### SPECint® CINT2006 Result

**Itautec**

**Servidor Itautec LX113 (Intel Xeon X3450)**

<table>
<thead>
<tr>
<th>SPECint®_rate2006 = 118</th>
<th>SPECint_rate_base2006 = 110</th>
</tr>
</thead>
</table>

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

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

<table>
<thead>
<tr>
<th>Test</th>
<th>Average score</th>
</tr>
</thead>
<tbody>
<tr>
<td>400.perlbench</td>
<td>94.7</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>98.8</td>
</tr>
<tr>
<td>403.gcc</td>
<td>97.5</td>
</tr>
<tr>
<td>429.mcf</td>
<td>133</td>
</tr>
<tr>
<td>445.gobmk</td>
<td>122</td>
</tr>
<tr>
<td>456.hmmer</td>
<td>149</td>
</tr>
<tr>
<td>458.sjeng</td>
<td>113</td>
</tr>
<tr>
<td>462.libquantum</td>
<td>103</td>
</tr>
<tr>
<td>464.h264ref</td>
<td>147</td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>77.7</td>
</tr>
<tr>
<td>473.astar</td>
<td>71.9</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>65.2</td>
</tr>
</tbody>
</table>

**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  
- **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  
- **Memory:** 8 GB (4 x 2 GB 2Rx8 PC3-10600U-9, ECC)  
- **Disk Subsystem:** 1 x 160 GB SATA-2, 7200 RPM  
- **Other Cache:** None  
- **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

---

Standard Performance Evaluation Corporation  
info@spec.org  
http://www.spec.org/
SPEC CINT2006 Result

Itautec
Servidor Itautec LX113 (Intel Xeon X3450)

SPECint_rate2006 = 118
SPECint_rate_base2006 = 110

C reu2006 license: 9001
Test sponsor: Itautec
Tested by: Itautec
Test date: Mar-2011
Hardware Availability: Dec-2009
Software Availability: Apr-2010

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>400.perlbench</td>
<td>8</td>
<td>826</td>
<td>94.7</td>
<td>824</td>
<td>94.9</td>
<td>825</td>
<td>94.7</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>8</td>
<td>1132</td>
<td>68.2</td>
<td>1135</td>
<td>68.0</td>
<td>1133</td>
<td>68.2</td>
</tr>
<tr>
<td>403.gcc</td>
<td>8</td>
<td>658</td>
<td>97.9</td>
<td>661</td>
<td>97.5</td>
<td>667</td>
<td>96.6</td>
</tr>
<tr>
<td>429.mcf</td>
<td>8</td>
<td>601</td>
<td>121</td>
<td>598</td>
<td>122</td>
<td>596</td>
<td>122</td>
</tr>
<tr>
<td>445.gobmk</td>
<td>8</td>
<td>762</td>
<td>110</td>
<td>761</td>
<td>110</td>
<td>762</td>
<td>110</td>
</tr>
<tr>
<td>456.hmmer</td>
<td>8</td>
<td>501</td>
<td>149</td>
<td>500</td>
<td>149</td>
<td>502</td>
<td>149</td>
</tr>
<tr>
<td>458.sjeng</td>
<td>8</td>
<td>940</td>
<td>103</td>
<td>940</td>
<td>103</td>
<td>937</td>
<td>103</td>
</tr>
<tr>
<td>462.libquantum</td>
<td>8</td>
<td>553</td>
<td>300</td>
<td>553</td>
<td>300</td>
<td>553</td>
<td>300</td>
</tr>
<tr>
<td>464.h264ref</td>
<td>8</td>
<td>1249</td>
<td>142</td>
<td>1239</td>
<td>143</td>
<td>1248</td>
<td>142</td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>8</td>
<td>662</td>
<td>75.6</td>
<td>661</td>
<td>75.7</td>
<td>658</td>
<td>75.9</td>
</tr>
<tr>
<td>473.astar</td>
<td>8</td>
<td>861</td>
<td>65.3</td>
<td>863</td>
<td>65.1</td>
<td>861</td>
<td>65.2</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>8</td>
<td>473</td>
<td>117</td>
<td>472</td>
<td>117</td>
<td>472</td>
<td>117</td>
</tr>
</tbody>
</table>

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
Itautec
Servidor Itautec LX113 (Intel Xeon X3450)

SPECint_rate2006 = 118
SPECint_rate_base2006 = 110

CPU2006 license: 9001
Test date: Mar-2011
Test sponsor: Itautec
Hardware Availability: Dec-2009
Tested by: Itautec
Software Availability: Apr-2010

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
Itautec
Servidor Itautec LX113 (Intel Xeon X3450)

SPECint_rate2006 = 118
SPECint_rate_base2006 = 110

CPU2006 license: 9001  Test date:  Mar-2011
Test sponsor:  Itautec  Hardware Availability:  Dec-2009
Tested by:  Itautec  Software Availability:  Apr-2010

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)
-03(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)
-03(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 -03 -no-prec-div -static

429.mcf: -xSSE4.2 -ipo -03 -no-prec-div -static -opt-prefetch

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2) -02
-ipo -no-prec-div -ansi-alias

456.hmmer: -xSSE4.2 -ipo -03 -no-prec-div -static -unroll2
-ansi-alias -auto-ilp32

458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div(pass 2) -static(pass 2)
-prof-use(pass 2) -unroll4 -auto-ilp32

462.libquantum: -xSSE4.2 -ipo -03 -no-prec-div -static -auto-ilp32
-opt-prefetch

464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(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)
-03(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)
-03(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:

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