



# SPEC<sup>®</sup> CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECint<sup>®</sup>2006 = 33.6

CELSIUS W380, Intel Xeon X3450

SPECint\_base2006 = 30.4

CPU2006 license: 19

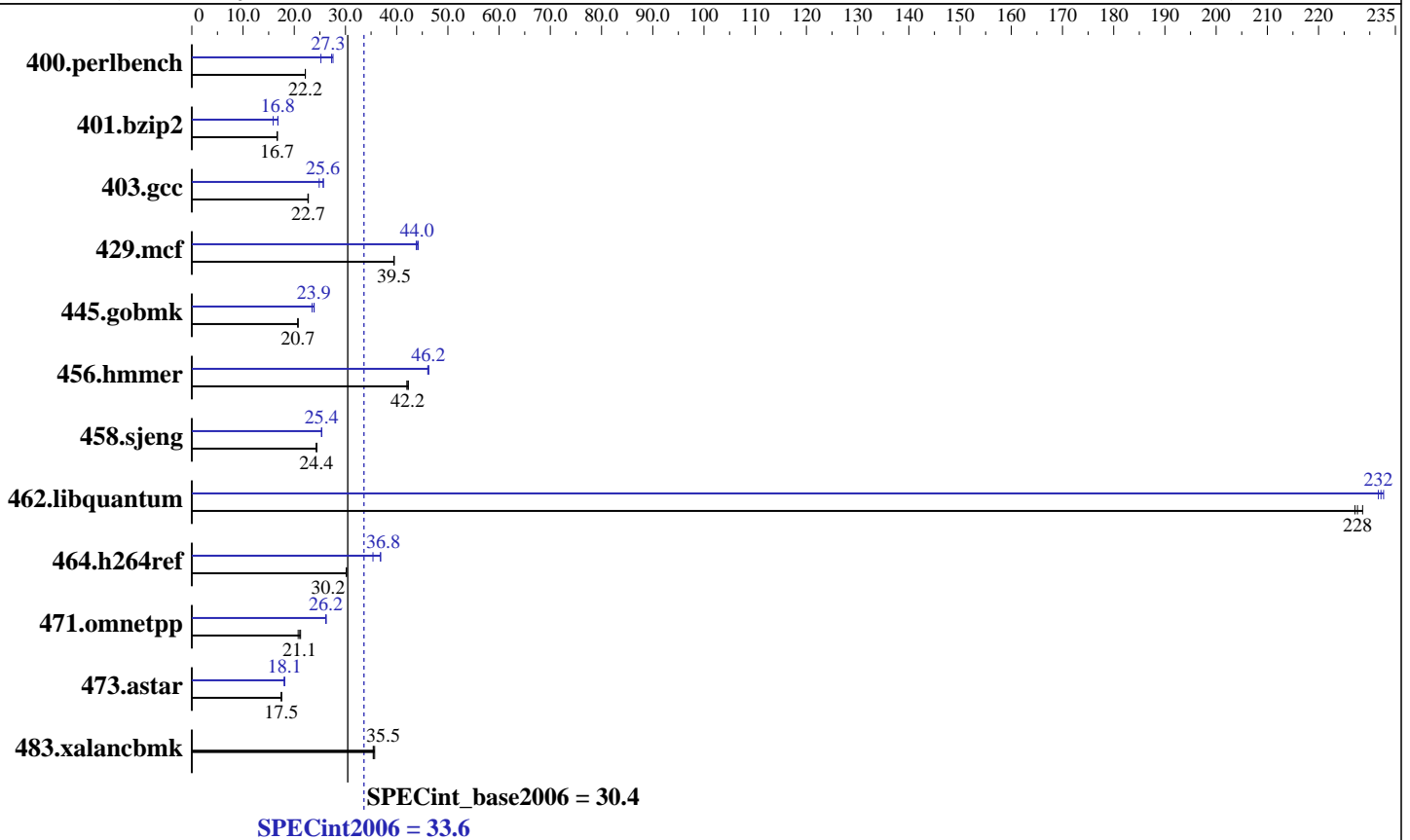
Test date: Dec-2009

Test sponsor: Fujitsu

Hardware Availability: Feb-2010

Tested by: Fujitsu

Software Availability: Oct-2009



## Hardware

CPU Name: Intel Xeon X3450  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.2 GHz  
 CPU MHz: 2667  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip  
 CPU(s) orderable: 1 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: 8 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 8 GB (2x4 GB PC3 10600U, 2 rank, CL9)  
 Disk Subsystem: 1 x SATA II, 400 GB, 7200 rpm  
 Other Hardware: None

## Software

Operating System: SUSE Linux Enterprise Server 11 (x86\_64), kernel 2.6.27.19-5-default  
 Compiler: Intel C++ Compiler for IA32 and Intel 64, Version 11.1 Build 20091012 Package ID: 1\_cproc\_p\_11.1.059  
 Auto Parallel: Yes  
 File System: ext3  
 System State: Multi-User Run Level 3  
 Base Pointers: 64-bit  
 Peak Pointers: 32/64-bit  
 Other Software: Microquill SmartHeap V8.1 Binutils 2.18.50.0.7.20080502



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECint2006 = 33.6

CELSIUS W380, Intel Xeon X3450

SPECint\_base2006 = 30.4

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

Test date: Dec-2009  
Hardware Availability: Feb-2010  
Software Availability: Oct-2009

## Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	441	22.2	441	22.2	<b>441</b>	<b>22.2</b>	354	27.6	388	25.2	<b>358</b>	<b>27.3</b>
401.bzip2	578	16.7	<b>578</b>	<b>16.7</b>	579	16.7	<b>575</b>	<b>16.8</b>	608	15.9	574	16.8
403.gcc	<b>354</b>	<b>22.7</b>	354	22.7	355	22.7	<b>314</b>	<b>25.6</b>	324	24.9	313	25.7
429.mcf	<b>231</b>	<b>39.5</b>	231	39.5	231	39.4	208	43.8	206	44.2	<b>207</b>	<b>44.0</b>
445.gobmk	<b>506</b>	<b>20.7</b>	506	20.7	506	20.7	<b>440</b>	<b>23.9</b>	447	23.5	439	23.9
456.hammer	222	42.0	221	42.3	<b>221</b>	<b>42.2</b>	202	46.3	203	46.1	<b>202</b>	<b>46.2</b>
458.sjeng	498	24.3	<b>497</b>	<b>24.4</b>	496	24.4	478	25.3	<b>477</b>	<b>25.4</b>	477	25.4
462.libquantum	90.6	229	<b>91.0</b>	<b>228</b>	91.2	227	<b>89.2</b>	<b>232</b>	89.0	233	89.4	232
464.h264ref	<b>733</b>	<b>30.2</b>	734	30.2	733	30.2	<b>601</b>	<b>36.8</b>	626	35.4	600	36.9
471.omnetpp	301	20.8	294	21.2	<b>297</b>	<b>21.1</b>	239	26.2	<b>239</b>	<b>26.2</b>	239	26.2
473.astar	402	17.5	<b>402</b>	<b>17.5</b>	401	17.5	389	18.0	387	18.1	<b>388</b>	<b>18.1</b>
483.xalancbmk	<b>194</b>	<b>35.5</b>	193	35.7	195	35.4	<b>194</b>	<b>35.5</b>	193	35.7	195	35.4

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

## Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run

## General Notes

OMP\_NUM\_THREADS set to number of cores  
KMP\_AFFINITY set to granularity=fine,scatter

## 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

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECint2006 = 33.6

CELSIUS W380, Intel Xeon X3450

SPECint\_base2006 = 30.4

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

Test date: Dec-2009  
Hardware Availability: Feb-2010  
Software Availability: Oct-2009

## Base Portability Flags (Continued)

456.hmmcr: -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:  
-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel  
-par-runtime-control -opt-prefetch

C++ benchmarks:  
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs  
-L/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-64bit -lsmartheap64

## Base Other Flags

C benchmarks:  
403.gcc: -Dalloca=\_alloca

## Peak Compiler Invocation

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

400.perlbench: icc -m32  
429.mcf: icc -m32  
445.gobmk: icc -m32  
464.h264ref: icc -m32

C++ benchmarks (except as noted below):  
icpc -m64

471.omnetpp: icpc -m32



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECint2006 = 33.6

CELSIUS W380, Intel Xeon X3450

SPECint\_base2006 = 30.4

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

Test date: Dec-2009  
Hardware Availability: Feb-2010  
Software Availability: Oct-2009

## Peak Portability Flags

400.perlbench: -DSPEC\_CPU\_LINUX\_X64  
401.bzip2: -DSPEC\_CPU\_LP64  
403.gcc: -DSPEC\_CPU\_LP64  
456.hmmer: -DSPEC\_CPU\_LP64  
458.sjeng: -DSPEC\_CPU\_LP64  
462.libquantum: -DSPEC\_CPU\_LP64 -DSPEC\_CPU\_LINUX  
473.astar: -DSPEC\_CPU\_LP64  
483.xalancbmk: -DSPEC\_CPU\_LP64 -DSPEC\_CPU\_LINUX

## Peak Optimization Flags

C benchmarks:

400.perlbench: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)  
-O3(pass 2) -no-prec-div(pass 2) -static(pass 2)  
-prof-use(pass 2) -ansi-alias -opt-prefetch  
  
401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)  
-O3(pass 2) -no-prec-div -static(pass 2) -prof-use(pass 2)  
-auto-ilp32 -opt-prefetch -ansi-alias  
  
403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div -static -inline-alloc  
-opt-malloc-options=3 -auto-ilp32  
  
429.mcf: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch  
  
445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2) -O2  
-ipo -no-prec-div -ansi-alias  
  
456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -static -unroll2  
-ansi-alias -auto-ilp32  
  
458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)  
-O3(pass 2) -no-prec-div(pass 2) -static(pass 2)  
-prof-use(pass 2) -unroll4  
  
462.libquantum: -xSSE4.2 -ipo -O3 -no-prec-div -static -parallel  
-par-runtime-control -opt-prefetch  
-par-schedule-static=32768 -ansi-alias  
  
464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)  
-O3(pass 2) -no-prec-div(pass 2) -static(pass 2)  
-prof-use(pass 2) -unroll2 -ansi-alias

C++ benchmarks:

471.omnetpp: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)  
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)  
-ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECint2006 = 33.6

CELSIUS W380, Intel Xeon X3450

SPECint\_base2006 = 30.4

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Dec-2009

Hardware Availability: Feb-2010

Software Availability: Oct-2009

## Peak Optimization Flags (Continued)

471.omnetpp (continued):

-L/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-32bit -lsmartheap

473.astar: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)

-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)

-ansi-alias -opt-ra-region-strategy=routine -Wl,-z,muldefs

-L/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-64bit -lsmartheap64

483.xalancbmk: basepeak = yes

## Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=\_alloca

The flags file that was used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revD.20100119.html>

You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revD.20100119.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](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.1.

Report generated on Wed Jul 23 06:23:35 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 19 January 2010.