CINT2000 Result

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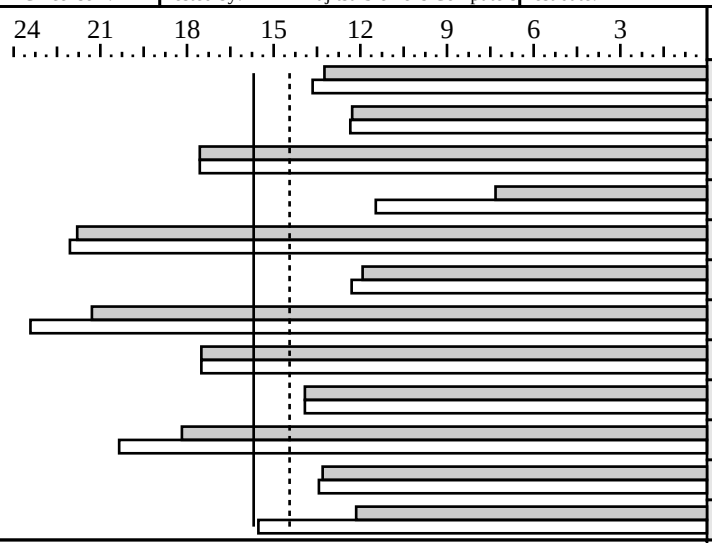
Fujitsu Siemens Computers

CELSIUS V810 (Opteron 248 2.2 GHz SuSE 9.0 for AMD64)

SPECint_rate2000 = 15.7

SPECint_rate_base2000 = 14.4

SPEC license #: 22 | Tested by: Fujitsu Siemens Computers | Test date: Feb-2004 | Hardware Avail: Dec-2003 | Software Avail: Nov-2003



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	1	123	13.2	1	119	13.7
175.vpr	1	132	12.3	1	132	12.3
176.gcc	1	72.7	17.6	1	72.7	17.6
181.mcf	1	285	7.32	1	182	11.5
186.crafty	1	53.2	21.8	1	52.6	22.1
197.parser	1	175	11.9	1	170	12.3
252.eon	1	70.8	21.3	1	64.4	23.4
253.perlbmk	1	119	17.5	1	119	17.5
254.gap	1	91.7	13.9	1	91.7	13.9
255.vortex	1	121	18.2	1	108	20.3
256.bzip2	1	131	13.3	1	130	13.4
300.twolf	1	287	12.1	1	224	15.5

Hardware

CPU:	AMD Opteron (TM) 248
CPU MHz:	2200
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1,2
Parallel:	No
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB(I+D) on chip
L3 Cache:	N/A
Other Cache:	--
Memory:	4 x 1 GB PC2700 DDR SDRAM, ECC Registered
Disk Subsystem:	Maxtor ST020H2
Other Hardware:	None

Software

Operating System:	SuSE Linux 9.0 (AMD64) 2.4.21-193-default
Compiler:	SuSE gcc 3.3.1 compiler (from SuSE Linux 9.0)
File System:	Linux/reiserfs
System State:	Multi-user SuSE Run level 3

Notes/Tuning Information

```
+FDO: PASS1=-fprofile-arcs PASS2=-fbranch-probabilities
Portability:
              PORTABILITY=-DSPEC_CPU2000_LP64 is applied to all benchmarks,
              except for peak runs of 181.mcf, 197.parser and 300.twolf, which
              are compiled for 32-bit in peak.
 186.crafty:  CPORTABILITY=-DLINUX_i386
 176.gcc:     Approved src.alt is used.
 252.eon:     CXXPORTABILITY=-DHAS_ERRLIST -DFMAX_IS_DOUBLE
              Approved src.alt is used.
 253.perlbmk: CPORTABILITY=-DSPEC_CPU2000_LINUX_I386 -DSPEC_CPU2000_NEED_BOOL
                           -DSPEC_CPU2000_GLIBC22
 254.gap:     CPORTABILITY=-DSYS_IS_USG -DSYS_HAS_IOCTL_PROTO -DSYS_HAS_TIME_PROTO
                           -DSYS_HAS_SIGNAL_PROTO -DSYS_HAS_ANSI -DSYS_HAS_CALLOC_PROTO
Baseline C:      gcc -O3 -funroll-all-loops +FDO
Baseline C++:    g++ -O3 -funroll-all-loops +FDO
Peak tuning:
 gzip:    -O3 -funroll-all-loops -finline-limit=900 -freduce-all-givs +FDO
 vpr:     -O3 -funroll-loops -finline-limit=1000 +FDO
 gcc:     basepeak=true
 mcf:     -O3 -funroll-all-loops -m32 +FDO
```

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Notes/Tuning Information (Continued)

```
 crafty:  -O3 -funroll-loops -fprefetch-loop-arrays
 parser:  -O3 -funroll-all-loops -m32 +FDO
 eon:     -O3 -funroll-all-loops -ffast-math -finline-limit=3000 +FDO
 perlbmk: basepeak=true
 gap:     basepeak=true
 vortex:  -O3 -funroll-all-loops -finline-limit=1000 +FDO
 bzip2:   -O3 -funroll-all-loops -freduce-all-givs -finline-limit=2700 +FDO
 twolf:   -O3 -funroll-all-loops -finline-limit=2000 -m32 +FDO
ONESTEP is used for all base and peak runs

System tested with only one CPU present
BIOS default settings have been used. These include:
ECC memory checking disabled,
memory node interleave disabled, SRAT enabled.

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