



# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECint®2006 = 27.7

PowerEdge 2900 III (Intel Xeon X5460, 3.16 GHz)

SPECint\_base2006 = 24.2

CPU2006 license: 55

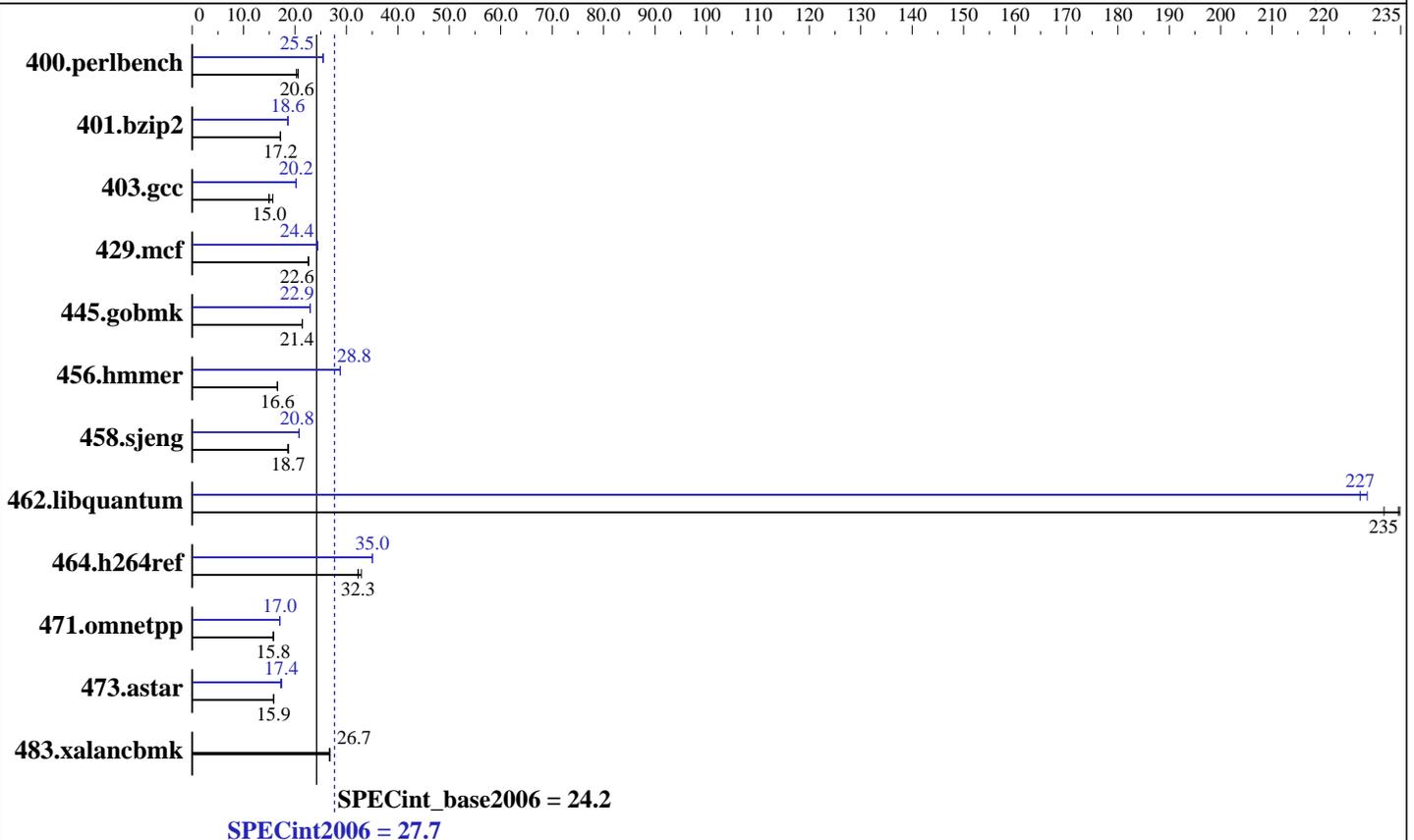
Test date: Jul-2008

Test sponsor: Dell Inc.

Hardware Availability: Nov-2007

Tested by: Dell Inc.

Software Availability: May-2008



## Hardware

CPU Name: Intel Xeon X5460  
 CPU Characteristics: 3166  
 CPU MHz: 3166  
 FPU: Integrated  
 CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip  
 CPU(s) orderable: 1,2 chips  
 Primary Cache: 32 KB I + 32 KB D on chip per core  
 Secondary Cache: 12 MB I+D on chip per chip, 6 MB shared / 2 cores  
 L3 Cache: None  
 Other Cache: None  
 Memory: 16 GB (8 x 2 GB, DDR2-667 MHz, CL5, Reg, Dual Rank)  
 Disk Subsystem: 2 x 73 GB GB SAS, 15000 RPM  
 Other Hardware: None

## Software

Operating System: SUSE Linux Enterprise Server 10 (x86\_64) SP2  
 Kernel 2.6.16-60.0.21-smp  
 Compiler: Intel C++ Compiler 10.1 for Linux  
 Build 20080312 Package ID: l\_cc\_p\_10.1.015  
 Auto Parallel: Yes  
 File System: ReiserFS  
 System State: Run level 3 (multi-user)  
 Base Pointers: 32-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

Dell Inc.

SPECint2006 = 27.7

PowerEdge 2900 III (Intel Xeon X5460, 3.16 GHz)

SPECint\_base2006 = 24.2

CPU2006 license: 55  
Test sponsor: Dell Inc.  
Tested by: Dell Inc.

Test date: Jul-2008  
Hardware Availability: Nov-2007  
Software Availability: May-2008

## Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	474	20.6	<b><u>475</u></b>	<b><u>20.6</u></b>	482	20.3	<b><u>384</u></b>	<b><u>25.5</u></b>	384	25.4	384	25.5
401.bzip2	562	17.2	<b><u>562</u></b>	<b><u>17.2</u></b>	563	17.1	519	18.6	<b><u>518</u></b>	<b><u>18.6</u></b>	518	18.6
403.gcc	513	15.7	<b><u>537</u></b>	<b><u>15.0</u></b>	539	14.9	399	20.2	398	20.2	<b><u>398</u></b>	<b><u>20.2</u></b>
429.mcf	403	22.6	404	22.6	<b><u>403</u></b>	<b><u>22.6</u></b>	<b><u>374</u></b>	<b><u>24.4</u></b>	375	24.3	373	24.4
445.gobmk	<b><u>490</u></b>	<b><u>21.4</u></b>	490	21.4	490	21.4	457	22.9	457	22.9	<b><u>457</u></b>	<b><u>22.9</u></b>
456.hmmmer	<b><u>562</u></b>	<b><u>16.6</u></b>	563	16.6	562	16.6	324	28.8	324	28.8	<b><u>324</u></b>	<b><u>28.8</u></b>
458.sjeng	<b><u>648</u></b>	<b><u>18.7</u></b>	650	18.6	645	18.8	582	20.8	582	20.8	<b><u>582</u></b>	<b><u>20.8</u></b>
462.libquantum	<b><u>88.3</u></b>	<b><u>235</u></b>	88.2	235	89.4	232	<b><u>91.2</u></b>	<b><u>227</u></b>	91.2	227	90.7	228
464.h264ref	686	32.3	673	32.9	<b><u>685</u></b>	<b><u>32.3</u></b>	632	35.0	631	35.1	<b><u>631</u></b>	<b><u>35.0</u></b>
471.omnetpp	396	15.8	<b><u>396</u></b>	<b><u>15.8</u></b>	395	15.8	<b><u>367</u></b>	<b><u>17.0</u></b>	366	17.1	367	17.0
473.astar	<b><u>443</u></b>	<b><u>15.9</u></b>	444	15.8	442	15.9	403	17.4	408	17.2	<b><u>404</u></b>	<b><u>17.4</u></b>
483.xalancbmk	257	26.8	<b><u>258</u></b>	<b><u>26.7</u></b>	259	26.7	257	26.8	<b><u>258</u></b>	<b><u>26.7</u></b>	259	26.7

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

## General Notes

All benchmarks compiled in 32-bit mode except 401.bzip2 and 456.hmmmer, for peak, are compiled in 64-bit mode  
OMP\_NUM\_THREADS set to number of processors  
KMP\_AFFINITY set to "physical,0"

## Base Compiler Invocation

C benchmarks:  
icc

C++ benchmarks:  
icpc

## Base Portability Flags

400.perlbench: -DSPEC\_CPU\_LINUX\_IA32  
462.libquantum: -DSPEC\_CPU\_LINUX  
483.xalancbmk: -DSPEC\_CPU\_LINUX



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECint2006 = 27.7

PowerEdge 2900 III (Intel Xeon X5460, 3.16 GHz)

SPECint\_base2006 = 24.2

CPU2006 license: 55

Test date: Jul-2008

Test sponsor: Dell Inc.

Hardware Availability: Nov-2007

Tested by: Dell Inc.

Software Availability: May-2008

## Base Optimization Flags

C benchmarks:

-fast -vec-guard-write -parallel -par-runtime-control

C++ benchmarks:

-xT -ipo -O3 -no-prec-div -Wl,-z,muldefs  
-L/spec/cpu2006.1.1/lib -lsmartheap

## Base Other Flags

C benchmarks:

403.gcc: -Dalloca=\_alloca

## Peak Compiler Invocation

C benchmarks (except as noted below):

icc

401.bzip2: /opt/intel/cce/10.1.015/bin/icc  
-L/opt/intel/cce/10.1.015/lib  
-I/opt/intel/cce/10.1.015/include

456.hmmer: /opt/intel/cce/10.1.015/bin/icc  
-L/opt/intel/cce/10.1.015/lib  
-I/opt/intel/cce/10.1.015/include

C++ benchmarks:

icpc

## Peak Portability Flags

400.perlbench: -DSPEC\_CPU\_LINUX\_IA32  
401.bzip2: -DSPEC\_CPU\_LP64  
456.hmmer: -DSPEC\_CPU\_LP64  
462.libquantum: -DSPEC\_CPU\_LINUX  
483.xalancbmk: -DSPEC\_CPU\_LINUX

## Peak Optimization Flags

C benchmarks:

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECint2006 = 27.7

PowerEdge 2900 III (Intel Xeon X5460, 3.16 GHz)

SPECint\_base2006 = 24.2

CPU2006 license: 55

Test date: Jul-2008

Test sponsor: Dell Inc.

Hardware Availability: Nov-2007

Tested by: Dell Inc.

Software Availability: May-2008

## Peak Optimization Flags (Continued)

400.perlbench: -prof-gen(pass 1) -prof-use(pass 2) -fast -ansi-alias  
-prefetch

401.bzip2: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch  
-auto-ilp32

403.gcc: -fast -inline-calloc -opt-malloc-options=3

429.mcf: -fast -prefetch

445.gobmk: -prof-gen(pass 1) -prof-use(pass 2) -xT -O2 -ipo  
-no-prec-div -ansi-alias

456.hmmer: -fast -unroll2 -ansi-alias -opt-multi-version-aggressive  
-auto-ilp32

458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4

462.libquantum: -fast -unroll4 -Ob0 -prefetch  
-opt-streaming-stores always -vec-guard-write  
-opt-malloc-options=3 -parallel -par-runtime-control

464.h264ref: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2  
-ansi-alias

C++ benchmarks:

471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo  
-no-prec-div -ansi-alias -opt-ra-region-strategy=block  
-Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmarheap

473.astar: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo  
-no-prec-div -ansi-alias -opt-ra-region-strategy=routine  
-Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmarheap

483.xalancbmk: basepeak = yes

## 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-ic10.1-int-linux64-revD.20090713.00.html>

<http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.20090713.07.html>



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECint2006 = 27.7

PowerEdge 2900 III (Intel Xeon X5460, 3.16 GHz)

SPECint\_base2006 = 24.2

CPU2006 license: 55

Test date: Jul-2008

Test sponsor: Dell Inc.

Hardware Availability: Nov-2007

Tested by: Dell Inc.

Software Availability: May-2008

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

<http://www.spec.org/cpu2006/flags/Intel-ic10.1-int-linux64-revD.20090713.00.xml>

<http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.20090713.07.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 Tue Jul 22 19:19:11 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 19 August 2008.