SPEC® CINT2006 Result

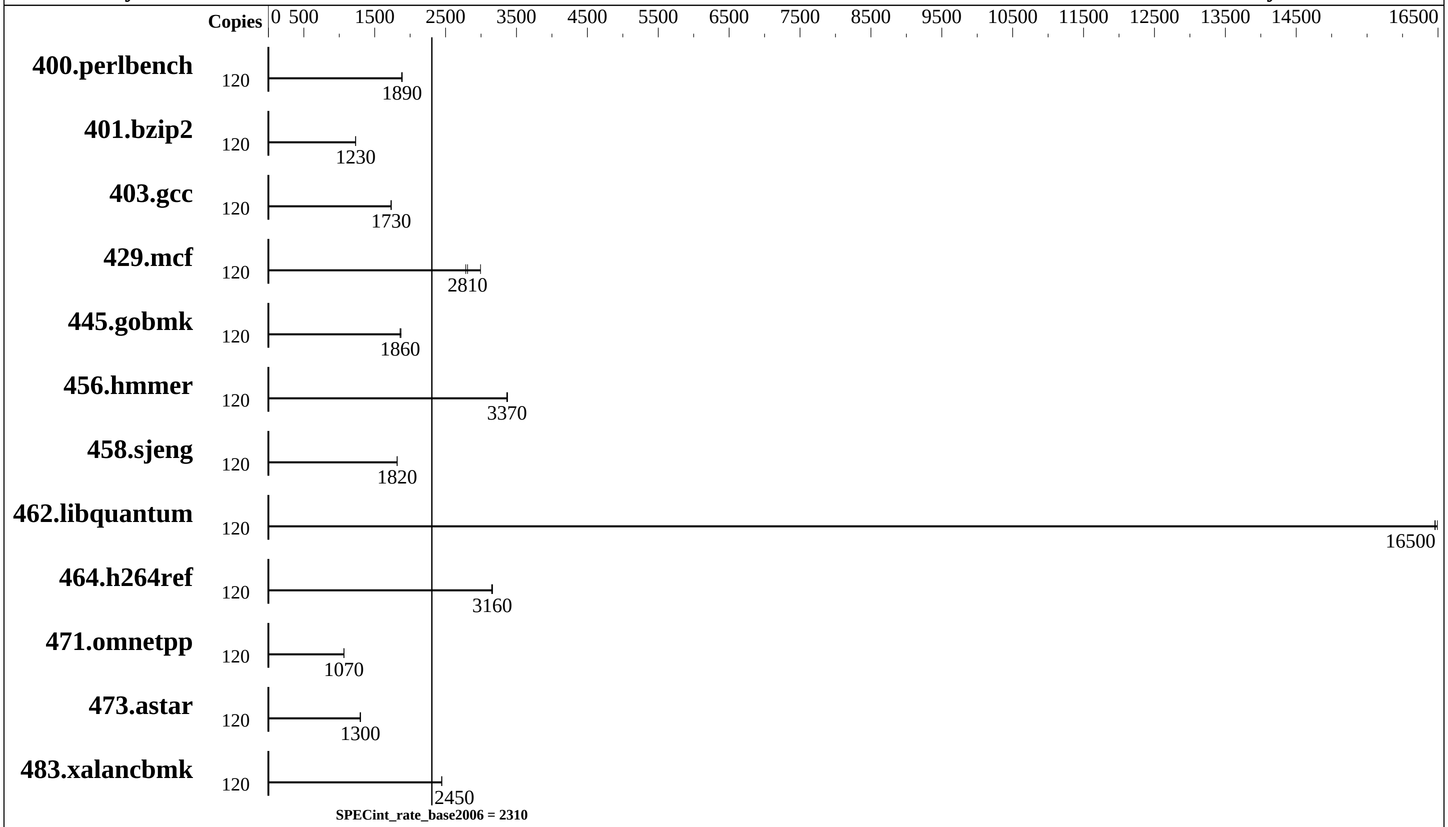
Huawei

Huawei CH242 V3 (Intel Xeon E7-4890 v2)

SPECint®_rate2006 = Not Run

SPECint_rate_base2006 = 2310

CPU2006 license:	13	**Test date:**	Feb-2014
Test sponsor:	Huawei	**Hardware Availability:**	Feb-2014
Tested by:	Huawei	**Software Availability:**	Nov-2013



Hardware

CPU Name:	Intel Xeon E7-4890 v2
CPU Characteristics:	Intel Turbo Boost Technology up to 3.40 GHz
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	60 cores, 4 chips, 15 cores/chip, 2 threads/core
CPU(s) orderable:	2,4 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:	37.5 MB I+D on chip per chip
Other Cache:	None
Memory:	256 GB (32 x 8 GB 2Rx4 PC3-10600R-9, ECC)
Disk Subsystem:	1 x 300 GB SAS, 10 K RPM
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)
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	Microquill SmartHeap V10.0

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Results Table

	Base							Peak						
Benchmark	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
400.perlbench	120	**621**	**1890**	621	1890	624	1880							
401.bzip2	120	940	1230	**940**	**1230**	941	1230							
403.gcc	120	557	1740	559	1730	**558**	**1730**							
429.mcf	120	393	2780	**390**	**2810**	366	2990							
445.gobmk	120	673	1870	**677**	**1860**	677	1860							
456.hmmer	120	332	3370	333	3360	**332**	**3370**							
458.sjeng	120	800	1820	799	1820	**799**	**1820**							
462.libquantum	120	151	16500	**151**	**16500**	151	16500							
464.h264ref	120	843	3150	840	3160	**841**	**3160**							
471.omnetpp	120	**704**	**1070**	704	1070	704	1060							
473.astar	120	651	1290	**649**	**1300**	648	1300							
483.xalancbmk	120	338	2450	**339**	**2450**	339	2440							

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

```
BIOS configuration:
Set Power Efficiency Mode to Performance
Set Lock_step to disabled
Baseboard Management Controller used to adjust the fan speed to 100%
Sysinfo program /spec/config/sysinfo.rev6818
$Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
running on speccpu Wed Feb 19 08:46:53 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 E7-4890 v2 @ 2.80GHz
      4 "physical id"s (chips)
      120 "processors"
   cores, siblings (Caution: counting these is hw and system dependent.  The
```

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Platform Notes (Continued)

```
        following excerpts from /proc/cpuinfo might not be reliable.  Use with
        caution.)
           cpu cores : 15
           siblings  : 30
           physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
           physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
           physical 2: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
           physical 3: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
        cache size : 38400 KB

     From /proc/meminfo
        MemTotal:       264349504 kB
        HugePages_Total:       0
        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 speccpu 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 Feb 18 20:36

     SPEC is set to: /spec
        Filesystem     Type  Size  Used Avail Use% Mounted on
        /dev/sda1      ext4  241G   71G  158G  32% /

     Additional information from dmidecode:
       BIOS American Megatrends Inc. BLISV929 01/19/2014
       Memory:
        32x   8 GB
        64x NO DIMM NO DIMM
        16x Samsung M393B1K70CH0-CH9 8 GB 1333 MHz 2 rank
        16x Samsung M393B1K70DH0-CH9 8 GB 1333 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 = "/spec/libs/32:/spec/libs/64:/spec/sh"

     Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
     memory using RedHat EL 6.4
     Transparent Huge Pages enabled with:
```

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General Notes (Continued)

```
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:
`-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`

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.html
http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-revE.20121120.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.xml
http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-revE.20121120.xml

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 Thu Jul 24 22:02:40 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 26 March 2014.