



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

Supermicro SuperServer 1027R-WRF4+
(X9DRW-3LN4F+, Intel Xeon E5-2670 v2)

SPECint®_rate2006 = 810

SPECint_rate_base2006 = 783

CPU2006 license: 001176

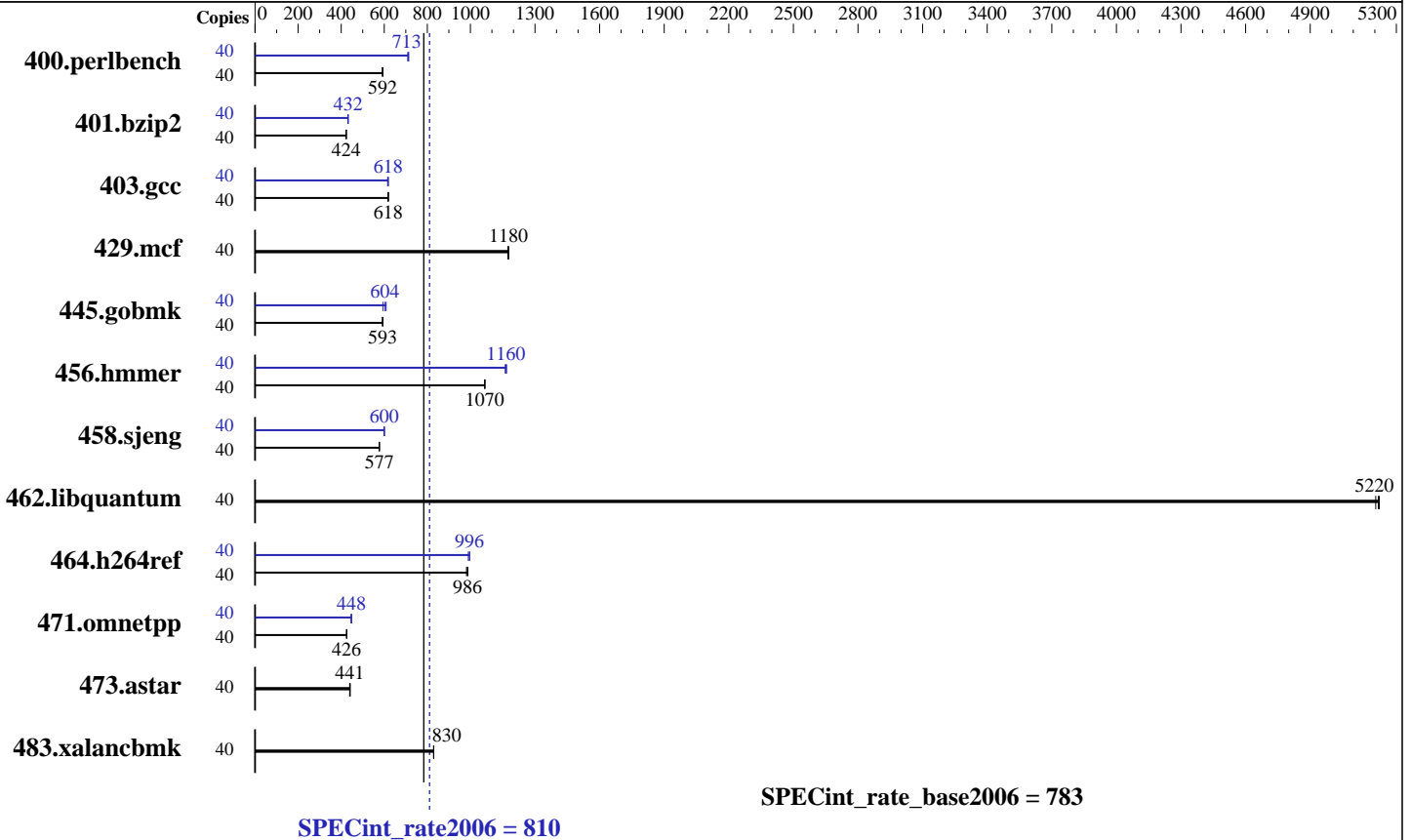
Test sponsor: Supermicro

Tested by: Supermicro

Test date: Mar-2014

Hardware Availability: Oct-2013

Software Availability: Sep-2013



Hardware

CPU Name: Intel Xeon E5-2670 v2
 CPU Characteristics: Intel Turbo Boost Technology up to 3.30 GHz
 CPU MHz: 2500
 FPU: Integrated
 CPU(s) enabled: 20 cores, 2 chips, 10 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: 25 MB I+D on chip per chip
 Other Cache: None
 Memory: 128 GB (16 x 8 GB 2Rx4 PC3-14900R-13, ECC)
 Disk Subsystem: 1 x 500 GB SATA II, 7200 RPM
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.4, Kernel 2.6.32-358.23.2.el6.x86_64
 Compiler: C/C++: Version 14.0.0.080 of Intel C++ Studio XE for Linux;
 Fortran: Version 14.0.0.080 of Intel Fortran 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 V10.0



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

Supermicro SuperServer 1027R-WRF4+
(X9DRW-3LN4F+, Intel Xeon E5-2670 v2)

SPECint_rate2006 = **810**

SPECint_rate_base2006 = **783**

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

Test date: Mar-2014
Hardware Availability: Oct-2013
Software Availability: Sep-2013

Results Table

Benchmark	Base								Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio		
400.perlbench	40	659	593	660	592	661	591	40	548	713	548	713	551	709		
401.bzip2	40	911	424	911	424	912	423	40	894	432	894	432	893	432		
403.gcc	40	522	617	520	620	521	618	40	520	619	523	616	521	618		
429.mcf	40	310	1180	310	1180	311	1170	40	310	1180	310	1180	311	1170		
445.gobmk	40	707	593	707	593	709	591	40	689	609	695	604	707	594		
456.hammer	40	350	1070	350	1070	350	1070	40	319	1170	320	1160	321	1160		
458.sjeng	40	840	576	838	578	838	577	40	806	601	807	600	807	600		
462.libquantum	40	159	5200	159	5220	159	5220	40	159	5200	159	5220	159	5220		
464.h264ref	40	896	988	901	982	898	986	40	889	996	894	990	889	996		
471.omnetpp	40	587	426	589	425	587	426	40	558	448	558	448	561	446		
473.astar	40	637	441	639	439	636	442	40	637	441	639	439	636	442		
483.xalancbmk	40	333	830	333	830	333	829	40	333	830	333	830	333	829		

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

Sysinfo program /usr/cpu2006/config/sysinfo.rev6818
\$Rev: 6818 \$ \$Date:: 2012-07-17 #\$ e86d102572650a6e4d596a3cee98f191
running on 170-231.jnet Sat Mar 8 11:24:33 2014

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:
<http://www.spec.org/cpu2006/Docs/config.html#sysinfo>

From /proc/cpuinfo
model name : Intel(R) Xeon(R) CPU E5-2670 v2 @ 2.50GHz
2 "physical id"s (chips)
40 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
cpu cores : 10
siblings : 20

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SPECint_rate2006 = 810

Supermicro SuperServer 1027R-WRF4+
(X9DRW-3LN4F+, Intel Xeon E5-2670 v2)

SPECint_rate_base2006 = 783

CPU2006 license: 001176

Test date: Mar-2014

Test sponsor: Supermicro

Hardware Availability: Oct-2013

Tested by: Supermicro

Software Availability: Sep-2013

Platform Notes (Continued)

```
physical 0: cores 0 1 2 3 4 8 9 10 11 12
physical 1: cores 0 1 2 3 4 8 9 10 11 12
cache size : 25600 KB
```

```
From /proc/meminfo
MemTotal:      132122600 kB
HugePages_Total:      0
Hugepagesize:    2048 kB
```

```
/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.4 (Santiago)
```

```
From /etc/*release* /etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server
```

```
uname -a:
Linux 170-231.jnet 2.6.32-358.23.2.el6.x86_64 #1 SMP Sat Sep 14 05:32:37 EDT
2013 x86_64 x86_64 x86_64 GNU/Linux
```

```
run-level 3 Mar 8 11:15
```

```
SPEC is set to: /usr/cpu2006
Filesystem      Type      Size  Used Avail Use% Mounted on
/dev/sda2        ext4      241G   85G  144G  37% /
```

```
Additional information from dmidecode:
BIOS American Megatrends Inc. 3.0a 02/06/2014
Memory:
16x 8 GB
1x DimmA3_Manufacturer DimmA3_PartNumber
1x DimmB3_Manufacturer DimmB3_PartNumber
1x DimmC3_Manufacturer DimmC3_PartNumber
1x DimmD3_Manufacturer DimmD3_PartNumber
1x DimmE3_Manufacturer DimmE3_PartNumber
1x DimmF3_Manufacturer DimmF3_PartNumber
1x DimmG3_Manufacturer DimmG3_PartNumber
1x DimmH3_Manufacturer DimmH3_PartNumber
16x Hynix Semiconductor HMT31GR7CFR4C-RD 8 GB 1866 MHz 2 rank
```

(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/usr/cpu2006/libs/32:/usr/cpu2006/libs/64:/usr/cpu2006/sh"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
memory using RedHat EL 6.4
Transparent Huge Pages enabled with:

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

Supermicro SuperServer 1027R-WRF4+
(X9DRW-3LN4F+, Intel Xeon E5-2670 v2)

SPECint_rate2006 = 810

SPECint_rate_base2006 = 783

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

Test date: Mar-2014
Hardware Availability: Oct-2013
Software Availability: Sep-2013

General Notes (Continued)

```
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>
```

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:
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3

C++ benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3
-Wl,-z,muldefs -L/sh -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

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

Supermicro SuperServer 1027R-WRF4+
(X9DRW-3LN4F+, Intel Xeon E5-2670 v2)

SPECint_rate2006 = 810

SPECint_rate_base2006 = 783

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Mar-2014

Hardware Availability: Oct-2013

Software Availability: Sep-2013

Peak Compiler Invocation (Continued)

401.bzip2: `icc -m64`

456.hmmer: `icc -m64`

458.sjeng: `icc -m64`

C++ benchmarks:

`icpc -m32`

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: `-xSSE4.2(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: `-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 -auto-ilp32 -ansi-alias`

403.gcc: `-xSSE4.2 -ipo -O3 -no-prec-div`

429.mcf: `basepeak = yes`

445.gobmk: `-xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
-ansi-alias -opt-mem-layout-trans=3`

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

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 -auto-ilp32`

462.libquantum: `basepeak = yes`

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SPECint_rate2006 = 810

Supermicro SuperServer 1027R-WRF4+
(X9DRW-3LN4F+, Intel Xeon E5-2670 v2)

SPECint_rate_base2006 = 783

CPU2006 license: 001176

Test date: Mar-2014

Test sponsor: Supermicro

Hardware Availability: Oct-2013

Tested by: Supermicro

Software Availability: Sep-2013

Peak Optimization Flags (Continued)

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)
-ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs
-L/sh -lsmartheap

473.astar: basepeak = yes

483.xalancbmk: basepeak = yes

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-ic14.0-official-linux64.20140128.html>
<http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revD.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64.20140128.xml>
<http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revD.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 v1.2.
Report generated on Thu Jul 24 23:31:26 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 15 May 2014.