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Very Large Linux Distribution Performance Comparison

Very Big Linux distribution performance testing. Benchmarking many different BSD and Linux operating systems for a future article on Phoronix.com. Benchmarking by Michael Larabel.

Automated Executive Summary

PCLinuxOS 2013 had the most wins, coming in first place for 35% of the tests.

Based on the geometric mean of all complete results, the fastest (Manjaro 0.8.5) was 5.529x the speed of the slowest (LenovoTPedge13Ubuntu14.04).

The results with the greatest spread from best to worst included:

Nexuiz (Resolution: 1920 x 1080 - HDR: Yes - Sound: Off) at 67.83x
PostMark (Disk Transaction Performance) at 52.902x
Tachyon (Total Time) at 12.744x
N-Queens (Elapsed Time) at 11.105x
Xonotic (Resolution: 1920 x 1080 - Effects Quality: High) at 10.663x
Smallpt (Global Illumination Renderer; 100 Samples) at 10.435x
Primesieve (1e12 Prime Number Generation) at 10.137x
C-Ray (Total Time) at 10.064x
x264 (H.264 Video Encoding) at 9.497x

Timed PHP Compilation (Time To Compile) at 8.936x.

Test Systems:

PC-BSD 9.1

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Memory: 8192MB, Disk: OCZ VERTEX 1.30, Graphics: ATI Radeon HD 4650, Audio: ATI RV730 HDA, Monitor: DELL S2409W, Network: Intel PRO/1000 Connection 7.3.2

OS: FreeBSD, Kernel: 9.1-RELEASE (x86_64), Desktop: KDE 4.9.3, Display Server: X Server 1.10.6, Display Driver: vesa 2.3.0, OpenGL: 2.1 Mesa 7.11.2, Compiler: Clang 3.1 (SVN 156863) + GCC 4.2.1 20070831, File-System: zfs, Screen Resolution: 1280x1024

DragonFlyBSD 3.4.1

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Memory: 8192MB, Disk: SATA OCZ VERTEX 1.30

OS: DragonFly, Kernel: 3.4-RELEASE (x86_64), Compiler: GCC 4.7.2, File-System: hammer

CentOS 6.4

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 8192MB, Disk: 64GB OCZ VERTEX, Graphics: AMD Radeon HD 4650 512MB, Audio: Intel C600/X79, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: CentOS 6.4, Kernel: 2.6.32-358.el6.x86_64 (x86_64), Desktop: GNOME 2.28.2, Display Server: X Server 1.13.0, Display Driver: radeon 6.99.99, OpenGL: 2.1 Mesa 9.0-devel Gallium 0.4, Compiler: GCC 4.4.7 20120313, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-redhat-linux --disable-dssi --disable-libjava-multilib --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-checking=release --enable-gnu-unique-object --enable-java-awt=gtk --enable-java-maintainer-mode --enable-languages=c,c++,objc,obj-c++,java,fortran,ada --enable-libgcj-multifile --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=i686 --with-cloog --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-1.5.0.0/jre --with-ppl --with-tune=generic
Processor Notes: Scaling Governor: ondemand
Graphics Notes: EXA
System Notes: SELinux: Enabled.
Disk Mount Options Notes: barrier=1,data=ordered,relatime,rw,seclabel

Fedora 18

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 8192MB, Disk: 64GB OCZ VERTEX, Graphics: AMD Radeon HD 4650 512MB, Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: Fedora 18 (Spherical Cow), Kernel: 3.9.3-201.fc18.x86_64 (x86_64), Desktop: GNOME Shell 3.6.3.1, Display Server: X Server 1.13.3, Display Driver: radeon 6.99.99, OpenGL: 2.1 Mesa 9.1 Gallium 0.4, Compiler: GCC 4.7.2

20121109, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-redhat-linux --disable-build-poststage1-with-cxx --disable-build-with-cxx --disable-dssi --disable-libjava-multilib --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-checking=release --enable-gnu-unique-object --enable-initfini-array --enable-java-awt=gtk --enable-java-maintainer-mode --enable-languages=c,c++,objc,obj-c++,java,fortran,ada,go,lto --enable-libgcj-multifile --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=i686 --with-cloog --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-1.5.0.0/jre --with-linker-hash-style=gnu --with-ppl --with-tune=generic
Processor Notes: Scaling Governor: acpi- freq ondemand
Graphics Notes: EXA
System Notes: SELinux: Enabled.
Disk Mount Options Notes: data=ordered,relatime,rw,seclabel

Ubuntu 13.04

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 8192MB, Disk: 64GB OCZ VERTEX, Graphics: AMD Radeon HD 4650 512MB, Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: Ubuntu 13.04, Kernel: 3.8.0-19-generic (x86_64), Desktop: Unity 7.0.0, Display Server: X Server 1.13.3, Display Driver: radeon 7.1.0, OpenGL: 3.0 Mesa 9.1.1 Gallium 0.4, Compiler: GCC 4.7, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-cloog-version-check --disable-ppl-version-check --disable-werror --enable-checking=release --enable-clocale=gnu --enable-cloog-backend=ppl --enable-gnu-unique-object --enable-languages=c,c++,go,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-cloog --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: ondemand
System Notes: Disk Scheduler: DEADLINE.

Linux Mint 15 RC

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 8192MB, Disk: 64GB OCZ VERTEX, Graphics: AMD Radeon HD 4650 512MB, Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: LinuxMint 15, Kernel: 3.8.0-19-generic (x86_64), Desktop: Cinnamon 1.8.2, Display Server: X Server 1.13.3, Display Driver: radeon 7.1.0, OpenGL: 3.0 Mesa 9.1.1 Gallium 0.4, Compiler: GCC 4.7, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-cloog-version-check --disable-ppl-version-check --disable-werror --enable-checking=release --enable-clocale=gnu --enable-cloog-backend=ppl --enable-gnu-unique-object --enable-languages=c,c++,go,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-cloog --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: ondemand
Graphics Notes: EXA
System Notes: Disk Scheduler: DEADLINE.

Mageia 3

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 8192MB, Disk: 64GB OCZ VERTEX, Graphics: AMD Radeon HD 4650 512MB (650/900MHz), Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: Mageia 3, Kernel: 3.8.13-desktop-1.mga3 (x86_64), Desktop: LXDE 0.5.10, Display Server: X Server 1.13.4, Display Driver: radeon 7.1.0, OpenGL: 2.1 Mesa 9.1.2 Gallium 0.4, Compiler: GCC 4.7.2, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-mageia-linux-gnu --disable-libjava-multilib --disable-libssp --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit

--enable-checking=release --enable-clocale=gnu --enable-gtk-cairo --enable-java-awt=gtk --enable-languages=c,c++,ada,fortran,objc,obj-c++,java --enable-long-long --enable-lto --enable-objc-gc --enable-shared --enable-ssp --enable-threads=posix --host=x86_64-mageia-linux-gnu --mandir=/usr/share/man --with-cloog --with-cpu=generic --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-1.5.0.0/jre --with-ppl --with-python-dir=/lib/python2.7/site-packages --with-slibdir=/lib64
Disk Notes: CFQ / data=ordered,relatime,rw
Processor Notes: Scaling Governor: acpi- freq performance
Graphics Notes: EXA
System Notes: Disk Scheduler: CFQ.

openSUSE 12.3

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 8192MB, Disk: 64GB OCZ VERTEX + 128GB RVS02 SuperSpeed, Graphics: AMD Radeon HD 4650 512MB, Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: openSUSE 12.3, Kernel: 3.7.10-1.1-desktop (x86_64), Desktop: KDE 4.10.00, Display Server: X Server 1.13.2, Display Driver: radeon 7.0.0, Compiler: GCC 4.7, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-suse-linux --disable-libgcj --disable-libitm --disable-libmudflap --disable-libssp --disable-libstdcxx-pch --disable-plugin --enable-__cxa_atexit --enable-checking=release --enable-languages=c,c++,objc,fortran,obj-c++,java,ada --enable-libstdcxx-allocator=new --enable-linux-futex --enable-ssp --enable-version-specific-runtime-libs --mandir=/usr/share/man --with-arch-32=i586 --with-slibdir=/lib64 --with-tune=generic --without-system-libunwind
Disk Notes: CFQ / data=ordered,relatime,rw
Processor Notes: Scaling Governor: acpi- freq ondemand
Graphics Notes: EXA
System Notes: Disk Scheduler: CFQ.

Manjaro 0.8.5

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 8192MB, Disk: 64GB OCZ VERTEX, Graphics: AMD Radeon HD 4650 512MB, Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: ManjaroLinux 0.8.5, Kernel: 3.8.11-1-MANJARO (x86_64), Desktop: Xfce 4.10, Display Server: X Server 1.14.1, Display Driver: radeon 7.1.0, OpenGL: 3.1 Mesa 9.1.1 Gallium 0.4, Compiler: GCC 4.8.0 20130502, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --disable-cloog-version-check --disable-install-libiberty --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-multilib --disable-werror --enable-__cxa_atexit --enable-checking=release --enable-clocale=gnu --enable-cloog-backend=isl --enable-gnu-unique-object --enable-gold --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++ --enable-ld=default --enable-lto --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-linker-hash-style=gnu --with-plugin-ld=ld.gold
Disk Notes: CFQ / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi- freq ondemand
Graphics Notes: EXA
System Notes: Disk Scheduler: CFQ.

Debian Linux 7.0

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 8192MB, Disk: 64GB OCZ VERTEX, Graphics: LLVMpipe, Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: Debian 7.0, Kernel: 3.2.0-4-amd64 (x86_64), Desktop: GNOME 3.4.2.1, Display Server: X Server 1.12.4, Display Driver: radeon 6.14.99, OpenGL: 2.1 Mesa 8.0.5 Gallium 0.4, Compiler: GCC 4.7, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-languages=c,c++,go,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-arch-32=i586 --with-tune=generic -v
Disk Notes: CFQ / barrier=1,data=ordered,errors=remount-ro,relatime,rw,user_xattr
Processor Notes: Scaling Governor: acpi- freq ondemand
System Notes: Disk Scheduler: CFQ.

Debian kFreeBSD 7.0

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: INTEL DX79SI, Memory: 8192MB, Disk: OCZ VERTEX 1.30, Graphics: LLVMpipe, Audio: Intel Patsburg HD Audio, Monitor: DELL S2409W, Network: Intel PRO/1000 Connection 7.2.3

OS: Debian GNU/kFreeBSD 7.0, Kernel: 9.0-2-amd64 (x86_64), Desktop: Xfce 4.8, Display Server: X Server 1.12.4, Display Driver: radeon 6.14.99, OpenGL: 2.1 Mesa 8.0.5 Gallium 0.4, Compiler: GCC 4.7, File-System: ufs, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-kfreebsd-gnu --disable-libitm --enable-checking=release --enable-clocale=gnu --enable-languages=c,c++,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-kfreebsd-gnu --target=x86_64-kfreebsd-gnu --with-arch-32=i586 --with-tune=generic -v
Disk Mount Options Notes: rw

PCLinuxOS 2013

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 8192MB, Disk: 64GB OCZ VERTEX, Graphics: ATI Radeon HD 4600 512MB (650/900MHz), Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: PCLinuxOS 2013, Kernel: 3.2.18-pclos2.bfs (x86_64), Desktop: KDE 4.10.1, Display Server: X Server 1.10.4, Display Driver: fglrx 8.96.4, OpenGL: 3.3.11631, Compiler: GCC 4.5.2, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-mandriva-linux-gnu --disable-libjava-multilib --disable-libssp --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-checking=release --enable-clocale=gnu --enable-gtk-cairo --enable-java-awt=gtk --enable-languages=c,c++,ada,fortran,objc,obj-c++,java --enable-long-long --enable-lto --enable-objc-gc --enable-plugins --enable-shared --enable-ssp --enable-threads=posix --host=x86_64-mandriva-linux-gnu --mandir=/usr/share/man --with-cpu=generic --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-1.5.0.0/jre --with-python-dir=/lib/python2.6/site-packages --with-slibdir=/lib64
Disk Notes: CFQ / barrier=1,data=ordered,relatime,rw,user_xattr
Processor Notes: Scaling Governor: acpi- freq performance
System Notes: Disk Scheduler: CFQ.

Sabayon Linux 13.04

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 2 x 4096 MB DDR3-1600MHz, Disk: 64GB OCZ VERTEX, Graphics: AMD Radeon HD 4650 512MB (650/900MHz), Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: Sabayon n/a, Kernel: 3.8.0-sabayon (x86_64), Desktop: KDE 4.10.3, Display Server: X Server 1.13.3, Display Driver: radeon 7.1.0, OpenGL: 3.1 Mesa 9.1 Gallium 0.4, Compiler: GCC 4.7.2, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: EXA
Disk Mount Options Notes: data=ordered,relatime,rw

ROSA 2012 R1 LXDE

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 2 x 4096 MB DDR3-1600MHz, Disk: 64GB OCZ VERTEX + 128GB RVS02 SuperSpeed, Graphics: AMD Radeon HD 4650 512MB (650/900MHz), Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: RosaDesktop.Fresh 2012.1, Kernel: 3.8.12-nrj-laptop-2rosa (x86_64), Desktop: LXDE 0.5.12, Display Server: X Server 1.13.3, Display Driver: radeon 7.1.0, OpenGL: 3.0 Mesa 9.0.1 Gallium 0.4, Compiler: GCC 4.7.3 20121001,

File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --bindir=/usr/bin --build=x86_64-unknown-linux-gnu --datadir=/usr/share --disable-libjava-multilib --disable-libssp --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-bootstrap --enable-checking=release --enable-cloog-backend=ppl --enable-gnu-unique-object --enable-gold=default --enable-gtk-cairo --enable-java-awt=gtk --enable-languages=c,ada,c++,fortran,go,java,lto,objc,obj-c++ --enable-lto --enable-plugin --enable-shared --enable-threads=posix --exec-prefix=/usr --host=x86_64-unknown-linux-gnu --includedir=/usr/include --localstatedir=/var --mandir=/usr/share/man --sbindir=/usr/sbin --sharedstatedir=/usr/com --sysconfdir=/etc --target=x86_64-unknown-linux-gnu --with-arch_32=i586 --with-cloog --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-1.5.0.0/jre --with-multilib-list=m32,m64 --with-plugin-ld=/usr/bin/ld --with-ppl --with-tune=generic --x-includes=/usr/include --x-libraries=/usr/lib64
Disk Notes: CFQ / data=ordered,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: EXA
System Notes: Disk Scheduler: CFQ.

antiX 13.1

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 8192MB, Disk: 64GB OCZ VERTEX + 128GB RVS02 SuperSpeed, Graphics: AMD Radeon HD 4650 512MB, Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: antiX-13.1_x64-full Luddite 19 June 2013, Kernel: 3.7.10-antix.4-amd64-smp (x86_64), Display Server: X Server 1.12.4, Display Driver: radeon 6.14.99, OpenGL: 2.1 Mesa 8.0.5 Gallium 0.4, Compiler: GCC 4.7, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-languages=c,c++,go,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-arch-32=i586 --with-tune=generic -v
Disk Notes: CFQ / data=ordered,noatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: EXA
System Notes: Disk Scheduler: CFQ.

Calculate Linux 13.6

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Memory: 8192MB, Disk: 64GB OCZ VERTEX, Graphics: Gallium 0.4 on AMD RV730 512MB, Audio: Realtek ALC892, Monitor: DELL S2409W

OS: Calculate Linux Desktop 13.6 KDE, Kernel: 3.9.6-calculate (x86_64), Desktop: KDE 4.10.4, Display Server: X Server 1.13.4, Display Driver: radeon 7.0.0, OpenGL: 3.0 Mesa 9.1.2 Gallium 0.4, Compiler: GCC 4.6.3 + LLVM 3.1, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --bindir=/usr/x86_64-pc-linux-gnu/gcc-bin/4.6.3 --build=x86_64-pc-linux-gnu --datadir=/usr/share/gcc-data/x86_64-pc-linux-gnu/4.6.3 --disable-altivec --disable-fixed-point --disable-libgcj --disable-libssp --disable-lto --disable-werror --enable-__cxa_atexit --enable-checking=release --enable-clocale=gnu --enable-languages=c,c++,fortran --enable-libgomp --enable-libmudflap --enable-libstdcxx-time --enable-multilib --enable-nls --enable-obsolete --enable-secureplt --enable-shared --enable-targets=all --enable-threads=posix --host=x86_64-pc-linux-gnu --includedir=/usr/lib/gcc/x86_64-pc-linux-gnu/4.6.3/include --mandir=/usr/share/gcc-data/x86_64-pc-linux-gnu/4.6.3/man --with-python-dir=/share/gcc-data/x86_64-pc-linux-gnu/4.6.3/python --without-cloog --without-ppl
Disk Notes: NOOP / data=ordered,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: EXA
System Notes: Disk Scheduler: NOOP.

LenovoTPedge13Ubuntu13.04

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168 + Intel Centrino Wireless-N 1000

OS: Ubuntu 13.04, Kernel: 3.8.0-26-generic (x86_64), Desktop: Unity 7.0.0, Display Server: X Server 1.13.3, Display Driver: intel 2.21.6, Compiler: GCC 4.7, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-cloog-version-check --disable-ppl-version-check --disable-werror --enable-checking=release --enable-clocale=gnu

--enable-cloog-backend=ppl --enable-gnu-unique-object --enable-languages=c,c++,go,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-cloog --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: ondemand
Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE. Compiz was running on this system.

LenovoTPedge13Ubuntu13.04 before upgrade to 13.10

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168 + Intel Centrino Wireless-N 1000

OS: Ubuntu 13.04, Kernel: 3.8.0-31-generic (x86_64), Desktop: Unity 7.0.0, Display Server: X Server 1.13.3, Display Driver: intel 2.21.6, Compiler: GCC 4.7, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-cloog-version-check --disable-ppl-version-check --disable-werror --enable-checking=release --enable-clocale=gnu --enable-cloog-backend=ppl --enable-gnu-unique-object --enable-languages=c,c++,go,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-cloog --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: ondemand
Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE. Compiz was running on this system.

LenovoTPedge13Ubuntu13.10

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168/8411 + Intel Centrino Wireless-N 1000

OS: Ubuntu 13.10, Kernel: 3.11.0-12-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.14.3, Display Driver: intel 2.99.904, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64/jre --with-jvm-jar-dir=/usr/lib/jvm-exports/java-1.5.0-gcj-4.8-amd64 --with-jvm-root-dir=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi- freq ondemand
Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu13.10 before upgrade to 14.04

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168/8411 + Intel Centrino Wireless-N 1000

OS: Ubuntu 13.10, Kernel: 3.11.0-19-generic (x86_64), Desktop: Unity 7.1.2, Display Server: X Server 1.14.5, Display Driver: intel 2.99.904, OpenGL: 2.1 Mesa 9.2.1, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64/jre --with-jvm-jar-dir=/usr/lib/jvm-exports/java-1.5.0-gcj-4.8-amd64 --with-jvm-root-dir=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi- freq ondemand

Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu14.04

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168/8411 + Intel Centrino Wireless-N 1000

OS: Ubuntu 14.04, Kernel: 3.13.0-24-generic (x86_64), Desktop: Unity 7.2.0, Display Server: X Server 1.15.1, Display Driver: intel 2.99.910, OpenGL: 2.1 Mesa 10.1.0, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-libmudflap --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64/jre --with-jvm-jar-dir=/usr/lib/jvm-exports/java-1.5.0-gcj-4.8-amd64 --with-jvm-root-dir=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu14.04 before upgrade to 14.10

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 14.04, Kernel: 3.13.0-37-generic (x86_64), Desktop: Unity 7.2.2, Display Server: X Server 1.15.1, Display Driver: intel 2.99.910, OpenGL: 2.1 Mesa 10.1.3, Compiler: GCC 4.8, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-libmudflap --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64/jre --with-jvm-jar-dir=/usr/lib/jvm-exports/java-1.5.0-gcj-4.8-amd64 --with-jvm-root-dir=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu14.10

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Intel 5 /3400, Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 14.10, Kernel: 3.16.0-28-generic (x86_64), Desktop: Unity 7.3.1, Display Server: X Server 1.16.0, Display Driver: intel 2.99.914, OpenGL: 2.1 Mesa 10.3.0, Compiler: GCC 4.9.1, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-4.9-amd64/jre --with-jvm-jar-dir=/usr/lib/jvm-exports/java-1.5.0-gcj-4.9-amd64 --with-jvm-root-dir=/usr/lib/jvm/java-1.5.0-gcj-4.9-amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu14.10 before upgrade to 15.04

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Intel 5 /3400, Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 14.10, Kernel: 3.16.0-36-generic (x86_64), Desktop: Unity 7.3.1, Display Server: X Server 1.16.0, Display Driver: intel 2.99.914, OpenGL: 2.1 Mesa 10.3.2, Compiler: GCC 4.9.1, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-4.9-amd64/jre --with-jvm-jar-dir=/usr/lib/jvm-exports/java-1.5.0-gcj-4.9-amd64 --with-jvm-root-dir=/usr/lib/jvm/java-1.5.0-gcj-4.9-amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu15.04

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Intel 5 /3400, Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 15.04, Kernel: 3.19.0-16-generic (x86_64), Desktop: Unity 7.3.2, Display Server: X Server 1.17.1, Display Driver: intel 2.99.917, OpenGL: 2.1 Mesa 10.5.2, Compiler: GCC 4.9.2, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu15.04 before upgrade to 15.10

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Intel 5 /3400, Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 15.04, Kernel: 3.19.0-31-generic (x86_64), Desktop: Unity 7.3.2, Display Server: X Server 1.17.1, Display Driver: intel 2.99.917, OpenGL: 2.1 Mesa 10.5.9, Compiler: GCC 4.9.2, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu15.10

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Conexant CX20582 (Pebble),

Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 15.10, Kernel: 4.2.0-18-generic (x86_64), Desktop: Unity 7.3.2, Display Server: X Server 1.17.2, Display Driver: intel 2.99.917, OpenGL: 2.1 Mesa 11.0.2, Compiler: GCC 5.2.1 20151010, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu15.10 before upgrade to 16.04

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 15.10, Kernel: 4.2.0-35-generic (x86_64), Desktop: Unity 7.3.3, Display Server: X Server 1.17.2, Display Driver: intel 2.99.917, OpenGL: 2.1 Mesa 11.0.2, Compiler: GCC 5.2.1 20151010, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu16.04

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 16.04, Kernel: 4.4.0-22-generic (x86_64), Desktop: Unity 7.4.0, Display Driver: intel 2.99.917, OpenGL: 2.1 Mesa 11.2.0, Compiler: GCC 5.3.1 20160413, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu16.04 before upgrade to 16.10

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 16.04, Kernel: 4.4.0-45-generic (x86_64), Desktop: Unity 7.4.0, Display Driver: intel 2.99.917, OpenGL: 2.1 Mesa 11.2.0, Compiler: GCC 5.4.0 20160609, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: SNA
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu16.10

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 16.10, Kernel: 4.8.0-26-generic (x86_64), Desktop: Unity 7.5.0, Display Driver: modesetting 1.18.4, OpenGL: 2.1 Mesa 12.0.3, Compiler: GCC 6.2.0 20161005, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --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-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu16.10 retest

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Core IGP, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 16.10, Kernel: 4.8.0-30-generic (x86_64), Desktop: Unity 7.5.0, Display Driver: modesetting 1.18.4, OpenGL: 2.1 Mesa 12.0.3, Compiler: GCC 6.2.0 20161005, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --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-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
System Notes: Disk Scheduler: DEADLINE.

LenovoTPedge13Ubuntu16.10 before upgrade to 17.04

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Ironlake Mobile 1536MB, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 16.10, Kernel: 4.8.0-46-generic (x86_64), Desktop: Unity 7.5.0, Display Driver: modesetting 1.18.4, OpenGL: 2.1 Mesa 12.0.6, Compiler: GCC 6.2.0 20161005, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc --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-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Disk Notes: DEADLINE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

LenovoTPedge13Ubuntu17.04

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Ironlake Mobile 1536MB, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 17.04, Kernel: 4.10.0-21-generic (x86_64), Desktop: Unity 7.5.0, Display Driver: modesetting 1.19.3, OpenGL: 2.1 Mesa 17.0.3, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1366x768

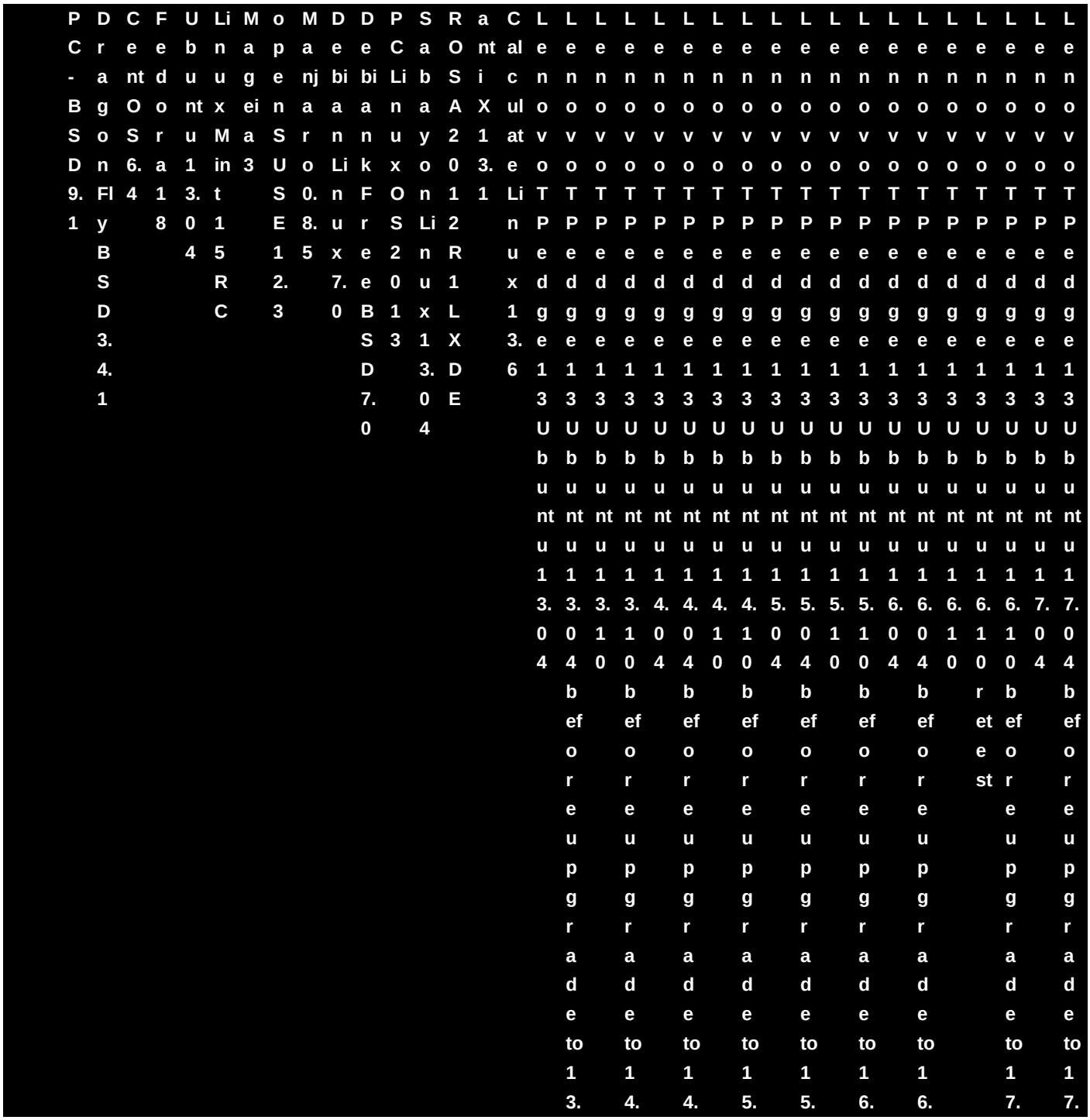
Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --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-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic -v
Disk Notes: CFQ / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

LenovoTPedge13Ubuntu17.04 before upgrade to 17.10

Processor: Intel Core i3 380U @ 1.33GHz (4 Cores), Motherboard: LENOVO 0217A21, Chipset: Intel Core DRAM, Memory: 4096MB, Disk: 500GB HITACHI HTS54505, Graphics: Intel Ironlake Mobile 1536MB, Audio: Conexant CX20582 (Pebble), Network: Realtek RTL8111/8168/8411 + Intel Wireless 7260

OS: Ubuntu 17.04, Kernel: 4.10.0-38-generic (x86_64), Desktop: Unity 7.5.0, Display Driver: modesetting 1.19.3, OpenGL: 2.1 Mesa 17.0.7, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1366x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --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-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic -v
Disk Notes: CFQ / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: acpi-cpufreq ondemand


PCBSD 9.1
Debian GNU/kFreeBSD 7.0
Debian GNU/kFreeBSD 7.0
Debian GNU/kFreeBSD 7.0

Very Large Linux Distribution Performance Comparison

PostMark - D.T.P (TPS)	102	30	64	42	52	25	57	49	90	45		50	30	33	23	36	66	66	66	61	11	81	52	65	55	54	82	35	55	59	91	10		85	48	96	45
Normalized	1.89%	5.71%	86.32%	83.23%	96.55%	96.52%	83.27%	88.74%	91.47%	93.85%		93.29%	98.57%	10.96%	97.22%	10.70%	10.53%	31.38%	30.54%	30.49%	16.91%	15.14%	28.10%	22.22%	30.41%	28.54%	29.56%	26.39%	12.97%	22.18%	24.73%	29.04%	8.51%	7.23%	20.38%	100.00%	100.00%
Standard Deviation	4.4%	15.9%	1.1%	1%	2.5%	0%	10.7%	11.6%	1.2%	13.5%		1.2%	0%	1.2%	1.2%	1.2%	0.3%	1.4%	1%	2.1%	6.9%	2.1%	1.9%	14.4%	0.7%	1.2%	1.3%	3.4%	22%	1.5%	3.5%	3.5%	2.5%	0.9%	1.9%	0.0%	0.0%
Fhourstones - C.C. 4.S (Kpos / sec)	1118	1223	1539	1332	1299	1202	1063	1355	1257	1373	1136	1360	1327	1629	1327	1297	3977	4085	4057	3975	4227	4416	4226	4422	4422	4222	4222	4222	4422	4422	4422	3676		3777	7000	7000
Normalized	94.2%	94.2%	99.3%	97.2%	95.1%	95.2%	78.4%	98.1%	92.3%	93.1%	97.9%	100.0%	97.6%	93.4%	97.3%	93.7%	29.2%	29.7%	29.8%	29.2%	31.2%	30.6%	31.3%	31.3%	31.3%	31.3%	31.3%	30.9%	31.3%	31.3%	31.1%	31.2%	27.0%		27.7%	100.0%	100.0%
Standard Deviation	0.2%	1.2%	2.3%	6.4%	4.1%	1.3%	2.5%	5.8%	2.3%	2.1%	1.1%	1.2%	2.4%	4.5%	5.3%	3.2%	2.1%	1.3%	3.1%	1.4%	5.2%	4.2%	2.1%	1.9%	5.1%	7.4%	9.4%	4.1%	1.5%	5.1%	1.3%	3.4%		4.1%	0.0%	0.0%
Himeno Benchmark - P.P.S (MFLOPS)	8216	1662	1665	1582	1663	1663	1396	1663	1663	1663	1663	1667	1663	1665	1663	1665	5232	5333	5333	5333	5333	5333	5333	5333	5333	5333	5333	5333	5333	5333	5333	5333	5333	5333	5333	5333
Normalized	49.38%	99.44%	99.55%	94.83%	98.05%	97.59%	83.56%	95.53%	96.43%	96.43%	96.25%	100.00%	95.53%	95.22%	95.90%	90.31%	31.54%	31.70%	32.00%	32.00%	31.70%	32.00%	32.00%	32.00%	32.00%	32.00%	32.00%	32.00%	31.82%	32.00%	31.82%	31.82%	31.82%	30.51%	31.25%	100.00%	100.00%
Standard Deviation	0.8%	0.4%	0.4%	1.5%	0.8%	1.9%	0.6%	1.5%	1.3%	2.6%	0.6%	0.1%	0.7%	0.2%	0.9%	0.2%	0.5%	0.7%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.8%	0.8%	0.8%	0.5%	0.2%	0.0%	0.0%

7-Zip Compression - C.S.T (MIP	2	4	2	2	2	2	2	2	2	2	2		2	2	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3
	2	3	5	4	5	5	3	4	4	4	3		4	5	4	5	1	9	2	2	1	1	3	4	3	4	3	4	2	4	4	4	3	9	3
	1	2	0	4	1	2	3	7	6	8	4		3	1	6	0	9	7	8	8	3	6	4	5	9	5	9	5	9	1	7	5	8	9	2
	8	6	5	0	5	3	9	3	4	2	8		0	1	7	7	6	7	1	3	4	4	8	0	2	0	3	0	0	3	5	5	1	9	0
	0		1	3	0	4	3	1	8	0	2		4	8	8	4																			
Normalized	87	17	99	96	99	10	92	98	97	98	93		96	99	97	99	12	11	13	13	12	12	13	13	13	13	13	13	13	13	13	13	11	13
	.9	.1	.2	.7	.6	0	.7	.0	.6	.3	.0		.3	.5	.8	.3	.6	.8	%	.0	.4	.5	.2	.6	.4	.6	.4	.6	.0	.5	.7	.6	.4	.8	.1
	%	4	7	1	7	%	%	1	8	6	6		1	4	%	7	7	%		1	2	4	7	7	4	7	5	7	4	3	7	9	%	8	6
Standard Deviation	1	1.	0.	1	0.	0.	0.	0.	1	3.	2.		0.	0.	0.	0.	0.	7.	0.	0.	1.	3.	0.	3	0.	0.	3.	1.	1.	0.	0.	0.	0.	5.	3.
	%	3	6	%	6	4	6	3	%	4	3		5	8	6	6	3	7	2	4	5	8	2	%	5	4	4	1	8	7	4	9	7	4	3
		%	%		%	%	%	%		%	%		%	%	%	%	%	%	%	%	%	%	%		%	%	%	%	%	%	%	%	%	%	%
C-Ray - Total Time (sec)	3	2	3	2	2	2	2	2	1	2	2	3	2	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	0.	3.	2.	3.	2.	3.	7.	3.	9.	3.	3.	0.	3.	2.	2.	0.	9	9	9	9	9	8	8	9	9	8	9	9	9	9	8	8	4	6	6
	7	3	5	4	8	0	5	5	4	1	9	2	2	9	9	6	3.	0.	0.	1.	5.	8.	9.	0.	1.	9.	0.	0.	1.	0.	9.	9.	8.	6.	0.
	5	4	9	9	5	5	8	9	0	3	0	2	3	8	2	1	1	8	6	2	2	9	8	2	2	9	2	3	6	2	4	4	3	8	0
																	0	9	7	5	5	8	6	7	0	3	6	1	1	4	3	2	8	7	2
Normalized	63	83	59	82	84	84	70	82	10	83	81	64	83	84	84	63	10	10	10	10	9.	10	10	10	10	10	10	10	10	10	10	10	13	11	12
	.0	.1	.5	.5	.9	.1	.3	.2	0	.8	.1	.2	.5	.4	.6	.3	.0	.1	.1	.1	94	.2	.2	.2	.1	.2	.2	.1	.1	.2	.2	.2	.0	.6	.1
	9	2	3	9	%	6	4	4	%	7	7	%	1	2	4	8	5	6	7	4	%	7	2	%	5	1	%	9	2	%	4	4	7	3	2
Standard Deviation	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1	0.	0.	0.	0.	0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0	0	0.	0.	0.	0.	0.	0.	0.	0.
	8	3	1	2	2	3	4	5	2	4	%	1	2	3	8	%	1	1	1	1	3	1	1	3	1	%	%	1	4	1	1	1	1	5	5
	%	%	%	%	%	%	%	%	%	%		%	%	%	%		%	%	%	%	%	%	%	%	%			%	%	%	%	%	%	%	%
Primesieve - 1.P.N.G (sec)	6	5	5	5	5	5	6	5	5	5	5		5		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
	1.	6.	5.	5.	4.	4.	6.	6.	4.	5.	9.		6.		5.	5.	4	3	3	3	5	3	3	3	4	3	3	3	3	3	3	3			
	1	5	6	8	3	5	1	1	7	0	3		1		3	3	3.	5.	3.	8.	1.	0.	1.	3.	2.	6.	8.	9.	7.	9.	1.	4.	5.		
	3	8	1	4	7	4	0	1	3	2	2		4		1	8	9	3	7	9	1	5	9	2	4	3	3	6	0	6	8	5	1		
																	3	1	5	7	7	9	8	8	6	7	0	2	4	9	6	0	4		
Normalized	88	96	97	97	10	99	82	96	99	98	91		96		98	98	10	10	10	10	9.	10	10	10	10	10	10	10	10	10	10	10	10		
	.9	.0	.7	.3	0	.6	.2	.9	.3	.8	.6		.8		.3	.1	%	.1	.1	.0	86	.2	.2	.2	.0	.1	.1	.0	.1	.0	.2	.1	.1		
	4	9	7	7	%	9	5	%	4	2	6		5		%	8		6	9	9	%	5	2	%	2	4	%	8	2	7	2	7	6		
Standard Deviation	0	0.	0	0.	0.	0.	0.	0.	0.	0.	0.		0.		0.	0.	0.	0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1	0.		
	%	1	%	1	2	1	3	1	1	7	8		1		6	1	1	%	1	1	1	1	1	1	2	1	1	3	1	5	3	%	1		
		%		%	%	%	%	%	%	%	%		%		%	%	%		%	%	%	%	%	%	%	%	%	%	%	%	%		%		

Very Large Linux Distribution Performance Comparison

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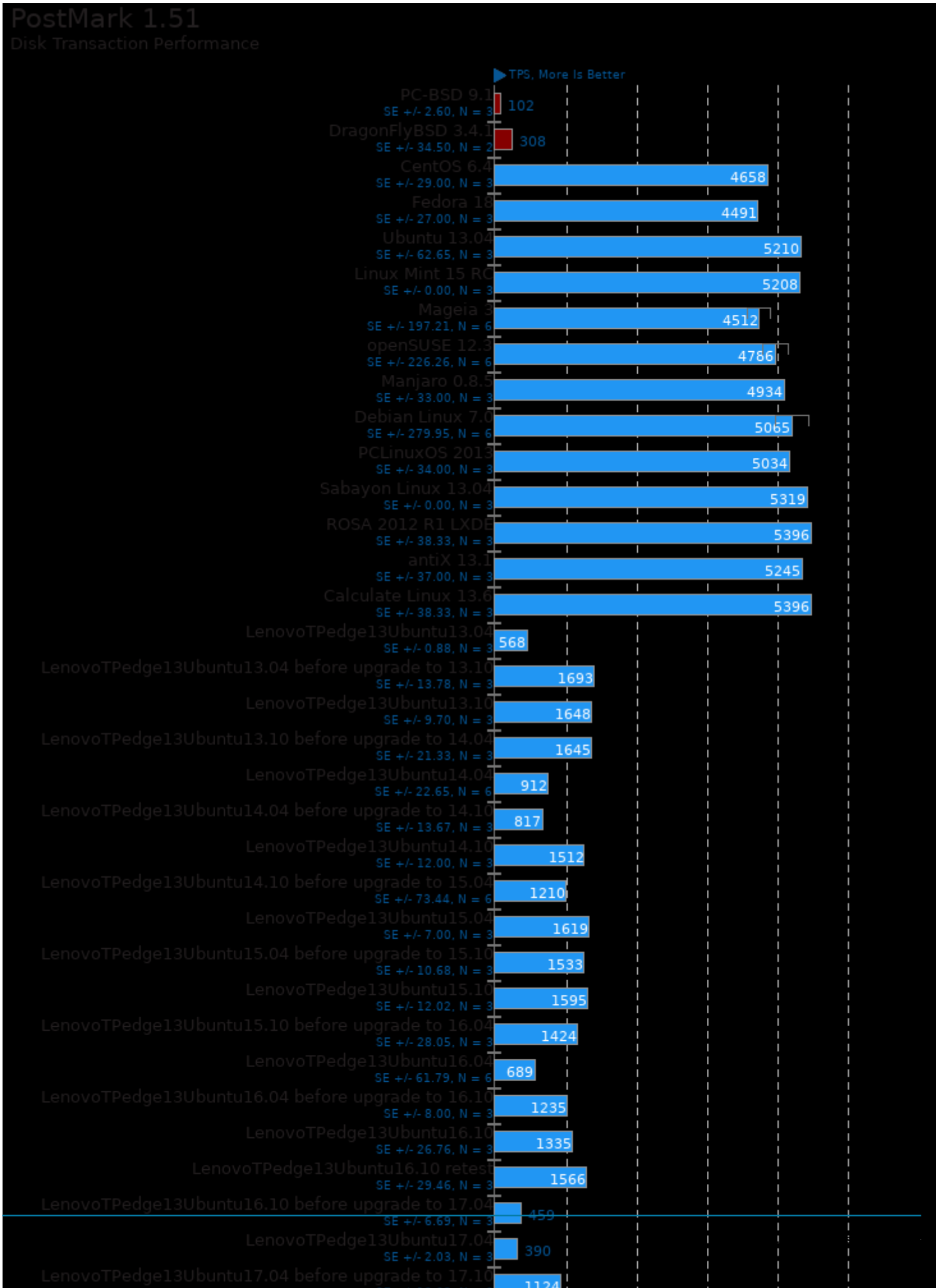
Very Large Linux Distribution Performance Comparison

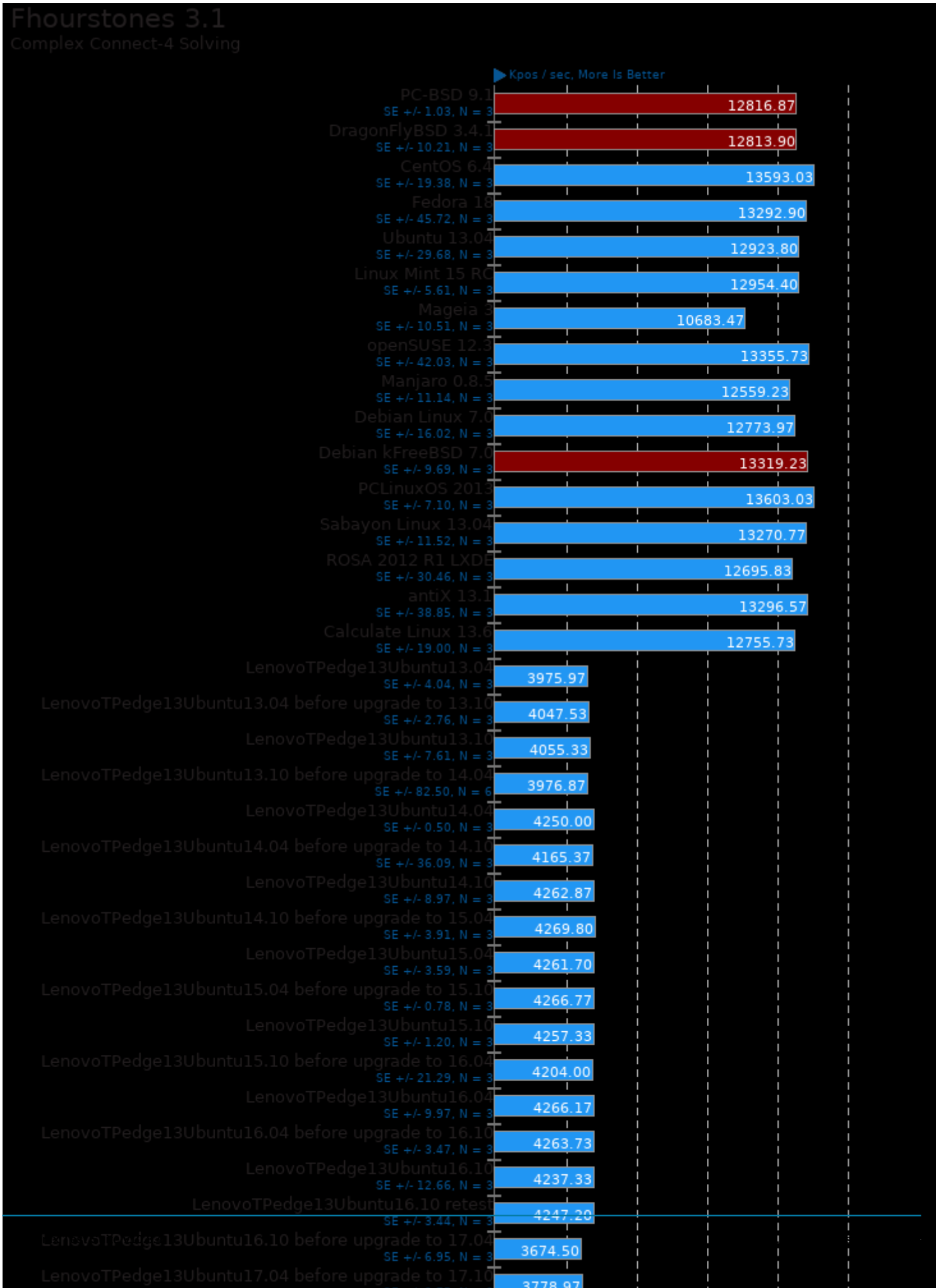
OpenSSL - R.4.b.P (Signs/sec	1	1	1	1	1	1	1	1		1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
	2	2	2	2	0	2	2	2		2	2	2	2	2	8.	9	9.	9.	9.	9.	9.	9.	9.	9.	9.	9.	9.	9.	9.	9.	
	0.	1.	1.	1.	1.	2.	1.	1.	1.	1.	1.	1.	1.	0.	9		3	3	1	3	4	3	2	4	3	3	3	3	1	1	
	7	3	0	4	4	2	4	4	8	2	1	4	8	5	0		0	0	7	3	0	7	7	0	0	0	3	3	3	0	
	7	3	0	3	0	0	0	7	0	3	7	3	0	3																	
Normalized	99.15%	99.6%	99.3%	99.7%	99.6%	83.91%	99.6%	99.7%	10.0%	99.5%	99.4%	99.7%	10.0%	98.9%	23.7%	23.8	24.0	24.0	23.9	24.0	24.1	24.1	24.0	24.1	24.0	24.0	24.0	24.0	23.9	23.8	
Standard Deviation	0.53%	0.31%	0.71%	0.46%	0.97%	0.62%	0.73%	0.0%	0.0%	0.53%	0.21%	0.16%	0.0%	0.56%	0.63%	0.8%	0.0%	0.0%	0.35%	0.52%	0.29%	0.0%	0.55%	0.29%	0.0%	0.31%	0.0%	0.0%	0.0%	0.09%	
Apache Benchmark - S.W.P.S (Reqs/sec)	2		8	1	1	1		1	1	1		1	1	1	2	7	5	6	6	5	6	5	5	5	5	5	5	5	5	5	
	1		8	4	4	2		1	5	9		5	0	4	3	2	9	0	0	3	2	6	5	2	3	0	1	7	6	3	3	4
	9		3	3	4	1		5	9	5		1	7	9	6	4	9	1	2	3	5	6	4	3	0	8	6	0	4	2	8	4
	8		4	6	7	0		6	8	6		2	3	9	0	4	7	5	7	5	9	8	1	0	9	6	6	1	4	2	8	0
	5			6	1	8		6	8	0		6	2	8	0																	
Normalized	93.16		37.4	60.8	61.3	51.3%		49.0	67.7	82.8		64.0	45.4	63.5	10.0	30.7	25.4	25.4	25.5	22.6	26.5	24.0	23.4	22.1	22.4	21.5	21.8	24.1	23.9	22.5	22.8	23.0
Standard Deviation	0.76%		0.73%	1.76%	1.62%	0.77%		1.68%	2.24%	3.44%		1.62%	65.71%	1.16%	0.06%	1.66%	0.82%	1.27%	0.04%	0.07%	0.03%	0.05%	0.04%	0.01%	1.46%	0.08%	0.01%	1.14%	1.14%	0.0%	0.43%	0.31%
Nexuiz - 1920 x 1080 - Yes - Off (FPS)		3	2	2	2	2	2	2	1	6	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6.	6.	6.
		0.	1.	4.	2.	4.	8.	5.		7.	3.	0.	5.	7.	3.	3.	4.	4.	3.	4.	0.	1.	4.	4.	4.	4.	4.	4.	1	1	1
		6	3	9	5	0	2	0		8	9	4	7	9	3	5	5	4	6	3	7	1	5	5	7	7	3	7	1	1	3
		1	9	3	3	2	3	3		3	5	6	3	1	9	2	0	5	9	4	4	5	8	7	6	0	3	0			
Normalized	45.1	31.5	36.7	33.2	35.4	41.6	36.9	1.47%		10.0	35.3	44.9	37.9	41.5	19.7	19.9	21.3	21.3	20.1	21.1	15.8	16.4	21.4	21.4	21.7	21.6	21.1	21.6	9.01	9.01	9.04
Standard Deviation	0.3%	0.3%	0.5%	2.2%	1.4%	2.3%	4%			0.0%	1.1%	1.3%	3.5%	5.4%	3.9%	3.8%	8.5%	0.8%	4.4%	4.1%	3.4%	0.9%	6.3%	1.3%	3.4%	4.4%	7.6%	0.3%	0.0%	0.0%	0.0%
Deviation	%	%	%	%	%	%	%			%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%			

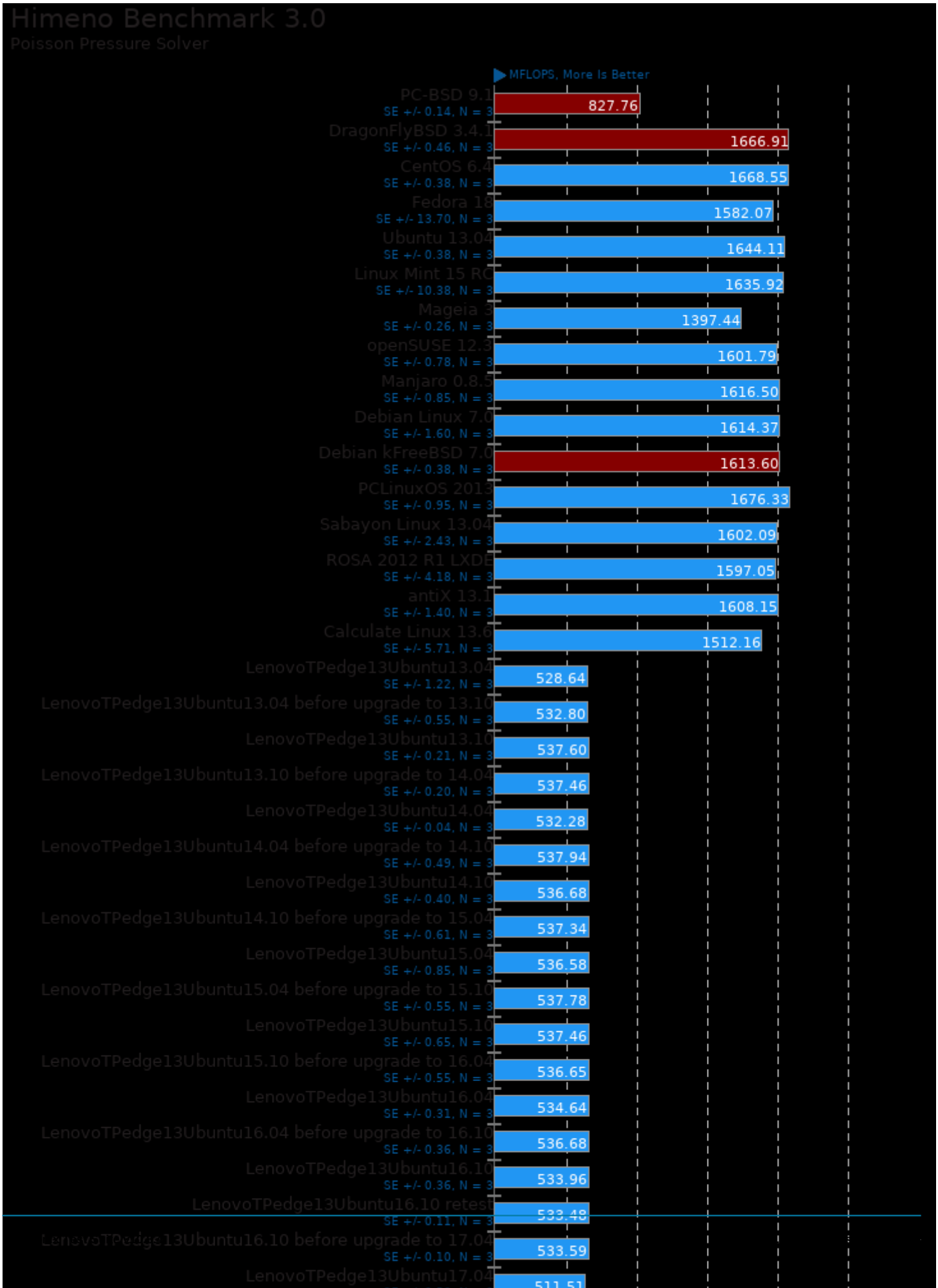
Very Large Linux Distribution Performance Comparison

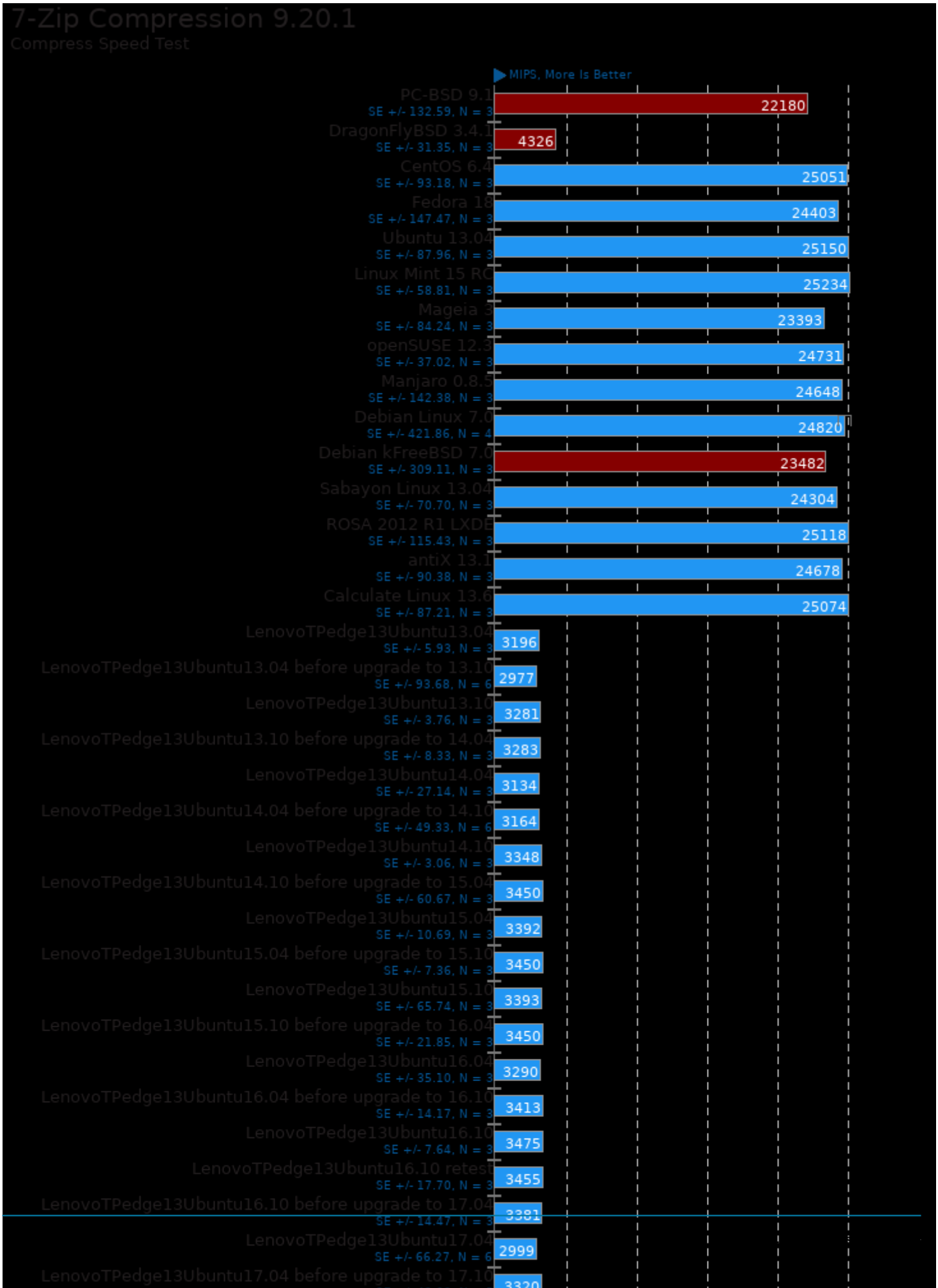
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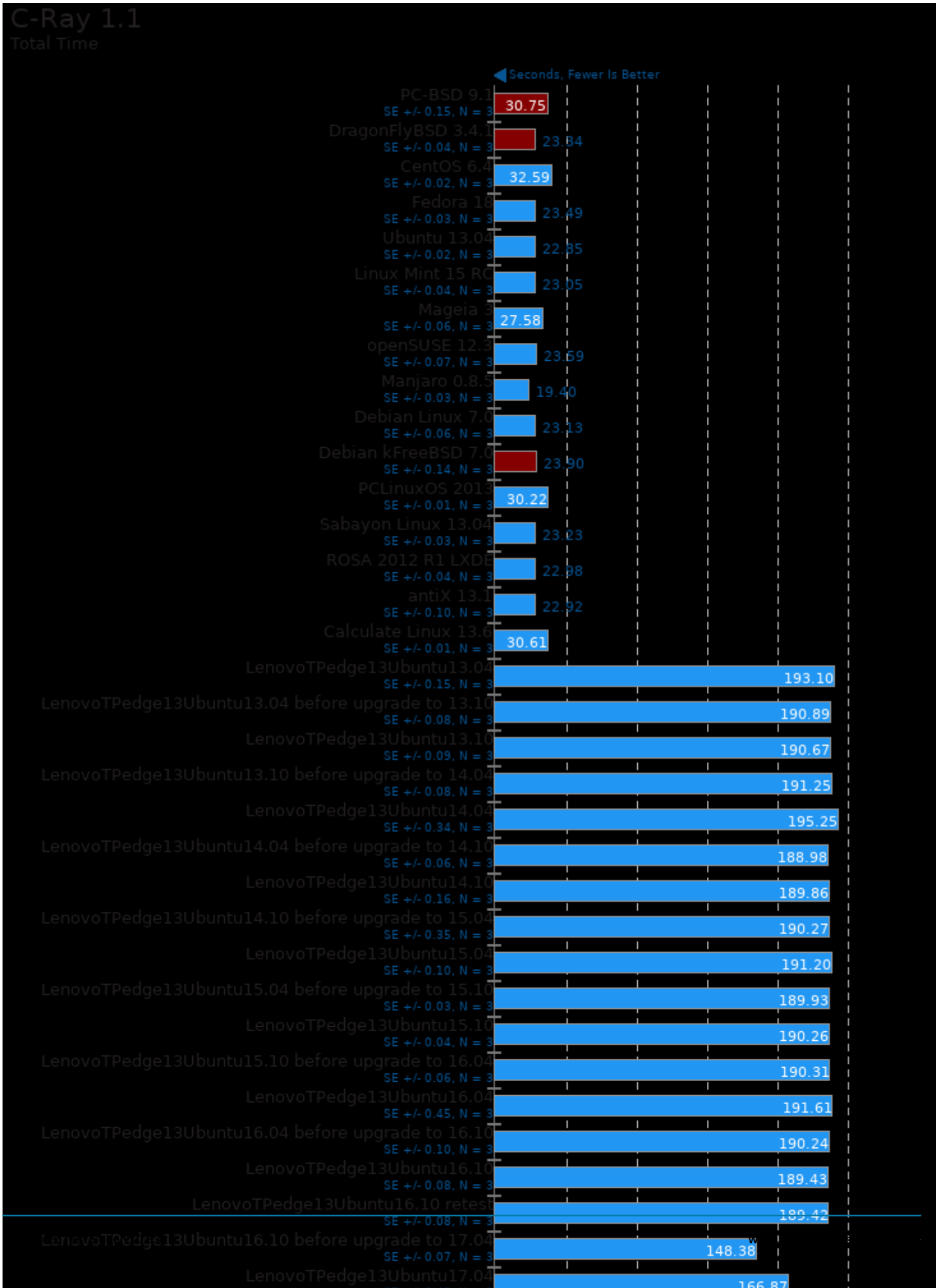
Smallpt - G.I.R.1.S (sec)	66	75	64	64	88	72	72	67		67		67	62	64	33	33	44	23	32	23	32	23	33	33	33	22	28	84	42		67				
Normalized	93.94	82.67	96.85	96.88	70.45	86.71	86.71	92.54		92.54		92.50	100	9.67	9.75	9.78	9.73	9.58	9.87	9.83	9.86	9.78	9.86	9.84	9.79	9.79	9.73	9.87	9.87	10.69	9.69	9.9%			
Standard Deviation	0%	5.2%	0.9%	0.7%	4.7%	0%	0.8%	0.9%		2.3%		0.9%	3.5%	0.1%	0.3%	0.1%	0.2%	0.3%	0.1%	0.3%	0.2%	0.2%	0.1%	0.1%	0.2%	0.2%	0.4%	0.1%	0.2%			0.4%			
FFmpeg - H.264 HTND (sec)		17.34	18.42	20.29	22.57	17.68	18.67		11.94		17.44	18.40	17.09	23.88	22.08	22.07	23.79		20.31	20.13	20.10	20.94	20.67	20.70	20.51	20.18	20.88								
Normalized		68.94	64.82	65.24	92.40	94.97	67.58	63.46	10.04	68.35	64.55	69.78	22.38	22.61	22.95	22.14	22.10	22.81	23.81	23.23	23.94	23.23	23.23	23.23	23.23	23.23									
Standard Deviation		1.9%	1.5%	1.3%	1.9%	2.7%	1.8%	0.9%	0.4%	3%	0.7%	1.8%	1%	1%	0.9%	1.2%	1.4%	0.1%	0.8%	0.8%	0.3%	1.1%	1%	1%	0.2%	1.1%	1.4%	1.4%							
PostgreSQL pgbench - T.B.T.P.S (TPS)	23	35	36	36	35	37		34	27		32	33	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31							
Normalized	61.82	95.23	98.18	97.91	94.80	100.0		91.73	73.03		86.64	89.36	35.34	33.33	33.34	33.33	33.34	33.33	33.33	33.33	33.33	33.33	33.33	33.33	33.33	33.33	33.33	33.33							
Standard Deviation	1.2%	2.1%	2%	2.7%	1.2%	2.4%		3.2%	1.2%		1.7%	0.8%	1.3%	0.7%	1.5%	1.1%	0.8%	0.8%	0.8%	1.1%	1.1%	0.7%	0.9%	0.8%	1.1%	1.1%	1.1%	1.1%							

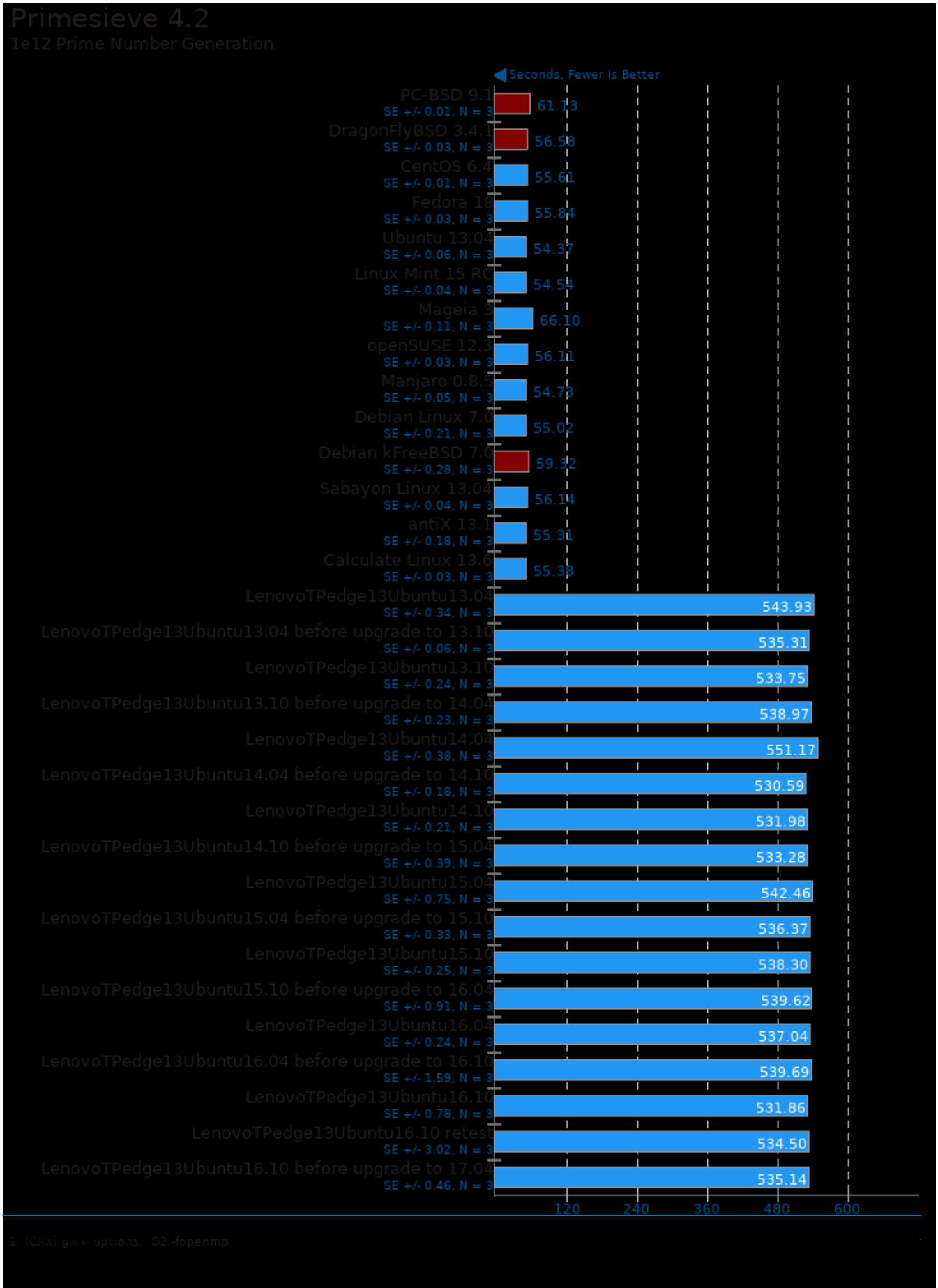

PostMark 1.51
Disk Transaction Performance
TPS, More Is Better
PC-BSD 9.1
SE +/- 2.60, N = 3
102
DragonFlyBSD 3.4.1
SE +/- 34.50, N = 2
308
CentOS 6.4
SE +/- 29.00, N = 3
4658
Fedora 18
SE +/- 27.00, N = 3
4491
Ubuntu 13.04
SE +/- 62.65, N = 3
5210
Linux Mint 15 RC
SE +/- 0.00, N = 3
5208
Mageia 3
SE +/- 197.21, N = 6
4512
openSUSE 12.3
SE +/- 226.26, N = 6
4786
Manjaro 0.8.5
SE +/- 33.00, N = 3
4934
Debian Linux 7.0
SE +/- 279.95, N = 6
5065
PCLinuxOS 2013
SE +/- 34.00, N = 3
5034
Sabayon Linux 13.04
SE +/- 0.00, N = 3
5319
ROSA 2012 R1 LXDE
SE +/- 38.33, N = 3
5396
antiX 13.1
SE +/- 37.00, N = 3
5245
Calculate Linux 13.6
SE +/- 38.33, N = 3
5396
LenovoTPedge13Ubuntu13.04
SE +/- 0.88, N = 3
568
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 13.78, N = 3
1693
LenovoTPedge13Ubuntu13.10
SE +/- 9.70, N = 3
1648
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 21.33, N = 3
1645
LenovoTPedge13Ubuntu14.04
SE +/- 22.65, N = 6
912
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 13.67, N = 3
817
LenovoTPedge13Ubuntu14.10
SE +/- 12.00, N = 3
1512
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 73.44, N = 6
1210
LenovoTPedge13Ubuntu15.04
SE +/- 7.00, N = 3
1619
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 10.68, N = 3
1533
LenovoTPedge13Ubuntu15.10
SE +/- 12.02, N = 3
1595
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 28.05, N = 3
1424
LenovoTPedge13Ubuntu16.04
SE +/- 61.79, N = 6
689
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 8.00, N = 3
1235
LenovoTPedge13Ubuntu16.10
SE +/- 26.76, N = 3
1335
LenovoTPedge13Ubuntu16.10 retest
SE +/- 29.46, N = 3
1566
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 6.69, N = 3
459
LenovoTPedge13Ubuntu17.04
SE +/- 2.03, N = 3
390
LenovoTPedge13Ubuntu17.04 before upgrade to 17.10
1124

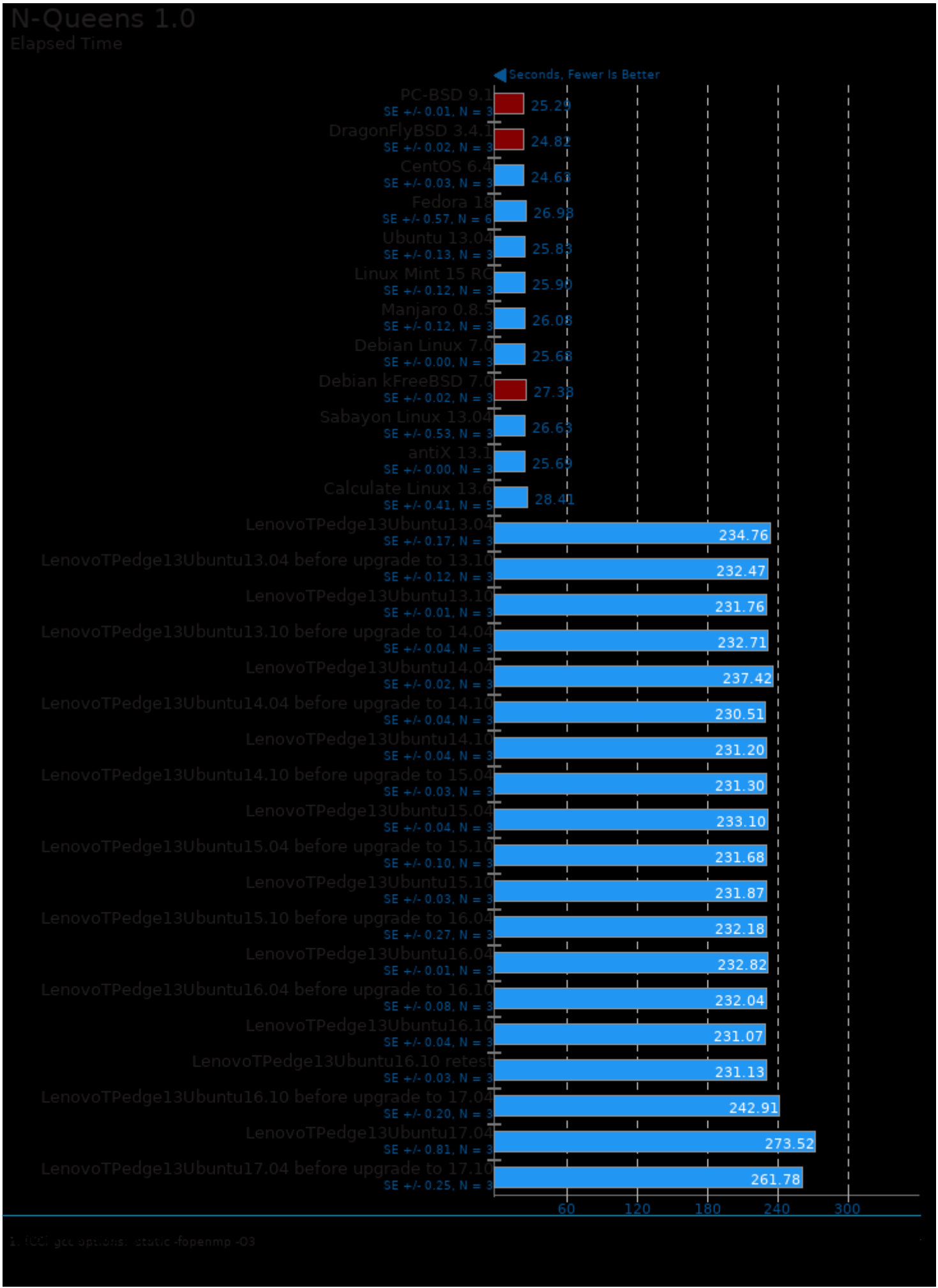

Fhourstones 3.1
Complex Connect-4 Solving
Kpos / sec, More Is Better
PC-BSD 9.1
SE +/- 1.03, N = 3
12816.87
DragonFlyBSD 3.4.1
SE +/- 10.21, N = 3
12813.90
CentOS 6.4
SE +/- 19.38, N = 3
13593.03
Fedora 18
SE +/- 45.72, N = 3
13292.90
Ubuntu 13.04
SE +/- 29.68, N = 3
12923.80
Linux Mint 15 RC
SE +/- 5.61, N = 3
12954.40
Mageia 3
SE +/- 10.51, N = 3
10683.47
openSUSE 12.3
SE +/- 42.03, N = 3
13355.73
Manjaro 0.8.5
SE +/- 11.14, N = 3
12559.23
Debian Linux 7.0
SE +/- 16.02, N = 3
12773.97
Debian kFreeBSD 7.0
SE +/- 9.69, N = 3
13319.23
PCLinuxOS 2013
SE +/- 7.10, N = 3
13603.03
Sabayon Linux 13.04
SE +/- 11.52, N = 3
13270.77
ROSA 2012 R1 LXDE
SE +/- 30.46, N = 3
12695.83
antiX 13.1
SE +/- 38.85, N = 3
13296.57
Calculate Linux 13.6
SE +/- 19.00, N = 3
12755.73
LenovoTPedge13Ubuntu13.04
SE +/- 4.04, N = 3
3975.97
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 2.76, N = 3
4047.53
LenovoTPedge13Ubuntu13.10
SE +/- 7.61, N = 3
4055.33
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 82.50, N = 6
3976.87
LenovoTPedge13Ubuntu14.04
SE +/- 0.50, N = 3
4250.00
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 36.09, N = 3
4165.37
LenovoTPedge13Ubuntu14.10
SE +/- 8.97, N = 3
4262.87
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 3.91, N = 3
4269.80
LenovoTPedge13Ubuntu15.04
SE +/- 3.59, N = 3
4261.70
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.78, N = 3
4266.77
LenovoTPedge13Ubuntu15.10
SE +/- 1.20, N = 3
4257.33
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 21.29, N = 3
4204.00
LenovoTPedge13Ubuntu16.04
SE +/- 9.97, N = 3
4266.17
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 3.47, N = 3
4263.73
LenovoTPedge13Ubuntu16.10
SE +/- 12.66, N = 3
4237.33
LenovoTPedge13Ubuntu16.10 retest
SE +/- 3.44, N = 3
4247.20
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 6.95, N = 3
3674.50
LenovoTPedge13Ubuntu17.04 before upgrade to 17.10
3778.97

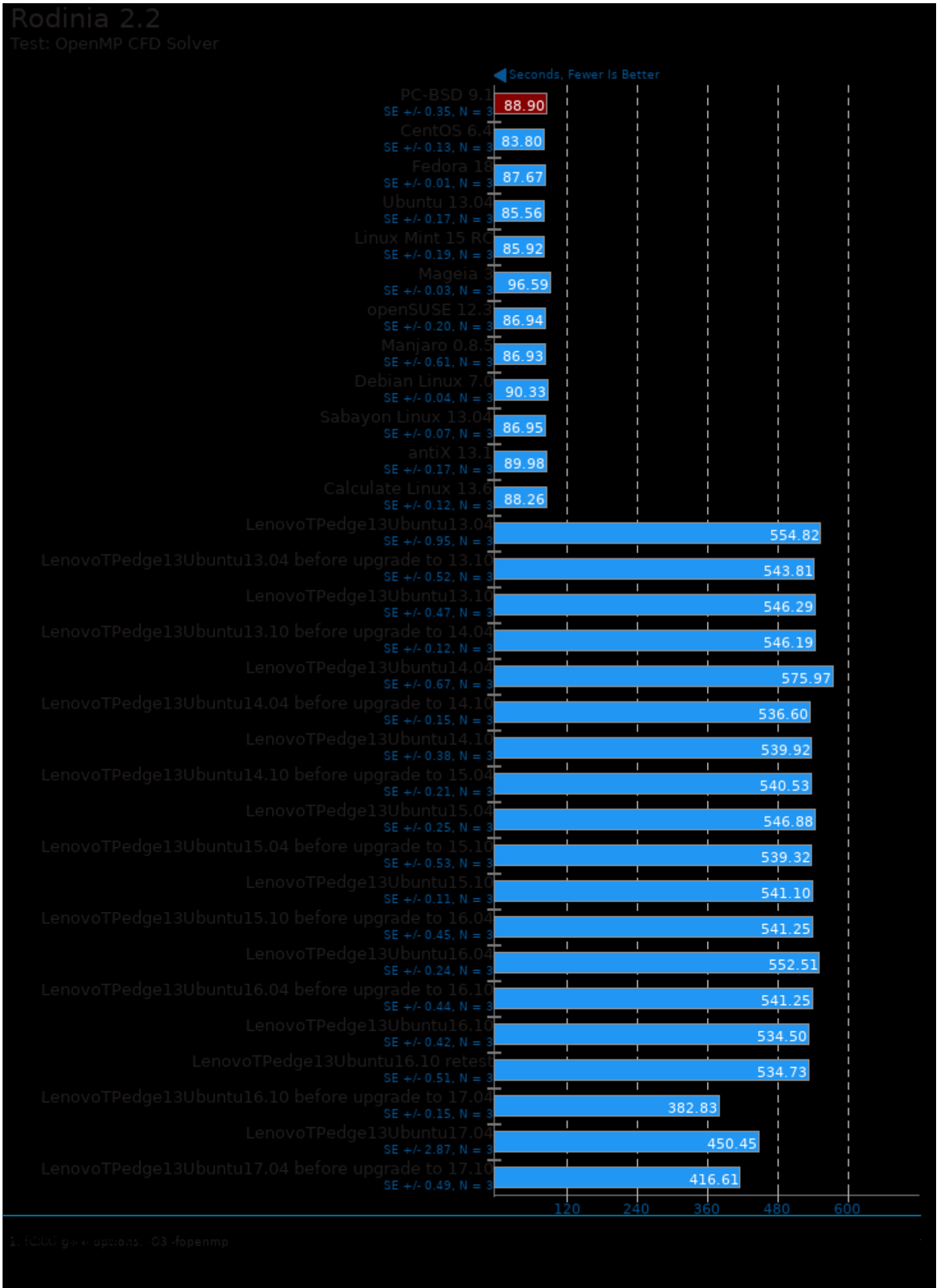

Himeno Benchmark 3.0
Poisson Pressure Solver
MFLOPS, More Is Better
PC-BSD 9.1
SE +/- 0.14, N = 3
827.76
DragonFlyBSD 3.4.1
SE +/- 0.46, N = 3
1666.91
CentOS 6.4
SE +/- 0.38, N = 3
1668.55
Fedora 18
SE +/- 13.70, N = 3
1582.07
Ubuntu 13.04
SE +/- 0.38, N = 3
1644.11
Linux Mint 15 RC
SE +/- 10.38, N = 3
1635.92
Mageia 3
SE +/- 0.26, N = 3
1397.44
openSUSE 12.3
SE +/- 0.78, N = 3
1601.79
Manjaro 0.8.5
SE +/- 0.85, N = 3
1616.50
Debian Linux 7.0
SE +/- 1.60, N = 3
1614.37
Debian kFreeBSD 7.0
SE +/- 0.38, N = 3
1613.60
PCLinuxOS 2013
SE +/- 0.95, N = 3
1676.33
Sabayon Linux 13.04
SE +/- 2.43, N = 3
1602.09
ROSA 2012 R1 LXDE
SE +/- 4.18, N = 3
1597.05
antiX 13.1
SE +/- 1.40, N = 3
1608.15
Calculate Linux 13.6
SE +/- 5.71, N = 3
1512.16
LenovoTPedge13Ubuntu13.04
SE +/- 1.22, N = 3
528.64
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.55, N = 3
532.80
LenovoTPedge13Ubuntu13.10
SE +/- 0.21, N = 3
537.60
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.20, N = 3
537.46
LenovoTPedge13Ubuntu14.04
SE +/- 0.04, N = 3
532.28
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.49, N = 3
537.94
LenovoTPedge13Ubuntu14.10
SE +/- 0.40, N = 3
536.68
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.61, N = 3
537.34
LenovoTPedge13Ubuntu15.04
SE +/- 0.85, N = 3
536.58
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.55, N = 3
537.78
LenovoTPedge13Ubuntu15.10
SE +/- 0.65, N = 3
537.46
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.55, N = 3
536.65
LenovoTPedge13Ubuntu16.04
SE +/- 0.31, N = 3
534.64
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.36, N = 3
536.68
LenovoTPedge13Ubuntu16.10
SE +/- 0.36, N = 3
533.96
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.11, N = 3
533.48
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 0.10, N = 3
533.59
LenovoTPedge13Ubuntu17.04
511.51

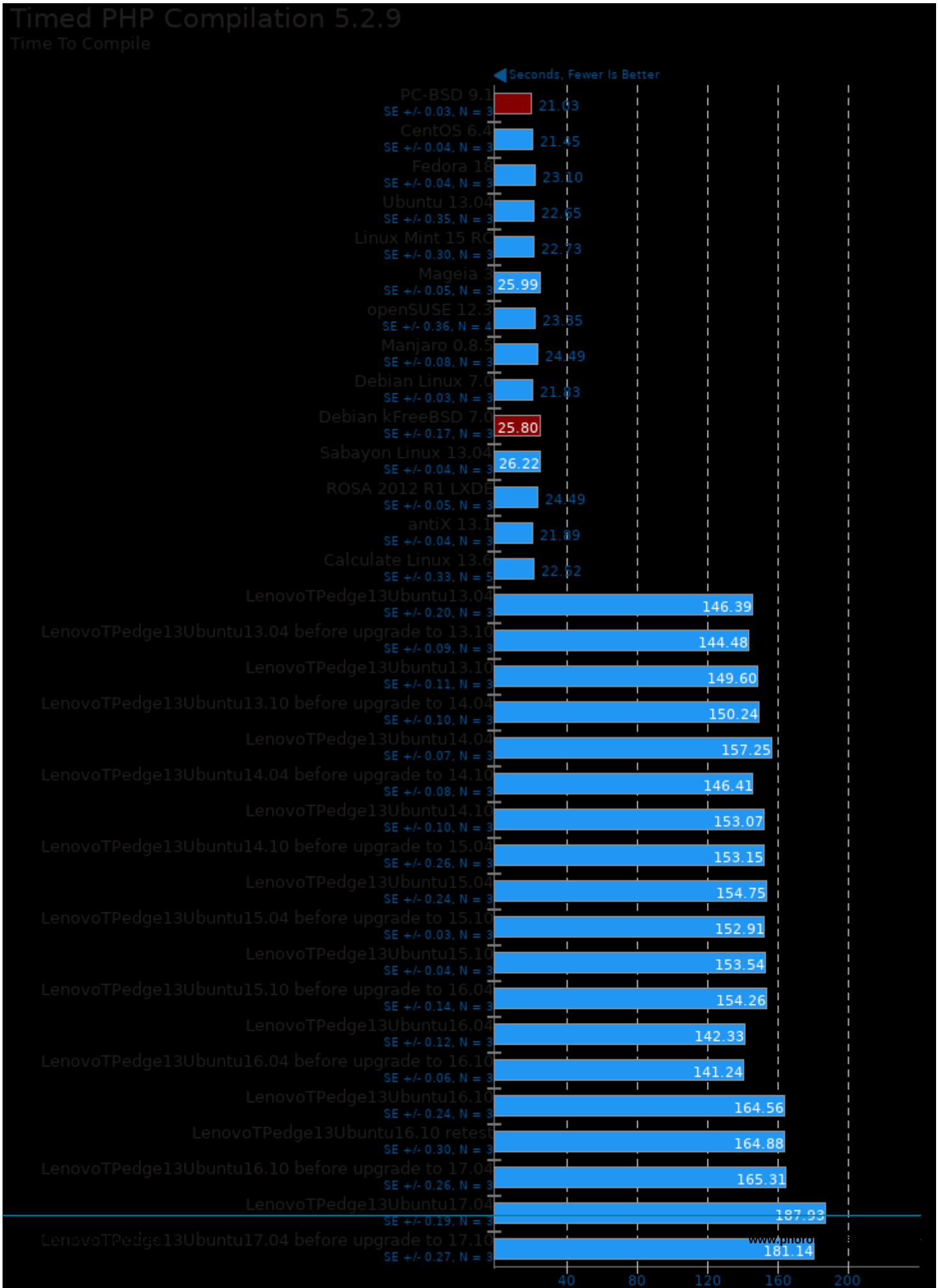

7-Zip Compression 9.20.1
Compress Speed Test
MIPS, More Is Better
PC-BSD 9.1
SE +/- 132.59, N = 3
22180
DragonFlyBSD 3.4.1
SE +/- 31.35, N = 3
4326
CentOS 6.4
SE +/- 93.18, N = 3
25051
Fedora 18
SE +/- 147.47, N = 3
24403
Ubuntu 13.04
SE +/- 87.96, N = 3
25150
Linux Mint 15 RC
SE +/- 58.81, N = 3
25234
Mageia 3
SE +/- 84.24, N = 3
23393
openSUSE 12.3
SE +/- 37.02, N = 3
24731
Manjaro 0.8.5
SE +/- 142.38, N = 3
24648
Debian Linux 7.0
SE +/- 421.86, N = 4
24820
Debian kFreeBSD 7.0
SE +/- 309.11, N = 3
23482
Sabayon Linux 13.04
SE +/- 70.70, N = 3
24304
ROSA 2012 R1 LXDE
SE +/- 115.43, N = 3
25118
antiX 13.1
SE +/- 90.38, N = 3
24678
Calculate Linux 13.6
SE +/- 87.21, N = 3
25074
LenovoTPedge13Ubuntu13.04
SE +/- 5.93, N = 3
3196
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 93.68, N = 6
2977
LenovoTPedge13Ubuntu13.10
SE +/- 3.76, N = 3
3281
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 8.33, N = 3
3283
LenovoTPedge13Ubuntu14.04
SE +/- 27.14, N = 3
3134
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 49.33, N = 6
3164
LenovoTPedge13Ubuntu14.10
SE +/- 3.06, N = 3
3348
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 60.67, N = 3
3450
LenovoTPedge13Ubuntu15.04
SE +/- 10.69, N = 3
3392
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 7.36, N = 3
3450
LenovoTPedge13Ubuntu15.10
SE +/- 65.74, N = 3
3393
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 21.85, N = 3
3450
LenovoTPedge13Ubuntu16.04
SE +/- 35.10, N = 3
3290
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 14.17, N = 3
3413
LenovoTPedge13Ubuntu16.10
SE +/- 7.64, N = 3
3475
LenovoTPedge13Ubuntu16.10 retest
SE +/- 17.70, N = 3
3455
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 14.47, N = 3
3381
LenovoTPedge13Ubuntu17.04
SE +/- 66.27, N = 6
2999
LenovoTPedge13Ubuntu17.04 before upgrade to 17.10
3320

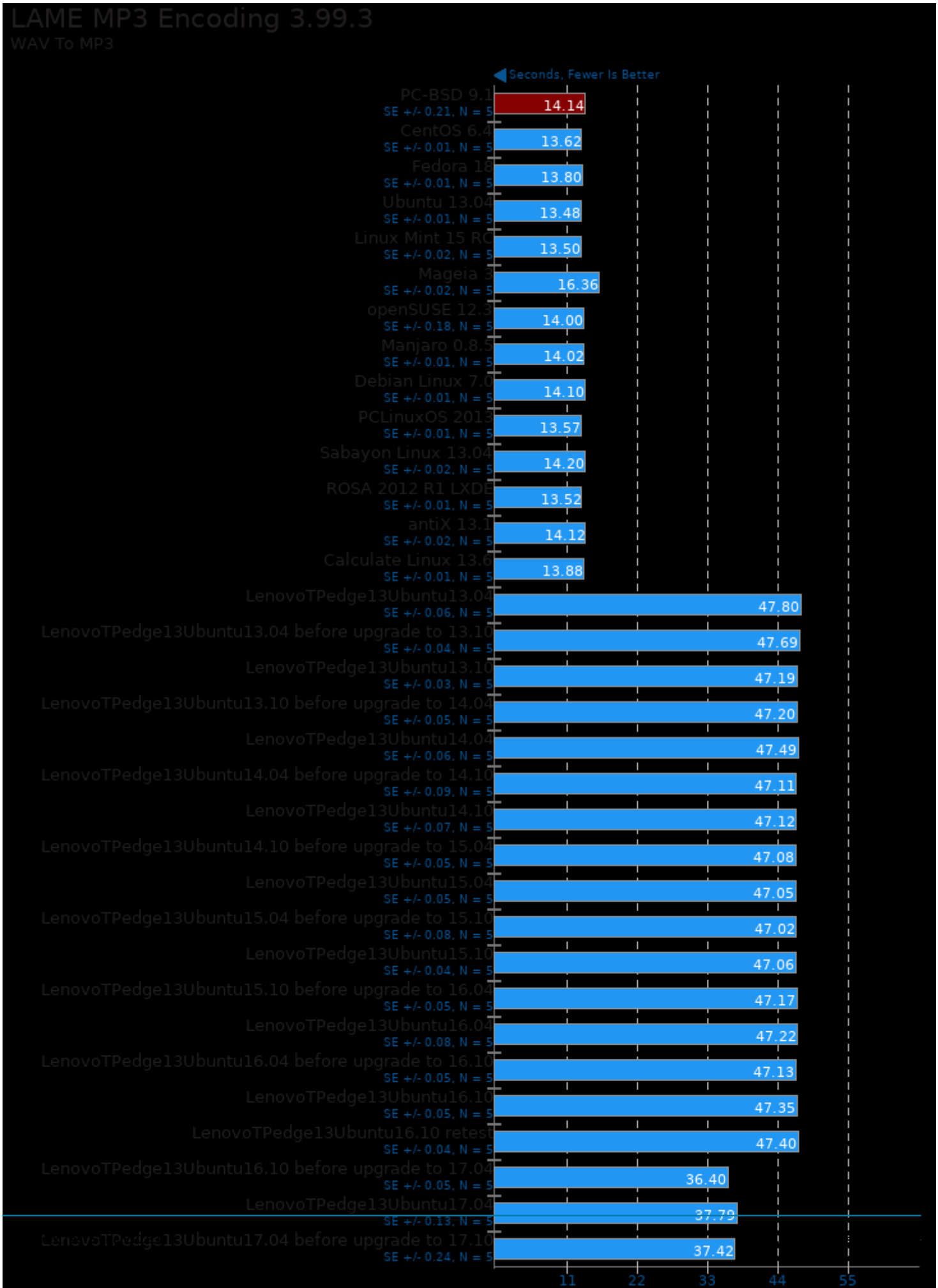

C-Ray 1.1
Total Time
Seconds, Fewer Is Better
PC-BSD 9.1
SE +/- 0.15, N = 3
30.75
DragonFlyBSD 3.4.1
SE +/- 0.04, N = 3
23.84
CentOS 6.4
SE +/- 0.02, N = 3
32.59
Fedora 18
SE +/- 0.03, N = 3
23.49
Ubuntu 13.04
SE +/- 0.02, N = 3
22.85
Linux Mint 15 RC
SE +/- 0.04, N = 3
23.05
Mageia 3
SE +/- 0.06, N = 3
27.58
openSUSE 12.3
SE +/- 0.07, N = 3
23.69
Manjaro 0.8.5
SE +/- 0.03, N = 3
19.40
Debian Linux 7.0
SE +/- 0.06, N = 3
23.13
Debian kFreeBSD 7.0
SE +/- 0.14, N = 3
23.90
PCLinuxOS 2013
SE +/- 0.01, N = 3
30.22
Sabayon Linux 13.04
SE +/- 0.03, N = 3
23.23
ROSA 2012 R1 LXDE
SE +/- 0.04, N = 3
22.98
antiX 13.1
SE +/- 0.10, N = 3
22.92
Calculate Linux 13.6
SE +/- 0.01, N = 3
30.61
LenovoTPedge13Ubuntu13.04
SE +/- 0.15, N = 3
193.10
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.08, N = 3
190.89
LenovoTPedge13Ubuntu13.10
SE +/- 0.09, N = 3
190.67
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.08, N = 3
191.25
LenovoTPedge13Ubuntu14.04
SE +/- 0.34, N = 3
195.25
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.06, N = 3
188.98
LenovoTPedge13Ubuntu14.10
SE +/- 0.16, N = 3
189.86
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.35, N = 3
190.27
LenovoTPedge13Ubuntu15.04
SE +/- 0.10, N = 3
191.20
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.03, N = 3
189.93
LenovoTPedge13Ubuntu15.10
SE +/- 0.04, N = 3
190.26
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.06, N = 3
190.31
LenovoTPedge13Ubuntu16.04
SE +/- 0.45, N = 3
191.61
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.10, N = 3
190.24
LenovoTPedge13Ubuntu16.10
SE +/- 0.08, N = 3
189.43
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.08, N = 3
189.42
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 0.07, N = 3
148.38
LenovoTPedge13Ubuntu17.04
166.87

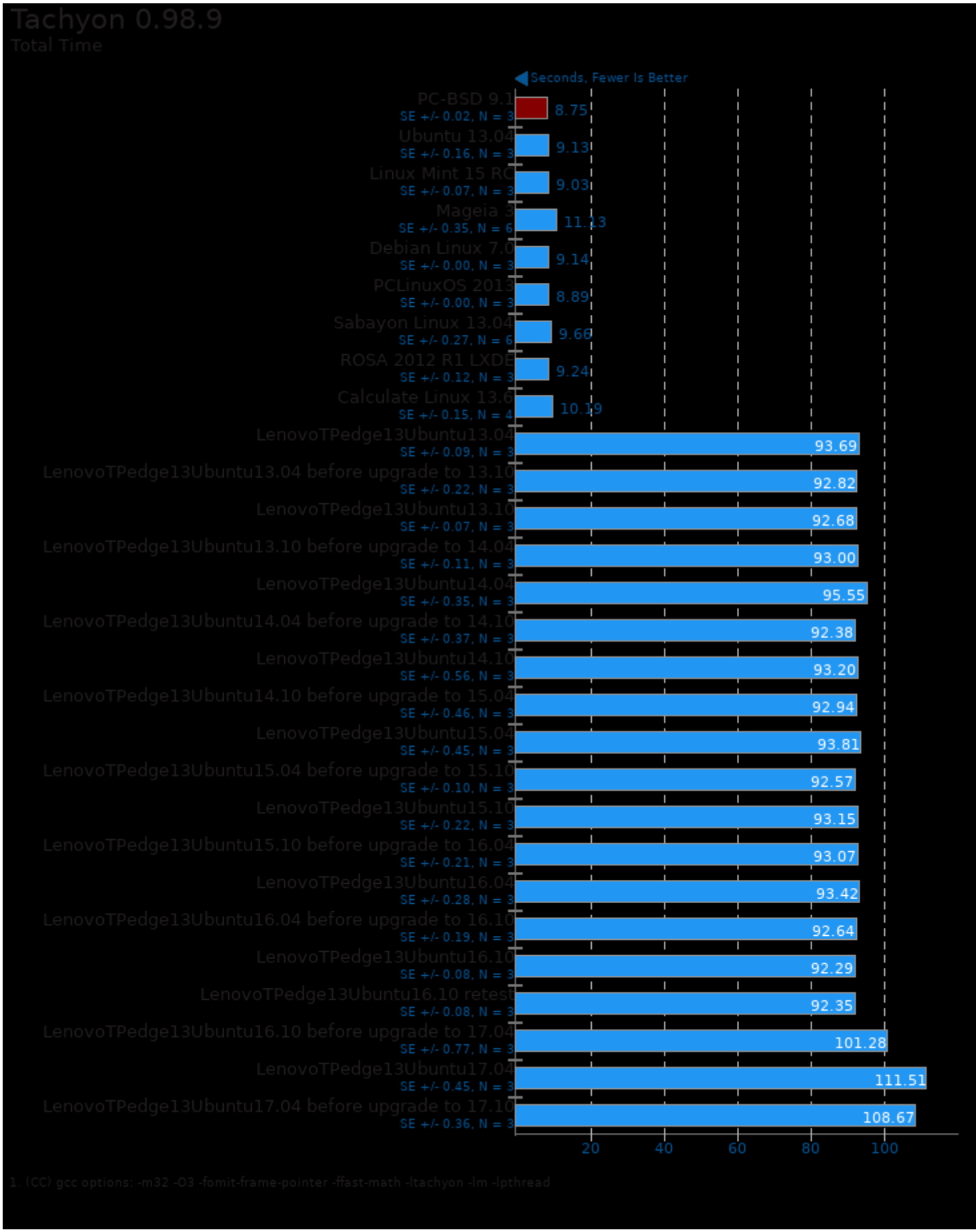

Primesieve 4.2
1e12 Prime Number Generation
Seconds, Fewer Is Better
PC-BSD 9.1
SE +/- 0.01, N = 3
61.13
DragonFlyBSD 3.4.1
SE +/- 0.03, N = 3
56.58
CentOS 6.4
SE +/- 0.01, N = 3
55.61
Fedora 18
SE +/- 0.03, N = 3
55.84
Ubuntu 13.04
SE +/- 0.06, N = 3
54.37
Linux Mint 15 RC
SE +/- 0.04, N = 3
54.54
Mageia 3
SE +/- 0.11, N = 3
66.10
openSUSE 12.3
SE +/- 0.03, N = 3
56.11
Manjaro 0.8.5
SE +/- 0.05, N = 3
54.73
Debian Linux 7.0
SE +/- 0.21, N = 3
55.02
Debian kFreeBSD 7.0
SE +/- 0.28, N = 3
59.32
Sabayon Linux 13.04
SE +/- 0.04, N = 3
56.14
antiX 13.1
SE +/- 0.18, N = 3
55.31
Calculate Linux 13.6
SE +/- 0.03, N = 3
55.38
LenovoTPedge13Ubuntu13.04
SE +/- 0.34, N = 3
543.93
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.06, N = 3
535.31
LenovoTPedge13Ubuntu13.10
SE +/- 0.24, N = 3
533.75
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.23, N = 3
538.97
LenovoTPedge13Ubuntu14.04
SE +/- 0.38, N = 3
551.17
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.18, N = 3
530.59
LenovoTPedge13Ubuntu14.10
SE +/- 0.21, N = 3
531.98
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.39, N = 3
533.28
LenovoTPedge13Ubuntu15.04
SE +/- 0.75, N = 3
542.46
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.33, N = 3
536.37
LenovoTPedge13Ubuntu15.10
SE +/- 0.25, N = 3
538.30
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.91, N = 3
539.62
LenovoTPedge13Ubuntu16.04
SE +/- 0.24, N = 3
537.04
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 1.59, N = 3
539.69
LenovoTPedge13Ubuntu16.10
SE +/- 0.78, N = 3
531.86
LenovoTPedge13Ubuntu16.10 retest
SE +/- 3.02, N = 3
534.50
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 0.46, N = 3
535.14
120
240
360
480
600
1. (CC) g++ options: -O2 -fopenmp

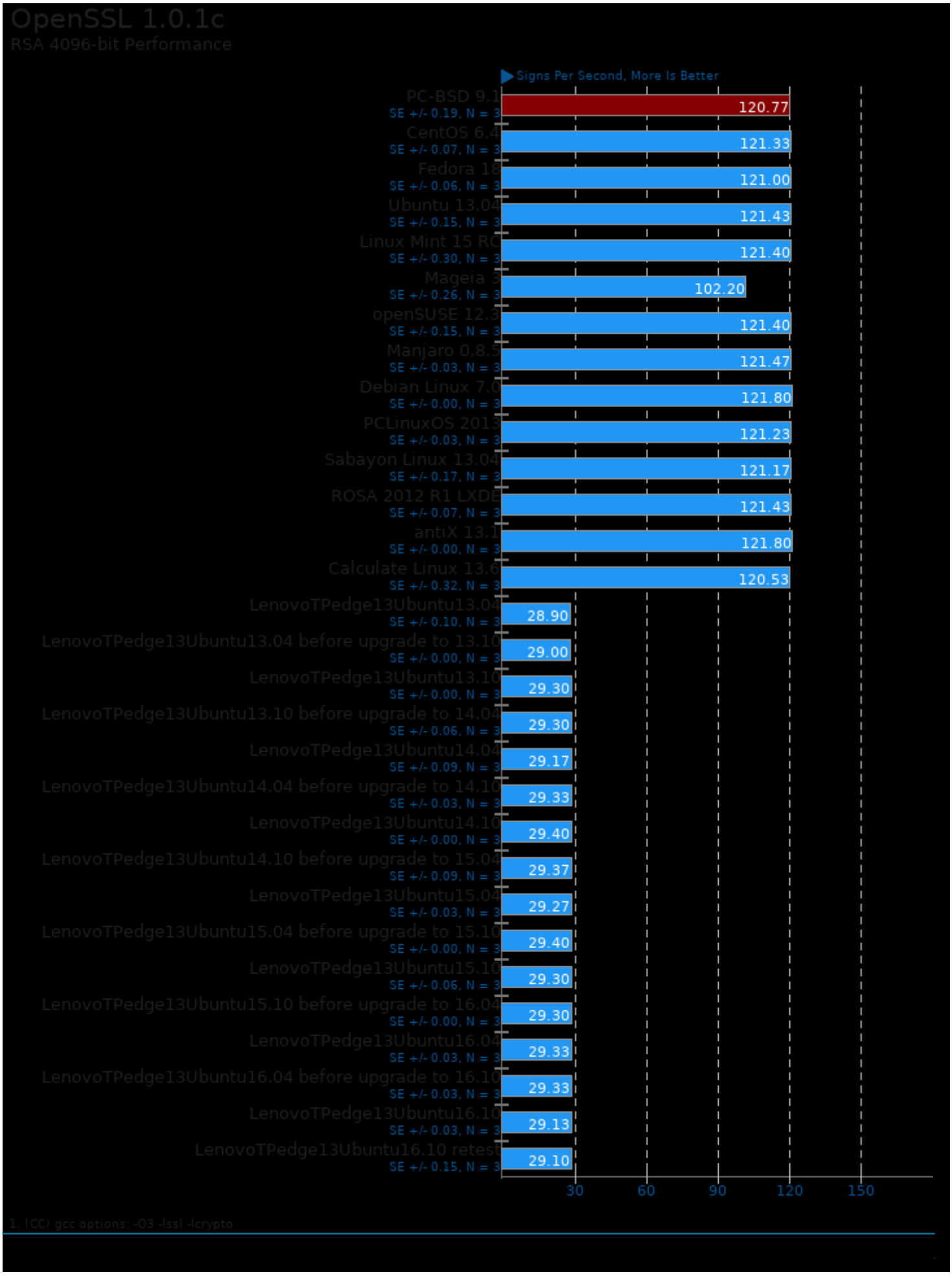

N-Queens 1.0
Elapsed Time
Seconds, Fewer Is Better
PC-BSD 9.1
SE +/- 0.01, N = 3
25.29
DragonFlyBSD 3.4.1
SE +/- 0.02, N = 3
24.82
CentOS 6.4
SE +/- 0.03, N = 3
24.63
Fedora 18
SE +/- 0.57, N = 6
26.98
Ubuntu 13.04
SE +/- 0.13, N = 3
25.85
Linux Mint 15 RC
SE +/- 0.12, N = 3
25.90
Manjaro 0.8.5
SE +/- 0.12, N = 3
26.08
Debian Linux 7.0
SE +/- 0.00, N = 3
25.68
Debian kFreeBSD 7.0
SE +/- 0.02, N = 3
27.38
Sabayon Linux 13.04
SE +/- 0.53, N = 3
26.63
antiX 13.1
SE +/- 0.00, N = 3
25.69
Calculate Linux 13.6
SE +/- 0.41, N = 5
28.41
LenovoTPedge13Ubuntu13.04
SE +/- 0.17, N = 3
234.76
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.12, N = 3
232.47
LenovoTPedge13Ubuntu13.10
SE +/- 0.01, N = 3
231.76
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.04, N = 3
232.71
LenovoTPedge13Ubuntu14.04
SE +/- 0.02, N = 3
237.42
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.04, N = 3
230.51
LenovoTPedge13Ubuntu14.10
SE +/- 0.04, N = 3
231.20
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.03, N = 3
231.30
LenovoTPedge13Ubuntu15.04
SE +/- 0.04, N = 3
233.10
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.10, N = 3
231.68
LenovoTPedge13Ubuntu15.10
SE +/- 0.03, N = 3
231.87
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.27, N = 3
232.18
LenovoTPedge13Ubuntu16.04
SE +/- 0.01, N = 3
232.82
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.08, N = 3
232.04
LenovoTPedge13Ubuntu16.10
SE +/- 0.04, N = 3
231.07
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.03, N = 3
231.13
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 0.20, N = 3
242.91
LenovoTPedge13Ubuntu17.04
SE +/- 0.81, N = 3
273.52
LenovoTPedge13Ubuntu17.04 before upgrade to 17.10
SE +/- 0.25, N = 3
261.78
60
120
180
240
300
1. (CC) gcc options: -static -fopenmp -O3

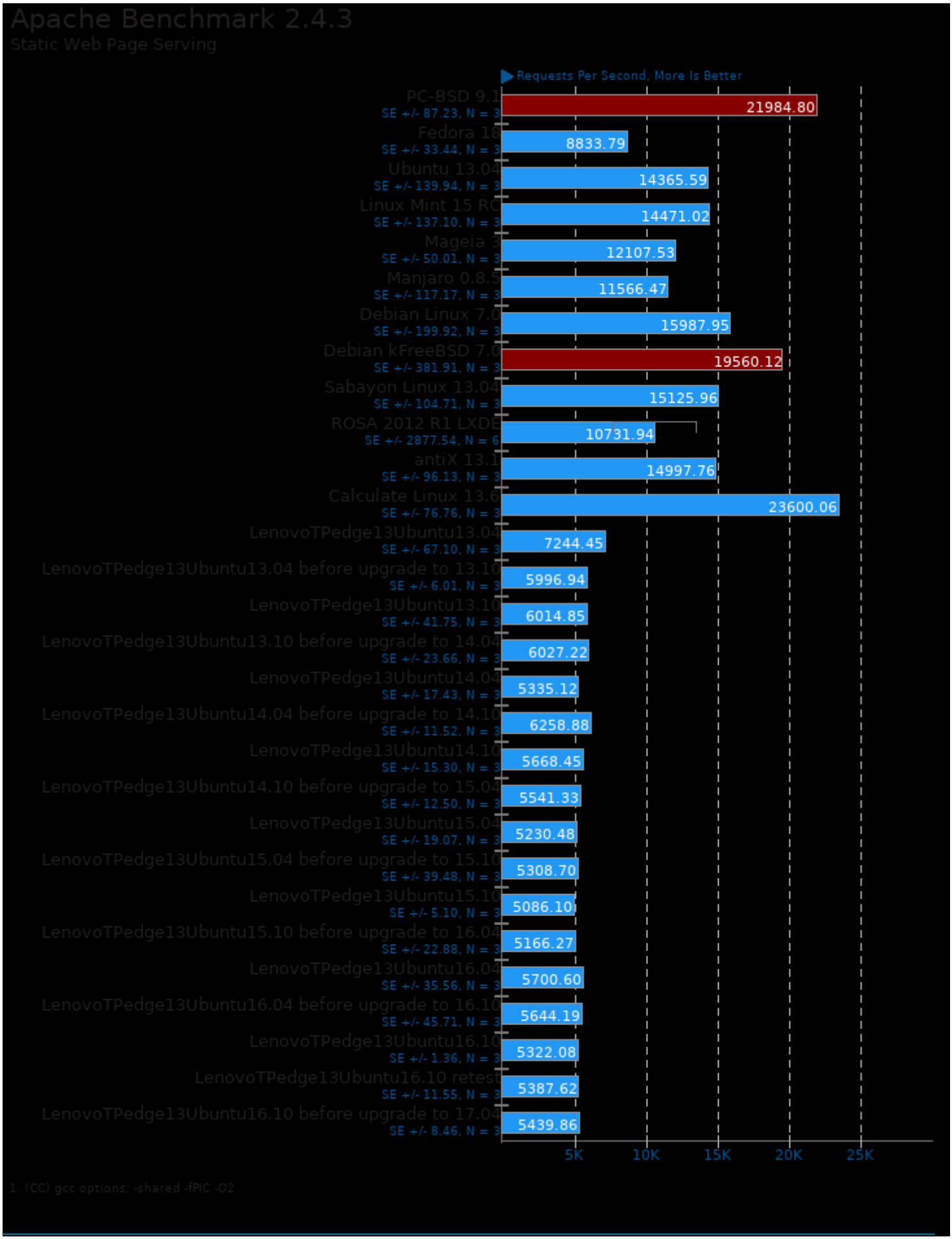

Rodinia 2.2
Test: OpenMP CFD Solver
Seconds, Fewer Is Better
PC-BSD 9.1
SE +/- 0.35, N = 3
88.90
CentOS 6.4
SE +/- 0.13, N = 3
83.80
Fedora 18
SE +/- 0.01, N = 3
87.67
Ubuntu 13.04
SE +/- 0.17, N = 3
85.56
Linux Mint 15 RC
SE +/- 0.19, N = 3
85.92
Mageia 3
SE +/- 0.03, N = 3
96.59
openSUSE 12.3
SE +/- 0.20, N = 3
86.94
Manjaro 0.8.5
SE +/- 0.61, N = 3
86.93
Debian Linux 7.0
SE +/- 0.04, N = 3
90.33
Sabayon Linux 13.04
SE +/- 0.07, N = 3
86.95
antiX 13.1
SE +/- 0.17, N = 3
89.98
Calculate Linux 13.6
SE +/- 0.12, N = 3
88.26
LenovoTPedge13Ubuntu13.04
SE +/- 0.95, N = 3
554.82
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.52, N = 3
543.81
LenovoTPedge13Ubuntu13.10
SE +/- 0.47, N = 3
546.29
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.12, N = 3
546.19
LenovoTPedge13Ubuntu14.04
SE +/- 0.67, N = 3
575.97
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.15, N = 3
536.60
LenovoTPedge13Ubuntu14.10
SE +/- 0.38, N = 3
539.92
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.21, N = 3
540.53
LenovoTPedge13Ubuntu15.04
SE +/- 0.25, N = 3
546.88
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.53, N = 3
539.32
LenovoTPedge13Ubuntu15.10
SE +/- 0.11, N = 3
541.10
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.45, N = 3
541.25
LenovoTPedge13Ubuntu16.04
SE +/- 0.24, N = 3
552.51
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.44, N = 3
541.25
LenovoTPedge13Ubuntu16.10
SE +/- 0.42, N = 3
534.50
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.51, N = 3
534.73
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 0.15, N = 3
382.83
LenovoTPedge13Ubuntu17.04
SE +/- 2.87, N = 3
450.45
LenovoTPedge13Ubuntu17.04 before upgrade to 17.10
SE +/- 0.49, N = 3
416.61
120
240
360
480
600
1. (CXX) g++ options: -O3 -fopenmp

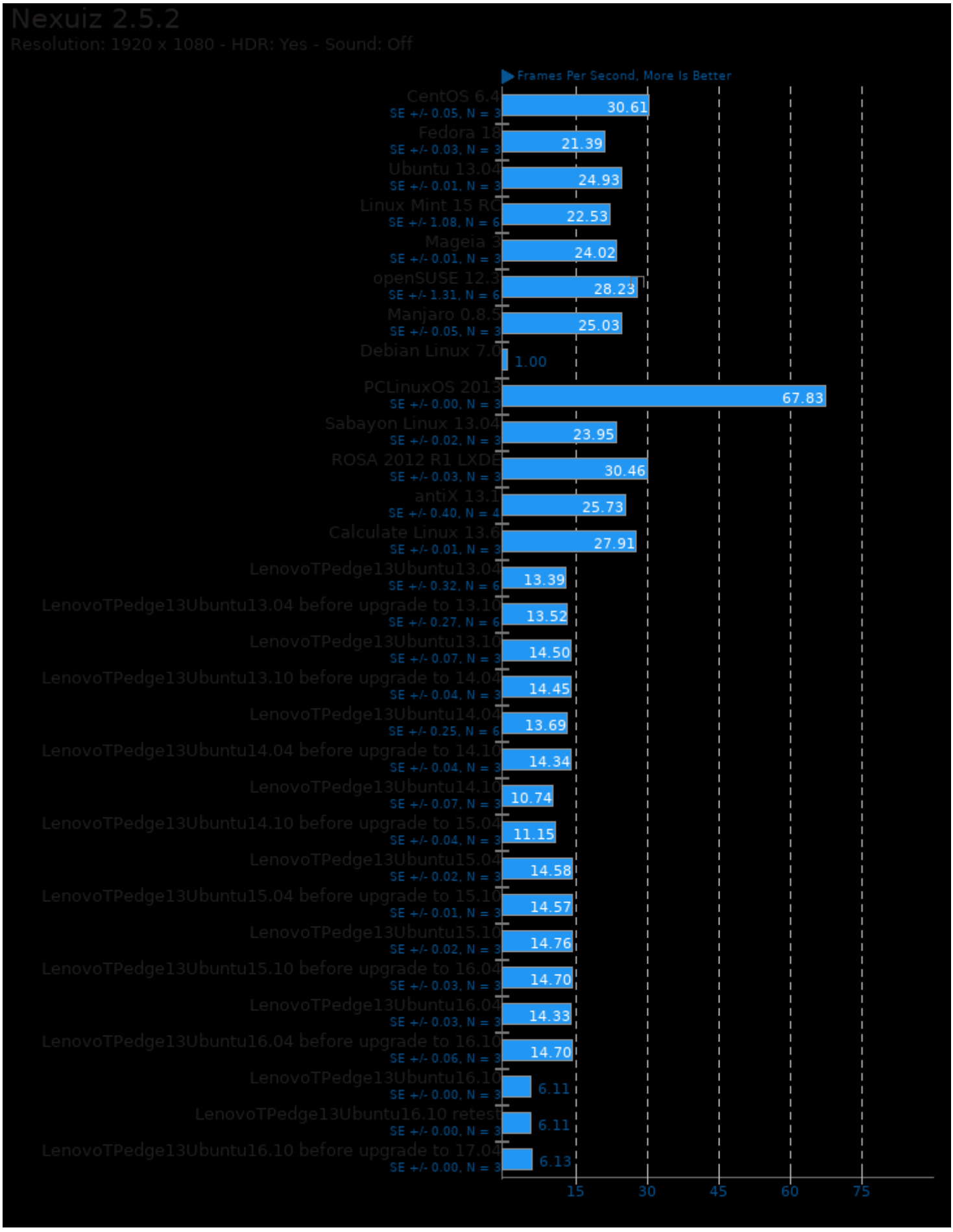

Timed PHP Compilation 5.2.9
Time To Compile
Seconds, Fewer Is Better
PC-BSD 9.1
SE +/- 0.03, N = 3
21.03
CentOS 6.4
SE +/- 0.04, N = 3
21.45
Fedora 18
SE +/- 0.04, N = 3
23.10
Ubuntu 13.04
SE +/- 0.35, N = 3
22.65
Linux Mint 15 RC
SE +/- 0.30, N = 3
22.73
Mageia 3
SE +/- 0.05, N = 3
25.99
openSUSE 12.3
SE +/- 0.36, N = 4
23.85
Manjaro 0.8.5
SE +/- 0.08, N = 3
24.49
Debian Linux 7.0
SE +/- 0.03, N = 3
21.03
Debian kFreeBSD 7.0
SE +/- 0.17, N = 3
25.80
Sabayon Linux 13.04
SE +/- 0.04, N = 3
26.22
ROSA 2012 R1 LXDE
SE +/- 0.05, N = 3
24.49
antiX 13.1
SE +/- 0.04, N = 3
21.89
Calculate Linux 13.6
SE +/- 0.33, N = 5
22.52
LenovoTPedge13Ubuntu13.04
SE +/- 0.20, N = 3
146.39
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.09, N = 3
144.48
LenovoTPedge13Ubuntu13.10
SE +/- 0.11, N = 3
149.60
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.10, N = 3
150.24
LenovoTPedge13Ubuntu14.04
SE +/- 0.07, N = 3
157.25
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.08, N = 3
146.41
LenovoTPedge13Ubuntu14.10
SE +/- 0.10, N = 3
153.07
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.26, N = 3
153.15
LenovoTPedge13Ubuntu15.04
SE +/- 0.24, N = 3
154.75
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.03, N = 3
152.91
LenovoTPedge13Ubuntu15.10
SE +/- 0.04, N = 3
153.54
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.14, N = 3
154.26
LenovoTPedge13Ubuntu16.04
SE +/- 0.12, N = 3
142.33
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.06, N = 3
141.24
LenovoTPedge13Ubuntu16.10
SE +/- 0.24, N = 3
164.56
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.30, N = 3
164.88
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 0.26, N = 3
165.31
LenovoTPedge13Ubuntu17.04
SE +/- 0.19, N = 3
187.93
LenovoTPedge13Ubuntu17.04 before upgrade to 17.10
SE +/- 0.27, N = 3
181.14
40
80
120
160
200

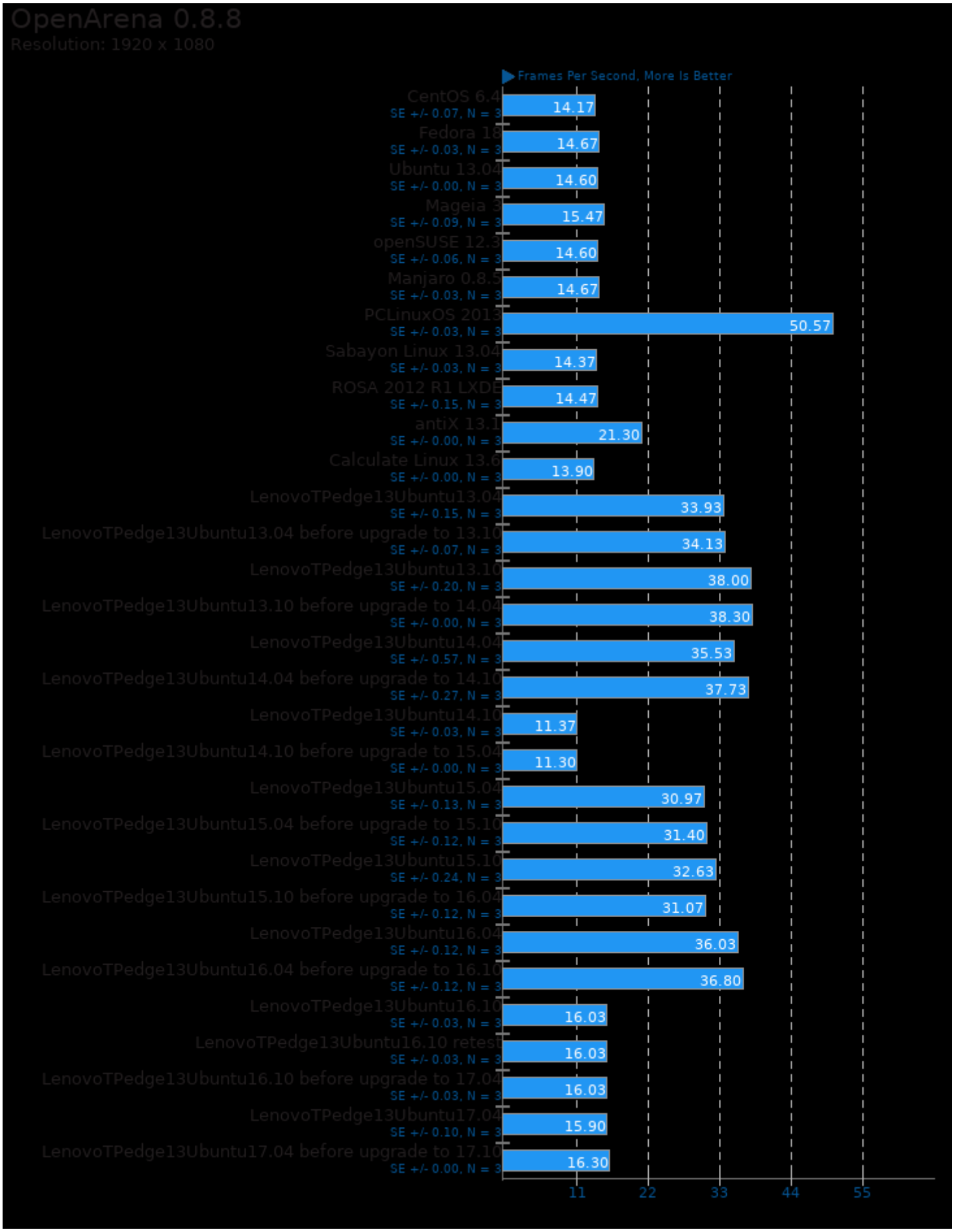

LAME MP3 Encoding 3.99.3
WAV To MP3
Seconds, Fewer Is Better
PC-BSD 9.1
SE +/- 0.21, N = 5
14.14
CentOS 6.4
SE +/- 0.01, N = 5
13.62
Fedora 18
SE +/- 0.01, N = 5
13.80
Ubuntu 13.04
SE +/- 0.01, N = 5
13.48
Linux Mint 15 RC
SE +/- 0.02, N = 5
13.50
Mageia 3
SE +/- 0.02, N = 5
16.36
openSUSE 12.3
SE +/- 0.18, N = 5
14.00
Manjaro 0.8.5
SE +/- 0.01, N = 5
14.02
Debian Linux 7.0
SE +/- 0.01, N = 5
14.10
PCLinuxOS 2013
SE +/- 0.01, N = 5
13.57
Sabayon Linux 13.04
SE +/- 0.02, N = 5
14.20
ROSA 2012 R1 LXDE
SE +/- 0.01, N = 5
13.52
antiX 13.1
SE +/- 0.02, N = 5
14.12
Calculate Linux 13.6
SE +/- 0.01, N = 5
13.88
LenovoTPedge13Ubuntu13.04
SE +/- 0.06, N = 5
47.80
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.04, N = 5
47.69
LenovoTPedge13Ubuntu13.10
SE +/- 0.03, N = 5
47.19
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.05, N = 5
47.20
LenovoTPedge13Ubuntu14.04
SE +/- 0.06, N = 5
47.49
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.09, N = 5
47.11
LenovoTPedge13Ubuntu14.10
SE +/- 0.07, N = 5
47.12
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.05, N = 5
47.08
LenovoTPedge13Ubuntu15.04
SE +/- 0.05, N = 5
47.05
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.08, N = 5
47.02
LenovoTPedge13Ubuntu15.10
SE +/- 0.04, N = 5
47.06
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.05, N = 5
47.17
LenovoTPedge13Ubuntu16.04
SE +/- 0.08, N = 5
47.22
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.05, N = 5
47.13
LenovoTPedge13Ubuntu16.10
SE +/- 0.05, N = 5
47.35
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.04, N = 5
47.40
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 0.05, N = 5
36.40
LenovoTPedge13Ubuntu17.04
SE +/- 0.13, N = 5
37.79
LenovoTPedge13Ubuntu17.04 before upgrade to 17.10
SE +/- 0.24, N = 5
37.42
11
22
33
44
55

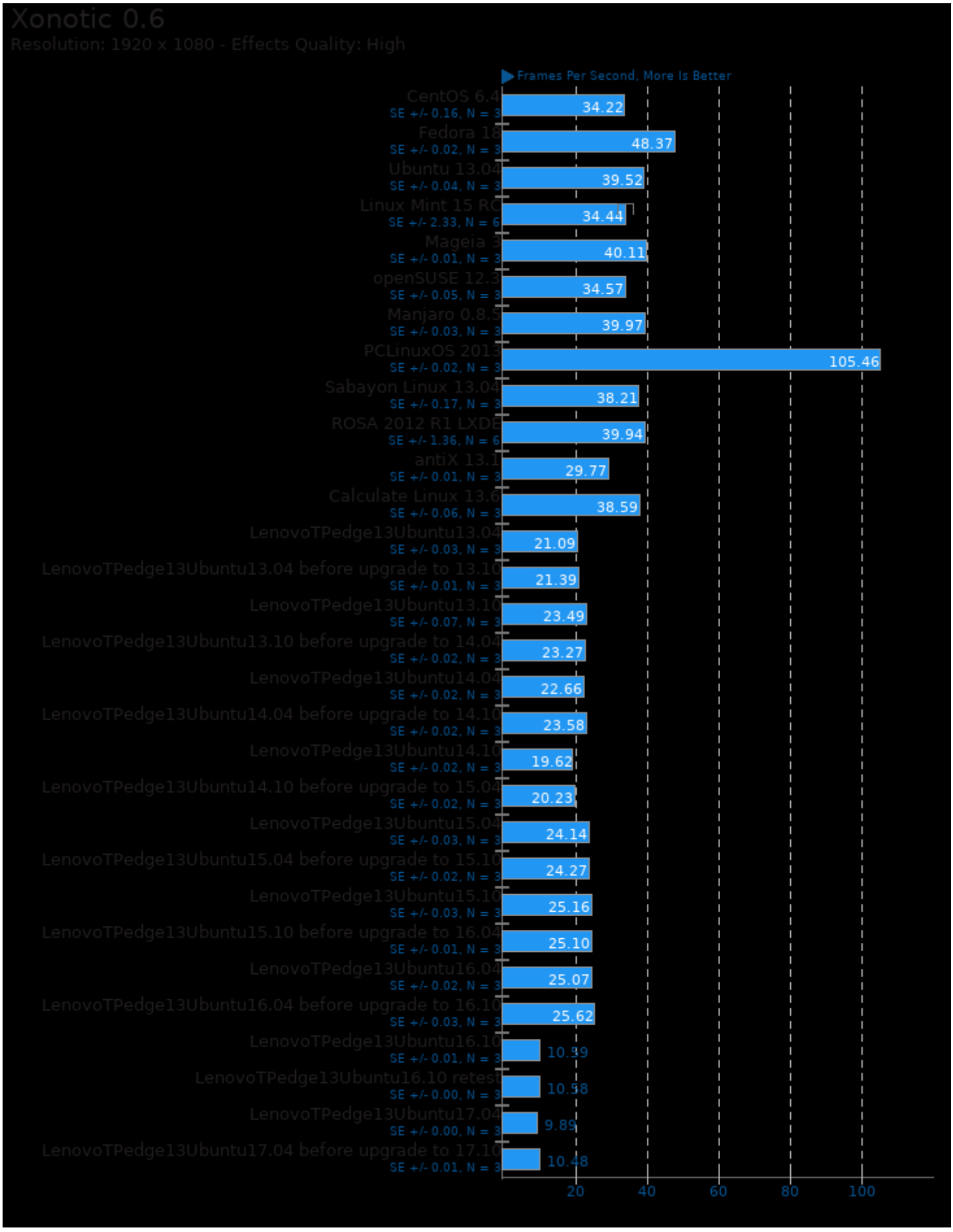

Tachyon 0.98.9
Total Time
Seconds, Fewer Is Better
PC-BSD 9.1
SE +/- 0.02, N = 3
8.75
Ubuntu 13.04
SE +/- 0.16, N = 3
9.13
Linux Mint 15 RC
SE +/- 0.07, N = 3
9.03
Mageia 3
SE +/- 0.35, N = 6
11.13
Debian Linux 7.0
SE +/- 0.00, N = 3
9.14
PCLinuxOS 2013
SE +/- 0.00, N = 3
8.89
Sabayon Linux 13.04
SE +/- 0.27, N = 6
9.60
ROSA 2012 R1 LXDE
SE +/- 0.12, N = 3
9.24
Calculate Linux 13.6
SE +/- 0.15, N = 4
10.19
LenovoTPedge13Ubuntu13.04
SE +/- 0.09, N = 3
93.69
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.22, N = 3
92.82
LenovoTPedge13Ubuntu13.10
SE +/- 0.07, N = 3
92.68
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.11, N = 3
93.00
LenovoTPedge13Ubuntu14.04
SE +/- 0.35, N = 3
95.55
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.37, N = 3
92.38
LenovoTPedge13Ubuntu14.10
SE +/- 0.56, N = 3
93.20
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.46, N = 3
92.94
LenovoTPedge13Ubuntu15.04
SE +/- 0.45, N = 3
93.81
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.10, N = 3
92.57
LenovoTPedge13Ubuntu15.10
SE +/- 0.22, N = 3
93.15
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.21, N = 3
93.07
LenovoTPedge13Ubuntu16.04
SE +/- 0.28, N = 3
93.42
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.19, N = 3
92.64
LenovoTPedge13Ubuntu16.10
SE +/- 0.08, N = 3
92.29
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.08, N = 3
92.35
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 0.77, N = 3
101.28
LenovoTPedge13Ubuntu17.04
SE +/- 0.45, N = 3
111.51
LenovoTPedge13Ubuntu17.04 before upgrade to 17.10
SE +/- 0.36, N = 3
108.67
20
40
60
80
100
1. (CC) gcc options: -m32 -O3 -fomit-frame-pointer -ffast-math -ltachyon -lm -lpthread

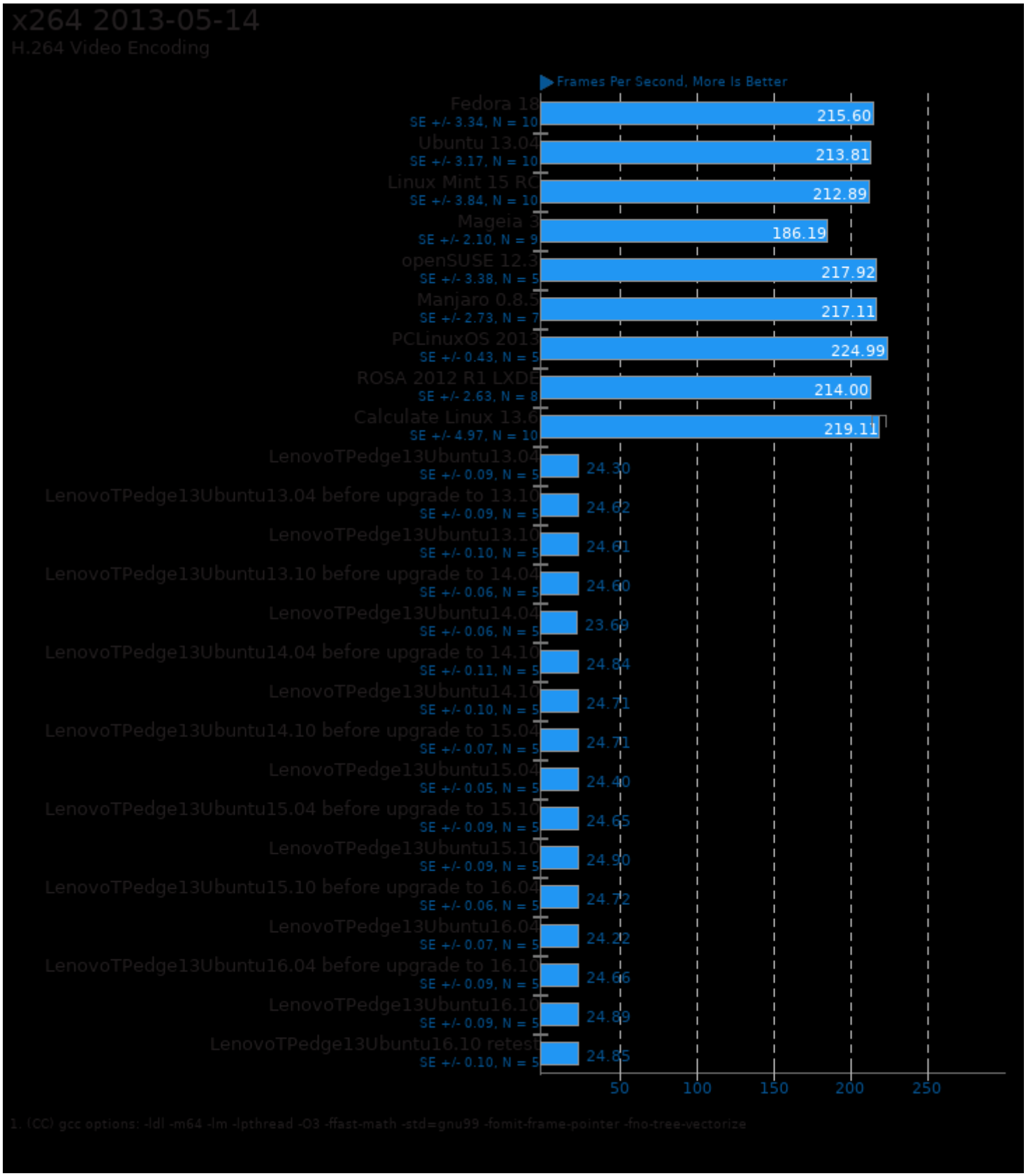

OpenSSL 1.0.1c
RSA 4096-bit Performance
Signs Per Second, More Is Better
PC-BSD 9.1
SE +/- 0.19, N = 3
120.77
CentOS 6.4
SE +/- 0.07, N = 3
121.33
Fedora 18
SE +/- 0.06, N = 3
121.00
Ubuntu 13.04
SE +/- 0.15, N = 3
121.43
Linux Mint 15 RC
SE +/- 0.30, N = 3
121.40
Mageia 3
SE +/- 0.26, N = 3
102.20
openSUSE 12.3
SE +/- 0.15, N = 3
121.40
Manjaro 0.8.5
SE +/- 0.03, N = 3
121.47
Debian Linux 7.0
SE +/- 0.00, N = 3
121.80
PCLinuxOS 2013
SE +/- 0.03, N = 3
121.23
Sabayon Linux 13.04
SE +/- 0.17, N = 3
121.17
ROSA 2012 R1 LXDE
SE +/- 0.07, N = 3
121.43
antiX 13.1
SE +/- 0.00, N = 3
121.80
Calculate Linux 13.6
SE +/- 0.32, N = 3
120.53
LenovoTPedge13Ubuntu13.04
SE +/- 0.10, N = 3
28.90
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.00, N = 3
29.00
LenovoTPedge13Ubuntu13.10
SE +/- 0.00, N = 3
29.30
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.06, N = 3
29.30
LenovoTPedge13Ubuntu14.04
SE +/- 0.09, N = 3
29.17
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.03, N = 3
29.33
LenovoTPedge13Ubuntu14.10
SE +/- 0.00, N = 3
29.40
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.09, N = 3
29.37
LenovoTPedge13Ubuntu15.04
SE +/- 0.03, N = 3
29.27
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.00, N = 3
29.40
LenovoTPedge13Ubuntu15.10
SE +/- 0.06, N = 3
29.30
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.00, N = 3
29.30
LenovoTPedge13Ubuntu16.04
SE +/- 0.03, N = 3
29.33
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.03, N = 3
29.33
LenovoTPedge13Ubuntu16.10
SE +/- 0.03, N = 3
29.13
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.15, N = 3
29.10
30
60
90
120
150
1. (CC) gcc options: -O3 -lssl -lcrypto

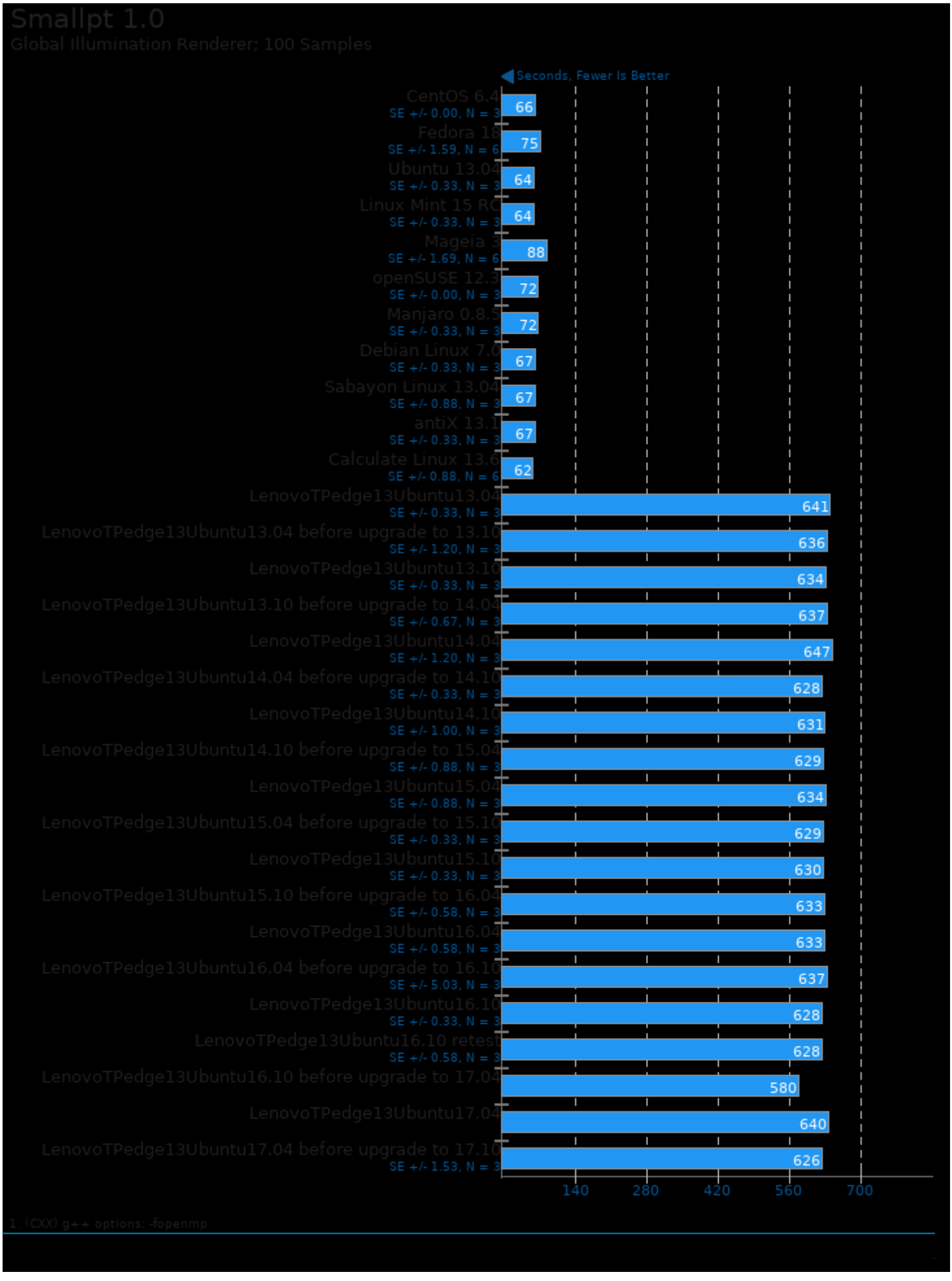

Apache Benchmark 2.4.3
Static Web Page Serving
Requests Per Second, More Is Better
PC-BSD 9.1
SE +/- 87.23, N = 3
21984.80
Fedora 18
SE +/- 33.44, N = 3
8833.79
Ubuntu 13.04
SE +/- 139.94, N = 3
14365.59
Linux Mint 15 RC
SE +/- 137.10, N = 3
14471.02
Mageia 3
SE +/- 50.01, N = 3
12107.53
Manjaro 0.8.5
SE +/- 117.17, N = 3
11566.47
Debian Linux 7.0
SE +/- 199.92, N = 3
15987.95
Debian kFreeBSD 7.0
SE +/- 381.91, N = 3
19560.12
Sabayon Linux 13.04
SE +/- 104.71, N = 3
15125.96
ROSA 2012 R1 LXDE
SE +/- 2877.54, N = 6
10731.94
antiX 13.1
SE +/- 96.13, N = 3
14997.76
Calculate Linux 13.6
SE +/- 76.76, N = 3
23600.06
LenovoTPedge13Ubuntu13.04
SE +/- 67.10, N = 3
7244.45
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 6.01, N = 3
5996.94
LenovoTPedge13Ubuntu13.10
SE +/- 41.75, N = 3
6014.85
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 23.66, N = 3
6027.22
LenovoTPedge13Ubuntu14.04
SE +/- 17.43, N = 3
5335.12
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 11.52, N = 3
6258.88
LenovoTPedge13Ubuntu14.10
SE +/- 15.30, N = 3
5668.45
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 12.50, N = 3
5541.33
LenovoTPedge13Ubuntu15.04
SE +/- 19.07, N = 3
5230.48
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 39.48, N = 3
5308.70
LenovoTPedge13Ubuntu15.10
SE +/- 5.10, N = 3
5086.10
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 22.88, N = 3
5166.27
LenovoTPedge13Ubuntu16.04
SE +/- 35.56, N = 3
5700.60
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 45.71, N = 3
5644.19
LenovoTPedge13Ubuntu16.10
SE +/- 1.36, N = 3
5322.08
LenovoTPedge13Ubuntu16.10 retest
SE +/- 11.55, N = 3
5387.62
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 8.46, N = 3
5439.86
5K
10K
15K
20K
25K
1. (CC) gcc options: -shared -fPIC -O2

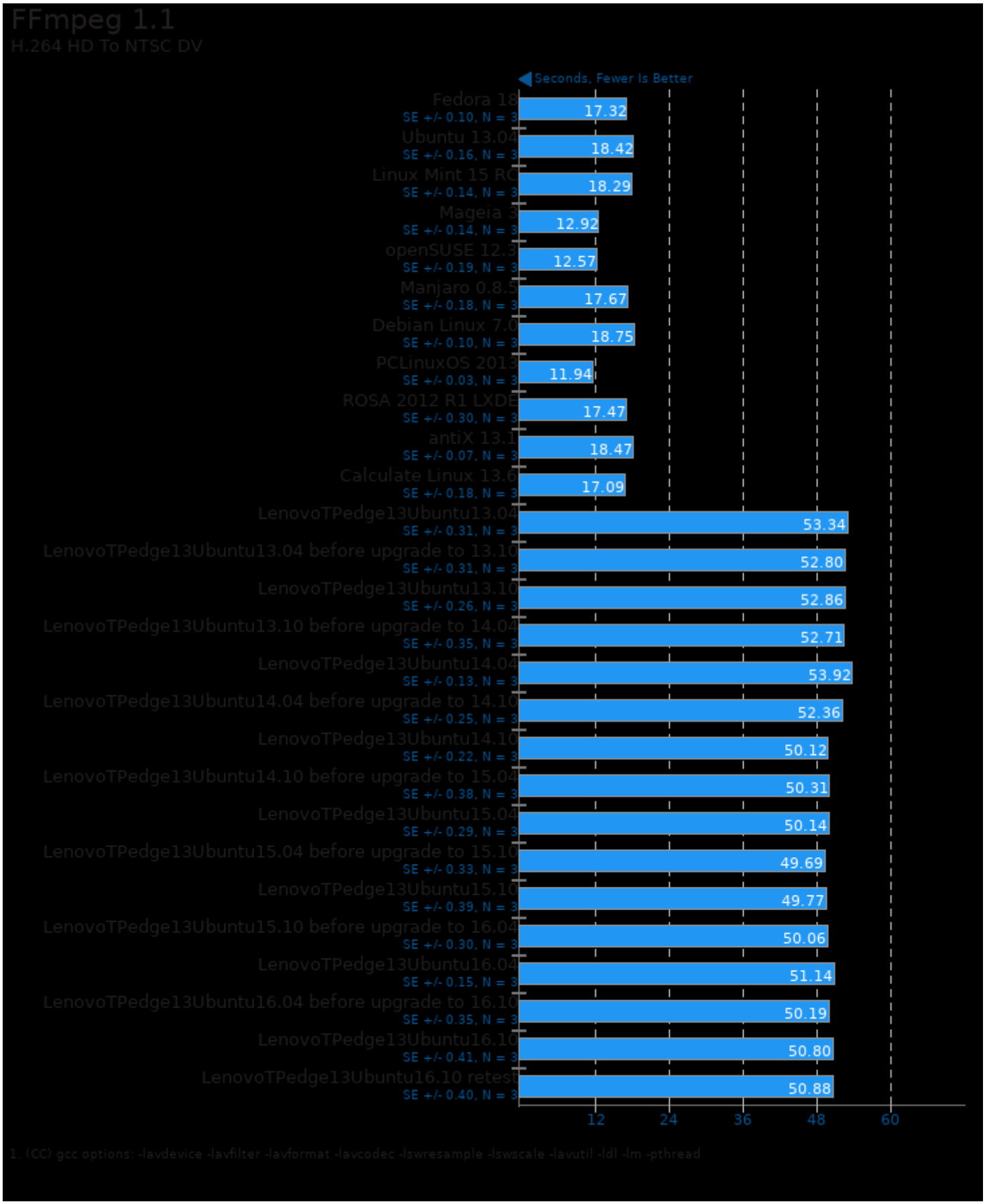

Nexuiz 2.5.2
Resolution: 1920 x 1080 - HDR: Yes - Sound: Off
Frames Per Second, More Is Better
CentOS 6.4
SE +/- 0.05, N = 3
30.61
Fedora 18
SE +/- 0.03, N = 3
21.39
Ubuntu 13.04
SE +/- 0.01, N = 3
24.93
Linux Mint 15 RC
SE +/- 1.08, N = 6
22.53
Mageia 3
SE +/- 0.01, N = 3
24.02
openSUSE 12.3
SE +/- 1.31, N = 6
28.23
Manjaro 0.8.5
SE +/- 0.05, N = 3
25.03
Debian Linux 7.0
1.00
PCLinuxOS 2013
SE +/- 0.00, N = 3
67.83
Sabayon Linux 13.04
SE +/- 0.02, N = 3
23.95
ROSA 2012 R1 LXDE
SE +/- 0.03, N = 3
30.46
antiX 13.1
SE +/- 0.40, N = 4
25.73
Calculate Linux 13.6
SE +/- 0.01, N = 3
27.91
LenovoTPedge13Ubuntu13.04
SE +/- 0.32, N = 6
13.39
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.27, N = 6
13.52
LenovoTPedge13Ubuntu13.10
SE +/- 0.07, N = 3
14.50
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.04, N = 3
14.45
LenovoTPedge13Ubuntu14.04
SE +/- 0.25, N = 6
13.69
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.04, N = 3
14.34
LenovoTPedge13Ubuntu14.10
SE +/- 0.07, N = 3
10.74
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.04, N = 3
11.15
LenovoTPedge13Ubuntu15.04
SE +/- 0.02, N = 3
14.58
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.01, N = 3
14.57
LenovoTPedge13Ubuntu15.10
SE +/- 0.02, N = 3
14.76
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.03, N = 3
14.70
LenovoTPedge13Ubuntu16.04
SE +/- 0.03, N = 3
14.33
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.06, N = 3
14.70
LenovoTPedge13Ubuntu16.10
SE +/- 0.00, N = 3
6.11
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.00, N = 3
6.11
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 0.00, N = 3
6.13
15
30
45
60
75

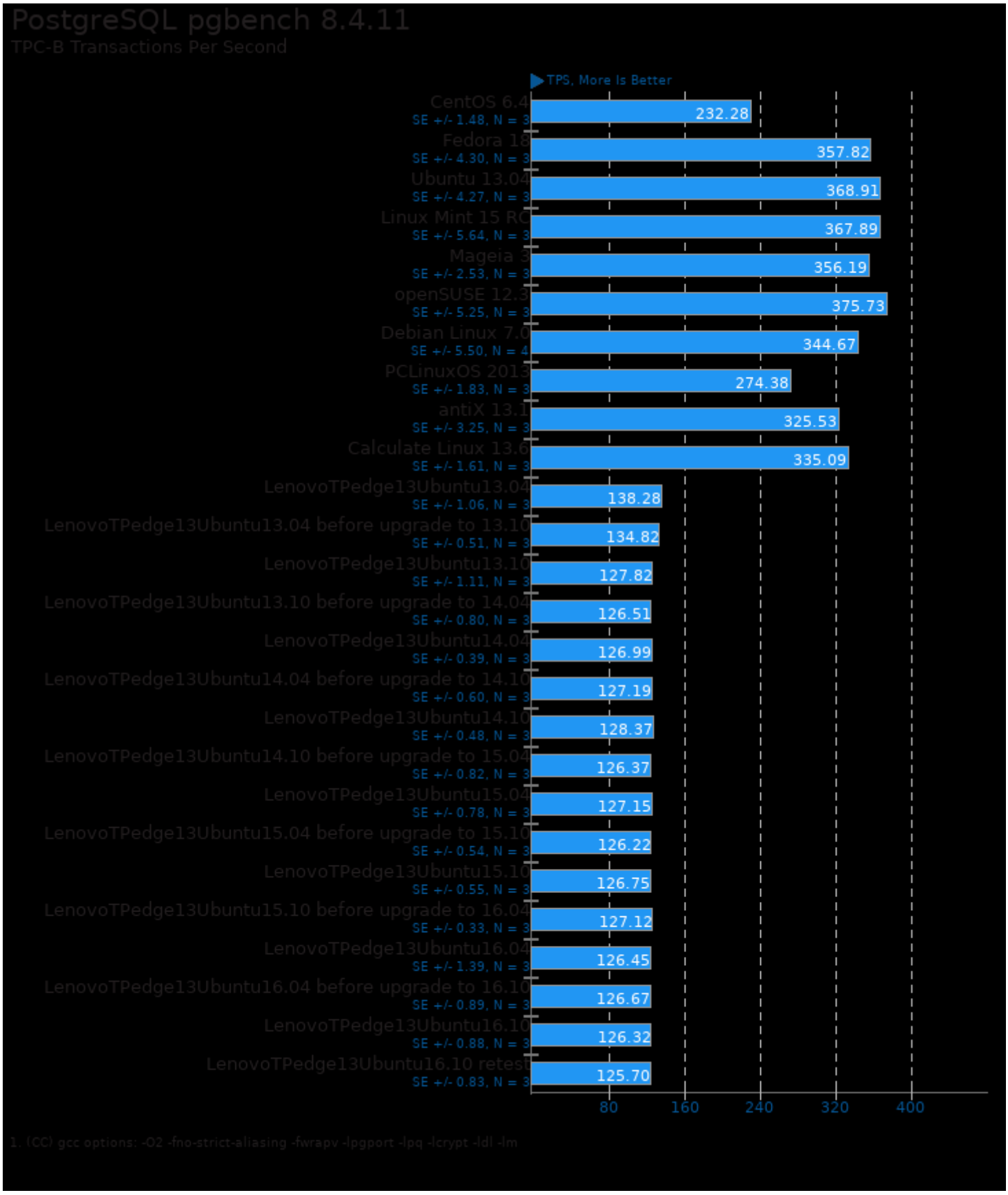

OpenArena 0.8.8
Resolution: 1920 x 1080
Frames Per Second, More Is Better
CentOS 6.4
SE +/- 0.07, N = 3
14.17
Fedora 18
SE +/- 0.03, N = 3
14.67
Ubuntu 13.04
SE +/- 0.00, N = 3
14.60
Mageia 3
SE +/- 0.09, N = 3
15.47
openSUSE 12.3
SE +/- 0.06, N = 3
14.60
Manjaro 0.8.5
SE +/- 0.03, N = 3
14.67
PCLinuxOS 2013
SE +/- 0.03, N = 3
50.57
Sabayon Linux 13.04
SE +/- 0.03, N = 3
14.37
ROSA 2012 R1 LXDE
SE +/- 0.15, N = 3
14.47
antiX 13.1
SE +/- 0.00, N = 3
21.30
Calculate Linux 13.6
SE +/- 0.00, N = 3
13.90
LenovoTPedge13Ubuntu13.04
SE +/- 0.15, N = 3
33.93
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.07, N = 3
34.13
LenovoTPedge13Ubuntu13.10
SE +/- 0.20, N = 3
38.00
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.00, N = 3
38.30
LenovoTPedge13Ubuntu14.04
SE +/- 0.57, N = 3
35.53
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.27, N = 3
37.73
LenovoTPedge13Ubuntu14.10
SE +/- 0.03, N = 3
11.37
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.00, N = 3
11.30
LenovoTPedge13Ubuntu15.04
SE +/- 0.13, N = 3
30.97
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.12, N = 3
31.40
LenovoTPedge13Ubuntu15.10
SE +/- 0.24, N = 3
32.63
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.12, N = 3
31.07
LenovoTPedge13Ubuntu16.04
SE +/- 0.12, N = 3
36.03
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.12, N = 3
36.80
LenovoTPedge13Ubuntu16.10
SE +/- 0.03, N = 3
16.03
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.03, N = 3
16.03
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
SE +/- 0.03, N = 3
16.03
LenovoTPedge13Ubuntu17.04
SE +/- 0.10, N = 3
15.90
LenovoTPedge13Ubuntu17.04 before upgrade to 17.10
SE +/- 0.00, N = 3
16.30
11
22
33
44
55


Xonotic 0.6
Resolution: 1920 x 1080 - Effects Quality: High
Frames Per Second, More Is Better
CentOS 6.4
SE +/- 0.16, N = 3
34.22
Fedora 18
SE +/- 0.02, N = 3
48.37
Ubuntu 13.04
SE +/- 0.04, N = 3
39.52
Linux Mint 15 RC
SE +/- 2.33, N = 6
34.44
Mageia 3
SE +/- 0.01, N = 3
40.11
openSUSE 12.3
SE +/- 0.05, N = 3
34.57
Manjaro 0.8.5
SE +/- 0.03, N = 3
39.97
PCLinuxOS 2013
SE +/- 0.02, N = 3
105.46
Sabayon Linux 13.04
SE +/- 0.17, N = 3
38.21
ROSA 2012 R1 LXDE
SE +/- 1.36, N = 6
39.94
antiX 13.1
SE +/- 0.01, N = 3
29.77
Calculate Linux 13.6
SE +/- 0.06, N = 3
38.59
LenovoTPedge13Ubuntu13.04
SE +/- 0.03, N = 3
21.09
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.01, N = 3
21.39
LenovoTPedge13Ubuntu13.10
SE +/- 0.07, N = 3
23.49
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.02, N = 3
23.27
LenovoTPedge13Ubuntu14.04
SE +/- 0.02, N = 3
22.66
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.02, N = 3
23.58
LenovoTPedge13Ubuntu14.10
SE +/- 0.02, N = 3
19.62
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.02, N = 3
20.23
LenovoTPedge13Ubuntu15.04
SE +/- 0.03, N = 3
24.14
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.02, N = 3
24.27
LenovoTPedge13Ubuntu15.10
SE +/- 0.03, N = 3
25.16
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.01, N = 3
25.10
LenovoTPedge13Ubuntu16.04
SE +/- 0.02, N = 3
25.07
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.03, N = 3
25.62
LenovoTPedge13Ubuntu16.10
SE +/- 0.01, N = 3
10.39
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.00, N = 3
10.58
LenovoTPedge13Ubuntu17.04
SE +/- 0.00, N = 3
9.89
LenovoTPedge13Ubuntu17.04 before upgrade to 17.10
SE +/- 0.01, N = 3
10.48
20
40
60
80
100

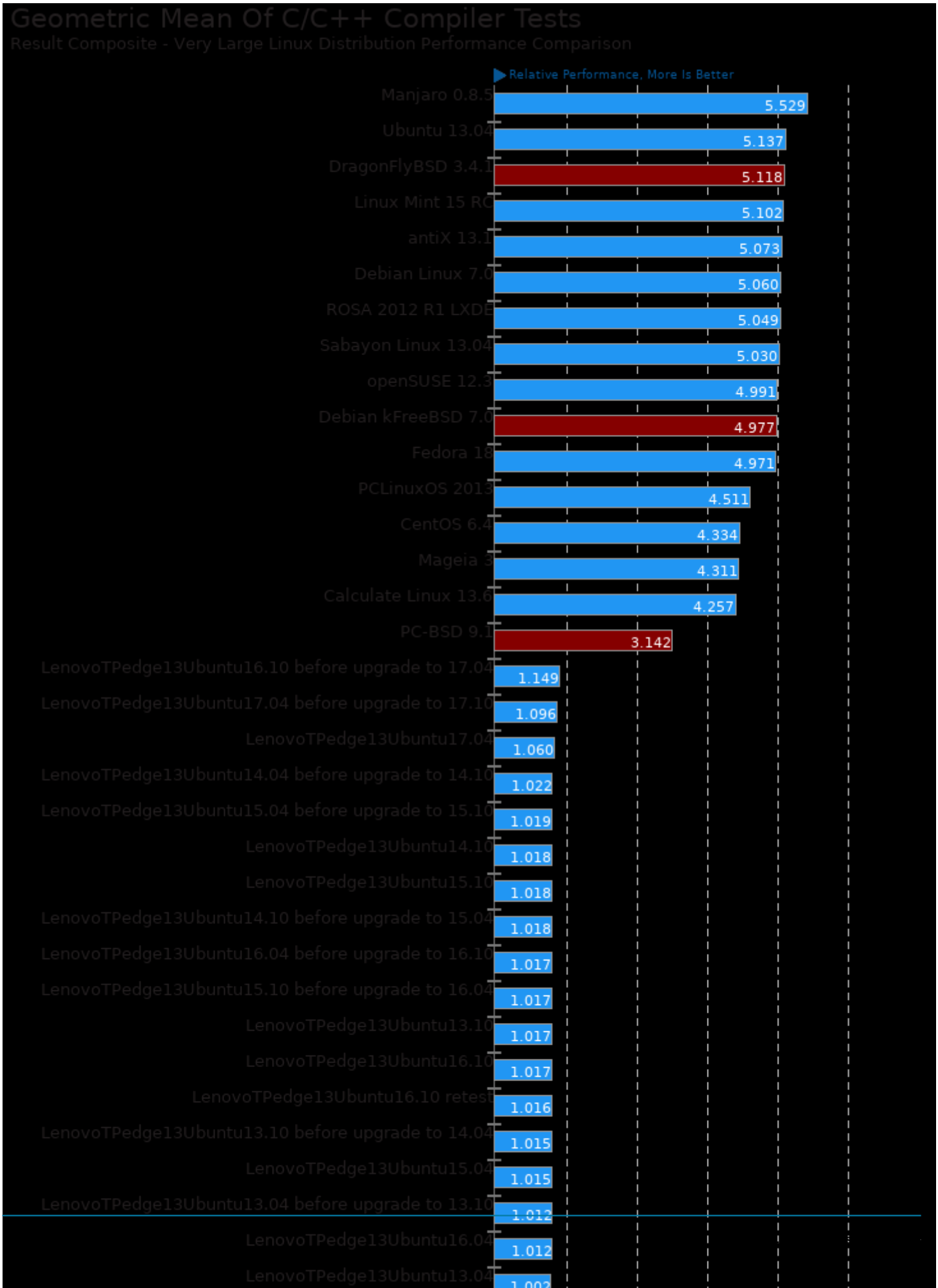

x264 2013-05-14
H.264 Video Encoding
Frames Per Second, More Is Better
Fedora 18
SE +/- 3.34, N = 10
215.60
Ubuntu 13.04
SE +/- 3.17, N = 10
213.81
Linux Mint 15 RC
SE +/- 3.84, N = 10
212.89
Mageia 3
SE +/- 2.10, N = 9
186.19
openSUSE 12.3
SE +/- 3.38, N = 5
217.92
Manjaro 0.8.5
SE +/- 2.73, N = 7
217.11
PCLinuxOS 2013
SE +/- 0.43, N = 5
224.99
ROSA 2012 R1 LXDE
SE +/- 2.63, N = 8
214.00
Calculate Linux 13.6
SE +/- 4.97, N = 10
219.11
LenovoTPedge13Ubuntu13.04
SE +/- 0.09, N = 5
24.30
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.09, N = 5
24.62
LenovoTPedge13Ubuntu13.10
SE +/- 0.10, N = 5
24.61
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.06, N = 5
24.60
LenovoTPedge13Ubuntu14.04
SE +/- 0.06, N = 5
23.69
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.11, N = 5
24.84
LenovoTPedge13Ubuntu14.10
SE +/- 0.10, N = 5
24.71
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.07, N = 5
24.71
LenovoTPedge13Ubuntu15.04
SE +/- 0.05, N = 5
24.40
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.09, N = 5
24.65
LenovoTPedge13Ubuntu15.10
SE +/- 0.09, N = 5
24.90
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.06, N = 5
24.72
LenovoTPedge13Ubuntu16.04
SE +/- 0.07, N = 5
24.22
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.09, N = 5
24.66
LenovoTPedge13Ubuntu16.10
SE +/- 0.09, N = 5
24.89
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.10, N = 5
24.85
50
100
150
200
250
1. (CC) gcc options: -ldl -m64 -lm -lpthread -O3 -ffast-math -std=gnu99 -fomit-frame-pointer -fno-tree-vectorize


Smallpt 1.0
Global Illumination Renderer; 100 Samples
Seconds, Fewer Is Better
CentOS 6.4
SE +/- 0.00, N = 3
66
Fedora 18
SE +/- 1.59, N = 6
75
Ubuntu 13.04
SE +/- 0.33, N = 3
64
Linux Mint 15 RC
SE +/- 0.33, N = 3
64
Mageia 3
SE +/- 1.69, N = 6
88
openSUSE 12.3
SE +/- 0.00, N = 3
72
Manjaro 0.8.5
SE +/- 0.33, N = 3
72
Debian Linux 7.0
SE +/- 0.33, N = 3
67
Sabayon Linux 13.04
SE +/- 0.88, N = 3
67
antiX 13.1
SE +/- 0.33, N = 3
67
Calculate Linux 13.6
SE +/- 0.88, N = 6
62
LenovoTPedge13Ubuntu13.04
SE +/- 0.33, N = 3
641
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 1.20, N = 3
636
LenovoTPedge13Ubuntu13.10
SE +/- 0.33, N = 3
634
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.67, N = 3
637
LenovoTPedge13Ubuntu14.04
SE +/- 1.20, N = 3
647
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.33, N = 3
628
LenovoTPedge13Ubuntu14.10
SE +/- 1.00, N = 3
631
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.88, N = 3
629
LenovoTPedge13Ubuntu15.04
SE +/- 0.88, N = 3
634
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.33, N = 3
629
LenovoTPedge13Ubuntu15.10
SE +/- 0.33, N = 3
630
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.58, N = 3
633
LenovoTPedge13Ubuntu16.04
SE +/- 0.58, N = 3
633
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 5.03, N = 3
637
LenovoTPedge13Ubuntu16.10
SE +/- 0.33, N = 3
628
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.58, N = 3
628
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
580
LenovoTPedge13Ubuntu17.04
640
LenovoTPedge13Ubuntu17.04 before upgrade to 17.10
SE +/- 1.53, N = 3
626
140
280
420
560
700
1. (CXX) g++ options: -fopenmp

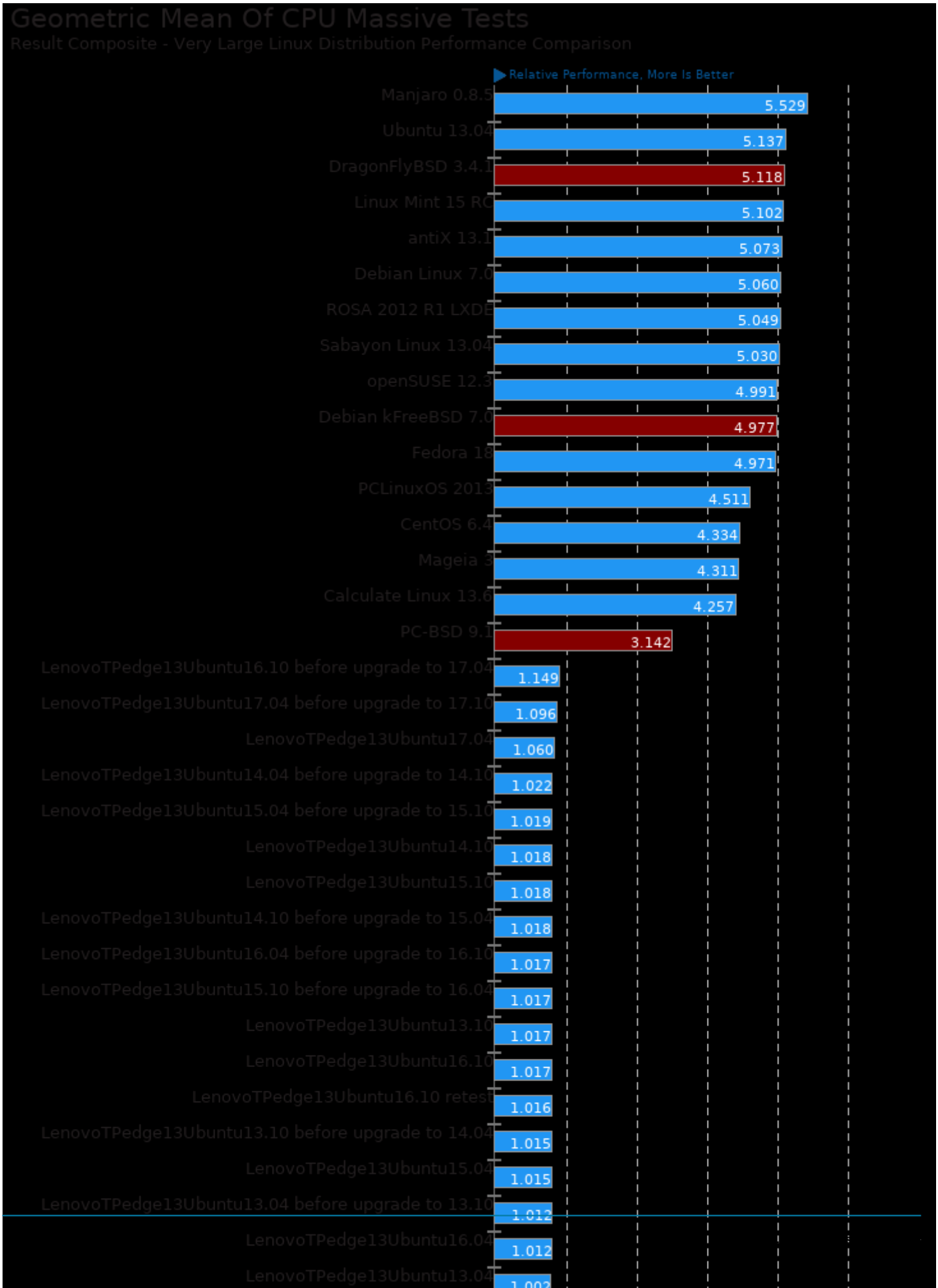

FFmpeg 1.1
H.264 HD To NTSC DV
Seconds, Fewer Is Better
Fedora 18
SE +/- 0.10, N = 3
17.32
Ubuntu 13.04
SE +/- 0.16, N = 3
18.42
Linux Mint 15 RC
SE +/- 0.14, N = 3
18.29
Mageia 3
SE +/- 0.14, N = 3
12.92
openSUSE 12.3
SE +/- 0.19, N = 3
12.57
Manjaro 0.8.5
SE +/- 0.18, N = 3
17.67
Debian Linux 7.0
SE +/- 0.10, N = 3
18.75
PCLinuxOS 2013
SE +/- 0.03, N = 3
11.94
ROSA 2012 R1 LXDE
SE +/- 0.30, N = 3
17.47
antiX 13.1
SE +/- 0.07, N = 3
18.47
Calculate Linux 13.6
SE +/- 0.18, N = 3
17.09
LenovoTPedge13Ubuntu13.04
SE +/- 0.31, N = 3
53.34
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.31, N = 3
52.80
LenovoTPedge13Ubuntu13.10
SE +/- 0.26, N = 3
52.86
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.35, N = 3
52.71
LenovoTPedge13Ubuntu14.04
SE +/- 0.13, N = 3
53.92
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.25, N = 3
52.36
LenovoTPedge13Ubuntu14.10
SE +/- 0.22, N = 3
50.12
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.38, N = 3
50.31
LenovoTPedge13Ubuntu15.04
SE +/- 0.29, N = 3
50.14
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.33, N = 3
49.69
LenovoTPedge13Ubuntu15.10
SE +/- 0.39, N = 3
49.77
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.30, N = 3
50.06
LenovoTPedge13Ubuntu16.04
SE +/- 0.15, N = 3
51.14
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.35, N = 3
50.19
LenovoTPedge13Ubuntu16.10
SE +/- 0.41, N = 3
50.80
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.40, N = 3
50.88
12
24
36
48
60
1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -ldl -lm -pthread


PostgreSQL pgbench 8.4.11
TPC-B Transactions Per Second
TPS, More Is Better
CentOS 6.4
SE +/- 1.48, N = 3
232.28
Fedora 18
SE +/- 4.30, N = 3
357.82
Ubuntu 13.04
SE +/- 4.27, N = 3
368.91
Linux Mint 15 RC
SE +/- 5.64, N = 3
367.89
Mageia 3
SE +/- 2.53, N = 3
356.19
openSUSE 12.3
SE +/- 5.25, N = 3
375.73
Debian Linux 7.0
SE +/- 5.50, N = 4
344.67
PCLinuxOS 2013
SE +/- 1.83, N = 3
274.38
antiX 13.1
SE +/- 3.25, N = 3
325.53
Calculate Linux 13.6
SE +/- 1.61, N = 3
335.09
LenovoTPedge13Ubuntu13.04
SE +/- 1.06, N = 3
138.28
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
SE +/- 0.51, N = 3
134.82
LenovoTPedge13Ubuntu13.10
SE +/- 1.11, N = 3
127.82
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
SE +/- 0.80, N = 3
126.51
LenovoTPedge13Ubuntu14.04
SE +/- 0.39, N = 3
126.99
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
SE +/- 0.60, N = 3
127.19
LenovoTPedge13Ubuntu14.10
SE +/- 0.48, N = 3
128.37
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
SE +/- 0.82, N = 3
126.37
LenovoTPedge13Ubuntu15.04
SE +/- 0.78, N = 3
127.15
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
SE +/- 0.54, N = 3
126.22
LenovoTPedge13Ubuntu15.10
SE +/- 0.55, N = 3
126.75
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
SE +/- 0.33, N = 3
127.12
LenovoTPedge13Ubuntu16.04
SE +/- 1.39, N = 3
126.45
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
SE +/- 0.89, N = 3
126.67
LenovoTPedge13Ubuntu16.10
SE +/- 0.88, N = 3
126.32
LenovoTPedge13Ubuntu16.10 retest
SE +/- 0.83, N = 3
125.70
80
160
240
320
400
1. (CC) gcc options: -O2 -fno-strict-aliasing -fwrapv -lpgport -lpq -lcrypt -ldl -lm

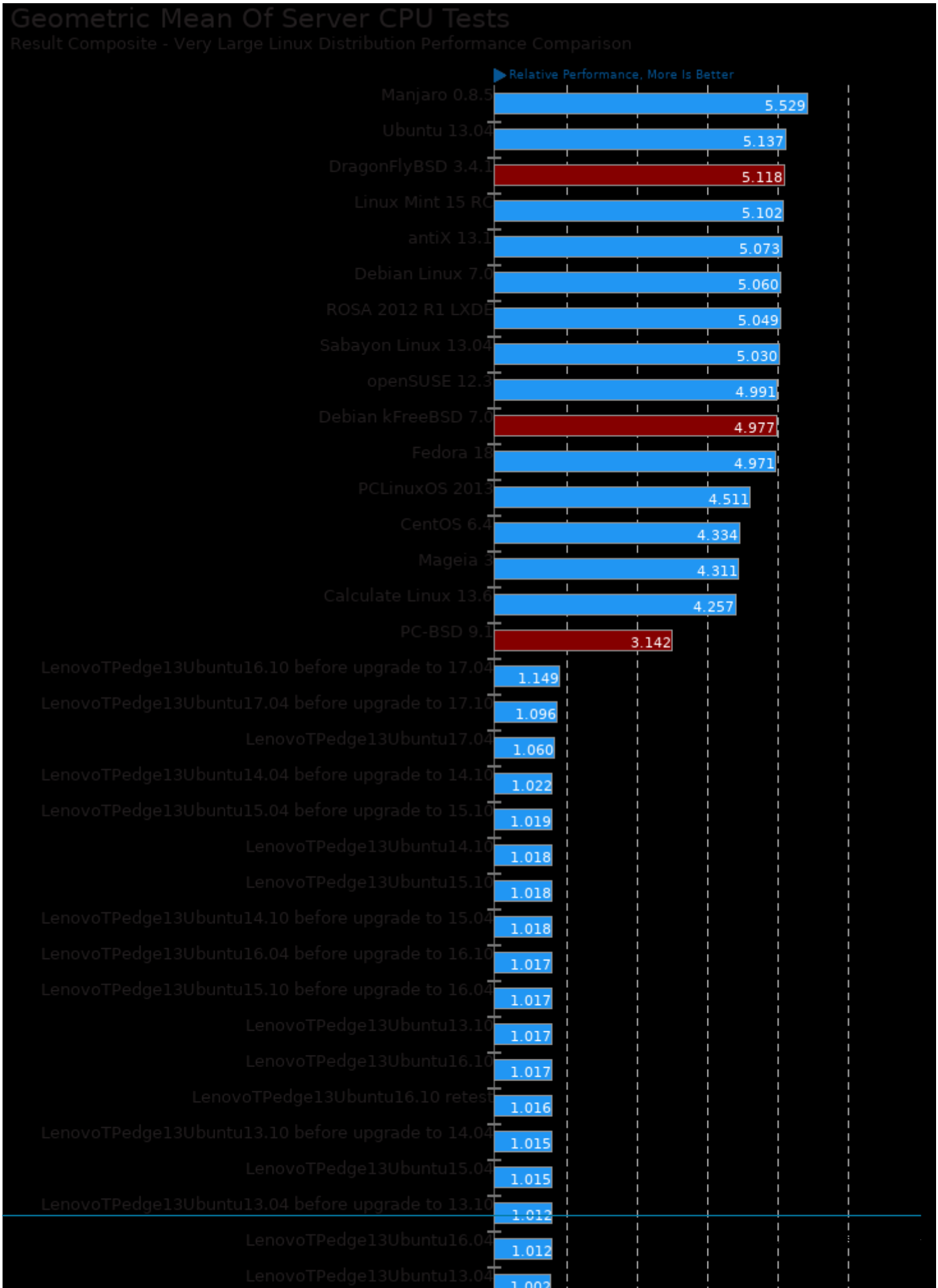
These geometric means are based upon test groupings / test suites for this result file.


Geometric Mean Of C/C++ Compiler Tests
Result Composite - Very Large Linux Distribution Performance Comparison
Relative Performance, More Is Better
Manjaro 0.8.5
5.529
Ubuntu 13.04
5.137
DragonFlyBSD 3.4.1
5.118
Linux Mint 15 RC
5.102
antiX 13.1
5.073
Debian Linux 7.0
5.060
ROSA 2012 R1 LXDE
5.049
Sabayon Linux 13.04
5.030
openSUSE 12.3
4.991
Debian kFreeBSD 7.0
4.977
Fedora 18
4.971
PCLinuxOS 2013
4.511
CentOS 6.4
4.334
Mageia 3
4.311
Calculate Linux 13.6
4.257
PC-BSD 9.1
3.142
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
1.149
LenovoTPedge13Ubuntu17.04 before upgrade to 17.10
1.096
LenovoTPedge13Ubuntu17.04
1.060
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
1.022
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
1.019
LenovoTPedge13Ubuntu14.10
1.018
LenovoTPedge13Ubuntu15.10
1.018
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
1.018
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
1.017
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
1.017
LenovoTPedge13Ubuntu13.10
1.017
LenovoTPedge13Ubuntu16.10
1.017
LenovoTPedge13Ubuntu16.10 retest
1.016
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
1.015
LenovoTPedge13Ubuntu15.04
1.015
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
1.012
LenovoTPedge13Ubuntu16.04
1.012
LenovoTPedge13Ubuntu13.04

Geometric mean based upon tests: pts/himeno, pts/build-php, pts/c-ray, pts/compress-7zip, pts/encode-mp3, pts/pgbench, pts/apache, pts/x264, pts/openssl and pts/tachyon


Geometric Mean Of CPU Massive Tests
Result Composite - Very Large Linux Distribution Performance Comparison
Relative Performance, More Is Better
Manjaro 0.8.5
5.529
Ubuntu 13.04
5.137
DragonFlyBSD 3.4.1
5.118
Linux Mint 15 RC
5.102
antiX 13.1
5.073
Debian Linux 7.0
5.060
ROSA 2012 R1 LXDE
5.049
Sabayon Linux 13.04
5.030
openSUSE 12.3
4.991
Debian kFreeBSD 7.0
4.977
Fedora 18
4.971
PCLinuxOS 2013
4.511
CentOS 6.4
4.334
Mageia 3
4.311
Calculate Linux 13.6
4.257
PC-BSD 9.1
3.142
LenovoTPedge13Ubuntu16.10 before upgrade to 17.04
1.149
LenovoTPedge13Ubuntu17.04 before upgrade to 17.10
1.096
LenovoTPedge13Ubuntu17.04
1.060
LenovoTPedge13Ubuntu14.04 before upgrade to 14.10
1.022
LenovoTPedge13Ubuntu15.04 before upgrade to 15.10
1.019
LenovoTPedge13Ubuntu14.10
1.018
LenovoTPedge13Ubuntu15.10
1.018
LenovoTPedge13Ubuntu14.10 before upgrade to 15.04
1.018
LenovoTPedge13Ubuntu16.04 before upgrade to 16.10
1.017
LenovoTPedge13Ubuntu15.10 before upgrade to 16.04
1.017
LenovoTPedge13Ubuntu13.10
1.017
LenovoTPedge13Ubuntu16.10
1.017
LenovoTPedge13Ubuntu16.10 retest
1.016
LenovoTPedge13Ubuntu13.10 before upgrade to 14.04
1.015
LenovoTPedge13Ubuntu15.04
1.015
LenovoTPedge13Ubuntu13.04 before upgrade to 13.10
1.012
LenovoTPedge13Ubuntu16.04
1.012
LenovoTPedge13Ubuntu13.04

Geometric mean based upon tests: pts/apache, pts/build-php, pts/c-ray, pts/compress-7zip, pts/x264, pts/encode-mp3, pts/himeno, pts/openssl, pts/pgbench, pts/primesieve, pts/rodinia and pts/tachyon


Geometric Mean Of Server CPU Tests
Result Composite - Very Large Linux Distribution Performance Comparison
Relative Performance, More Is Better
5.529
5.137
5.118
5.102
5.073
5.060
5.049
5.030
4.991
4.977
4.971
4.511
4.334
4.311
4.257
3.142
1.149
1.096
1.060
1.022
1.019
1.018
1.018
1.018
1.017
1.017
1.017
1.017
1.016
1.015
1.015
1.012
1.012

Geometric mean based upon tests: pts/rodinia, pts/x264, pts/himeno, pts/compress-7zip, pts/build-php, pts/c-ray and pts/openssl

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 10:44.