



# SPEC<sup>®</sup> CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu

SPECint<sup>®</sup>\_rate2006 = 635

PRIMERGY TX300 S8, Intel Xeon E5-2643 v2, 3.50 GHz

SPECint\_rate\_base2006 = 609

CPU2006 license: 19

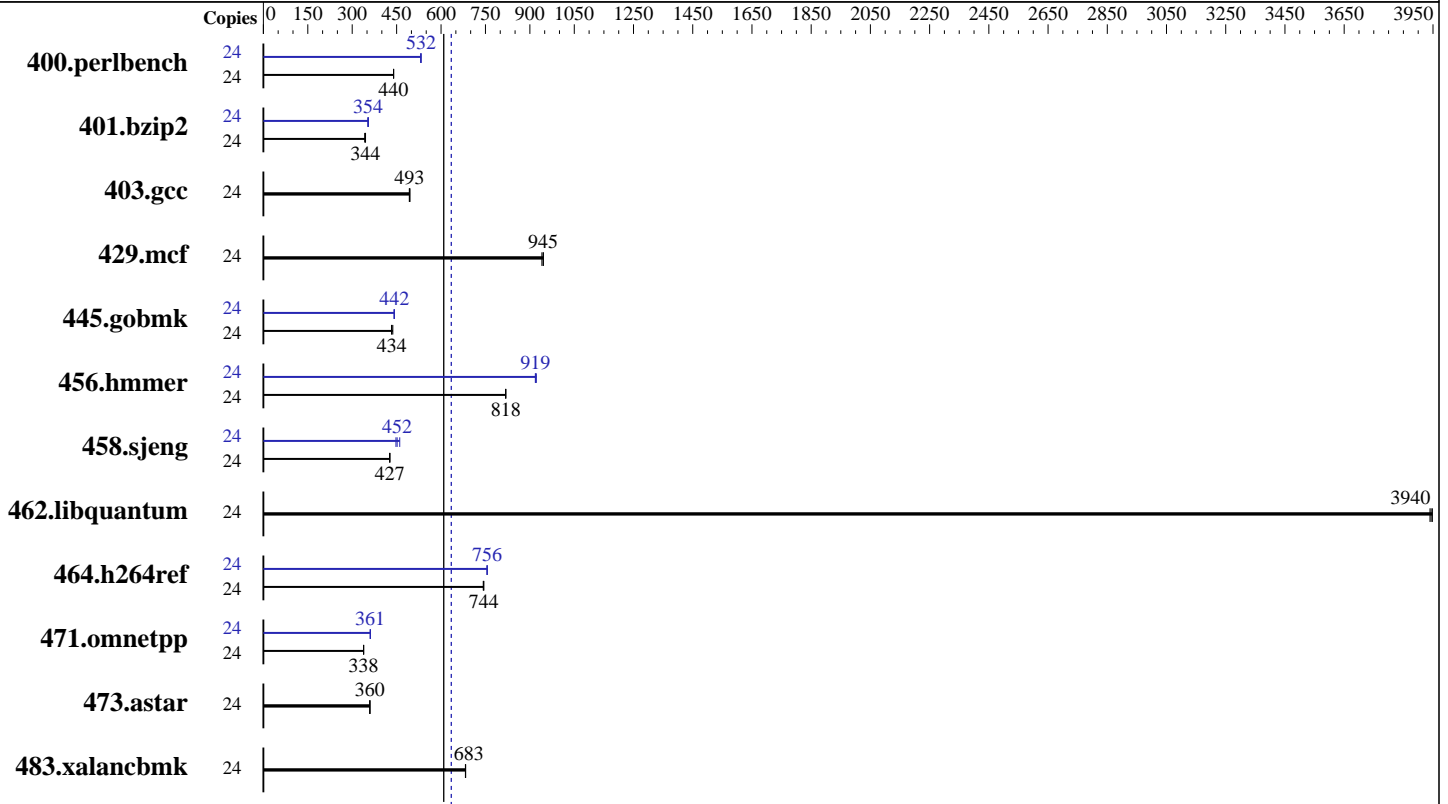
Test date: Sep-2013

Test sponsor: Fujitsu

Hardware Availability: Oct-2013

Tested by: Fujitsu

Software Availability: Sep-2013



SPECint\_rate\_base2006 = 609

### Hardware

CPU Name: Intel Xeon E5-2643 v2  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.80 GHz  
 CPU MHz: 3500  
 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: 25 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 256 GB (16 x 16 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)  
 2.6.32-358.11.1.el6.x86\_64  
 Compiler: 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

SPECint\_rate2006 = **635**

PRIMERGY TX300 S8, Intel Xeon E5-2643 v2, 3.50 GHz

SPECint\_rate\_base2006 = 609

CPU2006 license: 19  
Test sponsor: Fujitsu  
Tested by: Fujitsu

Test date: Sep-2013  
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	24	533	440	533	440	<u>533</u>	<u>440</u>	24	<u>440</u>	<u>532</u>	442	531	440	533
401.bzip2	24	<u>672</u>	<u>344</u>	671	345	677	342	24	657	352	<u>654</u>	<u>354</u>	653	355
403.gcc	24	<u>392</u>	<u>493</u>	390	495	392	493	24	<u>392</u>	<u>493</u>	390	495	392	493
429.mcf	24	233	941	231	946	<u>232</u>	<u>945</u>	24	233	941	231	946	<u>232</u>	<u>945</u>
445.gobmk	24	582	433	576	437	<u>580</u>	<u>434</u>	24	569	443	571	441	<u>569</u>	<u>442</u>
456.hammer	24	274	818	274	818	<u>274</u>	<u>818</u>	24	244	918	243	922	<u>244</u>	<u>919</u>
458.sjeng	24	682	426	<u>680</u>	<u>427</u>	679	427	24	<u>643</u>	<u>452</u>	649	448	631	460
462.libquantum	24	126	3940	<u>126</u>	<u>3940</u>	126	3950	24	126	3940	<u>126</u>	<u>3940</u>	126	3950
464.h264ref	24	715	743	714	744	<u>714</u>	<u>744</u>	24	703	755	703	756	<u>703</u>	<u>756</u>
471.omnetpp	24	<u>443</u>	<u>338</u>	443	338	443	339	24	416	361	415	362	<u>415</u>	<u>361</u>
473.astar	24	469	359	<u>469</u>	<u>360</u>	468	360	24	469	359	<u>469</u>	<u>360</u>	468	360
483.xalancbmk	24	242	683	243	682	<u>243</u>	<u>683</u>	24	242	683	243	682	<u>243</u>	<u>683</u>

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**

**SPECint\_rate2006 = 635**

PRIMERGY TX300 S8, Intel Xeon E5-2643 v2, 3.50 GHz

**SPECint\_rate\_base2006 = 609**

**CPU2006 license:** 19

**Test sponsor:** Fujitsu

**Tested by:** Fujitsu

**Test date:** Sep-2013

**Hardware Availability:** Oct-2013

**Software Availability:** Sep-2013

## General Notes (Continued)

This result was measured on the PRIMERGY RX350 S8. The PRIMERGY RX350 S8 and the PRIMERGY TX300 S8 are electronically equivalent.  
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**

**SPECint\_rate2006 = 635**

PRIMERGY TX300 S8, Intel Xeon E5-2643 v2, 3.50 GHz

**SPECint\_rate\_base2006 = 609**

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Sep-2013

Hardware Availability: Oct-2013

Software Availability: Sep-2013

## Peak Compiler Invocation (Continued)

456.hmmr: 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.hmmr: -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.hmmr: -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

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

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Fujitsu**

**SPECint\_rate2006 = 635**

PRIMERGY TX300 S8, Intel Xeon E5-2643 v2, 3.50 GHz

**SPECint\_rate\_base2006 = 609**

**CPU2006 license:** 19

**Test sponsor:** Fujitsu

**Tested by:** Fujitsu

**Test date:** Sep-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.20130924.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.20130924.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 17:40:31 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 19 November 2013.