SPEC® CINT2006 Result
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Inspur Corporation
K1 800

SPECint®_rate2006 =　　2090

SPECint_rate_base2006 =　1990

Benchmark results (Copies = 160 for all):

Benchmark	Peak	Base
400.perlbench	1980	1700
401.bzip2	1250	1200
403.gcc	1450	1440
429.mcf		2290
445.gobmk	1930	1810
456.hmmer	3140	2700
458.sjeng	1930	1770
462.libquantum		13000
464.h264ref	2670	2640
471.omnetpp	1080	1050
473.astar		1150
483.xalancbmk		1650

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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: 960GB (3 x 480GB SSD,2.5" SATA,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

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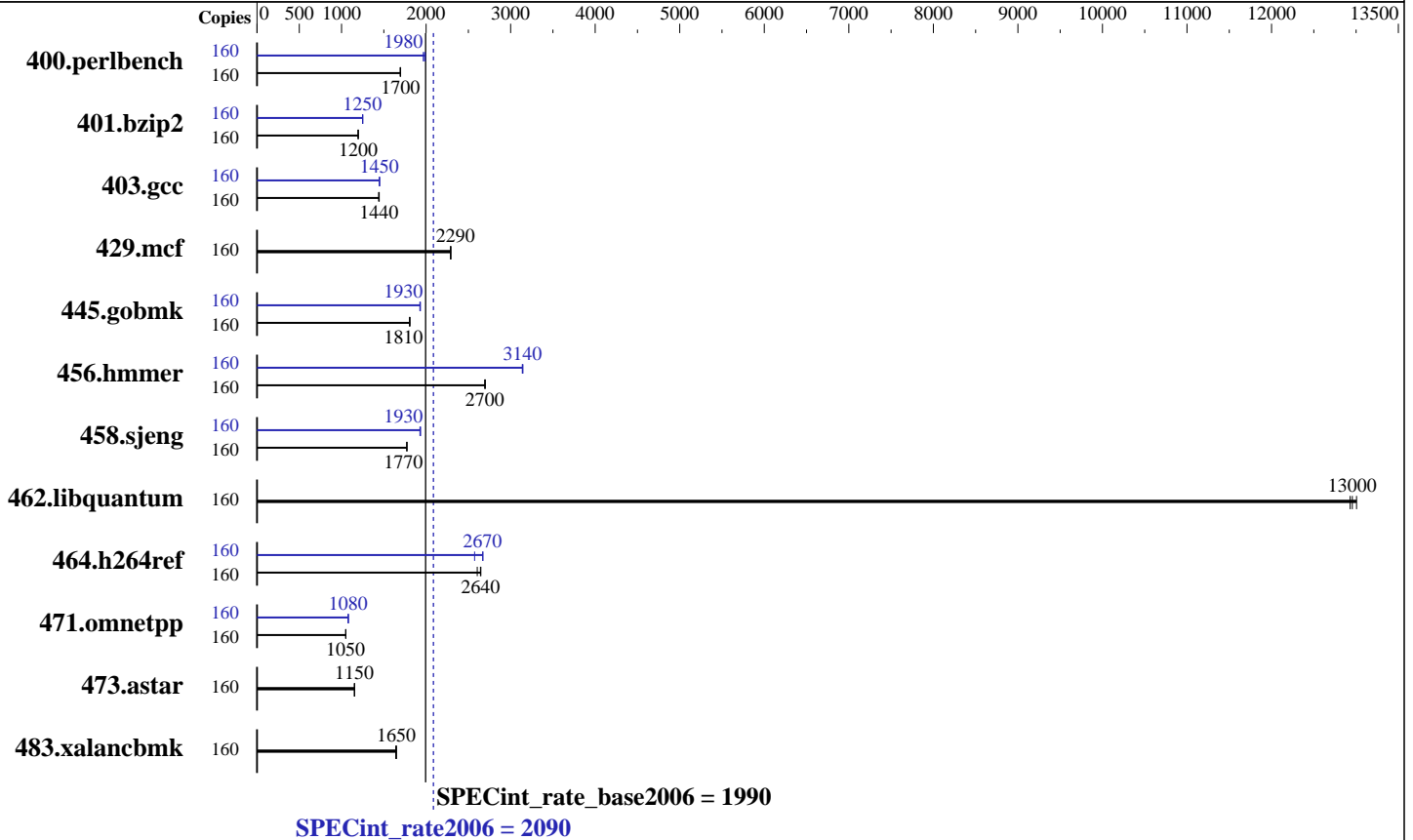
SPECint_rate_base2006 = 1990

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 Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Peak Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	160	**921**	**1700**	920	1700	924	1690	160	**790**	**1980**	795	1970	785	1990
401.bzip2	160	1292	1200	1288	1200	**1290**	**1200**	160	1236	1250	1235	1250	**1235**	**1250**
403.gcc	160	891	1450	**892**	**1440**	895	1440	160	888	1450	890	1450	**889**	**1450**
429.mcf	160	**637**	**2290**	636	2290	638	2290	160	**637**	**2290**	636	2290	638	2290
445.gobmk	160	930	1800	928	1810	**930**	**1810**	160	868	1930	871	1930	**870**	**1930**
456.hmmer	160	**554**	**2700**	553	2700	554	2690	160	475	3150	476	3140	**475**	**3140**
458.sjeng	160	1092	1770	1093	1770	**1092**	**1770**	160	**1002**	**1930**	1001	1930	1005	1930
462.libquantum	160	**256**	**13000**	256	12900	255	13000	160	**256**	**13000**	256	12900	255	13000
464.h264ref	160	**1340**	**2640**	1337	2650	1359	2610	160	**1327**	**2670**	1376	2570	1325	2670
471.omnetpp	160	951	1050	953	1050	**953**	**1050**	160	925	1080	**926**	**1080**	928	1080
473.astar	160	**974**	**1150**	975	1150	973	1150	160	**974**	**1150**	975	1150	973	1150
483.xalancbmk	160	**670**	**1650**	673	1640	669	1650	160	**670**	**1650**	673	1640	669	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/config/sysinfo.rev6818
    $Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
    running on k1.800 Sun Dec 29 04:13:41 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

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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 k1.800 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 29 04:12

  SPEC is set to: /spec
     Filesystem     Type     Size  Used Avail Use% Mounted on
     /dev/sda3      ext4     736G  4.1G  695G   1% /spec

  (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>
```

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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

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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
```

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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

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