SPEC® CINT2006 Result

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Bull SAS

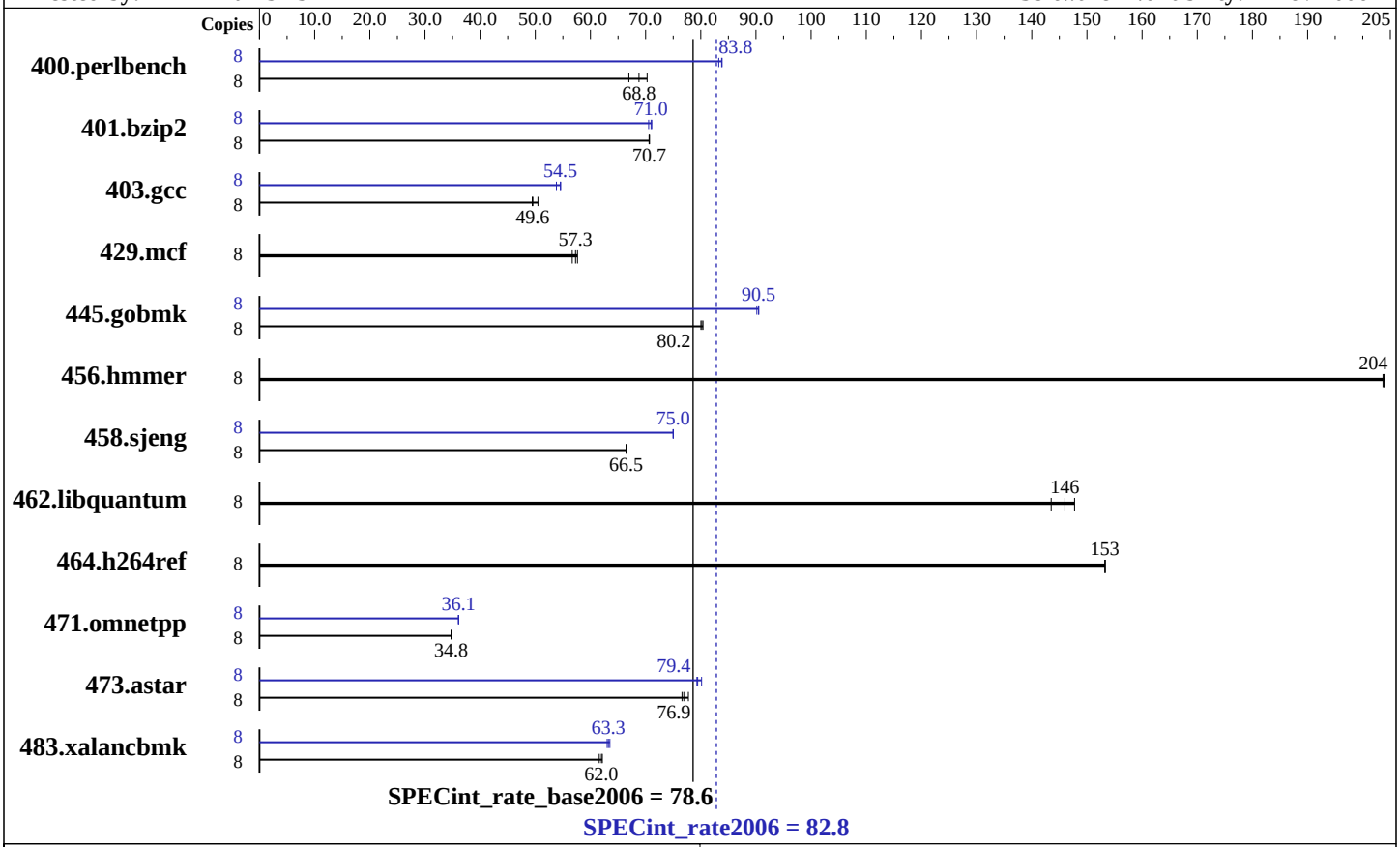
NovaScale 3045
(1.6GHz/18MB Dual-Core Intel Itanium 2)

SPECint®_rate2006 = 82.8

SPECint_rate_base2006 = 78.6

CPU2006 license: 20
Test sponsor: Bull SAS
Tested by: Bull SAS

Test date: Apr-2007
Hardware Availability: Oct-2006
Software Availability: Nov-2006



Hardware

CPU Name:	Dual-Core Intel Itanium 2 9040
CPU Characteristics:	1.6GHz/18MB, 533MHz FSB
CPU MHz:	1600
FPU:	Integrated
CPU(s) enabled:	8 cores, 4 chips, 2 cores/chip
CPU(s) orderable:	1-4 chips
Primary Cache:	16 KB I + 16 KB D on chip per core
Secondary Cache:	1 MB I + 256 KB D on chip per core
L3 Cache:	9 MB I+D on chip per core
Other Cache:	None
Memory:	64 GB (32x2GB DIMMs)
Disk Subsystem:	2x73 GB 15K RPM SAS
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux AS release 4 (Update 4)
Compiler:	Intel C++ Compiler 9.1 for Linux (Build 20061105)
Auto Parallel:	No
File System:	ext3
System State:	Multi-user
Base Pointers:	64-bit
Peak Pointers:	64-bit
Other Software:	MicroQuill Smartheap 8.0

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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	8	1167	67.0	**1136**	**68.8**	1112	70.3	8	932	83.9	**933**	**83.8**	939	83.3
401.bzip2	8	1093	70.6	1092	70.7	**1092**	**70.7**	8	1085	71.1	1094	70.6	**1088**	**71.0**
403.gcc	8	1276	50.5	**1299**	**49.6**	1302	49.4	8	**1181**	**54.5**	1179	54.6	1196	53.8
429.mcf	8	1266	57.6	1287	56.7	**1273**	**57.3**	8	1266	57.6	1287	56.7	**1273**	**57.3**
445.gobmk	8	1044	80.4	1049	80.0	**1046**	**80.2**	8	927	90.5	**927**	**90.5**	931	90.2
456.hmmer	8	**366**	**204**	366	204	366	204	8	**366**	**204**	366	204	366	204
458.sjeng	8	**1457**	**66.5**	1455	66.5	1457	66.4	8	**1291**	**75.0**	1290	75.0	1291	75.0
462.libquantum	8	1122	148	1155	144	**1135**	**146**	8	1122	148	1155	144	**1135**	**146**
464.h264ref	8	1155	153	1155	153	**1155**	**153**	8	1155	153	1155	153	**1155**	**153**
471.omnetpp	8	1437	34.8	1440	34.7	**1438**	**34.8**	8	1385	36.1	1386	36.1	**1386**	**36.1**
473.astar	8	733	76.6	722	77.8	**730**	**76.9**	8	708	79.3	**707**	**79.4**	701	80.2
483.xalancbmk	8	888	62.2	**890**	**62.0**	896	61.6	8	**873**	**63.3**	869	63.5	876	63.0

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

Operating System Notes

```
stacksize set to unlimited prior to run
```

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Base Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_IA64
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

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Base Portability Flags (Continued)

473.astar: `-DSPEC_CPU_LP64`
483.xalancbmk: `-DSPEC_CPU_LP64 -DSPEC_CPU_LINUX`

Base Optimization Flags

C benchmarks:
`-fast -IPF_fp_relaxed -ansi-alias`

C++ benchmarks:
`-fast -IPF_fp_relaxed -ansi-alias -Wl,-z,muldefs`
`/opt/SmartHeap_8/lib/libsmartheapC64.a`
`/opt/SmartHeap_8/lib/libsmartheap64.a`

Peak Compiler Invocation

C benchmarks:
`icc`

C++ benchmarks:
`icpc`

Peak Portability Flags

`Same as Base Portability Flags`

Peak Optimization Flags

C benchmarks:

400.perlbench: `-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast -IPF_fp_relaxed -ansi-alias`

401.bzip2: `Same as 400.perlbench`

403.gcc: `Same as 400.perlbench`

429.mcf: `basepeak = yes`

445.gobmk: `Same as 400.perlbench`

456.hmmer: `basepeak = yes`

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Peak Optimization Flags (Continued)

458.sjeng: Same as 400.perlbench

462.libquantum: basepeak = yes

464.h264ref: basepeak = yes

C++ benchmarks:

471.omnetpp: -prof_gen(pass 1) -prof_use(pass 2) -fast -IPF_fp_relaxed
-ansi-alias -Wl,-z,muldefs
/opt/SmartHeap_8/lib/libsmartheapC64.a
/opt/SmartHeap_8/lib/libsmartheap64.a

473.astar: -prof_gen(pass 1) -prof_use(pass 2) -fast -IPF_fp_relaxed
-ansi-alias -inline-factor=150 -Wl,-z,muldefs
/opt/SmartHeap_8/lib/libsmartheapC64.a
/opt/SmartHeap_8/lib/libsmartheap64.a

483.xalancbmk: Same as 471.omnetpp

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/IA64_Intel91_flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/IA64_Intel91_flags.xml

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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 12:10:39 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 15 May 2007.