CFP2000 Result

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Fujitsu Siemens Computers

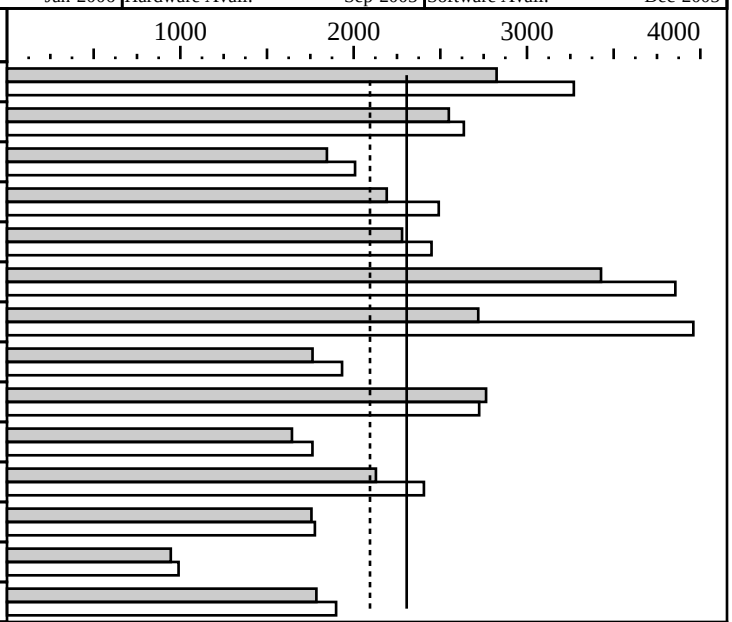
CELSIUS V830, Opteron (TM) 254, Linux 64-bit

SPECfp2000 = 2306

SPECfp_base2000 = 2094

SPEC license #: 22 | Tested by: Fujitsu Siemens Computers | Test date: Jan-2006 | Hardware Avail: Sep-2005 | Software Avail: Dec-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	56.6	2825	48.9	3270
171.swim	3100	122	2549	118	2636
172.mgrid	1800	97.5	1846	89.6	2008
173.applu	2100	95.9	2191	84.3	2491
177.mesa	1400	61.4	2279	57.2	2449
178.galgel	2900	84.6	3427	75.2	3856
179.art	2600	95.6	2719	65.7	3960
183.equake	1300	73.8	1763	67.3	1933
187.facerec	1900	68.7	2764	69.7	2724
188.ammp	2200	134	1644	125	1762
189.lucas	2000	94.0	2128	83.2	2405
191.fma3d	2100	120	1756	118	1776
200.sixtrack	1100	116	945	111	990
301.apsi	2600	146	1785	137	1899



Hardware

CPU:	AMD Opteron 254
CPU MHz:	2800
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:	N/A
Memory:	4 x 512 MB PC3200 CL3-3-3 DDR SDRAM
Disk Subsystem:	SCSI U320
Other Hardware:	None

Software

Operating System:	SLES 9 with SP3 (AMD64) - kernel 2.6.5-7.244-smp
Compiler:	PathScale EKOPath(TM) Compiler Suite, Release 2.3 (for C and Fortran) AMD Core Mathematical Library (ACML), Version 3.0.0
File System:	Linux/ReiserFS
System State:	Multi-User SuSE Run Level 3

Notes/Tuning Information

```
Portability flags:
   178.galgel: -fixedform

Feedback Optimization:
 +FDO: PASS1=-fb_create fbdata   PASS2=-fb_opt fbdata

AMD Core Math Library
+ACML  means -L<acml-install-dir>/pathscale64/lib -lacml,
        which causes linking with AMD Core Math Library

Baseline Optimization Flags:
   C programs:       -Ofast -WOPT:mem_opnds=on +FDO
   Fortran programs: -Ofast -LNO:fusion=2 -OPT:fast_complex=on +FDO

Peak Tuning Flags:
 168.wupwise:  -Ofast -LNO:prefetch_ahead=5:prefetch=3
               -OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
```

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Notes/Tuning Information (Continued)

```
                -IPA:linear=on:plimit=50000:callee_limit=5000
                -INLINE:aggressive=on
  171.swim:     -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 -m3dnow
  172.mgrid:    -Ofast -CG:gcm=off -OPT:IEEE_a=3:unroll_size=200
                -LNO:fusion=2:fission=1:blocking=off:prefetch_ahead=2
                -WOPT:mem_opnds=on:aggstr=0
  173.applu:    -Ofast -CG:local_fwd_sched=on -OPT:ro=3 -TENV:X=3
                -LNO:fusion=2:fission=2:full_unroll_size=10000:prefetch=3
                +FDO
  177.mesa:     -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on
                -WOPT:mem_opnds=on +FDO
  178.galgel:   -Ofast -OPT:fast_complex=on +ACML +FDO RM_SOURCES=lapak.f90
  179.art:      -O3 -OPT:Ofast -fno-math-errno -mno-sse2 -m32
  183.equake:   -Ofast -CG:load_exe=2 -WOPT:mem_opnds=on -m32 +FDO
  187.facerec:  -Ofast -LNO:fusion=2
                -OPT:fast_complex=on:IEEE_NaN_Inf=off:unroll_size=0 +FDO
  188.ammp:     -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
                -fno-math-errno -TENV:X=4 +FDO
  189.lucas:    -Ofast -OPT:ro=3:fast_nint=off:unroll_size=256
                -WOPT:mem_opnds=on +FDO
  191.fma3d:    -O2 -ipa -CG:load_exe=1 -OPT:Ofast:IEEE_arith=3:ro=3
                -WOPT:mem_opnds=on:retype_expr=on -IPA:pu_reorder=1 +FDO
  200.sixtrack: -O3 -OPT:Ofast:Olimit=6000:early_intrinsics=on
                -fno-math-errno -CG:load_exe=1 +FDO
  301.apsi:     -Ofast -CG:load_exe=0 -LNO:prefetch=0:simd=2

BIOS default settings with
Node memory interleave disabled, SRAT enabled
taskset has been used to bind processes to CPUs

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http://www.fujitsu-siemens.com/countries
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