CFP2000 Result

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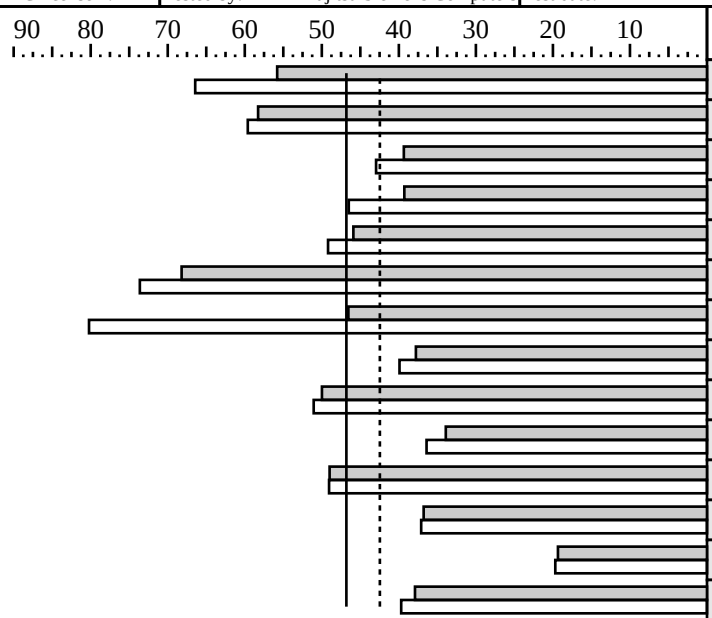
Fujitsu Siemens Computers

CELSIUS V810, Opteron (TM) 252, Linux 64-bit

SPECfp_rate2000 = 46.8

SPECfp_rate_base2000 = 42.5

SPEC license #: 22 | Tested by: Fujitsu Siemens Computers | Test date: Feb-2005 | Hardware Avail: Mar-2005 | Software Avail: Jan-2005



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	66.5	55.8	2	55.9	66.4
171.swim	2	123	58.3	2	121	59.6
172.mgrid	2	106	39.4	2	97.2	43.0
173.applu	2	124	39.3	2	105	46.5
177.mesa	2	70.8	45.9	2	66.0	49.2
178.galgel	2	98.7	68.2	2	91.4	73.6
179.art	2	130	46.6	2	75.2	80.2
183.equake	2	79.8	37.8	2	75.6	39.9
187.facerec	2	88.2	50.0	2	86.3	51.1
188.ammp	2	151	33.9	2	140	36.4
189.lucas	2	94.7	49.0	2	94.6	49.1
191.fma3d	2	132	36.8	2	131	37.1
200.sixtrack	2	132	19.3	2	130	19.7
301.apsi	2	159	37.9	2	152	39.7

Hardware

CPU:	AMD Opteron (TM) 252
CPU MHz:	2600
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:	N/A
Memory:	4 x 512 MB PC3200 CL3-3-3 DDR SDRAM
Disk Subsystem:	S-ATA 7200 rpm
Other Hardware:	None

Software

Operating System:	SuSE Linux 9.1 (AMD64) 2.6.4-52-smp
Compiler:	PathScale EKOPath (TM) Compiler Suite, Release 2.0 - (both for C and Fortran) ACML (AMD Core Math Library) for AMD64, Version 2.1 - available from AMD
File System:	Linux/ReiserFS
System State:	Multi-user SuSE Run level 3

Notes/Tuning Information

```
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 +FDO: PASS1= -fb_create fbdata  PASS2= -fb_opt fbdata
 +ACML: -lacml -lg2c
        for linking with AMD Core Math Library, Version 2.1.0
 (ACML requires g2c, the Fortran Compatibility Library;
 g2c comes with GNU Fortran compiler in SuSE's distribution)

 Portability Flags:
   178.galgel: -fixedform

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

 Peak tuning:
 168.wupwise: -Ofast -LNO:prefetch_ahead=5:prefetch=3
```

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Notes/Tuning Information (Continued)

```
                -OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
                -TENV:X=4
                -IPA:space=1000:linear=on:plimit=50000:callee_limit=5000
                -INLINE:aggressive=on
    171.swim:   -Ofast -LNO:fusion=2 -m3dnow
    172.mgrid:  -O3 -LNO:fusion=2:blocking=off
                -OPT:Ofast:unroll_times_max=8:unroll_size=256:ro=3
                -CG:gcm=off:cflow=off -m3dnow
    173.applu:  -Ofast -CG:local_fwd_sched=on
                -LNO:fusion=2:fission=2:full_unroll_size=10000:prefetch=3
                -OPT:ro=3 -TENV:X=3 -WOPT:val=2
    177.mesa:   -O2 -ipa -OPT:Ofast -fno-math-errno
                -CG:local_fwd_sched=on +FDO
    178.galgel: -Ofast -OPT:fast_complex -CG:use_movlpd=on +FDO +ACML
    179.art:    -O3 -OPT:ro=2:div_split=on:alias=typed -fno-math-errno -m32
    183.equake: -Ofast -WOPT:mem_opnds=on -m32
    187.facerec:-Ofast -OPT:treeheight=on:IEEE_NaN_Inf=off:ro=3
                -CG:load_exe=0 -LNO:fusion=2 -IPA:plimit=1500 +FDO
    188.ammp:   -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
                -fno-math-errno -TENV:X=4 +FDO
    189.lucas:  -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 +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 -fno-math-errno
                -CG:load_exe=1 +FDO
    301.apsi:   -Ofast -TENV:X=4 -LNO:fusion=2:prefetch=0


  BIOS Version 1.06, default settings except:
  ECC memory checking enabled
  For information about Fujitsu Siemens Computers in your country please see:
  http://www.fujitsu-siemens.com/countries
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