SPEC® CINT2006 Result

NTT System S. A.

$SPECint®2006 =$ 20.9

NTT Tytan 2206I (Intel Xeon E5410)

$SPECint\_base2006 =$ 18.7

CPU2006 license: 9013
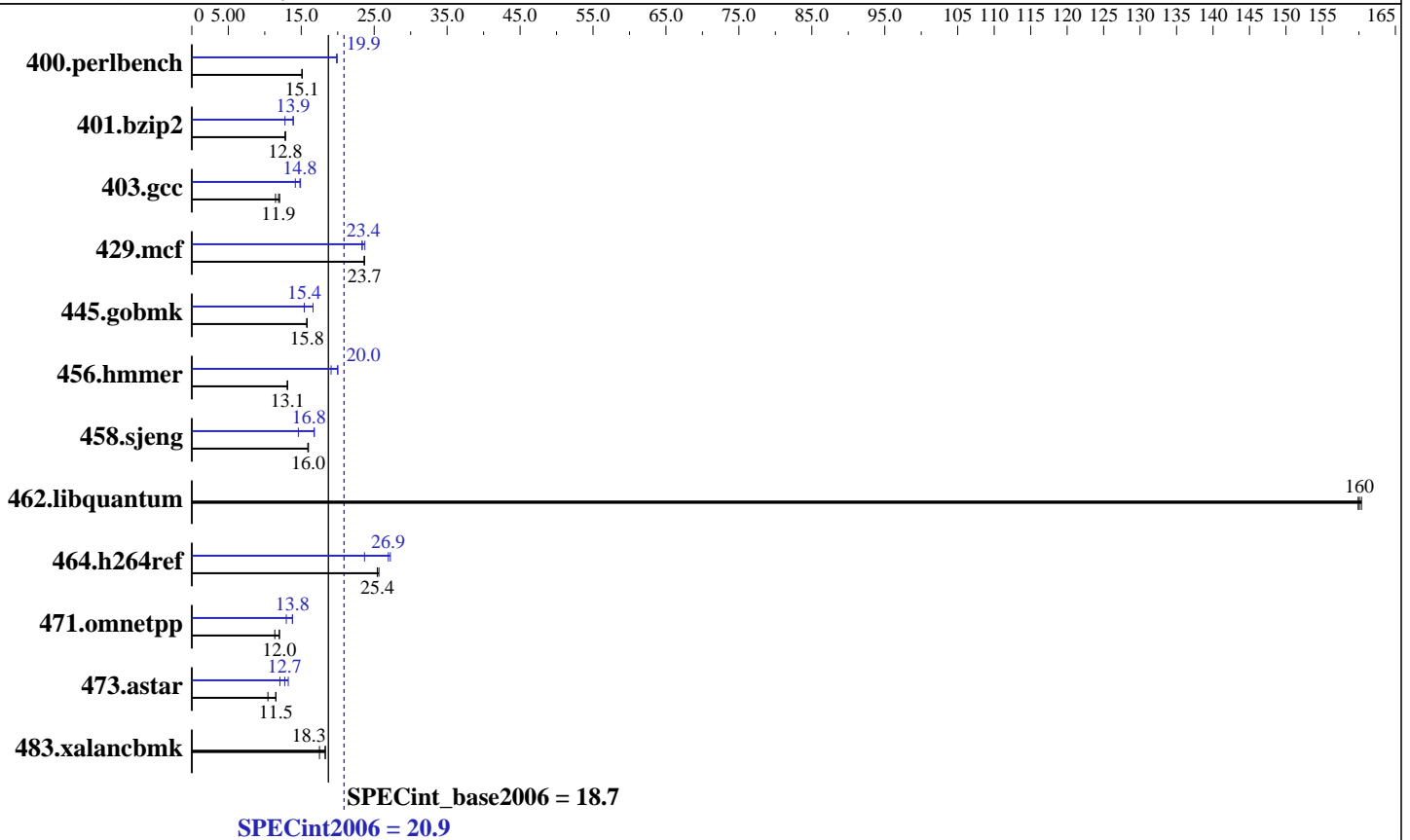**Test sponsor:** NTT System S. A.
Tested by: NTT System S. A.

Test date: Jan-2009
Hardware Availability: Dec-2008
Software Availability: Dec-2008

Benchmark	Value
400.perlbench	19.9 / 15.1
401.bzip2	13.9 / 12.8
403.gcc	14.8 / 11.9
429.mcf	23.4 / 23.7
445.gobmk	15.4 / 15.8
456.hmmer	20.0 / 13.1
458.sjeng	16.8 / 16.0
462.libquantum	160
464.h264ref	26.9 / 25.4
471.omnetpp	13.8 / 12.0
473.astar	12.7 / 11.5
483.xalancbmk	18.3

SPECint_base2006 = 18.7
SPECint2006 = 20.9

Hardware

CPU Name:	Intel Xeon E5410
CPU Characteristics:	2.33 GHz, 2x6 MB P2 shared, 1333 MHz System Bus
CPU MHz:	2333
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:	16 GB (4 x 4GB DDR2-667 FBDIMM)
Disk Subsystem:	147 GB SAS, 1000RPM
Other Hardware:	None

Software

Operating System:	SuSe Linux Enterprise Server 10 SP2, Kernel 2.6.16.60-0.21-smp
Compiler:	Intel C++ Compiler 11.0 for Linux Build 20080930 Package ID: l_cproc_p_11.0.066
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

NTT System S. A.

NTT Tytan 2206I (Intel Xeon E5410)

SPECint2006 =	20.9
SPECint_base2006 =	18.7

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	647	15.1	646	15.1	**646**	**15.1**	492	19.9	**491**	**19.9**	491	19.9
401.bzip2	752	12.8	**753**	**12.8**	754	12.8	**696**	**13.9**	756	12.8	693	13.9
403.gcc	668	12.0	**677**	**11.9**	702	11.5	**543**	**14.8**	540	14.9	567	14.2
429.mcf	385	23.7	386	23.6	**385**	**23.7**	**390**	**23.4**	391	23.3	384	23.7
445.gobmk	665	15.8	**665**	**15.8**	665	15.8	**680**	**15.4**	631	16.6	681	15.4
456.hmmer	712	13.1	**712**	**13.1**	712	13.1	466	20.0	489	19.1	**467**	**20.0**
458.sjeng	**758**	**16.0**	757	16.0	761	15.9	829	14.6	**721**	**16.8**	721	16.8
462.libquantum	130	160	**129**	**160**	129	160	130	160	**129**	**160**	129	160
464.h264ref	863	25.6	**870**	**25.4**	870	25.4	**821**	**26.9**	813	27.2	935	23.7
471.omnetpp	550	11.4	**521**	**12.0**	520	12.0	453	13.8	483	13.0	**453**	**13.8**
473.astar	**610**	**11.5**	673	10.4	610	11.5	**551**	**12.7**	531	13.2	581	12.1
483.xalancbmk	**377**	**18.3**	377	18.3	394	17.5	**377**	**18.3**	377	18.3	394	17.5

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

Operating System Notes

```
OMP_NUM_THREADS set to number of processors
KMP_AFFINITY set to "physical,0"
KMP_STACKSIZE set to 200M
```

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 -parallel
-par-runtime-control -opt-prefetch
```

SPEC CINT2006 Result

NTT System S. A.

SPECint2006 =   20.9

NTT Tytan 2206I (Intel Xeon E5410)

SPECint_base2006 =   18.7

CPU2006 license: 9013		**Test date:**	Jan-2009
Test sponsor: NTT System S. A.		**Hardware Availability:**	Dec-2008
Tested by: NTT System S. A.		**Software Availability:**	Dec-2008

Base Optimization Flags (Continued)

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/11.0/066/bin/intel64/icc
```

```
456.hmmer: /opt/intel/Compiler/11.0/066/bin/intel64/icc
```

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 -auto-ilp32 -opt-prefetch
           -ansi-alias
```

SPEC CINT2006 Result

NTT System S. A.

$SPECint2006 =$ 20.9

NTT Tytan 2206I (Intel Xeon E5410)

$SPECint\_base2006 =$ 18.7

CPU2006 license: 9013
Test sponsor: NTT System S. A.
Tested by: NTT System S. A.

Test date: Jan-2009
Hardware Availability: Dec-2008
Software Availability: Dec-2008

Peak Optimization Flags (Continued)

403.gcc: `-xSSE4.1 -ipo -O3 -no-prec-div -static -inline-calloc`
`-opt-malloc-options=3`

429.mcf: `-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 -auto-ilp32`

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

462.libquantum: `basepeak = yes`

464.h264ref: `-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3`
`-no-prec-div -static -unroll2 -ansi-alias`

C++ benchmarks:

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.20090710.01.html
http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.20090710.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.20090710.01.xml
http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.20090710.xml

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

NTT System S. A.

SPECint2006 = 20.9

NTT Tytan 2206I (Intel Xeon E5410)

SPECint_base2006 = 18.7

CPU2006 license: 9013
Test sponsor: NTT System S. A.
Tested by: NTT System S. A.

Test date: Jan-2009
Hardware Availability: Dec-2008
Software Availability: Dec-2008

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 01:41:43 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 24 April 2009.