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

Hewlett-Packard Company

SPECint®2006 = 15.5

ProLiant BL465c
(3.0GHz AMD Opteron 2222)

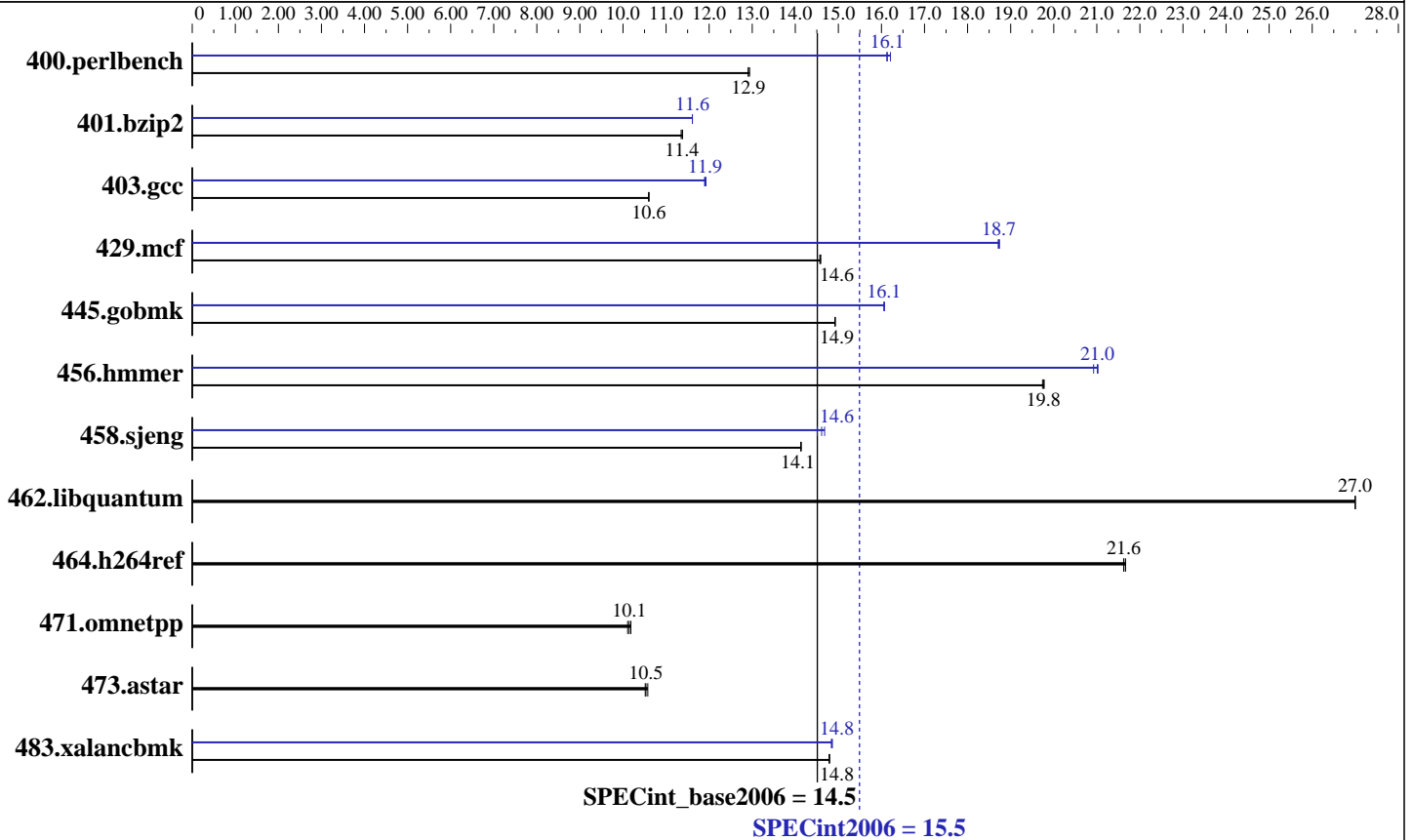SPECint_base2006 = 14.5

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

Test date: Aug-2007
Hardware Availability: Sep-2007
Software Availability: Oct-2007

Benchmark	Value
400.perlbench	16.1 / 12.9
401.bzip2	11.6 / 11.4
403.gcc	11.9 / 10.6
429.mcf	18.7 / 14.6
445.gobmk	16.1 / 14.9
456.hmmer	21.0 / 19.8
458.sjeng	14.6 / 14.1
462.libquantum	27.0
464.h264ref	21.6
471.omnetpp	10.1
473.astar	10.5
483.xalancbmk	14.8 / 14.8

SPECint_base2006 = 14.5

SPECint2006 = 15.5

Hardware

CPU Name: AMD Opteron 2222
CPU Characteristics:
CPU MHz: 3000
FPU: Integrated
CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip
CPU(s) orderable: 1,2 chips
Primary Cache: 64 KB I + 64 KB D on chip per core
Secondary Cache: 1 MB I+D on chip per core
L3 Cache: None
Other Cache: None
Memory: 16 GB (4x4 GB, PC2-5300P CL5)
Disk Subsystem: 1x72 GB 10 K SAS
Other Hardware: None

Software

Operating System: SuSE Linux Enterprise Server 10 (x86_64) SP1 kernel 2.6.16.46-0.12-smp
Compiler: The Portland Group (PGI)
PGI pgcc 7.1-0 C Compiler
PGI pgCC 7.1-0 C++ Compiler
Auto Parallel: No
File System: ext2
System State: Multi-user, run level 3
Base Pointers: 32/64-bit
Peak Pointers: 32/64-bit
Other Software: SmartHeap 8.0 32-bit Library for Linux

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

ProLiant BL465c
(3.0GHz AMD Opteron 2222)

SPECint2006 =   15.5

SPECint_base2006 =   14.5

CPU2006 license: 3	**Test date:** Aug-2007
Test sponsor: Hewlett-Packard Company	**Hardware Availability:** Sep-2007
Tested by: Hewlett-Packard Company	**Software Availability:** Oct-2007

Results Table

Benchmark	Base						Peak					
	Seconds	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
400.perlbench	757	12.9	755	12.9	**757**	**12.9**	603	16.2	606	16.1	**605**	**16.1**
401.bzip2	**848**	**11.4**	848	11.4	850	11.3	**831**	**11.6**	831	11.6	831	11.6
403.gcc	**759**	**10.6**	760	10.6	759	10.6	**676**	**11.9**	677	11.9	675	11.9
429.mcf	625	14.6	626	14.6	**626**	**14.6**	487	18.7	487	18.7	**487**	**18.7**
445.gobmk	**703**	**14.9**	703	14.9	703	14.9	653	16.1	**653**	**16.1**	653	16.1
456.hmmer	**472**	**19.8**	473	19.7	472	19.8	444	21.0	446	20.9	**444**	**21.0**
458.sjeng	856	14.1	857	14.1	**856**	**14.1**	**828**	**14.6**	834	14.5	824	14.7
462.libquantum	767	27.0	**767**	**27.0**	768	27.0	767	27.0	**767**	**27.0**	768	27.0
464.h264ref	1021	21.7	**1023**	**21.6**	1023	21.6	1021	21.7	**1023**	**21.6**	1023	21.6
471.omnetpp	614	10.2	**616**	**10.1**	618	10.1	614	10.2	**616**	**10.1**	618	10.1
473.astar	664	10.6	**666**	**10.5**	668	10.5	664	10.6	**666**	**10.5**	668	10.5
483.xalancbmk	466	14.8	**467**	**14.8**	467	14.8	465	14.8	**465**	**14.8**	464	14.9

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

Operating System Notes

```
Environment stack size set to 'unlimited'
ulimit -l set to 1048576
Set vm/nr_hugepages=1024 in /etc/sysctl.conf
mount -t hugetlbfs nodev /mnt/hugepages
```

Base Compiler Invocation

C benchmarks:
```
pgcc
```

C++ benchmarks:
```
pgcpp
```

Base Portability Flags

```
400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
   401.bzip2: -DSPEC_CPU_LP64
     403.gcc: -DSPEC_CPU_LP64
     429.mcf: -DSPEC_CPU_LP64
  445.gobmk: -DSPEC_CPU_LP64
  456.hmmer: -DSPEC_CPU_LP64
   458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECint2006 =   15.5

ProLiant BL465c
(3.0GHz AMD Opteron 2222)

SPECint_base2006 =   14.5

CPU2006 license: 3

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Aug-2007

Hardware Availability: Sep-2007

Software Availability: Oct-2007

Base Portability Flags (Continued)

```
    464.h264ref: -DSPEC_CPU_LP64
 483.xalancbmk: -DSPEC_CPU_LINUX
```

Base Optimization Flags

C benchmarks:
```
    -fast -Mipa=fast -Mipa=inline -Mipa=noarg -Mfprelaxed
    -Msmartalloc=huge:64 -tp k8-64 -Bstatic_pgi
```

C++ benchmarks:
```
    -fastsse -Mipa=fast -Mipa=inline -Mfprelaxed -Msmartalloc --zc_eh
    -tp k8-32 -Bstatic_pgi -lsmartheap
```

Base Other Flags

C benchmarks:
```
    -w
```

C++ benchmarks:
```
    -w -L/proj/qa/smartheap/SmartHeap_8/lib
```

Peak Compiler Invocation

C benchmarks:
```
    pgcc
```

C++ benchmarks:
```
    pgcpp
```

Peak Portability Flags

```
   400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
      401.bzip2: -DSPEC_CPU_LP64
      445.gobmk: -DSPEC_CPU_LP64
      456.hmmer: -DSPEC_CPU_LP64
       458.sjeng: -DSPEC_CPU_LP64
   462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
     464.h264ref: -DSPEC_CPU_LP64
  483.xalancbmk: -DSPEC_CPU_LINUX
```

Hewlett-Packard Company

SPECint2006 =   15.5

ProLiant BL465c
(3.0GHz AMD Opteron 2222)

SPECint_base2006 =   14.5

CPU2006 license: 3

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Aug-2007
Hardware Availability: Sep-2007
Software Availability: Oct-2007

Peak Optimization Flags

C benchmarks:

```
   400.perlbench: -Mpfi(pass 1) -Mpfo(pass 2) -Mipa=inline(pass 2) -fast
                  -O4 -Mfprelaxed -Msmartalloc=huge:8 -Mnounroll -tp k8-64
                  -Bstatic_pgi

       401.bzip2: -Mpfi(pass 1) -Mpfo(pass 2) -fast -O4
                  -Msmartalloc=huge:64 -tp k8-64 -Bstatic_pgi

         403.gcc: -fastsse -Mfprelaxed -Msmartalloc=huge:32 -Mipa=fast
                  -Mipa=inline -tp k8-32 -Bstatic_pgi

         429.mcf: -fastsse -Mipa=fast -Mipa=inline -Msmartalloc=huge:16
                  -tp k8-32 -Bstatic_pgi

       445.gobmk: -Mpfi(pass 1) -Mpfo(pass 2) -Mipa=fast(pass 2) -fast -O4
                  -Msmartalloc=huge:32 -Mfprelaxed -Mnovect -tp k8-64
                  -Bstatic_pgi

       456.hmmer: -fast -Msmartalloc=huge:32 -Mfprelaxed -Msafeptr
                  -Mipa=const -Mipa=ptr -Mipa=arg -tp k8-64 -Bstatic_pgi

       458.sjeng: -Mpfi(pass 1) -Mipa=fast(pass 2) -Mipa=inline(pass 2)
                  -Mipa=noarg(pass 2) -Mpfo(pass 2) -fast
                  -Msmartalloc=huge:32 -Mfprelaxed -tp k8-64 -Bstatic_pgi

  462.libquantum: basepeak = yes

     464.h264ref: basepeak = yes
```

C++ benchmarks:

```
     471.omnetpp: basepeak = yes

       473.astar: basepeak = yes

   483.xalancbmk: -fastsse -O4 -Mipa=fast -Mipa=inline -Mfprelaxed
                  -Msmartalloc --zc_eh -tp k8-32 -Bstatic_pgi -lsmartheap
```

Peak Other Flags

C benchmarks:

```
     -w
```

C++ benchmarks:

```
     -w -L/proj/qa/smartheap/SmartHeap_8/lib
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECint2006 = 15.5

ProLiant BL465c
(3.0GHz AMD Opteron 2222)

SPECint_base2006 = 14.5

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

Test date: Aug-2007
Hardware Availability: Sep-2007
Software Availability: Oct-2007

The flags file that was used to format this result can be browsed at

`http://www.spec.org/cpu2006/flags/hp-pgi710_flags.html`

You can also download the XML flags source by saving the following link:

`http://www.spec.org/cpu2006/flags/hp-pgi710_flags.xml`

SPEC and SPECint are registered trademarks of the Standard Performance
Evaluation Corporation. All other brand and product names appearing in
this result are trademarks or registered trademarks of their respective
holders.

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

Tested with SPEC CPU2006 v1.0.
Report generated on Tue Jul 22 13:29:05 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 19 September 2007.