



# SPEC® CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

## Fujitsu

PRIMERGY RX4770 M2, Intel Xeon E7-4850 v3, 2.20 GHz

SPECint®\_rate2006 = 2020

SPECint\_rate\_base2006 = 1960

CPU2006 license: 19

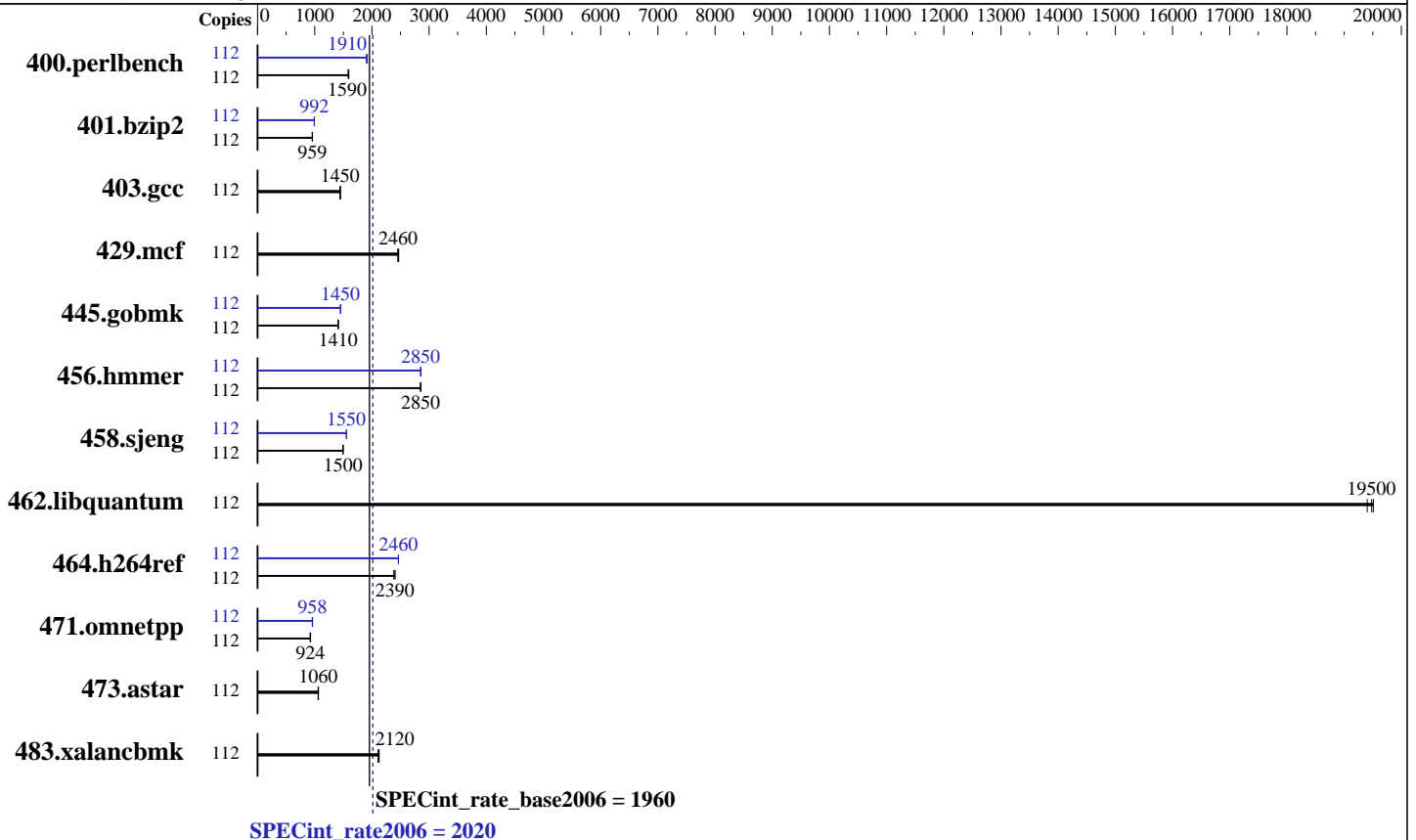
Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Apr-2015

Hardware Availability: May-2015

Software Availability: Oct-2014



### Hardware

CPU Name: Intel Xeon E7-4850 v3  
 CPU Characteristics: Intel Turbo Boost Technology up to 2.80 GHz  
 CPU MHz: 2200  
 FPU: Integrated  
 CPU(s) enabled: 56 cores, 4 chips, 14 cores/chip, 2 threads/core  
 CPU(s) orderable: 2,4 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: 35 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 512 GB (32 x 16 GB 2Rx4 PC4-2133P-R, running at 1333 MHz)  
 Disk Subsystem: 1 x SATA, 600 GB, 10000 RPM  
 Other Hardware: None

### Software

Operating System: Red Hat Enterprise Linux Server release 6.6 (Santiago)  
 2.6.32-504.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 2006-2015 Standard Performance Evaluation Corporation

## Fujitsu

PRIMERGY RX4770 M2, Intel Xeon E7-4850 v3, 2.20 GHz

SPECint\_rate2006 = 2020

SPECint\_rate\_base2006 = 1960

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

Test date: Apr-2015  
Hardware Availability: May-2015  
Software Availability: Oct-2014

## Results Table

Benchmark	Base						Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	112	691	1580	<b>688</b>	<b>1590</b>	685	1600	112	575	1900	570	1920	<b>572</b>	<b>1910</b>
401.bzip2	112	<b>1127</b>	<b>959</b>	1131	955	1125	961	112	1090	991	<b>1089</b>	<b>992</b>	1087	994
403.gcc	112	622	1450	<b>624</b>	<b>1450</b>	625	1440	112	622	1450	<b>624</b>	<b>1450</b>	625	1440
429.mcf	112	414	2470	416	2450	<b>416</b>	<b>2460</b>	112	414	2470	416	2450	<b>416</b>	<b>2460</b>
445.gobmk	112	832	1410	834	1410	<b>833</b>	<b>1410</b>	112	809	1450	<b>810</b>	<b>1450</b>	810	1450
456.hammer	112	366	2860	367	2850	<b>366</b>	<b>2850</b>	112	367	2850	365	2860	<b>366</b>	<b>2850</b>
458.sjeng	112	<b>906</b>	<b>1500</b>	907	1490	906	1500	112	872	1550	<b>872</b>	<b>1550</b>	871	1560
462.libquantum	112	119	19500	<b>119</b>	<b>19500</b>	120	19400	112	119	19500	<b>119</b>	<b>19500</b>	120	19400
464.h264ref	112	<b>1039</b>	<b>2390</b>	1030	2410	1039	2390	112	1007	2460	1005	2470	<b>1006</b>	<b>2460</b>
471.omnetpp	112	761	919	<b>758</b>	<b>924</b>	755	927	112	731	957	727	963	<b>730</b>	<b>958</b>
473.astar	112	743	1060	<b>739</b>	<b>1060</b>	739	1060	112	743	1060	<b>739</b>	<b>1060</b>	739	1060
483.xalancbmk	112	<b>365</b>	<b>2120</b>	367	2110	363	2130	112	<b>365</b>	<b>2120</b>	367	2110	363	2130

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 = "/home/SPECcpu2006/libs/32:/home/SPECcpu2006/libs/64:/home/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 2006-2015 Standard Performance Evaluation Corporation

**Fujitsu**

PRIMERGY RX4770 M2, Intel Xeon E7-4850 v3, 2.20 GHz

**SPECint\_rate2006 = 2020**

**SPECint\_rate\_base2006 = 1960**

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

**Test date:** Apr-2015  
**Hardware Availability:** May-2015  
**Software Availability:** Oct-2014

## 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:  
-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch  
-opt-mem-layout-trans=3  
  
C++ benchmarks:  
-xCORE-AVX2 -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 2006-2015 Standard Performance Evaluation Corporation

**Fujitsu**

PRIMERGY RX4770 M2, Intel Xeon E7-4850 v3, 2.20 GHz

**SPECint\_rate2006 = 2020**

**SPECint\_rate\_base2006 = 1960**

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

**Test date:** Apr-2015  
**Hardware Availability:** May-2015  
**Software Availability:** Oct-2014

## Peak Compiler Invocation (Continued)

456.hmmmer: `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.hmmmer: `-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: `-xCORE-AVX2(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: `-xCORE-AVX2(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: `-xCORE-AVX2(pass 2) -prof-gen(pass 1) -prof-use(pass 2) -ansi-alias -opt-mem-layout-trans=3`

456.hmmmer: `-xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32`

458.sjeng: `-xCORE-AVX2(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: `-xCORE-AVX2(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 2006-2015 Standard Performance Evaluation Corporation

**Fujitsu**

PRIMERGY RX4770 M2, Intel Xeon E7-4850 v3, 2.20 GHz

**SPECint\_rate2006 = 2020**

**SPECint\_rate\_base2006 = 1960**

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

**Test date:** Apr-2015  
**Hardware Availability:** May-2015  
**Software Availability:** Oct-2014

## Peak Optimization Flags (Continued)

C++ benchmarks:

471.omnetpp: -xCORE-AVX2(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/Fujitsu-Platform-Settings-V1.2-HSW-RevA.html>  
<http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64-revB.html>

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

<http://www.spec.org/cpu2006/flags/Fujitsu-Platform-Settings-V1.2-HSW-RevA.xml>  
<http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64-revB.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 Wed Jun 17 10:48:50 2015 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 16 June 2015.