HITACHI

Compute Blade 520X (Intel Xeon E7-8890 v3)

SPECint®_rate2006 = Not Run
SPECint_rate_base2006 = 2740

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

Test date: May-2015
Hardware Availability: Jun-2015

Tested by: HITACHI
Software Availability: Oct-2014

Software
Operating System: Red Hat Enterprise Linux Server release 6.6 (Santiago)
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 5
Base Pointers: 32-bit
Peak Pointers: 32/64-bit
Other Software: Microquill SmartHeap V10.0

Hardware
CPU Name: Intel Xeon E7-8890 v3
CPU Characteristics: Intel Turbo Boost Technology up to 3.30 GHz
CPU MHz: 2500
FPU: Integrated
CPU(s) enabled: 72 cores, 4 chips, 18 cores/chip, 2 threads/core
CPU(s) orderable: 2,4 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: 45 MB I+D on chip per chip
Other Cache: None
Memory: 1 TB (64 x 16 GB 2Rx4 PC4-2133P-R, running at 1600 MHz)
Disk Subsystem: 2 x 300 GB SAS, 15000 RPM, RAID1
Other Hardware: None

400.perlbench 144
401.bzip2 144
403.gcc 144
429.mcf 144
445.gobmk 144
456.hmmer 144
458.sjeng 144
462.libquantum 144
464.h264ref 144
471.omnetpp 144
473.astar 144
483.xalancbmk 144

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Results Table

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</tbody>
</table>

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:
C-State = Disable
C1 Enhanced Mode = Disable
Active Energy Manager = Capping Disabled
Platform Controlled Type = Maximum Performance
Memory Power Management = Disable
Patrol Scrub = Disable

Sysinfo program /home/cpu2006/config/sysinfo.rev6818
$Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
running on localhost Wed May 13 17:11:30 2015

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
HITACHI

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

Platform Notes (Continued)

model name : Intel(R) Xeon(R) CPU E7-8890 v3 @ 2.50GHz
  4 "physical id"s (chips)
  144 "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 : 18
  siblings : 36
  physical 0: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
  physical 1: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
  physical 2: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
  physical 3: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
  cache size : 46080 KB

From /proc/meminfo
  MemTotal:       1058391176 kB
  HugePages_Total:       0
  Hugepagesize:       2048 kB

/usr/bin/lsb_release -d
  Red Hat Enterprise Linux Server release 6.6 (Santiago)

From /etc/*release* /etc/*version*
  redhat-release: Red Hat Enterprise Linux Server release 6.6 (Santiago)
  system-release: Red Hat Enterprise Linux Server release 6.6 (Santiago)

uname -a:
  Linux localhost 2.6.32-504.el6.x86_64 #1 SMP Tue Sep 16 01:56:35 EDT 2014
  x86_64 x86_64 x86_64 GNU/Linux

run-level 5 May 13 16:10

SPEC is set to: /home/cpu2006
  Filesystem   Type  Size  Used Avail Use% Mounted on
  /dev/mapper/vg_rhel6-lv_home  ext4  221G  4.9G  205G  3% /home

Additional information from dmidecode:
  BIOS HITACHI 09-07 04/28/2015
  Memory:
    32x NO DIMM Unknown
    64x Samsung M393A2G40DB0-CPB 16 GB 1600 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 = "/home/cpu2006/libs/32:/home/cpu2006/libs/64:/home/cpu2006/sh"

Continued on next page
HITACHI

Compute Blade 520X (Intel Xeon E7-8890 v3)

**SPEC CINT2006 Result**

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**General Notes (Continued)**

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  
runcspec command invoked through numactl i.e.:  
umactl --interleave=all runspec <etc>

Bladesymphony BS520X, Bladesymphony BS2500 and Hitachi Compute Blade 520X are electronically equivalent.  
The results have been measured on a Hitachi Compute Blade 520X.

**Base Compiler Invocation**

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

C++ benchmarks:  
```plaintext  
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:  
```plaintext  
xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch  
-opt-mem-layout-trans=3 
```

C++ benchmarks:  
```plaintext  
xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch  
-opt-mem-layout-trans=3 -Wl,-z,muldefs -L/sh -lsmartheap 
```

**Base Other Flags**

C benchmarks:  
```plaintext  
403.gcc: -Dalloca=_alloca 
```
## SPEC CINT2006 Result

**HITACHI**

**Compute Blade 520X (Intel Xeon E7-8890 v3)**

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The flags files that were used to format this result can be browsed at:

- [http://www.spec.org/cpu2006/flags/PlatformHitachi-V1.2.20150602.html](http://www.spec.org/cpu2006/flags/PlatformHitachi-V1.2.20150602.html)

You can also download the XML flags sources by saving the following links:

- [http://www.spec.org/cpu2006/flags/PlatformHitachi-V1.2.20150602.xml](http://www.spec.org/cpu2006/flags/PlatformHitachi-V1.2.20150602.xml)

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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