

SPEC[®] CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECint[®]2006 = 66.9

PRIMERGY RX2540 M1, Intel Xeon E5-2643 v3, 3.4 GHz

SPECint_base2006 = 63.5

CPU2006 license: 19

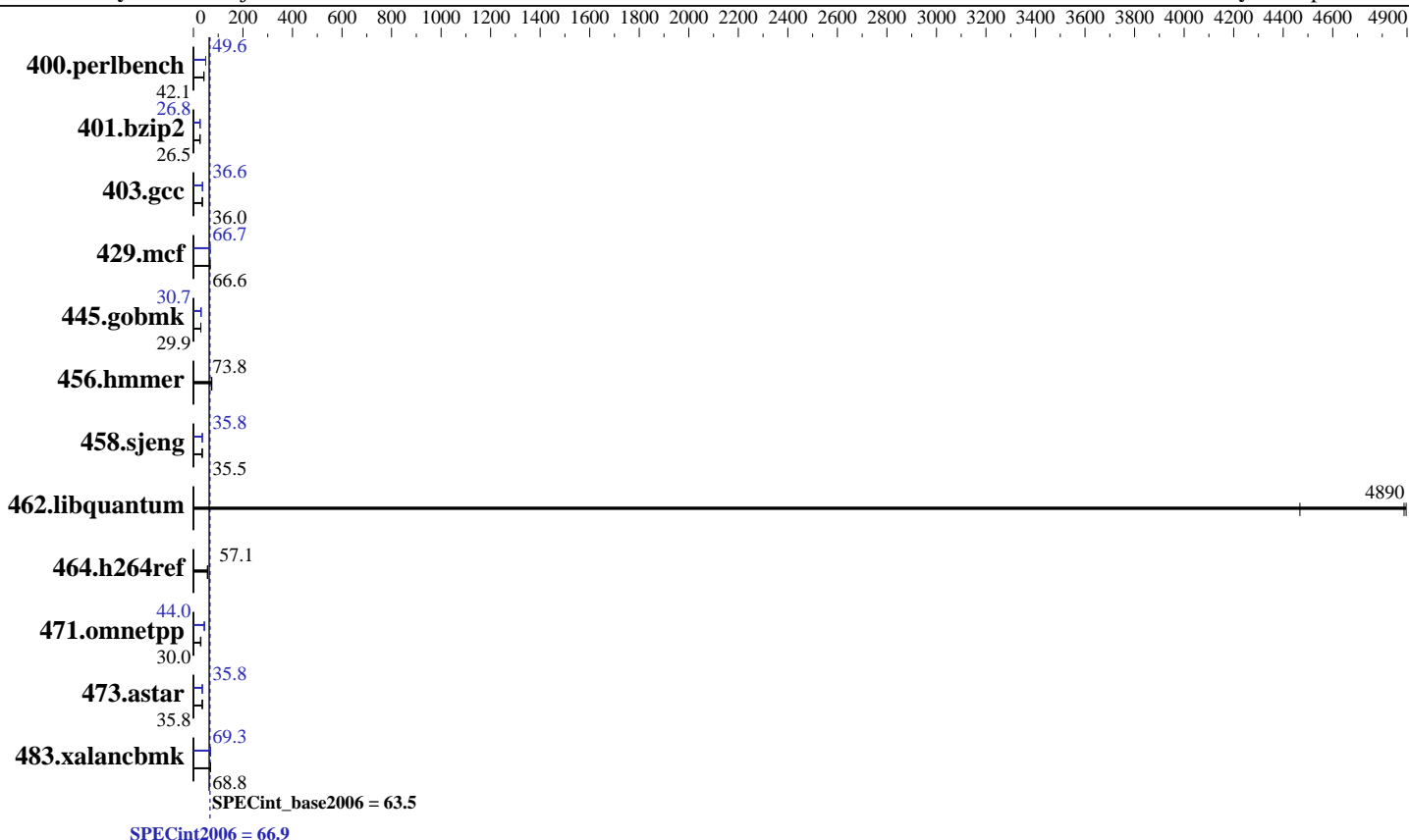
Test date: Aug-2014

Test sponsor: Fujitsu

Hardware Availability: Sep-2014

Tested by: Fujitsu

Software Availability: Sep-2013



Hardware

Software

CPU Name: Intel Xeon E5-2643 v3
CPU Characteristics: Intel Turbo Boost Technology up to 3.70 GHz
CPU MHz: 3400
FPU: Integrated
CPU(s) enabled: 12 cores, 2 chips, 6 cores/chip, 2 threads/core
CPU(s) orderable: 1,2 chip
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 256 KB I+D on chip per core
L3 Cache: 20 MB I+D on chip per chip
Other Cache: None
Memory: 256 GB (16 x 16 GB 2Rx4 PC4-2133P-R)
Disk Subsystem: 1 x SATA, 500 GB, 7200 RPM
Other Hardware: None

Operating System: SLES11 Linux Enterprise Server SP3 (x86_64) 3.0.76-0.11-default
Compiler: C/C++; Version 14.0.0.080 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 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECint2006 = 66.9

PRIMERGY RX2540 M1, Intel Xeon E5-2643 v3, 3.4 GHz

SPECint_base2006 = 63.5

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: Aug-2014
Hardware Availability: Sep-2014
Software Availability: Sep-2013

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	231	42.3	232	42.1	<u>232</u>	<u>42.1</u>	197	49.6	197	49.6	<u>197</u>	<u>49.6</u>
401.bzip2	364	26.5	364	26.5	<u>364</u>	<u>26.5</u>	<u>360</u>	<u>26.8</u>	360	26.8	360	26.8
403.gcc	<u>223</u>	<u>36.0</u>	226	35.7	223	36.1	220	36.7	220	36.5	<u>220</u>	<u>36.6</u>
429.mcf	137	66.5	<u>137</u>	<u>66.6</u>	137	66.6	<u>137</u>	<u>66.7</u>	137	66.7	137	66.6
445.gobmk	<u>351</u>	<u>29.9</u>	351	29.9	352	29.8	<u>341</u>	<u>30.7</u>	341	30.7	341	30.8
456.hammer	126	74.0	129	72.1	<u>126</u>	<u>73.8</u>	126	74.0	129	72.1	<u>126</u>	<u>73.8</u>
458.sjeng	<u>341</u>	<u>35.5</u>	341	35.5	342	35.4	338	35.8	<u>338</u>	<u>35.8</u>	337	35.9
462.libquantum	<u>4.24</u>	<u>4890</u>	4.23	4900	4.64	4470	<u>4.24</u>	<u>4890</u>	4.23	4900	4.64	4470
464.h264ref	<u>388</u>	<u>57.1</u>	390	56.7	387	57.2	<u>388</u>	<u>57.1</u>	390	56.7	387	57.2
471.omnetpp	<u>208</u>	<u>30.0</u>	220	28.4	208	30.0	<u>142</u>	<u>44.0</u>	143	43.7	141	44.3
473.astar	196	35.8	<u>196</u>	<u>35.8</u>	196	35.8	<u>196</u>	<u>35.8</u>	196	35.8	196	35.9
483.xalancbmk	101	68.7	<u>100</u>	<u>68.8</u>	99.9	69.1	<u>99.3</u>	<u>69.5</u>	<u>99.6</u>	<u>69.3</u>	<u>99.6</u>	<u>69.3</u>

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 configuration:
Energy Performance = Performance
Utilization Profile = Unbalanced
CPU C1E Support = disabled

General Notes

Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,compact,1,0"
LD_LIBRARY_PATH = "/SPECcpu2006/libs/32:/SPECcpu2006/libs/64:/SPECcpu2006/sh"
OMP_NUM_THREADS = "12"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
memory using RedHat EL 6.4
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
runspec command invoked through numactl i.e.:
numactl --interleave=all runspec <etc>

Continued on next page

SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECint2006 = 66.9

PRIMERGY RX2540 M1, Intel Xeon E5-2643 v3, 3.4 GHz

SPECint_base2006 = 63.5

CPU2006 license: 19

Test date: Aug-2014

Test sponsor: Fujitsu

Hardware Availability: Sep-2014

Tested by: Fujitsu

Software Availability: Sep-2013

General Notes (Continued)

For information about Fujitsu please visit: <http://www.fujitsu.com>

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 -lsmarthheap64

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECint2006 = 66.9

PRIMERGY RX2540 M1, Intel Xeon E5-2643 v3, 3.4 GHz

SPECint_base2006 = 63.5

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Aug-2014

Hardware Availability: Sep-2014

Software Availability: Sep-2013

Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m64

400.perlbench: icc -m32

445.gobmk: icc -m32

C++ benchmarks (except as noted below):

icpc -m32

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

Continued on next page

SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECint2006 = 66.9

PRIMERGY RX2540 M1, Intel Xeon E5-2643 v3, 3.4 GHz

SPECint_base2006 = 63.5

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Aug-2014

Hardware Availability: Sep-2014

Software Availability: Sep-2013

Peak Optimization Flags (Continued)

456.hmmcr: basepeak = yes

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

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 Fri Sep 12 12:41:43 2014 by SPEC CPU2006 PS/PDF formatter v6401.