Fujitsu

PRIMERGY RX2540 M1, Intel Xeon E5-2630 v3, 2.4 GHz

<table>
<thead>
<tr>
<th>Benchmark</th>
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<th>SPECint_rate_base2006</th>
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<tr>
<td>400.perlbench</td>
<td>690</td>
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<tr>
<td>401.bzip2</td>
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<td>403.gcc</td>
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<tr>
<td>429.mcf</td>
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<tr>
<td>445.gobmk</td>
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<td>456.hmmer</td>
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<td>458.sjeng</td>
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<tr>
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<td>464.h264ref</td>
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<td>471.omnetpp</td>
<td>378</td>
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<tr>
<td>473.astar</td>
<td>378</td>
<td>378</td>
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<tr>
<td>483.xalancbmk</td>
<td>734</td>
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SPECint_rate_base2006 = 662

Hardware

<table>
<thead>
<tr>
<th>CPU Name:</th>
<th>Intel Xeon E5-2630 v3</th>
</tr>
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<tbody>
<tr>
<td>CPU Characteristics:</td>
<td>Intel Turbo Boost Technology up to 3.20 GHz</td>
</tr>
<tr>
<td>CPU MHz:</td>
<td>2400</td>
</tr>
<tr>
<td>FPU:</td>
<td>Integrated</td>
</tr>
<tr>
<td>CPU(s) enabled:</td>
<td>16 cores, 2 chips, 8 cores/chip, 2 threads/core</td>
</tr>
<tr>
<td>CPU(s) orderable:</td>
<td>1,2 chip</td>
</tr>
<tr>
<td>Primary Cache:</td>
<td>32 KB I + 32 KB D on chip per core</td>
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<tr>
<td>Secondary Cache:</td>
<td>256 KB I+D on chip per core</td>
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<tr>
<td>L3 Cache:</td>
<td>20 MB I+D on chip per chip</td>
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<tr>
<td>Other Cache:</td>
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<tr>
<td>Memory:</td>
<td>256 GB (16 x 16 GB 2Rx4 PC4-2133P-R, running at 1866 MHz)</td>
</tr>
<tr>
<td>Disk Subsystem:</td>
<td>1 x SATA, 500 GB, 7200 RPM</td>
</tr>
<tr>
<td>Other Hardware:</td>
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</table>

Software

<table>
<thead>
<tr>
<th>Operating System:</th>
<th>Red Hat Enterprise Linux Server release 7.0 (Maipo)</th>
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<tbody>
<tr>
<td>Compiler:</td>
<td>C/C++: Version 15.0.0.0.90 of Intel C++ Studio XE for Linux</td>
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<tr>
<td>Auto Parallel:</td>
<td>No</td>
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<tr>
<td>File System:</td>
<td>xfs</td>
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<tr>
<td>System State:</td>
<td>Run level 3 (multi-user)</td>
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<tr>
<td>Base Pointers:</td>
<td>32-bit</td>
</tr>
<tr>
<td>Peak Pointers:</td>
<td>32/64-bit</td>
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<tr>
<td>Other Software:</td>
<td>Microquill SmartHeap V10.0</td>
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</tbody>
</table>
SPEC CINT2006 Result

Fujitsu

PRIMERGY RX2540 M1, Intel Xeon E5-2630 v3, 2.4 GHz

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

SPECint_rate2006 = 690
SPECint_rate_base2006 = 662

Test date: Dec-2014
Hardware Availability: Sep-2014
Software Availability: Sep-2014

Results Table

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<td>736</td>
<td>301</td>
</tr>
</tbody>
</table>

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

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

BIOS configuration:
Energy Performance = Performance
QPI snoop mode: Early Snoop
COD Enable = Disabled, Early Snoop = Enabled
CPU C1E Support = Disabled

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/home/SPECcpu2006/libs/32:/home/SPECcpu2006/libs/64:/home/SPECcpu2006/sh"

Binaries compiled on a system with 1x Core i5-4670K CPU + 16GB memory using RedHat EL 7.0
Filesystem page cache cleared with:
echo 1 > /proc/sys/vm/drop_caches
runspec command invoked through numactl i.e.:

Continued on next page
## Fujitsu

**PRIMERGY RX2540 M1, Intel Xeon E5-2630 v3, 2.4 GHz**

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

### General Notes (Continued)

numactl --interleave=all runspec <etc>

For information about Fujitsu please visit: [http://www.fujitsu.com](http://www.fujitsu.com)

### Base Compiler Invocation

- **C benchmarks:**
  
  `icc -m32 -L/opt/intel/composer_xe_2015/lib/ia32`

- **C++ benchmarks:**
  
  `icpc -m32 -L/opt/intel/composer_xe_2015/lib/ia32`

### Base Portability Flags

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

### Base Optimization Flags

- **C benchmarks:**
  
  `-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch`

- **C++ benchmarks:**
  
  `-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs -L/sh -lsmartheap`

### Base Other Flags

- **C benchmarks:**
  
  403.gcc: `-Dalloca=_alloca`

### Peak Compiler Invocation

- **C benchmarks (except as noted below):**
  
  `icc -m32 -L/opt/intel/composer_xe_2015/lib/ia32`

  400.perlbench: `icc -m64`

  401.bzip2: `icc -m64`

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Fujitsu
PRIMERGY RX2540 M1, Intel Xeon E5-2630 v3, 2.4 GHz

SPEC CINT2006 Result

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Fujitsu

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CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu
Test date: Dec-2014
Hardware Availability: Sep-2014
Software Availability: Sep-2014

Peak Compiler Invocation (Continued)

456.hmmer: icc -m64
458.sjeng: icc -m64

C++ benchmarks:
icpc -m32 -L/opt/intel/compiler_xe_2015/lib/ia32

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: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-auto-ilp32

401.bzip2: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-opt-prefetch -auto-ilp32 -ansi-alias

403.gcc: -xCORE-AVX2 -ipo -O3 -no-prec-div

429.mcf: basepeak = yes

455.gobmk: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
-ansi-alias

456.hmmer: -xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32

458.sjeng: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-unroll4 -auto-ilp32

462.libquantum: basepeak = yes

464.h264ref: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-unroll2 -ansi-alias

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SPECint\textsubscript{rate2006} = 690
SPECint\textsubscript{rate\_base2006} = 662

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<td>Software Availability:</td>
<td>Sep-2014</td>
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Peak Optimization Flags (Continued)

C++ benchmarks:

471.omnetpp: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
   -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
   -ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs
   -L/sh -lsmartheap

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

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Fujitsu-Platform-Settings-V1.2-HSW-RevA.xml
http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.xml

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

Tested with SPEC CPU2006 v1.2.
Originally published on 13 January 2015.