Hewlett-Packard Company
HP Integrity rx7640
(1.6GHz/18MB Dual-Core Intel Itanium 2)

SPECint<sub>rate</sub>2006 = 83.7
SPECint<sub>rate_base</sub>2006 = 79.6

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

Hewlett-Packard Company
CPU Name: Dual-Core Intel Itanium 2 9040
CPU Characteristics: 1.6GHz/18MB, 533MHz FSB
CPU MHz: 1600
FPU: Integrated
CPU(s) enabled: 8 cores, 4 chips, 2 cores/chip
CPU(s) orderable: 1-8 chips
Primary Cache: 16 KB I + 16 KB D on chip per core
Secondary Cache: 1 MB I + 256 KB D on chip per core
L3 Cache: 9 MB I+D on chip per core
Other Cache: None
Memory: 32 GB (16x2GB DIMMs)
Disk Subsystem: 73GB 15K RPM SCSI
Other Hardware: None

Operating System: Red Hat Enterprise Linux AS release 4 (Update 4)
Compiler: Intel C++ Compiler 9.1 for Linux (Build 20061105)
Auto Parallel: No
File System: ext3
System State: Multi-user
Base Pointers: 64-bit
Peak Pointers: 64-bit
Other Software: MicroQuill Smartheap 8.0

Hardware

Software

Standard Performance Evaluation Corporation
info@spec.org
http://www.spec.org/
### Operating System Notes

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

stacksize set to unlimited prior to run

### Platform Notes

System was configured as a single partition with 1 cell and 4 processors (8 cores) per cell. Memory was configured as 100% cell local.

### Base Compiler Invocation

**C benchmarks:**

`icc`

**C++ benchmarks:**

`icpc`

### Base Portability Flags

- 400.perlbench: `-DSPEC_CPU_LP64` `-DSPEC_CPU_LINUX_IA64`
- 401.bzip2: `-DSPEC_CPU_LP64`
- 429.mcf: `-DSPEC_CPU_LP64`
- 456.hmmer: `-DSPEC_CPU_LP64`
- 464.h264ref: `-DSPEC_CPU_LP64`
- 471.omnetpp: `-DSPEC_CPU_LP64`
- 473.astar: `-DSPEC_CPU_LP64`
- 483.xalancbmk: `-DSPEC_CPU_LP64`

Continued on next page

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org/
Hewlett-Packard Company

HP Integrity rx7640
(1.6GHz/18MB Dual-Core Intel Itanium 2)

SPECint_rate2006 = 83.7
SPECint_rate_base2006 = 79.6

Base Portability Flags (Continued)

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
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

Continued on next page
Hewlett-Packard Company

HP Integrity rx7640
(1.6GHz/18MB Dual-Core Intel Itanium 2)

**SPECint_rate2006 = 83.7**
**SPECint_rate_base2006 = 79.6**

<table>
<thead>
<tr>
<th>CPU2006 license:</th>
<th>03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test sponsor:</td>
<td>Hewlett-Packard Company</td>
</tr>
<tr>
<td>Tested by:</td>
<td>Hewlett-Packard Company</td>
</tr>
<tr>
<td>Test date:</td>
<td>Dec-2006</td>
</tr>
<tr>
<td>Hardware Availability:</td>
<td>Sep-2006</td>
</tr>
<tr>
<td>Software Availability:</td>
<td>Nov-2006</td>
</tr>
</tbody>
</table>

### Peak Optimization Flags (Continued)

- 403.gcc: Same as 400.perlbench
- 429.mcf: basepeak = yes
- 445.gobmk: Same as 400.perlbench
- 456.hmmer: basepeak = yes
- 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.20090715.html](http://www.spec.org/cpu2006/flags/IPF_intel91_flags.20090715.html)

You can also download the XML flags source by saving the following link: [http://www.spec.org/cpu2006/flags/IPF_intel91_flags.20090715.xml](http://www.spec.org/cpu2006/flags/IPF_intel91_flags.20090715.xml)

---

SPEC and SPECint 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.