



SPEC[®] CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

SPECint[®]_rate2006 = 152

Express5800/R120b-1
(Intel Xeon L5640)

SPECint_rate_base2006 = 142

CPU2006 license: 9006

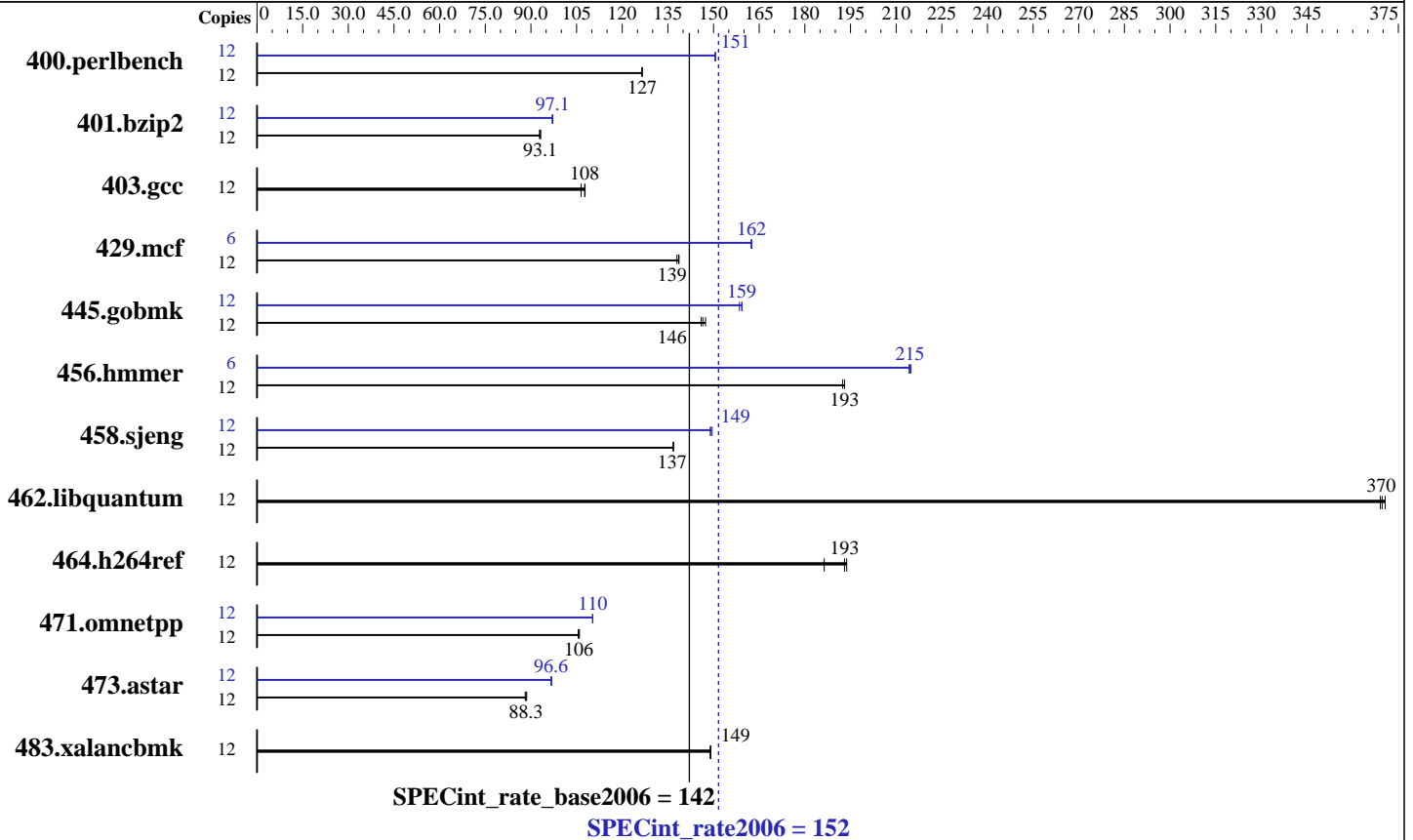
Test date: Jul-2010

Test sponsor: NEC Corporation

Hardware Availability: Sep-2010

Tested by: NEC Corporation

Software Availability: Dec-2009



Hardware

CPU Name: Intel Xeon L5640
 CPU Characteristics: Intel Turbo Boost Technology up to 2.80 GHz
 CPU MHz: 2267
 FPU: Integrated
 CPU(s) enabled: 6 cores, 1 chip, 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: 12 MB I+D on chip per chip
 Other Cache: None
 Memory: 48 GB (6 x 8 GB PC3L-10600R, 2 rank, CL9, ECC)
 Disk Subsystem: 1x160 GB SATA, 7200 RPM
 Other Hardware: None

Software

Operating System: SUSE Linux Enterprise Server 11 (x86_64), Kernel 2.6.27.19-5-default
 Compiler: Intel C++ Professional Compiler for IA32 and Intel 64, Version 11.1 Build 20091130 Package ID: l_cproc_p_11.1.064
 Auto Parallel: No
 File System: ext3
 System State: Run level 3 (multi-user)
 Base Pointers: 32-bit
 Peak Pointers: 32/64-bit
 Other Software: Microquill SmartHeap V8.1



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R120b-1
(Intel Xeon L5640)

SPECint_rate2006 = 152

SPECint_rate_base2006 = 142

CPU2006 license: 9006
Test sponsor: NEC Corporation
Tested by: NEC Corporation

Test date: Jul-2010
Hardware Availability: Sep-2010
Software Availability: Dec-2009

Results Table

Benchmark	Base						Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	12	926	127	927	126	926	127	12	779	150	779	151	778	151
401.bzip2	12	1243	93.2	1244	93.1	1248	92.8	12	1192	97.1	1194	97.0	1192	97.2
403.gcc	12	897	108	907	106	896	108	12	897	108	907	106	896	108
429.mcf	12	793	138	789	139	790	139	6	337	162	337	162	337	163
445.gobmk	12	863	146	859	146	854	147	12	794	158	790	159	790	159
456.hammer	12	580	193	582	192	580	193	6	261	214	261	215	261	215
458.sjeng	12	1062	137	1061	137	1062	137	12	975	149	971	150	973	149
462.libquantum	12	673	370	671	371	674	369	12	673	370	671	371	674	369
464.h264ref	12	1425	186	1376	193	1371	194	12	1425	186	1376	193	1371	194
471.omnetpp	12	708	106	711	106	710	106	12	680	110	680	110	680	110
473.astar	12	954	88.3	951	88.6	956	88.1	12	870	96.8	872	96.6	872	96.6
483.xalancbmk	12	556	149	556	149	555	149	12	556	149	556	149	555	149

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Submit Notes

The config file option 'submit' was used.
numactl was used to bind copies to the cores

Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run

Platform Notes

BIOS setting:
Performance/Watt: Traditional
Memory Voltage: Normal

General Notes

The Express5800/R120b-1 and
the Express5800/R120b-2 models are electronically equivalent.
The results have been measured on the Express5800/R120b-1 model.

Base Compiler Invocation

C benchmarks:
icc -m32

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R120b-1
(Intel Xeon L5640)

SPECint_rate2006 = 152

SPECint_rate_base2006 = 142

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Jul-2010

Hardware Availability: Sep-2010

Software Availability: Dec-2009

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 -static -opt-prefetch

C++ benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/opt/SmartHeap_8.1/lib -lsmartheap

Base Other Flags

C benchmarks:
403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):
icc -m32

401.bzip2: icc -m64

456.hmmer: icc -m64

458.sjeng: icc -m64

C++ benchmarks (except as noted below):
icpc -m32

473.astar: icpc -m64



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R120b-1
(Intel Xeon L5640)

SPECint_rate2006 = 152

SPECint_rate_base2006 = 142

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Jul-2010

Hardware Availability: Sep-2010

Software Availability: Dec-2009

Peak Portability Flags

```

400.perlbench: -DSPEC_CPU_LINUX_IA32
401.bzip2: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX
473.astar: -DSPEC_CPU_LP64
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) -static(pass 2)
               -prof-use(pass 2) -ansi-alias

401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
            -O3(pass 2) -no-prec-div(pass 2) -static(pass 2)
            -prof-use(pass 2) -opt-prefetch -ansi-alias -auto-ilp32

403.gcc: basepeak = yes

429.mcf: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2) -O2
            -ipo -no-prec-div -ansi-alias

456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -static -unroll2
            -ansi-alias -auto-ilp32

458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
            -O3(pass 2) -no-prec-div(pass 2) -static(pass 2)
            -prof-use(pass 2) -unroll4 -auto-ilp32

462.libquantum: basepeak = yes

464.h264ref: basepeak = yes

```

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_8.1/lib -lsmarheap

473.astar: -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=routine -Wl,-z,muldefs
            -L/opt/SmartHeap_8.1/lib64 -lsmarheap64

```

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R120b-1
(Intel Xeon L5640)

SPECint_rate2006 = 152

SPECint_rate_base2006 = 142

CPU2006 license: 9006
Test sponsor: NEC Corporation
Tested by: NEC Corporation

Test date: Jul-2010
Hardware Availability: Sep-2010
Software Availability: Dec-2009

Peak Optimization Flags (Continued)

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

The flags file that was used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100823.00.html>

You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100823.00.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.

Tested with SPEC CPU2006 v1.1.
Report generated on Wed Jul 23 13:39:00 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 19 August 2010.