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

Hewlett-Packard Company

SPECint®_rate2006 = 193

ProLiant DL320e Gen8
(3.30 GHz, Intel Xeon E3-1230 v2)
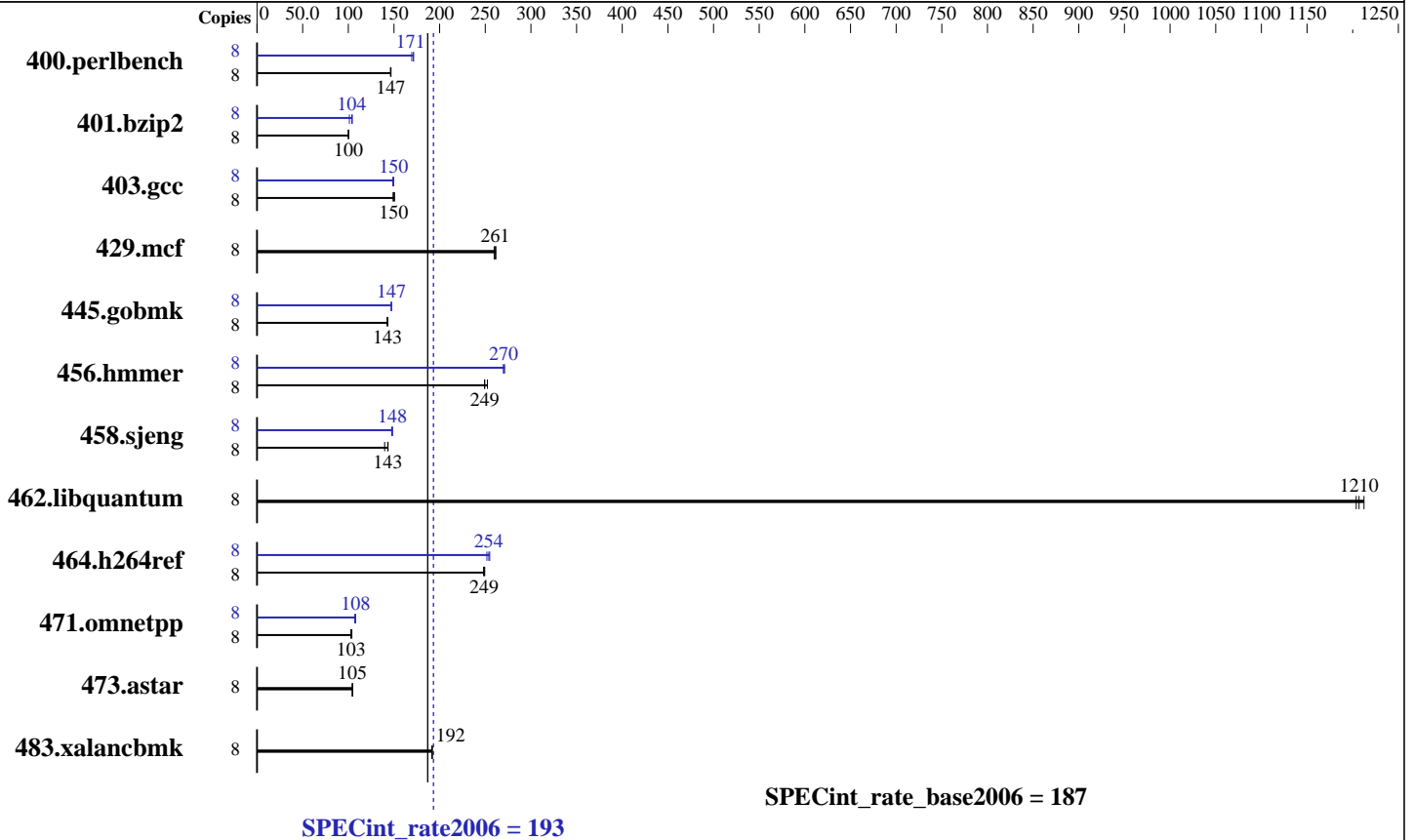
SPECint_rate_base2006 = 187

CPU2006 license: 3　　　　　　　　　　　　　　　　　　　　**Test date:** Jul-2013
Test sponsor: Hewlett-Packard Company　　　　　　**Hardware Availability:** Jun-2012
Tested by: Hewlett-Packard Company　　　　　　　**Software Availability:** Feb-2013

Benchmark	Copies	Peak	Base
400.perlbench	8	171	147
401.bzip2	8	104	100
403.gcc	8	150	150
429.mcf	8	261	
445.gobmk	8	147	143
456.hmmer	8	270	249
458.sjeng	8	148	143
462.libquantum	8	1210	
464.h264ref	8	254	249
471.omnetpp	8	108	103
473.astar	8	105	
483.xalancbmk	8	192	

SPECint_rate_base2006 = 187

SPECint_rate2006 = 193

Hardware

CPU Name:	Intel Xeon E3-1230 v2
CPU Characteristics:	Intel Turbo Boost Technology up to 3.70 GHz
CPU MHz:	3300
FPU:	Integrated
CPU(s) enabled:	4 cores, 1 chip, 4 cores/chip, 2 threads/core
CPU(s) orderable:	1 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:	8 MB I+D on chip per chip
Other Cache:	None
Memory:	16 GB (2 x 8 GB 2Rx4 PC3-12800E-11, ECC)
Disk Subsystem:	1 x 500 GB 7.2 K SATA
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux Server release 6.3, (Santiago) 2.6.32-279.el6.x86_64
Compiler:	C/C++: Version 13.1.1.163 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 DL320e Gen8
(3.30 GHz, Intel Xeon E3-1230 v2)

SPECint_rate2006 =   193

SPECint_rate_base2006 = 187

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

Test date: Jul-2013
Hardware Availability: Jun-2012
Software Availability: Feb-2013

Results Table

Benchmark	Base							Peak					
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	8	**533**	**147**	535	146	533	147	8	**456**	**171**	456	171	461	169
401.bzip2	8	769	100	**771**	**100**	772	100	8	740	104	**744**	**104**	763	101
403.gcc	8	428	151	432	149	**430**	**150**	8	**430**	**150**	430	150	433	149
429.mcf	8	281	260	**279**	**261**	279	262	8	281	260	**279**	**261**	279	262
445.gobmk	8	**587**	**143**	587	143	588	143	8	571	147	570	147	**570**	**147**
456.hmmer	8	**299**	**249**	299	249	296	252	8	**276**	**270**	275	271	277	270
458.sjeng	8	692	140	**676**	**143**	674	144	8	**653**	**148**	652	148	656	147
462.libquantum	8	137	1210	**137**	**1210**	138	1200	8	137	1210	**137**	**1210**	138	1200
464.h264ref	8	**712**	**249**	713	248	710	249	8	703	252	695	255	**697**	**254**
471.omnetpp	8	486	103	**485**	**103**	481	104	8	468	107	**463**	**108**	463	108
473.astar	8	**537**	**105**	539	104	537	105	8	**537**	**105**	539	104	537	105
483.xalancbmk	8	**288**	**192**	288	191	288	192	8	**288**	**192**	288	191	288	192

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/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 Regulator set to HP Static High Performance Mode
     Thermal Configuration set to Maximum Cooling

    Sysinfo program /cpu2006/config/sysinfo.rev6818
    $Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
    running on dl320e_Gen8_rfp Wed Jul 17 15:12:31 2013

    This section contains SUT (System Under Test) info as seen by
    some common utilities. To remove or add to this section, see:

Hewlett-Packard Company

SPECint_rate2006 =   193

ProLiant DL320e Gen8
(3.30 GHz, Intel Xeon E3-1230 v2)

SPECint_rate_base2006 = 187

CPU2006 license: 3

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Jul-2013

Hardware Availability: Jun-2012

Software Availability: Feb-2013

Platform Notes (Continued)

```
    http://www.spec.org/cpu2006/Docs/config.html#sysinfo

  From /proc/cpuinfo
     model name : Intel(R) Xeon(R) CPU E3-1230 V2 @ 3.30GHz
        1 "physical id"s (chips)
        8 "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 : 4
        siblings  : 8
        physical 0: cores 0 1 2 3
     cache size : 8192 KB

  From /proc/meminfo
     MemTotal:       16292284 kB
     HugePages_Total:       0
     Hugepagesize:       2048 kB

  /usr/bin/lsb_release -d
     Red Hat Enterprise Linux Server release 6.3 (Santiago)

  From /etc/*release* /etc/*version*
     redhat-release: Red Hat Enterprise Linux Server release 6.3 (Santiago)
     system-release: Red Hat Enterprise Linux Server release 6.3 (Santiago)
     system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

  uname -a:
     Linux dl320e_Gen8_rfp 2.6.32-279.el6.x86_64 #1 SMP Wed Jun 13 18:24:36 EDT
     2012 x86_64 x86_64 x86_64 GNU/Linux

  run-level 3 Jul 17 15:10

  SPEC is set to: /cpu2006
     Filesystem     Type     Size  Used Avail Use% Mounted on
     /dev/sda3      ext4     457G   26G  408G   6% /

  Additional information from dmidecode:
    BIOS HP J05 01/11/2013
    Memory:
     2x HP Not Specified 8 GB 1600 MHz 2 rank
     2x UNKNOWN Not Specified

  (End of data from sysinfo program)
  Regarding the sysinfo display about the memory installed, the correct amount of
  memory is 16 GB and the dmidecode description should have one line reading as:
     2x HP Not Specified 8 GB 1600 MHz 2 rank
```

SPEC CINT2006 Result

Hewlett-Packard Company

SPECint_rate2006 =   193

ProLiant DL320e Gen8
(3.30 GHz, Intel Xeon E3-1230 v2)

SPECint_rate_base2006 = 187

CPU2006 license: 3		**Test date:**	Jul-2013
Test sponsor:	Hewlett-Packard Company	**Hardware Availability:**	Jun-2012
Tested by:	Hewlett-Packard Company	**Software Availability:**	Feb-2013

General Notes

```
Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,compact,1,0"
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 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/sh -lsmartheap
```

Base Other Flags

C benchmarks:

```
    403.gcc: -Dalloca=_alloca
```

Peak Compiler Invocation

C benchmarks (except as noted below):
```
    icc  -m32
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

ProLiant DL320e Gen8
(3.30 GHz, Intel Xeon E3-1230 v2)

SPECint_rate2006 =   193

SPECint_rate_base2006 = 187

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

Test date: Jul-2013
Hardware Availability: Jun-2012
Software Availability: Feb-2013

Peak Compiler Invocation (Continued)

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`

Hewlett-Packard Company

ProLiant DL320e Gen8
(3.30 GHz, Intel Xeon E3-1230 v2)

SPECint_rate2006 = 193

SPECint_rate_base2006 = 187

CPU2006 license: 3

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Jul-2013

Hardware Availability: Jun-2012

Software Availability: Feb-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-ic13-official-linux64.20130702.html
http://www.spec.org/cpu2006/flags/HP-Platform-Flags-Intel-V1.2-A.20130813.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic13-official-linux64.20130702.xml
http://www.spec.org/cpu2006/flags/HP-Platform-Flags-Intel-V1.2-A.20130813.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 16:20:06 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 13 August 2013.