



# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 5037MC-H8TRF (X9SCD-F single node, Intel Pentium G850)

SPECint®2006 = 38.2

SPECint\_base2006 = 36.2

CPU2006 license: 001176

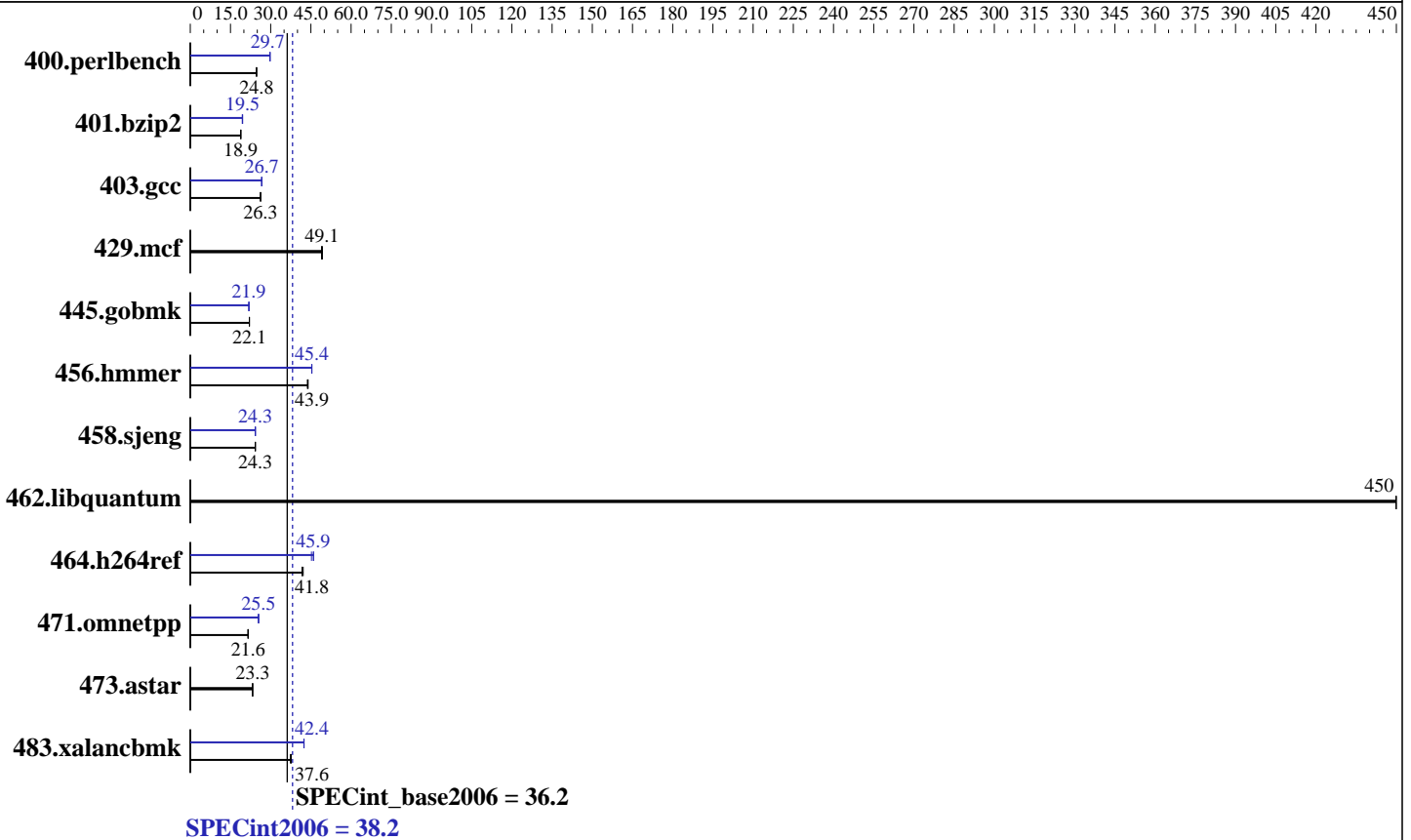
Test sponsor: Supermicro

Tested by: Supermicro

Test date: Mar-2012

Hardware Availability: Aug-2011

Software Availability: Oct-2011



### Hardware

CPU Name: Intel Pentium G850  
 CPU Characteristics:  
 CPU MHz: 2900  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip  
 CPU(s) orderable: 1 chip  
 Primary Cache: 32 KB I + 32 KB D on chip per core  
 Secondary Cache: 256 KB I+D on chip per core  
 L3 Cache: 3 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 8 GB (2 x 4 GB 2Rx8 PC3-10600E-9, ECC)  
 Disk Subsystem: 1 x 500 GB SATA III, 7200 RPM  
 Other Hardware: None

### Software

Operating System: Red Hat Enterprise Linux Server Release 6.1, Kernel 2.6.32-131.0.15.el6.x86\_64  
 Compiler: C/C++: Version 12.1.0.225 of Intel C++ Studio XE for Linux  
 Auto Parallel: Yes  
 File System: ext4  
 System State: Run level 3 (multi-user)  
 Base Pointers: 32/64-bit  
 Peak Pointers: 32/64-bit  
 Other Software: Microquill SmartHeap V9.01



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 5037MC-H8TRF (X9SCD-F single node, Intel Pentium G850)

SPECint2006 = 38.2

SPECint\_base2006 = 36.2

CPU2006 license: 001176  
Test sponsor: Supermicro  
Tested by: Supermicro

Test date: Mar-2012  
Hardware Availability: Aug-2011  
Software Availability: Oct-2011

## Results Table

| Benchmark      | Base               |                    |                   |                    |                   |                    | Peak               |                    |                   |                    |                   |                    |
|----------------|--------------------|--------------------|-------------------|--------------------|-------------------|--------------------|--------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
|                | Seconds            | Ratio              | Seconds           | Ratio              | Seconds           | Ratio              | Seconds            | Ratio              | Seconds           | Ratio              | Seconds           | Ratio              |
| 400.perlbench  | 396                | 24.7               | <b><u>395</u></b> | <b><u>24.8</u></b> | 394               | 24.8               | <b><u>329</u></b>  | <b><u>29.7</u></b> | 328               | 29.8               | 329               | 29.7               |
| 401.bzip2      | 513                | 18.8               | 511               | 18.9               | <b><u>511</u></b> | <b><u>18.9</u></b> | 494                | 19.5               | <b><u>495</u></b> | <b><u>19.5</u></b> | 498               | 19.4               |
| 403.gcc        | 308                | 26.1               | <b><u>307</u></b> | <b><u>26.3</u></b> | 306               | 26.3               | 302                | 26.7               | <b><u>302</u></b> | <b><u>26.7</u></b> | 302               | 26.6               |
| 429.mcf        | <b><u>186</u></b>  | <b><u>49.1</u></b> | 186               | 49.0               | 185               | 49.3               | <b><u>186</u></b>  | <b><u>49.1</u></b> | 186               | 49.0               | 185               | 49.3               |
| 445.gobmk      | 476                | 22.1               | 476               | 22.1               | <b><u>476</u></b> | <b><u>22.1</u></b> | <b><u>479</u></b>  | <b><u>21.9</u></b> | 480               | 21.9               | 479               | 21.9               |
| 456.hammer     | 214                | 43.7               | <b><u>213</u></b> | <b><u>43.9</u></b> | 212               | 43.9               | 206                | 45.4               | 206               | 45.3               | <b><u>206</u></b> | <b><u>45.4</u></b> |
| 458.sjeng      | 499                | 24.2               | <b><u>498</u></b> | <b><u>24.3</u></b> | 498               | 24.3               | <b><u>498</u></b>  | <b><u>24.3</u></b> | 499               | 24.2               | 498               | 24.3               |
| 462.libquantum | <b><u>46.1</u></b> | <b><u>450</u></b>  | 46.1              | 450                | 46.1              | 450                | <b><u>46.1</u></b> | <b><u>450</u></b>  | 46.1              | 450                | 46.1              | 450                |
| 464.h264ref    | 531                | 41.7               | <b><u>530</u></b> | <b><u>41.8</u></b> | 525               | 42.1               | 481                | 46.0               | 489               | 45.2               | <b><u>482</u></b> | <b><u>45.9</u></b> |
| 471.omnetpp    | 289                | 21.6               | 290               | 21.5               | <b><u>290</u></b> | <b><u>21.6</u></b> | 245                | 25.5               | <b><u>245</u></b> | <b><u>25.5</u></b> | 246               | 25.4               |
| 473.astar      | <b><u>302</u></b>  | <b><u>23.3</u></b> | 301               | 23.3               | 302               | 23.2               | <b><u>302</u></b>  | <b><u>23.3</u></b> | 301               | 23.3               | 302               | 23.2               |
| 483.xalancbmk  | <b><u>184</u></b>  | <b><u>37.6</u></b> | 185               | 37.4               | 183               | 37.6               | 163                | 42.5               | <b><u>163</u></b> | <b><u>42.4</u></b> | 163               | 42.4               |

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

## Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

## General Notes

Environment variables set by runspec before the start of the run:  
KMP\_AFFINITY = "granularity=fine,scatter"  
LD\_LIBRARY\_PATH = "/usr/cpu2006/libs/32:/usr/cpu2006/libs/64"  
OMP\_NUM\_THREADS = "2"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RHEL5.5  
Transparent Huge Pages enabled with:  
echo always > /sys/kernel/mm/redhat\_transparent\_hugepage/enabled

## Base Compiler Invocation

C benchmarks:  
icc -m64  
  
C++ benchmarks:  
icpc -m64



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 5037MC-H8TRF (X9SCD-F single node, Intel Pentium G850)

SPECint2006 = 38.2

SPECint\_base2006 = 36.2

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Mar-2012

Hardware Availability: Aug-2011

Software Availability: Oct-2011

## 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.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 -parallel -opt-prefetch -auto-p32

C++ benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32  
-Wl,-z,muldefs -L/smartheap -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

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

## Supermicro

SuperServer 5037MC-H8TRF (X9SCD-F single node,  
Intel Pentium G850)

SPECint2006 = 38.2

SPECint\_base2006 = 36.2

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Mar-2012

Hardware Availability: Aug-2011

Software Availability: Oct-2011

## Peak Portability Flags

```

400.perlbench: -DSPEC_CPU_LINUX_IA32
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
429.mcf: -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) -prof-use(pass 2)
               -opt-prefetch -ansi-alias

401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
            -O3(pass 2) -no-prec-div -prof-use(pass 2) -auto-ilp32
            -opt-prefetch -ansi-alias

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

429.mcf: basepeak = yes

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
            -ansi-alias

456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32
            -ansi-alias

458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
            -O3(pass 2) -no-prec-div(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) -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)
              -opt-ra-region-strategy=block -ansi-alias
              -Wl,-z,muldefs -L/smartheap -lsmartheap

```

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 5037MC-H8TRF (X9SCD-F single node, Intel Pentium G850)

SPECint2006 = 38.2

SPECint\_base2006 = 36.2

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Mar-2012

Hardware Availability: Aug-2011

Software Availability: Oct-2011

## Peak Optimization Flags (Continued)

473.astar: basepeak = yes

483.xalancbmk: -xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -ansi-alias  
-Wl,-z,muldefs -L/smartheap -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-ic12.1-official-linux64.20111122.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.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 v1.2.  
Report generated on Thu Jul 24 07:30:54 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 10 April 2012.