



SPEC[®] CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R140a-4
(Intel Xeon E7430)

SPECint[®]_rate2006 = 99.7

SPECint_rate_base2006 = 93.9

CPU2006 license: 9006

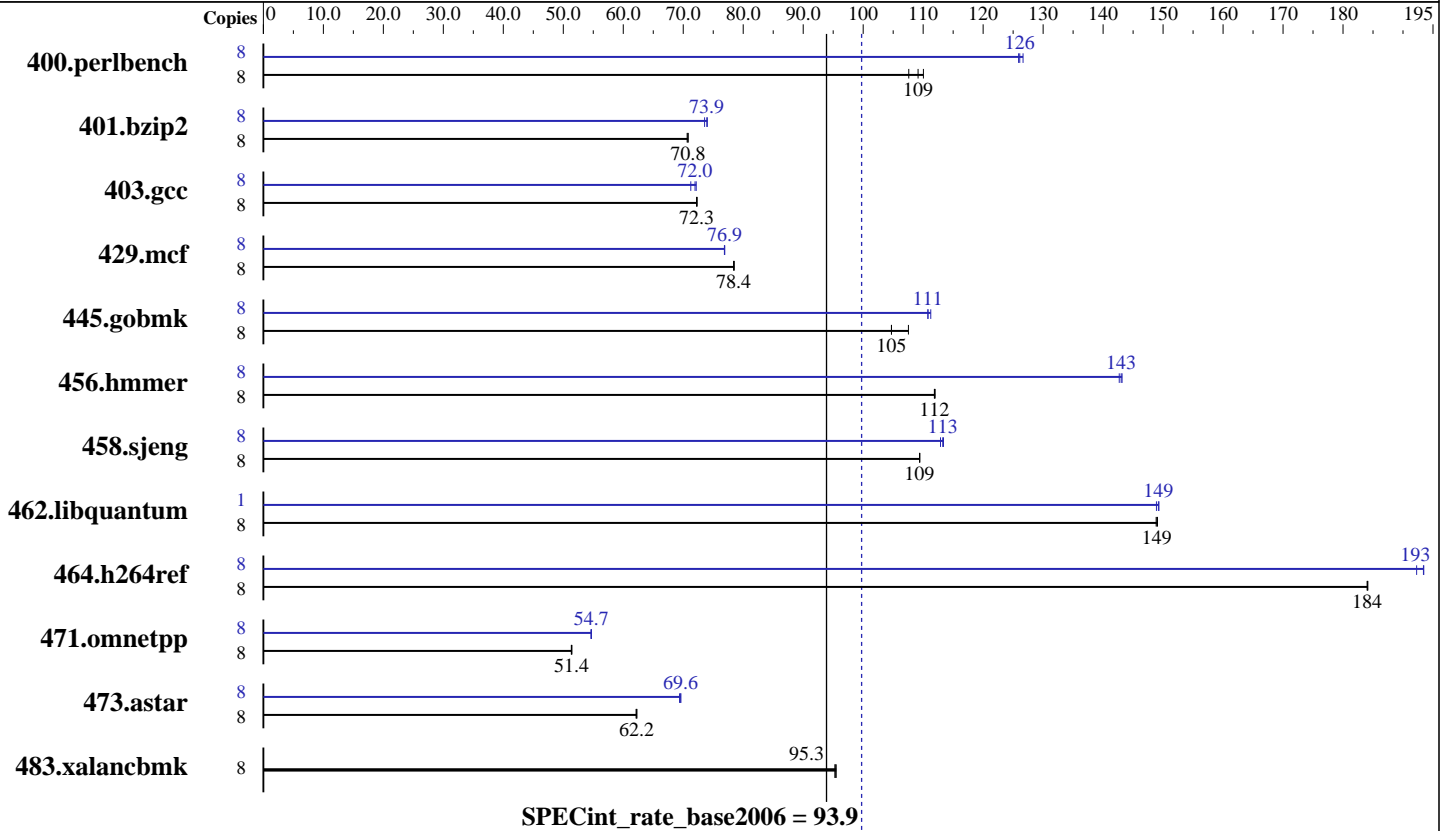
Test sponsor: NEC Corporation

Tested by: Bull SAS

Test date: Feb-2009

Hardware Availability: Nov-2008

Software Availability: Nov-2008



Hardware

CPU Name: Intel Xeon E7430
 CPU Characteristics: 1066 MHz system bus
 CPU MHz: 2133
 FPU: Integrated
 CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip
 CPU(s) orderable: 1,2,3,4 chips
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 6 MB I+D on chip per chip, 3 MB shared / 2 cores
 L3 Cache: 12 MB I+D on chip per chip
 Other Cache: None
 Memory: 32 GB (16 x 2GB DDR2-667 FBDIMM)
 Disk Subsystem: 1x146 GB SAS, 10000 RPM
 Other Hardware: None

Software

Operating System: SUSE Linux Enterprise Server 10 (x86_64) SP2, Kernel 2.6.16.60-0.21-smp
 Compiler: Intel C++ Compiler 11.0 for Linux Build 20080730 Package ID: l_cproc_b_11.0.042
 Auto Parallel: Yes
 File System: ReiserFS
 System State: Run level 3 (multi-user)
 Base Pointers: 32-bit
 Peak Pointers: 32/64-bit
 Other Software: Microquill SmartHeap V8.1 Binutils 2.18.50.0.7.20080502



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R140a-4
(Intel Xeon E7430)

SPECint_rate2006 = 99.7

SPECint_rate_base2006 = 93.9

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: Bull SAS

Test date: Feb-2009

Hardware Availability: Nov-2008

Software Availability: Nov-2008

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	8	710	110	<u>716</u>	<u>109</u>	726	108	8	617	127	621	126	<u>620</u>	<u>126</u>
401.bzip2	8	1093	70.7	<u>1091</u>	<u>70.8</u>	1090	70.8	8	1043	74.0	<u>1044</u>	<u>73.9</u>	1050	73.6
403.gcc	8	892	72.2	891	72.3	<u>891</u>	<u>72.3</u>	8	892	72.2	<u>895</u>	<u>72.0</u>	904	71.3
429.mcf	8	929	78.5	931	78.4	<u>930</u>	<u>78.4</u>	8	949	76.9	949	76.9	<u>949</u>	<u>76.9</u>
445.gobmk	8	801	105	<u>801</u>	<u>105</u>	780	108	8	<u>757</u>	<u>111</u>	757	111	754	111
456.hammer	8	667	112	666	112	<u>667</u>	<u>112</u>	8	<u>522</u>	<u>143</u>	521	143	523	143
458.sjeng	8	<u>885</u>	<u>109</u>	885	109	885	109	8	854	113	<u>855</u>	<u>113</u>	857	113
462.libquantum	8	1114	149	<u>1113</u>	<u>149</u>	1112	149	1	139	149	139	149	<u>139</u>	<u>149</u>
464.h264ref	8	961	184	<u>962</u>	<u>184</u>	962	184	8	915	193	<u>915</u>	<u>193</u>	921	192
471.omnetpp	8	<u>973</u>	<u>51.4</u>	972	51.4	974	51.3	8	914	54.7	915	54.6	<u>914</u>	<u>54.7</u>
473.astar	8	<u>902</u>	<u>62.2</u>	902	62.3	904	62.1	8	807	69.6	809	69.4	<u>807</u>	<u>69.6</u>
483.xalancbmk	8	578	95.5	<u>579</u>	<u>95.3</u>	579	95.3	8	578	95.5	<u>579</u>	<u>95.3</u>	579	95.3

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.
taskset was used to bind processes to cores except
for 462.libquantum peak

Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run
OMP_NUM_THREADS set to number of cores
KMP_AFFINITY set to physical,0
KMP_STACKSIZE set to 64M

Platform Notes

BIOS Settings:
Adjacent Cache Line Prefetch = Disabled
Hardware Prefetcher = Disabled

General Notes

The NEC Express5800/R140a-4(Intel Xeon E7430) and
the Bull NovaScale R480 E1(Intel Xeon E7430, 2.13 GHz) models are electronically equivalent.
The results have been measured on a Bull NovaScale R480 E1(Intel Xeon E7430, 2.13 GHz) model.



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R140a-4
(Intel Xeon E7430)

SPECint_rate2006 = 99.7

SPECint_rate_base2006 = 93.9

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: Bull SAS

Test date: Feb-2009

Hardware Availability: Nov-2008

Software Availability: Nov-2008

Base Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc

Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:

-xSSE4.1 -ipo -O3 -no-prec-div -static -inline-calloc
-opt-malloc-options=3 -opt-prefetch

C++ benchmarks:

-xSSE4.1 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/spec/cpu2006.1.1/lib -lsmartheap

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):

icc

401.bzip2: /opt/intel/Compiler/11.0/042/bin/intel64/icc
-L/opt/intel/Compiler/11.0/042/ipp/em64t/lib
-I/opt/intel/Compiler/11.0/042/ipp/em64t/include

456.hmmer: /opt/intel/Compiler/11.0/042/bin/intel64/icc
-L/opt/intel/Compiler/11.0/042/ipp/em64t/lib
-I/opt/intel/Compiler/11.0/042/ipp/em64t/include

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R140a-4
(Intel Xeon E7430)

SPECint_rate2006 = 99.7

SPECint_rate_base2006 = 93.9

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: Bull SAS

Test date: Feb-2009

Hardware Availability: Nov-2008

Software Availability: Nov-2008

Peak Compiler Invocation (Continued)

C++ benchmarks:
icpc

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
401.bzip2: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -ansi-alias -opt-prefetch
401.bzip2: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -opt-prefetch -ansi-alias
403.gcc: -xSSE4.1 -ipo -O3 -no-prec-div -static -inline-alloc
-opt-malloc-options=3
429.mcf: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -opt-prefetch
445.gobmk: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -O2 -ipo
-no-prec-div -ansi-alias
456.hmmer: -xSSE4.1 -ipo -O3 -no-prec-div -static -unroll2
-ansi-alias
458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll4
462.libquantum: -xSSE4.1 -ipo -O3 -no-prec-div -static
-opt-malloc-options=3 -parallel -par-runtime-control
-opt-prefetch
464.h264ref: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll2 -ansi-alias

C++ benchmarks:

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R140a-4
(Intel Xeon E7430)

SPECint_rate2006 = 99.7

SPECint_rate_base2006 = 93.9

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: Bull SAS

Test date: Feb-2009

Hardware Availability: Nov-2008

Software Availability: Nov-2008

Peak Optimization Flags (Continued)

471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -ansi-alias -opt-ra-region-strategy=block
-Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmartheap

473.astar: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -ansi-alias -opt-ra-region-strategy=routine
-Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmartheap

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-ic11.0-int-linux64-revA.20090710.00.html>

<http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revA.20090710.00.xml>

<http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.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 Tue Jul 22 23:37:02 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 1 April 2009.