# SPEC® CINT2006 Result



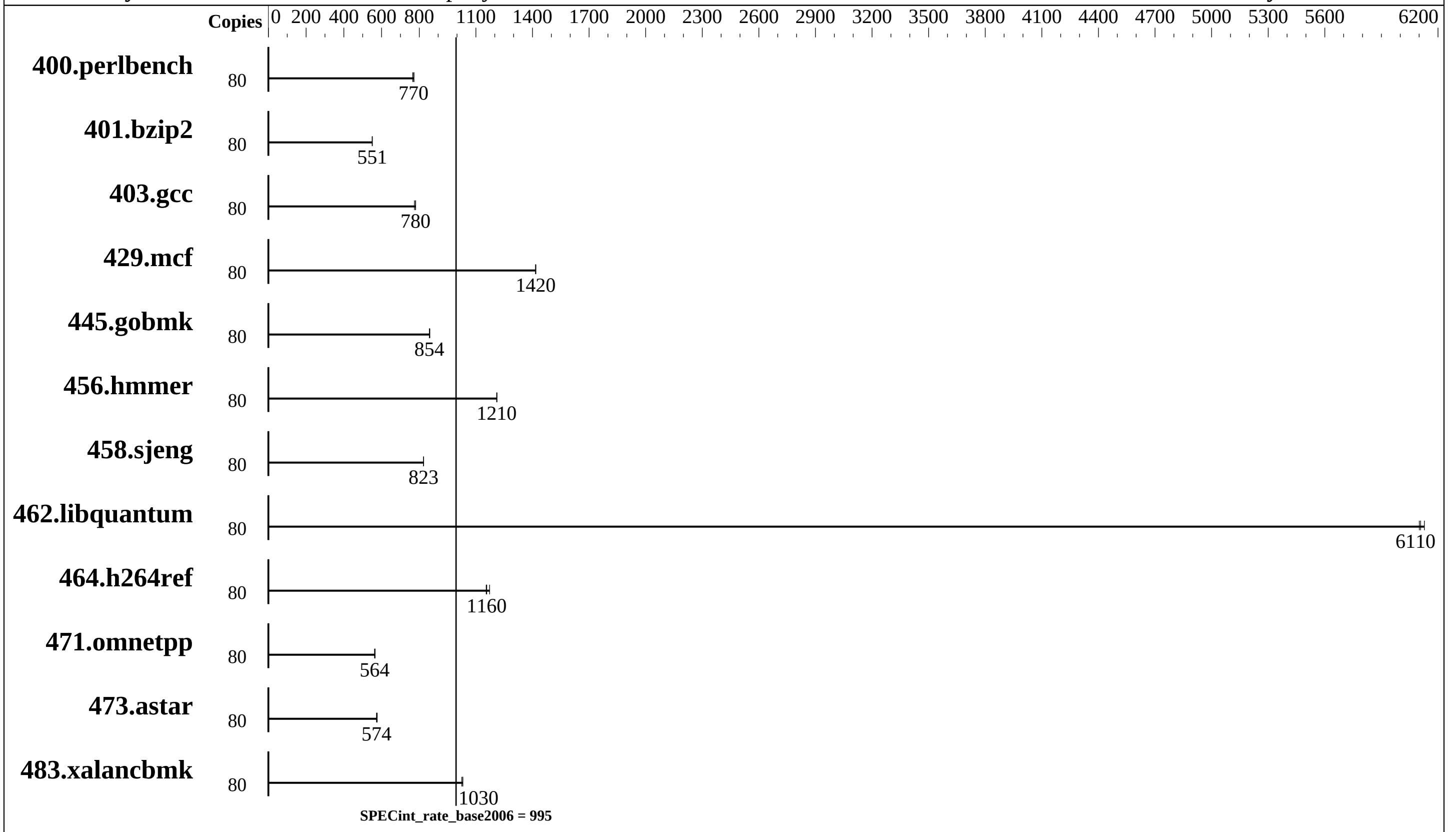
## Hewlett-Packard Company

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

SPECint®_rate2006 = Not Run

SPECint_rate_base2006 = 995

| | | | |
|---|---|---|---|
| **CPU2006 license:** 3 | | **Test date:** | Jun-2012 |
| **Test sponsor:** | Hewlett-Packard Company | **Hardware Availability:** | Apr-2011 |
| **Tested by:** | Hewlett-Packard Company | **Software Availability:** | Dec-2011 |




### 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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## Results Table

| | Base | | | | | | | Peak | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Benchmark** | **Copies** | **Seconds** | **Ratio** | **Seconds** | **Ratio** | **Seconds** | **Ratio** | **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

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

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