SPEC® CINT2006 Result

Huawei

Huawei RH2288H V2 (Intel Xeon E5-2660 V2)

SPECint®_rate2006 = 733

SPECint_rate_base2006 = 706

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

Copies

- 400.perlbench: 40 — 635; 40 — 531
- 401.bzip2: 40 — 391; 40 — 382
- 403.gcc: 40 — 562
- 429.mcf: 40 — 1060
- 445.gobmk: 40 — 534; 40 — 524
- 456.hmmer: 40 — 1050; 40 — 961
- 458.sjeng: 40 — 559; 40 — 520
- 462.libquantum: 40 — 4680
- 464.h264ref: 40 — 891; 40 — 882
- 471.omnetpp: 40 — 403; 40 — 381
- 473.astar: 40 — 401
- 483.xalancbmk: 40 — 768

SPECint_rate_base2006 = 706

SPECint_rate2006 = 733

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:	20 cores, 2 chips, 10 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:	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:	1 x 600 GB SAS, 10K 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

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

Huawei RH2288H V2 (Intel Xeon E5-2660 V2)

SPECint_rate2006 = 733

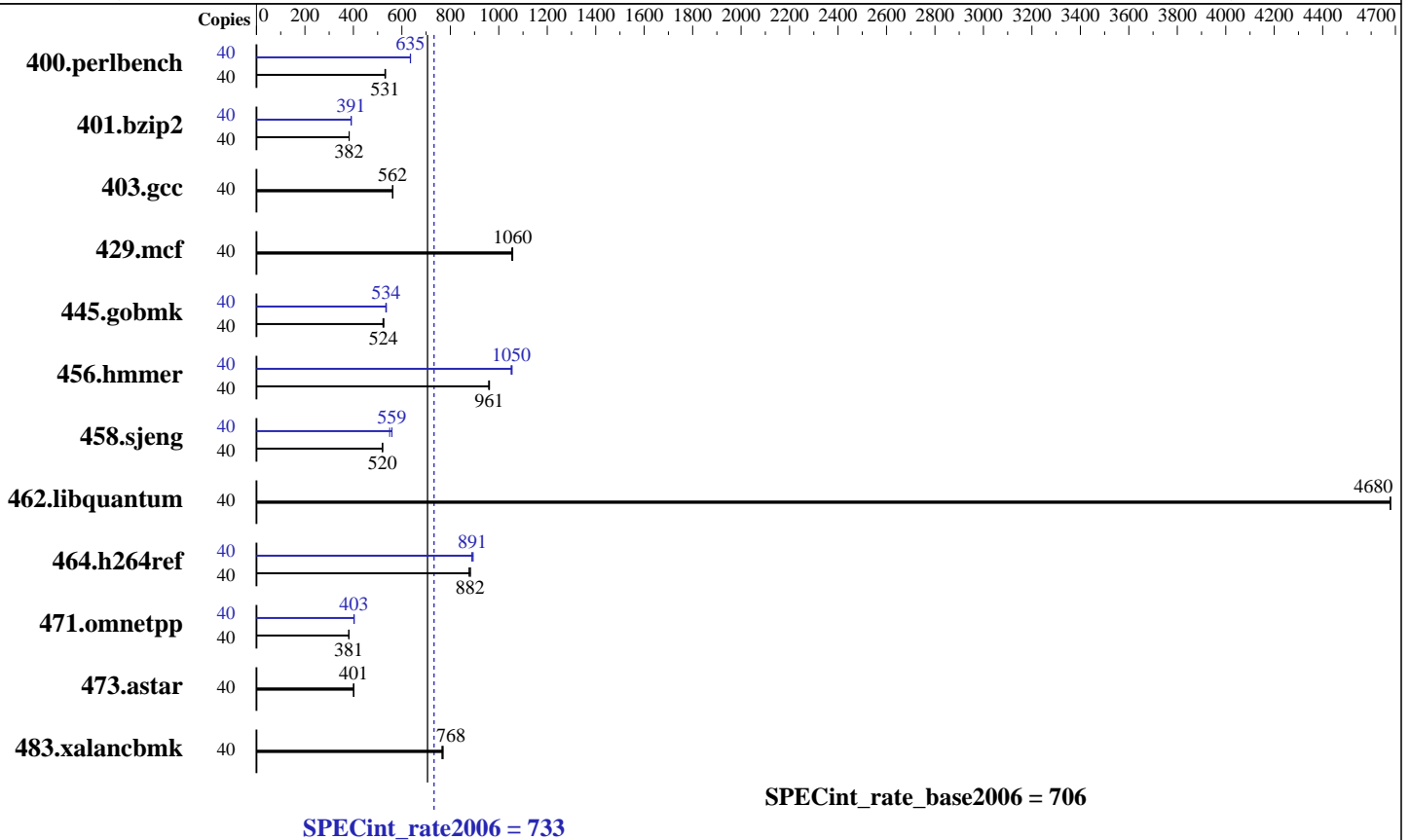SPECint_rate_base2006 = 706

CPU2006 license: 13
Test sponsor: Huawei
Tested by: Huawei

Test date: Apr-2014
Hardware Availability: Sep-2013
Software Availability: Nov-2013

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	40	733	533	**_736_**	**_531_**	737	530	40	**_615_**	**_635_**	614	636	615	635
401.bzip2	40	1010	382	1008	383	**_1010_**	**_382_**	40	987	391	988	391	**_988_**	**_391_**
403.gcc	40	572	563	573	562	**_573_**	**_562_**	40	572	563	573	562	**_573_**	**_562_**
429.mcf	40	**_345_**	**_1060_**	346	1050	345	1060	40	**_345_**	**_1060_**	346	1050	345	1060
445.gobmk	40	798	526	804	522	**_801_**	**_524_**	40	785	534	782	536	**_785_**	**_534_**
456.hmmer	40	**_388_**	**_961_**	390	958	388	962	40	355	1050	**_355_**	**_1050_**	354	1050
458.sjeng	40	931	520	930	520	**_930_**	**_520_**	40	881	550	866	559	**_866_**	**_559_**
462.libquantum	40	177	4680	**_177_**	**_4680_**	177	4680	40	177	4680	**_177_**	**_4680_**	177	4680
464.h264ref	40	1009	877	**_1004_**	**_882_**	1003	883	40	**_993_**	**_891_**	997	888	990	894
471.omnetpp	40	655	382	**_656_**	**_381_**	656	381	40	622	402	620	403	**_621_**	**_403_**
473.astar	40	701	400	699	402	**_700_**	**_401_**	40	701	400	699	402	**_700_**	**_401_**
483.xalancbmk	40	358	770	**_359_**	**_768_**	361	765	40	358	770	**_359_**	**_768_**	361	765

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
    Sysinfo program /spec/config/sysinfo.rev6818
    $Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
    running on specjbb Fri Apr 4 10:27:00 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
          2 "physical id"s (chips)
          40 "processors"
       cores, siblings (Caution: counting these is hw and system dependent. The
       following excerpts from /proc/cpuinfo might not be reliable. Use with
       caution.)

Continued on next page

Huawei

Huawei RH2288H V2 (Intel Xeon E5-2660 V2)

SPECint_rate2006 =   733

SPECint_rate_base2006 = 706

CPU2006 license: 13
Test sponsor: Huawei
Tested by: Huawei

Test date: Apr-2014
Hardware Availability: Sep-2013
Software Availability: Nov-2013

Platform Notes (Continued)

```
        cpu cores : 10
        siblings  : 20
        physical 0: cores 0 1 2 3 4 8 9 10 11 12
        physical 1: cores 0 1 2 3 4 8 9 10 11 12
     cache size : 25600 KB

  From /proc/meminfo
     MemTotal:       132103760 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 specjbb 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 Apr 4 09:43

  SPEC is set to: /spec
     Filesystem      Type  Size  Used Avail Use% Mounted on
     /dev/sda1       ext4  385G  132G  234G  37% /

  Additional information from dmidecode:
    BIOS Insyde Corp. RMIBV372 12/21/2013
    Memory:
     16x NO DIMM NO DIMM
     8x Samsung M393B2G70DB0-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 = "/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:
 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>
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

Huawei RH2288H V2 (Intel Xeon E5-2660 V2)

SPECint_rate2006 = 733

SPECint_rate_base2006 = 706

CPU2006 license: 13
Test sponsor: Huawei
Tested by: Huawei

Test date: Apr-2014
Hardware Availability: Sep-2013
Software Availability: Nov-2013

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

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

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

Huawei RH2288H V2 (Intel Xeon E5-2660 V2)

SPECint_rate2006 =   733

SPECint_rate_base2006 = 706

CPU2006 license: 13
Test sponsor: Huawei
Tested by: Huawei

Test date: Apr-2014
Hardware Availability: Sep-2013
Software Availability: Nov-2013

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: basepeak = yes

     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
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

Huawei RH2288H V2 (Intel Xeon E5-2660 V2)

SPECint_rate2006 =   733

SPECint_rate_base2006 = 706

CPU2006 license: 13
Test sponsor: Huawei
Tested by: Huawei

Test date: Apr-2014
Hardware Availability: Sep-2013
Software Availability: Nov-2013

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/Huawei-Platform-Settings-V1.0-IVB-RevG.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/Huawei-Platform-Settings-V1.0-IVB-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.
Report generated on Thu Jul 24 23:23:55 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 22 April 2014.