



# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

**SPECint®\_rate2006 = 537**

SuperWorkstation 7047A-T (X9DAI, Intel E5-2650)

**SPECint\_rate\_base2006 = 513**

CPU2006 license: 001176

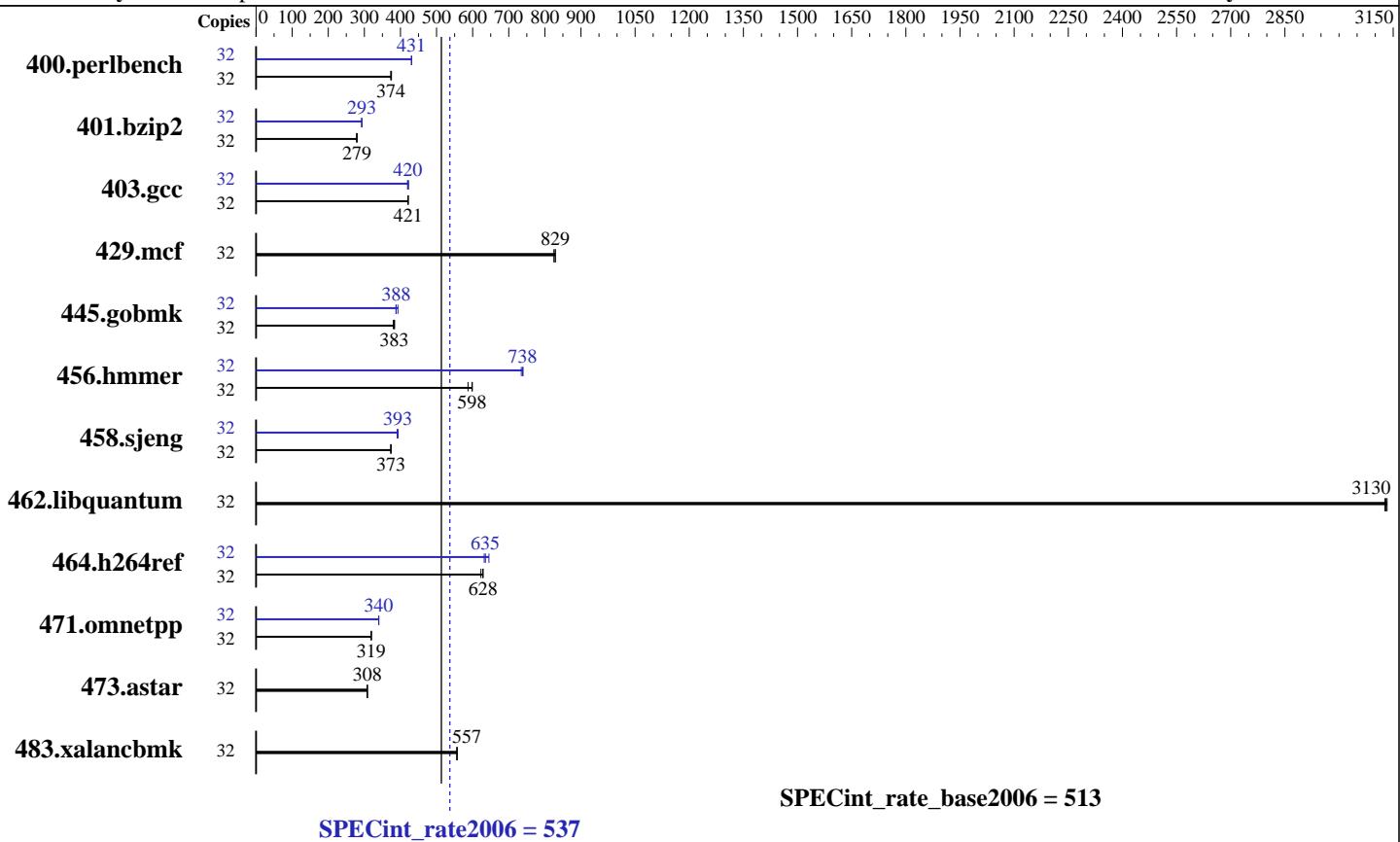
Test date: Apr-2012

Test sponsor: Supermicro

Hardware Availability: Mar-2012

Tested by: Supermicro

Software Availability: Dec-2011



### Hardware

CPU Name: Intel Xeon E5-2650  
 CPU Characteristics: Intel Turbo Boost Technology up to 2.80 GHz  
 CPU MHz: 2000  
 FPU: Integrated  
 CPU(s) enabled: 16 cores, 2 chips, 8 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: 20 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 128 GB (16 x 8 GB 2Rx4 PC3-12800R-11, ECC)  
 Disk Subsystem: 1 x 1 TB SATA II, 7200 RPM  
 Other Hardware: None

### Software

Operating System: Red Hat Enterprise Linux Server Release 6.2 (Santiago), Kernel 2.6.32-220.el6.x86\_64  
 Compiler: C/C++: Version 12.1.0.225 of Intel C++ Studio XE for Linux  
 Auto Parallel: No  
 File System: ext4  
 System State: Run level 3 (multi-user)  
 Base Pointers: 32-bit  
 Peak Pointers: 32/64-bit  
 Other Software: Microquill SmartHeap V9.01



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Supermicro**

**SPECint\_rate2006 = 537**

SuperWorkstation 7047A-T (X9DAI, Intel E5-2650)

**SPECint\_rate\_base2006 = 513**

CPU2006 license: 001176

Test date: Apr-2012

Test sponsor: Supermicro

Hardware Availability: Mar-2012

Tested by: Supermicro

Software Availability: Dec-2011

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	32	833	375	837	374	<b><u>837</u></b>	<b><u>374</u></b>	32	726	431	725	431	<b><u>726</u></b>	<b><u>431</u></b>
401.bzip2	32	<b><u>1106</u></b>	<b><u>279</u></b>	1103	280	1108	279	32	1055	293	<b><u>1054</u></b>	<b><u>293</u></b>	1054	293
403.gcc	32	612	421	<b><u>612</u></b>	<b><u>421</u></b>	611	422	32	614	420	<b><u>613</u></b>	<b><u>420</u></b>	610	423
429.mcf	32	354	825	<b><u>352</u></b>	<b><u>829</u></b>	352	829	32	354	825	<b><u>352</u></b>	<b><u>829</u></b>	352	829
445.gobmk	32	883	380	875	384	<b><u>876</u></b>	<b><u>383</u></b>	32	<b><u>865</u></b>	<b><u>388</u></b>	866	388	854	393
456.hammer	32	<b><u>499</u></b>	<b><u>598</u></b>	509	587	498	599	32	404	740	<b><u>404</u></b>	<b><u>738</u></b>	406	735
458.sjeng	32	1037	373	1036	374	<b><u>1037</u></b>	<b><u>373</u></b>	32	985	393	991	391	<b><u>986</u></b>	<b><u>393</u></b>
462.libquantum	32	212	3130	<b><u>212</u></b>	<b><u>3130</u></b>	212	3130	32	212	3130	<b><u>212</u></b>	<b><u>3130</u></b>	212	3130
464.h264ref	32	1137	623	<b><u>1127</u></b>	<b><u>628</u></b>	1126	629	32	<b><u>1114</u></b>	<b><u>635</u></b>	1098	645	1120	632
471.omnetpp	32	<b><u>627</u></b>	<b><u>319</u></b>	626	319	627	319	32	589	340	588	340	<b><u>589</u></b>	<b><u>340</u></b>
473.astar	32	<b><u>729</u></b>	<b><u>308</u></b>	730	308	728	309	32	<b><u>729</u></b>	<b><u>308</u></b>	730	308	728	309
483.xalancbmk	32	<b><u>397</u></b>	<b><u>557</u></b>	397	556	396	557	32	<b><u>397</u></b>	<b><u>557</u></b>	397	556	396	557

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

## Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

## Operating System Notes

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

## Platform Notes

The system used an ATI Radeon HD 4870 X2 graphics card

## General Notes

Environment variables set by runspec before the start of the run:  
LD\_LIBRARY\_PATH = "/home/cpu2006/libs/32:/home/cpu2006/libs/64"

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
```

Filesystem page cache cleared with:

```
echo 1> /proc/sys/vm/drop_caches
```

runspec command invoked through numactl i.e.:

```
numactl --interleave=all runspec <etc>
```



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SuperWorkstation 7047A-T (X9DAI, Intel E5-2650)

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

**SPECint\_rate2006 = 537**

**SPECint\_rate\_base2006 = 513**

Test date: Apr-2012

Hardware Availability: Mar-2012

Software Availability: Dec-2011

## Base Compiler Invocation

C benchmarks:

`icc -m32`

C++ benchmarks:

`icpc -m32`

## Base Portability Flags

400.perlbench: `-DSPEC_CPU_LINUX_IA32`

462.libquantum: `-DSPEC_CPU_LINUX`

483.xalancbmk: `-DSPEC_CPU_LINUX`

## Base Optimization Flags

C benchmarks:

`-xAVX -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3`

C++ benchmarks:

`-xAVX -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3  
-Wl,-z,muldefs -L/smartheap -lsmartheap`

## Base Other Flags

C benchmarks:

`403.gcc: -Dalloca=_alloca`

## Peak Compiler Invocation

C benchmarks (except as noted below):

`icc -m32`

400.perlbench: `icc -m64`

401.bzip2: `icc -m64`

456.hmmer: `icc -m64`

458.sjeng: `icc -m64`

C++ benchmarks:

`icpc -m32`



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SuperWorkstation 7047A-T (X9DAI, Intel E5-2650)

**SPECint\_rate2006 = 537**

**SPECint\_rate\_base2006 = 513**

**CPU2006 license:** 001176

**Test sponsor:** Supermicro

**Tested by:** Supermicro

**Test date:** Apr-2012

**Hardware Availability:** Mar-2012

**Software Availability:** Dec-2011

## Peak Portability Flags

400.perlbench: -DSPEC\_CPU\_LP64 -DSPEC\_CPU\_LINUX\_X64  
401.bzip2: -DSPEC\_CPU\_LP64  
456.hmmer: -DSPEC\_CPU\_LP64  
458.sjeng: -DSPEC\_CPU\_LP64  
462.libquantum: -DSPEC\_CPU\_LINUX  
483.xalancbmk: -DSPEC\_CPU\_LINUX

## Peak Optimization Flags

C benchmarks:

400.perlbench: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)  
-no-prec-div(pass 2) -prof-use(pass 2) -auto-ilp32  
  
401.bzip2: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)  
-no-prec-div(pass 2) -prof-use(pass 2) -opt-prefetch  
-auto-ilp32 -ansi-alias  
  
403.gcc: -xAVX -ipo -O3 -no-prec-div  
  
429.mcf: basepeak = yes  
  
445.gobmk: -xAVX(pass 2) -prof-gen(pass 1) -prof-use(pass 2)  
-ansi-alias -opt-mem-layout-trans=3  
  
456.hmmer: -xAVX -ipo -O3 -no-prec-div -unroll12 -auto-ilp32  
  
458.sjeng: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)  
-no-prec-div(pass 2) -prof-use(pass 2) -unroll14  
-auto-ilp32  
  
462.libquantum: basepeak = yes  
  
464.h264ref: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)  
-no-prec-div(pass 2) -prof-use(pass 2) -unroll12  
-ansi-alias

C++ benchmarks:

471.omnetpp: -xAVX(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/smartheap -lsmartheap  
  
473.astar: basepeak = yes  
  
483.xalancbmk: basepeak = yes



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SuperWorkstation 7047A-T (X9DAI, Intel E5-2650)

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

SPECint\_rate2006 = 537

SPECint\_rate\_base2006 = 513

Test date: Apr-2012

Hardware Availability: Mar-2012

Software Availability: Dec-2011

## Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=\_alloca

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.html>

<http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-revA.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml>

<http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-revA.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 04:40:46 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 9 May 2012.