



# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

**SPECint®\_rate2006 = 810**

PRIMERGY BX924 S4, Intel Xeon E5-2670 v2, 2.50 GHz

**SPECint\_rate\_base2006 = 782**

CPU2006 license: 19

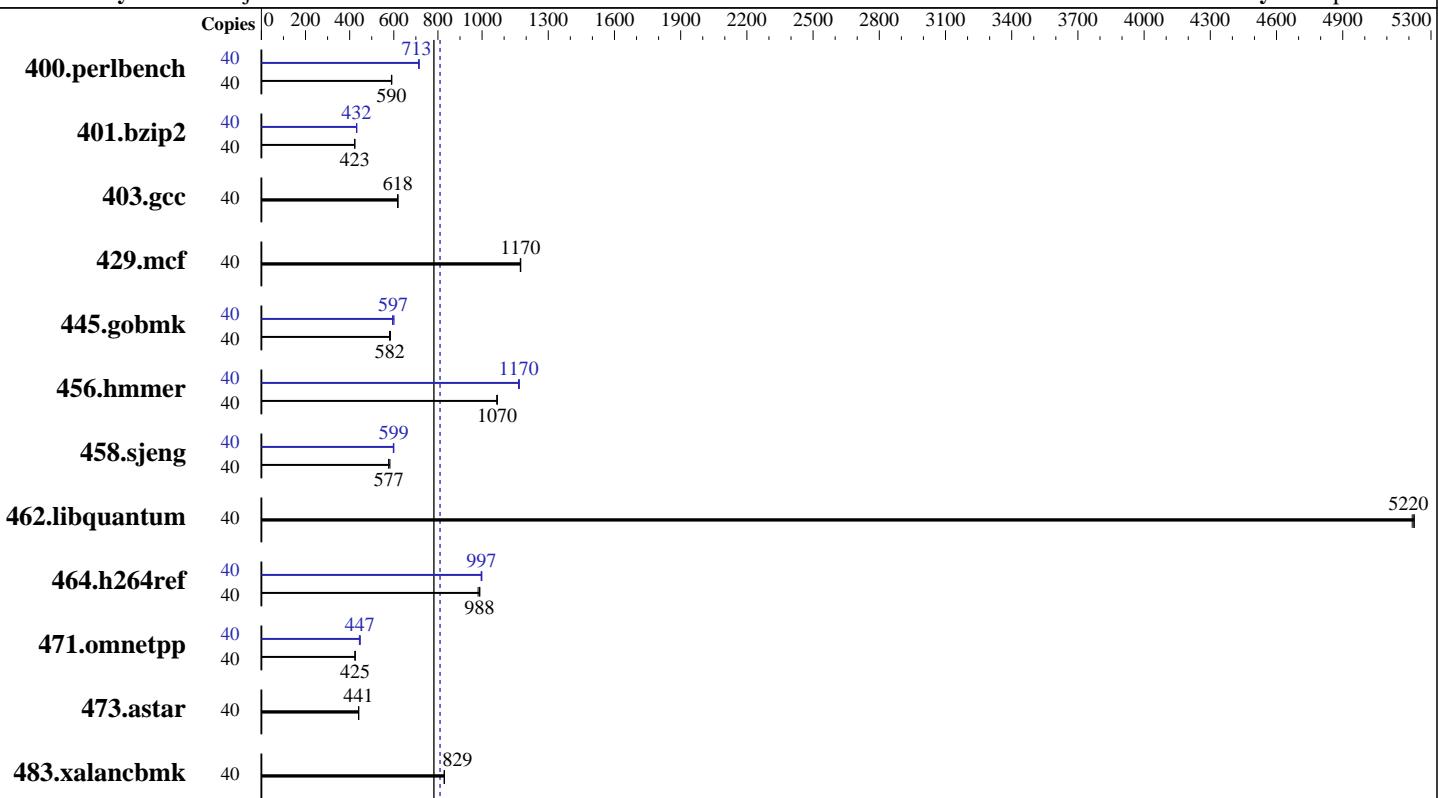
Test date: Oct-2013

Test sponsor: Fujitsu

Hardware Availability: Oct-2013

Tested by: Fujitsu

Software Availability: Sep-2013



**SPECint\_rate\_base2006 = 782**

**SPECint\_rate2006 = 810**

## 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 SATA, 500 GB, 7200 RPM  
Other Hardware: None

## Software

Operating System: Red Hat Enterprise Linux Server release 6.4 (Santiago)  
Compiler: 2.6.32-358.11.1.el6.x86\_64  
C/C++: Version 14.0.0.080 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 V10.0



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX924 S4, Intel Xeon E5-2670 v2, 2.50 GHz

**SPECint\_rate2006 = 810**

**SPECint\_rate\_base2006 = 782**

CPU2006 license: 19

Test date: Oct-2013

Test sponsor: Fujitsu

Hardware Availability: Oct-2013

Tested by: Fujitsu

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	661	591	<b>662</b>	<b>590</b>	663	589	40	<b>548</b>	<b>713</b>	548	713	546	715
401.bzip2	40	912	423	913	423	<b>912</b>	<b>423</b>	40	894	432	894	432	<b>894</b>	<b>432</b>
403.gcc	40	<b>521</b>	<b>618</b>	522	617	520	619	40	<b>521</b>	<b>618</b>	522	617	520	619
429.mcf	40	310	1180	311	1170	<b>311</b>	<b>1170</b>	40	310	1180	311	1170	<b>311</b>	<b>1170</b>
445.gobmk	40	<b>721</b>	<b>582</b>	717	585	722	581	40	698	601	706	594	<b>703</b>	<b>597</b>
456.hammer	40	349	1070	<b>349</b>	<b>1070</b>	350	1070	40	319	1170	320	1170	<b>320</b>	<b>1170</b>
458.sjeng	40	839	577	<b>838</b>	<b>577</b>	831	583	40	810	598	807	600	<b>807</b>	<b>599</b>
462.libquantum	40	159	5220	<b>159</b>	<b>5220</b>	159	5210	40	159	5220	<b>159</b>	<b>5220</b>	159	5210
464.h264ref	40	894	990	901	982	<b>896</b>	<b>988</b>	40	886	999	889	996	<b>888</b>	<b>997</b>
471.omnetpp	40	588	425	590	424	<b>588</b>	<b>425</b>	40	563	444	<b>560</b>	<b>447</b>	558	448
473.astar	40	637	441	<b>637</b>	<b>441</b>	637	441	40	637	441	<b>637</b>	<b>441</b>	637	441
483.xalancbmk	40	<b>333</b>	<b>829</b>	333	829	333	829	40	<b>333</b>	<b>829</b>	333	829	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

BIOS configuration:

Energy Performance = Performance

## General Notes

Environment variables set by runspec before the start of the run:

LD\_LIBRARY\_PATH = "/SPECcpu2006/libs/32:/SPECcpu2006/libs/64:/SPECcpu2006/sh"

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

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>

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX924 S4, Intel Xeon E5-2670 v2, 2.50 GHz

**SPECint\_rate2006 = 810**

**SPECint\_rate\_base2006 = 782**

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Oct-2013

Hardware Availability: Oct-2013

Software Availability: Sep-2013

## General Notes (Continued)

For information about Fujitsu please visit: <http://www.fujitsu.com>

## 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

401.bzip2: icc -m64

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX924 S4, Intel Xeon E5-2670 v2, 2.50 GHz

**SPECint\_rate2006 = 810**

**SPECint\_rate\_base2006 = 782**

**CPU2006 license:** 19

**Test sponsor:** Fujitsu

**Tested by:** Fujitsu

**Test date:** Oct-2013

**Hardware Availability:** Oct-2013

**Software Availability:** Sep-2013

## Peak Compiler Invocation (Continued)

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: `basepeak = yes`

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 -unroll12 -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)`  
`-unroll14 -auto-ilp32`

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)`  
`-unroll12 -ansi-alias`

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX924 S4, Intel Xeon E5-2670 v2, 2.50 GHz

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

SPECint\_rate2006 = 810

SPECint\_rate\_base2006 = 782

Test date: Oct-2013

Hardware Availability: Oct-2013

Software Availability: Sep-2013

## 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/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/Fujitsu-Platform.20131009.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/Fujitsu-Platform.20131009.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 17:42:39 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 19 November 2013.