



# SPEC<sup>®</sup> CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Bull SAS

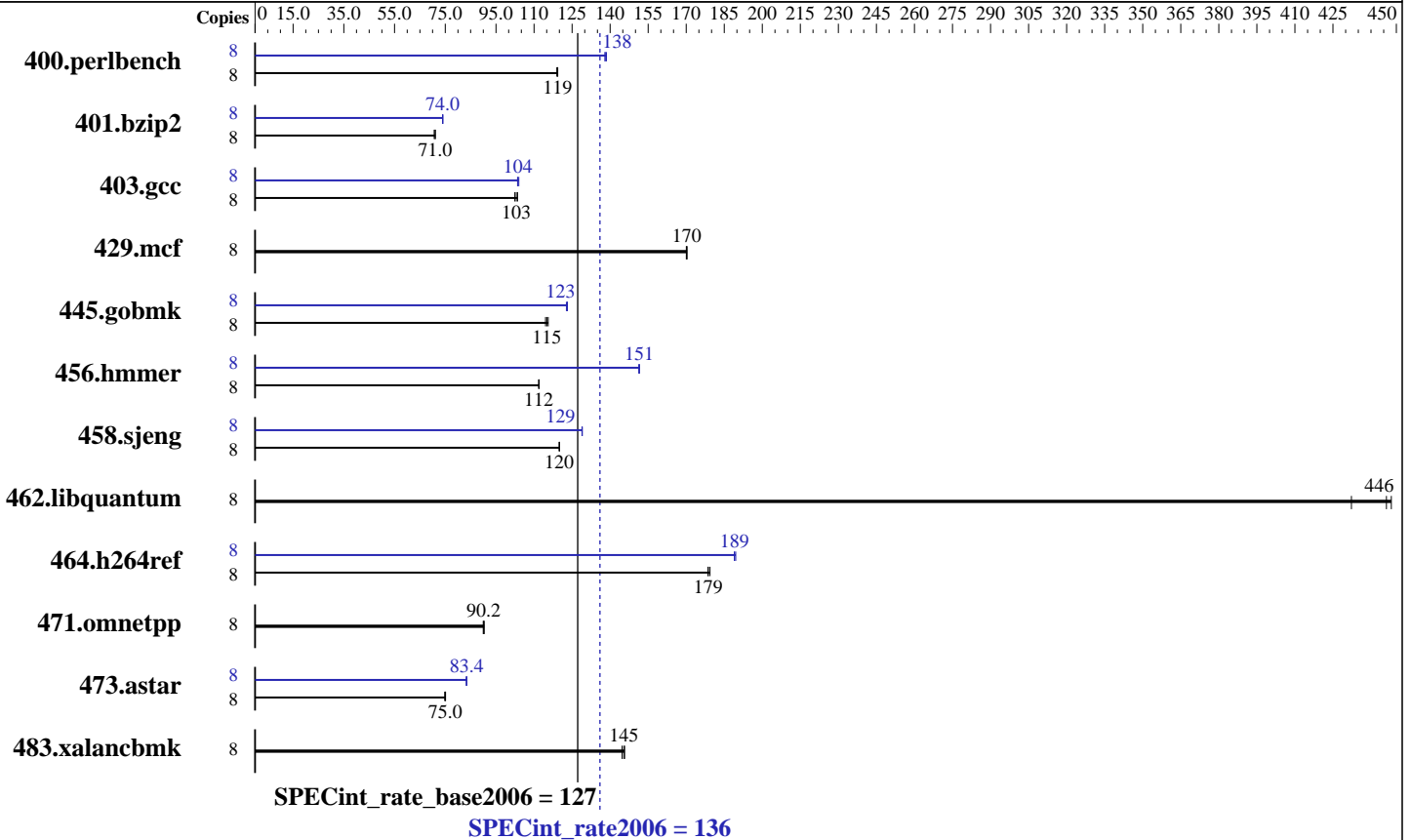
NovaScale T860 E2  
(Intel Xeon E5504, 2.00 GHz)

SPECint<sup>®</sup>\_rate2006 = 136

SPECint\_rate\_base2006 = 127

CPU2006 license: 20  
Test sponsor: Bull SAS  
Tested by: NEC Corporation

Test date: Apr-2009  
Hardware Availability: Apr-2009  
Software Availability: Feb-2009



### Hardware

CPU Name: Intel Xeon E5504  
 CPU Characteristics:  
 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 PC3-8500R running at 800 MHz)  
 Disk Subsystem: 1x73.2 GB SAS, 15000 RPM  
 Other Hardware: None

### Software

Operating System: SUSE Linux Enterprise Server 10 (x86\_64) SP2 with patch Linux kernel 20090119, Kernel 2.6.16.60-0.34-smp  
 Compiler: Intel C++ Compiler 11.0 for Linux Build 20090131 Package ID: l\_cproc\_p\_11.0.081  
 Auto Parallel: No  
 File System: ReiserFS  
 System State: Run level 3 (multi-user)  
 Base Pointers: 32-bit  
 Peak Pointers: 32/64-bit  
 Other Software: MicroQuill SmartHeap Library 8.1 Binutils 2.18.50.0.7.20080502



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Bull SAS

NovaScale T860 E2  
(Intel Xeon E5504, 2.00 GHz)

SPECint\_rate2006 = 136

SPECint\_rate\_base2006 = 127

CPU2006 license: 20  
Test sponsor: Bull SAS  
Tested by: NEC Corporation

Test date: Apr-2009  
Hardware Availability: Apr-2009  
Software Availability: Feb-2009

## Results Table

Benchmark	Base								Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio		
400.perlbench	8	657	119	655	119	<b>655</b>	<b>119</b>	8	564	139	<b>566</b>	<b>138</b>	567	138		
401.bzip2	8	1086	71.1	1093	70.6	<b>1087</b>	<b>71.0</b>	8	1044	73.9	<b>1043</b>	<b>74.0</b>	1043	74.0		
403.gcc	8	622	104	<b>625</b>	<b>103</b>	629	102	8	<b>621</b>	<b>104</b>	622	103	619	104		
429.mcf	8	<b>429</b>	<b>170</b>	428	170	429	170	8	<b>429</b>	<b>170</b>	428	170	429	170		
445.gobmk	8	<b>729</b>	<b>115</b>	726	116	733	115	8	<b>682</b>	<b>123</b>	684	123	681	123		
456.hammer	8	667	112	666	112	<b>667</b>	<b>112</b>	8	493	151	492	152	<b>493</b>	<b>151</b>		
458.sjeng	8	806	120	<b>807</b>	<b>120</b>	807	120	8	<b>751</b>	<b>129</b>	751	129	750	129		
462.libquantum	8	<b>372</b>	<b>446</b>	370	448	383	432	8	<b>372</b>	<b>446</b>	370	448	383	432		
464.h264ref	8	987	179	<b>991</b>	<b>179</b>	991	179	8	934	190	<b>936</b>	<b>189</b>	937	189		
471.omnetpp	8	556	90.0	<b>554</b>	<b>90.2</b>	553	90.3	8	556	90.0	<b>554</b>	<b>90.2</b>	553	90.3		
473.astar	8	751	74.8	748	75.1	<b>749</b>	<b>75.0</b>	8	675	83.3	<b>673</b>	<b>83.4</b>	673	83.5		
483.xalancbmk	8	379	146	381	145	<b>380</b>	<b>145</b>	8	379	146	381	145	<b>380</b>	<b>145</b>		

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.  
numactl was used to bind copies to the cores

## Operating System Notes

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

## Platform Notes

BIOS setting:  
NUMA configuration: Enabled

## General Notes

The NEC Express5800/T120a-M(Intel Xeon E5504) and the Bull NovaScale T860 E2 (Intel Xeon E5504, 2.00 GHz) models are electronically equivalent. The results have been measured on a NEC Express5800/T120a-M(Intel Xeon E5504) model.

## Base Compiler Invocation

C benchmarks:  
icc

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Bull SAS

NovaScale T860 E2  
(Intel Xeon E5504, 2.00 GHz)

SPECint\_rate2006 = 136

SPECint\_rate\_base2006 = 127

CPU2006 license: 20  
Test sponsor: Bull SAS  
Tested by: NEC Corporation

Test date: Apr-2009  
Hardware Availability: Apr-2009  
Software Availability: Feb-2009

## Base Compiler Invocation (Continued)

C++ benchmarks:  
icpc

## Base Portability Flags

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

## Base Optimization Flags

C benchmarks:  
-xSSE4.2 -ipo -O3 -no-prec-div -static -inline-calloc  
-opt-malloc-options=3 -opt-prefetch

C++ benchmarks:  
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs  
-L/opt/SmartHeap\_8.1/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/Compiler/11.0/081/bin/intel64/icc  
456.hmmer: /opt/intel/Compiler/11.0/081/bin/intel64/icc  
458.sjeng: /opt/intel/Compiler/11.0/081/bin/intel64/icc

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

473.astar: /opt/intel/Compiler/11.0/081/bin/intel64/icpc



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Bull SAS

NovaScale T860 E2  
(Intel Xeon E5504, 2.00 GHz)

SPECint\_rate2006 = 136

SPECint\_rate\_base2006 = 127

**CPU2006 license:** 20  
**Test sponsor:** Bull SAS  
**Tested by:** NEC Corporation

**Test date:** Apr-2009  
**Hardware Availability:** Apr-2009  
**Software Availability:** Feb-2009

## Peak Portability Flags

400.perlbench: -DSPEC\_CPU\_LINUX\_IA32  
401.bzip2: -DSPEC\_CPU\_LP64  
456.hmmer: -DSPEC\_CPU\_LP64  
458.sjeng: -DSPEC\_CPU\_LP64  
462.libquantum: -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(pass 2) -static(pass 2)  
-prof-use(pass 2) -opt-prefetch -ansi-alias -auto-ilp32

403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div -static -inline-calloc  
-opt-malloc-options=3

429.mcf: basepeak = yes

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 -auto-ilp32

462.libquantum: basepeak = yes

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: basepeak = yes

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 -auto-ilp32  
-Wl,-z,muldefs -L/opt/SmartHeap\_8.1/lib64 -lsmartheap64

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Bull SAS

NovaScale T860 E2  
(Intel Xeon E5504, 2.00 GHz)

SPECint\_rate2006 = 136

SPECint\_rate\_base2006 = 127

**CPU2006 license:** 20  
**Test sponsor:** Bull SAS  
**Tested by:** NEC Corporation

**Test date:** Apr-2009  
**Hardware Availability:** Apr-2009  
**Software Availability:** Feb-2009

## Peak Optimization Flags (Continued)

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-ic11.0-int-linux64-revF.html>

<http://www.spec.org/cpu2006/flags/NEC-Intel-Linux-Settings-flags-revE.20090710.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revF.xml>

<http://www.spec.org/cpu2006/flags/NEC-Intel-Linux-Settings-flags-revE.20090710.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 00:24:07 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 26 May 2009.