SPEC® CINT2006 Result

Inspur Corporation
K1 800

SPECint®_rate2006 = 2080

SPECint_rate_base2006 = 2000

CPU2006 license: 3358
Test sponsor: Inspur Corporation
Tested by: Inspur Corporation

Test date: Dec-2013
Hardware Availability: May-2012
Software Availability: Sep-2013

SPECint_rate_base2006 = 2000
SPECint_rate2006 = 2080

Hardware

CPU Name:	Intel Xeon E7-8870
CPU Characteristics:	Intel Turbo Boost Technology up to 2.80 GHz
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	80 cores, 8 chips, 10 cores/chip, 2 threads/core
CPU(s) orderable:	8 chip
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	256 KB I+D on chip per core
L3 Cache:	30 MB I+D on chip per chip
Other Cache:	None
Memory:	2 TB (64 x 32 GB 4Rx4 PC3L-10600R-9, ECC, running at 1066 MHz)
Disk Subsystem:	4 x 300GB (SAS,10K RPM, RAID5)
Other Hardware:	None

Software

Operating System:	Inspur K-UX Server release 2.2 (Inspur) 2.6.32-358.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

Inspur Corporation
K1 800

SPECint_rate2006 =   2080

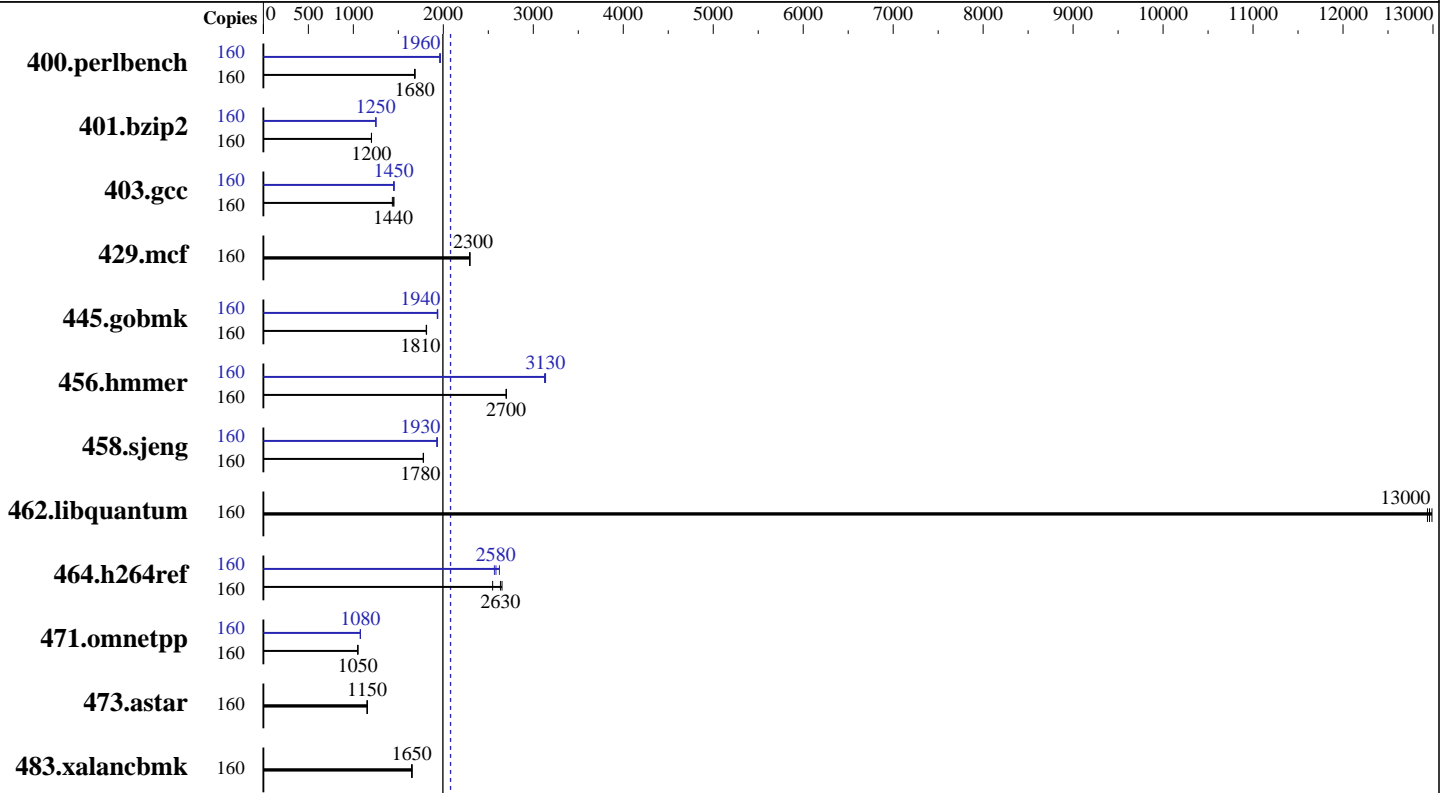SPECint_rate_base2006 = 2000

CPU2006 license: 3358
Test sponsor: Inspur Corporation
Tested by: Inspur Corporation

Test date: Dec-2013
Hardware Availability: May-2012
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	160	931	1680	**928**	**1680**	927	1690	160	794	1970	797	1960	**797**	**1960**
401.bzip2	160	1285	1200	1285	1200	**1285**	**1200**	160	1234	1250	**1235**	**1250**	1236	1250
403.gcc	160	887	1450	898	1430	**892**	**1440**	160	889	1450	886	1450	**889**	**1450**
429.mcf	160	637	2290	**636**	**2300**	636	2300	160	637	2290	**636**	**2300**	636	2300
445.gobmk	160	927	1810	**926**	**1810**	925	1810	160	866	1940	868	1930	**867**	**1940**
456.hmmer	160	553	2700	553	2700	**553**	**2700**	160	476	3140	**476**	**3130**	478	3130
458.sjeng	160	**1089**	**1780**	1088	1780	1089	1780	160	**1003**	**1930**	1004	1930	1001	1930
462.libquantum	160	**256**	**13000**	256	12900	255	13000	160	**256**	**13000**	256	12900	255	13000
464.h264ref	160	**1344**	**2630**	1335	2650	1389	2550	160	1379	2570	**1370**	**2580**	1350	2620
471.omnetpp	160	953	1050	**953**	**1050**	952	1050	160	**928**	**1080**	928	1080	927	1080
473.astar	160	974	1150	972	1160	**973**	**1150**	160	974	1150	972	1160	**973**	**1150**
483.xalancbmk	160	**669**	**1650**	670	1650	668	1650	160	**669**	**1650**	670	1650	668	1650

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 /spec/cpu2006/config/sysinfo.rev6818
    $Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
    running on localhost Fri Dec 20 18:38:00 2013

    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- 8870 @ 2.40GHz
          8 "physical id"s (chips)
          160 "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
          siblings : 20

Inspur Corporation

K1 800

SPECint_rate2006 =   2080

SPECint_rate_base2006 = 2000

Platform Notes (Continued)

```
      physical 0: cores 0 1 2 3 4 5 6 7 8 9
      physical 1: cores 0 1 2 3 4 5 6 7 8 9
      physical 2: cores 0 1 2 3 4 5 6 7 8 9
      physical 3: cores 0 1 2 3 4 5 6 7 8 9
      physical 4: cores 0 1 2 3 4 5 6 7 8 9
      physical 5: cores 0 1 2 3 4 5 6 7 8 9
      physical 6: cores 0 1 2 3 4 5 6 7 8 9
      physical 7: cores 0 1 2 3 4 5 6 7 8 9
   cache size : 30720 KB

 From /proc/meminfo
    MemTotal:       2117712864 kB
    HugePages_Total:        0
    Hugepagesize:        2048 kB

 From /etc/*release* /etc/*version*
    inspur-release: Inspur K-UX Server release 2.2 (Inspur)
    system-release: Inspur K-UX Server release 2.2 (Inspur)
    system-release-cpe: cpe:/o:inspur:k-ux:2.2:ga:server

 uname -a:
    Linux localhost 2.6.32-358.el6.x86_64 #1 SMP Tue Jan 29 11:47:41 EST 2013
    x86_64 x86_64 x86_64 GNU/Linux

 run-level 3 Dec 20 18:30

 SPEC is set to: /spec/cpu2006
    Filesystem     Type     Size   Used Avail Use% Mounted on
    /dev/sda1      ext4     577G   6.7G  541G   2% /spec

 (End of data from sysinfo program)
```

General Notes

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

SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Inspur Corporation

K1 800

SPECint_rate2006 = 2080

SPECint_rate_base2006 = 2000

CPU2006 license: 3358
Test sponsor: Inspur Corporation
Tested by: Inspur Corporation

Test date: Dec-2013
Hardware Availability: May-2012
Software Availability: Sep-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

Inspur Corporation

K1 800

SPECint_rate2006 =   2080

SPECint_rate_base2006 = 2000

CPU2006 license: 3358

Test sponsor: Inspur Corporation

Tested by: Inspur Corporation

Test date: Dec-2013

Hardware Availability: May-2012

Software Availability: Sep-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: -xSSE4.2 -ipo -O3 -no-prec-div

      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

Inspur Corporation
K1 800

SPECint_rate2006 =   2080

SPECint_rate_base2006 = 2000

CPU2006 license: 3358
Test sponsor: Inspur Corporation
Tested by: Inspur Corporation

Test date: Dec-2013
Hardware Availability: May-2012
Software Availability: Sep-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/Inspur-K1-Platform-Settings-V1.2.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/Inspur-K1-Platform-Settings-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 20:20:40 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 14 January 2014.