Hewlett-Packard Company

ProLiant ML350 G5
(2.66 GHz, Intel Xeon processor X5355)

SPECfp\textsuperscript{®}2006 = 14.3

SPECfp\textsubscript{base}2006 = 14.1

CPU2006 license: 3
Test sponsor: Hewlett-Packard Company
Tested by: Hewlett-Packard Company

Hardware

CPU Name: Intel Xeon X5355
CPU Characteristics: 2.66 GHz, 2x4 MB L2 shared, 1333 MHz bus
CPU MHz: 2666
FPU: Integrated
CPU(s) enabled: 1 core, 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: 8 MB I+D on chip per chip, 4 MB shared / 2 cores

Operating System: SuSE Linux Enterprise Server 10 EM64T
Compiler: Intel C++ Compiler for Intel EM64T-based applications, Version 9.1
Auto Parallel: No

Software

Continued on next page

Standard Performance Evaluation Corporation
info@spec.org
http://www.spec.org/
Hewlett-Packard Company

SPECfp2006 = 14.3
SPECfp_base2006 = 14.1

CPU2006 license: 3
Test sponsor: Hewlett-Packard Company
Tested by: Hewlett-Packard Company

L3 Cache: None
Other Cache: None
Memory: 8 GB (4x2 GB PC2-5300 CL5)
Disk Subsystem: 4x36 GB 10 K SAS
Other Hardware: None

File System: ext2
System State: Multi-user run level 3
Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other Software: None

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Base</th>
<th>Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Seconds</td>
<td>Ratio</td>
</tr>
<tr>
<td>410.bwaves</td>
<td>742</td>
<td>18.3</td>
</tr>
<tr>
<td>416.gamess</td>
<td>1068</td>
<td>18.3</td>
</tr>
<tr>
<td>433.milc</td>
<td>873</td>
<td>10.5</td>
</tr>
<tr>
<td>434.zeusmp</td>
<td>724</td>
<td>12.6</td>
</tr>
<tr>
<td>435.gromacs</td>
<td>438</td>
<td>16.3</td>
</tr>
<tr>
<td>436.cactusADM</td>
<td>795</td>
<td>15.0</td>
</tr>
<tr>
<td>437.leslie3d</td>
<td>796</td>
<td>11.8</td>
</tr>
<tr>
<td>444.namd</td>
<td>572</td>
<td>14.0</td>
</tr>
<tr>
<td>447.dealII</td>
<td>488</td>
<td>23.4</td>
</tr>
<tr>
<td>450.soplex</td>
<td>727</td>
<td>11.5</td>
</tr>
<tr>
<td>453.povray</td>
<td>287</td>
<td>18.5</td>
</tr>
<tr>
<td>454.calculix</td>
<td>591</td>
<td>14.0</td>
</tr>
<tr>
<td>459.GemsFDTD</td>
<td>985</td>
<td>10.8</td>
</tr>
<tr>
<td>465.tonto</td>
<td>679</td>
<td>14.5</td>
</tr>
<tr>
<td>470.lbm</td>
<td>2261</td>
<td>6.08</td>
</tr>
<tr>
<td>481.wrf</td>
<td>690</td>
<td>16.2</td>
</tr>
<tr>
<td>482.sphinx3</td>
<td>1028</td>
<td>19.0</td>
</tr>
</tbody>
</table>

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

Platform Notes

Power Regulator set to Static High Performance Mode in BIOS.
Adjacent Sector Prefetch Disabled in BIOS.
"ulimit -s unlimited" set
Single processor kernel used

Base Compiler Invocation

C benchmarks:
icc
C++ benchmarks:
icpc

Continued on next page
Hewlett-Packard Company

ProLiant ML350 G5
(2.66 GHz, Intel Xeon processor X5355)

SPECfp2006 = 14.3
SPECfp_base2006 = 14.1

CPU2006 license: 3
Test sponsor: Hewlett-Packard Company
Tested by: Hewlett-Packard Company

Test date: Feb-2007
Hardware Availability: Jan-2007
Software Availability: Nov-2006

Base Compiler Invocation (Continued)

Fortran benchmarks:
   ifort

Benchmarks using both Fortran and C:
   icc ifort

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:
   -fast

C++ benchmarks:
   -fast

Fortran benchmarks:
   -fast

Benchmarks using both Fortran and C:
   -fast

Peak Compiler Invocation

C benchmarks:
   icc

Continued on next page
Hewlett-Packard Company
ProLiant ML350 G5
(2.66 GHz, Intel Xeon processor X5355)

SPECfp2006 = 14.3
SPECfp_base2006 = 14.1

CPU2006 license: 3
Test sponsor: Hewlett-Packard Company
Tested by: Hewlett-Packard Company

Peak Compiler Invocation (Continued)

C++ benchmarks:
   icpc

Fortran benchmarks:
   ifort

Benchmarks using both Fortran and C:
   icc ifort

Peak Portability Flags
Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:
   -prof_gen(pass 1) -prof_use(pass 2) -fast -auto_ilp32

C++ benchmarks:
   -prof_gen(pass 1) -prof_use(pass 2) -fast -auto_ilp32

Fortran benchmarks:
   -prof_gen(pass 1) -prof_use(pass 2) -fast -auto_ilp32

Benchmarks using both Fortran and C:
   -prof_gen(pass 1) -prof_use(pass 2) -fast -auto_ilp32

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/hp-ic91-flags.html
You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/hp-ic91-flags.xml

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2006 v1.0.
Originally published on 20 February 2007.