SPEC® CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company
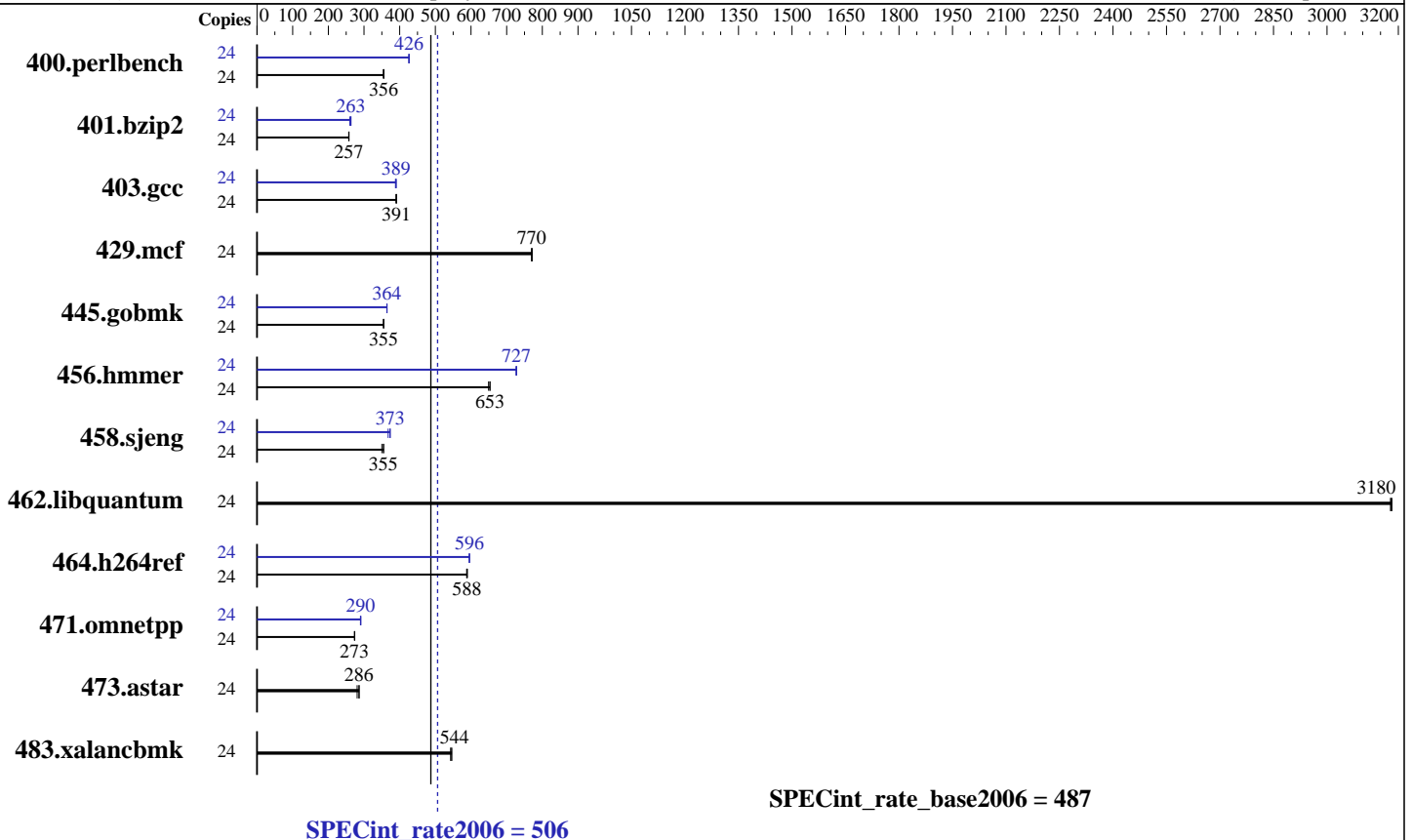
ProLiant DL360p Gen8
(2.60 GHz, Intel Xeon E5-2630 v2)

SPECint®_rate2006 =   506

SPECint_rate_base2006 = 487

CPU2006 license: 3

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Oct-2013

Hardware Availability: Sep-2013

Software Availability: Sep-2013

SPECint_rate_base2006 = 487

SPECint_rate2006 = 506

Hardware

CPU Name: Intel Xeon E5-2630 v2

CPU Characteristics: Intel Turbo Boost Technology up to 3.10 GHz

CPU MHz: 2600

FPU: Integrated

CPU(s) enabled: 12 cores, 2 chips, 6 cores/chip, 2 threads/core

CPU(s) orderable: 1,2 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: 15 MB I+D on chip per chip

Other Cache: None

Memory: 128 GB (16 x 8 GB 2Rx4 PC3-12800R-11, ECC)

Disk Subsystem: 1 x 400 GB SAS SSD, RAID 1

Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.4 (Santiago) Kernel 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

Hewlett-Packard Company

ProLiant DL360p Gen8
(2.60 GHz, Intel Xeon E5-2630 v2)

SPECint_rate2006 =   506

SPECint_rate_base2006 = 487

CPU2006 license: 3
Test sponsor: Hewlett-Packard Company
Tested by: Hewlett-Packard Company

Test date: Oct-2013
Hardware Availability: Sep-2013
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	24	662	354	659	356	**660**	**356**	24	551	426	550	427	**550**	**426**
401.bzip2	24	897	258	**900**	**257**	900	257	24	**880**	**263**	890	260	879	263
403.gcc	24	**494**	**391**	494	391	496	390	24	495	390	**496**	**389**	498	388
429.mcf	24	284	771	284	770	**284**	**770**	24	284	771	284	770	**284**	**770**
445.gobmk	24	709	355	709	355	**709**	**355**	24	690	365	**691**	**364**	691	364
456.hmmer	24	343	653	**343**	**653**	345	649	24	**308**	**727**	308	727	308	728
458.sjeng	24	818	355	830	350	**819**	**355**	24	**778**	**373**	778	373	790	368
462.libquantum	24	**156**	**3180**	156	3180	156	3180	24	**156**	**3180**	156	3180	156	3180
464.h264ref	24	903	588	**903**	**588**	900	590	24	**892**	**596**	892	596	892	595
471.omnetpp	24	549	273	547	274	**549**	**273**	24	515	291	517	290	**516**	**290**
473.astar	24	**590**	**286**	588	286	600	281	24	**590**	**286**	588	286	600	281
483.xalancbmk	24	305	543	**305**	**544**	303	546	24	305	543	**305**	**544**	303	546

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Submit Notes

```
    The config file option 'submit' was used.
    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>
    Disabled unused Linux services through "stop_services.sh" before running.
```

Platform Notes

```
    BIOS Configuration:
     HP Power Profile set to Maximum Performance
     Memory Power Savings Mode set to Maximum Performance
     Collaborative Power Control set to Disabled
     Dynamic Power Capping Functionality set to Disabled
     Thermal Configuration set to Maximum Cooling
     Processor Power and Utilization Monitoring set to Disabled
     Memory Refresh Rate set to 1x

    Sysinfo program /cpu2006/config/sysinfo.rev6818
```

Hewlett-Packard Company

ProLiant DL360p Gen8
(2.60 GHz, Intel Xeon E5-2630 v2)

SPECint_rate2006 =   506

SPECint_rate_base2006 = 487

CPU2006 license: 3

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Oct-2013

Hardware Availability: Sep-2013

Software Availability: Sep-2013

Platform Notes (Continued)

```
$Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
running on ML350pCPU20062 Fri Oct 25 11:05:45 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 E5-2630 v2 @ 2.60GHz
      2 "physical id"s (chips)
      24 "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 : 6
      siblings  : 12
      physical 0: cores 0 1 2 3 4 5
      physical 1: cores 0 1 2 3 4 5
   cache size : 15360 KB

From /proc/meminfo
   MemTotal:       132119284 kB
   HugePages_Total:        0
   Hugepagesize:       2048 kB

/usr/bin/lsb_release -d
   Red Hat Enterprise Linux Server release 6.4 (Santiago)

From /etc/*release* /etc/*version*
   redhat-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
   system-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
   system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

uname -a:
   Linux ML350pCPU20062 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 Oct 25 11:01

SPEC is set to: /cpu2006
   Filesystem     Type     Size   Used Avail Use% Mounted on
   /dev/sda3      ext4     365G   208G  139G  61% /

Additional information from dmidecode:
  BIOS HP P71 09/08/2013
  Memory:
   16x HP 689911-071 8 GB 1600 MHz 2 rank
   8x UNKNOWN NOT AVAILABLE

(End of data from sysinfo program)
Regarding the sysinfo display about the memory installed, the correct amount of
memory is 128 GB and the dmidecode description should have one line reading as:
```

Continued on next page

SPEC CINT2006 Result

Hewlett-Packard Company

ProLiant DL360p Gen8
(2.60 GHz, Intel Xeon E5-2630 v2)

SPECint_rate2006 =   506

SPECint_rate_base2006 = 487

CPU2006 license: 3		**Test date:**	Oct-2013
Test sponsor: Hewlett-Packard Company		**Hardware Availability:**	Sep-2013
Tested by: Hewlett-Packard Company		**Software Availability:**	Sep-2013

Platform Notes (Continued)

```
16x HP 689911-071 8 GB 1600 MHz 2 rank
```

General Notes

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

 Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
 memory using RedHat EL 6.4
```

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
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

ProLiant DL360p Gen8
(2.60 GHz, Intel Xeon E5-2630 v2)

SPECint_rate2006 =   506

SPECint_rate_base2006 = 487

CPU2006 license: 3

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Oct-2013

Hardware Availability: Sep-2013

Software Availability: Sep-2013

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
```

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`

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

ProLiant DL360p Gen8
(2.60 GHz, Intel Xeon E5-2630 v2)

SPECint_rate2006 =   506

SPECint_rate_base2006 = 487

CPU2006 license: 3		**Test date:**	Oct-2013
Test sponsor: Hewlett-Packard Company		**Hardware Availability:**	Sep-2013
Tested by: Hewlett-Packard Company		**Software Availability:**	Sep-2013

Peak Optimization Flags (Continued)

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

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/HP-Platform-Flags-Intel-V1.2-revB.20131009.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/HP-Platform-Flags-Intel-V1.2-revB.20131009.xml

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 18:02:19 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 3 December 2013.