SPEC® CINT2006 Result

Bull SAS

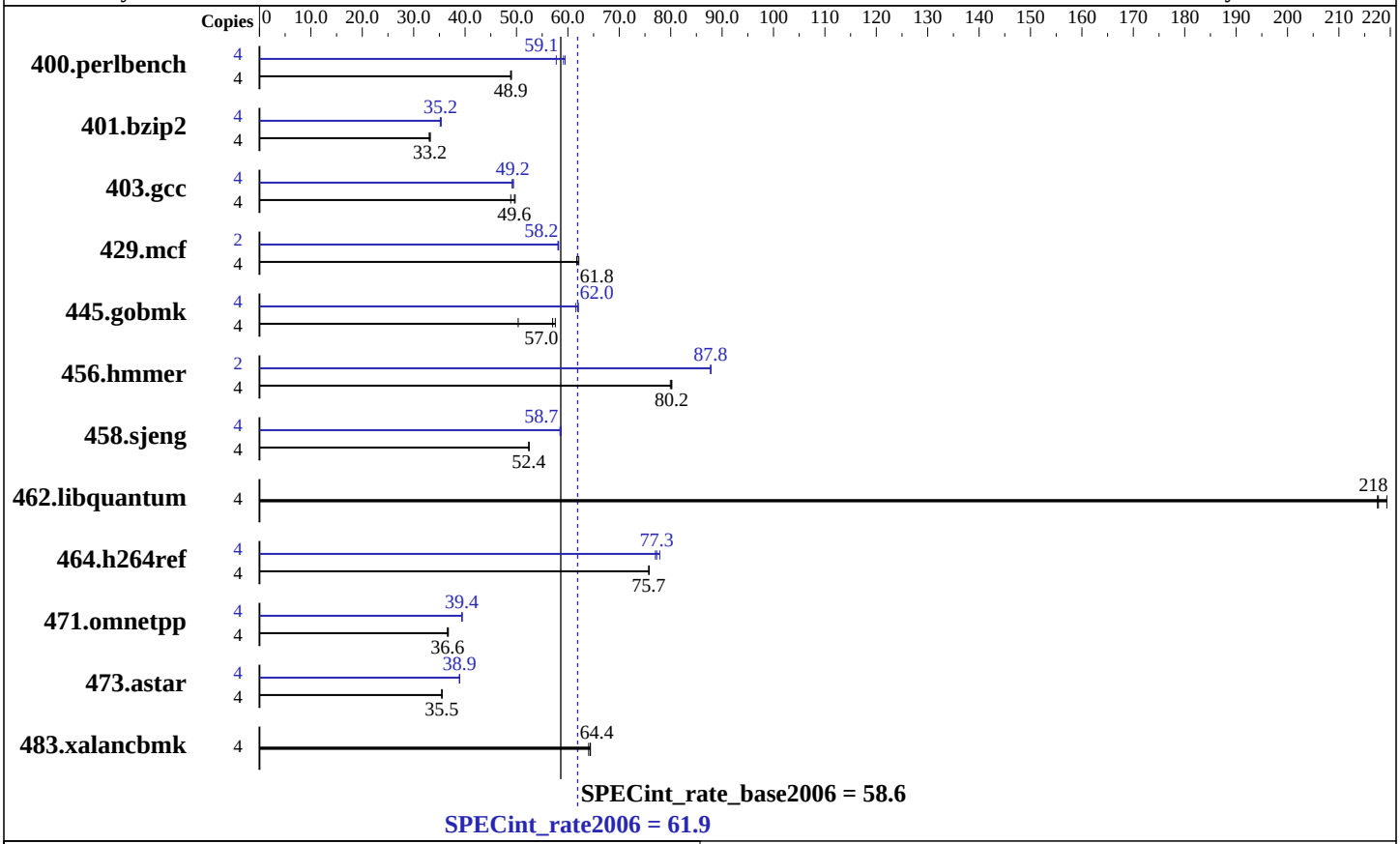
NovaScale T810 F2 (Intel Core i3-540, 3.06 GHz)

SPECint®_rate2006 = 61.9

SPECint_rate_base2006 = 58.6

CPU2006 license: 20
Test sponsor: Bull SAS
Tested by: Dell Inc.

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



Hardware

CPU Name:	Intel Core i3-540
CPU Characteristics:	
CPU MHz:	3067
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip, 2 threads/core
CPU(s) orderable:	1 chip
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:	8 GB (4 x 2 GB DDR3-1333 DR UDIMM)
Disk Subsystem:	1 x 160 GB 7200 RPM SATA
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux Server release 5.3, Kernel 2.6.18-128.el5
Compiler:	Intel C++ Compiler Professional Edition 11.1 for Linux Build 20091012 Package ID: l_cproc_p_11.1.059
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 V8.1 Binutils 2.18.50.0.7.20080502

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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	4	**799**	**48.9**	800	48.9	797	49.0	4	657	59.5	**661**	**59.1**	677	57.7
401.bzip2	4	1169	33.0	**1163**	**33.2**	1162	33.2	4	1098	35.2	**1096**	**35.2**	1092	35.4
403.gcc	4	**649**	**49.6**	647	49.7	659	48.9	4	652	49.4	**654**	**49.2**	655	49.2
429.mcf	4	591	61.8	587	62.1	**591**	**61.8**	2	**314**	**58.2**	313	58.2	314	58.1
445.gobmk	4	834	50.3	**736**	**57.0**	729	57.6	4	677	62.0	682	61.5	**677**	**62.0**
456.hmmer	4	465	80.2	**466**	**80.2**	467	79.9	2	213	87.8	213	87.8	**213**	**87.8**
458.sjeng	4	924	52.4	**923**	**52.4**	923	52.5	4	828	58.5	**825**	**58.7**	824	58.7
462.libquantum	4	**381**	**218**	381	217	378	219	4	**381**	**218**	381	217	378	219
464.h264ref	4	1167	75.8	**1169**	**75.7**	1169	75.7	4	**1146**	**77.3**	1137	77.9	1149	77.0
471.omnetpp	4	680	36.7	683	36.6	**683**	**36.6**	4	634	39.4	**635**	**39.4**	635	39.4
473.astar	4	792	35.5	791	35.5	**791**	**35.5**	4	722	38.9	721	39.0	**721**	**38.9**
483.xalancbmk	4	431	64.0	429	64.4	**429**	**64.4**	4	431	64.0	429	64.4	**429**	**64.4**

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 Settings:
Power Management = Maximum Performance (Default = Active Power Controller)
```

General Notes

```
The Dell PowerEdge T110 and the Bull NovaScale T810 F2 models are electronically equivalent.
This result was measured on a Dell PowerEdge T110.
```

Base Compiler Invocation

C benchmarks:

```
icc  -m32
```

C++ benchmarks:

```
icpc -m32
```

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 -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/libic11.1-32bit -lsmartheap`

Base Other Flags

C benchmarks:

403.gcc: `-Dalloca=_alloca`

Peak Compiler Invocation

C benchmarks (except as noted below):
`icc -m32`

401.bzip2: `icc -m64`

456.hmmer: `icc -m64`

458.sjeng: `icc -m64`

C++ benchmarks (except as noted below):
`icpc -m32`

473.astar: `icpc -m64`

Peak Portability Flags

400.perlbench: `-DSPEC_CPU_LINUX_IA32`
401.bzip2: `-DSPEC_CPU_LP64`
456.hmmer: `-DSPEC_CPU_LP64`
458.sjeng: `-DSPEC_CPU_LP64`

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Peak Portability Flags (Continued)

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

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

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 -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: -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

Continued on next page

Peak Optimization Flags (Continued)

483.xalancbmk: `basepeak = yes`

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-int-linux64-revA.20100216.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic11.1-int-linux64-revA.20100216.xml`

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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