# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Itautec

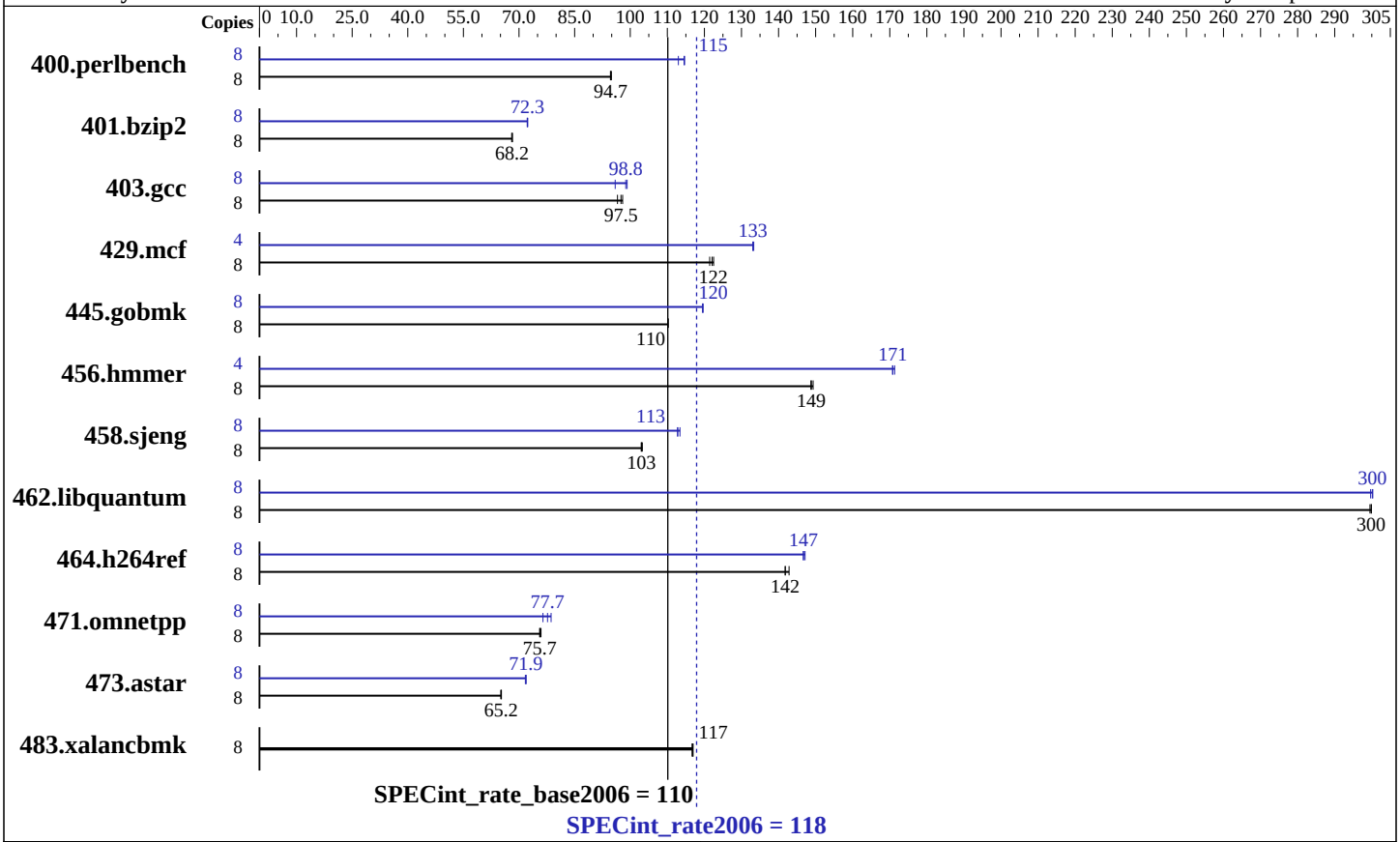
## Servidor Itautec LX103 (Intel Xeon X3450)

SPECint®_rate2006 = 118

SPECint_rate_base2006 = 110

**CPU2006 license:** 9001
**Test sponsor:** Itautec
**Tested by:** Itautec

**Test date:** Mar-2011
**Hardware Availability:** Dec-2009
**Software Availability:** Apr-2010




### Hardware

| | |
|---|---|
| CPU Name: | Intel Xeon X3450 |
| CPU Characteristics: | Intel Turbo Boost Technology up to 3.20 GHz |
| CPU MHz: | 2667 |
| FPU: | Integrated |
| CPU(s) enabled: | 4 cores, 1 chip, 4 cores/chip, 2 threads/core |
| CPU(s) orderable: | 1 chip |
| Primary Cache: | 32 KB I + 32 KB D on chip per core |
| Secondary Cache: | 256 KB I+D on chip per core |
| L3 Cache: | 8 MB I+D on chip per chip |
| Other Cache: | None |
| Memory: | 8 GB (4 x 2 GB 2Rx8 PC3-10600U-9, ECC) |
| Disk Subsystem: | 1 x 160 GB SATA-2, 7200 RPM |
| Other Hardware: | None |

### Software

| | |
|---|---|
| Operating System: | SUSE Linux Enterprise Server 11 (x86_64), Kernel 2.6.27.19-5-smp |
| Compiler: | Intel C++ Professional Compiler 11.1 for Linux Build 20100414 Package ID: l_cproc_p_11.1.072 |
| 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

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Itautec

## Servidor Itautec LX103 (Intel Xeon X3450)

SPECint_rate2006 = 118

SPECint_rate_base2006 = 110

**CPU2006 license:** 9001
**Test sponsor:** Itautec
**Tested by:** Itautec

**Test date:** Mar-2011
**Hardware Availability:** Dec-2009
**Software Availability:** Apr-2010

## Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 400.perlbench | 8 | 826 | 94.7 | 824 | 94.9 | **825** | **94.7** | 8 | 692 | 113 | 682 | 115 | **683** | **115** |
| 401.bzip2 | 8 | 1132 | 68.2 | 1135 | 68.0 | **1133** | **68.2** | 8 | 1069 | 72.2 | 1067 | 72.4 | **1068** | **72.3** |
| 403.gcc | 8 | 658 | 97.9 | **661** | **97.5** | 667 | 96.6 | 8 | 671 | 95.9 | 649 | 99.2 | **652** | **98.8** |
| 429.mcf | 8 | 601 | 121 | **598** | **122** | 596 | 122 | 4 | 274 | 133 | **274** | **133** | 274 | 133 |
| 445.gobmk | 8 | **762** | **110** | 761 | 110 | 762 | 110 | 8 | **702** | **120** | 702 | 119 | 702 | 120 |
| 456.hmmer | 8 | **501** | **149** | 500 | 149 | 502 | 149 | 4 | 219 | 171 | 218 | 171 | **218** | **171** |
| 458.sjeng | 8 | 940 | 103 | **940** | **103** | 937 | 103 | 8 | 858 | 113 | **858** | **113** | 854 | 113 |
| 462.libquantum | 8 | 553 | 300 | 553 | 300 | **553** | **300** | 8 | 552 | 300 | **552** | **300** | 553 | 300 |
| 464.h264ref | 8 | 1249 | 142 | 1239 | 143 | **1248** | **142** | 8 | **1206** | **147** | 1203 | 147 | 1207 | 147 |
| 471.omnetpp | 8 | 662 | 75.6 | **661** | **75.7** | 658 | 75.9 | 8 | 636 | 78.7 | **644** | **77.7** | 654 | 76.5 |
| 473.astar | 8 | 861 | 65.3 | 863 | 65.1 | **861** | **65.2** | 8 | 781 | 71.9 | 783 | 71.7 | **781** | **71.9** |
| 483.xalancbmk | 8 | 473 | 117 | **472** | **117** | 472 | 117 | 8 | 473 | 117 | **472** | **117** | 472 | 117 |

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.
```

## General Notes

```
This result was measured on the Servidor Itautec LX114.
 The Servidor Itautec LX103, Servidor Itautec LX113 and the Servidor Itautec LX114
 are electronically equivalent.
```

# Base Compiler Invocation

C benchmarks:

```
icc  -m32
```

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/opt/sh/SmartHeap_8.1/lib -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`

## Peak Portability Flags

400.perlbench: `-DSPEC_CPU_LINUX_IA32`
401.bzip2: `-DSPEC_CPU_LP64`

Continued on next page

## Peak Portability Flags (Continued)

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/opt/sh/SmartHeap_8.1/lib -lsmartheap

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

Continued on next page

## Peak Optimization Flags (Continued)

473.astar (continued):
`-L/opt/sh/SmartHeap_8/lib -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-revG.20101123.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revG.20101123.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.

Tested with SPEC CPU2006 v1.1.
Report generated on Wed Jul 23 19:10:21 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 12 April 2011.