



# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/R120a-1  
(Intel Xeon E5504)

SPECint®\_rate2006 = 69.7

SPECint\_rate\_base2006 = 65.2

CPU2006 license: 9006

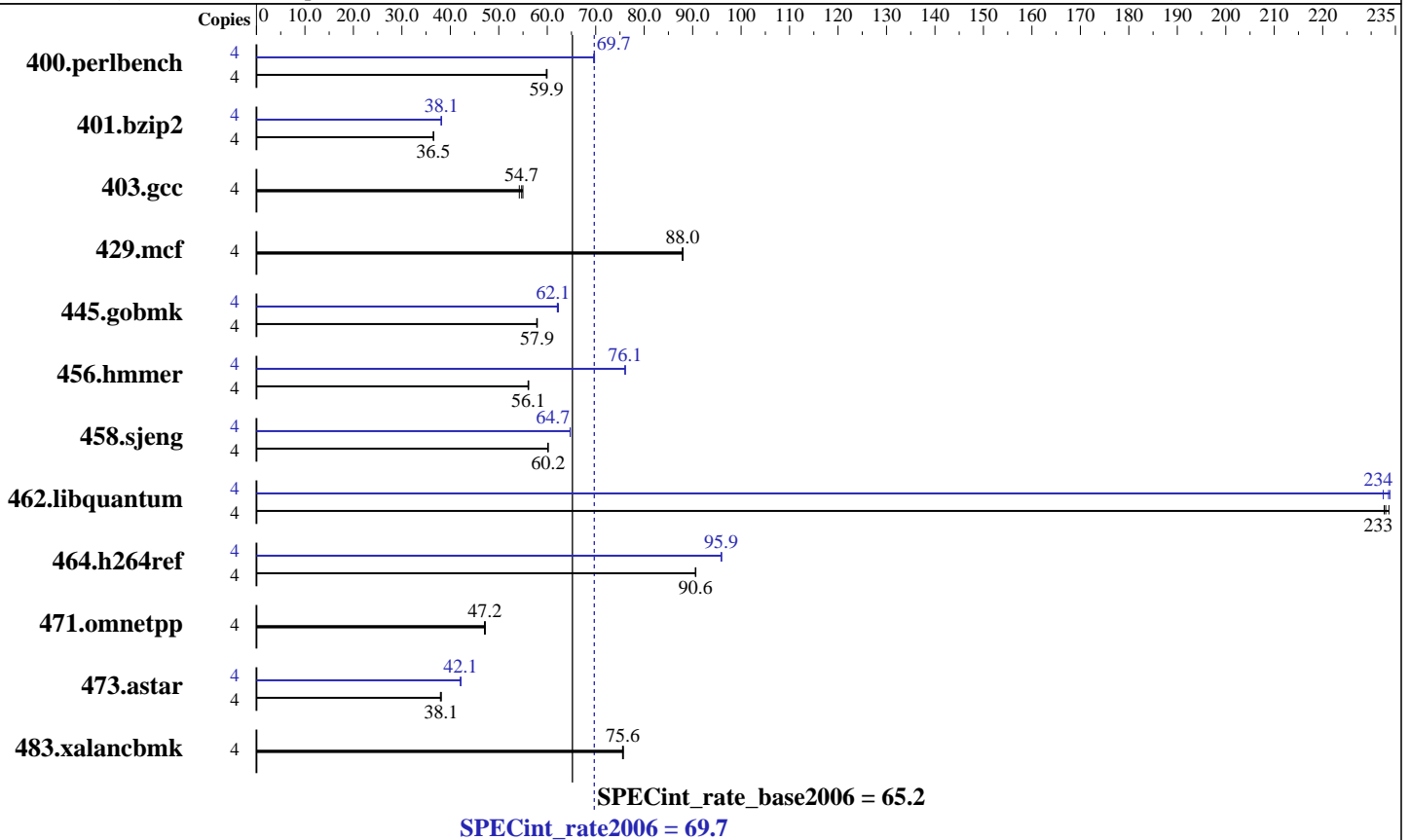
Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Apr-2009

Hardware Availability: Apr-2009

Software Availability: Feb-2009



### Hardware

CPU Name: Intel Xeon E5504  
 CPU Characteristics:  
 CPU MHz: 2000  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip  
 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: 4 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 24 GB (6 X 4 GB PC3-8500R running at 800 MHz)  
 Disk Subsystem: 1x146.5 GB SAS, 15000 RPM  
 Other Hardware: None

### Software

Operating System: SUSE Linux Enterprise Server 10 (x86\_64) SP2 with patch Linux kernel 20090119, Kernel 2.6.16.60-0.34-smp  
 Compiler: Intel C++ Compiler Professional 11.0 for Linux Build 20090131 Package ID: l\_cproc\_p\_11.0.081  
 Auto Parallel: No  
 File System: ReiserFS  
 System State: Run level 3 (multi-user)  
 Base Pointers: 32-bit  
 Peak Pointers: 32/64-bit  
 Other Software: MicroQuill SmartHeap Library 8.1 Binutils 2.18.50.0.7.20080502



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/R120a-1  
(Intel Xeon E5504)

SPECint\_rate2006 = 69.7

SPECint\_rate\_base2006 = 65.2

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Apr-2009

Hardware Availability: Apr-2009

Software Availability: Feb-2009

## Results Table

Benchmark	Base								Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio		
400.perlbench	4	<b>653</b>	<b>59.9</b>	652	60.0	653	59.8	4	560	69.8	562	69.6	<b>561</b>	<b>69.7</b>		
401.bzip2	4	<b>1057</b>	<b>36.5</b>	1055	36.6	1058	36.5	4	1013	38.1	<b>1012</b>	<b>38.1</b>	1010	38.2		
403.gcc	4	586	55.0	594	54.2	<b>588</b>	<b>54.7</b>	4	586	55.0	594	54.2	<b>588</b>	<b>54.7</b>		
429.mcf	4	415	88.0	<b>415</b>	<b>88.0</b>	415	87.9	4	415	88.0	<b>415</b>	<b>88.0</b>	415	87.9		
445.gobmk	4	726	57.8	<b>725</b>	<b>57.9</b>	724	57.9	4	<b>675</b>	<b>62.1</b>	673	62.3	676	62.1		
456.hammer	4	666	56.0	<b>665</b>	<b>56.1</b>	665	56.1	4	<b>491</b>	<b>76.1</b>	491	76.1	490	76.1		
458.sjeng	4	<b>804</b>	<b>60.2</b>	805	60.1	804	60.2	4	<b>748</b>	<b>64.7</b>	747	64.7	748	64.7		
462.libquantum	4	356	233	<b>356</b>	<b>233</b>	355	234	4	356	232	<b>355</b>	<b>234</b>	354	234		
464.h264ref	4	977	90.6	976	90.7	<b>977</b>	<b>90.6</b>	4	923	95.9	<b>923</b>	<b>95.9</b>	922	96.0		
471.omnetpp	4	530	47.2	<b>530</b>	<b>47.2</b>	531	47.0	4	530	47.2	<b>530</b>	<b>47.2</b>	531	47.0		
473.astar	4	<b>737</b>	<b>38.1</b>	740	38.0	737	38.1	4	667	42.1	666	42.2	<b>667</b>	<b>42.1</b>		
483.xalancbmk	4	<b>365</b>	<b>75.6</b>	365	75.7	365	75.5	4	<b>365</b>	<b>75.6</b>	365	75.7	365	75.5		

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

Default BIOS settings were used.

## General Notes

The NEC Express5800/R120a-1(Intel Xeon E5504),  
the NEC Express5800/R120a-2(Intel Xeon E5504),  
the Bull NovaScale R440 E2 (Intel Xeon E5504, 2.00 GHz) and  
the Bull NovaScale R460 E2 (Intel Xeon E5504, 2.00 GHz) models are electronically equivalent.  
The results have been measured on a NEC Express5800/R120a-2(Intel Xeon E5504) model.

## Base Compiler Invocation

C benchmarks:  
icc

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**NEC Corporation**

Express5800/R120a-1  
(Intel Xeon E5504)

**SPECint\_rate2006 = 69.7**

**SPECint\_rate\_base2006 = 65.2**

**CPU2006 license:** 9006

**Test sponsor:** NEC Corporation

**Tested by:** NEC Corporation

**Test date:** Apr-2009

**Hardware Availability:** Apr-2009

**Software Availability:** Feb-2009

## Base Compiler Invocation (Continued)

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:  
-xSSE4.2 -ipo -O3 -no-prec-div -static -inline-calloc  
-opt-malloc-options=3 -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

401.bzip2: /opt/intel/Compiler/11.0/081/bin/intel64/icc  
456.hmmer: /opt/intel/Compiler/11.0/081/bin/intel64/icc  
458.sjeng: /opt/intel/Compiler/11.0/081/bin/intel64/icc

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

473.astar: /opt/intel/Compiler/11.0/081/bin/intel64/icpc



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**NEC Corporation**

Express5800/R120a-1  
(Intel Xeon E5504)

**SPECint\_rate2006 = 69.7**

**SPECint\_rate\_base2006 = 65.2**

**CPU2006 license:** 9006

**Test sponsor:** NEC Corporation

**Tested by:** NEC Corporation

**Test date:** Apr-2009

**Hardware Availability:** Apr-2009

**Software Availability:** Feb-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 -opt-prefetch

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: basepeak = yes

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: -xSSE4.2 -ipo -O3 -no-prec-div -static
                -opt-malloc-options=3 -opt-prefetch

464.h264ref: -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) -unroll2 -ansi-alias

```

C++ benchmarks:

```

471.omnetpp: basepeak = yes

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 -auto-ilp32
            -Wl,-z,muldefs -L/opt/SmartHeap_8.1/lib64 -lsmartheap64

```

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**NEC Corporation**

Express5800/R120a-1  
(Intel Xeon E5504)

**SPECint\_rate2006 = 69.7**

**SPECint\_rate\_base2006 = 65.2**

**CPU2006 license:** 9006

**Test sponsor:** NEC Corporation

**Tested by:** NEC Corporation

**Test date:** Apr-2009

**Hardware Availability:** Apr-2009

**Software Availability:** Feb-2009

## 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-ic11.0-int-linux64-revF.html>

<http://www.spec.org/cpu2006/flags/NEC-Intel-Linux-Settings-flags-revE.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-revF.xml>

<http://www.spec.org/cpu2006/flags/NEC-Intel-Linux-Settings-flags-revE.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 v1.1.

Report generated on Wed Jul 23 02:25:00 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 7 July 2009.