Supermicro
SuperWorkstation 5029A-iL
(X11SAE, Intel Core i5-6600)

**SPECint®_rate2006 = 204**
**SPECint_rate_base2006 = 198**

<table>
<thead>
<tr>
<th>SPECint®</th>
<th>Rate 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superperlbench</td>
<td>197</td>
</tr>
<tr>
<td>Superbzip2</td>
<td>93</td>
</tr>
<tr>
<td>Supergcc</td>
<td>89.5</td>
</tr>
<tr>
<td>Supermcf</td>
<td>149</td>
</tr>
<tr>
<td>Superhmmer</td>
<td>151</td>
</tr>
<tr>
<td>Superobmkm</td>
<td>117</td>
</tr>
<tr>
<td>Superomnetpp</td>
<td>197</td>
</tr>
<tr>
<td>Superxalancbmk</td>
<td>197</td>
</tr>
</tbody>
</table>

**Hardware**

| CPU Name: | Intel Core i5-6600 |
| CPU Characteristics: | Intel Turbo Boost Technology up to 3.90 GHz |
| CPU MHz: | 3300 |
| FPU: | Integrated |
| CPU(s) enabled: | 4 cores, 1 chip, 4 cores/chip |
| CPU(s) orderable: | 1 chip |
| Primary Cache: | 32 KB I + 32 KB D on chip per core |
| Secondary Cache: | 256 KB I+D on chip per core |
| L3 Cache: | 6 MB I+D on chip per chip |
| Other Cache: | None |
| Memory: | 64 GB (4 x 16 GB 2Rx8 PC4-2133P-E) |
| Disk Subsystem: | 1 x 1000 GB SATA III, 7200 RPM |

**Software**

| Operating System: | Red Hat Enterprise Linux Server release 7.1 (Maipo) |
| Compiler: | CIC++: Version 15.0.0.090 of Intel C++ Studio XE for Linux |
| Auto Parallel: | No |
| File System: | xfs |
| System State: | Run level 3 (multi-user) |
| Base Pointers: | 32-bit |
| Peak Pointers: | 32/64-bit |
| Other Software: | Microquill SmartHeap V10.0 |
Supermicro
SuperWorkstation 5029A-iL
(X11SAE, Intel Core i5-6600)

SPEC CINT2006 Result

SPECint_rate2006 = 204
SPECint_rate_base2006 = 198

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Base</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Peak</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>400.perlbench</td>
<td>4</td>
<td>235</td>
<td>166</td>
<td>235</td>
<td>166</td>
<td></td>
<td></td>
<td>4</td>
<td>198</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>4</td>
<td>431</td>
<td>89.5</td>
<td>432</td>
<td>89.5</td>
<td></td>
<td></td>
<td>4</td>
<td>411</td>
</tr>
<tr>
<td>403.gcc</td>
<td>4</td>
<td>213</td>
<td>151</td>
<td>214</td>
<td>151</td>
<td></td>
<td></td>
<td>4</td>
<td>217</td>
</tr>
<tr>
<td>429.mcf</td>
<td>4</td>
<td>150</td>
<td>244</td>
<td>149</td>
<td>245</td>
<td></td>
<td></td>
<td>4</td>
<td>150</td>
</tr>
<tr>
<td>445.gobmk</td>
<td>4</td>
<td>351</td>
<td>119</td>
<td>352</td>
<td>119</td>
<td></td>
<td></td>
<td>4</td>
<td>358</td>
</tr>
<tr>
<td>456.hmmer</td>
<td>4</td>
<td>112</td>
<td>333</td>
<td>112</td>
<td>335</td>
<td></td>
<td></td>
<td>4</td>
<td>108</td>
</tr>
<tr>
<td>458.sjeng</td>
<td>4</td>
<td>347</td>
<td>139</td>
<td>347</td>
<td>139</td>
<td></td>
<td></td>
<td>4</td>
<td>336</td>
</tr>
<tr>
<td>462.libquantum</td>
<td>4</td>
<td>40.2</td>
<td>2060</td>
<td>40.3</td>
<td>2060</td>
<td></td>
<td></td>
<td>4</td>
<td>40.2</td>
</tr>
<tr>
<td>464.h264ref</td>
<td>4</td>
<td>332</td>
<td>267</td>
<td>332</td>
<td>267</td>
<td></td>
<td></td>
<td>4</td>
<td>324</td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>4</td>
<td>276</td>
<td>90.5</td>
<td>276</td>
<td>90.4</td>
<td></td>
<td></td>
<td>4</td>
<td>264</td>
</tr>
<tr>
<td>473.astar</td>
<td>4</td>
<td>265</td>
<td>106</td>
<td>266</td>
<td>106</td>
<td></td>
<td></td>
<td>4</td>
<td>265</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>4</td>
<td>118</td>
<td>235</td>
<td>118</td>
<td>234</td>
<td></td>
<td></td>
<td>4</td>
<td>118</td>
</tr>
</tbody>
</table>

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

Submit Notes

The taskset mechanism was used to bind copies to processors. The config file option 'submit' was used to generate taskset 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

Sysinfo program /home/cpu2006/config/sysinfo.rev6914
$Rev: 6914 $ $Date:: 2014-06-25 $ e3fbb8667b5a285932ceab81e28219e1
running on localhost.localdomain Thu Nov 26 20:18:22 2015

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:
http://www.spec.org/cpu2006/Docs/config.html#sysinfo

From /proc/cpuinfo
model name: Intel(R) Core(TM) i5-6600 CPU @ 3.30GHz
1 "physical id"s (chips)
4 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
cpu cores: 4
siblings: 4

Continued on next page
Supermicro
SuperWorkstation 5029A-iL
(X11SAE , Intel Core i5-6600)

SPECint_rate2006 = 204
SPECint_rate_base2006 = 198

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Platform Notes (Continued)

    physical 0: cores 0 1 2 3
    cache size : 6144 KB

From /proc/meminfo
    MemTotal:  65581704 kB
    HugePages_Total:       0
    Hugepagesize:       2048 kB

From /etc/*release* /etc/*version*
os-release:
    NAME="Red Hat Enterprise Linux Server"
    VERSION="7.1 (Maipo)"
    ID="rhel"
    ID_LIKE="fedora"
    VERSION_ID="7.1"
    PRETTY_NAME="Red Hat Enterprise Linux Server 7.1 (Maipo)"
    ANSI_COLOR="0;31"
    CPE_NAME="cpe:/o:redhat:enterprise_linux:7.1:GA:server"
redhat-release: Red Hat Enterprise Linux Server release 7.1 (Maipo)
system-release: Red Hat Enterprise Linux Server release 7.1 (Maipo)

uname -a:
    Linux localhost.localdomain 3.10.0-229.el7.x86_64 #1 SMP Thu Jan 29 18:37:38 EST 2015 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Nov 26 20:17
SPEC is set to: /home/cpu2006
Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs  850G  5.4G  844G   1% /home
Additional information from dmidecode:

Warning: Use caution when you interpret this section. The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.

BIOS American Megatrends Inc. 1.0 11/09/2015
Memory:
    4x Samsung M391A2K43BB1-CPB 16 GB 2 rank 2133 MHz

(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2006/libs/32:/home/cpu2006/libs/64:/home/cpu2006/sh"

Binaries compiled on a system with 1x Core i5-4670K CPU + 16GB memory using RedHat EL 7.0

Continued on next page
Supermicro
SuperWorkstation 5029A-iL
(X11SAE, Intel Core i5-6600)

SPECint_rate2006 = 204
SPECint_rate_base2006 = 198

CPU2006 license: 001176
Test sponsor: Supermicro
Test date: Nov-2015
CPU2006 license: 001176
Test sponsor: Supermicro

Tested by: Supermicro
Hardware Availability: Sep-2015
Tested by: Supermicro
Software Availability: Sep-2015

General Notes (Continued)
Transparent Huge Pages enabled with:
  echo always > /sys/kernel/mm/transparent_hugepage/enabled

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
-opt-mem-layout-trans=3
C++ benchmarks:
-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
-opt-mem-layout-trans=3 -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

Continued on next page
SPEC CINT2006 Result

Supermicro
SuperWorkstation 5029A-iL
(X11SAE , Intel Core i5-6600)

SPECint_rate2006 = 204
SPECint_rate_base2006 = 198

CPU2006 license: 001176
Test date: Nov-2015
Test sponsor: Supermicro
Hardware Availability: Sep-2015
Tested by: Supermicro
Software Availability: Sep-2015

Peak Compiler Invocation (Continued)

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

C++ benchmarks:
icpc -m32 -L/opt/intel/composer_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)
-03(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)
-03(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-opt-prefetch -auto-ilp32 -ansi-alias

403.gcc: -xCORE-AVX2 -ipo -03 -no-prec-div

429.mcf: basepeak = yes

445.gobmk: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
-ansi-alias -opt-mem-layout-trans=3

456.hmmer: -xCORE-AVX2 -ipo -03 -no-prec-div -unroll2 -auto-ilp32

458.sjeng: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(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)
-03(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-unroll2 -ansi-alias

Continued on next page
Supermicro
SuperWorkstation 5029A-iL
(X11SAE, Intel Core i5-6600)

SPECint_rate2006 = 204
SPECint_rate_base2006 = 198

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Test date: Nov-2015
Hardware Availability: Sep-2015
Software Availability: Sep-2015

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

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.html
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revG.20141230.00.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.xml
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revG.20141230.00.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 v1.2.
Originally published on 15 December 2015.