Acer Incorporated
Acer AR580 F2 (Xeon E5-4607)

| SPECfp\textsuperscript{®} \_rate2006 = NC |
| SPECfp\textsuperscript{®} rate\_base2006 = NC |

CPU2006 license: 97
Test sponsor: Acer Incorporated
Test date: Nov-2012
CPU2006 license: 97
Tested by: Acer Incorporated
Hardware Availability: Dec-2012
Software Availability: Dec-2011

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<table>
<thead>
<tr>
<th>Hardware</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Name: Intel Xeon E5-4607</td>
<td>Operating System: Red Hat Enterprise Linux Server release 6.3 (Santiago)</td>
</tr>
<tr>
<td>CPU Characteristics:</td>
<td>2.6.32-279.el6.x86_64</td>
</tr>
<tr>
<td>CPU MHz: 2200</td>
<td>C/C++: Version 12.1.0.225 of Intel C++ Studio XE for Linux;</td>
</tr>
<tr>
<td>FPU: Integrated</td>
<td>Fortran: Version 12.1.0.225 of Intel Fortran Studio XE for Linux</td>
</tr>
<tr>
<td>CPU(s) enabled: 24 cores, 4 chips, 6 cores/chip, 2 threads/core</td>
<td>Auto Parallel: No</td>
</tr>
<tr>
<td>CPU(s) orderable: 2, 4 chips</td>
<td>File System: ext4</td>
</tr>
<tr>
<td>Primary Cache: 32 KB L1 + 32 KB D on chip per core</td>
<td>System State: Run level 3 (multi-user)</td>
</tr>
<tr>
<td>Secondary Cache: 256 KB L1+D on chip per core</td>
<td>Base Pointers: 32/64-bit</td>
</tr>
<tr>
<td>L3 Cache: 12 MB L1+D on chip per chip</td>
<td>Peak Pointers: 32/64-bit</td>
</tr>
<tr>
<td>Other Cache: None</td>
<td>Other Software: None</td>
</tr>
<tr>
<td>Memory: 256 GB (32 x 8 GB 2Rx4 DDR3-12800R-11, ECC, running at 1066 MHz and O.C)</td>
<td></td>
</tr>
<tr>
<td>Disk Subsystem: 1 x 300 GB SAS, 15K RPM</td>
<td></td>
</tr>
</tbody>
</table>
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Results Table

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<tr>
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<th>Seconds</th>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.
Acer Incorporated
Acer AR580 F2 (Xeon E5-4607)

SPECfp_rate2006 = NC
SPECfp_rate_base2006 = NC

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

Test date: Nov-2012
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Software Availability: Dec-2011

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Operating System Notes
Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes
Sysinfo program /usr/cpu2006/config/sysinfo.rev6800
$Rev: 6800 $ $Date:: 2011-10-11 #$ 6f2ebdff5032aaa42e583f96b07f99d3
running on localhost.localdomain Sat Nov 3 07:42:41 2012

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:
http://www.spec.org/cpu2006/Docs/config.html#sysinfo

From /proc/cpuinfo
model name : Genuine Intel(R) CPU @ 2.20GHz
 4 "physical id" (chips)
 48 "processes"
cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
cpu cores : 6
siblings : 12
physical 0: cores 0 1 2 3 4 5
  physical 1: cores 0 1 2 3 4 5
  physical 2: cores 0 1 2 3 4 5
  physical 3: cores 0 1 2 3 4 5
  cache size : 12288 KB

From /proc/meminfo
MemTotal: 264460152 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.3 (Santiago)

From /etc/*release* /etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.3 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.3 (Santiago)

Continued on next page
**SPEC CFP2006 Result**

Acer Incorporated
Acer AR580 F2 (Xeon E5-4607)

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**Platform Notes (Continued)**

```

uname -a:
    Linux localhost.localdomain 2.6.32-279.el6.x86_64 #1 SMP Wed Jun 13 18:24:36 EDT 2012 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Nov 3 07:40

SPEC is set to: /usr/cpu2006
```

**General Notes**

Environment variables set by runspec before the start of the run:

```
LD_LIBRARY_PATH = "/usr/cpu2006/libs/32:/usr/cpu2006/libs/64"
```

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RHEL5.5

```
Page Pages enabled with:
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
File system page cache cleared with:
echo 3 > /proc/sys/vm/drop_caches
runspec command invoked through numactl i.e.:
umactl --interleave=all runspec <etc>
```

**Base Compiler Invocation**

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

Continued on next page
SPEC CFP2006 Result

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Base Compiler Invocation (Continued)

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:
-xAVX -ipo -O3 -no-prec-div -static -opt-prefetch -auto-p32
-ansi-alias -opt-mem-layout-trans=3

Continued on next page
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Base Optimization Flags (Continued)

C++ benchmarks:
-xAVX -ipo -O3 -no-prec-div -static -opt-prefetch -auto-p32
-ansi-alias -opt-mem-layout-trns=3

Fortran benchmarks:
-xAVX -ipo -O3 -no-prec-div -static -opt-prefetch

Benchmarks using both Fortran and C:
-xAVX -ipo -O3 -no-prec-div -static -opt-prefetch -auto-p32
-ansi-alias -opt-mem-layout-trns=3

Peak Compiler Invocation

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

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

Fortran benchmarks:
ifort -m64

Benchmarks using both Fortran and C:
icc -m64 ifort -m64
Acer Incorporated
Acer AR580 F2 (Xeon E5-4607)

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Peak Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.games: -DSPEC_CPU_LP64
433.milc: -DSPEC_CPU_LP64
434.gamesp: -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
453.povray: -DSPEC_CPU_LP64 -noopt_main
454.calculix: -DSPEC_CPU_LP64 -nofor_main
465.tonto: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:
433.milc: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-prof-div(pass 2) -prof-use(pass 2) -static -auto-ilp32
-opt-mem-layout-trans=3
-basepeak = yes

482.sphinx3: -xAVX -ipo -O3 -no-prec-div -unroll2

C++ benchmarks:
444.namd: -xAVX(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

Continued on next page
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Peak Optimization Flags (Continued)

450.soplex: -xAVX (pass 2) -prof-gen (pass 1) -ipo (pass 2) -O3 (pass 2)
   -no-prec-div (pass 2) -prof-use (pass 2) -t-malloc-options=3

453.povray: -xAVX (pass 2) -prof-gen (pass 1) -ipo (pass 2) -O3 (pass 2)
   -no-prec-div (pass 2) -prof-use (pass 2) -unroll4 -ansi-alias

Fortran benchmarks:

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

416.gamess: -xAVX (pass 2) -prof-gen (pass 1) -ipo (pass 2) -O3 (pass 2)
   -no-prec-div (pass 2) -prof-use (pass 2) -unroll2
   -inline-level=0 -scalar-rep -static

434.zeusmp: basepeak = yes

437.leslie3d: -xAVX -ipo -O -no-prec-div -static -opt-prefetch

459.GemsFDTD: -xAVX (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

465.tonto: -xAVX (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

Benchmarks using both Fortran and C:

435.gromacs: -xAVX (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 -opt-mem-layout-trans=3

454.calculix: -xAVX -ipo -O3 -no-prec-div -static -auto-ilp32
   -opt-mem-layout-trans=3
## SPEC CFP2006 Result

**Acer Incorporated**  
**Acer AR580 F2 (Xeon E5-4607)**

<table>
<thead>
<tr>
<th>SPECfp_rate2006</th>
<th>SPECfp_rate_base2006</th>
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### Peak Optimization Flags (Continued)

481.wrf: Same as 454.calculix

The flags file that was used to format this result can be browsed at  
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.html

You can also download the XML flags source by saving the following link:  
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml

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

Tested with SPEC CPU2006 v1.2.  

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