



SPEC® CINT2006 Result

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Itautec

SPECint®_rate2006 = 168

Servidor Itautec MX223+ (Intel Xeon E5645)

SPECint_rate_base2006 = 160

CPU2006 license: 9001

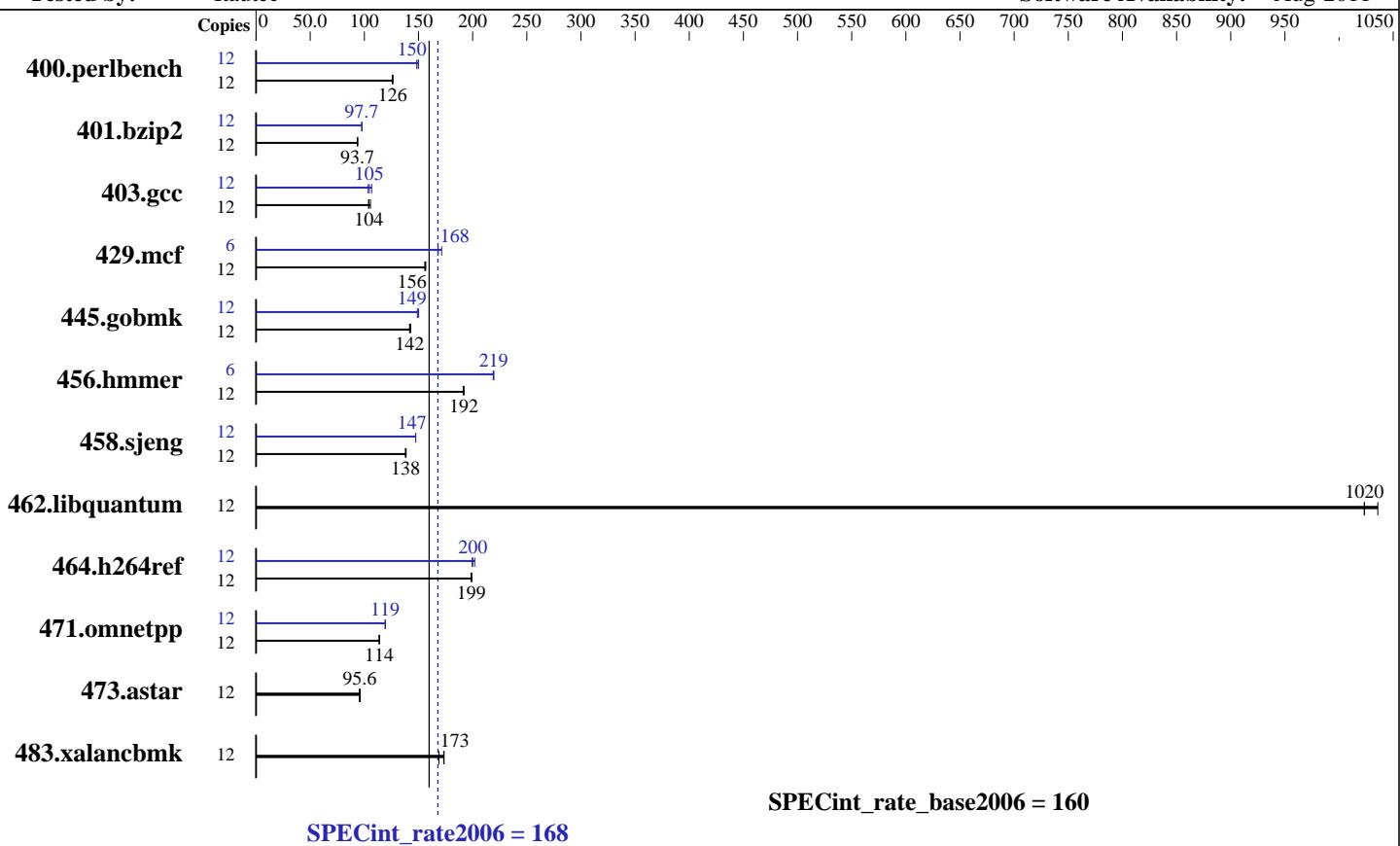
Test date: Nov-2011

Test sponsor: Itautec

Hardware Availability: Jul-2011

Tested by: Itautec

Software Availability: Aug-2011



SPECint_rate_base2006 = 160

Hardware

CPU Name: Intel Xeon E5645
 CPU Characteristics: Intel Turbo Boost Technology up to 2.80 GHz
 CPU MHz: 2400
 FPU: Integrated
 CPU(s) enabled: 6 cores, 1 chip, 6 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: 24 GB (6 x 4 GB 2Rx4 PC3-10600R-9, ECC)
 Disk Subsystem: 1 x 500 GB SAS, 15000 RPM
 Other Hardware: None

Software

Operating System: SUSE Linux Enterprise Server 11 SP1 (x86_64),
 Kernel 2.6.32.12-0.7-default
 Compiler: C/C++: Version 12.1.0 of Intel Compiler XE
 Build 20110811
 Auto Parallel: No
 File System: ext3
 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

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Itautech

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CPU2006 license: 9001

Test date: Nov-2011

Test sponsor: Itautech

Hardware Availability: Jul-2011

Tested by: Itautech

Software Availability: Aug-2011

Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|----------------|--------|------------|------------|-------------|-------------|-------------|-------------|--------|-------------|------------|-------------|-------------|------------|-------------|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 400.perlbench | 12 | 928 | 126 | 929 | 126 | 931 | 126 | 12 | 782 | 150 | 790 | 148 | 783 | 150 |
| 401.bzip2 | 12 | 1237 | 93.6 | 1236 | 93.7 | 1235 | 93.8 | 12 | 1186 | 97.6 | 1186 | 97.7 | 1184 | 97.8 |
| 403.gcc | 12 | 928 | 104 | 929 | 104 | 915 | 106 | 12 | 923 | 105 | 933 | 104 | 905 | 107 |
| 429.mcf | 12 | 702 | 156 | 699 | 157 | 699 | 156 | 6 | 325 | 168 | 326 | 168 | 319 | 171 |
| 445.gobmk | 12 | 887 | 142 | 888 | 142 | 881 | 143 | 12 | 838 | 150 | 842 | 149 | 845 | 149 |
| 456.hammer | 12 | 583 | 192 | 585 | 191 | 584 | 192 | 6 | 255 | 219 | 256 | 219 | 255 | 220 |
| 458.sjeng | 12 | 1052 | 138 | 1048 | 139 | 1052 | 138 | 12 | 985 | 147 | 986 | 147 | 985 | 147 |
| 462.libquantum | 12 | 240 | 1040 | 243 | 1020 | 243 | 1020 | 12 | 240 | 1040 | 243 | 1020 | 243 | 1020 |
| 464.h264ref | 12 | 1333 | 199 | 1337 | 199 | 1336 | 199 | 12 | 1327 | 200 | 1331 | 200 | 1315 | 202 |
| 471.omnetpp | 12 | 659 | 114 | 660 | 114 | 658 | 114 | 12 | 628 | 119 | 629 | 119 | 629 | 119 |
| 473.astar | 12 | 882 | 95.5 | 875 | 96.2 | 881 | 95.6 | 12 | 882 | 95.5 | 875 | 96.2 | 881 | 95.6 |
| 483.xalancbmk | 12 | 490 | 169 | 477 | 174 | 478 | 173 | 12 | 490 | 169 | 477 | 174 | 478 | 173 |

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.
Large pages were not enabled for this run

Platform Notes

Data Reuse disabled in BIOS.

General Notes

This result was measured on the Servidor Itautech MX224.
The Servidor Itautech MX203+, Servidor Itautech MX223+ and the Servidor Itautech MX224
are electronically equivalent.

Base Compiler Invocation

C benchmarks:
icc -m32

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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 -opt-prefetch
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT`

C++ benchmarks:
`-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/home/rcaneca/sh/SmartHeap_8.1/lib -lsmartheap
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT`

Base Other Flags

C benchmarks:
`403.gcc: -Dalloca=_alloca`

Peak Compiler Invocation

C benchmarks (except as noted below):
`icc -m32`

400.perlbench: `icc -m64`
401.bzip2: `icc -m64`
456.hmmmer: `icc -m64`
458.sjeng: `icc -m64`

C++ benchmarks:
`icpc -m32`



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Peak Portability Flags

```
400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
 401.bzip2: -DSPEC_CPU_LP64
 456.hmmer: -DSPEC_CPU_LP64
 458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX
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) -prof-use(pass 2)
  -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
  -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
  -opt-prefetch -auto-ilp32 -ansi-alias
  -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div
  -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

429.mcf: -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 -auto-ilp32

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
  -ansi-alias -auto-ilp32

456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -unroll12 -auto-ilp32
  -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
  -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
  -unroll14 -auto-ilp32
  -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

462.libquantum: basepeak = yes

464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
  -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
  -unroll12 -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
```

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Itaute

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Test date: Nov-2011

Hardware Availability: Jul-2011

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Peak Optimization Flags (Continued)

471.omnetpp (continued):

-L/home/rcaaneca/sh/SmartHeap_8.1/lib -lsmartheap

473.astar: basepeak = yes

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-ic12.1-linux64.html>

<http://www.spec.org/cpu2006/flags/Itaute-Intel-Linux64-Platform.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-linux64.xml>

<http://www.spec.org/cpu2006/flags/Itaute-Intel-Linux64-Platform.xml>

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

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