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

Fujitsu

PRIMERGY BX920 S3, Intel Xeon E5-2450L, 1.80 GHz

$SPECint^®_rate2006 = $ **445**

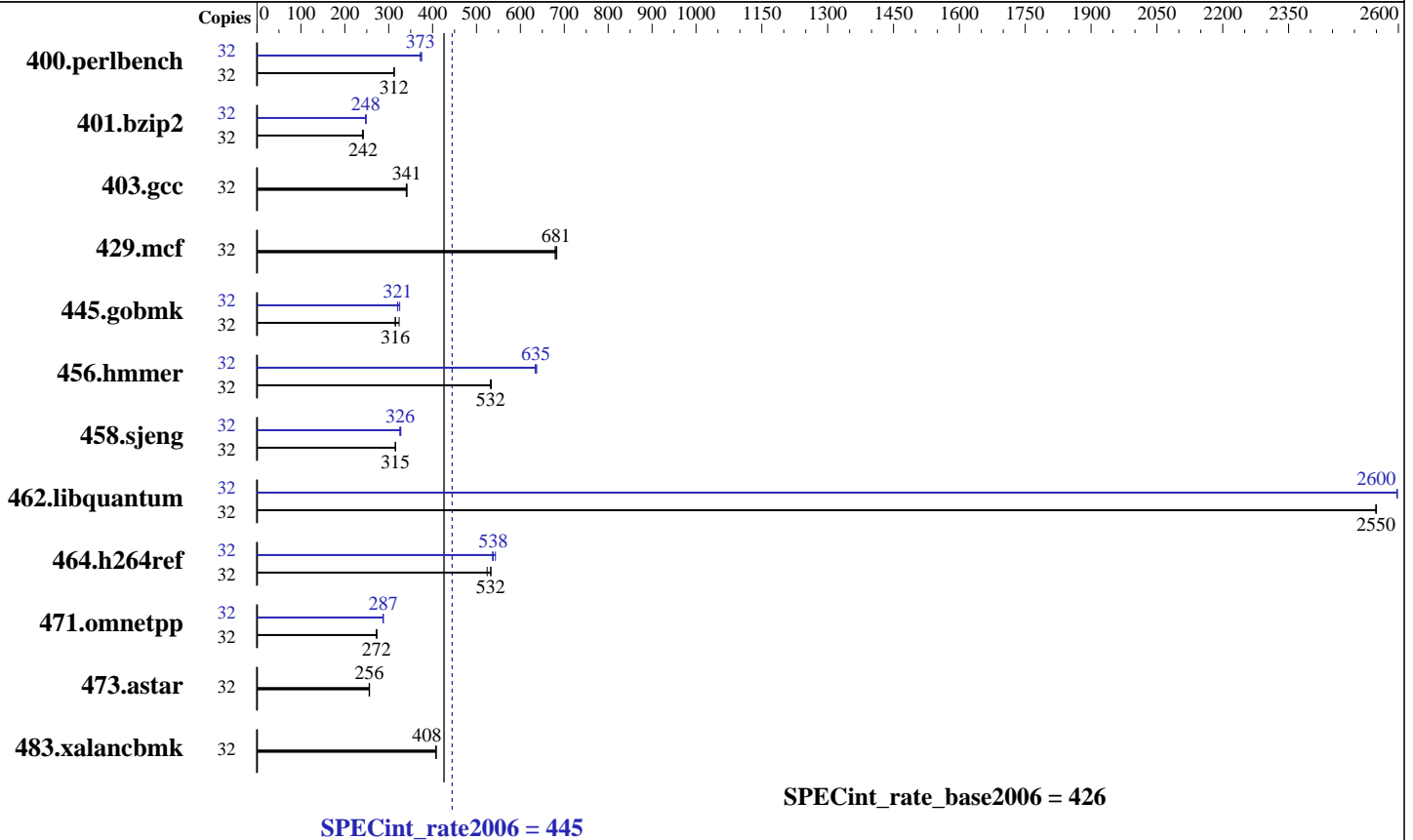$SPECint_rate_base2006 = $ **426**

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: May-2012
Hardware Availability: May-2012
Software Availability: Feb-2012

SPECint_rate2006 = 445

SPECint_rate_base2006 = 426

Benchmark	Copies	Base	Peak
400.perlbench	32	312	373
401.bzip2	32	242	248
403.gcc	32	341	
429.mcf	32	681	
445.gobmk	32	316	321
456.hmmer	32	532	635
458.sjeng	32	315	326
462.libquantum	32	2550	2600
464.h264ref	32	532	538
471.omnetpp	32	272	287
473.astar	32	256	
483.xalancbmk	32	408	

Hardware

CPU Name: Intel Xeon E5-2450L
CPU Characteristics: Intel Turbo Boost Technology up to 2.30 GHz
CPU MHz: 1800
FPU: Integrated
CPU(s) enabled: 16 cores, 2 chips, 8 cores/chip, 2 threads/core
CPU(s) orderable: 1,2 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: 20 MB I+D on chip per chip
Other Cache: None
Memory: 96 GB (12 x 8 GB 2Rx4 PC3L-12800R-11, ECC)
Disk Subsystem: 1 x SATA, 500 GB, 7200 RPM
Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.2 (Santiago)
2.6.32-220.el6.x86_64
Compiler: C/C++: Version 12.1.0.293 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

Fujitsu

PRIMERGY BX920 S3, Intel Xeon E5-2450L, 1.80 GHz

SPECint_rate2006 = 445

SPECint_rate_base2006 = 426

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: May-2012
Hardware Availability: May-2012
Software Availability: Feb-2012

Results Table

Benchmark	Base Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Peak Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	32	**1001**	**312**	1000	312	1002	312	32	833	375	**839**	**373**	839	372
401.bzip2	32	**1278**	**242**	1276	242	1286	240	32	1243	248	1247	248	**1246**	**248**
403.gcc	32	754	342	758	340	**756**	**341**	32	754	342	758	340	**756**	**341**
429.mcf	32	430	679	**428**	**681**	427	683	32	430	679	**428**	**681**	427	683
445.gobmk	32	**1064**	**316**	1067	315	1037	324	32	**1047**	**321**	1033	325	1048	320
456.hmmer	32	562	532	559	534	**561**	**532**	32	**470**	**635**	469	637	471	634
458.sjeng	32	1229	315	**1228**	**315**	1227	316	32	1189	326	1182	328	**1186**	**326**
462.libquantum	32	260	2550	260	2550	**260**	**2550**	32	255	2600	**255**	**2600**	255	2600
464.h264ref	32	1351	524	**1331**	**532**	1329	533	32	1304	543	**1316**	**538**	1320	537
471.omnetpp	32	736	272	**735**	**272**	732	273	32	**696**	**287**	696	287	696	287
473.astar	32	**878**	**256**	876	256	879	255	32	**878**	**256**	876	256	879	255
483.xalancbmk	32	**541**	**408**	541	408	542	408	32	**541**	**408**	541	408	542	408

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"
```

General Notes

```
   Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/SPECcpu2006/libs/32:/SPECcpu2006/libs/64"

   Binaries compiled on a system with 2x E5-2650 CPU + 96 GB
   memory using RHEL6.2
   Transparent Huge Pages enabled with:
   echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
   runspec command invoked through numactl i.e.:
   numactl --interleave=all runspec <etc>
   For information about Fujitsu please visit: http://www.fujitsu.com
```

Base Compiler Invocation

C benchmarks:
```
      icc  -m32
```

Fujitsu

PRIMERGY BX920 S3, Intel Xeon E5-2450L, 1.80 GHz

SPECint_rate2006 = 445

SPECint_rate_base2006 = 426

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: May-2012
Hardware Availability: May-2012
Software Availability: Feb-2012

Base Compiler Invocation (Continued)

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/opt/SmartHeap/lib -lsmartheap

Base Other Flags

C benchmarks:

    403.gcc: -Dalloca=_alloca

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

Fujitsu

PRIMERGY BX920 S3, Intel Xeon E5-2450L, 1.80 GHz

SPECint_rate2006 =   445

SPECint_rate_base2006 = 426

CPU2006 license: 19	**Test date:** May-2012
Test sponsor: Fujitsu	**Hardware Availability:** May-2012
Tested by: Fujitsu	**Software Availability:** Feb-2012

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: basepeak = yes

     429.mcf: basepeak = yes

   445.gobmk: -xAVX(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

462.libquantum: -xAVX -ipo -O3 -no-prec-div -opt-prefetch
               -opt-mem-layout-trans=3

   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/opt/SmartHeap/lib -lsmartheap

     473.astar: basepeak = yes
```

Fujitsu

PRIMERGY BX920 S3, Intel Xeon E5-2450L, 1.80 GHz

SPECint_rate2006 =   445

SPECint_rate_base2006 = 426

CPU2006 license: 19	**Test date:** May-2012
Test sponsor: Fujitsu	**Hardware Availability:** May-2012
Tested by: Fujitsu	**Software Availability:** Feb-2012

Peak Optimization Flags (Continued)

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-ic12.1-official-linux64.20111122.html
http://www.spec.org/cpu2006/flags/Fujitsu-Platform.20120320.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/Fujitsu-Platform.20120320.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 v1.2.
Report generated on Thu Jul 24 08:28:06 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 19 June 2012.