SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

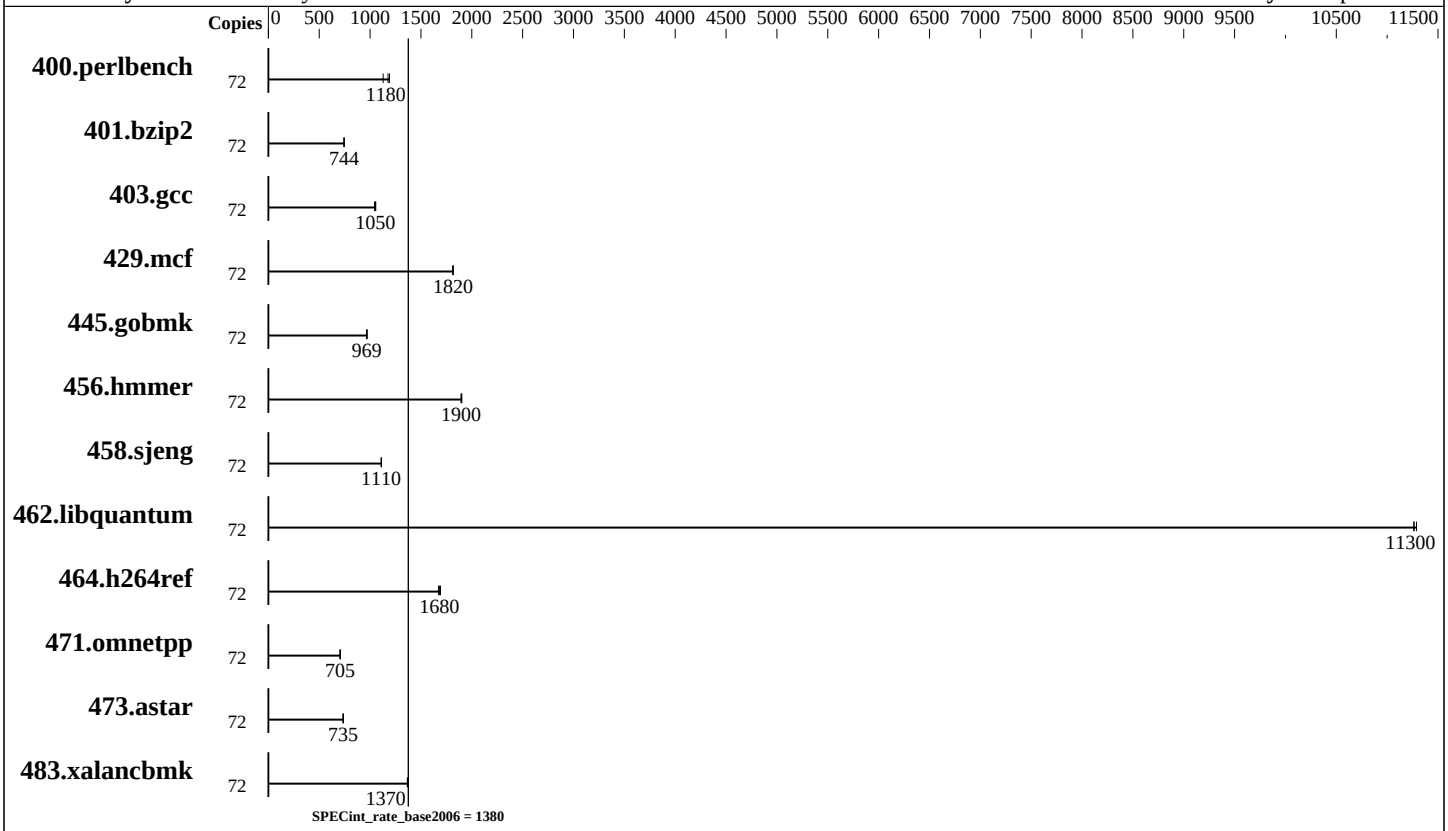
Cisco UCS C240 M4 (Intel Xeon E5-2699 v3 @ 2.30GHz)

SPECint®_rate2006 = Not Run

SPECint_rate_base2006 = 1380

CPU2006 license: 9019
Test sponsor: Cisco Systems
Tested by: Cisco Systems

Test date: Aug-2014
Hardware Availability: Sep-2014
Software Availability: Sep-2013



Hardware

CPU Name:	Intel Xeon E5-2699 v3
CPU Characteristics:	Intel Turbo Boost Technology up to 3.60 GHz
CPU MHz:	2300
FPU:	Integrated
CPU(s) enabled:	36 cores, 2 chips, 18 cores/chip, 2 threads/core
CPU(s) orderable:	1,2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	256 KB I+D on chip per core
L3 Cache:	45 MB I+D on chip per chip
Other Cache:	None
Memory:	256 GB (16 x 16 GB 2Rx4 PC4-2133P-R)
Disk Subsystem:	1 x 300GB SAS, 15K RPM
Other Hardware:	None

Software

Operating System:	SUSE Linux Enterprise Server 11 (x86_64) 3.0.76-0.11-default
Compiler:	C/C++: Version 14.0.0.080 of Intel C++ Studio XE for Linux
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 V10.0

SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

Cisco UCS C240 M4 (Intel Xeon E5-2699 v3 @ 2.30GHz)

SPECint_rate2006 = Not Run

SPECint_rate_base2006 = 1380

CPU2006 license: 9019
Test sponsor: Cisco Systems
Tested by: Cisco Systems

Test date: Aug-2014
Hardware Availability: Sep-2014
Software Availability: Sep-2013

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	72	623	1130	**598**	**1180**	591	1190							
401.bzip2	72	932	745	**934**	**744**	934	744							
403.gcc	72	555	1040	**551**	**1050**	549	1060							
429.mcf	72	361	1820	**362**	**1820**	362	1810							
445.gobmk	72	781	967	**779**	**969**	778	970							
456.hmmer	72	353	1900	354	1900	**354**	**1900**							
458.sjeng	72	**785**	**1110**	784	1110	785	1110							
462.libquantum	72	132	11300	**132**	**11300**	132	11300							
464.h264ref	72	**946**	**1680**	942	1690	953	1670							
471.omnetpp	72	635	708	639	704	**638**	**705**							
473.astar	72	689	734	**688**	**735**	685	738							
483.xalancbmk	72	362	1370	364	1370	**363**	**1370**							

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

```
CPU performance set to Enterprise
Power Technology set to Energy Efficient
Energy Performance BIAS setting set to Balanced Performance
Memory RAS configuration set to Maximum Performance
 Sysinfo program /opt/cpu2006/config/sysinfo.rev6818
 $Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
 running on dn2 Tue Aug 19 16:16:13 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 E5-2699 v3 @ 2.30GHz
       2 "physical id"s (chips)
       72 "processors"
    cores, siblings (Caution: counting these is hw and system dependent.  The
```

Continued on next page

Platform Notes (Continued)

```
      following excerpts from /proc/cpuinfo might not be reliable.  Use with
      caution.)
         cpu cores : 18
         siblings  : 36
         physical 0: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
         physical 1: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
      cache size : 23040 KB

   From /proc/meminfo
      MemTotal:       264436796 kB
      HugePages_Total:       0
      Hugepagesize:       2048 kB

   From /etc/*release* /etc/*version*
      SuSE-release:
         SUSE Linux Enterprise Server 11 (x86_64)
         VERSION = 11
         PATCHLEVEL = 3

   uname -a:
      Linux dn2 3.0.76-0.11-default #1 SMP Fri Jun 14 08:21:43 UTC 2013 (ccab990)
      x86_64 x86_64 x86_64 GNU/Linux

   run-level 3 Aug 19 16:01 last=S

   SPEC is set to: /opt/cpu2006
      Filesystem     Type  Size  Used Avail Use% Mounted on
      /dev/sda2      ext3  273G  9.0G  263G   4% /

   Additional information from dmidecode:
     BIOS Cisco Systems, Inc. C240M4.2.0.3.0.080720142205 08/07/2014
     Memory:
      16x 0xCE00 M393A2G40DB0-CPB 16 GB 2133 MHz
      8x NO DIMM NO DIMM

   (End of data from sysinfo program)
```

General Notes

```
 Environment variables set by runspec before the start of the run:
 LD_LIBRARY_PATH = "/opt/cpu2006/libs/32:/opt/cpu2006/libs/64:/opt/cpu2006/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
  Filesystem page cache cleared with:
  echo 1>       /proc/sys/vm/drop_caches
  runspec command invoked through numactl i.e.:
  numactl --interleave=all runspec <etc>
```

Base Compiler Invocation

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

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:
```
-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`

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/Cisco-Platform-Settings-V1.2-revC.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/Cisco-Platform-Settings-V1.2-revC.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.
Report generated on Wed Dec 3 10:33:38 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 2 December 2014.