SPEC® CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/120Rj-2
(Intel Xeon processor E5405)

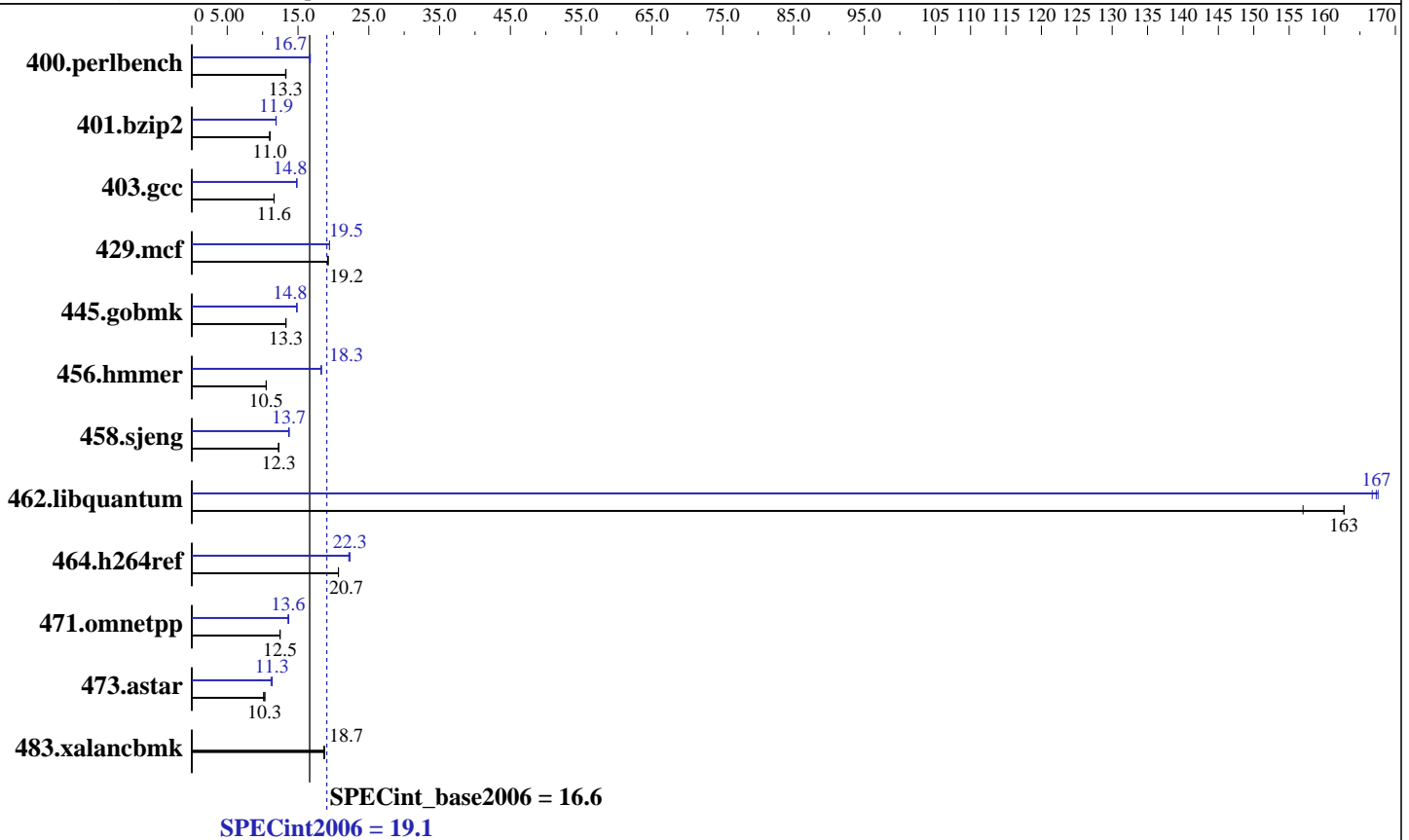SPECint®2006 = 19.1

SPECint_base2006 = 16.6

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

Test date: Jan-2008
Hardware Availability: Dec-2007
Software Availability: Nov-2007

SPECint_base2006 = 16.6

SPECint2006 = 19.1

400.perlbench	16.7 / 13.3
401.bzip2	11.9 / 11.0
403.gcc	14.8 / 11.6
429.mcf	19.5 / 19.2
445.gobmk	14.8 / 13.3
456.hmmer	18.3 / 10.5
458.sjeng	13.7 / 12.3
462.libquantum	167 / 163
464.h264ref	22.3 / 20.7
471.omnetpp	13.6 / 12.5
473.astar	11.3 / 10.3
483.xalancbmk	18.7

Hardware

CPU Name:	Intel Xeon E5405
CPU Characteristics:	2.00 GHz, 2x6 MB L2 shared, 1333 MHz bus
CPU MHz:	2000
FPU:	Integrated
CPU(s) enabled:	8 cores, 2 chips, 4 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	12 MB I+D on chip per chip, 6 MB shared / 2 cores
L3 Cache:	None
Other Cache:	None
Memory:	12 GB (12x1 GB PC2-5300F, 2 rank, CL5-5-5, ECC)
Disk Subsystem:	1x73.2 GB SAS, 15000RPM
Other Hardware:	None

Software

Operating System:	SUSE Linux Enterprise Server 10 (x86_64) SP1, Kernel 2.6.16.46-0.12-smp
Compiler:	Intel C++ Compiler for Linux32 and Linux64 version 10.1 Build 20070913 Package ID: l_cc_p_10.1.008
Auto Parallel:	Yes
File System:	ext2
System State:	Multiuser, Runlevel 3
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	MicroQuill SmartHeap library 8.1 binutils-2.17.tar.gz, Version 2.17

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/120Rj-2
(Intel Xeon processor E5405)

SPECint2006 =   19.1

SPECint_base2006 =   16.6

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

Test date: Jan-2008
Hardware Availability: Dec-2007
Software Availability: Nov-2007

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	**737**	**13.3**	734	13.3	737	13.3	585	16.7	583	16.7	**585**	**16.7**
401.bzip2	875	11.0	**876**	**11.0**	877	11.0	**811**	**11.9**	812	11.9	810	11.9
403.gcc	694	11.6	**693**	**11.6**	693	11.6	**543**	**14.8**	543	14.8	543	14.8
429.mcf	**474**	**19.2**	473	19.3	475	19.2	469	19.4	469	19.5	**469**	**19.5**
445.gobmk	**789**	**13.3**	790	13.3	789	13.3	**707**	**14.8**	706	14.8	707	14.8
456.hmmer	888	10.5	**888**	**10.5**	888	10.5	510	18.3	**510**	**18.3**	511	18.3
458.sjeng	985	12.3	**986**	**12.3**	988	12.2	885	13.7	880	13.8	**883**	**13.7**
462.libquantum	**127**	**163**	132	157	127	163	124	167	124	168	**124**	**167**
464.h264ref	1069	20.7	1069	20.7	**1069**	**20.7**	991	22.3	**992**	**22.3**	998	22.2
471.omnetpp	**502**	**12.5**	502	12.4	500	12.5	456	13.7	459	13.6	**459**	**13.6**
473.astar	680	10.3	**682**	**10.3**	693	10.1	618	11.4	**619**	**11.3**	627	11.2
483.xalancbmk	369	18.7	**369**	**18.7**	369	18.7	369	18.7	**369**	**18.7**	369	18.7

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

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 (default).
```

Platform Notes

```
Bios settings:
Intel SpeedStep Technology: Disabled
```

General Notes

```
All benchmarks compiled in 32-bit mode except 401.bzip2 and 456.hmmer,
for peak, are compiled in 64-bit mode

The NEC Express5800/120Rh-1(Intel Xeon Processor E5405),
the NEC Express5800/120Rj-2(Intel Xeon Processor E5405),
the Bull NovaScale R440 E1 (Intel Xeon E5405,2.00GHz) and
the Bull NovaScale R460 E1 (Intel Xeon E5405,2.00GHz) models are electronically equivalent.
The results have been measured on a NEC Express5800/120Rj-2(Intel Xeon Processor E5405) model.
```

Base Compiler Invocation

C benchmarks:
```
icc
```

Continued on next page

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/120Rj-2
(Intel Xeon processor E5405)

SPECint2006 =   19.1

SPECint_base2006 =   16.6

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:
    -fast -vec-guard-write -parallel -par-runtime-control

C++ benchmarks:
    -xT -ipo -O3 -no-prec-div -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/cce/10.1.008/bin/icc
            -L/opt/intel/cce/10.1.008/lib
            -I/opt/intel/cce/10.1.008/include

    456.hmmer: /opt/intel/cce/10.1.008/bin/icc
            -L/opt/intel/cce/10.1.008/lib
            -I/opt/intel/cce/10.1.008/include

C++ benchmarks:
    icpc

SPEC CINT2006 Result

NEC Corporation

Express5800/120Rj-2
(Intel Xeon processor E5405)

$SPECint2006 =$ 19.1

$SPECint\_base2006 =$ 16.6

CPU2006 license: 9006	**Test date:** Jan-2008
Test sponsor: NEC Corporation	**Hardware Availability:** Dec-2007
Tested by: NEC Corporation	**Software Availability:** Nov-2007

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) -fast -ansi-alias
                   -prefetch

        401.bzip2: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch
                   -auto-ilp32

          403.gcc: -fast -inline-calloc -opt-malloc-options=3

          429.mcf: -fast -prefetch

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

        456.hmmer: -fast -unroll2 -ansi-alias -opt-multi-version-aggressive
                   -auto-ilp32

        458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4

    462.libquantum: -fast -unroll4 -Ob0 -prefetch
                    -opt-streaming-stores always -vec-guard-write
                    -opt-malloc-options=3 -parallel -par-runtime-control

       464.h264ref: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2
                    -ansi-alias
```

C++ benchmarks:

```
      471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo
                   -no-prec-div -ansi-alias -opt-ra-region-strategy=block
                   -Wl,-z,muldefs -L/opt/SmartHeap_8.1/lib -lsmartheap

        473.astar: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo
                   -no-prec-div -ansi-alias -opt-ra-region-strategy=routine
                   -Wl,-z,muldefs -L/opt/SmartHeap_8.1/lib -lsmartheap

    483.xalancbmk: basepeak = yes
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/120Rj-2
(Intel Xeon processor E5405)

$SPECint2006 =$ 19.1

$SPECint\_base2006 =$ 16.6

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

Test date: Jan-2008
Hardware Availability: Dec-2007
Software Availability: Nov-2007

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/NEC-Intel-ic10.1-ia32-intel64-linux-flags.20090714.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/NEC-Intel-ic10.1-ia32-intel64-linux-flags.20090714.xml`

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

Tested with SPEC CPU2006 v1.0.
Report generated on Tue Jul 22 16:31:06 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 6 February 2008.