SPEC® CINT2006 Result

Bull SAS

NovaScale B260
(Intel Xeon E5440, 2.83 GHz)

$SPECint®2006 =$ 25.1

$SPECint\_base2006 =$ 22.1

CPU2006 license: 20	**Test date:** Sep-2008
Test sponsor: Bull SAS	**Hardware Availability:** Jan-2008
Tested by: Bull SAS	**Software Availability:** Nov-2007

400.perlbench 23.1 / 18.5
401.bzip2 16.7 / 15.4
403.gcc 19.0 / 13.8
429.mcf 23.0 / 23.0
445.gobmk 20.6 / 18.7
456.hmmer 25.9 / 14.9
458.sjeng 18.9 / 17.0
462.libquantum 197 / 214
464.h264ref 31.4 / 29.4
471.omnetpp 16.3 / 15.1
473.astar 15.7 / 14.3
483.xalancbmk 23.7

SPECint_base2006 = 22.1
SPECint2006 = 25.1

Hardware

CPU Name:	Intel Xeon E5440
CPU Characteristics:	1333 MHz system bus
CPU MHz:	2833
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:	12 MB I+D on chip per chip, 6 MB shared / 2 cores
L3 Cache:	None
Other Cache:	None
Memory:	16 GB (4x4 GB) FB-DIMM PC2-5300F ECC CL5
Disk Subsystem:	1x73 GB SAS, 15000 RPM
Other Hardware:	None

Software

Operating System:	SUSE Linux Enterprise Server 10 (x86_64) SP1 Kernel 2.6.16.46-0.12-smp
Compiler:	Intel C++ Compiler 10.1 for Linux Build 20070913 Package ID: l_cc_p_10.1.008
Auto Parallel:	Yes
File System:	ext2
System State:	Run level 3 (multi-user)
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	Binutils 2.17.50.0.15 SmartHeap library V8.1

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Bull SAS

NovaScale B260
(Intel Xeon E5440, 2.83 GHz)

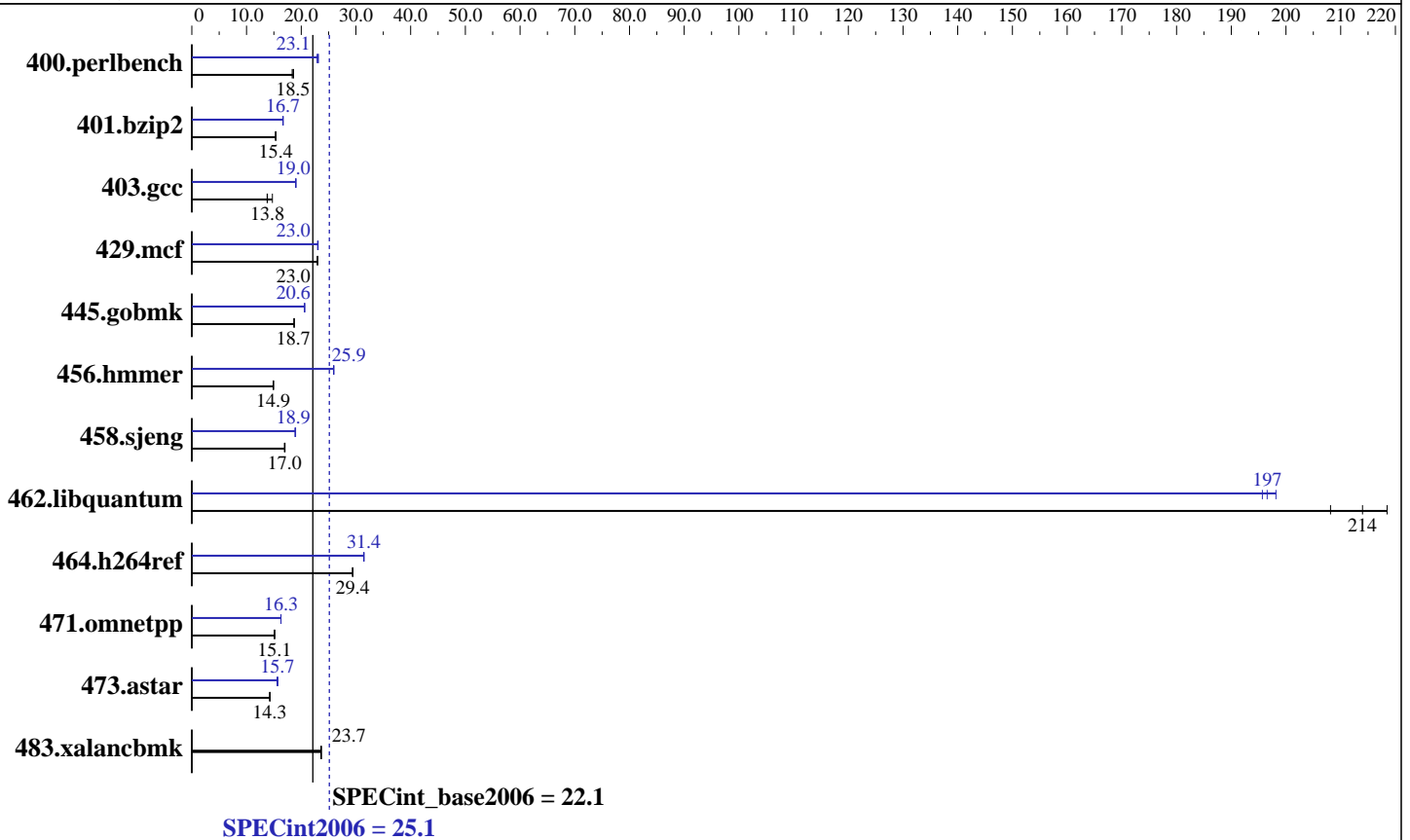$SPECint2006 =$ 25.1

$SPECint\_base2006 =$ 22.1

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	525	18.6	533	18.3	**528**	**18.5**	427	22.9	423	23.1	**423**	**23.1**
401.bzip2	631	15.3	628	15.4	**628**	**15.4**	578	16.7	580	16.6	**579**	**16.7**
403.gcc	585	13.8	547	14.7	**582**	**13.8**	423	19.0	424	19.0	**423**	**19.0**
429.mcf	396	23.0	398	22.9	**397**	**23.0**	396	23.0	395	23.1	**396**	**23.0**
445.gobmk	561	18.7	561	18.7	**561**	**18.7**	509	20.6	509	20.6	**509**	**20.6**
456.hmmer	625	14.9	**626**	**14.9**	626	14.9	**360**	**25.9**	360	25.9	359	26.0
458.sjeng	710	17.0	714	16.9	**713**	**17.0**	642	18.9	638	19.0	**639**	**18.9**
462.libquantum	94.8	218	99.5	208	**96.8**	**214**	106	196	105	198	**105**	**197**
464.h264ref	751	29.5	**753**	**29.4**	754	29.4	**704**	**31.4**	705	31.4	703	31.5
471.omnetpp	413	15.1	**413**	**15.1**	414	15.1	384	16.3	**384**	**16.3**	384	16.3
473.astar	493	14.2	491	14.3	**492**	**14.3**	**448**	**15.7**	450	15.6	447	15.7
483.xalancbmk	**292**	**23.7**	292	23.6	291	23.7	**292**	**23.7**	292	23.6	291	23.7

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
OMP_NUM_THREADS set to number of cores
KMP_AFFINITY set to physical,0
KMP_STACKSIZE set to null
```

General Notes

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

Base Compiler Invocation

C benchmarks:
```
icc
```

C++ benchmarks:
```
icpc
```

Base Portability Flags

```
400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
```

Continued on next page

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Bull SAS

NovaScale B260
(Intel Xeon E5440, 2.83 GHz)

$SPECint2006 =$ 25.1

$SPECint\_base2006 =$ 22.1

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

Test date: Sep-2008
Hardware Availability: Jan-2008
Software Availability: Nov-2007

Base Portability Flags (Continued)

483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
    -fast -vec-guard-write -parallel -par-runtime-control

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/10.1.008/bin/icc
            -L/opt/intel/cce/10.1.008/lib
            -I/opt/intel/cce/10.1.008/include

    456.hmmer: /opt/intel/cce/10.1.008/bin/icc
            -L/opt/intel/cce/10.1.008/lib
            -I/opt/intel/cce/10.1.008/include

C++ benchmarks:
    icpc

Peak Portability Flags

    400.perlbench: -DSPEC_CPU_LINUX_IA32
       401.bzip2: -DSPEC_CPU_LP64
       456.hmmer: -DSPEC_CPU_LP64
    462.libquantum: -DSPEC_CPU_LINUX
    483.xalancbmk: -DSPEC_CPU_LINUX

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Bull SAS

NovaScale B260
(Intel Xeon E5440, 2.83 GHz)

$SPECint2006 =$ 25.1

$SPECint\_base2006 =$ 22.1

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

Test date: Sep-2008
Hardware Availability: Jan-2008
Software Availability: Nov-2007

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 -prefetch`
`-auto-ilp32`

403.gcc: `-fast -inline-calloc -opt-malloc-options=3`

429.mcf: `-fast -prefetch`

445.gobmk: `-prof-gen(pass 1) -prof-use(pass 2) -xT -O2 -ipo`
`-no-prec-div -ansi-alias`

456.hmmer: `-fast -unroll2 -ansi-alias -opt-multi-version-aggressive`
`-auto-ilp32`

458.sjeng: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4`

462.libquantum: `-fast -unroll4 -Ob0 -prefetch`
`-opt-streaming-stores always -vec-guard-write`
`-opt-malloc-options=3 -parallel -par-runtime-control`

464.h264ref: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2`
`-ansi-alias`

C++ benchmarks:

471.omnetpp: `-prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo`
`-no-prec-div -ansi-alias -opt-ra-region-strategy=block`
`-Wl,-z,muldefs -L/spec/cpu2006/lib -lsmartheap`

473.astar: `-prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo`
`-no-prec-div -ansi-alias -opt-ra-region-strategy=routine`
`-Wl,-z,muldefs -L/spec/cpu2006/lib -lsmartheap`

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: `-Dalloca=_alloca`

SPEC CINT2006 Result

Bull SAS

NovaScale B260
(Intel Xeon E5440, 2.83 GHz)

SPECint2006 =   25.1

SPECint_base2006 =   22.1

CPU2006 license: 20		**Test date:**	Sep-2008
Test sponsor: Bull SAS		**Hardware Availability:**	Jan-2008
Tested by: Bull SAS		**Software Availability:**	Nov-2007

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/EM64T_Intel101_int_flags.20090713.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/EM64T_Intel101_int_flags.20090713.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.

Tested with SPEC CPU2006 v1.1.
Report generated on Tue Jul 22 18:40:58 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 30 September 2008.