Hewlett-Packard Company

HP Integrity rx3600 (1.66GHz/18MB Dual-Core Intel Itanium)  

CPUs

Operating System: HPUX11i-MCOE B.11.31 (LR)
Compiler: HP C/aC++ Developer's Bundle C.11.31.03
Auto Parallel: No
File System: vxfs
System State: Multi-user
Base Pointers: 32-bit
Peak Pointers: 32-bit
Other Software: MicroQuill Smartheap 8.1

Hardware

CPU Name: Dual-Core Intel Itanium 9140M
CPU Characteristics: 1.66GHz/18MB, 667MHz FSB
CPU MHz: 1666
FPU: Integrated
CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip, 2 threads/core
CPU(s) orderable: 1-2 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: 16 GB (8x2GB DIMMs, AD124A 8-DIMM memory carrier)
Disk Subsystem: 73GB 10K RPM SAS
Other Hardware: None

Software

Software Availability: Sep-2007

SPECint_rate2006 = 62.4
SPECint_rate_base2006 = 57.9
**Operating System Notes**

The system had the September 2007 HP-UX 11i v3 Mission Critical Operating Environment (MCOE) and compilers installed, along with the following patches:

- PHSS_36349  linker + fdp cumulative patch
- PHSS_36351  Math Library Cumulative Patch
- PHSS_36352  Integrity Unwind Library
- PHSS_36355  aC++ Runtime (A.06.15)
- PHSS_36354  assembler patch

The following kernel tunables were set, in addition to the defaults set by the Mission Critical OE:

- maxdsize=3221225472
- maxssiz=401604608
- maxrsessiz=41943040

**Base Compiler Invocation**

C benchmarks:

```
/opt/ansic/bin/cc -Ae
```

C++ benchmarks:

```
/opt/aCC/bin/aCC -Aa
```
SPEC CINT2006 Result

Hewlett-Packard Company
HP Integrity rx3600 (1.66GHz/18MB Dual-Core Intel Itanium)

SPECint_rate2006 = 62.4
SPECint_rate_base2006 = 57.9

Hewlett-Packard Company

**Base Portability Flags**

400.perlbench: -DSPEC_CPU_HPUX_IA64
403.gcc: -DSPEC_CPU_HPUX
462.libquantum: -DSPEC_CPU_HPUX
483.xalancbmk: -DSPEC_CPU_HPUX_IA64

**Base Optimization Flags**

C benchmarks:
+Ofaster +Otype_safety=ansi -Wl,-a,archive_shared -Wl,+pd,64M
-Wl,+pi,64M -Wl,-N

C++ benchmarks:
+Ofaster +Otype_safety=ansi -Wl,-a,archive_shared -Wl,+pd,64M
-Wl,+pi,64M -Wl,-N
/opt/smartheap/SmartHeap_8.1/lib/libsmartheapC.a /opt/smartheap/SmartHeap_8.1/lib/libsmartheap.a

**Peak Compiler Invocation**

C benchmarks:
/opt/ansic/bin/cc -Ae

C++ benchmarks:
/opt/aCC/bin/aCC -Aa

**Peak Portability Flags**

400.perlbench: -DSPEC_CPU_HPUX_IA64
403.gcc: -DSPEC_CPU_HPUX
462.libquantum: -DSPEC_CPU_HPUX
483.xalancbmk: -DSPEC_CPU_HPUX_IA64

**Peak Optimization Flags**

C benchmarks:
400.perlbench: +Oprofile=collect:all(pass 1) +Oprofile=use(pass 2)
+Ofaster +Otype_safety=ansi -Wl,-a,archive_shared
-Wl,+pd,64M -Wl,+pi,64M -Wl,-N

401.bzip2: Same as 400.perlbench

Continued on next page
Hewlett-Packard Company

HP Integrity rx3600 (1.66GHz/18MB Dual-Core Intel Itanium)

SPECint_rate2006 = 62.4
SPECint_rate_base2006 = 57.9

Peak Optimization Flags (Continued)

403.gcc: Same as 400.perlbench

429.mcf: Same as 400.perlbench

445.gobmk: +Oprofile=collect:all(pass 1) +Oprofile=use(pass 2) +Ofaster +Otype_safety=ansi -Wl,-a,archive_shared -Wl,+pd,64M -Wl,+pi,64M +Odataprefetch=direct

456.hmmer: +Oprofile=collect:all(pass 1) +Oprofile=use(pass 2) +Ofaster +Otype_safety=ansi -Wl,-a,archive_shared -Wl,+pd,64M -Wl,+pi,64M

458.sjeng: Same as 445.gobmk

462.libquantum: Same as 456.hmmer

464.h264ref: basepeak = yes

C++ benchmarks:

471.omnetpp: +Oprofile=collect:all(pass 1) +Oprofile=use(pass 2) +Ofaster +Otype_safety=ansi -Wl,-a,archive_shared -Wl,+pd,64M -Wl,+pi,64M

473.astar: +Ofaster +Otype_safety=ansi -Wl,-a,archive_shared -Wl,+pd,64M -Wl,+pi,64M +Onoparmsoverlap

483.xalancbmk: +Oprofile=collect:all(pass 1) +Oprofile=use(pass 2) +Ofaster +Otype_safety=ansi -Wl,-a,archive_shared -Wl,+pd,64M -Wl,+pi,64M +Onoparmsoverlap

The flags file that was used to format this result can be browsed at http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.07.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.07.xml

Copyright 2006-2014 Standard Performance Evaluation Corporation

info@spec.org
http://www.spec.org/
Hewlett-Packard Company
HP Integrity rx3600 (1.66GHz/18MB Dual-Core Intel Itanium)

<table>
<thead>
<tr>
<th>SPECint_rate2006 = 62.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECint_rate_base2006 = 57.9</td>
</tr>
</tbody>
</table>

<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>
</tbody>
</table>

Test date: Sep-2007
Hardware Availability: Nov-2007
Software Availability: Sep-2007

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 v1.0.1.
Originally published on 9 November 2007.