



SPEC® CINT2006 Result

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Fujitsu

SPECint®_rate2006 = 715

PRIMERGY RX500 S7, Intel Xeon E5-4607, 2.20 GHz

SPECint_rate_base2006 = 686

CPU2006 license: 19

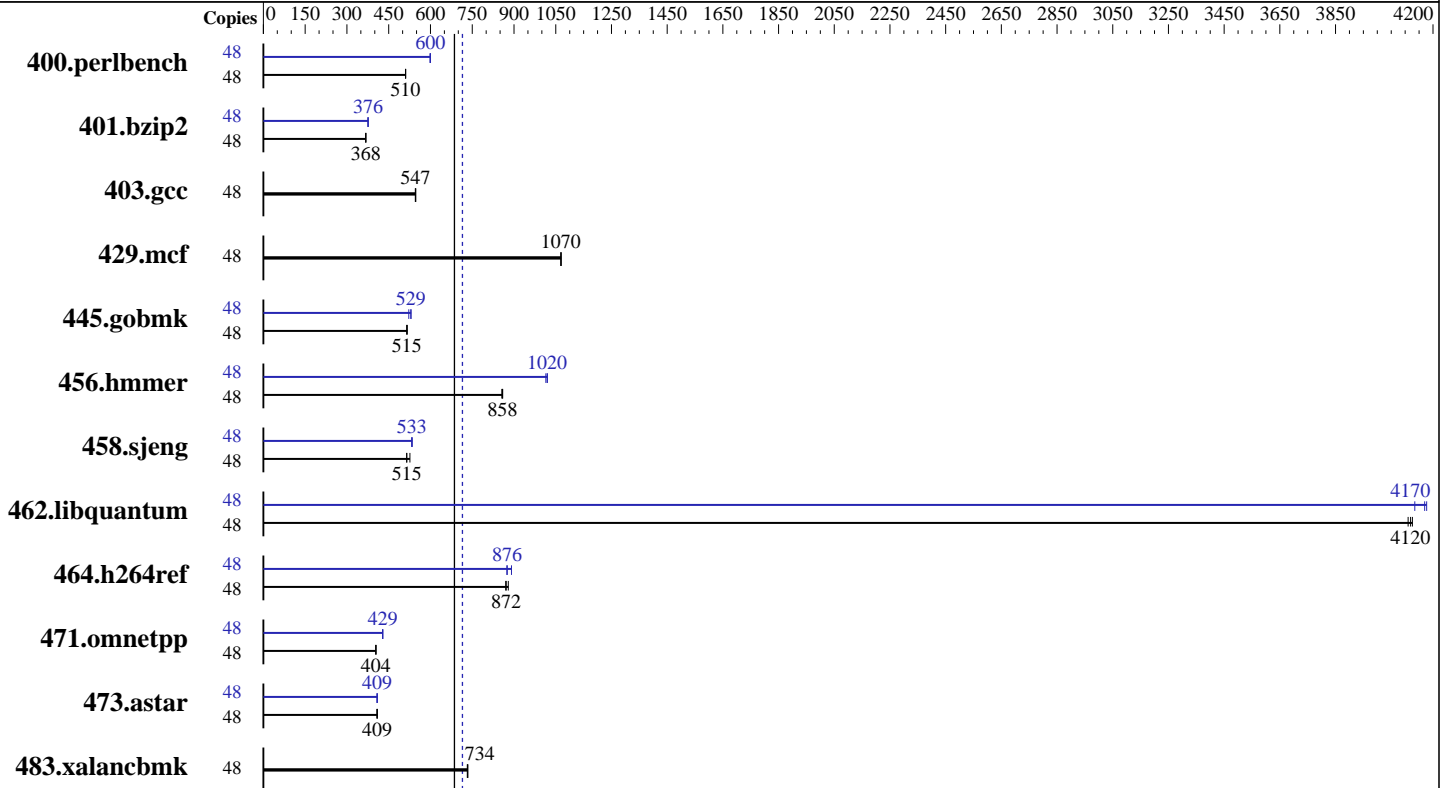
Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Jul-2012

Hardware Availability: Jul-2012

Software Availability: Feb-2012



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Hardware

CPU Name: Intel Xeon E5-4607
 CPU Characteristics:
 CPU MHz: 2200
 FPU: Integrated
 CPU(s) enabled: 24 cores, 4 chips, 6 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: 12 MB I+D on chip per chip
 Other Cache: None
 Memory: 256 GB (32 x 8 GB 2Rx4 PC3L-12800R-11, ECC)
 Disk Subsystem: 1 x SATA, 500 GB, 7200 RPM
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.2 (Santiago)
 2.6.32-220.el6.x86_64
 Compiler: C/C++: Version 12.1.0.293 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



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Results Table

Benchmark	Base						Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	48	917	511	<u>919</u>	<u>510</u>	919	510	48	784	598	<u>782</u>	<u>600</u>	782	600
401.bzip2	48	<u>1260</u>	<u>368</u>	1258	368	1260	368	48	1231	376	1233	376	<u>1232</u>	<u>376</u>
403.gcc	48	<u>707</u>	<u>547</u>	708	546	706	547	48	<u>707</u>	<u>547</u>	708	546	706	547
429.mcf	48	410	1070	409	1070	<u>410</u>	<u>1070</u>	48	410	1070	409	1070	<u>410</u>	<u>1070</u>
445.gobmk	48	<u>977</u>	<u>515</u>	975	516	978	515	48	<u>951</u>	<u>529</u>	949	530	964	522
456.hammer	48	521	859	<u>522</u>	<u>858</u>	523	856	48	439	1020	<u>440</u>	<u>1020</u>	442	1010
458.sjeng	48	1129	515	1104	526	<u>1128</u>	<u>515</u>	48	<u>1089</u>	<u>533</u>	1090	533	1087	534
462.libquantum	48	242	4110	241	4130	<u>241</u>	<u>4120</u>	48	<u>239</u>	<u>4170</u>	238	4180	241	4130
464.h264ref	48	1208	879	<u>1218</u>	<u>872</u>	1221	870	48	<u>1213</u>	<u>876</u>	1192	891	1215	874
471.omnetpp	48	742	404	743	404	<u>743</u>	<u>404</u>	48	<u>700</u>	<u>429</u>	700	429	700	428
473.astar	48	<u>824</u>	<u>409</u>	824	409	827	408	48	825	409	825	408	<u>825</u>	<u>409</u>
483.xalancbmk	48	<u>451</u>	<u>734</u>	452	732	451	734	48	<u>451</u>	<u>734</u>	452	732	451	734

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"
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
runspec command invoked through numactl i.e.:
numactl --interleave=all runspec <etc>

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/SPECcpu2006/libs/32:/SPECcpu2006/libs/64"

Binaries compiled on a system with 2x E5-2650 CPU + 96 GB memory using RHEL6.2
For information about Fujitsu please visit: <http://www.fujitsu.com>

Base Compiler Invocation

C benchmarks:
icc -m32

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Base Compiler Invocation (Continued)

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/opt/SmartHeap/lib -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

456.hmmer: icc -m64

458.sjeng: icc -m64

C++ benchmarks:
icpc -m32



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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: -xAVX(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: -xAVX -ipo -O3 -no-prec-div -opt-prefetch
 -opt-mem-layout-trans=3

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/opt/SmartHeap/lib -lsmarheap

473.astar: -xAVX -ipo -O3 -no-prec-div -opt-prefetch
 -opt-mem-layout-trans=3 -Wl,-z,muldefs
 -L/opt/SmartHeap/lib -lsmarheap

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Peak Optimization Flags (Continued)

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-ic12.1-official-linux64.20111122.html>

<http://www.spec.org/cpu2006/flags/Fujitsu-Platform.20120320.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml>

<http://www.spec.org/cpu2006/flags/Fujitsu-Platform.20120320.xml>

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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