SPEC® CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

BladeSymphony BS320 (Intel Xeon E5450)

$SPECint^®2006 =$ 26.1

$SPECint\_base2006 =$ 22.9
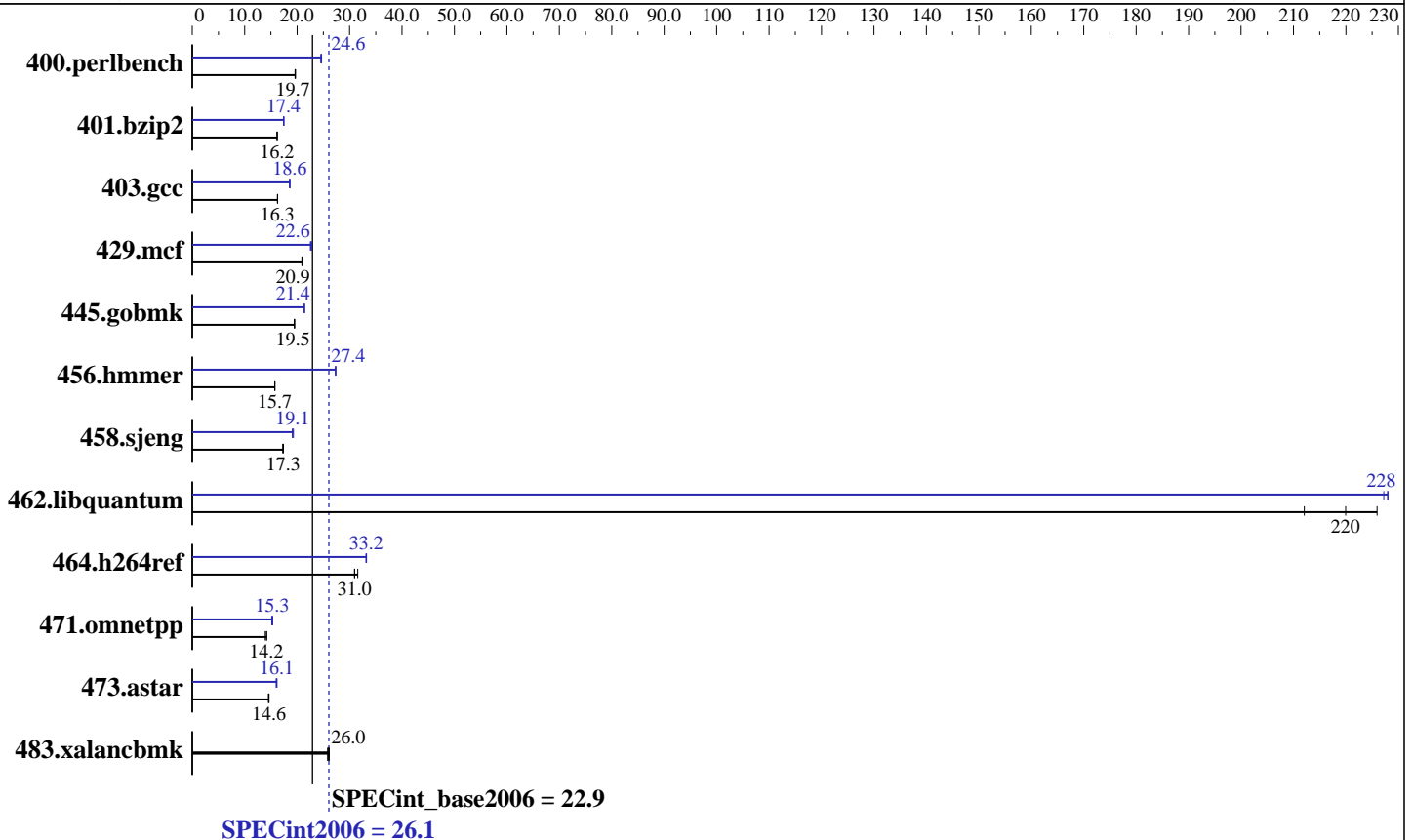
CPU2006 license: 872
Test sponsor: HITACHI
Tested by: HITACHI

Test date: Feb-2008
Hardware Availability: Nov-2007
Software Availability: Nov-2007

SPECint_base2006 = 22.9

SPECint2006 = 26.1

Benchmark	Peak	Base
400.perlbench	24.6	19.7
401.bzip2	17.4	16.2
403.gcc	18.6	16.3
429.mcf	22.6	20.9
445.gobmk	21.4	19.5
456.hmmer	27.4	15.7
458.sjeng	19.1	17.3
462.libquantum	228	220
464.h264ref	33.2	31.0
471.omnetpp	15.3	14.2
473.astar	16.1	14.6
483.xalancbmk	26.0	

Hardware

CPU Name:	Intel Xeon E5450
CPU Characteristics:	1333MHz system bus
CPU MHz:	3000
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(4 x 4 GB PC2-5300F CAS 5-5-5)
Disk Subsystem:	1 x 147 GB 10000 rpm SAS
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux Server release 5.1 (Tikanga) Kernel 2.6.18-53.el5 on an x86_64
Compiler:	Intel C++ Compiler 10.1 for Linux Build 20070913 Package ID: l_cc_p_10.1.008
Auto Parallel:	Yes
File System:	ext3
System State:	Multi-user run level 3
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	SmartHeap library V8.1

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

BladeSymphony BS320 (Intel Xeon E5450)

SPECint2006 = 26.1

SPECint_base2006 = 22.9

CPU2006 license: 872
Test sponsor: HITACHI
Tested by: HITACHI

Test date: Feb-2008
Hardware Availability: Nov-2007
Software Availability: Nov-2007

Results Table

Benchmark	Base Seconds	Base Ratio	Base Seconds	Base Ratio	Base Seconds	Base Ratio	Peak Seconds	Peak Ratio	Peak Seconds	Peak Ratio	Peak Seconds	Peak Ratio
400.perlbench	498	19.6	497	19.7	**497**	**19.7**	396	24.7	399	24.5	**397**	**24.6**
401.bzip2	**596**	**16.2**	596	16.2	597	16.2	**554**	**17.4**	554	17.4	551	17.5
403.gcc	494	16.3	496	16.2	**494**	**16.3**	434	18.6	432	18.7	**433**	**18.6**
429.mcf	**435**	**20.9**	433	21.0	436	20.9	**403**	**22.6**	400	22.8	405	22.5
445.gobmk	538	19.5	**538**	**19.5**	538	19.5	490	21.4	**491**	**21.4**	491	21.4
456.hmmer	**593**	**15.7**	593	15.7	592	15.8	342	27.3	**341**	**27.4**	341	27.4
458.sjeng	696	17.4	701	17.3	**698**	**17.3**	**632**	**19.1**	627	19.3	634	19.1
462.libquantum	**94.2**	**220**	91.7	226	97.7	212	91.2	227	90.9	228	**90.9**	**228**
464.h264ref	**715**	**31.0**	701	31.6	715	30.9	**667**	**33.2**	668	33.2	666	33.2
471.omnetpp	**442**	**14.2**	440	14.2	449	13.9	412	15.2	**409**	**15.3**	407	15.3
473.astar	480	14.6	**480**	**14.6**	483	14.5	435	16.1	439	16.0	**435**	**16.1**
483.xalancbmk	**266**	**26.0**	267	25.8	264	26.1	**266**	**26.0**	267	25.8	264	26.1

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

General Notes

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

Base Compiler Invocation

C benchmarks:
```
icc
```

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:
```
-fast -vec-guard-write -parallel -par-runtime-control
```

Continued on next page

SPEC CINT2006 Result

HITACHI

BladeSymphony BS320 (Intel Xeon E5450)

$SPECint2006 = $ 26.1

$SPECint_base2006 = $ 22.9

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: Feb-2008

Hardware Availability: Nov-2007

Software Availability: Nov-2007

Base Optimization Flags (Continued)

C++ benchmarks:

```
-xT -ipo -O3 -no-prec-div -Wl,-z,muldefs
-L/home/bsc/smartheap/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
```

Peak Optimization Flags

C benchmarks:

```
400.perlbench: -prof-gen(pass 1) -prof-use(pass 2) -fast -ansi-alias
               -prefetch
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

BladeSymphony BS320 (Intel Xeon E5450)

$SPECint2006 = $ 26.1

$SPECint_base2006 = $ 22.9

CPU2006 license: 872
Test sponsor: HITACHI
Tested by: HITACHI

Test date: Feb-2008
Hardware Availability: Nov-2007
Software Availability: Nov-2007

Peak Optimization Flags (Continued)

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/home/bsc/smartheap/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/home/bsc/smartheap/lib -lsmartheap`

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-ic10.1-INT-ia32-linux-flags.20090713.01.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic10.1-INT-ia32-linux-flags.20090713.01.xml

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

BladeSymphony BS320 (Intel Xeon E5450)

SPECint2006 = 26.1

SPECint_base2006 = 22.9

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

Tested with SPEC CPU2006 v1.0.1.
Report generated on Tue Jul 22 15:41:13 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 5 March 2008.