SPEC® CINT2006 Result
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Quanta Computer Inc.

SPECint®_rate2006 = 381

Quanta S51G-1UL(Intel Xeon E5-2660 v2)

SPECint_rate_base2006 = 368

CPU2006 license: 9050	**Test date:**	Jun-2014
Test sponsor: Quanta Computer Inc.	**Hardware Availability:**	Jun-2014
Tested by: Quanta Computer Inc.	**Software Availability:**	Nov-2013

Copies

Benchmark	Base	Peak
400.perlbench	20 / 266	20 / 321
401.bzip2	20 / 207	20 / 212
403.gcc	20 / 292	20 / 290
429.mcf	20 / 563	
445.gobmk	20 / 267	20 / 274
456.hmmer	20 / 486	20 / 535
458.sjeng	20 / 269	20 / 271
462.libquantum	20 / 2360	
464.h264ref	20 / 449	20 / 458
471.omnetpp	20 / 223	20 / 233
473.astar	20 / 211	
483.xalancbmk	20 / 395	

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Hardware

CPU Name:	Intel Xeon E5-2660 v2
CPU Characteristics:	Intel Turbo Boost Technology up to 3.00 GHz
CPU MHz:	2200
FPU:	Integrated
CPU(s) enabled:	10 cores, 1 chip, 10 cores/chip, 2 threads/core
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:	25 MB I+D on chip per chip
Other Cache:	None
Memory:	128 GB (8 x 16 GB 2Rx4 PC3-14900R-13, ECC)
Disk Subsystem:	197 GB add more disk info here
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux Server release 6.5 (Santiago) 2.6.32-431.el6.x86_64
Compiler:	C/C++: Version 14.0.0.080 of Intel C++ Studio XE for Linux
Auto Parallel:	No
File System:	ext4
System State:	Run level 3 (Multi-user mode)
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	Microquill SmartHeap V10.0

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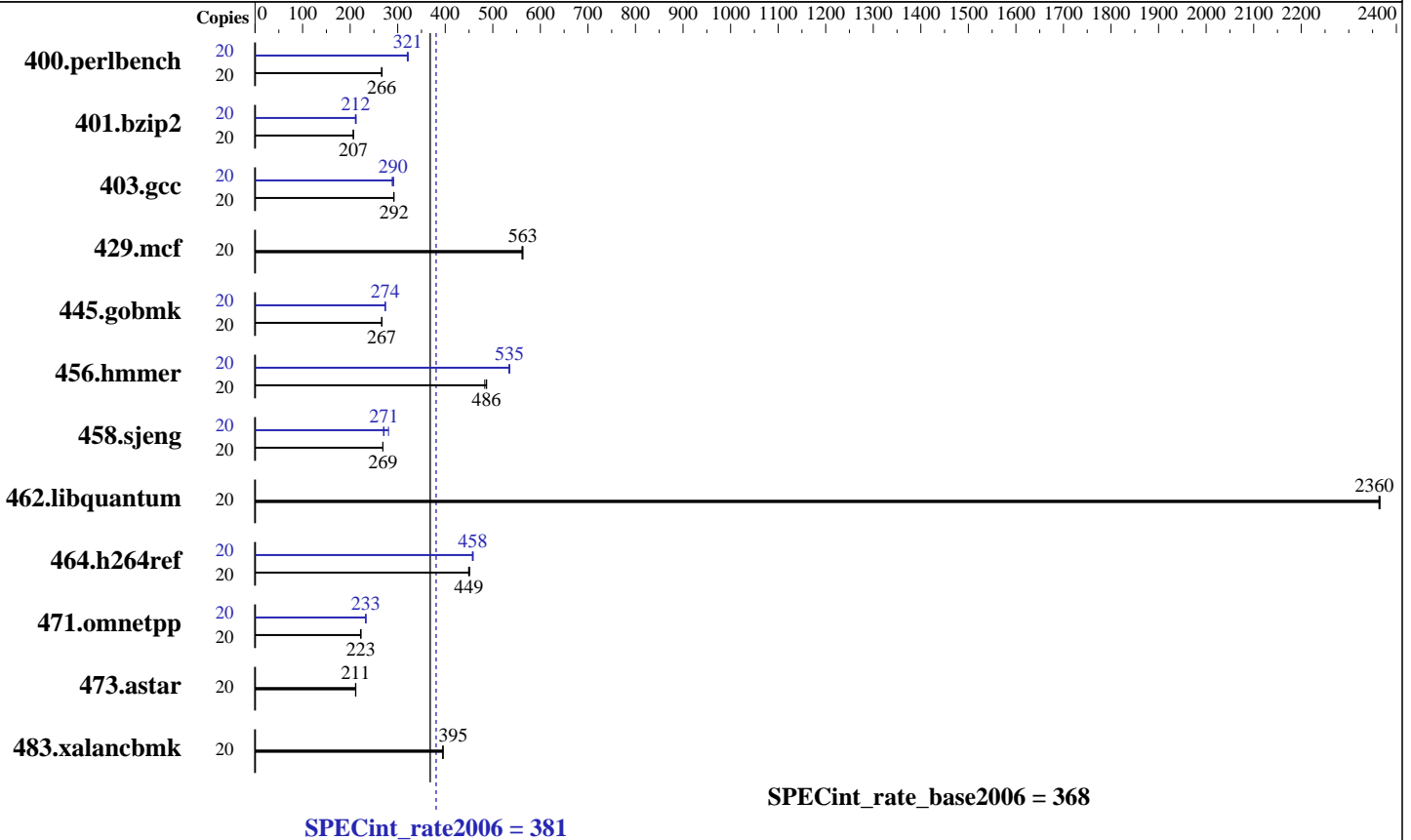SPECint_rate_base2006 = 368

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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	20	**734**	**266**	734	266	731	267	20	610	320	607	322	**608**	**321**
401.bzip2	20	930	207	**934**	**207**	935	206	20	908	213	**912**	**212**	915	211
403.gcc	20	551	292	552	292	**551**	**292**	20	558	288	553	291	**555**	**290**
429.mcf	20	324	563	325	561	**324**	**563**	20	324	563	325	561	**324**	**563**
445.gobmk	20	787	267	**787**	**267**	787	266	20	**766**	**274**	766	274	766	274
456.hmmer	20	383	487	386	483	**384**	**486**	20	350	534	349	535	**349**	**535**
458.sjeng	20	**900**	**269**	900	269	900	269	20	**892**	**271**	896	270	862	281
462.libquantum	20	175	2370	**175**	**2360**	175	2360	20	175	2370	**175**	**2360**	175	2360
464.h264ref	20	**985**	**449**	985	449	981	451	20	**967**	**458**	968	457	965	459
471.omnetpp	20	**562**	**223**	564	222	561	223	20	**537**	**233**	537	233	536	233
473.astar	20	664	211	**664**	**211**	662	212	20	664	211	**664**	**211**	662	212
483.xalancbmk	20	**349**	**395**	349	395	350	395	20	**349**	**395**	349	395	350	395

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 /speccpu/speccpu_linux/config/sysinfo.rev6818
    $Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
    running on localhost.localdomain Thu Jun 26 20:24:20 2014

    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) Xeon(R) CPU E5-2660 v2 @ 2.20GHz
          1 "physical id"s (chips)
          20 "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 : 10
          siblings  : 20
```

Continued on next page

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Platform Notes (Continued)

```
     physical 0: cores 0 1 2 3 4 8 9 10 11 12
   cache size : 25600 KB

 From /proc/meminfo
    MemTotal:       132129504 kB
    HugePages_Total:        1
    Hugepagesize:        2048 kB

 /usr/bin/lsb_release -d
    Red Hat Enterprise Linux Server release 6.5 (Santiago)

 From /etc/*release* /etc/*version*
    redhat-release: Red Hat Enterprise Linux Server release 6.5 (Santiago)
    system-release: Red Hat Enterprise Linux Server release 6.5 (Santiago)
    system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

 uname -a:
    Linux localhost.localdomain 2.6.32-431.el6.x86_64 #1 SMP Sun Nov 10 22:19:54
    EST 2013 x86_64 x86_64 x86_64 GNU/Linux

 run-level 3 Jun 26 19:47

 SPEC is set to: /speccpu/speccpu_linux
    Filesystem      Type  Size  Used Avail Use% Mounted on
    /dev/sda2       ext4  197G   11G  177G   6% /

 Additional information from dmidecode:
   BIOS American Megatrends Inc. S1G_0625 06/25/2014
   Memory:
    8x Samsung M393B2G70QH0-CMA 16 GB 1866 MHz 2 rank

 (End of data from sysinfo program)
```

General Notes

```
 Environment variables set by runspec before the start of the run:
 LD_LIBRARY_PATH = "/speccpu/speccpu_linux/libs/32:/speccpu/speccpu_linux/libs/64:/speccpu/speccpu_linux/sh"

  Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
 memory using RedHat EL 6.4
 Transparent Huge Pages enabled with:
 echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
```

Base Compiler Invocation

C benchmarks:
```
     icc  -m32
```

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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 -opt-mem-layout-trans=3

C++ benchmarks:
    -xSSE4.2 -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

    400.perlbench: icc -m64

     401.bzip2: icc -m64

    456.hmmer: icc -m64

     458.sjeng: icc -m64

C++ benchmarks:
    icpc -m32

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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)
               -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
               -auto-ilp32

    401.bzip2: -xSSE4.2(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: -xSSE4.2 -ipo -O3 -no-prec-div

      429.mcf: basepeak = yes

    445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
               -ansi-alias -opt-mem-layout-trans=3

    456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32

    458.sjeng: -xSSE4.2(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: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
               -O3(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)
               -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
```

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Peak Optimization Flags (Continued)

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-ic14.0-official-linux64.20140128.html
http://www.spec.org/cpu2006/flags/Quanta-Computer-Inc-Platform-Settings-V1.0.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64.20140128.xml
http://www.spec.org/cpu2006/flags/Quanta-Computer-Inc-Platform-Settings-V1.0.xml

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

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