



# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Dell Inc.

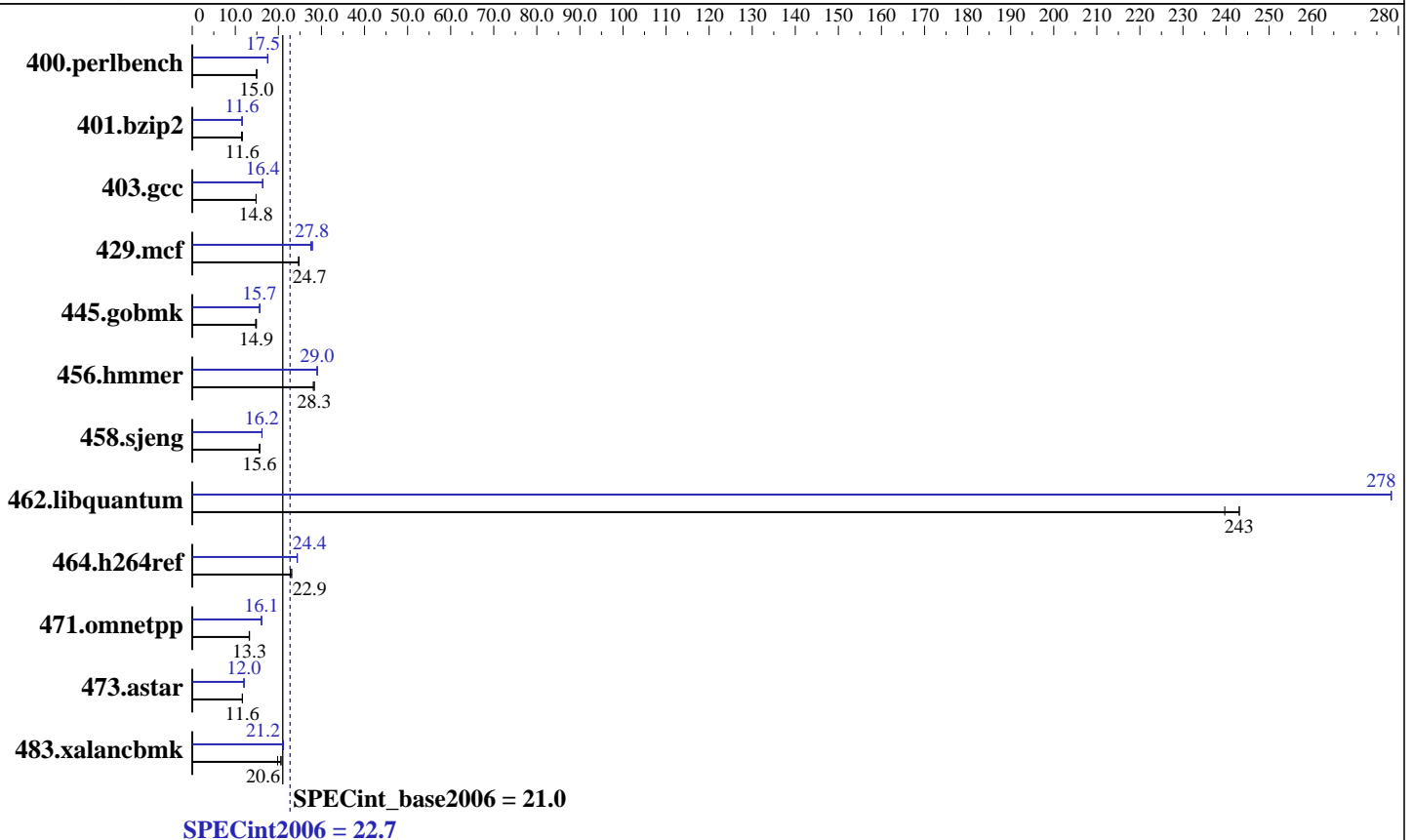
PowerEdge R610  
(Intel Xeon E5504, 2.00 GHz)

**SPECint®2006 = 22.7**

**SPECint\_base2006 = 21.0**

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

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



### Hardware

CPU Name: Intel Xeon E5504  
 CPU Characteristics: 2000  
 CPU MHz: 2000  
 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: 256 KB I+D on chip per core  
 L3 Cache: 4 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 48 GB (12 x 4 GB PC3-10600R, 2 Rank, CL9-9-9, ECC, running at 800 MHz)  
 Disk Subsystem: 1 x 73 GB SAS, 10000 RPM  
 Other Hardware: None

### Software

Operating System: SUSE Linux Enterprise Server 11 (x86\_64), Kernel 2.6.27.19-5-default  
 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: ext3  
 System State: Run level 3 (multi-user)  
 Base Pointers: 64-bit  
 Peak Pointers: 32/64-bit  
 Other Software: Microquill SmartHeap V8.1



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

PowerEdge R610  
(Intel Xeon E5504, 2.00 GHz)

SPECint2006 = 22.7

SPECint\_base2006 = 21.0

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

Test date: May-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	<b>653</b>	<b>15.0</b>	655	14.9	652	15.0	<b>557</b>	<b>17.5</b>	558	17.5	557	17.5
401.bzip2	831	11.6	843	11.5	<b>832</b>	<b>11.6</b>	<b>834</b>	<b>11.6</b>	835	11.6	832	11.6
403.gcc	<b>543</b>	<b>14.8</b>	543	14.8	542	14.8	491	16.4	493	16.3	<b>492</b>	<b>16.4</b>
429.mcf	368	24.8	369	24.7	<b>369</b>	<b>24.7</b>	331	27.5	<b>328</b>	<b>27.8</b>	327	27.9
445.gobmk	<b>706</b>	<b>14.9</b>	704	14.9	713	14.7	<b>670</b>	<b>15.7</b>	670	15.7	670	15.6
456.hammer	<b>329</b>	<b>28.3</b>	332	28.1	329	28.3	<b>321</b>	<b>29.0</b>	321	29.0	322	29.0
458.sjeng	<b>774</b>	<b>15.6</b>	774	15.6	773	15.6	747	16.2	748	16.2	<b>748</b>	<b>16.2</b>
462.libquantum	<b>85.2</b>	<b>243</b>	86.4	240	85.2	243	74.4	278	74.4	278	<b>74.4</b>	<b>278</b>
464.h264ref	<b>966</b>	<b>22.9</b>	971	22.8	957	23.1	907	24.4	<b>908</b>	<b>24.4</b>	908	24.4
471.omnetpp	471	13.3	473	13.2	<b>471</b>	<b>13.3</b>	<b>389</b>	<b>16.1</b>	389	16.1	388	16.1
473.astar	602	11.7	<b>603</b>	<b>11.6</b>	603	11.6	586	12.0	<b>584</b>	<b>12.0</b>	583	12.0
483.xalancbmk	<b>336</b>	<b>20.6</b>	334	20.6	348	19.8	<b>326</b>	<b>21.2</b>	326	21.2	327	21.1

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  
Binaries were compiled on SLES 10 with Binutils 2.18.50.0.7.20080502  
The Dell PowerEdge R610 and  
the Bull NovaScale R440 F2 models are electronically equivalent.  
The results have been measured on a Bull NovaScale R440 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

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge R610  
(Intel Xeon E5504, 2.00 GHz)

**SPECint2006 = 22.7**

**SPECint\_base2006 = 21.0**

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

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

## Base Portability Flags (Continued)

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:  
-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.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 -m32

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge R610  
(Intel Xeon E5504, 2.00 GHz)

**SPECint2006 = 22.7**

**SPECint\_base2006 = 21.0**

**CPU2006 license:** 55

**Test sponsor:** Dell Inc.

**Tested by:** Bull SAS

**Test date:** May-2010

**Hardware Availability:** Mar-2009

**Software Availability:** Dec-2009

## Peak Compiler Invocation (Continued)

473.astar: icpc -m64

## 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-calloc  
 -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

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge R610  
(Intel Xeon E5504, 2.00 GHz)

**SPECint2006 = 22.7**

**SPECint\_base2006 = 21.0**

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

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

## Peak Optimization Flags (Continued)

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

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.20100511.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.20100511.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 08:33:50 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 22 June 2010.