



# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu

**SPECint®\_rate2006 = 961**

PRIMERGY TX300 S8, Intel Xeon E5-2697 v2, 2.70 GHz

**SPECint\_rate\_base2006 = 930**

**CPU2006 license:** 19

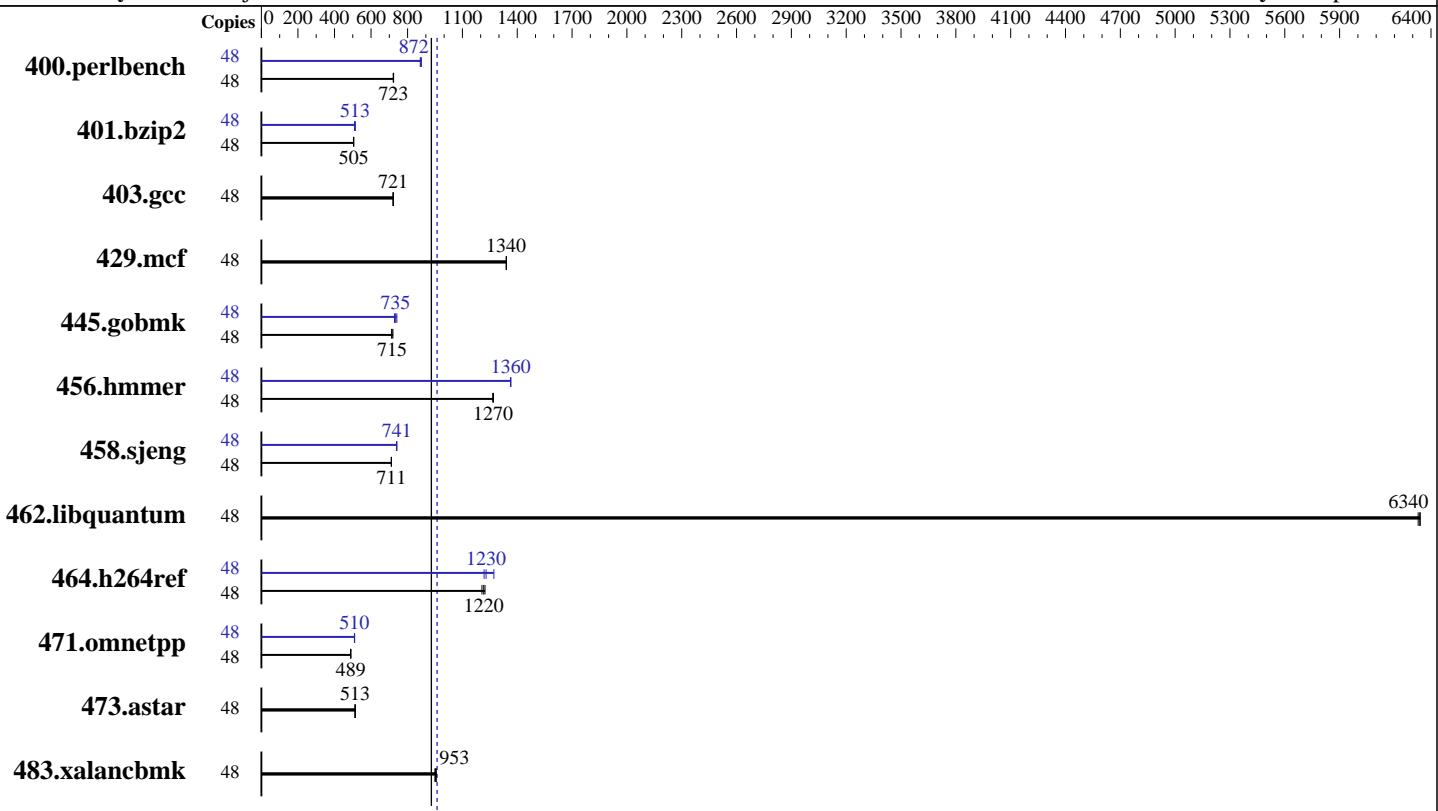
**Test date:** Sep-2013

**Test sponsor:** Fujitsu

**Hardware Availability:** Oct-2013

**Tested by:** Fujitsu

**Software Availability:** Sep-2013



**SPECint\_rate\_base2006 = 930**

**SPECint\_rate2006 = 961**

### Hardware

CPU Name: Intel Xeon E5-2697 v2  
CPU Characteristics: Intel Turbo Boost Technology up to 3.50 GHz  
CPU MHz: 2700  
FPU: Integrated  
CPU(s) enabled: 24 cores, 2 chips, 12 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: 30 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)  
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 5 (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 TX300 S8, Intel Xeon E5-2697 v2, 2.70 GHz

**SPECint\_rate2006 = 961**

**SPECint\_rate\_base2006 = 930**

CPU2006 license: 19

Test date: Sep-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	48	648	724	650	722	<b>649</b>	<b>723</b>	48	539	869	536	876	<b>538</b>	<b>872</b>
401.bzip2	48	<b>917</b>	<b>505</b>	916	505	919	504	48	<b>903</b>	<b>513</b>	902	514	909	509
403.gcc	48	535	722	<b>536</b>	<b>721</b>	536	721	48	535	722	<b>536</b>	<b>721</b>	536	721
429.mcf	48	<b>327</b>	<b>1340</b>	327	1340	327	1340	48	<b>327</b>	<b>1340</b>	327	1340	327	1340
445.gobmk	48	<b>704</b>	<b>715</b>	707	713	700	720	48	691	728	679	741	<b>685</b>	<b>735</b>
456.hammer	48	353	1270	354	1270	<b>353</b>	<b>1270</b>	48	329	1360	<b>328</b>	<b>1360</b>	328	1370
458.sjeng	48	<b>817</b>	<b>711</b>	816	711	817	711	48	786	739	<b>784</b>	<b>741</b>	784	741
462.libquantum	48	<b>157</b>	<b>6340</b>	157	6340	157	6330	48	<b>157</b>	<b>6340</b>	157	6340	157	6330
464.h264ref	48	880	1210	868	1220	<b>873</b>	<b>1220</b>	48	872	1220	<b>864</b>	<b>1230</b>	835	1270
471.omnetpp	48	614	488	<b>614</b>	<b>489</b>	613	490	48	<b>589</b>	<b>510</b>	589	509	588	510
473.astar	48	655	514	<b>657</b>	<b>513</b>	658	512	48	655	514	<b>657</b>	<b>513</b>	658	512
483.xalancbmk	48	<b>347</b>	<b>953</b>	349	950	346	957	48	<b>347</b>	<b>953</b>	349	950	346	957

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 TX300 S8, Intel Xeon E5-2697 v2, 2.70 GHz

**SPECint\_rate2006 = 961**

**SPECint\_rate\_base2006 = 930**

CPU2006 license: 19

Test date: Sep-2013

Test sponsor: Fujitsu

Hardware Availability: Oct-2013

Tested by: Fujitsu

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

PRIMERGY TX300 S8, Intel Xeon E5-2697 v2, 2.70 GHz

**SPECint\_rate2006 = 961**

**SPECint\_rate\_base2006 = 930**

**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.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 TX300 S8, Intel Xeon E5-2697 v2, 2.70 GHz

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

SPECint\_rate2006 = 961

SPECint\_rate\_base2006 = 930

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 17:32:27 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 19 November 2013.