



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECint®2006 = 40.8

BladeSymphony BS320 (Intel Xeon X5680)

SPECint_base2006 = 37.7

CPU2006 license: 872

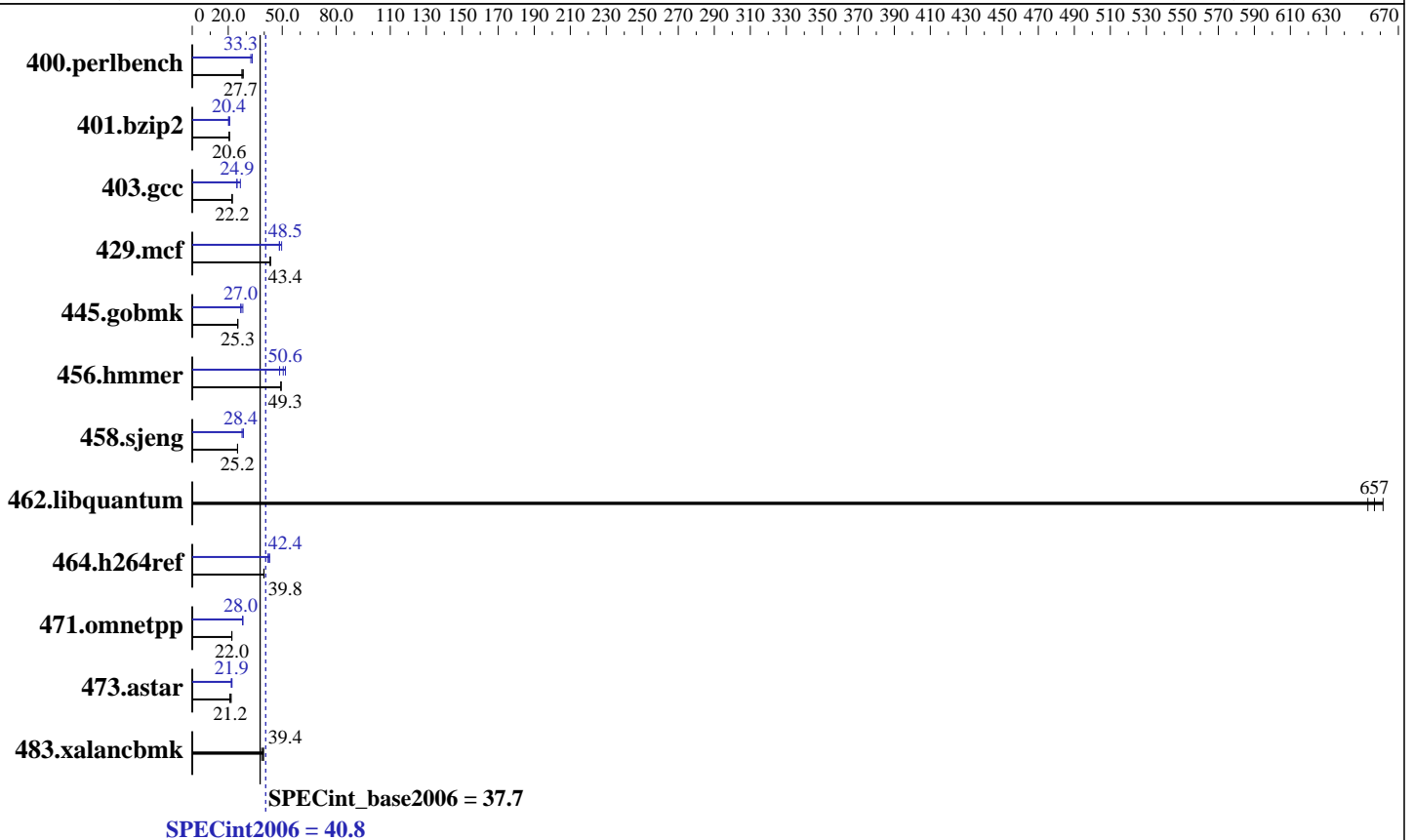
Test sponsor: HITACHI

Tested by: HITACHI

Test date: May-2010

Hardware Availability: May-2010

Software Availability: Dec-2009



Hardware

CPU Name: Intel Xeon X5680
 CPU Characteristics: Intel Turbo Boost Technology up to 3.60 GHz
 CPU MHz: 3333
 FPU: Integrated
 CPU(s) enabled: 12 cores, 2 chips, 6 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: 12 MB I+D on chip per chip
 Other Cache: None
 Memory: 48 GB(6 x 8 GB PC3-10600R, 2 rank, CL9-9-9)
 Disk Subsystem: 2 x 146 GB 10000 rpm Fibre Channel RAID1 configuration
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 5.4.3, Advanced Platform, Kernel 2.6.18-164.9.1.el5 on an x86_64
 Compiler: Intel C++ Compiler 11.1 for Linux Build 20091012 Package ID: l_cproc_p_11.1.059
 Auto Parallel: Yes
 File System: ext3
 System State: Multi-user run level 3
 Base Pointers: 64-bit
 Peak Pointers: 32/64-bit
 Other Software: Microquill SmartHeap V8.1



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECint2006 = **40.8**

BladeSymphony BS320 (Intel Xeon X5680)

SPECint_base2006 = **37.7**

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

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

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	344	28.4	353	27.7	<u>353</u>	<u>27.7</u>	300	32.5	<u>294</u>	<u>33.3</u>	293	33.3
401.bzip2	<u>469</u>	<u>20.6</u>	470	20.5	467	20.6	464	20.8	479	20.1	<u>473</u>	<u>20.4</u>
403.gcc	363	22.2	<u>363</u>	<u>22.2</u>	364	22.1	301	26.7	324	24.8	<u>324</u>	<u>24.9</u>
429.mcf	210	43.4	<u>210</u>	<u>43.4</u>	211	43.3	184	49.7	<u>188</u>	<u>48.5</u>	188	48.4
445.gobmk	416	25.2	414	25.3	<u>415</u>	<u>25.3</u>	<u>388</u>	<u>27.0</u>	373	28.1	388	27.0
456.hmmer	189	49.3	<u>189</u>	<u>49.3</u>	189	49.3	<u>185</u>	<u>50.6</u>	180	51.8	192	48.5
458.sjeng	481	25.2	<u>481</u>	<u>25.2</u>	480	25.2	<u>427</u>	<u>28.4</u>	427	28.4	437	27.7
462.libquantum	31.7	653	31.3	662	<u>31.6</u>	<u>657</u>	31.7	653	31.3	662	<u>31.6</u>	<u>657</u>
464.h264ref	555	39.9	556	39.8	<u>556</u>	<u>39.8</u>	<u>522</u>	<u>42.4</u>	515	43.0	525	42.1
471.omnetpp	284	22.0	284	22.0	<u>284</u>	<u>22.0</u>	<u>223</u>	<u>28.0</u>	223	28.1	223	28.0
473.astar	324	21.6	336	20.9	<u>331</u>	<u>21.2</u>	<u>320</u>	<u>21.9</u>	318	22.1	324	21.7
483.xalancbmk	179	38.6	<u>175</u>	<u>39.4</u>	174	39.6	179	38.6	<u>175</u>	<u>39.4</u>	174	39.6

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 granularity=fine,scatter

Platform Notes

BIOS Settings:
Intel HT Technology = Disabled

Base Compiler Invocation

C benchmarks:
icc -m64

C++ benchmarks:
icpc -m64

Base Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECint2006 = 40.8

BladeSymphony BS320 (Intel Xeon X5680)

SPECint_base2006 = 37.7

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: May-2010

Hardware Availability: May-2010

Software Availability: Dec-2009

Base Portability Flags (Continued)

```

429.mcf: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
464.h264ref: -DSPEC_CPU_LP64
471.omnetpp: -DSPEC_CPU_LP64
473.astar: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX

```

Base Optimization Flags

C benchmarks:

`-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch`

C++ benchmarks:

`-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/home/bsc/smartheap/lib -lsmartheap64`

Base Other Flags

C benchmarks:

`403.gcc: -Dalloca=_alloca`

Peak Compiler Invocation

C benchmarks (except as noted below):

`icc -m64`

`400.perlbench: icc -m32`

`429.mcf: icc -m32`

`445.gobmk: icc -m32`

`464.h264ref: icc -m32`

C++ benchmarks (except as noted below):

`icpc -m64`

`471.omnetpp: icpc -m32`



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECint2006 = 40.8

BladeSymphony BS320 (Intel Xeon X5680)

SPECint_base2006 = 37.7

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: May-2010

Hardware Availability: May-2010

Software Availability: Dec-2009

Peak Portability Flags

```

400.perlbench: -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
473.astar: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LP64 -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 -static(pass 2) -prof-use(pass 2)
           -auto-ilp32 -opt-prefetch -ansi-alias

403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div -static -inline-alloc
         -opt-malloc-options=3 -auto-ilp32

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

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/bsc/smartheap/lib -lsmartheap

```

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECint2006 = 40.8

BladeSymphony BS320 (Intel Xeon X5680)

SPECint_base2006 = 37.7

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: May-2010

Hardware Availability: May-2010

Software Availability: Dec-2009

Peak Optimization Flags (Continued)

```
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/bsc/smartheap/lib -lsmartheap64
```

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-linux64-revE.20100427.00.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100427.00.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 Wed Jul 23 09:11:02 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 9 June 2010.