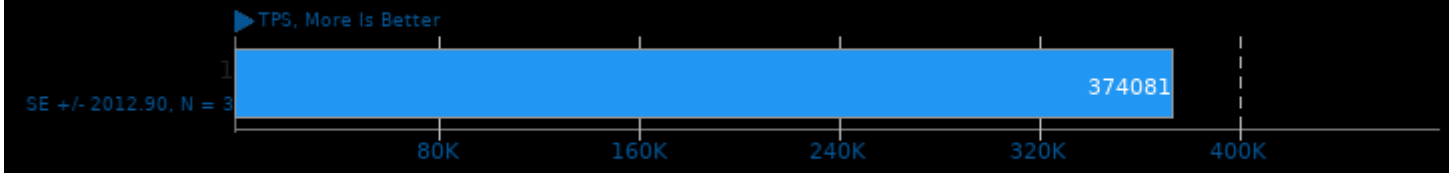
Scaling Factor: 1 - Clients: 1 - Mode: Read Write - Average Latency



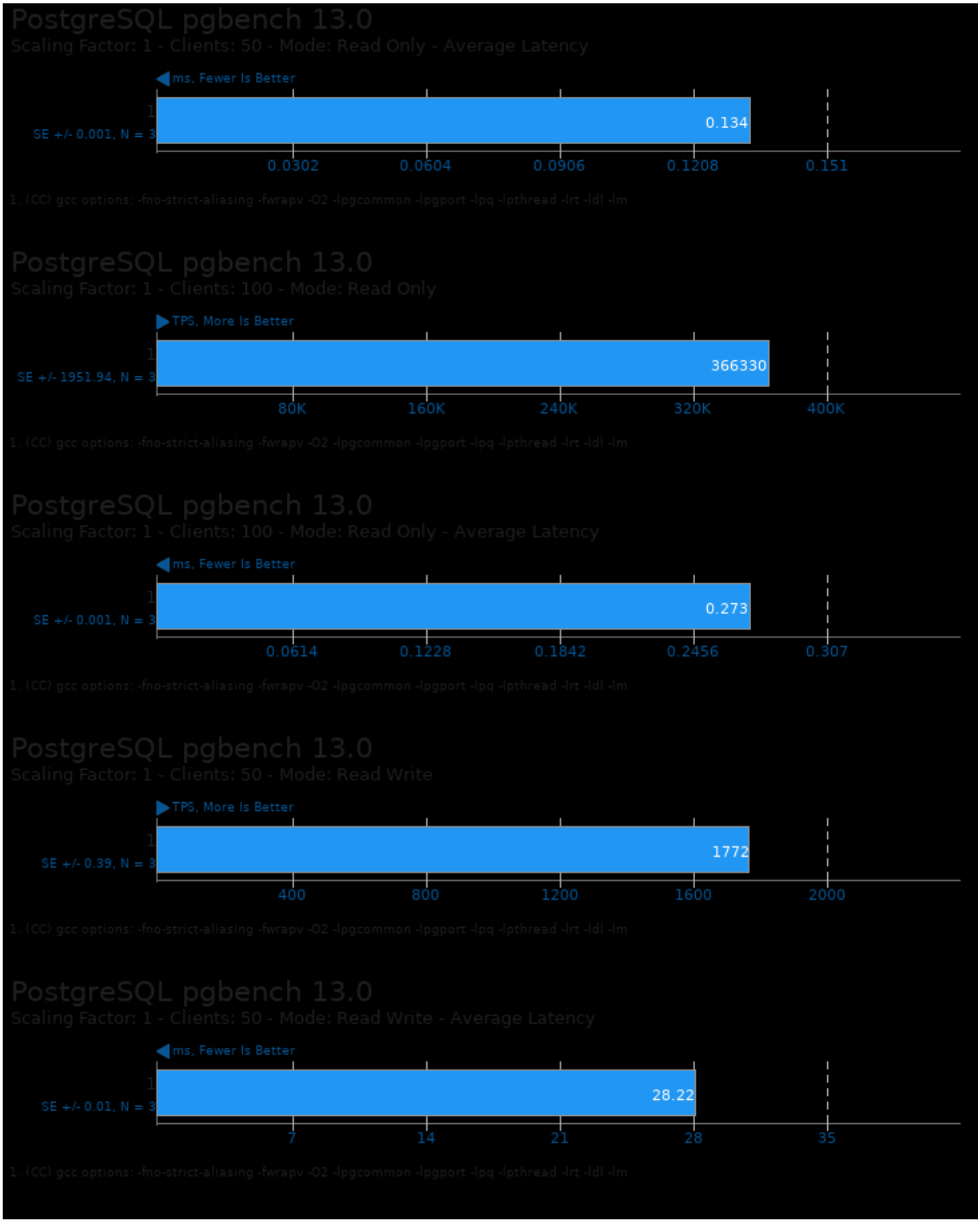
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

Scaling Factor: 1 - Clients: 50 - Mode: Read Only

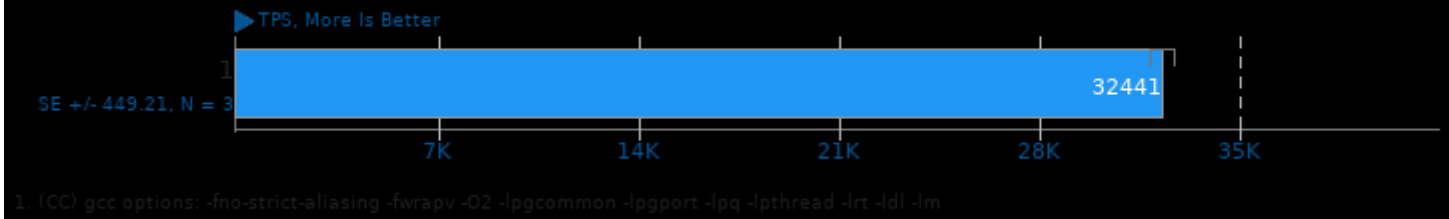


1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm


PostgreSQL pgbench 13.0
Scaling Factor: 1 - Clients: 50 - Mode: Read Only - Average Latency
ms, Fewer Is Better
1
SE +/- 0.001, N = 3
0.134
0.0302
0.0604
0.0906
0.1208
0.151
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1 - Clients: 100 - Mode: Read Only
TPS, More Is Better
1
SE +/- 1951.94, N = 3
366330
80K
160K
240K
320K
400K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1 - Clients: 100 - Mode: Read Only - Average Latency
ms, Fewer Is Better
1
SE +/- 0.001, N = 3
0.273
0.0614
0.1228
0.1842
0.2456
0.307
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1 - Clients: 50 - Mode: Read Write
TPS, More Is Better
1
SE +/- 0.39, N = 3
1772
400
800
1200
1600
2000
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1 - Clients: 50 - Mode: Read Write - Average Latency
ms, Fewer Is Better
1
SE +/- 0.01, N = 3
28.22
7
14
21
28
35
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

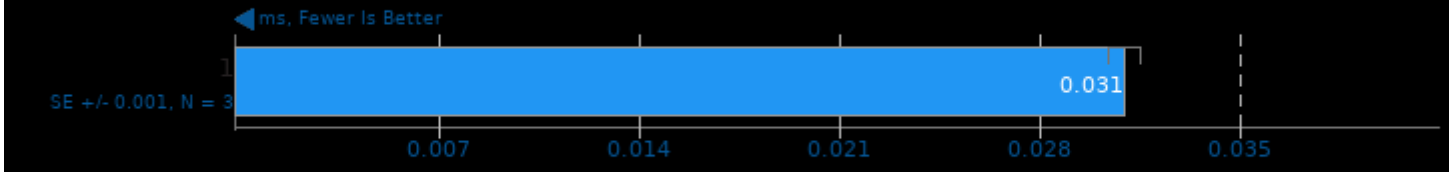
Scaling Factor: 100 - Clients: 1 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

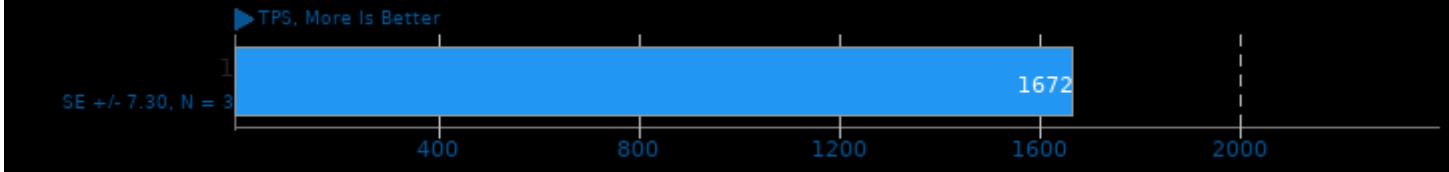
Scaling Factor: 100 - Clients: 1 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

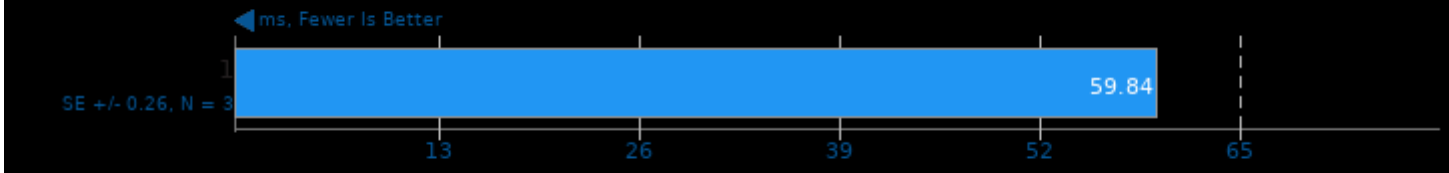
Scaling Factor: 1 - Clients: 100 - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

PostgreSQL pgbench 13.0

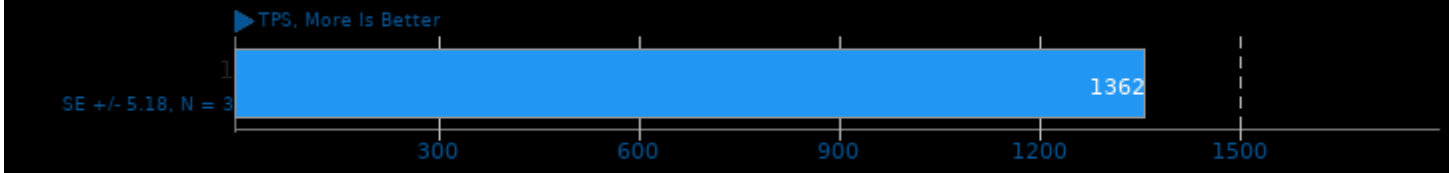
Scaling Factor: 1 - Clients: 100 - Mode: Read Write - Average Latency



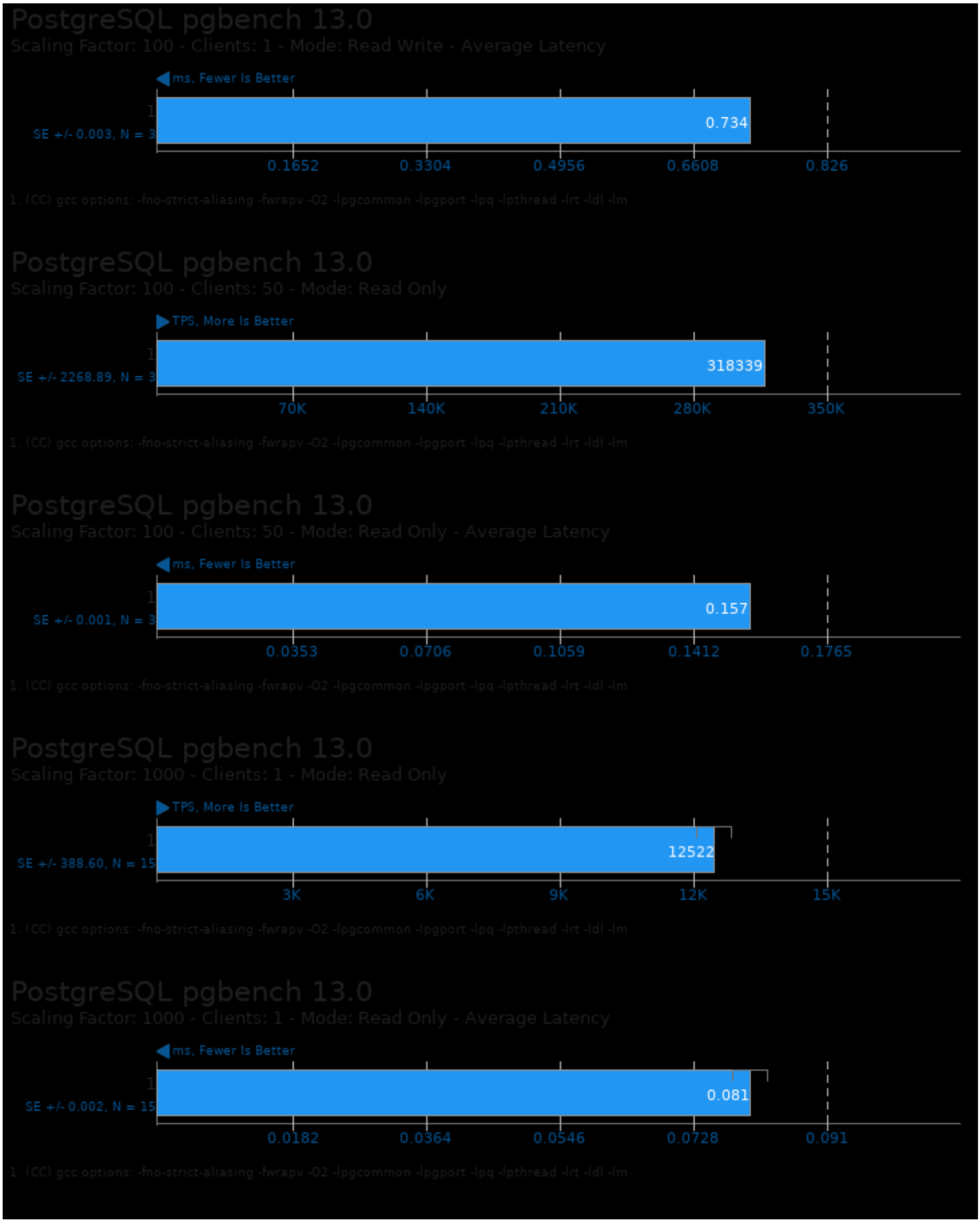
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

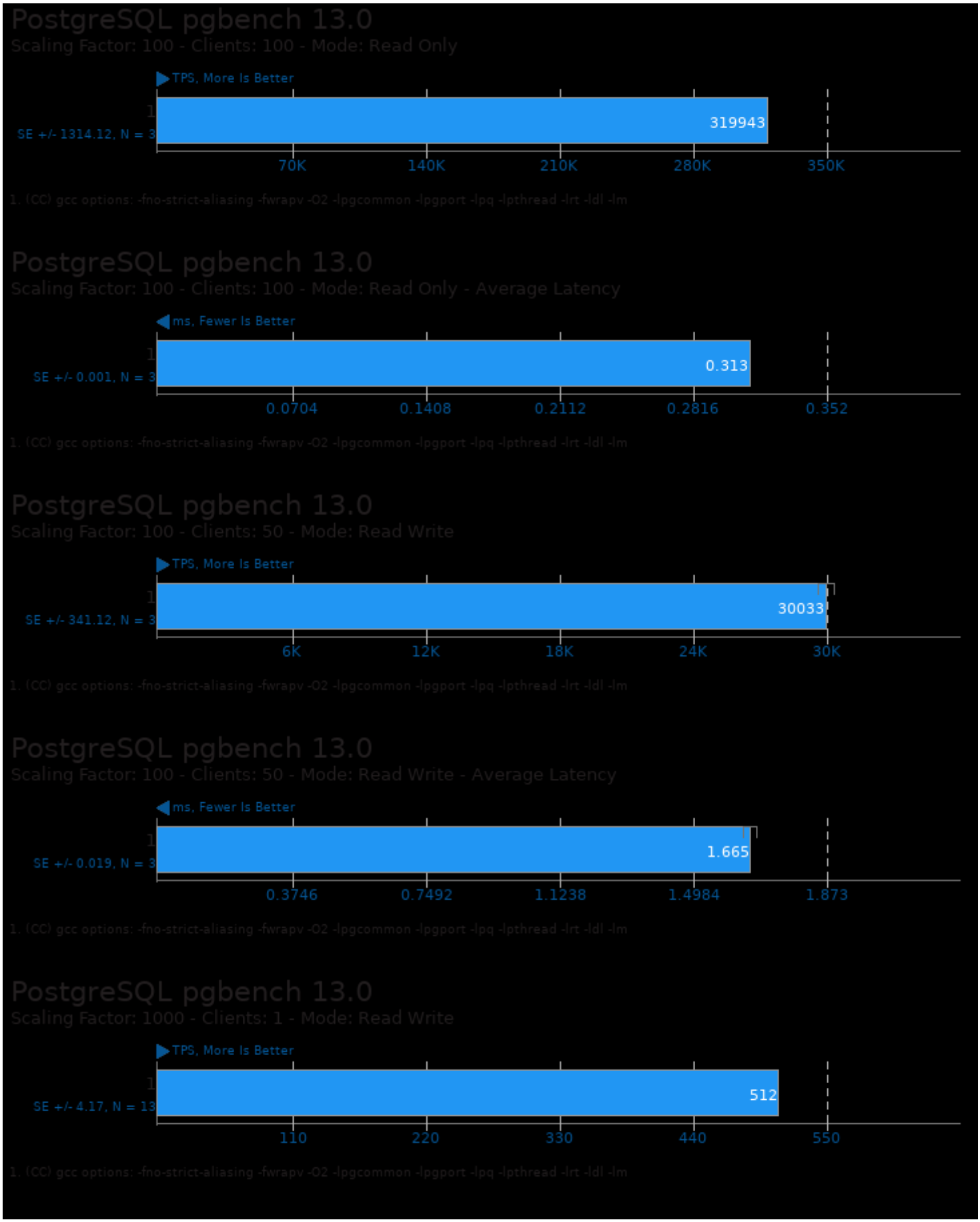
PostgreSQL pgbench 13.0

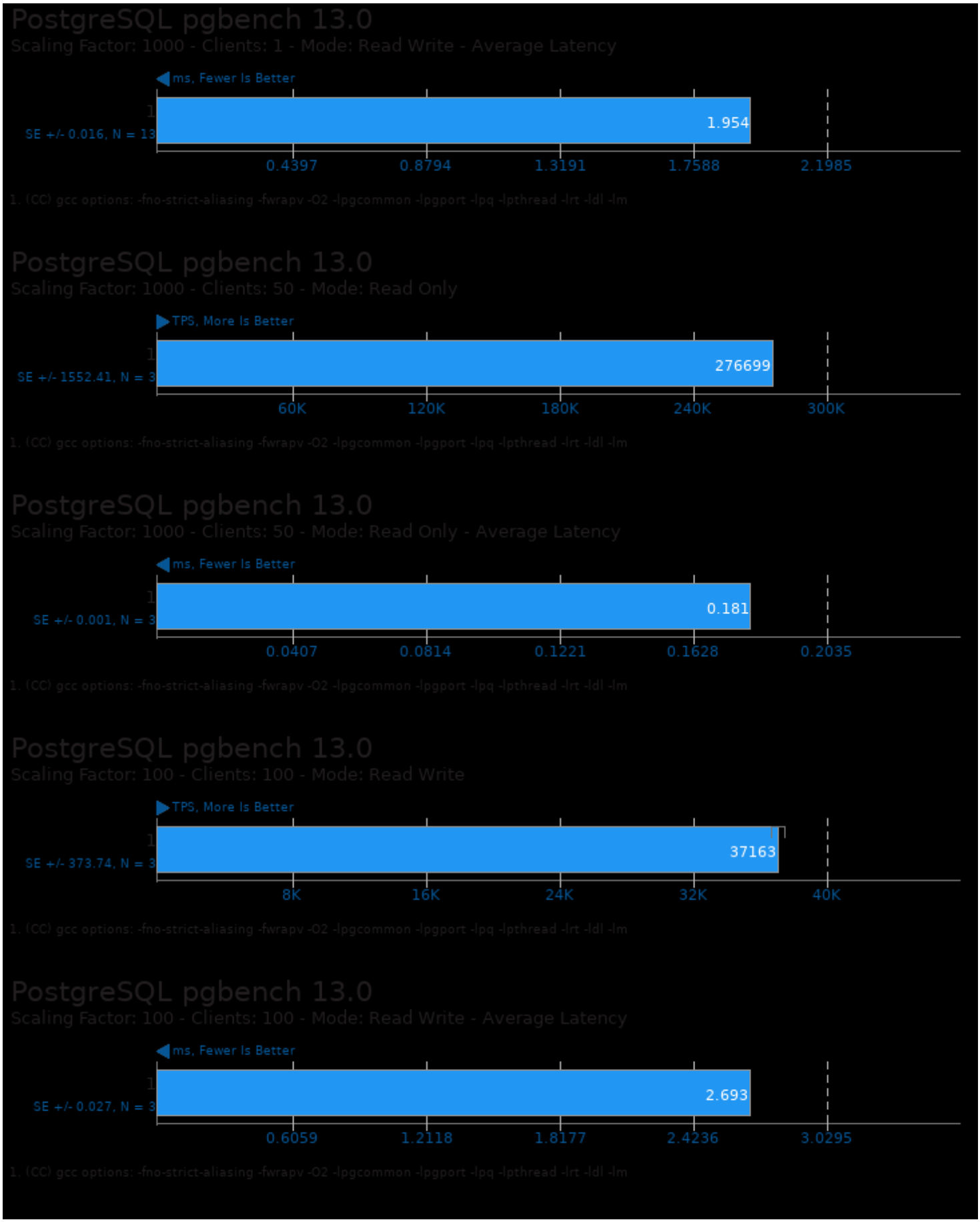
Scaling Factor: 100 - Clients: 1 - Mode: Read Write

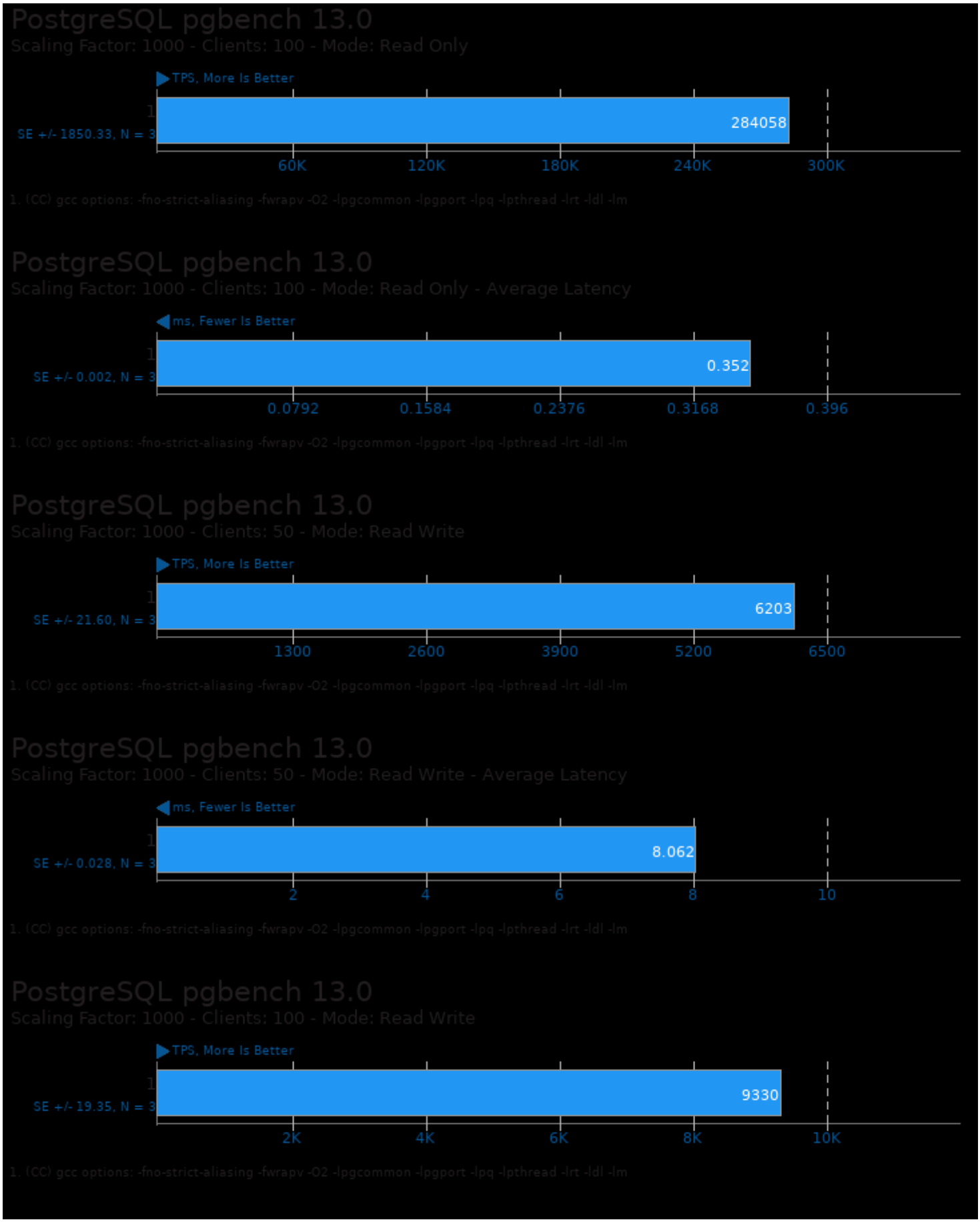


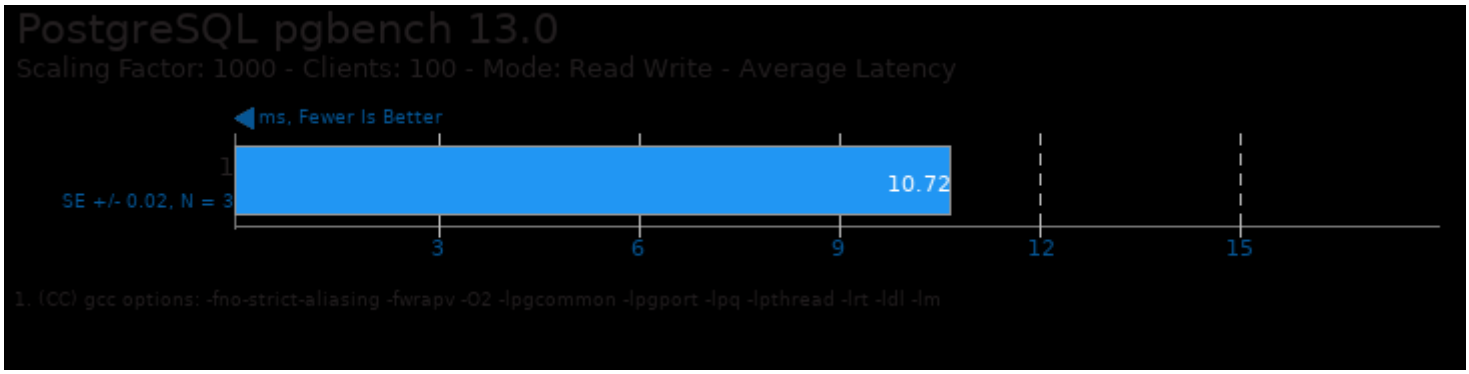
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm


PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 1 - Mode: Read Write - Average Latency
ms, Fewer Is Better
SE +/- 0.003, N = 3
0.734
0.1652
0.3304
0.4956
0.6608
0.826
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 50 - Mode: Read Only
TPS, More Is Better
SE +/- 2268.89, N = 3
318339
70K
140K
210K
280K
350K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 50 - Mode: Read Only - Average Latency
ms, Fewer Is Better
SE +/- 0.001, N = 3
0.157
0.0353
0.0706
0.1059
0.1412
0.1765
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 1 - Mode: Read Only
TPS, More Is Better
SE +/- 388.60, N = 15
12522
3K
6K
9K
12K
15K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 1 - Mode: Read Only - Average Latency
ms, Fewer Is Better
SE +/- 0.002, N = 15
0.081
0.0182
0.0364
0.0546
0.0728
0.091
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm


PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 100 - Mode: Read Only
TPS, More Is Better
1
SE +/- 1314.12, N = 3
319943
70K
140K
210K
280K
350K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 100 - Mode: Read Only - Average Latency
ms, Fewer Is Better
1
SE +/- 0.001, N = 3
0.313
0.0704
0.1408
0.2112
0.2816
0.352
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 50 - Mode: Read Write
TPS, More Is Better
1
SE +/- 341.12, N = 3
30033
6K
12K
18K
24K
30K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 50 - Mode: Read Write - Average Latency
ms, Fewer Is Better
1
SE +/- 0.019, N = 3
1.665
0.3746
0.7492
1.1238
1.4984
1.873
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 1 - Mode: Read Write
TPS, More Is Better
1
SE +/- 4.17, N = 13
512
110
220
330
440
550
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm


PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 1 - Mode: Read Write - Average Latency
ms, Fewer Is Better
1.954
SE +/- 0.016, N = 13
0.4397
0.8794
1.3191
1.7588
2.1985
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 50 - Mode: Read Only
TPS, More Is Better
276699
SE +/- 1552.41, N = 3
60K
120K
180K
240K
300K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 50 - Mode: Read Only - Average Latency
ms, Fewer Is Better
0.181
SE +/- 0.001, N = 3
0.0407
0.0814
0.1221
0.1628
0.2035
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 100 - Mode: Read Write
TPS, More Is Better
37163
SE +/- 373.74, N = 3
8K
16K
24K
32K
40K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 100 - Clients: 100 - Mode: Read Write - Average Latency
ms, Fewer Is Better
2.693
SE +/- 0.027, N = 3
0.6059
1.2118
1.8177
2.4236
3.0295
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm


PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 100 - Mode: Read Only
TPS, More Is Better
1
284058
SE +/- 1850.33, N = 3
60K
120K
180K
240K
300K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 100 - Mode: Read Only - Average Latency
ms, Fewer Is Better
1
0.352
SE +/- 0.002, N = 3
0.0792
0.1584
0.2376
0.3168
0.396
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 50 - Mode: Read Write
TPS, More Is Better
1
6203
SE +/- 21.60, N = 3
1300
2600
3900
5200
6500
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 50 - Mode: Read Write - Average Latency
ms, Fewer Is Better
1
8.062
SE +/- 0.028, N = 3
2
4
6
8
10
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 100 - Mode: Read Write
TPS, More Is Better
1
9330
SE +/- 19.35, N = 3
2K
4K
6K
8K
10K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

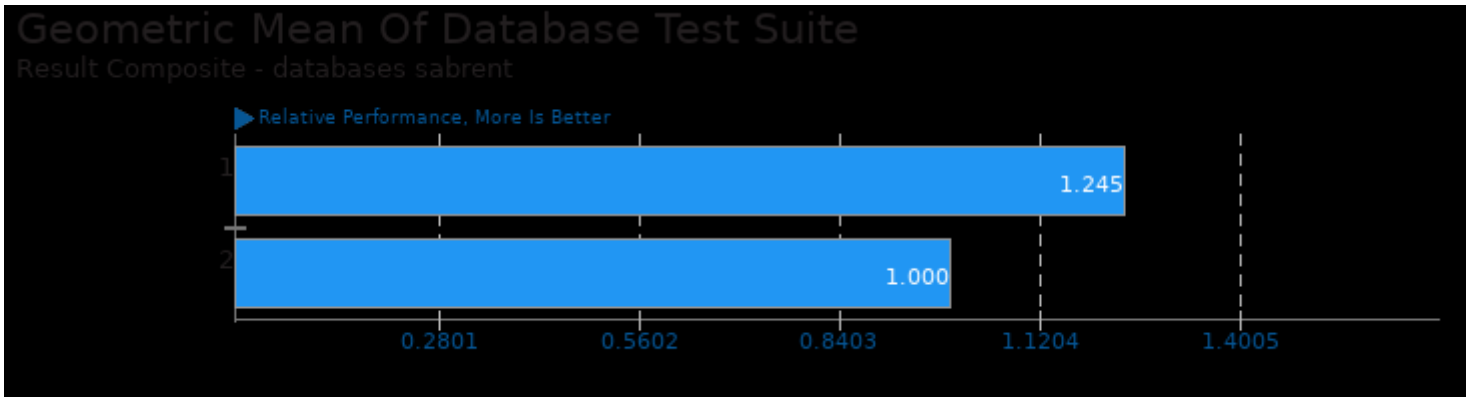

PostgreSQL pgbench 13.0
Scaling Factor: 1000 - Clients: 100 - Mode: Read Write - Average Latency
ms, Fewer Is Better
SE +/- 0.02, N = 3
10.72
3
6
9
12
15
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

databases sabrent

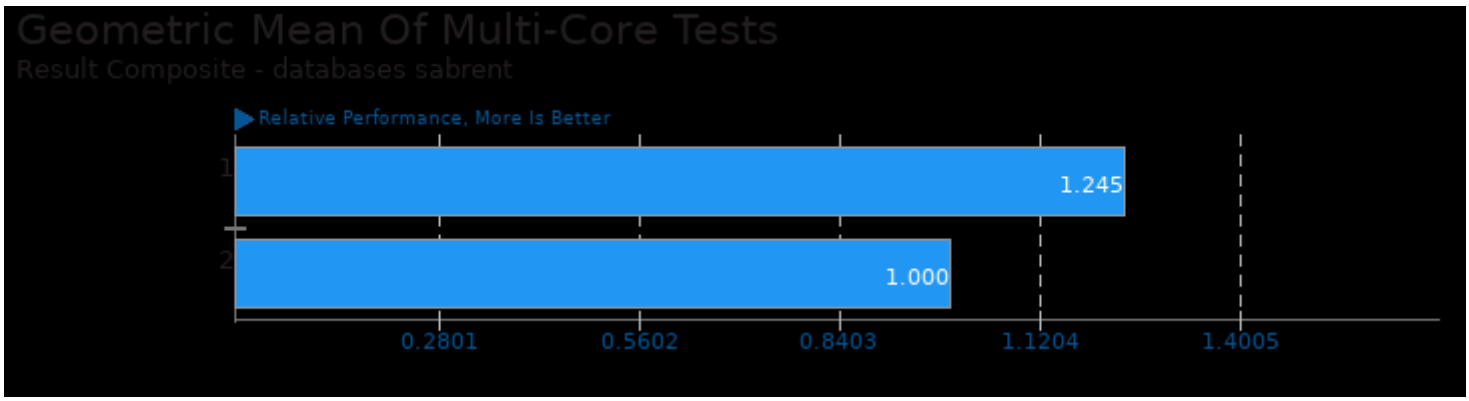
These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/mysqlslap and pts/pgbench

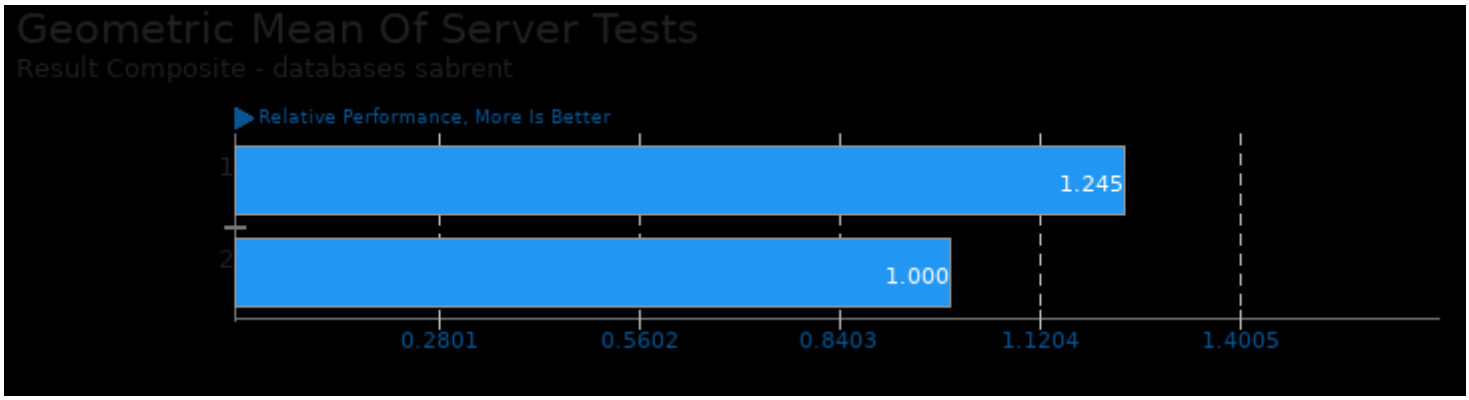


Geometric mean based upon tests: pts/pgbench and pts/mysqlslap



Geometric mean based upon tests: pts/mysqlslap and pts/pgbench

databases sabrent



Geometric mean based upon tests: pts/mysqlslap and pts/pgbench

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 05:17.