## SPEC® CFP2006 Result

### Acer Incorporated

**Acer AT150 F1 (Intel Xeon E5502)**

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPU Name:</strong> Intel Xeon E5502</td>
<td><strong>Operating System:</strong> SUSE Linux Enterprise Server 11 (x86_64) Kernel 2.6.27.19-5</td>
</tr>
<tr>
<td><strong>CPU Characteristics:</strong></td>
<td><strong>Compiler:</strong> Intel C++ and Fortran Professional Compiler for IA32 and Intel 64, Version 11.1 Build 20091130 Package ID: l_cproc_p_11.1.064, l_cprof_p_11.1.064</td>
</tr>
<tr>
<td><strong>CPU MHz:</strong> 1866</td>
<td><strong>Auto Parallel:</strong> Yes</td>
</tr>
<tr>
<td><strong>FPU:</strong> Integrated</td>
<td><strong>File System:</strong> ReiserFS</td>
</tr>
<tr>
<td><strong>CPU(s) enabled:</strong> 4 cores, 2 chips, 2 cores/chip</td>
<td><strong>System State:</strong> Run level 3 (multi-user)</td>
</tr>
<tr>
<td><strong>CPU(s) orderable:</strong> 1, 2 chips</td>
<td><strong>Continued on next page</strong></td>
</tr>
<tr>
<td><strong>Primary Cache:</strong> 32 KB I + 32 KB D on chip per core</td>
<td><strong>Continued on next page</strong></td>
</tr>
<tr>
<td><strong>Secondary Cache:</strong> 256 KB I+D on chip per core</td>
<td><strong>Continued on next page</strong></td>
</tr>
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</table>

**SPECfp®2006 = 24.5**  
**SPECfp_base2006 = 22.7**

**CPU2006 license:** 97  
**Test sponsor:** Acer Incorporated  
**Tested by:** Acer Incorporated  
**Test date:** Apr-2010  
**Hardware Availability:** May-2010  
**Software Availability:** Jan-2010

### Graphical Results

![Graphical Results](image)
SPEC CFP2006 Result

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CPU2006 license: 97
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L3 Cache: 4 MB I+D on chip per chip
Other Cache: None
Memory: 24 GB (12 x 2GB DDR3-1333 RDIMM, running at 800 MHz)
Disk Subsystem: 1000 GB SATAII, 7200 RPM
Other Hardware: None
L3 Cache: 4 MB I+D on chip per chip
Other Cache: None
Memory: 24 GB (12 x 2GB DDR3-1333 RDIMM, running at 800 MHz)
Disk Subsystem: 1000 GB SATAII, 7200 RPM
Other Hardware: None

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
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<tbody>
<tr>
<td>410.bwaves</td>
<td>128</td>
<td>106</td>
<td>128</td>
<td>106</td>
<td>127</td>
<td>107</td>
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<tr>
<td>416.gamess</td>
<td>1391</td>
<td>14.1</td>
<td>1393</td>
<td>14.1</td>
<td>1392</td>
<td>14.1</td>
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<td>433.milc</td>
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<td>29.7</td>
<td>308</td>
<td>29.8</td>
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<td>434.zeusmp</td>
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<td>477</td>
<td>19.1</td>
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<td>19.0</td>
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<td>435.gromacs</td>
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<td>543</td>
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<td>13.1</td>
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<tr>
<td>436.cactusADM</td>
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<td>60.6</td>
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<td>60.3</td>
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<tr>
<td>437.leslie3d</td>
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<td>21.0</td>
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<td>444.namd</td>
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<td>11.1</td>
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<td>11.1</td>
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<tr>
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<td>454.calculix</td>
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<td>500</td>
<td>16.5</td>
<td>501</td>
<td>16.5</td>
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<td>459.GemsFDTD</td>
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<td>465.tonto</td>
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<td>37.0</td>
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<tr>
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<td>25.8</td>
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<td>25.8</td>
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<tr>
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<td>1168</td>
<td>16.7</td>
<td>1154</td>
<td>16.9</td>
</tr>
</tbody>
</table>

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

Operating System Notes

'ulimit -s unlimited' was set for stacksize unlimited

General Notes

OMP_NUM_THREADS set to number of cores
KMP_AFFINITY set to granularity=fine,scatter
KMP_STACKSIZE set to 200M
This result was measured on the Gateway GT150 F1. The Acer AT150 F1 and Gateway GT150 F1 are electronically equivalent. Binaries were compiled on SLES 10 with Binutils 2.18.50.0.7.20080502
Acer Incorporated

Acer AT150 F1 (Intel Xeon E5502)

SPECfp2006 = 24.5
SPECfp_base2006 = 22.7

CPU2006 license: 97
Test sponsor: Acer Incorporated
Tested by: Acer Incorporated

Test date: Apr-2010
Hardware Availability: May-2010
Software Availability: Jan-2010

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 -nofor_main
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 -O3 -no-prec-div -static -parallel -opt-prefetch

C++ benchmarks:
   -xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Fortran benchmarks:
   -xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Benchmarks using both Fortran and C:
   -xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch
## Acer AT150 F1(Intel Xeon E5502)

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### Peak Compiler Invocation

C benchmarks:
```plaintext
icc  -m64
```

C++ benchmarks:
```plaintext
icpc  -m64
```

Fortran benchmarks:
```plaintext
ifort  -m64
```

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

### Peak Portability Flags

Same as Base Portability Flags

### Peak Optimization Flags

#### C benchmarks:
```plaintext
433.mlci: -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

470.lbm: -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)  
-parallel -ansi-alias -auto-ilp32

482.sphinx3: -xSSE4.2 -ipo -O3 -no-prec-div -static -auto-ilp32  
-unroll2
```

#### C++ benchmarks:
```plaintext
444.namd: -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)  
-fno-alias -auto-ilp32

447.dealII: -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 -scalar-rep -auto-ilp32

450.soplex: -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-malloc-options=3 -auto-ilp32
```

Continued on next page
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**Peak Optimization Flags (Continued)**

453.povray: `-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 -ansi-alias`

Fortran benchmarks:

410.bwaves: `-SSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch -parallel`

416.gamess: `-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) -unroll12 -Ob0 -ansi-alias -scalar-rep-`

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: `-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) -unroll12 -Ob0 -opt-prefetch -parallel`

465.tonto: `-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) -inline-calloc -opt-malloc-options=3 -auto -unroll4`

Benchmarks using both Fortran and C:

435.gromacs: `-SSE4.2 (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 -auto-ilp32`

436.cactusADM: `-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) -unroll12 -opt-prefetch -parallel -auto-ilp32`

454.calculix: `-xSSE4.2 -ipo -O3 -no-prec-div -static -auto-ilp32`

481.wrf: Same as 454.calculix

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The flags file that was used to format this result can be browsed at [http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100316.html](http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100316.html)

You can also download the XML flags source by saving the following link:
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For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.1.
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