



# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Dell Inc.

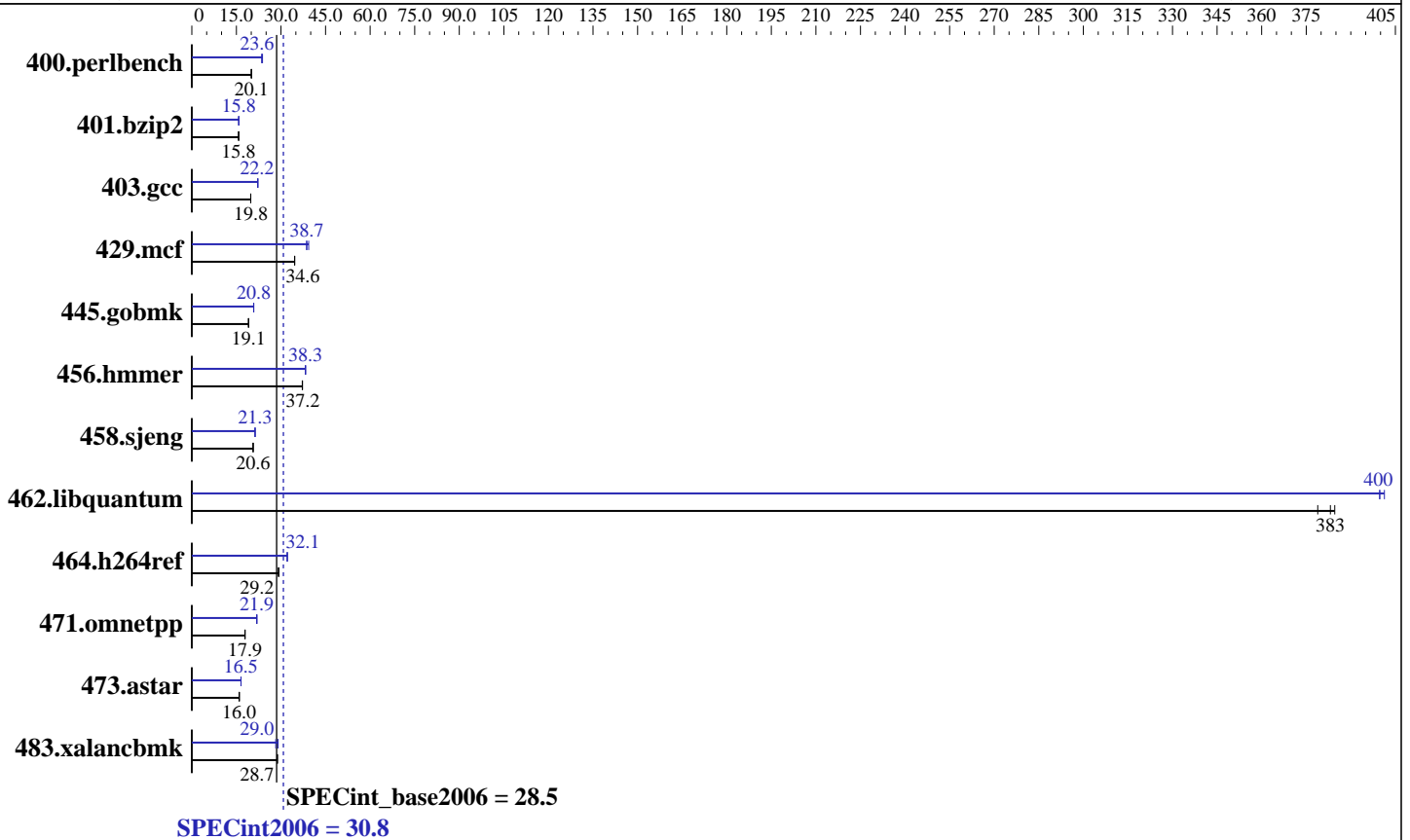
PowerEdge R710  
(Intel Xeon E5530, 2.40 GHz)

SPECint®2006 = 30.8

SPECint\_base2006 = 28.5

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

Test date: Mar-2010  
Hardware Availability: Mar-2009  
Software Availability: Dec-2009



### Hardware

CPU Name: Intel Xeon E5530  
 CPU Characteristics: Intel Turbo Boost Technology up to 2.66 GHz  
 CPU MHz: 2400  
 FPU: Integrated  
 CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip, 2 threads/core  
 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: 8 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 24 GB (6 x 4 GB PC3-10600R, 2 Rank, CL9-9-9, ECC, running at 1066 MHz)  
 Disk Subsystem: 1 x 73 GB SAS, 10000 RPM  
 Other Hardware: None

### Software

Operating System: SUSE Linux Enterprise Server 10 (x86\_64) SP2, SP2 with patch Linux kernel 20090119, Kernel 2.6.16.60-0.34-smp  
 Compiler: Intel C++ Professional Compiler for IA32 and Intel 64, Version 11.1 Build 20091130 Package ID: l\_cproc\_p\_11.1.064  
 Auto Parallel: Yes  
 File System: ReiserFS  
 System State: Run level 3 (multi-user)  
 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

Dell Inc.

PowerEdge R710  
(Intel Xeon E5530, 2.40 GHz)

SPECint2006 = 30.8

SPECint\_base2006 = 28.5

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

Test date: Mar-2010  
Hardware Availability: Mar-2009  
Software Availability: Dec-2009

## Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	485	20.1	<b>486</b>	<b>20.1</b>	490	19.9	<b>414</b>	<b>23.6</b>	411	23.8	415	23.5
401.bzip2	613	15.7	611	15.8	<b>612</b>	<b>15.8</b>	<b>611</b>	<b>15.8</b>	611	15.8	610	15.8
403.gcc	406	19.8	406	19.8	<b>406</b>	<b>19.8</b>	<b>363</b>	<b>22.2</b>	363	22.2	363	22.2
429.mcf	<b>264</b>	<b>34.6</b>	264	34.6	263	34.6	<b>236</b>	<b>38.7</b>	232	39.3	236	38.6
445.gobmk	550	19.1	<b>550</b>	<b>19.1</b>	549	19.1	503	20.8	<b>504</b>	<b>20.8</b>	504	20.8
456.hammer	251	37.2	251	37.2	<b>251</b>	<b>37.2</b>	244	38.2	<b>244</b>	<b>38.3</b>	244	38.3
458.sjeng	587	20.6	<b>587</b>	<b>20.6</b>	586	20.6	<b>568</b>	<b>21.3</b>	568	21.3	569	21.3
462.libquantum	<b>54.1</b>	<b>383</b>	53.9	385	54.7	379	51.6	401	51.8	400	<b>51.8</b>	<b>400</b>
464.h264ref	755	29.3	<b>757</b>	<b>29.2</b>	760	29.1	689	32.1	689	32.1	<b>689</b>	<b>32.1</b>
471.omnetpp	349	17.9	350	17.9	<b>349</b>	<b>17.9</b>	<b>286</b>	<b>21.9</b>	286	21.9	286	21.9
473.astar	439	16.0	<b>440</b>	<b>16.0</b>	440	15.9	<b>424</b>	<b>16.5</b>	424	16.6	425	16.5
483.xalancbmk	239	28.9	241	28.7	<b>240</b>	<b>28.7</b>	<b>238</b>	<b>29.0</b>	238	29.0	244	28.2

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  
The Dell PowerEdge R710 and  
the Bull NovaScale R460 F2 models are electronically equivalent.  
The results have been measured on a Bull NovaScale R460 F2 model.

## 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

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge R710  
(Intel Xeon E5530, 2.40 GHz)

**SPECint2006 = 30.8**

**SPECint\_base2006 = 28.5**

**CPU2006 license:** 55  
**Test sponsor:** Dell Inc.  
**Tested by:** Bull SAS

**Test date:** Mar-2010  
**Hardware Availability:** Mar-2009  
**Software Availability:** Dec-2009

## Base Portability Flags (Continued)

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:  
-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

C++ benchmarks:  
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs  
-L/home/cmplr/usr3/alrahate/cpu2006.1.1.icl1.1/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 -m32

473.astar: icpc -m64



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge R710  
(Intel Xeon E5530, 2.40 GHz)

**SPECint2006 = 30.8**

**SPECint\_base2006 = 28.5**

**CPU2006 license:** 55  
**Test sponsor:** Dell Inc.  
**Tested by:** Bull SAS

**Test date:** Mar-2010  
**Hardware Availability:** Mar-2009  
**Software Availability:** Dec-2009

## Peak Portability Flags

400.perlbench: -DSPEC\_CPU\_LINUX\_IA32  
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\_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  
-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  
-L/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-32bit -lsmartheap

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge R710  
(Intel Xeon E5530, 2.40 GHz)

**SPECint2006 = 30.8**

**SPECint\_base2006 = 28.5**

**CPU2006 license:** 55

**Test sponsor:** Dell Inc.

**Tested by:** Bull SAS

**Test date:** Mar-2010

**Hardware Availability:** Mar-2009

**Software Availability:** Dec-2009

## Peak Optimization Flags (Continued)

```
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: -xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch
              -Wl,-z,muldefs
              -L/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-32bit -lsmartheap
```

## 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-revE.20100316.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100316.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 09:55:36 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 14 April 2010.