# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## NTT System S. A.

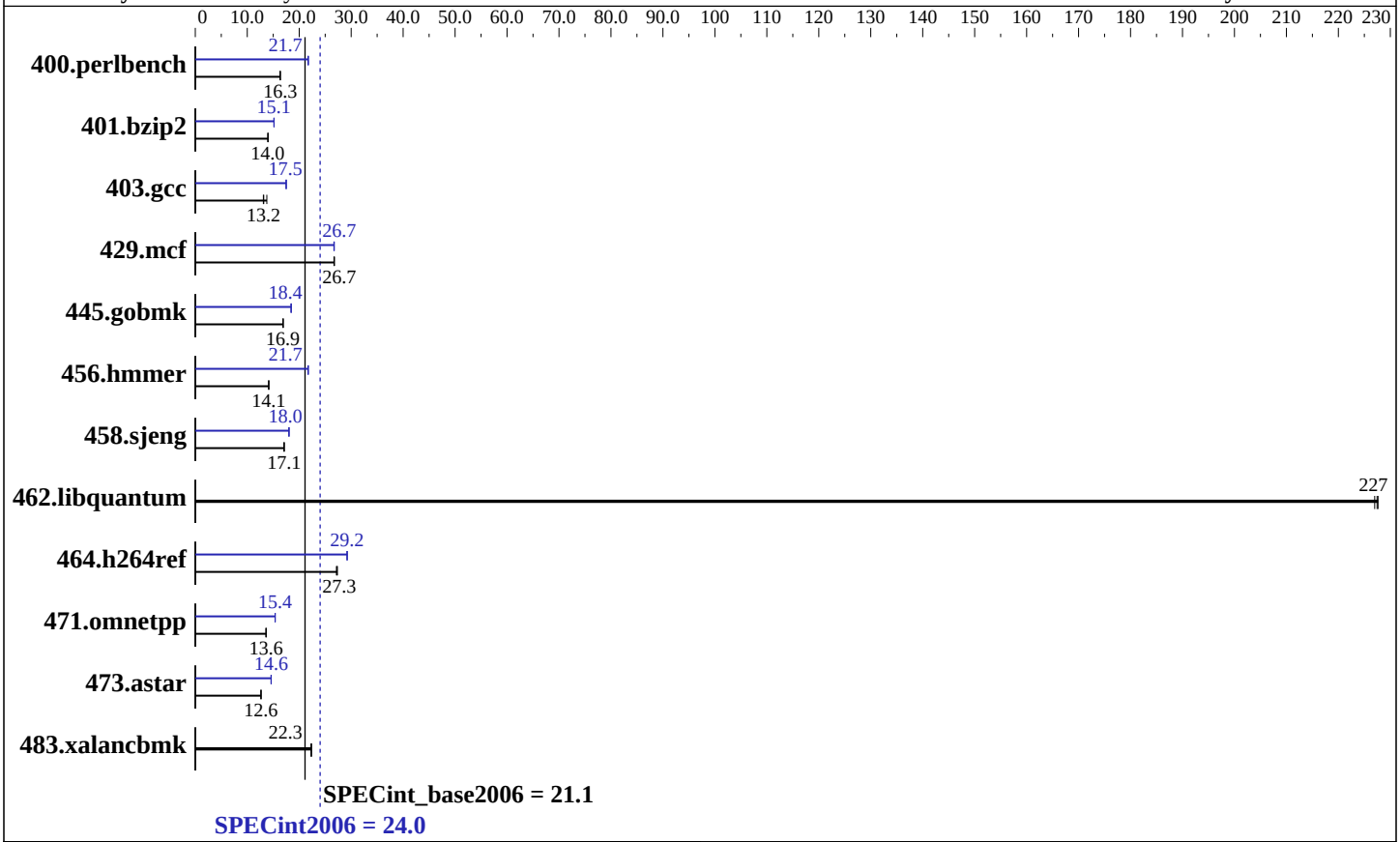
## NTT Tytan S6 Series (Intel Xeon E5420)

SPECint®2006 = 24.0

SPECint_base2006 = 21.1

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

**Test date:** Feb-2009
**Hardware Availability:** Jan-2009
**Software Availability:** Nov-2008




### Hardware

| | |
|---|---|
| CPU Name: | Intel Xeon E5420 |
| CPU Characteristics: | 2.5 GHz, 2x6 MB p2 shared, 1333 MHz System Bus |
| CPU MHz: | 2500 |
| 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: | 250 GB SATA, 7200RPM |
| 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<br>Binutils 2.18.50.0.7.20080502 |

# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## NTT System S. A.

## NTT Tytan S6 Series (Intel Xeon E5420)

SPECint2006 = 24.0

SPECint_base2006 = 21.1

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

**Test date:** Feb-2009
**Hardware Availability:** Jan-2009
**Software Availability:** Nov-2008

## Results Table

| Benchmark | Base | | | | | | Peak | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 400.perlbench | 596 | 16.4 | **598** | **16.3** | 599 | 16.3 | 449 | 21.8 | 450 | 21.7 | **450** | **21.7** |
| 401.bzip2 | 691 | 14.0 | 689 | 14.0 | **690** | **14.0** | **637** | **15.1** | 636 | 15.2 | 638 | 15.1 |
| 403.gcc | **611** | **13.2** | 615 | 13.1 | 585 | 13.8 | 460 | 17.5 | **460** | **17.5** | 460 | 17.5 |
| 429.mcf | 342 | 26.7 | 341 | 26.8 | **341** | **26.7** | 342 | 26.7 | 341 | 26.7 | **341** | **26.7** |
| 445.gobmk | 621 | 16.9 | 621 | 16.9 | **621** | **16.9** | **569** | **18.4** | 568 | 18.5 | 569 | 18.4 |
| 456.hmmer | 660 | 14.1 | **660** | **14.1** | 660 | 14.1 | 429 | 21.7 | **429** | **21.7** | 430 | 21.7 |
| 458.sjeng | 710 | 17.0 | 707 | 17.1 | **707** | **17.1** | 671 | 18.0 | 672 | 18.0 | **671** | **18.0** |
| 462.libquantum | 91.0 | 228 | 91.3 | 227 | **91.1** | **227** | 91.0 | 228 | 91.3 | 227 | **91.1** | **227** |
| 464.h264ref | **810** | **27.3** | 810 | 27.3 | 815 | 27.2 | 757 | 29.2 | 757 | 29.2 | **757** | **29.2** |
| 471.omnetpp | 458 | 13.6 | 459 | 13.6 | **459** | **13.6** | 407 | 15.4 | **407** | **15.4** | 406 | 15.4 |
| 473.astar | 555 | 12.7 | 555 | 12.6 | **555** | **12.6** | 482 | 14.6 | **480** | **14.6** | 480 | 14.6 |
| 483.xalancbmk | 309 | 22.4 | 309 | 22.3 | **309** | **22.3** | 309 | 22.4 | 309 | 22.3 | **309** | **22.3** |

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

## 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

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`

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`

Continued on next page

## Peak Optimization Flags (Continued)

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`

Copyright 2006-2014 Standard Performance Evaluation Corporation

## NTT System S. A.

## NTT Tytan S6 Series (Intel Xeon E5420)

SPECint2006 = 24.0

SPECint_base2006 = 21.1

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

**Test date:** Feb-2009
**Hardware Availability:** Jan-2009
**Software Availability:** Nov-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 00:09:28 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 10 April 2009.