SPEC® CINT2006 Result

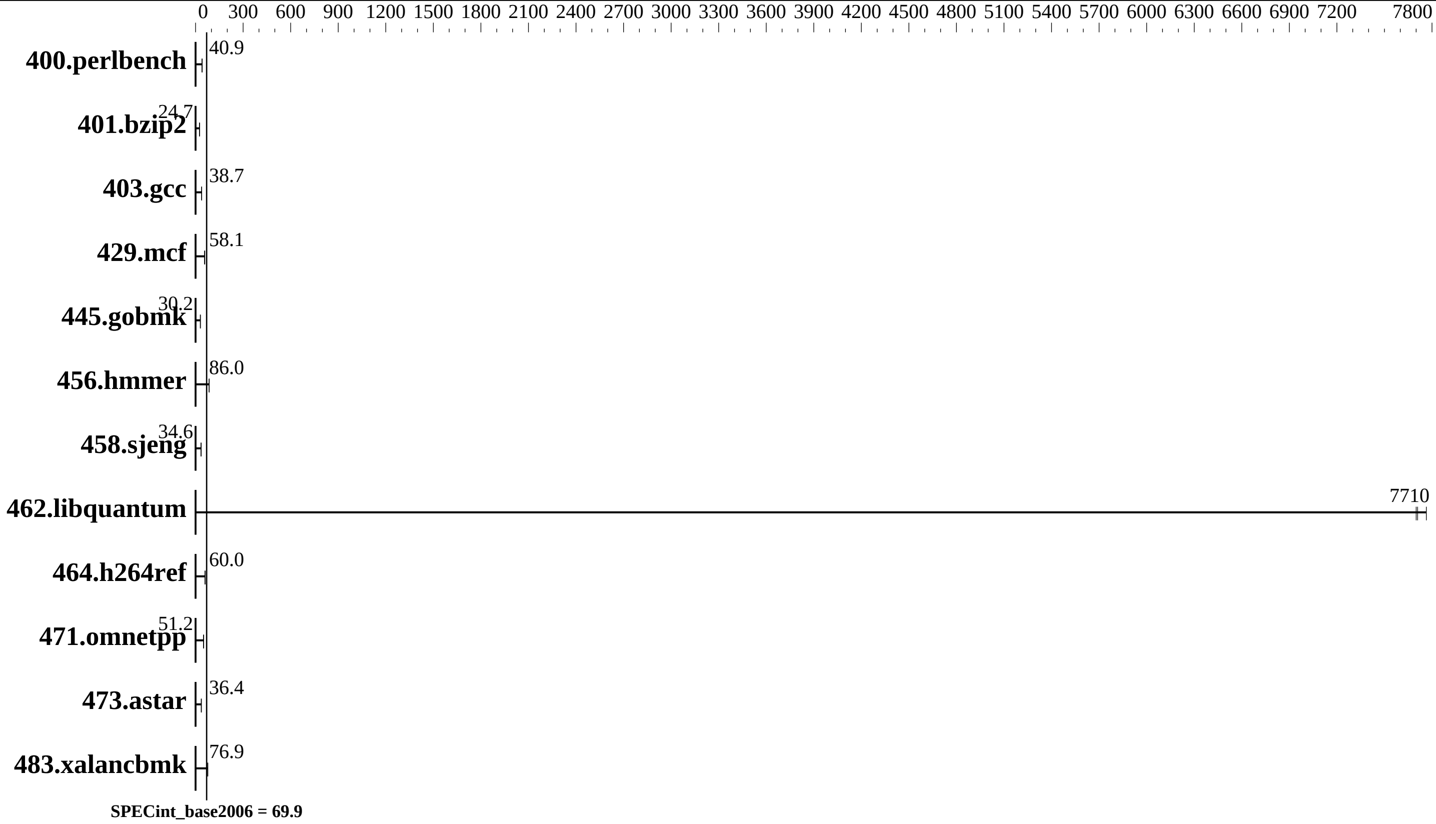
Cisco Systems

Cisco UCS B260 M4 (Intel Xeon E7-8891 v4, 2.80 GHz)

SPECint®2006 = Not Run

SPECint_base2006 = 69.9

CPU2006 license:	9019	**Test date:**	May-2016
Test sponsor:	Cisco Systems	**Hardware Availability:**	Jul-2016
Tested by:	Cisco Systems	**Software Availability:**	Dec-2015



Hardware

CPU Name:	Intel Xeon E7-8891 v4
CPU Characteristics:	Intel Turbo Boost Technology up to 3.50 GHz
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	20 cores, 2 chips, 10 cores/chip
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:	60 MB I+D on chip per chip
Other Cache:	None
Memory:	256 GB (16 x 16 GB 2Rx4 PC4-2400T-R, running at 1600 MHz)
Disk Subsystem:	1 X 400 GB SAS SSD, 6 Gb/s
Other Hardware:	None

Software

Operating System:	SUSE Linux Enterprise Server 12 SP1 (x86_64) 3.12.49-11-default
Compiler:	C/C++: Version 16.0.0.101 of Intel C++ Studio XE for Linux
Auto Parallel:	Yes
File System:	xfs
System State:	Run level 3 (multi-user)
Base Pointers:	32/64-bit
Peak Pointers:	32/64-bit
Other Software:	Microquill SmartHeap V10.2

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Results Table

	Base						Peak					
Benchmark	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
400.perlbench	239	40.9	238	41.0	**239**	**40.9**						
401.bzip2	390	24.7	**391**	**24.7**	392	24.6						
403.gcc	208	38.8	**208**	**38.7**	208	38.7						
429.mcf	162	56.5	**157**	**58.1**	157	58.2						
445.gobmk	347	30.2	**347**	**30.2**	348	30.1						
456.hmmer	108	86.0	**108**	**86.0**	108	86.2						
458.sjeng	349	34.7	**349**	**34.6**	350	34.6						
462.libquantum	**2.69**	**7710**	2.69	7700	2.67	7760						
464.h264ref	368	60.1	**369**	**60.0**	370	59.8						
471.omnetpp	**122**	**51.2**	122	51.2	124	50.5						
473.astar	195	36.0	192	36.5	**193**	**36.4**						
483.xalancbmk	90.0	76.7	89.0	77.5	**89.7**	**76.9**						

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

Operating System Notes

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

Platform Notes

```
BIOS Settings:
Intel Hyper-Threading Technology option set to Disabled
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
Memory Power Saving Mode set to Disabled
 Sysinfo program /opt/cpu2006-1.2/config/sysinfo.rev6914
 $Rev: 6914 $ $Date:: 2014-06-25 #$ e3fbb8667b5a285932ceab81e28219e1
 running on linux-0vgd Thu Dec 31 16:27:13 2009

 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 E7-8891 v4 @ 2.80GHz
       2 "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
```


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Platform Notes (Continued)

```
        siblings  : 10
        physical 0: cores 5 9 10 11 13 18 24 26 28 29
        physical 1: cores 5 9 10 11 13 18 24 26 28 29
     cache size : 61440 KB

  From /proc/meminfo
     MemTotal:       264383512 kB
     HugePages_Total:       0
     Hugepagesize:       2048 kB

  From /etc/*release* /etc/*version*
     SuSE-release:
        SUSE Linux Enterprise Server 12 (x86_64)
        VERSION = 12
        PATCHLEVEL = 1
        # This file is deprecated and will be removed in a future service pack or
        release.
        # Please check /etc/os-release for details about this release.
     os-release:
        NAME="SLES"
        VERSION="12-SP1"
        VERSION_ID="12.1"
        PRETTY_NAME="SUSE Linux Enterprise Server 12 SP1"
        ID="sles"
        ANSI_COLOR="0;32"
        CPE_NAME="cpe:/o:suse:sles:12:sp1"

  uname -a:
     Linux linux-0vgd 3.12.49-11-default #1 SMP Wed Nov 11 20:52:43 UTC 2015
     (8d714a0) x86_64 x86_64 x86_64 GNU/Linux

  run-level 3 Dec 31 16:06

  SPEC is set to: /opt/cpu2006-1.2
     Filesystem     Type  Size  Used Avail Use% Mounted on
     /dev/sda1      xfs   372G   12G  360G   4% /
  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 Cisco Systems, Inc. EXM4.3.1.1.3.042620161123 04/26/2016
    Memory:
     16x 0xCE00 M393A2G40EB1-CRC 16 GB 2 rank 2400 MHz, configured at 1600 MHz
     32x NO DIMM NO DIMM

  (End of data from sysinfo program)
```

General Notes

```
Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,compact"
LD_LIBRARY_PATH = "/opt/cpu2006-1.2/libs/32:/opt/cpu2006-1.2/libs/64:/opt/cpu2006-1.2/sh"
OMP_NUM_THREADS = "20"

 Binaries compiled on a system with 1x Intel Core i5-4670K CPU + 32GB
 memory using RedHat EL 7.1
```

Base Compiler Invocation

C benchmarks:
`icc  -m64`

C++ benchmarks:
`icpc -m64`

Base Portability Flags

400.perlbench:	-DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2:	-DSPEC_CPU_LP64
403.gcc:	-DSPEC_CPU_LP64
429.mcf:	-DSPEC_CPU_LP64
445.gobmk:	-DSPEC_CPU_LP64
456.hmmer:	-DSPEC_CPU_LP64
458.sjeng:	-DSPEC_CPU_LP64
462.libquantum:	-DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
464.h264ref:	-DSPEC_CPU_LP64
471.omnetpp:	-DSPEC_CPU_LP64
473.astar:	-DSPEC_CPU_LP64
483.xalancbmk:	-DSPEC_CPU_LP64 -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
`-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch -auto-p32`

C++ benchmarks:
`-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32`
`-Wl,-z,muldefs -L/sh -lsmartheap64`

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-ic16.0-official-linux64.html
http://www.spec.org/cpu2006/flags/Cisco-Platform-Settings-V1.2-revE.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic16.0-official-linux64.xml
http://www.spec.org/cpu2006/flags/Cisco-Platform-Settings-V1.2-revE.xml

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

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