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

Fujitsu

CELSIUS R920 (Intel Xeon E5-2643)

SPECint®_rate2006 = 379

SPECint_rate_base2006 = 361
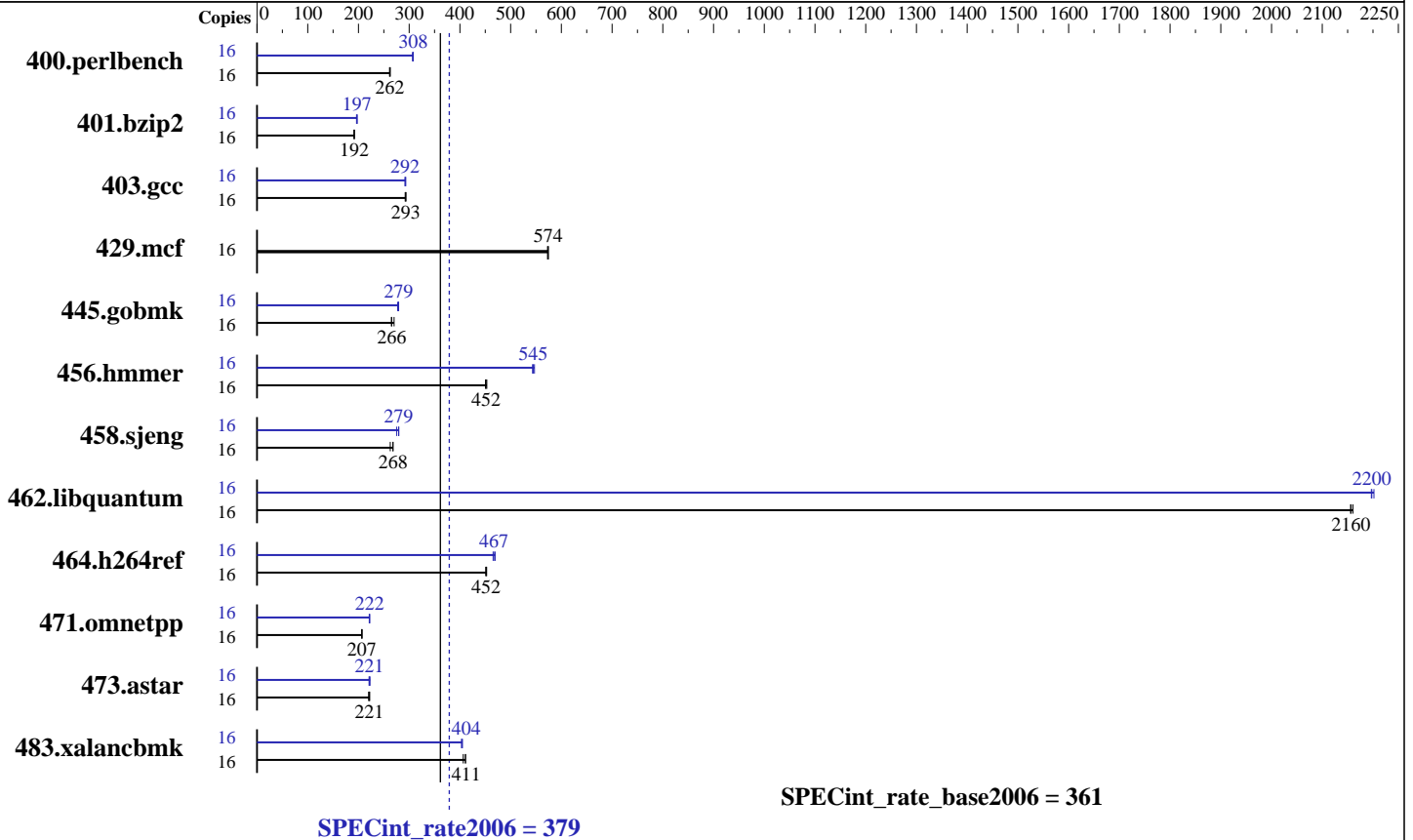
CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Mar-2012

Hardware Availability: Mar-2012

Software Availability: Dec-2011

Copies

Benchmark	Peak	Base
400.perlbench	308	262
401.bzip2	197	192
403.gcc	292	293
429.mcf		574
445.gobmk	279	266
456.hmmer	545	452
458.sjeng	279	268
462.libquantum	2200	2160
464.h264ref	467	452
471.omnetpp	222	207
473.astar	221	221
483.xalancbmk	404	411

SPECint_rate2006 = 379

SPECint_rate_base2006 = 361

Hardware

CPU Name: Intel Xeon E5-2643

CPU Characteristics: Intel Turbo Boost Technology up to 3.50 GHz

CPU MHz: 3300

FPU: Integrated

CPU(s) enabled: 8 cores, 2 chips, 4 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: 10 MB I+D on chip per chip

Other Cache: None

Memory: 128 GB (16 x 8 GB 2Rx8 PC3-12800R-11, ECC)

Disk Subsystem: 1 x SATA III, 500 GB, 7200 rpm

Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.1, 2.6.32-131.0.15.el6.x86_64

Compiler: C/C++: Version 12.1.2.273 of Intel C++ Studio XE for Linux

Auto Parallel: No

File System: ReiserFS

System State: Run level 3 (multi - user)

Base Pointers: 32-bit

Peak Pointers: 32/64-bit

Other Software: Microquill SmartHeap 10 (Multi-Core)

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

CELSIUS R920 (Intel Xeon E5-2643)

$SPECint\_rate2006 = \quad 379$

$SPECint\_rate\_base2006 = \quad 361$

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

Test date: Mar-2012
Hardware Availability: Mar-2012
Software Availability: Dec-2011

Results Table

Benchmark	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
			Base								**Peak**			
400.perlbench	16	598	261	**597**	**262**	595	263	16	510	306	**508**	**308**	508	308
401.bzip2	16	**805**	**192**	805	192	808	191	16	**783**	**197**	787	196	783	197
403.gcc	16	439	294	**439**	**293**	441	292	16	441	292	**441**	**292**	439	293
429.mcf	16	255	573	**254**	**574**	254	574	16	255	573	**254**	**574**	254	574
445.gobmk	16	621	270	**632**	**266**	633	265	16	605	277	601	279	**601**	**279**
456.hmmer	16	**331**	**452**	330	453	331	450	16	273	547	**274**	**545**	275	543
458.sjeng	16	737	263	722	268	**722**	**268**	16	**694**	**279**	703	275	692	280
462.libquantum	16	**154**	**2160**	154	2160	153	2160	16	151	2200	**151**	**2200**	151	2200
464.h264ref	16	782	453	785	451	**784**	**452**	16	761	465	754	469	**758**	**467**
471.omnetpp	16	484	206	483	207	**484**	**207**	16	**451**	**222**	452	221	450	222
473.astar	16	**508**	**221**	505	222	511	220	16	508	221	504	223	**508**	**221**
483.xalancbmk	16	**269**	**411**	272	407	269	411	16	274	403	**273**	**404**	273	405

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 to generate numactl commands to bind each copy to a specific processor.
    For details, please see the config file.
    For full details on using numactl, please refer to your Linux documentation, 'man numactl'
```

Operating System Notes

```
    Stack size set to unlimited using "ulimit -s unlimited"
```

Platform Notes

```
    BIOS settings:
    Frequency Floor Override = Enabled
```

General Notes

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

    Binaries compiled on a system with
    2x Xeon E5-2690 CPU + 64 GB memory using
    Red Hat Enterprise Linux Server release 6.1 (Santiago)

    Transparent Huge Pages enabled with:
    echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
    Filesystem page cache cleared with:
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

CELSIUS R920 (Intel Xeon E5-2643)

SPECint_rate2006 = 379

SPECint_rate_base2006 = 361

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

Test date: Mar-2012
Hardware Availability: Mar-2012
Software Availability: Dec-2011

General Notes (Continued)

```
echo 1>       /proc/sys/vm/drop_caches
runspec command invoked through numactl i.e.:
numactl --interleave=all runspec <etc>
```

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/opt/SmartHeap/lib -lsmartheap
```

Base Other Flags

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

Peak Compiler Invocation

C benchmarks (except as noted below):
```
    icc -m64
```

```
        403.gcc: icc  -m32
```

```
        429.mcf: icc  -m32
```

Continued on next page

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

CELSIUS R920 (Intel Xeon E5-2643)

SPECint_rate2006 = 379

SPECint_rate_base2006 = 361

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

Test date: Mar-2012
Hardware Availability: Mar-2012
Software Availability: Dec-2011

Peak Compiler Invocation (Continued)

        445.gobmk: `icc  -m32`

     462.libquantum: `icc -m32`

       464.h264ref: `icc  -m32`

    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`

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

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

CELSIUS R920 (Intel Xeon E5-2643)

SPECint_rate2006 = 379

SPECint_rate_base2006 = 361

CPU2006 license: 19		**Test date:**	Mar-2012
Test sponsor: Fujitsu		**Hardware Availability:**	Mar-2012
Tested by: Fujitsu		**Software Availability:**	Dec-2011

Peak Optimization Flags (Continued)

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: `-xAVX -ipo -O3 -no-prec-div -opt-prefetch`
`-opt-mem-layout-trans=3 -Wl,-z,muldefs`
`-L/opt/SmartHeap/lib -lsmartheap`

483.xalancbmk: `Same as 473.astar`

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.20120313.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.20120313.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 04:04:43 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 24 April 2012.