



SPEC® CINT2006 Result

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Bull SAS

NovaScale R460
(Intel Xeon processor E5335,2.00GHz)

SPECint®2006 = 15.5

SPECint_base2006 = 14.1

CPU2006 license: 20

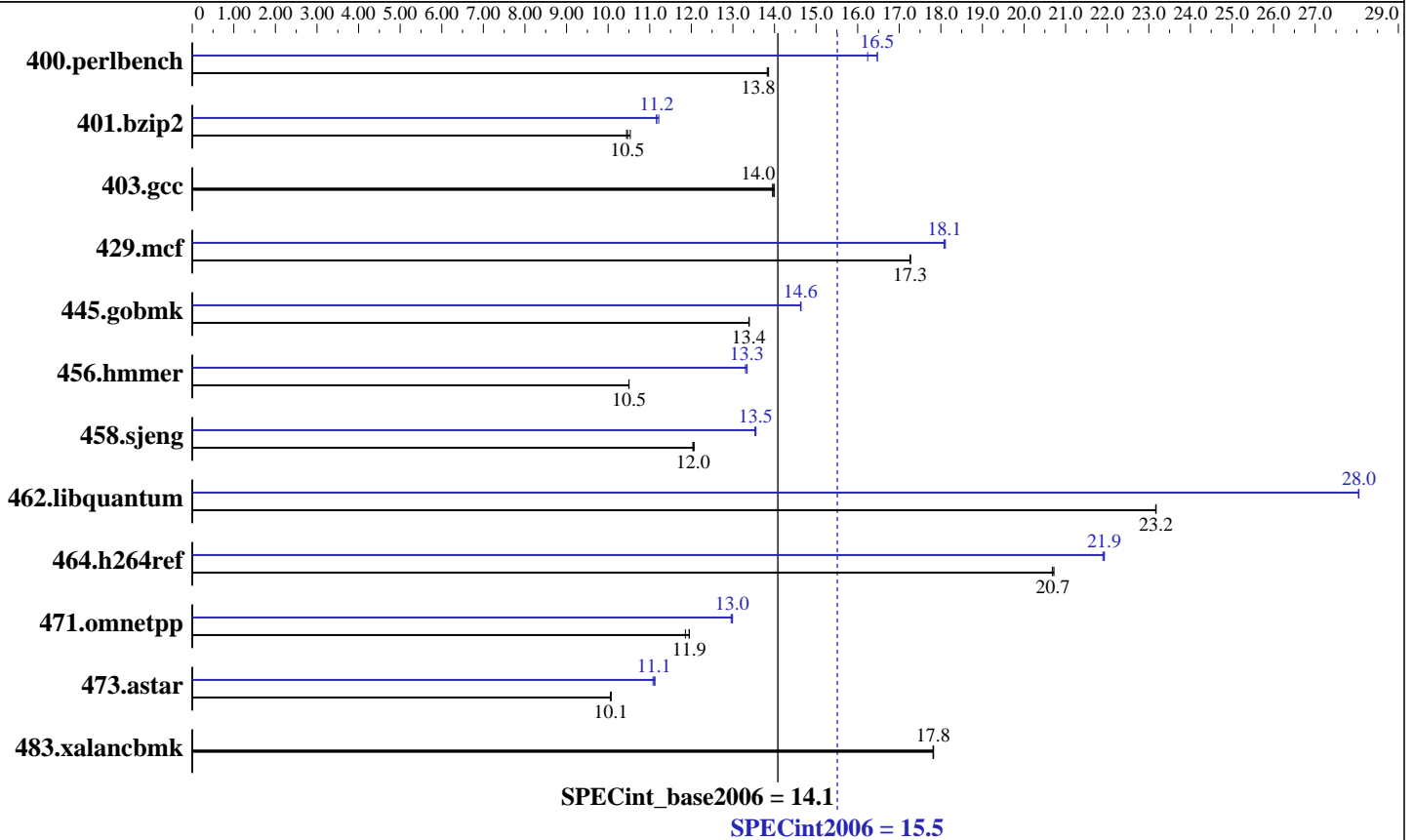
Test sponsor: Bull SAS

Tested by: Bull SAS

Test date: Jul-2007

Hardware Availability: May-2007

Software Availability: May-2007



Hardware

CPU Name: Intel Xeon E5335
 CPU Characteristics: 2.00 GHz, 8 MB L2, 1333 MHz system bus
 CPU MHz: 2000
 FPU: Integrated
 CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip
 CPU(s) orderable: 1 to 2 chips
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 8 MB I+D on chip per chip, 4 MB shared / 2 cores
 L3 Cache: None
 Other Cache: None
 Memory: 12 GB (12x1 GB) FB-DIMM PC2-4200F ECC CL4
 Disk Subsystem: 1x73 GB SAS, 15000 RPM
 Other Hardware: None

Software

Operating System: SUSE LINUX Enterprise Server 10
 Kernel 2.6.16.21-0.8-smp for x86_64
 Compiler: Intel C++ Compiler for Linux32 version 10.0
 Build 20070426 Package ID: l_cc_p_10.0.023
 Auto Parallel: No
 File System: ext2
 System State: Multi-user run level 3
 Base Pointers: 32-bit
 Peak Pointers: 32/64-bit
 Other Software: SmartHeap library V8.1
 Binutils 2.17.50.0.15



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Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	705	13.9	707	13.8	<u>706</u>	<u>13.8</u>	593	16.5	<u>593</u>	<u>16.5</u>	602	16.2
401.bzip2	924	10.4	916	10.5	<u>922</u>	<u>10.5</u>	860	11.2	<u>864</u>	<u>11.2</u>	865	11.2
403.gcc	<u>576</u>	<u>14.0</u>	577	14.0	575	14.0	<u>576</u>	<u>14.0</u>	577	14.0	575	14.0
429.mcf	528	17.3	528	17.3	<u>528</u>	<u>17.3</u>	504	18.1	<u>504</u>	<u>18.1</u>	505	18.1
445.gobmk	784	13.4	<u>784</u>	<u>13.4</u>	783	13.4	<u>717</u>	<u>14.6</u>	717	14.6	717	14.6
456.hmmer	889	10.5	888	10.5	<u>889</u>	<u>10.5</u>	701	13.3	<u>700</u>	<u>13.3</u>	699	13.3
458.sjeng	1003	12.1	1005	12.0	<u>1005</u>	<u>12.0</u>	893	13.6	894	13.5	<u>893</u>	<u>13.5</u>
462.libquantum	894	23.2	<u>894</u>	<u>23.2</u>	894	23.2	739	28.1	<u>739</u>	<u>28.0</u>	739	28.0
464.h264ref	1070	20.7	1068	20.7	<u>1070</u>	<u>20.7</u>	1009	21.9	<u>1009</u>	<u>21.9</u>	1011	21.9
471.omnetpp	527	11.9	523	12.0	<u>523</u>	<u>11.9</u>	<u>482</u>	<u>13.0</u>	481	13.0	482	13.0
473.astar	<u>698</u>	<u>10.1</u>	698	10.1	697	10.1	634	11.1	<u>632</u>	<u>11.1</u>	631	11.1
483.xalancbmk	387	17.8	387	17.8	<u>387</u>	<u>17.8</u>	387	17.8	387	17.8	<u>387</u>	<u>17.8</u>

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

All benchmarks compiled in 32-bit mode except 401.bzip2 and 456.hmmer, for peak, are compiled in 64-bit mode

General Notes

The NovaScale R440 and the NovaScale R460 models are electronically equivalent.
The results have been measured on a NovaScale R460 model.

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc



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Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
-fast

C++ benchmarks:
-xT -ipo -O3 -no-prec-div -Wl,-z,muldefs
-L/spec/cpu2006/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/10.0.023/bin/icc
-L/opt/intel/cce/10.0.023/lib
-I/opt/intel/cce/10.0.023/include

456.hmmmer: /opt/intel/cce/10.0.023/bin/icc
-L/opt/intel/cce/10.0.023/lib
-I/opt/intel/cce/10.0.023/include

C++ benchmarks:
icpc

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
401.bzip2: -DSPEC_CPU_LP64
456.hmmmer: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX

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Peak Portability Flags (Continued)

483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

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

403.gcc: basepeak = yes

429.mcf: -fast -prefetch

445.gobmk: -prof_gen(pass 1) -prof_use(pass 2) -xT -O2 -ipo
-no-prec_div -ansi-alias

456.hmmer: -prof_gen(pass 1) -prof_use(pass 2) -fast -unroll2
-ansi-alias

458.sjeng: -prof_gen(pass 1) -prof_use(pass 2) -fast -unroll4

462.libquantum: -prof_gen(pass 1) -prof_use(pass 2) -fast -unroll4 -Ob0
-prefetch -opt-streaming-stores always

464.h264ref: Same as 456.hmmer

C++ benchmarks:

471.omnetpp: -prof_gen(pass 1) -prof_use(pass 2) -xT -O3 -ipo
-no-prec_div -ansi-alias -Wl,-z,muldefs
-L/spec/cpu2006/lib -lsmartheap

473.astar: Same as 471.omnetpp

483.xalancbmk: basepeak = yes

Peak Other Flags

Same as Base Other Flags

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

http://www.spec.org/cpu2006/flags/EM64T_Intel100_flags.20090714.html



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

http://www.spec.org/cpu2006/flags/EM64T_Intel100_flags.20090714.xml

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