



SPEC® CINT2006 Result

Copyright 2006-2009 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

SPECint®2006 = **42.0**

ASUS TS700-E6 (Z8PE-D12X) server system (Intel Xeon X5680)

SPECint_base2006 = **39.0**

CPU2006 license: 9016

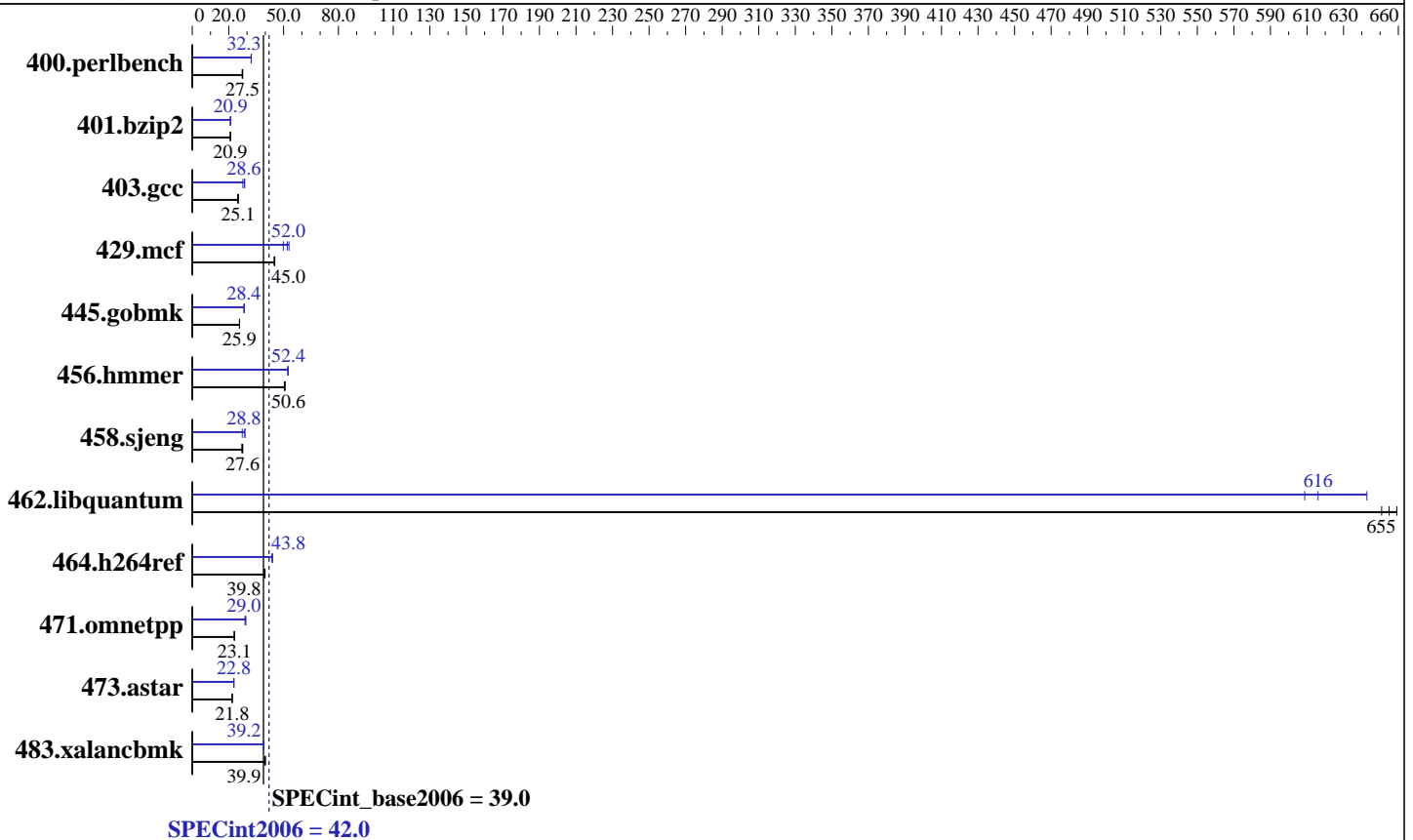
Test date: Mar-2010

Test sponsor: ASUSTeK Computer Inc.

Hardware Availability: Mar-2010

Tested by: ASUSTeK Computer Inc.

Software Availability: Jan-2010



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, 2 threads/core
 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 (12 x 4 GB PC3-10600R, CL=9)
 Disk Subsystem: 1 x 500 GB SATAII, 7200RPM
 Other Hardware: None

Software

Operating System: SUSE Linux Enterprise Server 11 (x86_64), Kernel 2.6.27.19-5-default
 Compiler: Intel C++ Professional Compiler for IA32 and Intel 64, Version 11.1 Build 20091130 Package ID: l_cproc_p_11.1.064
 Auto Parallel: Yes
 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



SPEC CINT2006 Result

Copyright 2006-2009 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

SPECint2006 = 42.0

ASUS TS700-E6 (Z8PE-D12X) server system (Intel Xeon X5680)

SPECint_base2006 = 39.0

CPU2006 license: 9016

Test date: Mar-2010

Test sponsor: ASUSTeK Computer Inc.

Hardware Availability: Mar-2010

Tested by: ASUSTeK Computer Inc.

Software Availability: Jan-2010

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	358	27.3	354	27.6	<u>355</u>	<u>27.5</u>	303	32.2	<u>302</u>	<u>32.3</u>	302	32.3
401.bzip2	462	20.9	<u>462</u>	<u>20.9</u>	463	20.9	460	21.0	<u>461</u>	<u>20.9</u>	461	20.9
403.gcc	<u>321</u>	<u>25.1</u>	324	24.8	319	25.2	<u>281</u>	<u>28.6</u>	281	28.6	290	27.7
429.mcf	203	44.8	202	45.2	<u>203</u>	<u>45.0</u>	183	49.8	<u>175</u>	<u>52.0</u>	172	53.0
445.gobmk	405	25.9	406	25.9	<u>406</u>	<u>25.9</u>	369	28.4	369	28.4	<u>369</u>	<u>28.4</u>
456.hammer	<u>184</u>	<u>50.6</u>	183	50.8	185	50.4	178	52.4	<u>178</u>	<u>52.4</u>	178	52.4
458.sjeng	438	27.6	<u>439</u>	<u>27.6</u>	446	27.1	420	28.8	<u>420</u>	<u>28.8</u>	442	27.4
462.libquantum	31.4	659	31.8	651	<u>31.6</u>	<u>655</u>	34.0	609	32.2	643	<u>33.6</u>	<u>616</u>
464.h264ref	563	39.3	<u>556</u>	<u>39.8</u>	555	39.9	<u>505</u>	<u>43.8</u>	504	43.9	506	43.7
471.omnetpp	272	23.0	<u>271</u>	<u>23.1</u>	271	23.1	<u>216</u>	<u>29.0</u>	213	29.4	216	29.0
473.astar	<u>322</u>	<u>21.8</u>	321	21.9	322	21.8	308	22.8	309	22.7	<u>308</u>	<u>22.8</u>
483.xalancbmk	<u>173</u>	<u>39.9</u>	172	40.0	174	39.7	176	39.2	176	39.2	<u>176</u>	<u>39.2</u>

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

Submit Notes

numactl was used to bind threads to the cores

Operating System Notes

'ulimit -s unlimited' was used to set the stack size to unlimited prior to run
OMP_NUM_THREADS set to number of cores
KMP_AFFINITY set to granularity=fine,scatter

Component Notes

Tested system case compliance with Intel EEB 3.61 spec
SSI Server Power Supply 650W or higher
System was configured with ASPEED AST2050 VGA (on board VGA)

Base Compiler Invocation

C benchmarks:
icc -m64

C++ benchmarks:
icpc -m64



SPEC CINT2006 Result

Copyright 2006-2009 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

SPECint2006 = 42.0

ASUS TS700-E6 (Z8PE-D12X) server system (Intel Xeon X5680)

SPECint_base2006 = 39.0

CPU2006 license: 9016

Test date: Mar-2010

Test sponsor: ASUSTeK Computer Inc.

Hardware Availability: Mar-2010

Tested by: ASUSTeK Computer Inc.

Software Availability: Jan-2010

Base Portability Flags

```

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
429.mcf: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmmer: -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/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-64bit -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 -m32
```

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2009 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

SPECint2006 = 42.0

ASUS TS700-E6 (Z8PE-D12X) server system (Intel Xeon X5680)

SPECint_base2006 = 39.0

CPU2006 license: 9016

Test date: Mar-2010

Test sponsor: ASUSTeK Computer Inc.

Hardware Availability: Mar-2010

Tested by: ASUSTeK Computer Inc.

Software Availability: Jan-2010

Peak Compiler Invocation (Continued)

473.astar: icpc -m64

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
 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_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-calloc
 -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: -xSSE4.2 -ipo -O3 -no-prec-div -static -parallel
 -opt-prefetch -par-schedule-static=32768 -ansi-alias

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

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2009 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.

SPECint2006 = 42.0

ASUS TS700-E6 (Z8PE-D12X) server system (Intel Xeon X5680)

SPECint_base2006 = 39.0

CPU2006 license: 9016

Test date: Mar-2010

Test sponsor: ASUSTeK Computer Inc.

Hardware Availability: Mar-2010

Tested by: ASUSTeK Computer Inc.

Software Availability: Jan-2010

Peak Optimization Flags (Continued)

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

483.xalancbmk: -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

```

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/Intel-ic11.1-linux64-revE.20100316.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.20100316.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 Apr 14 14:03:47 2010 by SPEC CPU2006 PS/PDF formatter v6323.