SPEC® CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

BladeSymphony BS520A (Intel Xeon E5-2440)

$SPECint^®\_rate2006 =$ 436

SPECint_rate_base2006 = 419

CPU2006 license: 35	**Test date:** Jun-2012
Test sponsor: HITACHI	**Hardware Availability:** Jun-2012
Tested by: HITACHI	**Software Availability:** Feb-2012

SPECint_rate_base2006 = 419

SPECint_rate2006 = 436

Hardware

CPU Name:	Intel Xeon E5-2440
CPU Characteristics:	Intel Turbo Boost Technology up to 2.90 GHz
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	12 cores, 2 chips, 6 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:	15 MB I+D on chip per chip
Other Cache:	None
Memory:	96 GB (12 x 8 GB 2Rx4 PC3L-10600R-9, ECC)
Disk Subsystem:	2 x 147 GB SAS, 15000 RPM RAID1 configuration
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux Server release 6.2, Kernel 2.6.32-220.4.2.el6.x86_64
Compiler:	C/C++: Version 12.1.0.225 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 V9.01

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

BladeSymphony BS520A (Intel Xeon E5-2440)

SPECint_rate2006 =   436

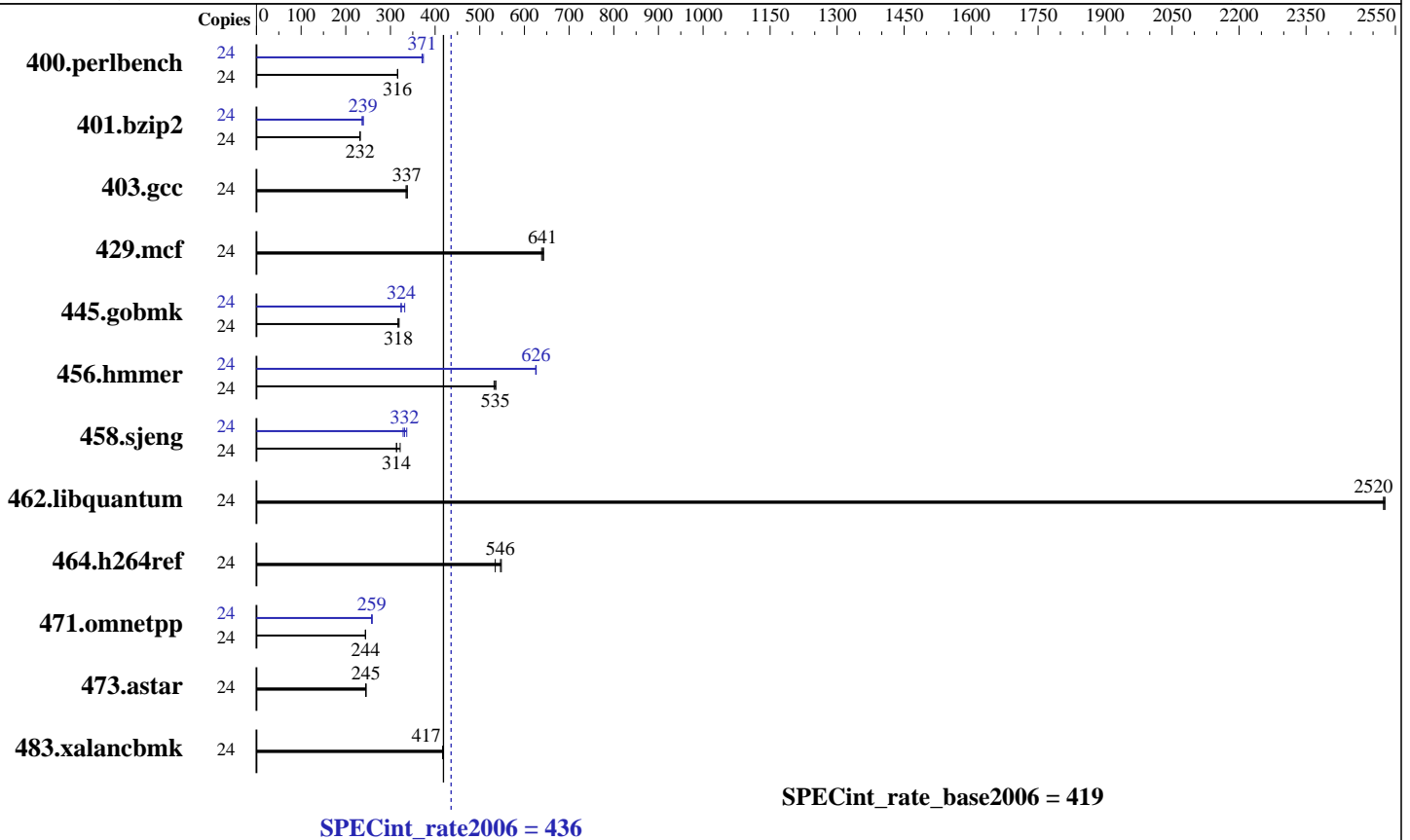SPECint_rate_base2006 = 419

CPU2006 license: 35
Test sponsor: HITACHI
Tested by: HITACHI

Test date: Jun-2012
Hardware Availability: Jun-2012
Software Availability: Feb-2012

Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	24	742	316	**742**	**316**	741	316	24	**632**	**371**	632	371	627	374
401.bzip2	24	998	232	999	232	**999**	**232**	24	969	239	**970**	**239**	980	236
403.gcc	24	572	338	**573**	**337**	577	335	24	572	338	**573**	**337**	577	335
429.mcf	24	**342**	**641**	343	638	340	643	24	**342**	**641**	343	638	340	643
445.gobmk	24	794	317	788	319	**793**	**318**	24	758	332	778	324	**776**	**324**
456.hmmer	24	**418**	**535**	421	532	418	536	24	**358**	**626**	358	626	358	625
458.sjeng	24	903	322	926	314	**926**	**314**	24	863	337	**876**	**332**	884	328
462.libquantum	24	**197**	**2520**	197	2530	197	2520	24	**197**	**2520**	197	2530	197	2520
464.h264ref	24	993	535	**972**	**546**	969	548	24	993	535	**972**	**546**	969	548
471.omnetpp	24	**614**	**244**	614	244	615	244	24	**580**	**259**	579	259	581	258
473.astar	24	688	245	687	245	**688**	**245**	24	688	245	687	245	**688**	**245**
483.xalancbmk	24	396	418	397	417	**397**	**417**	24	396	418	397	417	**397**	**417**

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

    Sysinfo program /home/cpu2006/config/sysinfo.rev6800
    $Rev: 6800 $ $Date:: 2011-10-11 #$ 6f2ebdff5032aaa42e583f96b07f99d3
    running on localhost.localdomain Thu Jun 14 18:13:13 2012

    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 E5-2440 0 @ 2.40GHz
          2 "physical id"s (chips)
          24 "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 : 6
          siblings : 12

HITACHI

BladeSymphony BS520A (Intel Xeon E5-2440)

SPECint_rate2006 =   436

SPECint_rate_base2006 = 419

CPU2006 license: 35
Test sponsor: HITACHI
Tested by: HITACHI

Test date: Jun-2012
Hardware Availability: Jun-2012
Software Availability: Feb-2012

Platform Notes (Continued)

```
      physical 0: cores 0 1 2 3 4 5
      physical 1: cores 0 1 2 3 4 5
    cache size : 15360 KB

  From /proc/meminfo
     MemTotal:        99044504 kB
     HugePages_Total:        0
     Hugepagesize:        2048 kB

  /usr/bin/lsb_release -d
     Red Hat Enterprise Linux Server release 6.2 (Santiago)

  From /etc/*release* /etc/*version*
     redhat-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
     system-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
     system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

  uname -a:
     Linux localhost.localdomain 2.6.32-220.4.2.el6.x86_64 #1 SMP Mon Feb 6
     16:39:28 EST 2012 x86_64 x86_64 x86_64 GNU/Linux

  run-level 3 Jun 14 17:02

  (End of data from sysinfo program)
```

General Notes

```
Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2006/libs/32:/home/cpu2006/libs/64"

 Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
 memory using RHEL5.5
 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>

HITACHI BladeSymphony BS520A and HITACHI Compute Blade 520A are electronically equivalent.
The results have been measured on a HITACHI BladeSymphony BS520A.
```

Base Compiler Invocation

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

C++ benchmarks:
```
     icpc -m32
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

BladeSymphony BS520A (Intel Xeon E5-2440)

SPECint_rate2006 =   436

SPECint_rate_base2006 = 419

CPU2006 license: 35
Test sponsor: HITACHI
Tested by: HITACHI

Test date: Jun-2012
Hardware Availability: Jun-2012
Software Availability: Feb-2012

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/smartheap -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
```

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
```

HITACHI

BladeSymphony BS520A (Intel Xeon E5-2440)

SPECint_rate2006 =   436

SPECint_rate_base2006 = 419

CPU2006 license: 35
Test sponsor: HITACHI
Tested by: HITACHI

Test date: Jun-2012
Hardware Availability: Jun-2012
Software Availability: Feb-2012

Peak Portability Flags (Continued)

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: basepeak = yes

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/smartheap -lsmartheap`

473.astar: basepeak = yes

483.xalancbmk: basepeak = yes

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

BladeSymphony BS520A (Intel Xeon E5-2440)

SPECint_rate2006 =   436

SPECint_rate_base2006 = 419

CPU2006 license: 35
Test sponsor: HITACHI
Tested by: HITACHI

Test date: Jun-2012
Hardware Availability: Jun-2012
Software Availability: Feb-2012

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-ic12.1-official-linux64.20111122.html
http://www.spec.org/cpu2006/flags/PlatformHitachi-V1.2.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml
http://www.spec.org/cpu2006/flags/PlatformHitachi-V1.2.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 Thu Jul 24 09:53:27 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 3 July 2012.