SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Sun Microsystems

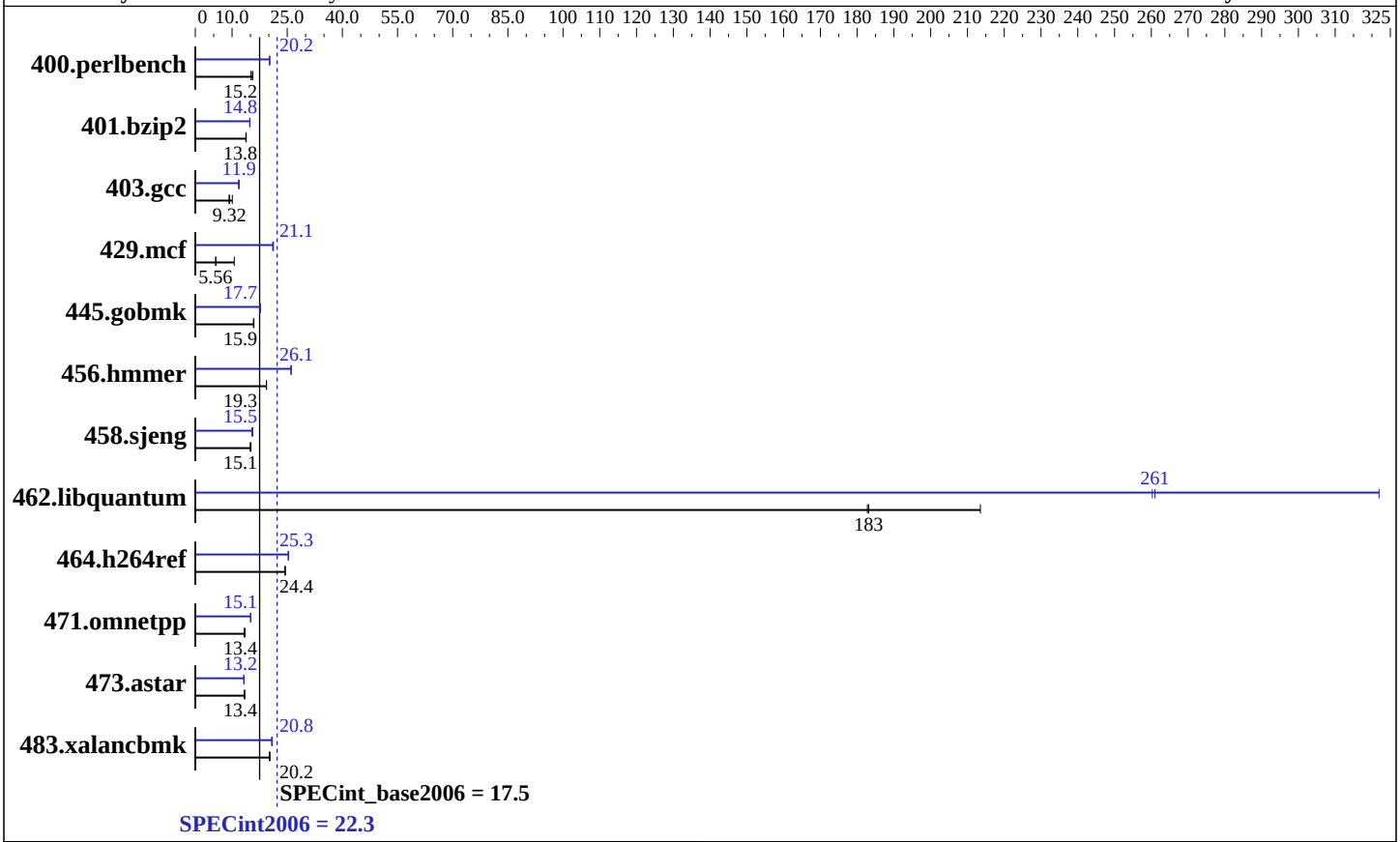
Sun Fire X4440 (AMD Opteron 8435 2.6GHz)

SPECint®2006 = 22.3

SPECint_base2006 = 17.5

CPU2006 license: 6
Test sponsor: Sun Microsystems
Tested by: Sun Microsystems

Test date: Jul-2009
Hardware Availability: Jul-2009
Software Availability: Jun-2009



Hardware

CPU Name:	AMD Opteron 8435
CPU Characteristics:	
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	24 cores, 4 chips, 6 cores/chip
CPU(s) orderable:	2 or 4 chips
Primary Cache:	64 KB I + 64 KB D on chip per core
Secondary Cache:	512 KB I+D on chip per core
L3 Cache:	6 MB I+D on chip per chip
Other Cache:	None
Memory:	64 GB (16x4GB, DDR2-667, CL5, Reg, Dual Rank)
Disk Subsystem:	1 x 146 GB SATA 10 K RPM
Other Hardware:	None

Software

Operating System:	OpenSolaris 2009.06
Compiler:	Sun Studio 12 Update 1
Auto Parallel:	Yes
File System:	zfs
System State:	Default
Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	None

SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Sun Microsystems

Sun Fire X4440 (AMD Opteron 8435 2.6GHz)

SPECint2006 = 22.3

SPECint_base2006 = 17.5

CPU2006 license: 6
Test sponsor: Sun Microsystems
Tested by: Sun Microsystems

Test date: Jul-2009
Hardware Availability: Jul-2009
Software Availability: Jun-2009

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	643	15.2	625	15.6	**643**	**15.2**	**483**	**20.2**	483	20.2	484	20.2
401.bzip2	697	13.8	**698**	**13.8**	702	13.7	**651**	**14.8**	651	14.8	650	14.8
403.gcc	877	9.18	**864**	**9.32**	800	10.1	684	11.8	674	11.9	**677**	**11.9**
429.mcf	1642	5.55	**1640**	**5.56**	860	10.6	433	21.1	429	21.3	**431**	**21.1**
445.gobmk	658	16.0	662	15.8	**661**	**15.9**	593	17.7	594	17.7	**594**	**17.7**
456.hmmer	482	19.3	482	19.3	**482**	**19.3**	**358**	**26.1**	358	26.0	358	26.1
458.sjeng	799	15.1	**800**	**15.1**	811	14.9	788	15.4	**782**	**15.5**	773	15.7
462.libquantum	**113**	**183**	113	183	97.0	214	64.4	322	**79.4**	**261**	79.6	260
464.h264ref	**906**	**24.4**	906	24.4	906	24.4	874	25.3	**874**	**25.3**	875	25.3
471.omnetpp	462	13.5	470	13.3	**466**	**13.4**	416	15.0	414	15.1	**415**	**15.1**
473.astar	523	13.4	525	13.4	**524**	**13.4**	**531**	**13.2**	530	13.3	532	13.2
483.xalancbmk	340	20.3	**341**	**20.2**	342	20.2	329	21.0	**331**	**20.8**	332	20.8

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

Compiler Invocation Notes

```
The Apache C++ Standard Library V4.2.1 was installed from
http://stdcxx.apache.org/download.html using:
    alias gmake=specmake
    gmake BUILDTYPE=8D CONFIG=sunpro.config
```

Operating System Notes

```
ulimit -s 131072  (shell): increases stack
```

Platform Notes

```
  Default BIOS settings used except:
  DCT Unganged Mode set to "Always" to enable Unganged Mode
```

General Notes

```
Environment variables set by runspec before the start of the run:
OMP_NUM_THREADS = "12"
SUNW_MP_PROCBIND = "true"
SUNW_MP_THR_IDLE = "SPIN"
```

Base Compiler Invocation

C benchmarks:
cc

C++ benchmarks:
CC

Base Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_SOLARIS_X64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64 -DSPEC_CPU_SOLARIS
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_SOLARIS
464.h264ref: -DSPEC_CPU_LP64
471.omnetpp: -DSPEC_CPU_LP64
473.astar: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_SOLARIS

Base Optimization Flags

C benchmarks:
-fast -xipo=2 -m64 -xpagesize=2M -xprefetch -xalias_level=std
-xautopar

C++ benchmarks:
-fast -xipo=2 -m64 -xpagesize=2M -xvector=simd -xprefetch=no%auto
-xalias_level=compatible
-L/data1/SmartHeap_9/lib -R/data1/SmartHeap_9/lib -lsmartheap64
-library=stlport4

Base Other Flags

C benchmarks:
-V -# -xjobs=24

C++ benchmarks:
-verbose=diags,version -xjobs=24

Peak Compiler Invocation

C benchmarks:
cc

C++ benchmarks:
CC

Peak Portability Flags

400.perlbench: -DSPEC_CPU_SOLARIS_IA32
403.gcc: -DSPEC_CPU_LP64 -DSPEC_CPU_SOLARIS
462.libquantum: -DSPEC_CPU_SOLARIS
483.xalancbmk: -DSPEC_CPU_SOLARIS

Peak Optimization Flags

C benchmarks:

400.perlbench: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xprefetch=no%auto -xpagesize=2M -xvector=simd
-xalias_level=std
-L/data1/SmartHeap_9/lib -R/data1/SmartHeap_9/lib -lsmartheap
-lbsdmalloc -lumem

401.bzip2: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2 -m64
-xpagesize=2M -xalias_level=strong -xprefetch=no%auto
-lumem

403.gcc: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xpagesize=2M -xalias_level=std -xprefetch=no%auto
-xaddr32=yes -m64

429.mcf: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xalias_level=strict -xprefetch=no%auto -lbsdmalloc

445.gobmk: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -m64 -xpagesize=2M
-xrestrict -xalias_level=strong -xdepend -xautopar -lmvec

456.hmmer: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2 -m64
-xalias_level=strong -xpagesize=2M

Continued on next page

Peak Optimization Flags (Continued)

458.sjeng: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2 -m64
-xpagesize=2M -xvector=simd -xrestrict -xalias_level=std
-xprefetch=no%auto

462.libquantum: -fast -xipo=2 -m64 -W2,-Aparallel:nthreads=24 -xautopar
-xreduction -xpagesize=2M

464.h264ref: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2 -m64
-xalias_level=std -xautopar -xpagesize=2M

C++ benchmarks:

471.omnetpp: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xalias_level=compatible -xpagesize=2M
-L/data1/SmartHeap_9/lib -R/data1/SmartHeap_9/lib -lsmartheap
-library=stlport4

473.astar: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2 -m64
-xpagesize=2M
-L/data1/SmartHeap_9/lib -R/data1/SmartHeap_9/lib -lsmartheap_mt64
-xalias_level=compatible -library=stlport4 -xautopar

483.xalancbmk: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2 -m64
-xpagesize=2M -xunroll=12
-L/data1/SmartHeap_9/lib -R/data1/SmartHeap_9/lib -lsmartheap64
-library=stlport4

Peak Other Flags

C benchmarks:
-V -# -xjobs=24

C++ benchmarks:
-verbose=diags,version -xjobs=24

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Sun-OpenSolaris-Studio-x86_64.20090818.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Sun-OpenSolaris-Studio-x86_64.20090818.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 v1.1.
Report generated on Wed Jul 23 03:34:10 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 18 August 2009.