Itautec Servidor Itautec MX221 (Intel Xeon E5430)

**SPECint_rate2006** = 68.9
**SPECint_rate_base2006** = 57.8

**CPU2006 license**: 9001
**Test sponsor**: Itautec
**Tested by**: Itautec
**Test date**: Apr-2008
**Hardware Availability**: Dec-2007

**Operating System**: SUSE Linux Enterprise Server 10 (x86_64) SP1, Kernel 2.6.16.46-0.12-smp
**Compiler**: Intel C++ Compiler for Linux version 10.1 Build 20080112 Package ID: l_cc_p_10.1.012
**Auto Parallel**: Yes
**File System**: ReiserFS
**System State**: Run Level 3 (multi-user)
**Base Pointers**: 32-bit
**Peak Pointers**: 32/64-bit
**Other Software**: Binutils 2.17.10.50 MicroQuill SmartHeap V8.1

**Hardware**

- **CPU Name**: Intel Xeon E5430
- **CPU Characteristics**: Integrated
- **CPU MHz**: 2660
- **FPU**: Integrated
- **CPU(s) enabled**: 4 cores, 1 chip, 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 (6 * 2 GB PC2-5300 FB DIMM, CL-5-5-5-5, ECC)
- **Disk Subsystem**: 1 x SCSI, 73GB, 15000 RPM
- **Other Hardware**: None

**Software**

- **Operating System**: SUSE Linux Enterprise Server 10 (x86_64) SP1, Kernel 2.6.16.46-0.12-smp
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**SPEC CINT2006 Result**

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### Results Table

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<tr>
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<th>Ratio</th>
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</tr>
</tbody>
</table>

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

### Compiler Invocation Notes

- OMP_NUM_THREADS set to number of cores
- KMP_STACK_SIZE set to 64M
- KMP_AFFINITY set to physical,0

### Operating System Notes

- 'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run.
- '/usr/bin/taskset' used to bind benchmark copies to processors, except for 462.libquantum at peak.

### Platform Notes

- BIOS configuration: Hardware Prefetch Enabled

### General Notes

This result was measured on the Servidor Itautec MX201. The Servidor Itautec MX221 and the Servidor Itautec MX221 are electronically equivalent.

### Base Compiler Invocation

C benchmarks:
- icc

Continued on next page
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Base Compiler Invocation (Continued)

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:
-fast -inline-cALLOC -opt-malloc-options=3

C++ benchmarks:
-xT -ipo -O3 -no-prec-div -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):
iccc

401.bzip2: /opt/intel/cce/10.1.012/bin/icc
-L/opt/intel/cce/10.1.012/lib
-I/opt/intel/cce/10.1.012/include

456.hmmer: /opt/intel/cce/10.1.012/bin/icc
-L/opt/intel/cce/10.1.012/lib
-I/opt/intel/cce/10.1.012/include

C++ benchmarks:
icpc
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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) -fast -ansi-alias
-prefetch

401.bzip2: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch

403.gcc: basepeak = yes

429.mcf: -fast -prefetch

445.gobmk: -prof-gen(pass 1) -prof-use(pass 2) -xT -O2 -ipo
-no-prec-div -ansi-alias

456.hmmer: -fast -unroll2 -ansi-alias -opt-multi-version-aggressive

458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4

462.libquantum: -fast -unroll4 -Ob0 -prefetch
-opt-streaming-stores always -vec-guard-write
-opt-malloc-options=3 -parallel -par-runtime-control

464.h264ref: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2
-ansi-alias

C++ benchmarks:

471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo
-no-prec-div -ansi-alias -opt-ra-region-strategy=block
-Wl,-z,muldefs -L/opt/sh/SmartHeap_8.1/lib -lsmartheap

473.astar: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo
-no-prec-div -ansi-alias -opt-ra-region-strategy=routine
-Wl,-z,muldefs -L/opt/sh/SmartHeap_8.1/lib -lsmartheap

483.xalancbmk: basepeak = yes
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Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

The flags file that was used to format this result can be browsed at

You can also download the XML flags source by saving the following link: