Itautec

Servidor Itautec MP224 (Intel Xeon E5620)

**SPECfp®_rate2006 = 180**  
**SPECfp_rate_base2006 = 174**

CPU2006 license: 9001  
Test sponsor: Itautec  
Tested by: Itautec  
Test date: Jul-2011  
Hardware Availability: Apr-2011  
Software Availability: Jan-2011

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<td>481.wrf</td>
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<tr>
<td>482.sphinx3</td>
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</tbody>
</table>

**Hardware**

- **CPU Name:** Intel Xeon E5620  
- **CPU Characteristics:** Intel Turbo Boost Technology up to 2.67 GHz  
- **CPU MHz:** 2400  
- **FPU:** Integrated  
- **CPU(s) enabled:** 8 cores, 2 chips, 4 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

**Software**

- **Operating System:** SUSE Linux Enterprise Server 11 SP1 (x86_64), Kernel 2.6.32.12-0.7-default  
- **Compiler:** Intel C++ and Fortran Intel 64 Compiler XE for applications running on Intel 64 Version 12.0.2 Build 20110112  
- **Auto Parallel:** No  
- **File System:** ext3  
- **System State:** Run level 3 (multi-user)  
- **Base Pointers:** 64-bit
**Itautec**

Servidor Itautec MP224 (Intel Xeon E5620)

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<tr>
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<th>Seconds</th>
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</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.
Large pages were not enabled for this run

Platform Notes

Data Reuse disabled in BIOS.
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SPEC CFP2006 Result

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SPECfp_rate_base2006 = 174

CPU2006 license: 9001
Test sponsor: Itautec
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Hardware Availability: Apr-2011
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Base Compiler Invocation

C benchmarks:
    icc  -m64

C++ benchmarks:
    icpc  -m64

Fortran benchmarks:
    ifort  -m64

Benchmarks using both Fortran and C:
    icc  -m64 ifort  -m64

Base Portability Flags

- 410.bwaves: -DSPEC_CPU_LP64
- 416.gamess: -DSPEC_CPU_LP64
- 433.milc: -DSPEC_CPU_LP64
- 434.zeusmp: -DSPEC_CPU_LP64
- 435.gromacs: -DSPEC_CPU_LP64 -nofor_main
- 436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
- 437.leslie3d: -DSPEC_CPU_LP64
- 444.namd: -DSPEC_CPU_LP64
- 447.dealII: -DSPEC_CPU_LP64
- 450.soplex: -DSPEC_CPU_LP64
- 453.povray: -DSPEC_CPU_LP64
- 454.calculix: -DSPEC_CPU_LP64
- 459.GemsFDTD: -DSPEC_CPU_LP64
- 465.tonto: -DSPEC_CPU_LP64
- 470.lbm: -DSPEC_CPU_LP64
- 481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
- 482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
    -xsSE4.2  -ipo  -03  -no-prec-div  -static  -ansi-alias

C++ benchmarks:
    -xsSE4.2  -ipo  -03  -no-prec-div  -static  -ansi-alias

Fortran benchmarks:
    -xsSE4.2  -ipo  -03  -no-prec-div  -static

Benchmarks using both Fortran and C:
    -xsSE4.2  -ipo  -03  -no-prec-div  -static  -ansi-alias
Itautec
Servidor Itautec MP224 (Intel Xeon E5620)

**SPECfp\_rate2006 = 180**
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Peak Compiler Invocation

C benchmarks (except as noted below):
\texttt{icc -m64}
\texttt{482.sphinx3: icc -m32}

C++ benchmarks (except as noted below):
\texttt{icpc -m64}
\texttt{450.soplex: icpc -m32}

Fortran benchmarks:
\texttt{ifort -m64}

Benchmarks using both Fortran and C:
\texttt{icc -m64 ifort -m64}

Peak Portability Flags

\texttt{410.bwaves: -DSPEC\_CPU\_LP64}
\texttt{416.gamess: -DSPEC\_CPU\_LP64}
\texttt{433.milc: -DSPEC\_CPU\_LP64}
\texttt{434.zeusmp: -DSPEC\_CPU\_LP64}
\texttt{435.gromacs: -DSPEC\_CPU\_LP64 -nofor\_main}
\texttt{436.cactusADM: -DSPEC\_CPU\_LP64 -nofor\_main}
\texttt{437.leslie3d: -DSPEC\_CPU\_LP64}
\texttt{444.namd: -DSPEC\_CPU\_LP64}
\texttt{447.dealII: -DSPEC\_CPU\_LP64}
\texttt{453.povray: -DSPEC\_CPU\_LP64 -nofor\_main}
\texttt{454.calculix: -DSPEC\_CPU\_LP64 -nofor\_main}
\texttt{459.GemsFDTD: -DSPEC\_CPU\_LP64}
\texttt{465.tonto: -DSPEC\_CPU\_LP64}
\texttt{470.lbm: -DSPEC\_CPU\_LP64}
\texttt{481.wrf: -DSPEC\_CPU\_LP64 -DSPEC\_CPU\_CASE\_FLAG -DSPEC\_CPU\_LINUX}

Peak Optimization Flags

C benchmarks:
\texttt{433.milc: basepeak = yes}
\texttt{470.lbm: -xsSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)}
\texttt{-no-prec-div(pass 2) -prof-use(pass 2) -opt-malloc-options=3}
\texttt{-ansi-alias -opt-prefetch -static -auto-ilp32}
\texttt{482.sphinx3: -xsSE4.2 -ipo -O3 -no-prec-div -unroll2}

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Peak Optimization Flags (Continued)

C++ benchmarks:

444.namd: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
    -no-prec-div(pass 2) -prof-use(pass 2) -fno-alias
    -auto-ilp32

447.dealII: basepeak = yes

450.soplex: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
    -no-prec-div(pass 2) -prof-use(pass 2) -opt-malloc-options=3
    -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

453.povray: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
    -no-prec-div(pass 2) -prof-use(pass 2) -unroll4 -ansi-alias
    -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

Fortran benchmarks:

410.bwaves: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
    -no-prec-div(pass 2) -prof-use(pass 2) -static

416.gamess: basepeak = yes

434.zeusmp: basepeak = yes

437.leslie3d: -xSSE4.2 -ipo -O3 -no-prec-div
    -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

459.GemsFDTD: basepeak = yes

465.tonto: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
    -no-prec-div(pass 2) -prof-use(pass 2) -unroll4 -auto
    -inline-calloc -opt-malloc-options=3
    -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

Benchmarks using both Fortran and C:

435.gromacs: -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
    -static -auto-ilp32

436.cactusADM: basepeak = yes

454.calculix: basepeak = yes

481.wrf: basepeak = yes
Itautec

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The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.html
http://www.spec.org/cpu2006/flags/Itautec-Intel-Linux64-Platform.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.xml
http://www.spec.org/cpu2006/flags/Itautec-Intel-Linux64-Platform.xml

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For other inquiries, please contact webmaster@spec.org.

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