Fujitsu

PRIMERGY BX620 S6, Intel Xeon X5675, 3.07 GHz

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Hardware

CPU Name: Intel Xeon X5675
CPU Characteristics: Intel Turbo Boost Technology up to 3.47 GHz
CPU MHz: 3067
FPU: Integrated
CPU(s) enabled: 12 cores, 2 chips, 6 cores/chip, 2 threads/core
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 256 KB I+D on chip per core
L3 Cache: 12 MB I+D on chip per chip
Other Cache: None
Memory: 96 GB (12 x 8 GB 2Rx4 PC3-10600R-9, ECC)
Disk Subsystem: 1 x SAS, 300 GB, 10000 RPM

Software

Operating System: SUSE Linux Enterprise Server 11 (x86_64) with SP1, Kernel 2.6.32.12-0.7-default
Compiler: Intel C++ Compiler XE for applications running on IA-32
Auto Parallel: No
File System: ext3
System State: Run level 3 (multi-user)
Base Pointers: 32-bit
Peak Pointers: 32/64-bit
Other Software: Microquill SmartHeap V9.01
Binaries compiled on RHEL5.5 with binutils-2.17.50.0.6-14.el5

SPECint_rate2006 = 396
SPECint_rate_base2006 = 371

Copies

SPECint_rate2006 = 396
SPECint_rate_base2006 = 371
Fujitsu

PRIMERGY BX620 S6, Intel Xeon X5675, 3.07 GHz

SPECint_rate2006 = 396
SPECint_rate_base2006 = 371

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: Jan-2011
Hardware Availability: Feb-2011
Software Availability: Jan-2011

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>
</tr>
</thead>
<tbody>
<tr>
<td>400.perlbench</td>
<td>24</td>
<td>698</td>
<td>336</td>
<td>698</td>
<td>336</td>
<td>698</td>
<td>336</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>24</td>
<td>1040</td>
<td>223</td>
<td>1038</td>
<td>223</td>
<td>1040</td>
<td>223</td>
</tr>
<tr>
<td>403.gcc</td>
<td>24</td>
<td>759</td>
<td>255</td>
<td>777</td>
<td>249</td>
<td>775</td>
<td>249</td>
</tr>
<tr>
<td>429.mcf</td>
<td>24</td>
<td>717</td>
<td>305</td>
<td>716</td>
<td>306</td>
<td>715</td>
<td>306</td>
</tr>
<tr>
<td>445.gobmk</td>
<td>24</td>
<td>667</td>
<td>377</td>
<td>669</td>
<td>376</td>
<td>665</td>
<td>378</td>
</tr>
<tr>
<td>456.hmmer</td>
<td>24</td>
<td>464</td>
<td>483</td>
<td>468</td>
<td>478</td>
<td>468</td>
<td>478</td>
</tr>
<tr>
<td>458.sjeng</td>
<td>24</td>
<td>794</td>
<td>366</td>
<td>795</td>
<td>365</td>
<td>793</td>
<td>366</td>
</tr>
<tr>
<td>462.libquantum</td>
<td>24</td>
<td>264</td>
<td>1880</td>
<td>266</td>
<td>1870</td>
<td>264</td>
<td>1880</td>
</tr>
<tr>
<td>464.h264ref</td>
<td>24</td>
<td>1051</td>
<td>505</td>
<td>1060</td>
<td>501</td>
<td>1055</td>
<td>503</td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>24</td>
<td>654</td>
<td>229</td>
<td>654</td>
<td>229</td>
<td>654</td>
<td>229</td>
</tr>
<tr>
<td>473.astar</td>
<td>24</td>
<td>735</td>
<td>229</td>
<td>734</td>
<td>229</td>
<td>738</td>
<td>228</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>24</td>
<td>460</td>
<td>360</td>
<td>459</td>
<td>361</td>
<td>460</td>
<td>360</td>
</tr>
</tbody>
</table>

Submit Notes

The config file option 'submit' was used.
numactl was used to bind copies to the cores

Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run
Large pages were not enabled for this run

Platform Notes

BIOS configuration:
Data Reuse Optimization = Disable
Performance/Power Setting = Traditional

General Notes

For information about Fujitsu please visit: http://www.fujitsu.com

Base Compiler Invocation

C benchmarks:

icc  -m32

Continued on next page
Fujitsu

PRIMERGY BX620 S6, Intel Xeon X5675, 3.07 GHz

SPECint_rate2006 = 396
SPECint_rate_base2006 = 371

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu
Test date: Jan-2011
Hardware Availability: Feb-2011
Software Availability: Jan-2011

Base Compiler Invocation (Continued)

C++ benchmarks:
icpc -m32

Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

C++ benchmarks:
xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/smartheap -lsmartheap
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

Base Other Flags

C benchmarks:
403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):
icc -m32
400.perlbench: icc -m64
401.bzip2: icc -m64
456.hmmer: icc -m64
458.sjeng: icc -m64

C++ benchmarks:
icpc -m32
Fujitsu
PRIMERGY BX620 S6, Intel Xeon X5675, 3.07 GHz

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -xSSE4.2 (pass 2) -prof-gen (pass 1) -ipo (pass 2)
-03 (pass 2) -no-prec-div (pass 2) -prof-use (pass 2)
-B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

401.bzip2: -xSSE4.2 (pass 2) -prof-gen (pass 1) -ipo (pass 2)
-03 (pass 2) -no-prec-div (pass 2) -prof-use (pass 2)
-opt-prefetch -auto-ilp32 -ansi-alias
-B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

403.gcc: basepeak = yes

429.mcf: -xSSE4.2 (pass 2) -prof-gen (pass 1) -ipo (pass 2)
-03 (pass 2) -no-prec-div (pass 2) -prof-use (pass 2)
-ansi-alias -auto-ilp32

445.gobmk: -xSSE4.2 (pass 2) -prof-gen (pass 1) -prof-use (pass 2)
-ansi-alias -auto-ilp32

456.hmmer: -xSSE4.2 -ipo -03 -no-prec-div -unroll2 -auto-ilp32
-B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

458.sjeng: -xSSE4.2 (pass 2) -prof-gen (pass 1) -ipo (pass 2)
-03 (pass 2) -no-prec-div (pass 2) -prof-use (pass 2)
-unroll4 -auto-ilp32
-B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

462.libquantum: basepeak = yes

464.h264ref: -xSSE4.2 (pass 2) -prof-gen (pass 1) -ipo (pass 2)
-03 (pass 2) -no-prec-div (pass 2) -prof-use (pass 2)
-unroll2 -ansi-alias

C++ benchmarks:

471.omnetpp: -xSSE4.2 (pass 2) -prof-gen (pass 1) -ipo (pass 2)
-03 (pass 2) -no-prec-div (pass 2) -prof-use (pass 2)
-ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs
-L/smartheap -lsmartheap

Continued on next page
Fujitsu

PRIMERGY BX620 S6, Intel Xeon X5675, 3.07 GHz

SPECint_rate2006 = 396
SPECint_rate_base2006 = 371

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: Jan-2011
Hardware Availability: Feb-2011
Software Availability: Jan-2011

Peak Optimization Flags (Continued)

473.astar: basepeak = yes
483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

The flags file that was used to format this result can be browsed at

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revA.20110222.00.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 v1.1.
Originally published on 21 February 2011.