



# SPEC® CINT2006 Result

Copyright 2006-2014 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

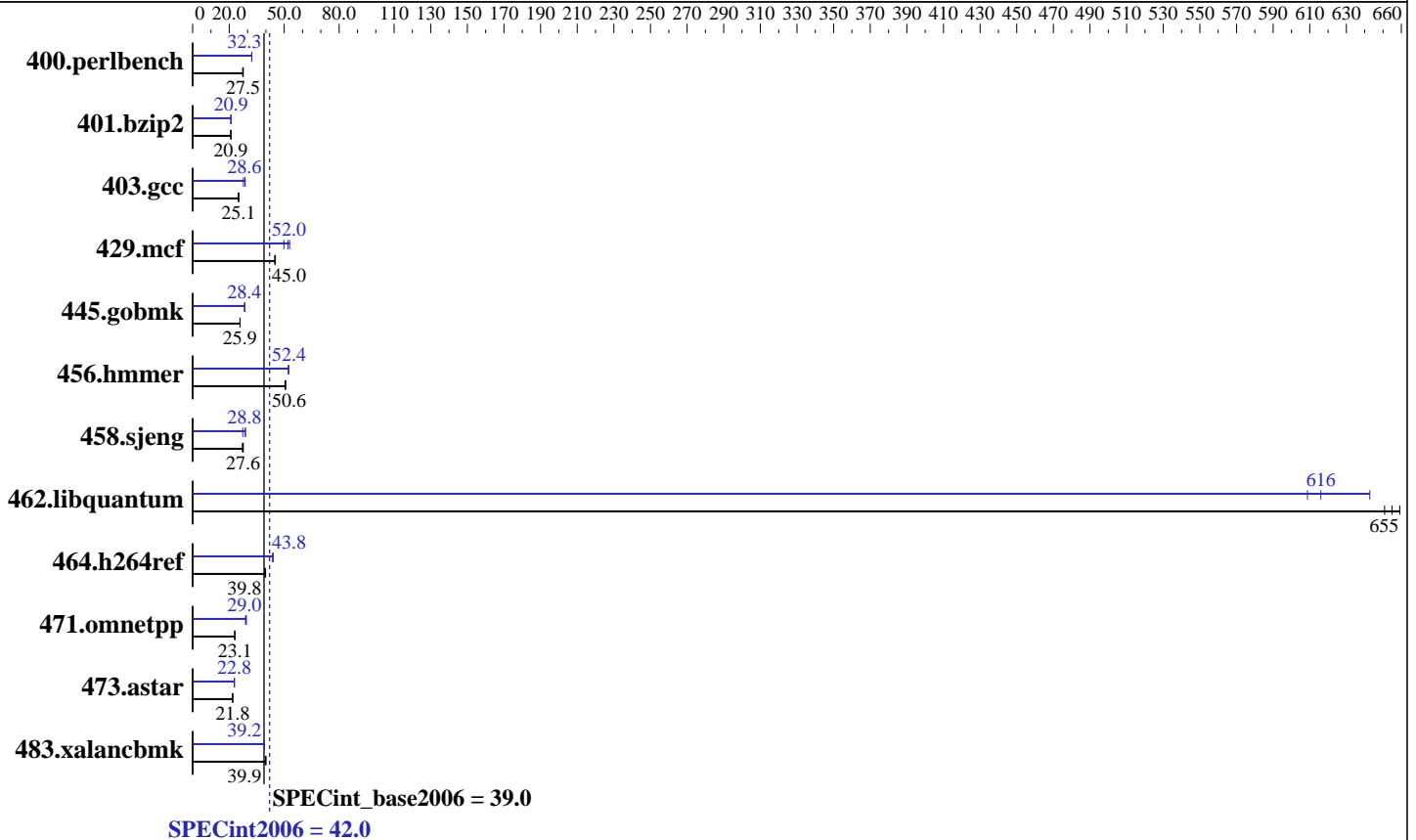
Test date: Mar-2010

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 2006-2014 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	<b><u>355</u></b>	<b><u>27.5</u></b>	303	32.2	<b><u>302</u></b>	<b><u>32.3</u></b>	302	32.3
401.bzip2	462	20.9	<b><u>462</u></b>	<b><u>20.9</u></b>	463	20.9	460	21.0	<b><u>461</u></b>	<b><u>20.9</u></b>	461	20.9
403.gcc	<b><u>321</u></b>	<b><u>25.1</u></b>	324	24.8	319	25.2	<b><u>281</u></b>	<b><u>28.6</u></b>	281	28.6	290	27.7
429.mcf	203	44.8	202	45.2	<b><u>203</u></b>	<b><u>45.0</u></b>	183	49.8	<b><u>175</u></b>	<b><u>52.0</u></b>	172	53.0
445.gobmk	405	25.9	406	25.9	<b><u>406</u></b>	<b><u>25.9</u></b>	369	28.4	369	28.4	<b><u>369</u></b>	<b><u>28.4</u></b>
456.hammer	<b><u>184</u></b>	<b><u>50.6</u></b>	183	50.8	185	50.4	178	52.4	<b><u>178</u></b>	<b><u>52.4</u></b>	178	52.4
458.sjeng	438	27.6	<b><u>439</u></b>	<b><u>27.6</u></b>	446	27.1	420	28.8	<b><u>420</u></b>	<b><u>28.8</u></b>	442	27.4
462.libquantum	31.4	659	31.8	651	<b><u>31.6</u></b>	<b><u>655</u></b>	34.0	609	32.2	643	<b><u>33.6</u></b>	<b><u>616</u></b>
464.h264ref	563	39.3	<b><u>556</u></b>	<b><u>39.8</u></b>	555	39.9	<b><u>505</u></b>	<b><u>43.8</u></b>	504	43.9	506	43.7
471.omnetpp	272	23.0	<b><u>271</u></b>	<b><u>23.1</u></b>	271	23.1	<b><u>216</u></b>	<b><u>29.0</u></b>	213	29.4	216	29.0
473.astar	<b><u>322</u></b>	<b><u>21.8</u></b>	321	21.9	322	21.8	308	22.8	309	22.7	<b><u>308</u></b>	<b><u>22.8</u></b>
483.xalancbmk	<b><u>173</u></b>	<b><u>39.9</u></b>	172	40.0	174	39.7	176	39.2	176	39.2	<b><u>176</u></b>	<b><u>39.2</u></b>

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 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

## Base Portability Flags

400.perlbench: -DSPEC\_CPU\_LP64 -DSPEC\_CPU\_LINUX\_X64  
401.bzip2: -DSPEC\_CPU\_LP64

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 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 (Continued)

```

403.gcc: -DSPEC_CPU_LP64
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/cmplr/usr3/alrahate/cpu2006.1.1.icc11.1/libicc11.1-64bit -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
```

```
473.astar: icpc -m64
```



# SPEC CINT2006 Result

Copyright 2006-2014 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 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-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: -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

```

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

```

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 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)

```
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

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.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](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.1.  
Report generated on Wed Jul 23 09:47:31 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 14 April 2010.