SPEC® CINT2006 Result

Hewlett-Packard Company

ProLiant BL680c G7
(2.27 GHz, Intel Xeon E7-4860)

SPECint®_rate2006 = Not Run

SPECint_rate_base2006 = 995

CPU2006 license: 3

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Jun-2012

Hardware Availability: Apr-2011

Software Availability: Dec-2011

Benchmark	Copies	Result
400.perlbench	80	770
401.bzip2	80	551
403.gcc	80	780
429.mcf	80	1420
445.gobmk	80	854
456.hmmer	80	1210
458.sjeng	80	823
462.libquantum	80	6110
464.h264ref	80	1160
471.omnetpp	80	564
473.astar	80	574
483.xalancbmk	80	1030

SPECint_rate_base2006 = 995

Hardware

CPU Name: Intel Xeon E7-4860

CPU Characteristics: Intel Turbo Boost Technology up to 2.67 GHz

CPU MHz: 2267

FPU: Integrated

CPU(s) enabled: 40 cores, 4 chips, 10 cores/chip, 2 threads/core

CPU(s) orderable: 2,4 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: 24 MB I+D on chip per chip

Other Cache: None

Memory: 512 GB (32 x 16 GB 4Rx4 PC3-8500R-7, ECC)

Disk Subsystem: 2 x 146 GB 10 K SAS

Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.2, Kernel 2.6.32-220.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

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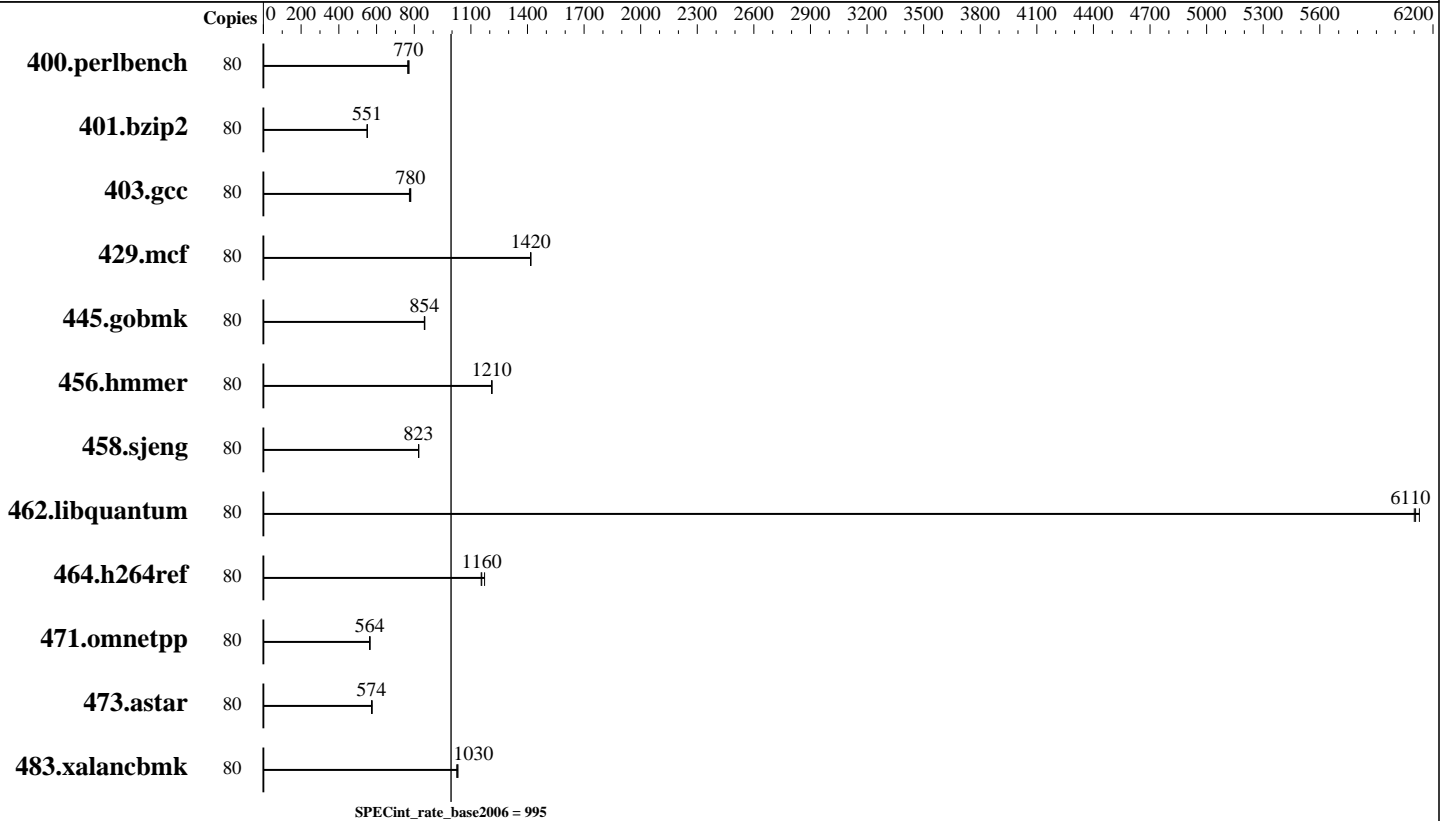|	
CPU2006 license: 3	**Test date:** Jun-2012
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Results Table

Benchmark	Base Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Peak Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	80	1022	765	**1015**	**770**	1013	772							
401.bzip2	80	1401	551	**1402**	**551**	1403	550							
403.gcc	80	**825**	**780**	832	774	825	781							
429.mcf	80	515	1420	**515**	**1420**	515	1420							
445.gobmk	80	980	856	983	854	**983**	**854**							
456.hmmer	80	**617**	**1210**	617	1210	616	1210							
458.sjeng	80	**1176**	**823**	1176	823	1176	823							
462.libquantum	80	271	6130	272	6100	**271**	**6110**							
464.h264ref	80	1533	1150	**1529**	**1160**	1510	1170							
471.omnetpp	80	**886**	**564**	888	563	884	566							
473.astar	80	974	577	979	574	**979**	**574**							
483.xalancbmk	80	**536**	**1030**	535	1030	539	1030							

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"
    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>

Platform Notes

    BIOS configuration:
     HP Power Profile set to Maximum Performance
     Thermal Configuration set to Increased Cooling
    Sysinfo program /cpu2006/config/sysinfo.rev6800
    $Rev: 6800 $ $Date:: 2011-10-11 #$ 6f2ebdff5032aaa42e583f96b07f99d3
    running on BL685cG7-Bao Mon Jun 25 12:14:02 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

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Platform Notes (Continued)

```
From /proc/cpuinfo
   model name : Intel(R) Xeon(R) CPU E7- 4860 @ 2.27GHz
      4 "physical id"s (chips)
      80 "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
      physical 0: cores 0 1 2 8 9 16 17 18 24 25
      physical 1: cores 0 1 2 8 9 16 17 18 24 25
      physical 2: cores 0 1 2 8 9 16 17 18 24 25
      physical 3: cores 0 1 2 8 9 16 17 18 24 25
   cache size : 24576 KB

From /proc/meminfo
   MemTotal:       529265540 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 BL685cG7-Bao 2.6.32-220.el6.x86_64 #1 SMP Wed Nov 9 08:03:13 EST 2011
   x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Jun 25 07:14

SPEC is set to: /cpu2006
   Filesystem     Type    Size  Used Avail Use% Mounted on
   /dev/sda3      ext4    127G  8.8G  112G   8% /

Additional information from dmidecode:
  BIOS HP I25 04/20/2012
  Memory:
   32x Not Specified Not Specified 16 GB 1067 MHz 4 rank

(End of data from sysinfo program)
```

General Notes

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

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
```

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General Notes (Continued)

```
memory using RHEL5.5
```

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/smartheap -lsmartheap
```

Base 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/HP-Platform-Flags-Intel-V1.2-A.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/HP-Platform-Flags-Intel-V1.2-A.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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