SPEC® CINT2006 Result

ScaleMP

vSMP Foundation (Intel Xeon E5-2680 v3, 2.50 GHz)

SPECint®_rate2006 = Not Run

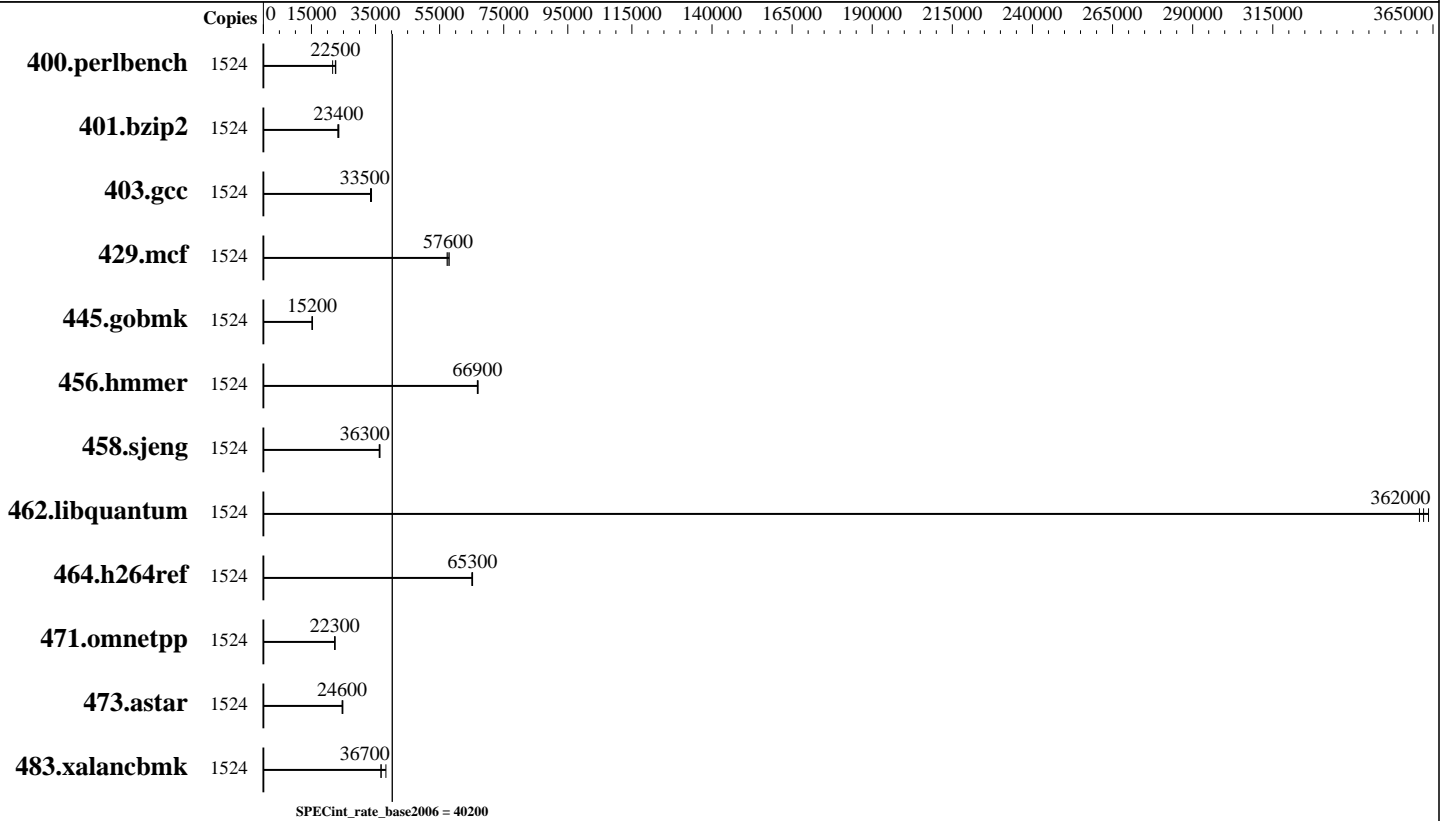SPECint_rate_base2006 = 40200

CPU2006 license: 2929

Test sponsor: ScaleMP

Tested by: ScaleMP

Test date: Jan-2016

Hardware Availability: Nov-2015

Software Availability: Nov-2015

Benchmark	Copies	Result
400.perlbench	1524	22500
401.bzip2	1524	23400
403.gcc	1524	33500
429.mcf	1524	57600
445.gobmk	1524	15200
456.hmmer	1524	66900
458.sjeng	1524	36300
462.libquantum	1524	362000
464.h264ref	1524	65300
471.omnetpp	1524	22300
473.astar	1524	24600
483.xalancbmk	1524	36700

SPECint_rate_base2006 = 40200

Hardware

CPU Name: Intel Xeon E5-2680 v3

CPU Characteristics: Intel Turbo Boost Technology up to 3.30 GHz

CPU MHz: 2500

FPU: Integrated

CPU(s) enabled: 1536 cores, 128 chips, 12 cores/chip

CPU(s) orderable: 2 to 64 blades with 2 chips per blade

Primary Cache: 32 KB I + 32 KB D on chip per core

Secondary Cache: 256 KB I+D on chip per core

L3 Cache: 30 MB I+D on chip per chip

Other Cache: 1200 GB I+D off chip per system

Memory: 16 TB (64 x 16 x 16 GB 2Rx4 PC4-2133P-R)

Disk Subsystem: 13TB ramfs

Other Hardware: None

Software

Operating System: CentOS

CentOS release 6.5 (Final)

2.6.32-431.29.2.el6.vSMP.1.x86_64

Compiler: C/C++: Version 15.0.3.187 of Intel C++ Studio XE for Linux

Auto Parallel: No

File System: ramfs

System State: Run level 3 (multi-user)

Base Pointers: 32-bit

Peak Pointers: Not Applicable

Other Software: ScaleMP vSMP Foundation 7.0.147.0

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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	1524	689	21600	**663**	**22500**	659	22600							
401.bzip2	1524	624	23600	**628**	**23400**	633	23200							
403.gcc	1524	364	33700	367	33400	**366**	**33500**							
429.mcf	1524	242	57300	**241**	**57600**	240	58000							
445.gobmk	1524	**1051**	**15200**	1042	15300	1052	15200							
456.hmmer	1524	**213**	**66900**	212	67000	213	66800							
458.sjeng	1524	510	36100	507	36400	**508**	**36300**							
462.libquantum	1524	86.8	364000	87.5	361000	**87.2**	**362000**							
464.h264ref	1524	517	65300	**517**	**65300**	519	65000							
471.omnetpp	1524	428	22200	426	22400	**427**	**22300**							
473.astar	1524	**434**	**24600**	435	24600	431	24800							
483.xalancbmk	1524	275	38200	**286**	**36700**	287	36700							

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

    BIOS Settings
        Hyper-Threading Technology disabled.
    ScaleMP
        vSMP Foundation: 7.0.147.0
        vSMP Foundation manages off chip cache using a portion of each blade memory.
    Hardware Details:
        System was aggregated using 64 x Supermicro 1028U blades.
        The servers were connected with Melanox InfiniBand FDR and an
        FDR switch.
    Sysinfo program /ramfs/SPEC_CPU2006v1.2/Docs/sysinfo
    $Rev: 6775 $ $Date:: 2011-08-16 #$ 8787f7622badcf24e01c368b1db4377c
    running on fl100.local Tue Jan 12 12:10:31 2016

    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

SPEC CINT2006 Result

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SPECint_rate2006 =   Not Run

SPECint_rate_base2006 = 40200

CPU2006 license: 2929
Test sponsor: ScaleMP
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Test date: Jan-2016
Hardware Availability: Nov-2015
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Platform Notes (Continued)

```
    From /proc/cpuinfo
       model name : Intel(R) Xeon(R) CPU E5-2680 v3 @ 2.50GHz
          128 "physical id"s (chips)
          1536 "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 : 12
          siblings  : 12
          physical 0: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 1: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 8: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 9: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 16: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 17: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 24: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 25: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 32: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 33: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 40: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 41: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 48: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 49: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 56: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 57: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 64: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 65: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 72: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 73: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 80: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 81: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 88: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 89: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 96: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 97: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 104: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 105: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 112: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 113: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 120: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 121: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 128: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 129: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 136: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 137: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 144: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 145: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 152: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 153: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 160: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 161: cores 0 1 2 3 4 5 8 9 10 11 12 13
          physical 168: cores 0 1 2 3 4 5 8 9 10 11 12 13
```

ScaleMP

SPECint_rate2006 =   Not Run

vSMP Foundation (Intel Xeon E5-2680 v3, 2.50 GHz)

SPECint_rate_base2006 = 40200

CPU2006 license: 2929
Test sponsor: ScaleMP
Tested by: ScaleMP

Test date: Jan-2016
Hardware Availability: Nov-2015
Software Availability: Nov-2015

Platform Notes (Continued)

```
physical 169: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 176: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 177: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 184: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 185: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 192: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 193: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 200: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 201: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 208: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 209: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 216: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 217: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 224: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 225: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 232: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 233: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 240: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 241: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 248: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 249: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 256: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 257: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 264: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 265: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 272: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 273: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 280: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 281: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 288: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 289: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 296: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 297: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 304: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 305: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 312: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 313: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 320: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 321: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 328: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 329: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 336: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 337: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 344: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 345: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 352: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 353: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 360: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 361: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 368: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 369: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 376: cores 0 1 2 3 4 5 8 9 10 11 12 13
```

ScaleMP

SPECint_rate2006 =   Not Run

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SPECint_rate_base2006 = 40200

CPU2006 license: 2929
Test sponsor: ScaleMP
Tested by: ScaleMP

Test date: Jan-2016
Hardware Availability: Nov-2015
Software Availability: Nov-2015

Platform Notes (Continued)

```
      physical 377: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 384: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 385: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 392: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 393: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 400: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 401: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 408: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 409: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 416: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 417: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 424: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 425: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 432: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 433: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 440: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 441: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 448: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 449: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 456: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 457: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 464: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 465: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 472: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 473: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 480: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 481: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 488: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 489: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 496: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 497: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 504: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 505: cores 0 1 2 3 4 5 8 9 10 11 12 13
    cache size : 30720 KB

  From /proc/meminfo
    MemTotal:       14205999376 kB
    HugePages_Total:        0
    Hugepagesize:        2048 kB

  /usr/bin/lsb_release -d
    CentOS release 6.5 (Final)

  From /etc/*release* /etc/*version*
    centos-release: CentOS release 6.5 (Final)
    redhat-release: CentOS release 6.5 (Final)
    rocks-release: Rocks release 6.1.1 (Sand Boa)
    system-release: CentOS release 6.5 (Final)
    system-release-cpe: cpe:/o:centos:linux:6:GA

  uname -a:
    Linux fl100.local 2.6.32-431.29.2.el6.vSMP.1.x86_64 #1 SMP Tue Sep 30
```

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CPU2006 license: 2929

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Platform Notes (Continued)

```
     01:59:41 PDT 2014 x86_64 x86_64 x86_64 GNU/Linux

 run-level 3 Jan 12 00:04

 SPEC is set to: /ramfs/SPEC_CPU2006v1.2
    Filesystem      Type   Size   Used Avail Use% Mounted on
    ramfs           ramfs    0      0     0    -  /ramfs

 (End of data from sysinfo program)
```

General Notes

```
Binaries compiled on same system.
```

Base Compiler Invocation

C benchmarks:
```
    icc  -m32 -L/share/apps/intel/composer_xe_2015/lib/ia32/
```

C++ benchmarks:
```
    icpc -m32 -L/share/apps/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 -O3 -ipo -no-prec-div -opt-prefetch
    -opt-mem-layout-trans=3
```

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

Base Other Flags

C benchmarks:

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Base Other Flags (Continued)

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.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.xml

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

Tested with SPEC CPU2006 v1.2.
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