## SPECint\_rate2006 = 91.1

### Hardware

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Name:</td>
<td>Dual-Core Intel Itanium 2 9050</td>
</tr>
<tr>
<td>CPU Characteristics:</td>
<td>1.6GHz/24MB, 533MHz FSB</td>
</tr>
<tr>
<td>CPU MHz:</td>
<td>1600</td>
</tr>
<tr>
<td>FPU:</td>
<td>Integrated</td>
</tr>
<tr>
<td>CPU(s) enabled:</td>
<td>8 cores, 4 chips, 2 cores/chip</td>
</tr>
<tr>
<td>CPU(s) orderable:</td>
<td>1-4 chips</td>
</tr>
<tr>
<td>Primary Cache:</td>
<td>16 KB I + 16 KB D on chip per core</td>
</tr>
<tr>
<td>Secondary Cache:</td>
<td>1 MB I + 256 KB D on chip per core</td>
</tr>
<tr>
<td>L3 Cache:</td>
<td>12 MB I+D on chip per core</td>
</tr>
<tr>
<td>Other Cache:</td>
<td>None</td>
</tr>
<tr>
<td>Memory:</td>
<td>24 GB (24x1GB DIMMs)</td>
</tr>
<tr>
<td>Disk Subsystem:</td>
<td>2x73GB 10K RPM SAS (mirrored)</td>
</tr>
<tr>
<td>Other Hardware:</td>
<td>None</td>
</tr>
</tbody>
</table>

### Software

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System:</td>
<td>Red Hat Enterprise Linux AS release 4 (Update 4)</td>
</tr>
<tr>
<td>Compiler:</td>
<td>Intel C++ Compiler for Itanium version 9.1 (Build 20060818)</td>
</tr>
<tr>
<td>Auto Parallel:</td>
<td>No</td>
</tr>
<tr>
<td>File System:</td>
<td>ext3</td>
</tr>
<tr>
<td>System State:</td>
<td>Multi-user</td>
</tr>
<tr>
<td>Base Pointers:</td>
<td>64-bit</td>
</tr>
<tr>
<td>Peak Pointers:</td>
<td>64-bit</td>
</tr>
<tr>
<td>Other Software:</td>
<td>MicroQuill Smartheap 8.0</td>
</tr>
</tbody>
</table>
HP Integrity rx6600  
(1.6GHz/24MB Dual-Core Intel Itanium 2)

**SPECint_rate2006 = 91.1**  
**SPECint_rate_base2006 = 86.5**

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### 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>
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</thead>
<tbody>
<tr>
<td>400.perlbench</td>
<td>8</td>
<td>1121</td>
<td>69.7</td>
<td>1082</td>
<td>72.3</td>
<td>1082</td>
<td>72.2</td>
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<tr>
<td>401.bzip2</td>
<td>8</td>
<td>1126</td>
<td>68.6</td>
<td>1123</td>
<td>68.8</td>
<td>1107</td>
<td>69.8</td>
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<tr>
<td>403.gcc</td>
<td>8</td>
<td>1100</td>
<td>58.5</td>
<td>1099</td>
<td>58.6</td>
<td>1000</td>
<td>64.4</td>
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<tr>
<td>429.mcf</td>
<td>8</td>
<td>1073</td>
<td>68.0</td>
<td>1076</td>
<td>67.8</td>
<td>1073</td>
<td>68.0</td>
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<tr>
<td>445.gobmk</td>
<td>8</td>
<td>1024</td>
<td>82.0</td>
<td>1024</td>
<td>81.9</td>
<td>1024</td>
<td>82.0</td>
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<tr>
<td>456.hmmer</td>
<td>8</td>
<td>369</td>
<td>202</td>
<td>369</td>
<td>202</td>
<td>369</td>
<td>202</td>
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<tr>
<td>458.sjeng</td>
<td>8</td>
<td>1419</td>
<td>68.2</td>
<td>1419</td>
<td>68.2</td>
<td>1249</td>
<td>77.5</td>
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<tr>
<td>462.libquantum</td>
<td>8</td>
<td>837</td>
<td>198</td>
<td>844</td>
<td>196</td>
<td>837</td>
<td>198</td>
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<tr>
<td>464.h264ref</td>
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<td>1169</td>
<td>151</td>
<td>1169</td>
<td>151</td>
<td>1169</td>
<td>151</td>
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<tr>
<td>471.omnetpp</td>
<td>8</td>
<td>1129</td>
<td>44.3</td>
<td>1129</td>
<td>44.3</td>
<td>1085</td>
<td>46.1</td>
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<tr>
<td>473.astar</td>
<td>8</td>
<td>661</td>
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<td>661</td>
<td>85.0</td>
<td>639</td>
<td>87.9</td>
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<td>483.xalancbmk</td>
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<td>785</td>
<td>70.3</td>
<td>785</td>
<td>70.3</td>
<td>784</td>
<td>70.4</td>
</tr>
</tbody>
</table>

### Operating System Notes

stacksize set to unlimited prior to run

### Base Compiler Invocation

C benchmarks:
```c
icc
```

C++ benchmarks:
```c
icpc
```

### Base Portability Flags

- 400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_IA64
- 401.bzip2: -DSPEC_CPU_LP64
- 403.gcc: -DSPEC_CPU_LP64
- 429.mcf: -DSPEC_CPU_LP64
- 445.gobmk: -DSPEC_CPU_LP64
- 456.hmmer: -DSPEC_CPU_LP64
- 458.sjeng: -DSPEC_CPU_LP64
- 462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
- 464.h264ref: -DSPEC_CPU_LP64
- 471.omnetpp: -DSPEC_CPU_LP64
- 473.astar: -DSPEC_CPU_LP64

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.
Hewlett-Packard Company
HP Integrity rx6600
(1.6GHz/24MB Dual-Core Intel Itanium 2)

SPECint_rate2006 = 91.1
SPECint_rate_base2006 = 86.5

CPU2006 license: 03
Test sponsor: Hewlett-Packard Company
Tested by: Hewlett-Packard Company

Test date: Oct-2006
Hardware Availability: Sep-2006
Software Availability: Nov-2006

Base Portability Flags (Continued)
483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX

Base Optimization Flags
C benchmarks:
  -fast -IPF_fp_relaxed -ansi-alias
C++ benchmarks:
  -fast -IPF_fp_relaxed -ansi-alias -Wl,-z,muldefs
  /opt/SmartHeap_8/lib/libsmartheapC64.a
  /opt/SmartHeap_8/lib/libsmartheap64.a

Peak Compiler Invocation
C benchmarks: icc
C++ benchmarks: icpc

Peak Portability Flags
Same as Base Portability Flags

Peak Optimization Flags
C benchmarks:
  400.perlbench: -prof_gen(pass 1) -prof_use(pass 2) -fast -IPF_fp_relaxed
  -ansi-alias
  401.bzip2: Same as 400.perlbench
  403.gcc: Same as 400.perlbench
  429.mcf: basepeak = yes
  445.gobmk: Same as 400.perlbench
  456.hmmer: basepeak = yes

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

458.sjeng: Same as 400.perlbench

462.libquantum: basepeak = yes

464.h264ref: basepeak = yes

C++ benchmarks:

471.omnetpp: -prof_gen(pass 1) -prof_use(pass 2) -fast -IPF_fp_relaxed
-ansi-alias -Wl,-z,muldefs
/opt/SmartHeap_8/lib/libsmartheapC64.a
/opt/SmartHeap_8/lib/libsmartheap64.a

473.astar: -prof_gen(pass 1) -prof_use(pass 2) -fast -IPF_fp_relaxed
-ansi-alias -inline-factor=150 -Wl,-z,muldefs
/opt/SmartHeap_8/lib/libsmartheapC64.a
/opt/SmartHeap_8/lib/libsmartheap64.a

483.xalancbmk: Same as 471.omnetpp

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/IPF_intel91_flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/IPF_intel91_flags.xml

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

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