CINT2000 Result

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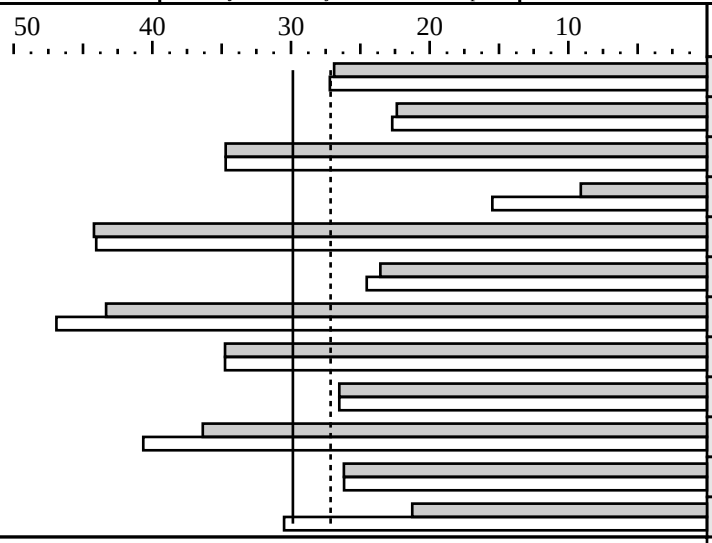
Fujitsu Siemens Computers

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

SPECint_rate2000 = 29.9

SPECint_rate_base2000 = 27.1

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	2	121	26.9	2	119	27.2
175.vpr	2	145	22.4	2	143	22.7
176.gcc	2	73.5	34.7	2	73.5	34.7
181.mcf	2	459	9.10	2	270	15.5
186.crafty	2	52.5	44.2	2	52.7	44.0
197.parser	2	177	23.6	2	170	24.5
252.eon	2	69.6	43.3	2	64.3	46.9
253.perlbmk	2	120	34.8	2	120	34.8
254.gap	2	96.2	26.5	2	96.2	26.5
255.vortex	2	121	36.4	2	108	40.7
256.bzip2	2	133	26.2	2	133	26.2
300.twolf	2	327	21.3	2	228	30.5

Hardware

CPU:	AMD Opteron (TM) 248
CPU MHz:	2200
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 chips, 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:	8 x 1 GB PC2700 DDR SDRAM, ECC Registered
Disk Subsystem:	Maxtor 6Y160M0
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

BIOS default settings have been used. These include:
ECC memory checking disabled,
node memory interleave disabled, SRAT enabled
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please see:
http://www.fujitsu-siemens.com/countries
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