SPEC® CINT2006 Result

Fujitsu

PRIMERGY CX122 S1, Intel Xeon X5675, 3.07 GHz

SPECint®2006 = 42.9
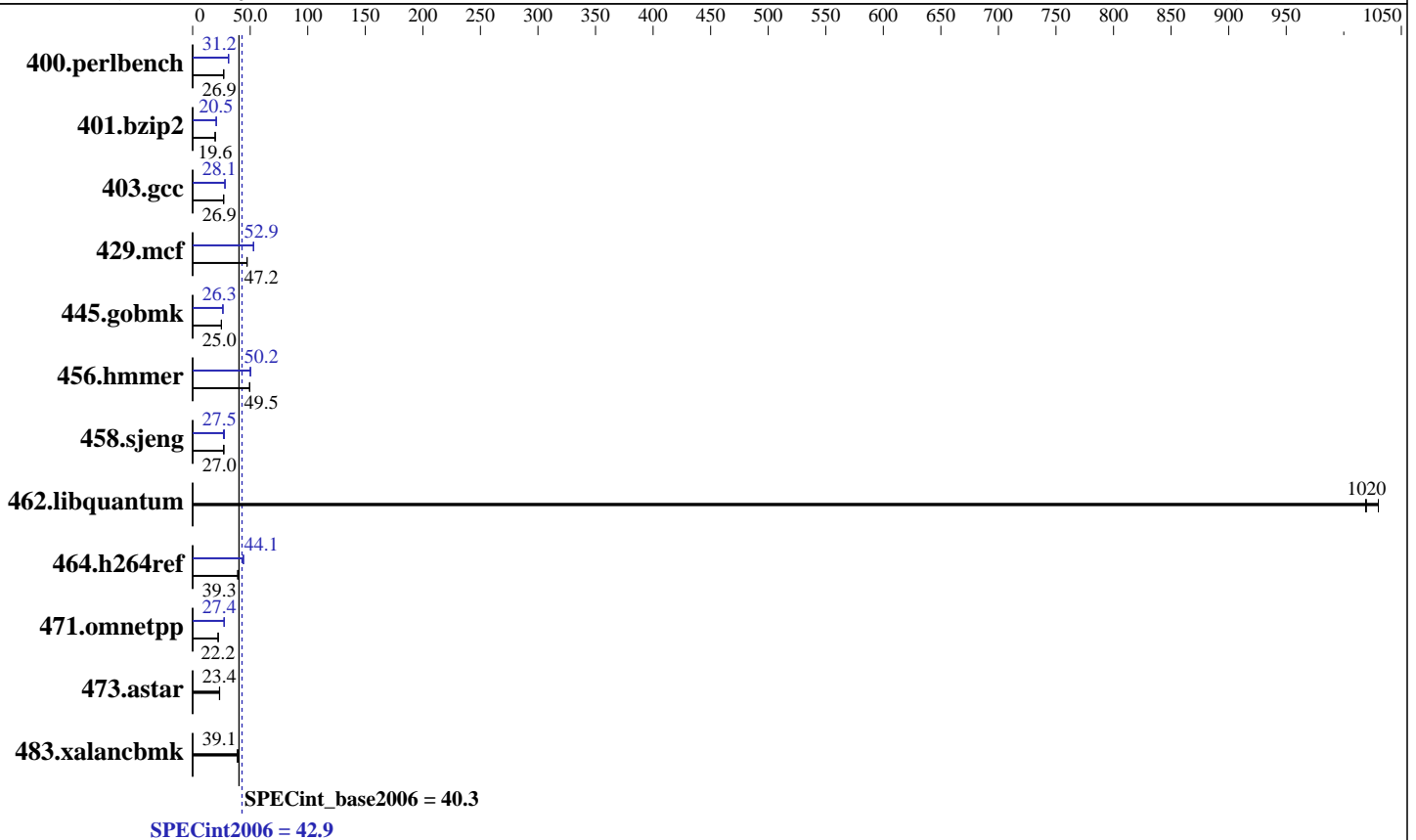
SPECint_base2006 = 40.3

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

Test date: Feb-2011
Hardware Availability: Feb-2011
Software Availability: Jan-2011

Benchmark results (peak / base):

- 400.perlbench: 31.2 / 26.9
- 401.bzip2: 20.5 / 19.6
- 403.gcc: 28.1 / 26.9
- 429.mcf: 52.9 / 47.2
- 445.gobmk: 26.3 / 25.0
- 456.hmmer: 50.2 / 49.5
- 458.sjeng: 27.5 / 27.0
- 462.libquantum: 1020
- 464.h264ref: 44.1 / 39.3
- 471.omnetpp: 27.4 / 22.2
- 473.astar: 23.4
- 483.xalancbmk: 39.1

SPECint_base2006 = 40.3
SPECint2006 = 42.9

Hardware

CPU Name:	Intel Xeon X5675
CPU Characteristics:	Intel Turbo Boost Technology up to 3.47 GHz
CPU MHz:	3067
FPU:	Integrated
CPU(s) enabled:	12 cores, 2 chips, 6 cores/chip
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:	12 MB I+D on chip per chip
Other Cache:	None
Memory:	96 GB (12 x 8 GB 2Rx4 PC3-10600R-9, ECC)
Disk Subsystem:	1 x SATA, 160 GB, 5400 RPM
Other Hardware:	--

Software

Operating System:	SUSE Linux Enterprise Server 11 (x86_64) with SP1, Kernel 2.6.32.12-0.7-default
Compiler:	Intel C++ Intel 64 Compiler XE for applications running on Intel 64 Version 12.0.1.116 Build 20101116
Auto Parallel:	Yes
File System:	ext3
System State:	Run level 3 (multi-user)
Base Pointers:	32/64-bit
Peak Pointers:	32/64-bit
Other Software:	Microquill SmartHeap V9.01

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY CX122 S1, Intel Xeon X5675, 3.07 GHz

$SPECint2006 =$ 42.9

$SPECint\_base2006 =$ 40.3

CPU2006 license: 19	**Test date:** Feb-2011
Test sponsor: Fujitsu	**Hardware Availability:** Feb-2011
Tested by: Fujitsu	**Software Availability:** Jan-2011

Results Table

Benchmark	Base						Peak					
	Seconds	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
400.perlbench	**363**	**26.9**	362	27.0	363	26.9	313	31.2	**313**	**31.2**	313	31.2
401.bzip2	492	19.6	**492**	**19.6**	492	19.6	470	20.5	**471**	**20.5**	471	20.5
403.gcc	299	26.9	299	26.9	**299**	**26.9**	287	28.1	**287**	**28.1**	287	28.1
429.mcf	192	47.4	**193**	**47.2**	193	47.2	173	52.8	172	53.0	**172**	**52.9**
445.gobmk	420	25.0	420	25.0	**420**	**25.0**	**399**	**26.3**	399	26.3	400	26.3
456.hmmer	189	49.5	**188**	**49.5**	188	49.6	186	50.2	186	50.2	**186**	**50.2**
458.sjeng	447	27.0	**448**	**27.0**	448	27.0	439	27.5	**439**	**27.5**	452	26.7
462.libquantum	20.1	1030	20.3	1020	**20.3**	**1020**	20.1	1030	20.3	1020	**20.3**	**1020**
464.h264ref	563	39.3	565	39.2	**563**	**39.3**	502	44.1	**502**	**44.1**	502	44.1
471.omnetpp	282	22.1	281	22.2	**282**	**22.2**	228	27.4	228	27.4	**228**	**27.4**
473.astar	300	23.4	302	23.2	**300**	**23.4**	300	23.4	302	23.2	**300**	**23.4**
483.xalancbmk	176	39.2	178	38.9	**177**	**39.1**	176	39.2	178	38.9	**177**	**39.1**

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

Operating System Notes

```
'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run
Hugepages were not configured on the system
```

Platform Notes

```
BIOS configuration:
Data Reuse Optimization = Disable
Intel HT Technology = Disable
```

General Notes

```
OMP_NUM_THREADS set to number of cores
For information about Fujitsu please visit: http://www.fujitsu.com
Binaries were compiled on RHEL5.5 with binutils-2.17.50.0.6-14.el5
```

Base Compiler Invocation

C benchmarks:
```
icc -m64
```

C++ benchmarks:
```
icpc -m64
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY CX122 S1, Intel Xeon X5675, 3.07 GHz

$SPECint2006 =$ 42.9

$SPECint\_base2006 =$ 40.3

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

Test date: Feb-2011
Hardware Availability: Feb-2011
Software Availability: Jan-2011

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
         464.h264ref: -DSPEC_CPU_LP64
       471.omnetpp: -DSPEC_CPU_LP64
           473.astar: -DSPEC_CPU_LP64
      483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
```

Base Optimization Flags

C benchmarks:
```
    -xSSE4.2 -ipo -O3 -no-prec-div -parallel -opt-prefetch -auto-p32
    -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT
```

C++ benchmarks:
```
    -xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
    -L/smartheap -lsmartheap64
    -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT
```

Base Other Flags

C benchmarks:

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

Peak Compiler Invocation

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

```
  400.perlbench: icc -m32
```

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

```
     445.gobmk: icc -m32
```

```
     464.h264ref: icc -m32
```

Continued on next page

SPEC CINT2006 Result

Fujitsu

PRIMERGY CX122 S1, Intel Xeon X5675, 3.07 GHz

$SPECint2006 =$ 42.9

$SPECint\_base2006 =$ 40.3

CPU2006 license: 19	**Test date:** Feb-2011
Test sponsor: Fujitsu	**Hardware Availability:** Feb-2011
Tested by: Fujitsu	**Software Availability:** Jan-2011

Peak Compiler Invocation (Continued)

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

471.omnetpp: `icpc -m32`

Peak Portability Flags

```
    400.perlbench: -DSPEC_CPU_LINUX_IA32
        401.bzip2: -DSPEC_CPU_LP64
          403.gcc: -DSPEC_CPU_LP64
       456.hmmer: -DSPEC_CPU_LP64
        458.sjeng: -DSPEC_CPU_LP64
   462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
        473.astar: -DSPEC_CPU_LP64
    483.xalancbmk: -DSPEC_CPU_LP64 -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)
                   -opt-prefetch -ansi-alias
                   -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

        401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
                   -O3(pass 2) -no-prec-div -prof-use(pass 2) -auto-ilp32
                   -opt-prefetch -ansi-alias

          403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div -inline-calloc
                   -opt-malloc-options=3 -auto-ilp32
                   -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

          429.mcf: -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 -ansi-alias
                   -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

        445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
                   -auto-ilp32 -ansi-alias
                   -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

       456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32
                   -ansi-alias
                   -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT
```

Continued on next page

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY CX122 S1, Intel Xeon X5675, 3.07 GHz

$SPECint2006 =$ 42.9

$SPECint\_base2006 =$ 40.3

Peak Optimization Flags (Continued)

```
   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

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
               -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT
```

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)
               -opt-ra-region-strategy=block -ansi-alias -Wl,-z,muldefs
               -L/smartheap -lsmartheap
               -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

     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-ic12.0-linux64-revB.20110316.html
http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revA.20110316.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.20110316.xml
http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revA.20110316.xml

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY CX122 S1, Intel Xeon X5675, 3.07 GHz

SPECint2006 =	42.9
SPECint_base2006 =	40.3

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

Test date: Feb-2011
Hardware Availability: Feb-2011
Software Availability: Jan-2011

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

Tested with SPEC CPU2006 v1.1.
Report generated on Wed Jul 23 16:48:13 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 16 March 2011.