



SPEC® CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

SuperServer 2028TR-H72FR
(X10DRT-HIBF , Intel Xeon E5-2680 v3)

SPECint®2006 = 60.7

SPECint_base2006 = 58.6

CPU2006 license: 001176

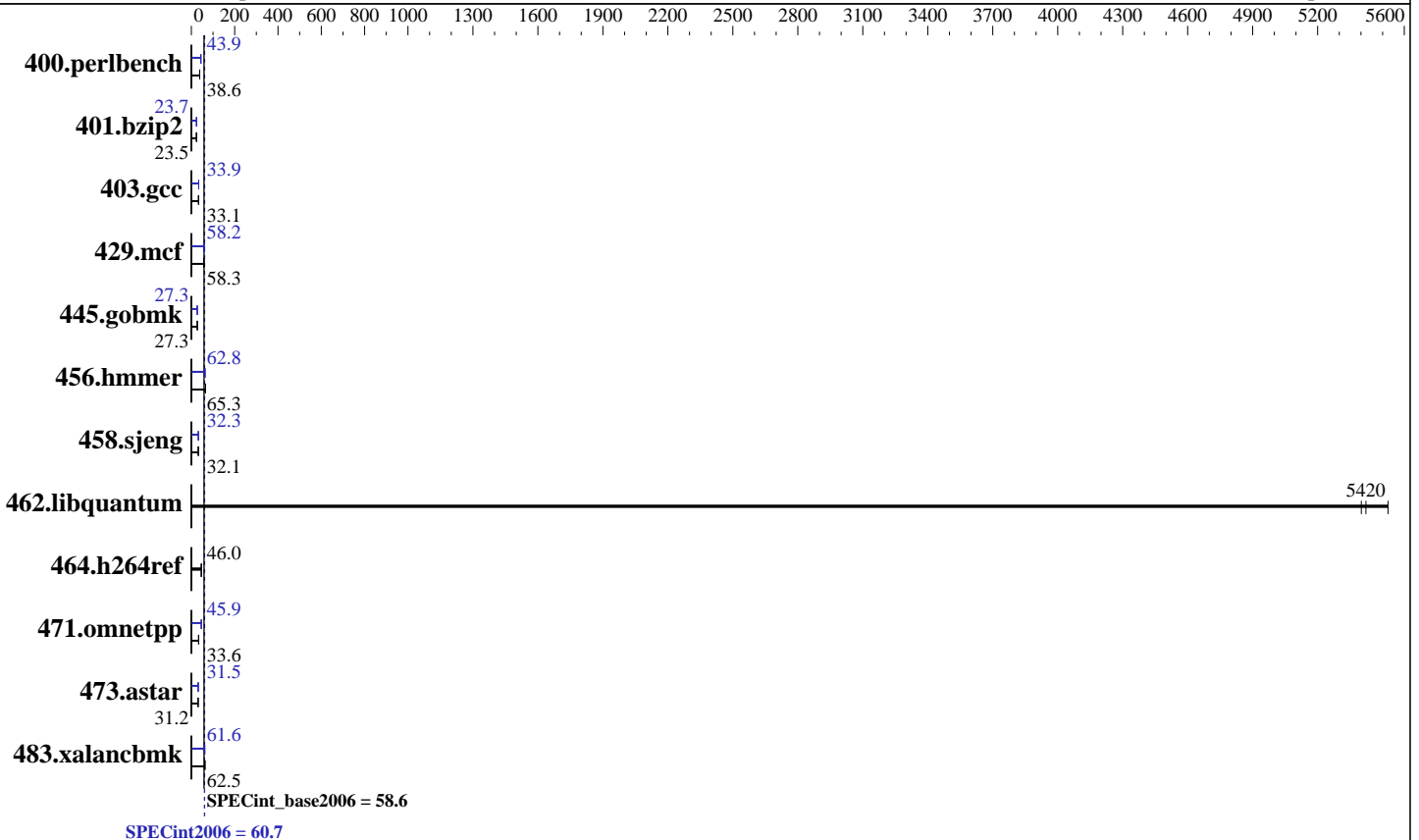
Test sponsor: Supermicro

Tested by: Supermicro

Test date: Dec-2014

Hardware Availability: Sep-2014

Software Availability: Sep-2014



Hardware

CPU Name: Intel Xeon E5-2680 v3
 CPU Characteristics: Intel Turbo Boost Technology up to 3.30 GHz
 CPU MHz: 2500
 FPU: Integrated
 CPU(s) enabled: 24 cores, 2 chips, 12 cores/chip
 CPU(s) orderable: 1,2 chips
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 256 KB I+D on chip per core
 L3 Cache: 30 MB I+D on chip per chip
 Other Cache: None
 Memory: 128 GB (8 x 16 GB 2Rx4 PC4-2133P-R)
 Disk Subsystem: 1 x 450 GB SAS, 10000 RPM
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 7.0, Kernel 3.10.0-123.el7.x86_64
 Compiler: C/C++; Version 15.0.0.090 of Intel C++ Studio XE for Linux
 Auto Parallel: Yes
 File System: ext4
 System State: Run level 3 (multi-user)
 Base Pointers: 32/64-bit
 Peak Pointers: 32/64-bit
 Other Software: Microquill SmartHeap V10.0



SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

SuperServer 2028TR-H72FR
(X10DRT-HIBF, Intel Xeon E5-2680 v3)

SPECint2006 = **60.7**

SPECint_base2006 = **58.6**

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Test date: Dec-2014
Hardware Availability: Sep-2014
Software Availability: Sep-2014

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	<u>253</u>	<u>38.6</u>	255	38.3	253	38.6	<u>223</u>	<u>43.9</u>	223	43.8	222	43.9
401.bzip2	410	23.5	<u>410</u>	<u>23.5</u>	408	23.6	407	23.7	407	23.7	<u>407</u>	<u>23.7</u>
403.gcc	<u>243</u>	<u>33.1</u>	243	33.1	242	33.3	<u>238</u>	<u>33.9</u>	238	33.8	237	34.0
429.mcf	156	58.4	<u>156</u>	<u>58.3</u>	161	56.5	156	58.6	<u>157</u>	<u>58.2</u>	159	57.4
445.gobmk	384	27.3	<u>384</u>	<u>27.3</u>	383	27.4	385	27.3	<u>385</u>	<u>27.3</u>	385	27.3
456.hammer	143	65.4	143	65.2	<u>143</u>	<u>65.3</u>	148	62.8	<u>148</u>	<u>62.8</u>	148	62.9
458.sjeng	380	31.9	<u>377</u>	<u>32.1</u>	377	32.1	375	32.3	376	32.2	<u>375</u>	<u>32.3</u>
462.libquantum	3.84	5400	3.75	5520	<u>3.82</u>	<u>5420</u>	3.84	5400	3.75	5520	<u>3.82</u>	<u>5420</u>
464.h264ref	478	46.3	<u>481</u>	<u>46.0</u>	481	46.0	478	46.3	<u>481</u>	<u>46.0</u>	481	46.0
471.omnetpp	189	33.1	183	34.1	<u>186</u>	<u>33.6</u>	<u>136</u>	<u>45.9</u>	135	46.2	137	45.6
473.astar	225	31.2	<u>225</u>	<u>31.2</u>	226	31.1	223	31.5	<u>223</u>	<u>31.5</u>	221	31.7
483.xalancbmk	111	62.0	110	62.8	<u>110</u>	<u>62.5</u>	<u>112</u>	<u>61.6</u>	111	62.0	112	61.4

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Submit Notes

The config file option 'submit' was used.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

BIOS Settings:
Hyper Threading (All) = Disabled
Early Snoop = Disabled
Enforce = Disabled

General Notes

Environment variables set by runspec before the start of the run:

KMP_AFFINITY = "granularity=fine,scatter"

LD_LIBRARY_PATH = "/home/SPEC2K6/SPEC2006-V12/libs/32:/home/SPEC2K6/SPEC2006-V12/libs/64:/home/SPEC2K6/SPEC2006-V12/sh"

OMP_NUM_THREADS = "24"

Binaries compiled on a system with 1x Core i5-4670K CPU + 16GB memory using RedHat EL 7.0

Transparent Huge Pages enabled with:

echo always > /sys/kernel/mm/transparent_hugepage/enabled



SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

SuperServer 2028TR-H72FR
(X10DRT-HIBF , Intel Xeon E5-2680 v3)

SPECint2006 = 60.7

SPECint_base2006 = 58.6

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Test date: Dec-2014
Hardware Availability: Sep-2014
Software Availability: Sep-2014

Base Compiler Invocation

C benchmarks:
icc -m64

C++ benchmarks:
icpc -m64

Base Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
429.mcf: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
464.h264ref: -DSPEC_CPU_LP64
471.omnetpp: -DSPEC_CPU_LP64
473.astar: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch -auto-p32

C++ benchmarks:
-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32
-Wl,-z,muldefs -L/sh -lsmartheap64

Base Other Flags

C benchmarks:
403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):
icc -m64

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

SuperServer 2028TR-H72FR
(X10DRT-HIBF , Intel Xeon E5-2680 v3)

SPECint2006 = 60.7

SPECint_base2006 = 58.6

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Dec-2014

Hardware Availability: Sep-2014

Software Availability: Sep-2014

Peak Compiler Invocation (Continued)

400.perlbench: `icc -m32 -L/opt/intel/composer_xe_2015/lib/ia32`

445.gobmk: `icc -m32 -L/opt/intel/composer_xe_2015/lib/ia32`

C++ benchmarks (except as noted below):

`icpc -m32 -L/opt/intel/composer_xe_2015/lib/ia32`

473.astar: `icpc -m64`

Peak Portability Flags

400.perlbench: `-DSPEC_CPU_LINUX_IA32`

401.bzip2: `-DSPEC_CPU_LP64`

403.gcc: `-DSPEC_CPU_LP64`

429.mcf: `-DSPEC_CPU_LP64`

456.hmmer: `-DSPEC_CPU_LP64`

458.sjeng: `-DSPEC_CPU_LP64`

462.libquantum: `-DSPEC_CPU_LP64 -DSPEC_CPU_LINUX`

464.h264ref: `-DSPEC_CPU_LP64`

473.astar: `-DSPEC_CPU_LP64`

483.xalancbmk: `-DSPEC_CPU_LINUX`

Peak Optimization Flags

C benchmarks:

400.perlbench: `-xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-opt-prefetch -ansi-alias`

401.bzip2: `-xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div -prof-use(pass 2) -auto-ilp32
-opt-prefetch -ansi-alias`

403.gcc: `-xCORE-AVX2 -ipo -O3 -no-prec-div -inline-calloc
-opt-malloc-options=3 -auto-ilp32`

429.mcf: `-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel
-opt-prefetch -auto-p32`

445.gobmk: `-xCORE-AVX2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
-ansi-alias`

456.hmmer: `-xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32
-ansi-alias`

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

SuperServer 2028TR-H72FR
(X10DRT-HIBF , Intel Xeon E5-2680 v3)

SPECint2006 = 60.7

SPECint_base2006 = 58.6

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Dec-2014

Hardware Availability: Sep-2014

Software Availability: Sep-2014

Peak Optimization Flags (Continued)

458.sjeng: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-unroll4

462.libquantum: basepeak = yes

464.h264ref: basepeak = yes

C++ benchmarks:

471.omnetpp: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-opt-ra-region-strategy=block -ansi-alias
-Wl,-z,muldefs -L/sh -lsmartheap

473.astar: -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
-auto-p32 -Wl,-z,muldefs -L/sh -lsmartheap64

483.xalancbmk: -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
-ansi-alias -Wl,-z,muldefs -L/sh -lsmartheap

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.html>

<http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revG.20141230.00.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.xml>

<http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revG.20141230.00.xml>

SPEC and SPECint are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.2.

Report generated on Wed Jan 14 10:28:53 2015 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 13 January 2015.