SPEC® CINT2006 Result

Supermicro

Motherboard X8DTT-IBXF (Intel Xeon E5640, 2.67 GHz)

$SPECint^{®}_rate2006 = $ 239

$SPECint_rate_base2006 = $ 225
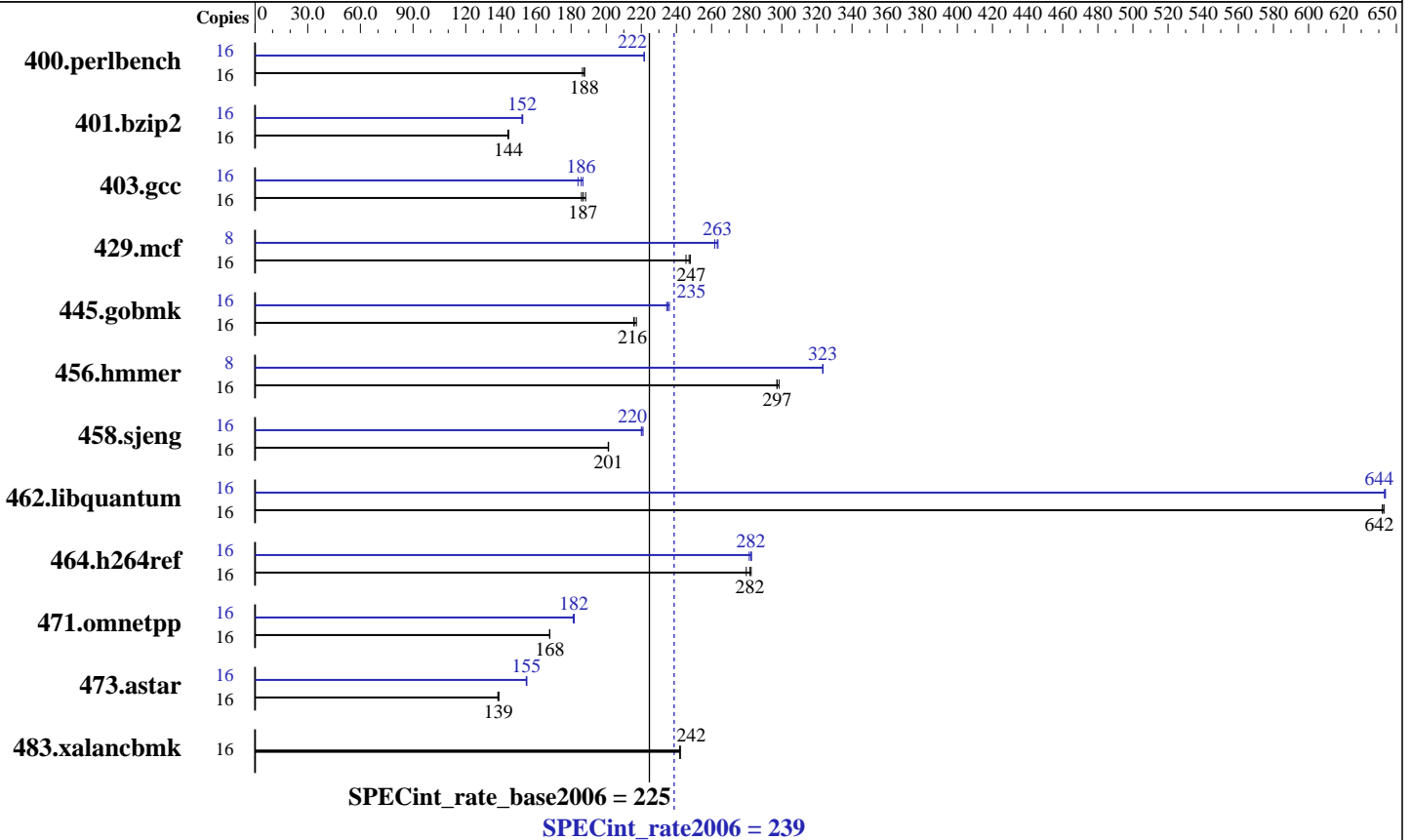
CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Mar-2010

Hardware Availability: Mar-2010

Software Availability: Jan-2010

Benchmark	Copies	Result
400.perlbench	16	222
	16	188
401.bzip2	16	152
	16	144
403.gcc	16	186
	16	187
429.mcf	8	263
	16	247
445.gobmk	16	235
	16	216
456.hmmer	8	323
	16	297
458.sjeng	16	220
	16	201
462.libquantum	16	644
	16	642
464.h264ref	16	282
	16	282
471.omnetpp	16	182
	16	168
473.astar	16	155
	16	139
483.xalancbmk	16	242

SPECint_rate_base2006 = 225

SPECint_rate2006 = 239

Hardware

CPU Name:	Intel Xeon E5640
CPU Characteristics:	Intel Turbo Boost Technology up to 2.93 GHz
CPU MHz:	2670
FPU:	Integrated
CPU(s) enabled:	8 cores, 2 chips, 4 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 (12 x 4 GB DDR3-1066 RDIMM, ECC, CL7)
Disk Subsystem:	1 x 80 GB SATA II, 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:	ReiserFS
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

Supermicro

Motherboard X8DTT-IBXF (Intel Xeon E5640, 2.67 GHz)

SPECint_rate2006 = 239

SPECint_rate_base2006 = 225

CPU2006 license: 001176	**Test date:** Mar-2010
Test sponsor: Supermicro	**Hardware Availability:** Mar-2010
Tested by: Supermicro	**Software Availability:** Jan-2010

Results Table

Benchmark	Base Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Peak Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	16	833	188	**834**	**188**	838	186	16	**705**	**222**	705	222	706	221
401.bzip2	16	1069	144	**1070**	**144**	1072	144	16	1013	152	**1015**	**152**	1015	152
403.gcc	16	693	186	**689**	**187**	684	188	16	700	184	**693**	**186**	690	187
429.mcf	16	589	248	595	245	**590**	**247**	8	279	262	**277**	**263**	277	264
445.gobmk	16	**777**	**216**	778	216	773	217	16	711	236	**714**	**235**	716	234
456.hmmer	16	**502**	**297**	502	297	500	298	8	231	323	**231**	**323**	231	323
458.sjeng	16	963	201	961	201	**962**	**201**	16	880	220	876	221	**879**	**220**
462.libquantum	16	516	642	516	643	**516**	**642**	16	515	643	**515**	**644**	515	644
464.h264ref	16	**1256**	**282**	1253	283	1266	280	16	1252	283	**1254**	**282**	1258	281
471.omnetpp	16	596	168	596	168	**596**	**168**	16	552	181	550	182	**550**	**182**
473.astar	16	**810**	**139**	812	138	809	139	16	**726**	**155**	727	154	726	155
483.xalancbmk	16	456	242	456	242	**456**	**242**	16	456	242	456	242	**456**	**242**

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 stack size to unlimited prior to run

Platform Notes

Fan speed set to Full Speed in BIOS Setup.
As tested, the system used a Supermicro
PWS-1K21P-1R power supply, 2 SNK-P0038P heatsinks,
and 2 FAN-0077L cooling fans.

General Notes

Binaries were compiled on SLES 10 with Binutils 2.18.50.0.7.20080502

Base Compiler Invocation

C benchmarks:
      icc -m32

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

Motherboard X8DTT-IBXF (Intel Xeon E5640, 2.67 GHz)

SPECint_rate2006 =   239

SPECint_rate_base2006 = 225

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Mar-2010

Hardware Availability: Mar-2010

Software Availability: Jan-2010

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/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-32bit -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

    462.libquantum: icc -m64

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

    473.astar: icpc -m64

SPEC CINT2006 Result

Supermicro

Motherboard X8DTT-IBXF (Intel Xeon E5640, 2.67 GHz)

SPECint_rate2006 =   239

SPECint_rate_base2006 = 225

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Mar-2010

Hardware Availability: Mar-2010

Software Availability: Jan-2010

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_LP64 -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: -xSSE4.2 -ipo -O3 -no-prec-div -static

      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: -xSSE4.2 -ipo -O3 -no-prec-div -static -auto-ilp32
               -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: -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/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-32bit -lsmartheap
```

Continued on next page

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

Motherboard X8DTT-IBXF (Intel Xeon E5640, 2.67 GHz)

SPECint_rate2006 =   239

SPECint_rate_base2006 = 225

CPU2006 license: 001176	**Test date:** Mar-2010
Test sponsor: Supermicro	**Hardware Availability:** Mar-2010
Tested by: Supermicro	**Software Availability:** Jan-2010

Peak Optimization Flags (Continued)

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/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-64bit -lsmartheap64`

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.20100316.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.20100316.xml

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 08:02:40 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 4 May 2010.